

System 56

DIGITAL BUSINESS SYSTEM

INTRODUCTION, WIRING AND PROGRAMMING

**KEY SYSTEM US
WEST PALM BEACH, FL**

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Introduction

This section describes the ATLAS-56 Digital Business System, a small telecommunications system that provides voice communications with a wide range of features. An overview of the system equipment is presented: followed by instructions for installing the system and station equipment and for connecting optional devices supported by the system. System specifications are grouped for a quick reference guide.

This equipment can be used with telephone company equipment that accepts pulse or DTMF dialing. The equipment has been assigned an FCC registration number under Part 68.

For direct connection to the telephone network, the equipment must be installed as described, and the FCC registration must be reported to the local telephone company.

FCC Requirements

The ATLAS-56 Digital Communication System is FCC-registered as a fully protected key system under Registration Number – PENDING, Ringer Equivalence 0.2a

Related Documents

For additional information regarding station feature operation, refer to the Easy reference guide included with each Digital set.

For details related to changing system database, refer to ATLAS-56 Series 500 Programming guide.

Note:

To maximize user satisfaction and to minimize service calls, it is strongly recommended that all users be instructed in station operation and that every station user be provided with a copy of the Easy Reference Guide.

Incidence of Harm

When practical, the telephone company must inform the customer that the service may be temporarily discontinued if the equipment he is using should cause harm to the telephone network. The telephone company must attempt to inform the customer that the service is to be discontinued prior to actually terminating service. The telephone company must also provide customers with opportunity to correct the problem and must advise customers of their right to bring compliant procedures before the FCC.

System Specifications

System Capacity: Cabinet

Trunk Lines (Max) 16

Stations (Max) 40

Power Requirements:

Input Voltage: 110 ± 10 Volt AC, 50/60 Hz, single phase

Environmental Conditions:

Surrounding temperature: 0-40°C
32-104°F

Surrounding humidity: 10-90 %

Cable Requirements:

Digital Phone: Station Cable, Cat 3 – 2 pair twisted wire.
Station loop resistance = 40 ohms max.

Single-Line Telephone: Station cable, 1 pair (2 wires).
Station loop resistance = 800 ohms max.

Cable Length:

Digital Phone: See Page 28 Fig.11

Single-Line Telephone: See Page 27 Fig.10

Communication Links:

Digital switching
Electret transmitter
Dynamic Receiver

Circuitry Control:

16-bit 80c188 microprocessor

Number Dialing Requirements:

1) Pulse Dial

Speed: 10 or 20pps

Ratio: $60 \pm 3\%$ or $67 \pm 3\%$

Pause: 1800ms

2) DTMF

A) Frequency range: High Group 1209Hz, 1336Hz, 1477Hz

Low Group 697Hz, 770Hz, 852Hz, 941Hz

B) Frequency uncertainty: 1.5% and less

C) Tone Level: Low level $-10\text{dBm} \pm 2\text{dBm}$

High level $-8\text{dBm} \pm 2\text{dBm}$

3) Duration: 70ms

- 4) Digit Period: 70ms

- 5) Memory Dial: Last Number Redial, Save Number Redial & Speed Dial
- 6) System speed dial: 400 numbers (100-499)
- 7) Station speed dial: 9 numbers

Power Failure:

An optional backup battery can be installed for power outage prevention. Length of time usually depends on battery capacity. During most communication situations 2-12 Volt 10amp batteries in series can be used. Battery charger is built in.

General Description

This part provides an overview of the system equipment, including descriptions of cabinet, cards, and station instruments.

Note: The system's programmed database is changed using Three Programming Sections with 99 two-digit MODE numbers per section. Each MODE number represents a changeable feature or function parameter. The Section and Mode numbers are referenced throughout the descriptions in this document (e.g. PROG.1-37 = Section 1, Mode 37) to allow quick access to programming information when required for clarity. Instructions for using Mode numbers to change the database are contained in the Series 500 Programming Guide.

System Summary

The ATLAS-56 is a Digital Communication system that operates like a Key System or as a multifunctional PABX, depending on database programming. System operation is controlled by a 16-bit 80c188 microprocessor. Digital switching uses CMOS technology to assure non-blocking operation.

The 80c188 microprocessor performs all logical operations and passes control signals to other circuits in accordance with system demands. Microprocessors located in each Digital Phone in the system communicate with the system controller for operational control.

System and station feature operations and selected system functions are controlled by a stored program database. The database in default state is stored in on-board EPROM. The default database is copied to battery-protected RAM during system initialization. It supports a fully operational system. Values in the RAM-based data can be changed as needed.

The system can be configured 56 ports with 16 Trunks, 32 Digital stations and 8 Single-Line telephones. Regardless of capacity used the system remains non-blocking with consistent voice quality.

The system supports Atlas Digital keyphones and industry-standard single-line phones (with electronic ringers). One Digital Display phone is required for system programming. 64 Button Digital DSS consoles can be equipped to operate as a companion to Digital keyphones. Each console occupies one digital port.

The Atlas Digital keyphones are available in LD40 (6-line by 20-character Display) and DT-36 button models. The DT-36 button is available with a 2-line by 16-character Display. All Atlas Digital keyphones are headset compatible.

Equipment Summary

The Main equipment cabinet is modular in design. It houses the power supply and the MCB Unit. The power supply occupies the bottom portion of the cabinet; the MCB card occupies the remainder of the cabinet. The MCB Unit controls system operation, 8 Trunks, 16 Digital ports and 4 single-line ports. An Expansion card can be added which supports an additional 8 Trunks, 16 Digital ports and 4 single-line ports.

The power supply is a wired-in unit. The outputs are +5 Volts at 4amps, -5 Volts at 100ma, -24 Volts at 1amp and -65 Volts 1amp. Full control is available for a customer-supplied backup battery, including trickle-charge capabilities.

Note: SLP ring voltage is 45VAC (rms) and will not support Mechanical type ringers.

Trunk interface circuits support Loop-start trunk applications. Trunk lines connect to the MCB card through card-edge-mounted modular jacks.

Digital keyphones and Single-line telephones connect to the MCB through a card-edge-mounted 50-pin female amphenol connector.

Options available and supported by the system include:

- 2-programmable external music source interfaces
- 1-external page port interface
- 4-programmable external relay interfaces
- 2-serial port interfaces
- connecting terminals and control circuit for backup batteries

Numbering Scheme

Station and Trunk Port numbers are fixed and cannot be changed. Station extension numbers are assigned in the default database but can be changed by system programming (PROG.2-70). Default station numbers are 10 – 49. One, two, three or four digit station numbers can be programmed. The system does not allow conflicts in station number assignments (i.e. station number 20 and station number 200), but does allow the same number to be assigned to more than one port, when this occurs only the lowest numbered port can be called on intercom.

Dial access codes are used at keyphones and single-line phones to access features. At keyphones, all features can be accessed by fixed feature buttons, programmable softkeys, or by dial access codes. The feature access codes are listed in Table A.

TABLE A
DIAL ACCESS CODES

DIAL ACCESS CODES	FEATURE
1-6999	Station Intercom Dialing
1-7*	Station Group call Pickup
1-7#	Page keyphone group
71 + Station No.	Call Forward All Calls
72 + Station No.	Call Forward Busy/No Answer
71* + Station No.	All Calls Follow Me
72* + Station No.	Busy/No Answer Follow Me
73 + Station Hunt Group No.	Ring all Stations in Group
739	Voice Mail Main Greeting
741 + HHMM	Daily Alarm
742 + HHMM	Once only Alarm
743 + Station No.	Message Wait activate
744	Message Wait respond
745	Answer Paging call
746 + 01-09	Personal Speed Dial
747	Do Not Disturb
748	SLP Conference
749 + Lock Code	Phone Lock
740 + Station No.	Message Wait clear
75 + Station No.	Hold Pickup
76 + 0-9	Call Park/Call Park Retrieve
77 + Trunk No.	Access Outside Line
78 + Station Hunt Group No.	Station Hunt Groups (1-8)

70 + Speed Dial Bin	System/Personal Speed Dial
70 00	Redial
70#	Redial
8	Trunk Hunt Group 8
9,91-98	Trunk Hunt Groups 1-8
0	Call Operator
*	System Call Pickup
71*	All Calls Follow Me
72*	Busy/No Answer Follow Me
# + 1-8	Page External Zone 1-8
#9	Page all internal
#0	Page al external
#*	Page all internal/external
#01	Music over page
#	Whisper page / Background music

Equipment Description

The system is housed in a conventional-cooled, metal enclosure with a removable front cover. (See Figure 1) The cover is held in place with #2 Philips head screws. The cabinet mounting dimensions are 12 inches wide, 29.5 inches high and 5 inches deep. A fully equipped cabinet weighs approximately 30 lbs.

Metal Brackets are used to attach the cabinet to a vertical surface. They are attached to the back of the cabinet and positioned to extend above the top of the cabinet for access to keyhole slots for mounting screws.

Connections to the system are made on the right side of the cabinet (See Figure 2).

- a) Trunks are connected through card-edge-mounted, 4-pin jacks. Each jack connects 2 Trunks.

- b) Stations are connected through card-edge-mounted, 50-pin Amphenol connectors. Each Amphenol connects 20 stations (16-Digital and 4-SLP's).

- c) The power cord connects at the power receptacle located at the bottom of the cabinet.

- d) The ground wire connects to a ground lug located at the bottom of the cabinet.

- e) The Battery backup cables connect inside the KSU at the +Battery- terminals located on the power supply card.

- f) The external music sources and external page output connects through a card-edge mounted, 6-pin jack.

- g) The relays connect through card-edge-mounted, 6-pin jacks. Each jack connects 2 relays.

- h) The serial ports connect through card-edge-mounted, 6-pin jacks. Each jack contains 1 serial port.

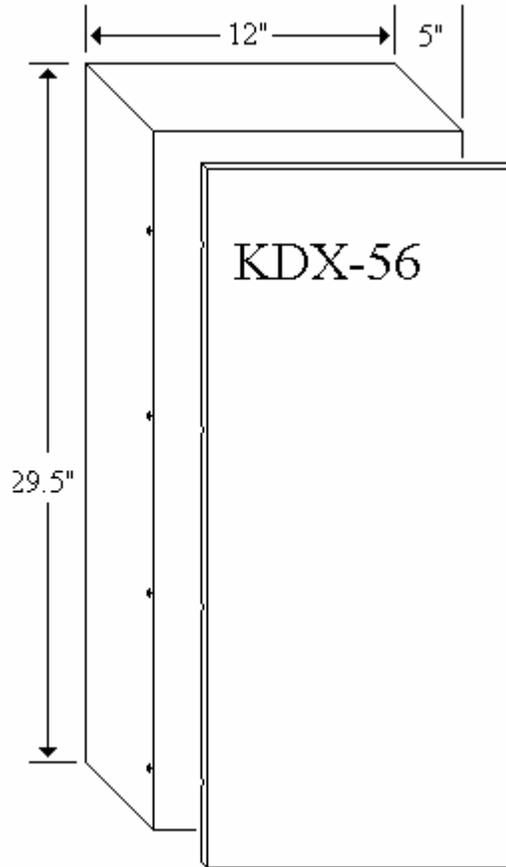
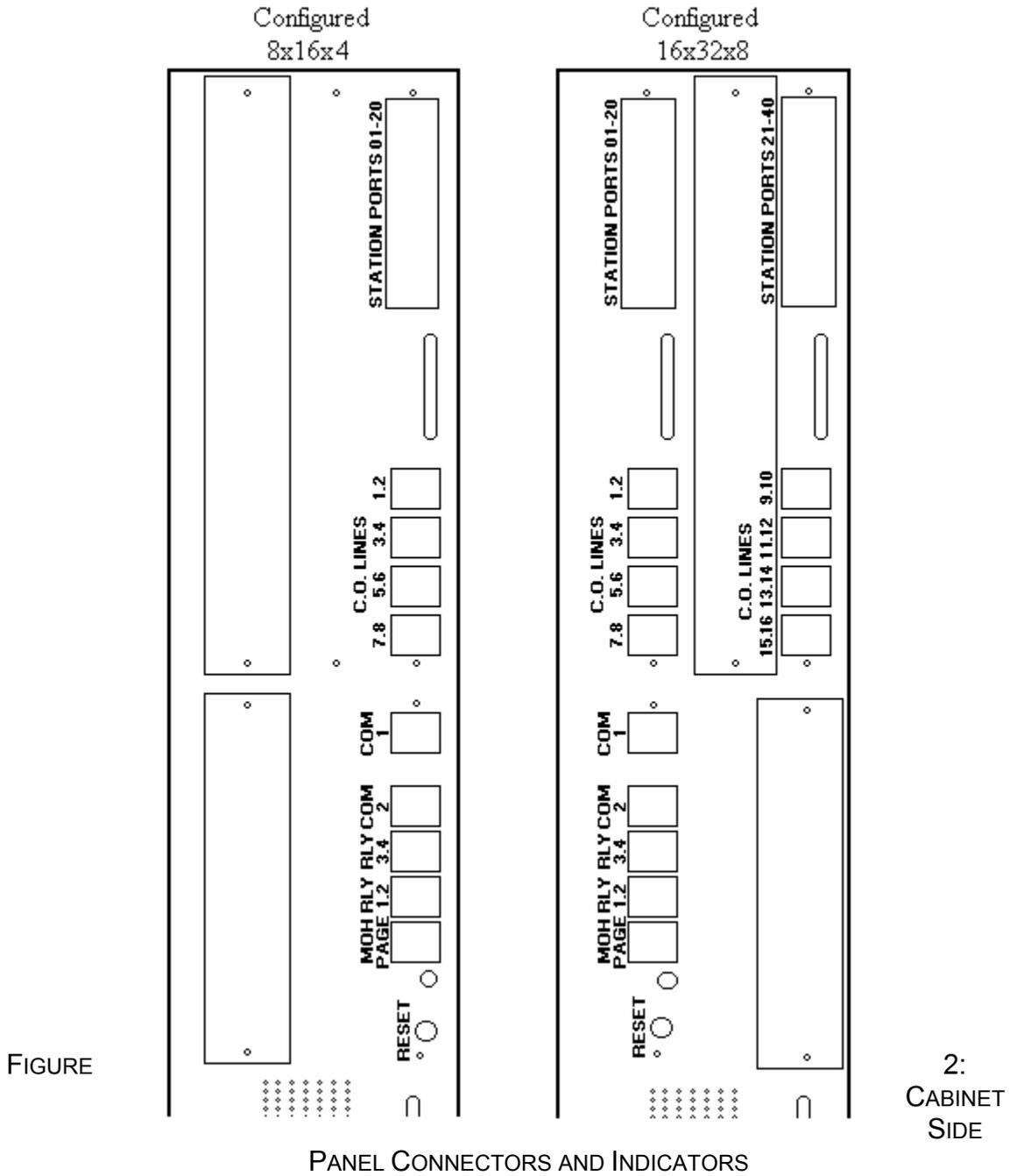


FIGURE 1:



ATLAS-56 Main MCB Card

The Main KSU provides for many connections to external devices as well as for the stations and Trunks.

Connectors	Description
JR1	Serial Port 1 used for SMDR / PC Programming
JR2	Serial Port 2 used for Voice Mail Integration
JR3	Relay Interface 3 & 4 (Programmable)
JR4	Relay Interface 1 & 2 (Programmable)
JR5	External Page & Music Source 1 & 2 Interface
JR6	Digital Stations Ports 1 – 16 Single Line Ports 17 - 20
JR7	Trunk 1 & 2 RJ14 Interface
JR8	Trunk 3 & 4 RJ14 Interface
JR9	Trunk 5 & 6 RJ14 Interface
JR10	Trunk 7 & 8 RJ14 Interface
J1	9-Pin Connector to Power Supply
JP1	Connector for 8x16x4 Expansion Card

Fuses	Description
F1	Protects External Page Port
F2	Protects MOH Source 1
F3	Protects MOH Source 2
F4	Protects Digital Station Ports
F5	Protects Single Line Ports
F6	Protects Trunk Ports
FA-H100	Trunk Fuses – FA100=Trunk 1, FB100=Trunk 2...

Switches	Description
SW2 Dip 1	Not Used
SW2 Dip 2	Not Used
SW2 Dip 3	Not Used
SW2 Dip 4	Not Used
SW2 Dip 5	Not Used
SW2 Dip 6	“ON” = 3 Digit ICM numbering / “OFF” = 2 Digit ICM numbering
SW2 Dip 7	Not Used
SW2 Dip 8	Not Used

Switches	Description
SW3	Memory Back up Switch
SW4	System Reset Switch

LED	Description
D2	Memory Back-up Battery “ON” Indicator
D3	CPU Status (Steady Flash indicates normal operation)
DA-H100	Trunk busy Status DA100=Trunk 1,DB100=Trunk 2...

See Figure 3 for connector, fuse, switches & LED locations.

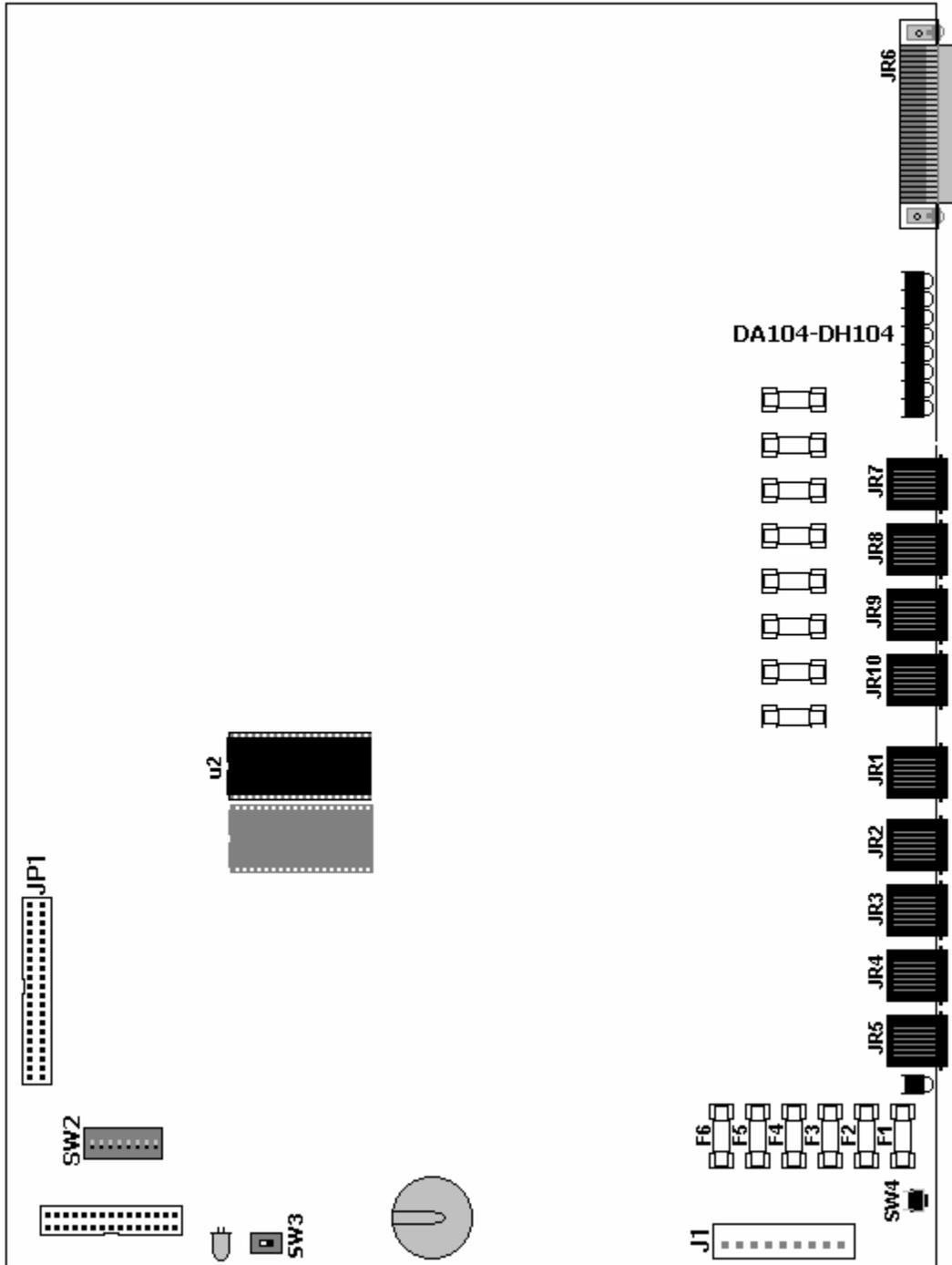


FIGURE 3: ATLAS-56 MAIN MCB UNIT

Hardware Options

Backup Battery

The system power supply supports a backup battery package rated at 24 volts, 0.7 amperes/hour. A trickle-charge maintains the battery at 95% efficiency, applies system cutover to battery when facility power is removed, and provides system shutdown when battery power falls below a specified level.

External Music

Up to two (customer supplied) monaural music sources can be connected at the optional equipment jack (JR5) located on the left side of the KSU. The connected music is available to the system only if programmed using system Programming (PROG. 1-37 and 2-75) the impedance of the music source must be 32ohms with power at approximately 100 milliwatts.

Note: *An internal music source is available and is selected through system programming by default.*

Note: *In some circumstances there may be broadcast restrictions associated with the external music source. Check with the sources original distributor and/or the radio station for copyright and broadcast restrictions concerning background music and music-on-hold.*

External Paging

The system supports a customer supplied amplifier for paging access to a single paging zone. The amplifier can be connected at the optional equipment jack (JR5) located on the left side of the KSU. Access is provided for 8 paging zones. The output for zones 1-7 must be connected through station ports and must be assigned by system programming (PROG.3-35).

External Relays

The system supports 4 external relays for multiple functions such as station, trunk, loud-bell, Paging, Music, and Door strike control. The customer supplied optional equipment can be connected at the optional equipment jacks (JR3 & 4) located on the left side of the KSU. The contacts can be programmed (PROG.3-40 and 3-41) for normally “open” or “closed” depending on customer needs.

Caller I.D.

(Future Feature)

The system supports a Caller I.D. module that offers Name or Number display. The Caller I.D module connects inside the KSU to the connector marked _____. The caller I.D feature is programmed in the system database (PROG.1-05, 2-26 and 2-73). Caller I.D. number is reported to SMDR print-out (see figure 6).

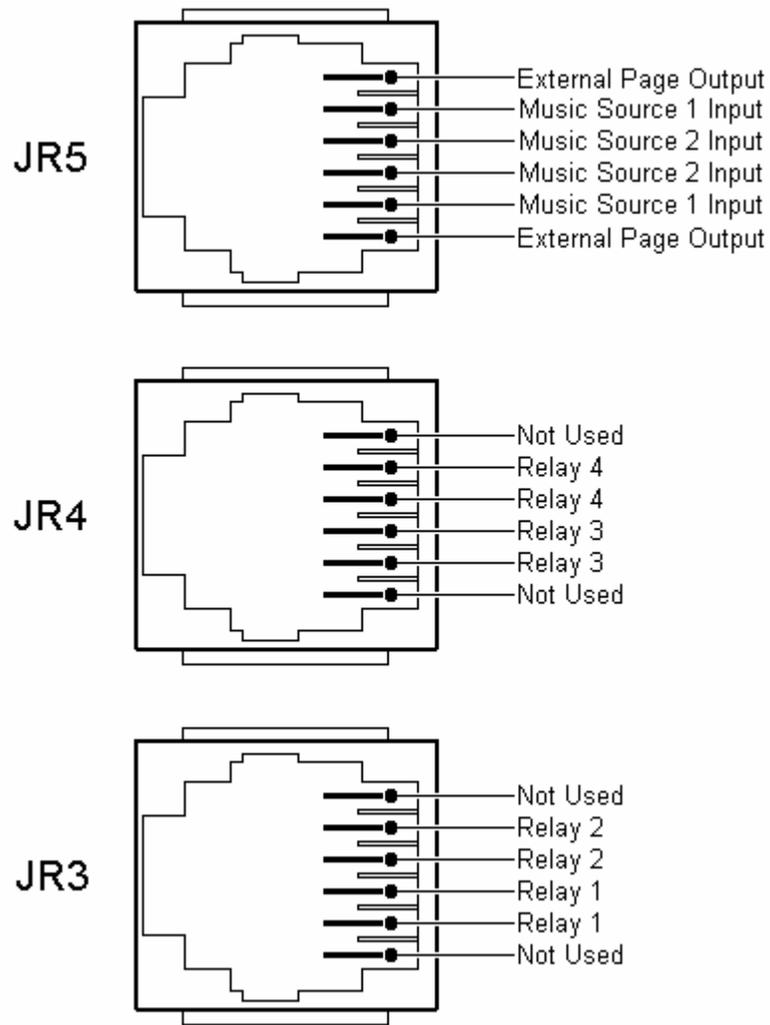


Figure 4: Optional Equipment Jack Pin Functions

Serial Ports

The system supports 2 serial ports used for PC programming, SMDR (see figure.6) and WAV Voice mail integration. They are card-edge-mounted modular jacks located on the left side of the cabinet. They are labeled JR1 and JR2. The distance between the data device and the common equipment can be up to 100 feet in a quiet electrical environment. Shielded cable may be required for some runs. For longer distances, a customer supplied serial extender may be used to relay the data communications between the common equipment and the data devices.

Baud rate = 2400bps; data bits = 8; stop bits = 1; parity = none.

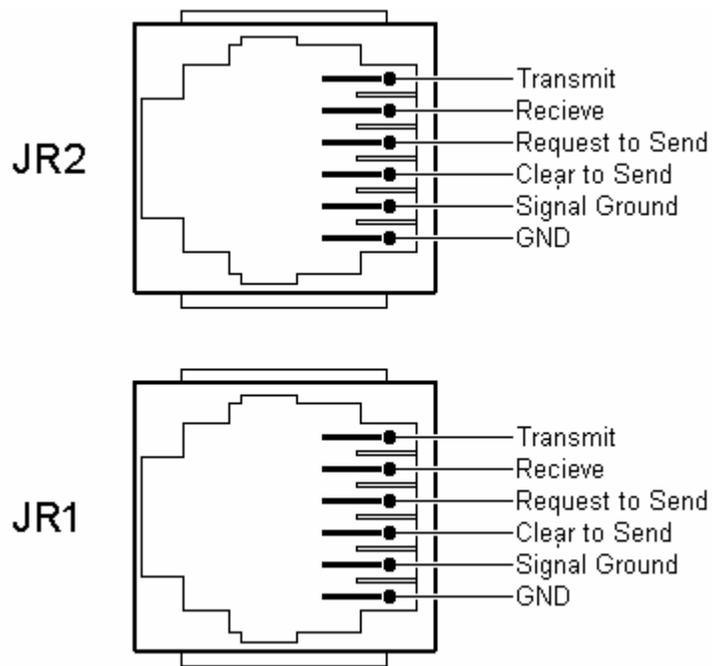


Figure 5: Serial Port Jack Pin Functions

SMDR Printout

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ST TK TELEPHONE NO.          ACC.NO. DATE   START   DURATION RING
C.L.I.D.

10 05 5156310                T          04/01 09:15 00:01:05
16 04 15618400636           04/01 09:18 00:04:56
26 01 *****                04/01 10:02 00:14:30 00:06
5615156300
****02 *****                04/01 10:03          00:54
5615156301
12 09 1305551212          254 04/01 10:18 00:04:18
17 <STATION ALARM>          04/01 13:00

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COLUMN	CONTENT	EXPLANATION
1	ST	STATION NUMBER
2	TK	TRUNK NUMBER
3	TELEPHONE NO.	TELEPHONE NUMBER CALLED. *REPRESENTS AN INCOMING CALL. STATION ALRMS ARE ALSO NOTED HERE.
4		"T" ENTRY DENOTES A TRANSFERRED CALL
5	ACC.NO.	OPTIONAL CALLER DIALED ACCOUNT CODE
6	DATE	DATE OF THE CALL RECORD- MM:DD
7	START	TIME OF DAY CALL STARTED- HH:MM
8	DURATION	LENGTH OF CALL- HH:MM:SS
9	RING	RINGING TIME FOR INCOMING CALLS- MM:SS
10	C.L.I.D.	CALLING PARTIES TELEPHONE NUMBER

Explanation of Example Entries:

1. On 04/01 at 09:15 AM Station 10 seized trunk 5 and made an outside call to 5156310. The call lasted for 1 minute and 5 seconds. Before being transferred.
2. On 04/01 at 09:18 AM Station 16 seized trunk 4 and made an outside call to 15618400636. The call lasted for 4 minutes and 56 seconds.
3. An incoming call rang on trunk 1 for 6 seconds from 5615156300 was answered by station 26. The call lasted 14 minutes and 30 seconds.
4. An incoming call rang on trunk 2 for 58 seconds from 5615156301 and went unanswered.
5. An outgoing call to 1305551212 on trunk 9 by station 12 lasted 4 minutes and 18 seconds during which time the station user entered an Account code 254.
6. At 1:00 PM a station alarm rang at Station 17.

FIGURE 6: SMDR CALL RECORDS AND EXPLANATIONS

Installation Procedures

This part contains the procedures for installing the ATLAS-56 Digital Business System. Precautions for personnel and equipment safety and installation prerequisites are provided before detailed instructions for installing the equipment cabinet, connecting ground, installing and wiring station cross-connect blocks, connecting Trunk lines, and installing station equipment.

Precautions

The following paragraphs explain the precautions to be observed for handling, installing, and working with system equipment and components.

Handling Static-Sensitive Devices

WARNING: The system contains static-sensitive components. Personnel who are required to handle Printed Board Assemblies (PBA's), components, or wiring must have knowledge of proper handling techniques.

The human body can easily accumulate a high voltage charge of static electricity. Precautions must be taken to prevent this charge from damaging static-sensitive components. The following are standard handling precautions for static sensitive devices:

Touch the cabinet to dissipate any stored charge immediately before removing, inserting, or otherwise handling a PBA.

Hold the PBA by its edges and avoid touching component pins or connectors.

Cover work surfaces with conductive material connected to earth ground. A ground clip connected to a static-protective shipping bag provides an adequately protective work surface.

Use flexible ground straps to continuously discharge static electricity.

Store PBA's in static-protective shipping bags.

Installing Station Wiring

DANGER: TO REDUCE RISK OF ELECTRICAL SHOCK AND PERSONAL INJURY, USE CARE WHEN INSTALLING STATION WIRING.

Observe the following precautions when installing station wiring:

Never install telephone wiring during a lightning storm.

Never install telephone jacks in wet locations unless the jack is specifically designed for wet environments.

Never touch un-insulated telephone wire or terminals unless the telephone line has been disconnected at the network interface.

Use caution when installing or modifying telephone lines.

Connecting Power Cords

WARNING: Do not attach power supply cords to building surfaces.

The basic system is furnished with a detachable power supply cord that is configured for connecting to a branch circuit receptacle equipped with a third wire ground. The cord should be dressed for appearance and safety, but never attached to the building surface.

Site Requirements

The selection of a suitable location is essential when installing the key service unit (KSU). The area should be clean, dry, static-free, temperature controlled, and accessible only to authorized personnel. When selecting a site, give careful consideration to the following:

Ample space must be allowed to mount the cabinet and MDF (Main Distribution Frame) and to allow for removal of the KSU cover to access assemblies and cards within the cabinet.

A well-ventilated and well-lighted area with a temperature range of 32-100° F (0-40° C) and 10%-90% relative non-condensing humidity. The area must not be exposed to direct sunlight, heat or dust. Optimal temperature range is 40-70° F.

A dedicated 110/220 Volt AC, 15 Amp, 50/60 Hz, single phase, 3 wire, and parallel blade with ground power outlet should be located within 6 feet of the KSU. Additional outlets for music source, paging amplifier, etc. as needed. The AC receptacles must be third-wire grounding type. The third-wire ground must be connected to an approved earth ground through the single-point grounding circuit at the power distribution panel.

Avoid areas that produce radio frequency interference (RFI) or electro-magnetic interference (EMI). (E.g. electric welding equipment, radio frequency transmitters, magnets, refrigerators, copy machines, microwave ovens, etc.)

Locate the KSU and stations so as to minimize cable length. All station cables must be 2-pair twisted-pair cable and must be home run. The Digital Keyphone may be wired differently.

Cabling lengths must not exceed the following:

Digital phone: 24 gauge 600-3000 feet depending upon wiring configuration.

(See Fig. 22)

Single-Line Telephones: 800 ohms using 24 gauge – 5000 feet

The Trunk lines connect to the system through modular jacks located on the left side of the KSU. Central Office terminations should be within 6 feet of the cabinet/main distribution frame.

Make sure there is a good earth ground utilizing #12 AWG or larger standard, copper wire within 25 feet of the KSU. A metallic COLD water pipe usually provides a reliable ground path. Carefully check that the pipe does not contain insulated joints that could isolate the ground. (The pipe must be metallic from the point of ground to the connection to the water main outside the building).

Warning: To avoid equipment damage, do not attempt to connect or operate the equipment before proper ground has been installed.

Power Surge Protector Ground

Power surge protectors must be grounded either to the approved earth ground or an equally adequate but separate grounding system. Install ground wires of the size specified by the manufacturer between the line protector devices and the earth ground connection. Be sure to connect the ground wire at a point closer to true earth ground than the AC distribution panel single-point ground wire and the chassis ground wire connections. Secure the attaching clamp.

Telephone Line Power Surge Protection

System equipment must be protected against power surges on all externally connected telephone lines. This includes protecting lines coming into the building from the telephone company, lines going out of the building to off-premises stations located in an adjacent building, and lines going into the adjacent building that houses the off-premises stations.

Cable Construction

One 25-pair cable is required for each system card installed. The cables connect station interface circuits on the 50-pin connectors to the station cross connect blocks on the MDF. Construct each cable with one end terminated in an Amphenol-type, male connector. To allow proper routing of the cable during installation, pin 1 must be at the top, opposite the cable-entry end of the connector. (See Figure 7) Terminate the opposite end of the cable as dictated by the type cross-connect block used.

Note: Consider cable routing before the cable to the correct length.

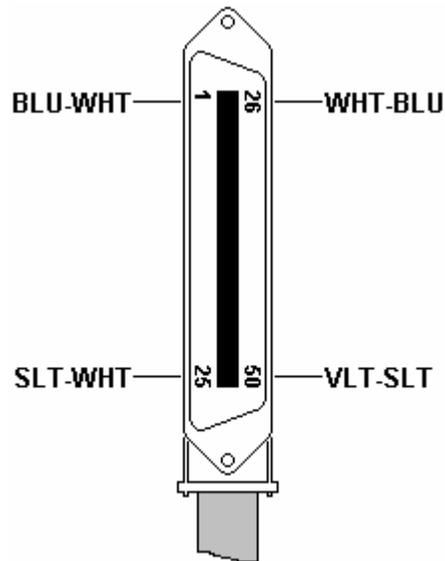


FIGURE 7: PIN ARRANGEMENT – 50-PIN CABLE CONNECTOR

Unpacking and Inspecting

The following paragraphs provide directions for unpacking and inspecting the system components.

WARNING: The system equipment contains static sensitive components. Personnel who are required to handle components or wiring must have knowledge of proper handling techniques and must have the necessary safeguard equipment for protecting static-sensitive devices. Refer to PRECAUTIONS.

All equipment is packaged in corrugated cardboard containers. All equipment options are packaged separately in individual cartons. Each telephone is packaged separately in an individual carton. However, an outer slip or larger container may be used to group quantities of telephones.

Check all items received against the packing slip. Examine cartons for visual signs of damage. If cartons appear to be damaged, make a note of such damage on the packing slip and on the carrier way bill, if available.

Open the carton containing the system equipment. Remove the packaging material from the carton. Remove the cabinet and lay it face-up on a level work surface. Remove all packaging material. Check the exterior cabinet. Make a note of any damages.

Observing electronics equipment handling precautions, remove each piece of equipment from its shipping container. As each item is unpacked, place it on a level work surface. Remove packaging material and inspect the equipment for physical damage. Make a note of any damages.

Report all damages noted to your supplier.

Cabinet Installation

Mount the cabinet so that all cables and power cord are neatly arranged. Do not mount the cabinet directly on masonry, concrete, or other wall surfaces subject to moisture or condensation. When wall mounting, a $\frac{3}{4}$ " thick plywood backboard should be attached to the equipment room wall for mounting the cabinet and associated equipment. The backboard should be large enough to allow sufficient space for the MDF connecting blocks and optional equipment to be mounted and serviced conveniently.

Locate the two mounting hardware screws 113/8" apart on-center and assure a minimum of 3" above any obstruction. (See Figure 8).

Typical KDX-56
MDF Layout

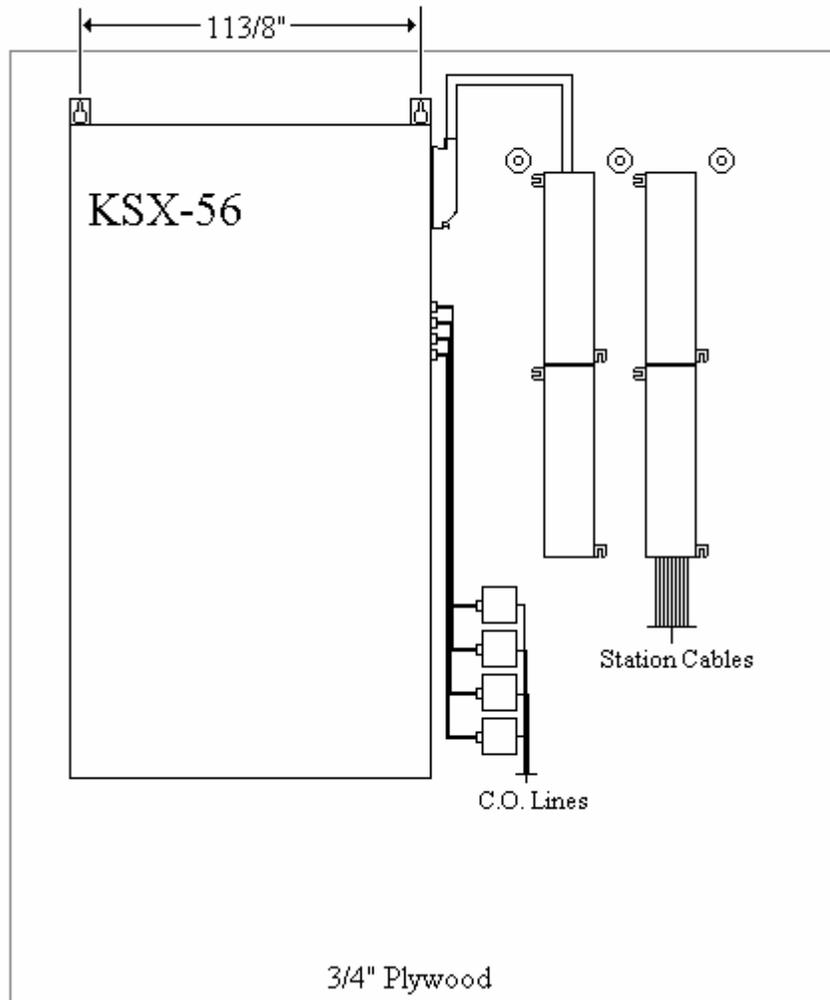


FIGURE 8: ATLAS-56 MOUNTING & MDF LAYOUT

Trunk Connections

All trunk connections are made on the left side of the cabinet. (See Figure 2) Two lines are connected through each modular jack. Refer to Figure 9 for modular jack pin functions. Install a modular line cord between each trunk terminating modular wall jack and the corresponding jack on the side of the cabinet.

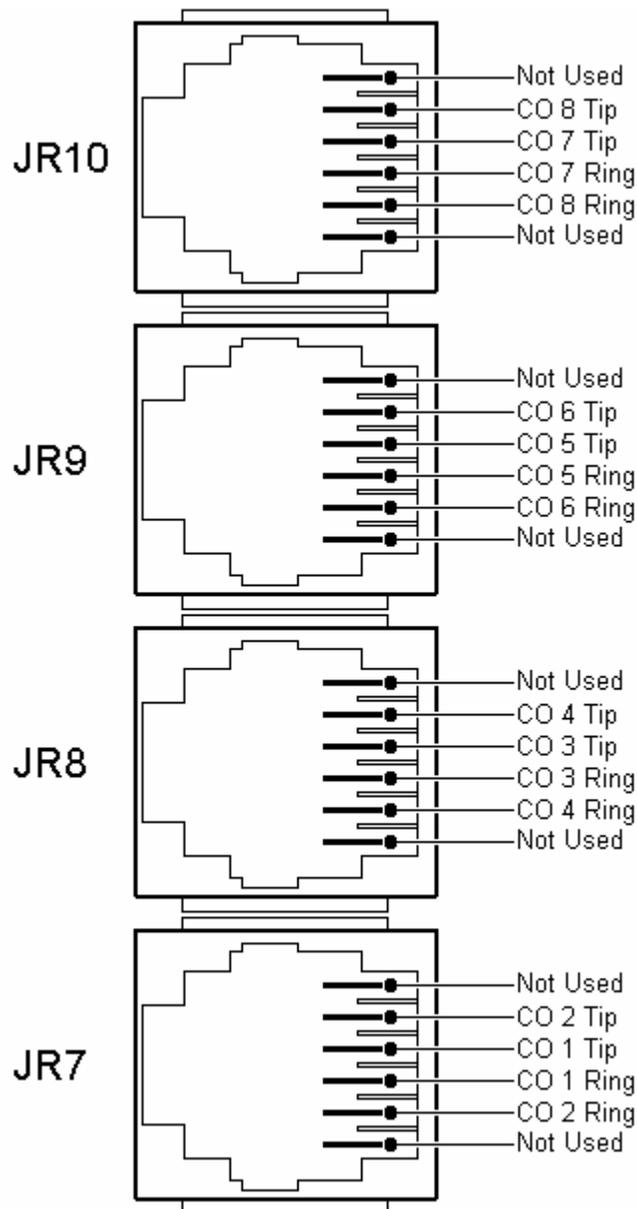


Figure 9: Typical Trunk Connecting Jack Pin Functions

Station Connections

All stations connect to the system through the 50-pin connector(s) located on the right side of the cabinet using 25-pair cables and 50-pin MDF cross-connect blocks. Tables B & C show the MDF cable wiring arrangement including standard wiring color, system signal designations, and the corresponding cross-connect block terminals.

To install and wire a station cross-connect block, proceed as follows:

- a) Install the cross-connect blocks to the right side of the cabinet allowing sufficient room to access both sides of each block.
- b) Locate one of the previously constructed 25-pair cables (refer to Cable Construction).
- c) Plug the cable connector into the correct 50-pin connector on the right side of the cabinet.
- d) Route the cable up the side of the cabinet, to the right, and down through the center of the cross-connect blocks to the correct block. Dress and secure the cable at several points, and then punch down the leads using the standard color code.

Station Wiring

Twisted pair station cable is required for operation of Digital keyphones. Therefore, it is recommended that 3-pair, #24 AWG station cable be used throughout the system. This allows changes and additions to the system without re-wiring, and minimizes potential problems with telephones connected to the wrong type station cable.

Cable conductor connections at the modular telephone jacks are identical for all station equipment. (See Figure 9). Although conductor functions may differ, wiring connections must stay consistent. Use 4-terminal, modular wall jacks at all stations.

The following guidelines should be observed when running station cable:

- a) AVOID cable runs parallel to light fixtures or AC lines not in conduit. If unavoidable, run the cables across them at right angles.
- b) DO NOT run station cables inside electrical conduit already occupied by AC power cable.
- c) DO NOT run station cables near equipment with electrical motors or past strong magnetic fields (copy machines, heavy motors, welding equipment, ECT...).
- d) DO not place station cables where they can be stepped on or rolled over by office chairs.

TABLE B: ATLAS-56 MAIN JR6 CONNECTIONS

25-PAIR CABLE		CONNECTING BLOCK		STATION CABLE CORD		LINE CIRCUIT	
PIN	COLOR CODE	TERM	FUNCTION	2-PR. CABLE	TEL	B1 CHANNEL	B2 CHANNEL
26	WHT-BLU	1	TX+	WHT-BLU	GRN	STATION 10/100 (PORT 01) (Dip 3,4 "ON")	STATION 11/101 (PORT 02) (Dip 1,2 "ON")
1	BLU-WHT	2	TX-	BLU-WHT	RED		
27	WHT-ORG	3	RX+	WHT-ORG	BLK		
2	ORG-WHT	4	RX-	ORG-WHT	YEL		
28	WHT-GRN	5	TX+	WHT-BLU	GRN	STATION 12/102 (PORT 03)	STATION 13/103 (PORT 04)
3	GRN-WHT	6	TX-	BLU-WHT	RED		
29	WHT-BRN	7	RX+	WHT-ORG	BLK		
4	BRN-WHT	8	RX-	ORG-WHT	YEL		
30	WHT-SLT	9	TX+	WHT-BLU	GRN	STATION 14/104 (PORT 05)	STATION 15/105 (PORT 06)
5	SLT-WHT	10	TX-	BLU-WHT	RED		
31	RED-BLU	11	RX+	WHT-ORG	BLK		
6	BLU-RED	12	RX-	ORG-WHT	YEL		
32	RED-ORG	13	TX+	WHT-BLU	GRN	STATION 16/106 (PORT 07)	STATION 17/107 (PORT 08)
7	ORG-RED	14	TX-	BLU-WHT	RED		
33	RED-GRN	15	RX+	WHT-ORG	BLK		
8	GRN-RED	16	RX-	ORG-WHT	YEL		
34	RED-BRN	17	TX+	WHT-BLU	GRN	STATION 18/108 (PORT 09)	STATION 19/109 (PORT 10)
9	BRN-RED	18	TX-	BLU-WHT	RED		
35	RED-SLT	19	RX+	WHT-ORG	BLK		
10	SLT-RED	20	RX-	ORG-WHT	YEL		
36	BLK-BLU	21	TX+	WHT-BLU	GRN	STATION 20/110 (PORT 11)	STATION 21/111 (PORT 12)
11	BLU-BLK	22	TX-	BLU-WHT	RED		
37	BLK-ORG	23	RX+	WHT-ORG	BLK		
12	ORG-BLK	24	RX-	ORG-WHT	YEL		
38	BLK-GRN	25	TX+	WHT-BLU	GRN	STATION 22/112 (PORT 13)	STATION 23/113 (PORT 14)
13	GRN-BLK	26	TX-	BLU-WHT	RED		
39	BLK-BRN	27	RX+	WHT-ORG	BLK		
14	BRN-BLK	28	RX-	ORG-WHT	YEL		
40	BLK-SLT	29	TX+	WHT-BLU	GRN	STATION 24/114 (PORT 15)	STATION 25/115 (PORT 16)
15	SLT-BLK	30	TX-	BLU-WHT	RED		
41	YEL-BLU	31	RX+	WHT-ORG	BLK		
16	BLU-YEL	32	RX-	ORG-WHT	YEL		
42	YEL-ORG	33	TIP	WHT-BLU	GRN	SLP STATION 26/116 (PORT 17)	N/A
17	ORG-YEL	34	RING	BLU-WHT	RED		
43	YEL-GRN	35					
18	GRN-YEL	36					

44	YEL-BRN	37	TIP	WHT-BLU	GRN	SLP STATION 27/117	N/A
19	BRN-YEL	38	RING	BLU-WHT	RED	(PORT 18)	
45	YEL-SLT	39					
20	SLT-YEL	40					
46	VLT-BLU	41	TIP	WHT-BLU	GRN	SLP STATION 28/118	N/A
21	BLU-VLT	42	RING	BLU-WHT	RED	(PORT 19)	
47	VLT-ORG	43					
22	ORG-VLT	44					
48	VLT-GRN	45	TIP	WHT-BLU	GRN	SLP STATION 29/119	N/A
23	GRN-VLT	46	RING	BLU-WHT	RED	(PORT 20)	
49	VLT-BRN	47					
24	BRN-VLT	48					

TABLE C: ATLAS-56 EXPANSION JR CONNECTIONS

25-PAIR CABLE		CONNECTING BLOCK		STATION CABLE	CORD	LINE CIRCUIT	
PIN	COLOR CODE	TERM	FUNCTION	2-PR. CABLE	TEL	B1 CHANNEL	B2 CHANNEL
26	WHT-BLU	1	TX+	WHT-BLU	GRN	STATION 30/120	STATION 31/121
1	BLU-WHT	2	TX-	BLU-WHT	RED	(PORT 21)	(PORT 22)
27	WHT-ORG	3	RX+	WHT-ORG	BLK		
2	ORG-WHT	4	RX-	ORG-WHT	YEL		
28	WHT-GRN	5	TX+	WHT-BLU	GRN	STATION 32/122	STATION 33/123
3	GRN-WHT	6	TX-	BLU-WHT	RED	(PORT 23)	(PORT 24)
29	WHT-BRN	7	RX+	WHT-ORG	BLK		
4	BRN-WHT	8	RX-	ORG-WHT	YEL		
30	WHT-SLT	9	TX+	WHT-BLU	GRN	STATION 34/124	STATION 35/125
5	SLT-WHT	10	TX-	BLU-WHT	RED	(PORT 25)	(PORT 26)
31	RED-BLU	11	RX+	WHT-ORG	BLK		
6	BLU-RED	12	RX-	ORG-WHT	YEL		
32	RED-ORG	13	TX+	WHT-BLU	GRN	STATION 36/126	STATION 37/127
7	ORG-RED	14	TX-	BLU-WHT	RED	(PORT 27)	(PORT 28)
33	RED-GRN	15	RX+	WHT-ORG	BLK		
8	GRN-RED	16	RX-	ORG-WHT	YEL		
34	RED-BRN	17	TX+	WHT-BLU	GRN	STATION 38/128	STATION 39/129
9	BRN-RED	18	TX-	BLU-WHT	RED	(PORT 29)	(PORT 30)
35	RED-SLT	19	RX+	WHT-ORG	BLK		
10	SLT-RED	20	RX-	ORG-WHT	YEL		
36	BLK-BLU	21	TX+	WHT-BLU	GRN	STATION	STATION

11	BLU-BLK	22	TX-	BLU-WHT	RED	40/130	41/131
37	BLK-ORG	23	RX+	WHT-ORG	BLK	(PORT 31)	(PORT 32)
12	ORG-BLK	24	RX-	ORG-WHT	YEL		
38	BLK-GRN	25	TX+	WHT-BLU	GRN	STATION 42/132	STATION 43/133
13	GRN-BLK	26	TX-	BLU-WHT	RED	(PORT 33)	(PORT 34)
39	BLK-BRN	27	RX+	WHT-ORG	BLK		
14	BRN-BLK	28	RX-	ORG-WHT	YEL		
40	BLK-SLT	29	TX+	WHT-BLU	GRN	STATION 44/134	STATION 45/135
15	SLT-BLK	30	TX-	BLU-WHT	RED	(PORT 35)	(PORT 36)
41	YEL-BLU	31	RX+	WHT-ORG	BLK		
16	BLU-YEL	32	RX-	ORG-WHT	YEL		
42	YEL-ORG	33	TIP	WHT-BLU	GRN	SLP STATION 46/136	N/A
17	ORG-YEL	34	RING	BLU-WHT	RED	(PORT 37)	
43	YEL-GRN	35					
18	GRN-YEL	36					
44	YEL-BRN	37	TIP	WHT-BLU	GRN	SLP STATION 47/137	N/A
19	BRN-YEL	38	RING	BLU-WHT	RED	(PORT 38)	
45	YEL-SLT	39					
20	SLT-YEL	40					
46	VLT-BLU	41	TIP	WHT-BLU	GRN	SLP STATION 48/138	N/A
21	BLU-VLT	42	RING	BLU-WHT	RED	(PORT 39)	
47	VLT-ORG	43					
22	ORG-VLT	44					
48	VLT-GRN	45	TIP	WHT-BLU	GRN	SLP STATION 49/139	N/A
23	GRN-VLT	46	RING	BLU-WHT	RED	(PORT 40)	
49	VLT-BRN	47					
24	BRN-VLT	48					

Each Digital Phone is supplied with a modular line cord. A 625A type jack assembly or equivalent should be mounted where each telephone is to be installed. Cable pairs should not be crossed or reversed during installation (See Figure. 10). Correct polarity must be maintained for correct operation of Digital phones.

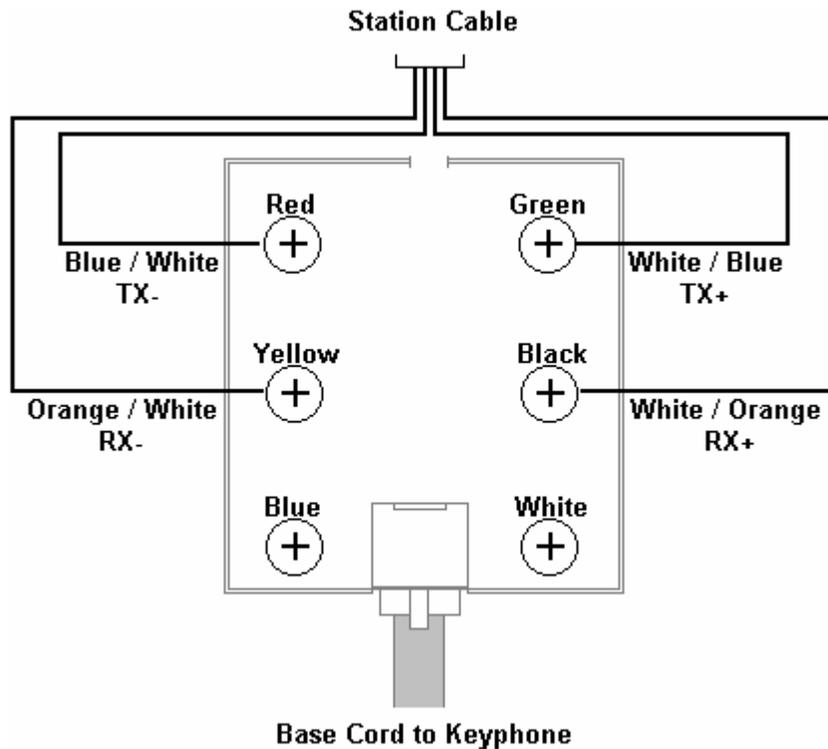


FIGURE 10: STATION JACK WIRING

All station connections are made through the amphenol(s) located on the upper right side of the KSU. The Main amphenol (Ext.'s 10 – 29) is labeled JR6. The expansion amphenol (if equipped) is labeled (See Fig. 14).

Each Amphenol connector provides for 16 digital ports (8 - 2B+D channels) and 4 single line ports.

Digital Phone Dip Switch Settings

The 16 Digital ports are wired to the first 8 circuits of the amphenol. Each of the first 8 circuits on this card are 2B+D, each B channel can support 1 Digital Keyphone. The phones are connected / wired in parallel. Remove the desk/wall mount adapter from the base of the Digital Keyphone. This will reveal 4 dipswitches. The phone with the switches set: 1, 2 OFF / 3, 4 ON will be the odd numbered port (B1 channel) and the phone with the switches set: 1, 2 ON / 3, 4 OFF will be the even numbered port

(B2 channel). Both B1 and B2 channels are connected to the white/blue and white/orange pair (2 pair connection). The phones are wired in parallel but there are some limitations that must be observed. (See Fig. 11)

Examples:

- 1) A single Digital Keyphone can be connected to a cable run up to 3000' in length.
- 2) Cable runs up to 1500' can be terminated in two parallel runs (2 pair) up to a maximum of 50'. One phone uses the B1 channel (1, 2 OFF / 3, 4 ON). The other phone uses the B2 channel (1, 2 ON / 3, 4 OFF).
- 3) 2 parallel cables (2 pair) can be run a maximum of 600' from the MDF but the difference in length between the two cables cannot exceed 50'.
- 4) LD-40 model phones must always use the B1 channel. When using an LD40 on the B1 channel, a DT36 button phone can be used in parallel only when set for the B2 channel.

The Main and Expansion are equipped with 25 pair female type amphenol connectors. The installer should run 25 pair cables with male amphenol connectors from his own MDF (e.g.: 66 type block).

DSS Installation

The DSS unit requires a digital phone port just as the digital phone does. Observe Dipswitch settings on bottom of DSS.

The DSS is always installed in the next highest physical digital phone port from the phone that will work with it. (E.g. Digital phone port 11 B1 channel / DSS must be port 12 B2 channel.

It is possible to install more than one DSS with one digital phone. (E.g. Digital phone port 23 B1 channel / DSS (1) must be port 24 B2 channel, DSS (2) must be port 25 B1 channel)

Single Line Telephone Cable Length



Digital Phone Cable Length

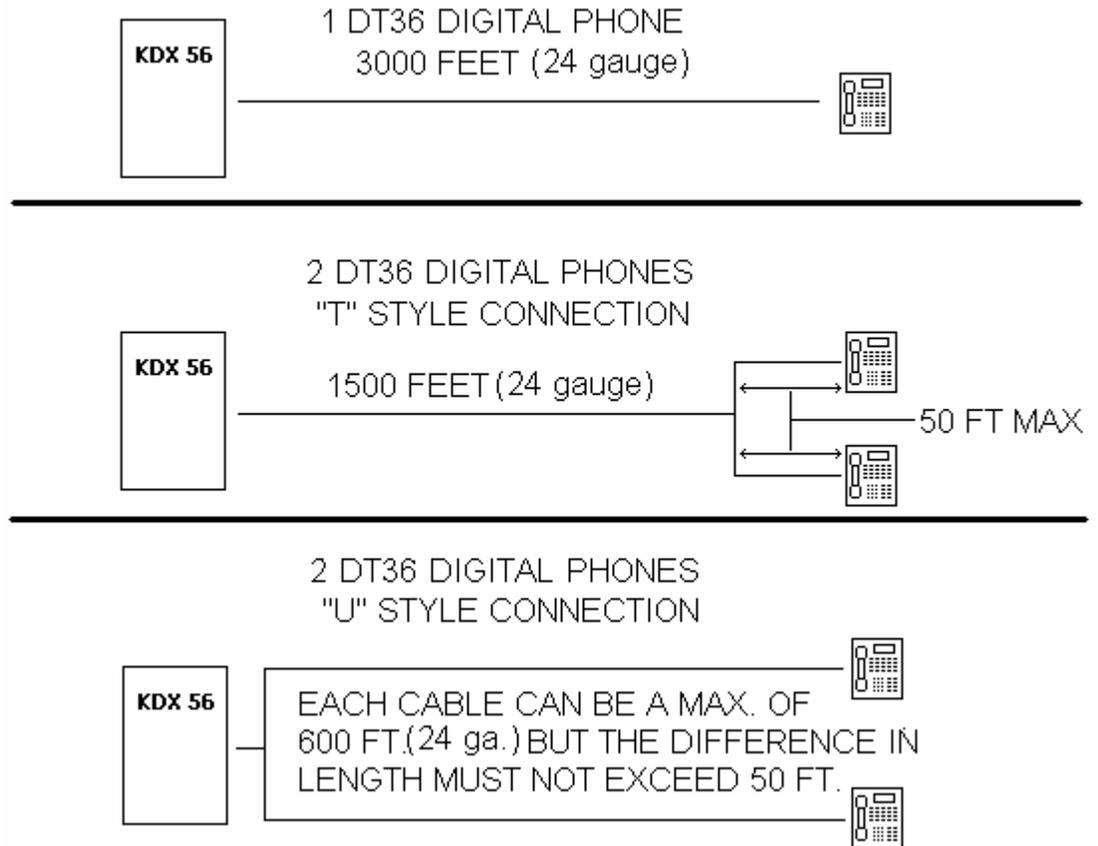


FIGURE 11: DIGITAL PHONE CABLE LENGTH

To Wall Mount a DT36 Digital phone

- ◆ Remove the base stand from the bottom of the digital phone. (See Fig. 10). Press in on the large wedge to disengage it from the housing.
- ◆ Position the base stand on the wall where the digital phone is to be located with the large wedge down, and mark on the wall the location of the small opening in each of the two keyhole slots.
- ◆ Install a #8 x ½ inch pan-head screw at each marked location. Partially tighten the screws leaving approximately ¼ inch protruding.

- ◆ Reattach the base to the digital phone with the large wedge down.
- ◆ Position the digital phone with the base stand over the two mounting screws with the screws inserted into the large slots in the keyholes.
- ◆ Slide the digital phone down until it is tight and stable.
- ◆ Lift and turn the handset cradle tab so the tab is up. (See Fig. 11)
- ◆ Place the handset on-hook and insure that the tab holds the handset stable.

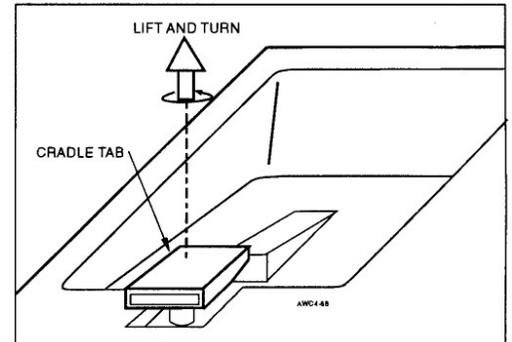
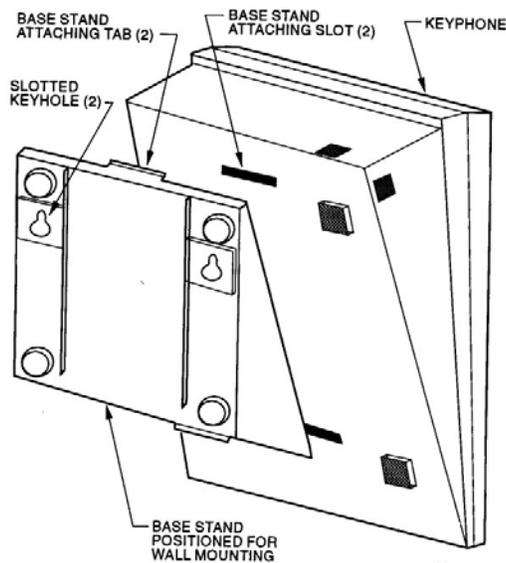


FIGURE 12: WALL MOUNTING A DT-36 TELEPHONE

BATU UNIT

The BATU Unit provides the capability to connect external batteries to the system to provide for complete system operation in the event of local power failure. Attach batteries (24 VDC) to the BATU Unit at the appropriate terminals. (See Fig.) The system applies a trickle charge to the battery when it is not in use.

Keep the battery(s) dry and clean. Avoid damp wet areas or areas where the battery may be easily damaged. Wires should run from the battery(s) to the terminals on the BATU Unit. When connecting to the BATU, pay particular attention to matching the positive and negative connections.

Improper connection will damage the power supply. When operating from the battery, the system will automatically cut off the power supply from the battery when the voltage gets too low, so that the battery can be recharged.

CAUTION!!!! To reduce the risk of fire or injury please note the following:

Do not dispose of the battery(s) in a fire. The cell may explode. Check with local codes for special disposal instructions.

Do not open or mutilate the battery(s). Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.

Exercise care in handling the battery(s) in order not to short the battery with conducting materials such as rings, bracelets and keys. The battery may overheat and cause burns.

Observe proper polarity orientation between the battery(s) and BATU Unit.

Do not mix battery(s) of different sizes or from different manufacturers in this product.

The length of time system operation is maintained under battery power depends on battery capacity. Typical system support for the 24 Volt battery(s) is approximately one hour.

INTERFACE CARDS

Expansion Card

FUTURE INTERFACE DEVICES

T-1 Trunk / PRI Card

BRI Card

DID / Caller ID Card

C.O. Line (TRUNK) CONNECTIONS

Connections (Central Office / PBX) to the ATLAS-56 are made directly at the right side of the KSU where 4 - RJ14 connectors are mounted. (See Fig. 11) Using a standard 4 conductor modular cord the trunks are connected as follows:

RJ14	Trunks	Description
JR7	1	INNER PAIR (RED & GREEN)
JR7	2	OUTER PAIR (BLACK & YELLOW)
JR8	3	INNER PAIR (RED & GREEN)
JR8	4	OUTER PAIR (BLACK & YELLOW)
JR9	5	INNER PAIR (RED & GREEN)
JR9	6	OUTER PAIR (BLACK & YELLOW)
JR10	7	INNER PAIR (RED & GREEN)
JR10	8	OUTER PAIR (BLACK & YELLOW)

The system allows for a maximum of 16 Trunks. Trunks 1-8 are on the Main MCB Unit, Trunks 9-16 are on the Expansion Card.

EXPANSION Card

The Expansion card is mounted on top of the Main MCB. First remove the cover of the Main KSU. Then place the expansion card on top of the Main card. (See Fig. 15)

Fig. 15

MEMORY BACKUP SWITCH

- ◆ The memory backup switch (SW3) is located on the bottom left side of the Main-MCB (See Fig.)
Turning this switch ON will insure that the KSU will retain all stored programming in the event of a power outage.

- ◆ **ONCE THE SYSTEM IS INSTALLED, SET THE MEMORY BACKUP SWITCH TO THE ON POSITION** to prevent the loss of stored information.

- ◆ When the Memory Back-up switch is ON, the LED on the Main-MCB (LED D2) will be lit.

FIGURE 1: 10

FIGURE 2: CABINET SIDE PANEL CONNECTORS AND INDICATORS..... 11

FIGURE 3: ATLAS-56 MAIN MCB UNIT..... 14

FIGURE 4: SMDR CALL RECORDS AND EXPLANATIONS 18

FIGURE 5: OPTIONAL EQUIPMENT JACK PIN FUNCTIONS..... **ERROR! BOOKMARK NOT DEFINED**

FIGURE 6: SERIAL PORT JACK PIN FUNCTIONS **ERROR! BOOKMARK NOT DEFINED**

FIGURE 7: PIN ARRANGEMENT – 50-PIN CABLE CONNECTOR 22

FIGURE 8: 24

FIGURE 9: TYPICAL TRUNK CONNECTING JACK PIN FUNCTIONS..... 25

FIGURE 10: STATION JACK WIRING..... 30

FIGURE 11: DIGITAL PHONE CABLE LENGTH 32

FIGURE 12: WALL MOUNTING A DT-36 TELEPHONE 33

NOTICE

The KDX-56 comes with two manuals. This manual contains a step-by-step explanation of the installation process, with diagrams. The *Programming Guide* introduces the programming process by which the system can be programmed through the Digital phones.

The procedures and methods provided in this manual have been prepared in a step-by-step manner to assist the installer in planning and performing the installation task, system operation and feature operation.

The information contained in this document is believed to be correct and accurate in all respects. The information contained in this document is subject to change without notice. Periodic changes may be made to the information contained in this document without any obligation to notify any such persons of such changes. No responsibility is assumed for any errors or omissions in this document.

The adjustments and settings mentioned in this manual should be carried out strictly by personnel who have been trained for the operation of this equipment and have also received instructions in regard to the safe handling of electrical equipment.

While this device is designed to be reasonably secure against intrusions from fraudulent callers, it is by no means invulnerable to fraud. Therefore, no expressed or implied warranty is made against such fraud.

WHEN PROGRAMMING EMERGENCY NUMBERS AND (OR) MAKING TEST CALLS TO EMERGENCY NUMBERS:

1. Remain on the line and briefly explain to the dispatcher the reason for the call.
 2. Perform such activities in the off-peak hours; such as early morning or late evenings.
-

Protection of this equipment from hazardous voltages is the responsibility of the customer / owner of the equipment.

KEY SYSTEM U.S. LIMITED WARRANTY

Key System US warrants to its authorized members and to the original retail customer of a Key System US product, for a period of one year from the date of shipment of the product from Key System US's warehouse, that the "product", except consumable items, will be free from defects in material and workmanship when used in a normal and common manner.

The sole obligation of Key System US under this warranty is at the sole option of Key System US, the repair or replacement, with new or refurbished parts, of the defective or missing parts that are causing the malfunction and which are determined to be defective by Key System US.

Dealer or user shall be responsible to pay for shipment of the defective parts to Key System US or Key System US's authorized representative and for any and all expenses connected with the removal and re-installation. In lieu of repair or replacement, Key System US at its sole option and full satisfaction of its warranty obligations, refund the price charged by Key System US to its members for such parts as are determined by Key System US to be defective and which are returned to Key System US through an authorized dealer within the warranty period and no later than 30 days after such malfunction, whichever occurs first.

This warranty does not cover defects as arise from accidents, neglect, misuse, failure of electric power, air conditioning, humidity control or causes beyond ordinary use. All warranty claims shall be waived unless reported, in writing to Key System US prior to the expiration of the applicable warranty period.

Key System US makes no other warranties, expressed or implied, and specifically disclaims any implied warranty of merchantability or fitness for a particular purpose. These warranties are dealer's and user's sole remedies and in lieu of all obligations or liabilities on the part of Key System US for damages, including, but not limited to special, incidental or consequential damages arising out of or in connection with the use of the products, or any damages whatsoever resulting from loss of use, data or profits, arising out of or in connection with the performance of the products. Whether in a contract or tort action, including negligence, even if Key System US has been advised of the possibility of such damages. The total maximum liability of Key System US for breach of warranty shall be limited to a refund of the cost of the defective product.

No person other than an officer of Key System US may extend or modify this warranty, and no modification or extension of this warranty shall be effective unless in writing signed by the authorized officer of Key System US.

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PROGRAMMING INTRODUCTION

The *Programming Guide* introduces the step by step process for programming the system. Programming is divided into two parts: Hardware and Software.

Hardware Programming involves the use of the memory backup power switch to clear the memory and to load factory default data, and the setting of system DIP switches to effect proper system operation.

Software Programming involves the use of a keyphone to change the default data as defined by the customer's needs. The changes are derived from a plan detailing what the customer wants the System to do.

The process of programming the system is greatly simplified with a clearly detailed plan of the customers needs, laid out in a manner that is easily understood. If this information is not readily available and clearly detailed, it must be done before beginning the default data changes.

Notice

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HARDWARE PROGRAMMING

Initial Setup

When the system is first installed, the System Default Programming Data must be loaded into memory. To ensure the default condition, the memory must be cleared before loading the data.

Memory Protection

The User Defined Programming Data is stored in memory as it is changed. A 3.9v NiCad Battery (BT1) ensures the Data will be stored in memory when power is lost. The Battery is controlled by SW3 on the Main MCB-Unit.

SW3 on the MCB is used to select factory default or user defined programming upon power up. When the SW3 is in the "ON" position user defined memory is retained during a power failure

Load Default

To clear the memory and load the System Default Programming Data:

- (a) Set the system power On/Off switch to OFF. The power indicator is off.
- (b) Set SW3 to the "OFF" position (**ON MCB-Unit**)
- (c) Set the system power On/Off switch to ON. The power indicator is on and the memory is cleared.
- (d) After system power is restored and phones are operating normally return SW3 to the "ON" position.

Caution: Remember to make sure SW3 is in the "ON" position to retain any program changes during loss of power.

SOFTWARE PROGRAMMING

Software Programming involves changing the default data to make the system fully compatible with the needs of the user.

Note: Only one person at a time is allowed access to Software Programming.

LCD Display phone

A LCD Display phone is a required tool when programming the system.

List of Terms Used

C.O.	Central Office Line (Telephone line coming into the building).
Console	Attendant / Operator Station.
DTMF	Dual Tone Multi-Frequency. Trunk Type.
Keyphone	Key Telephone.
LCD	Liquid Crystal Display.
PABX	Private Automatic Branch Exchange.
Port	A Port for A Telephone.
Pulse	Pulse Dialing. Trunk Type.
SLP	Single-Line Telephone.
Trunk	Can be a C.O. Line or PABX Line.

Port and Station Numbering

Port numbering is fixed. The maximum number of Ports depends on the configuration of the system. The Port number is used when doing System Programming.

A Station Number is a flexible number assigned to each Port for intercom calling and identification. Station Numbers can be one to four digits and different length Station Numbers can be mixed (e.g. 1 - 6, 10 - 69, 100 – 699, 1000-6999).

Note: Watch for Station Numbering conflicts. For example, if Station Number 20 is used, Station Numbers 200 – 209, 2000-2099 are unavailable.

Following is the default Station Numbering (using 16 port station cards):

Card	Port No.	Station No.
Main-MCB	01-20	100-115
Exp. Card	21-40	116-131

See (Section2-Mode 70) Flexible Station Number Assignment for setting Station Numbers.

Note: *No Error Message or Busy Signal will be given if duplicate Station Numbers are entered. For Station calling the first one found will be used.*

Trunk Numbering

Trunk Numbers are fixed by the position of the Trunk on the MCB and Expansion Card in the system.

Card	Trunk No.
Main-MCB	1-8
Exp. Card	9-16

Night Service - Day Mode and Night Mode Operation

For some features it is desirable to separate the operation of the system into Day Mode and Night Mode. The features include Trunk Ringing, Toll Plans, and External Call Forwarding.

Day Mode and Night Mode are used for Day and Night operation, respectively when the user's requirements are generally very different for the affected features. The Day Mode and Night Mode transfer times are set and controlled by the Console.

Refer to the *Users' Guide* for more information to switch between Day and Night Service.

System Programming

Accessing Programming

Access to Programming is protected by the use of a password. Only one user can enter programming at a time.

There are three ways to enter System Programming.

- 1. Entering the Master Password from the Console.**
- 2. Entering the System Password from the Console or from any Display phone, which has Programming Rights.**
- 3. Entering the System Password as an account number while on an outside Trunk Call from the Console, or from any Display phone, which has Programming Rights.**

Any time the Busy Signal is received when attempting to access Programming, it means the attempt was unsuccessful. There are four possible reasons for an unsuccessful access:

- 1. Pressing the wrong key.**

2. Entering an incorrect password.
3. Using a keyphone, which is not the current Console or does not have Programming Rights.
4. Another system user is already accessing Programming.

Entering Password

There are two passwords for System Programming: Master and System.

Master Password

The Master Password allows the current Console to access System Programming. To enter System Programming from the Console using the Master Password, press:

[PROG-PROG-DATA-DATA-6-HOLD]

System Password

The System Password allows the Console or any Display phone with (Section 2-Mode 12) Programming Rights to access System Programming. See (Section 3-Mode 01) System Password for setting the System Password. The Default password is 123.

To access System Programming from any Display phone, press:

[PROG-PROG-1-2-3-HOLD]

Pressing the PROG key lights the PROG lamp. Accessing System Programming starts the PROG lamp flashing. If the Busy Signal is received, press RLS and start again.

Entering System Programming while on a Trunk Call

To access System Programming **while on a Trunk Call**, press:

[MSG-1-2-3-PROG]

Accessing System Programming starts the PROG lamp flashing.

Note: When the RLS key is pressed to exit from System Programming, the outside Trunk line will be released.

Selecting a Program Section

Programming is divided into 3 separate Sections, each Section contains Modes 01-99 (not all modes are used).

After accessing Programming, a Section must be selected to change a Mode. The LCD display



PROGRAM SECTION

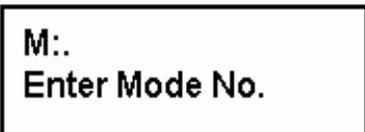
prompts for a Section number.

1 = Trunk Programming

2 = Station Programming

3 = System Programming

After selecting a Program Section, a 2-digit Mode number must be selected to change default data. The LCD display prompts for a Mode number.



M.:
Enter Mode No.

The dot on the LCD display is a prompt for entering a digit. If an invalid digit or mode number is entered a Busy Signal is returned.

Changing to a Different Mode

After a Mode has been selected, press DATA to change to a different Mode. This returns to a LCD display prompt for entering a Mode number.

Changing to a Different Programming Section

When in a Program Section, Press DATA 2 times to select another Program Section.

Exiting from System Programming

To exit from System Programming, press RLS, the Keyphone goes idle. System Programming is now available for others to use. **Make sure any changes to a Mode have been saved before exiting from System Programming. Press HOLD to save changes.**

Using Programming Keys

Some keys on the Keyphone have a special function during System Programming. The keys and functions are listed below. Some keys also have a special function for a particular Mode; they are explained in the description of the applicable Mode.

KEY	FUNCTION
DATA	To select a new Mode or Section
MSG	To set or Yes
FLASH	To clear existing value or No
MIC	To scroll backward
TSF	To scroll forward
HOLD	To save changed Data
RLS	To exit System Programming
CONF	To make change system wide

Saving a Change

Press HOLD to save a change after new information is entered. An “ * “ in the top left-hand corner of the LCD display confirms the saved change.

Press HOLD to save change.

*:01 01 C.O. TRUNK TYPE

Note: In Section 1 Mode 01, press CONF instead of HOLD will save the change to all the Trunks at the same time.

Entering a Station Number instead of Port Number

Where System Programming requires a Port Number to be entered, a Station Number can be entered instead. To enter a Station Number, press the PROG key and then enter the Station Number, System will convert to Port Number. Once a valid Station Number has been entered, proceed with the next step.

Examples:

Enter Port Number

E.g. Press PROG then enter Station Number

M:02
ST:

Note: A Station Number saved as data is shown as the corresponding Port Number.

Getting a Busy Signal

Anytime a Busy Signal is returned, an invalid key or operation was attempted.

To recover from an error when in System Programming, press DATA. The LCD display will prompt for a new Mode number.

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Introduction

System 56 Programming is divided into three separate sections for ease of access. The sections are Trunk Programming Section, Station Programming Section, and System Programming Section.

Trunk Programming Section

Trunk Programming Section has been grouped into categories.

- Trunk Class-of-Service
- Trunk Specifications
- Private Lines
- Trunk Hunt Groups
- DNIS Groups
- Trunk Ringing
- External Call Forwarding
- Trunk Dial Operation
- SMDR Operation
- Forced Account Codes

Trunk Numbers

Trunk Numbers are fixed in the system.

For ease of operation for the Station user, Trunk numbers are displayed as 1 - 16.

Systems can have up to 16 Trunks, Trunks 01 - 09, use **0** at the start when using Trunk numbers in System Programming. Dial 77,tk to access a Trunk requires a 0 only when more than 8 Trunks are installed in the System.

Trunk Class-of-Service

Trunk Class-of-Service is used to define the operation of individual Trunks.

(Mode 01) Trunk Type

The system is normally connected directly to C.O. Lines but can be set to work behind another PABX. When a Trunk is set as a PABX Line the PABX Trunk Access Code will be ignored for Toll Restriction, and will not be shown on the SMDR output.

See (System Programming Section - Mode 77) PABX Trunk Access Code for setting the PABX Trunk Access Code.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **01**

```
M:01
TRUNK TYPE
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 3

```
M:01 03      C.O.
TRUNK TYPE
```

Step 4: Press **MSG** for PABX or **FLASH** for C.O.

e.g. Set to PABX line

```
M:01 03      PABX
TRUNK TYPE
```

Step 5: Press **HOLD** to save change.

```
*:01 03      PABX
TRUNK TYPE
```

Step 6: (Optional) Press **CONF** to set ALL Trunks the same.

```
*:02 04      PULSE
TRUNK SIGNAL
```

Step 7: (Optional) Press **TRF** to scroll forward to the next Trunk or **MIC** to scroll backward to the previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```
M:01 04      C.O.
TRUNK TYPE
```

(Mode 02) Trunk Signal Type

Each Trunk can be set for either DTMF or Pulse signaling. When a Trunk is connected to a Central Office (or PABX) which recognizes both DTMF and Pulse signaling, set the Trunk to DTMF. Set a Trunk to Pulse signaling only when Pulse is the only type of signaling recognized.

Refer to the *Easy Reference Guide* for how to change the signal type while dialing on a Trunk.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **02**

```
M:02 .
TRUNK SIGNAL
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 4

```
M:02 04      DTMF
TRUNK SIGNAL
```

Step 4: Press **MSG** for DTMF or **FLASH** for Pulse.

e.g. Set to Pulse Signaling

```
M:02 04      PULSE
TRUNK SIGNAL
```

Step 5: Press **HOLD** to save change.

```
*:02 04      PULSE
TRUNK SIGNAL
```

Step 6: (Optional) Press **CONF** to set ALL Trunks the same.

```
*:02 04      PULSE
TRUNK SIGNAL
```

Step 7: (Optional) Press **TRF** to scroll forward to the next Trunk or **MIC** to scroll backward to the previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```
M:02 05      DTMF
TRUNK SIGNAL
```

(Mode 03) Centrex Trunk Operation

Each Trunk can be set to support Centrex Trunk operation for Single-Line Telephones.

(MSG = Yes = Centrex)

When set for Centrex operation, Single-Line Telephones can do a Flash on a Trunk by putting the Trunk on Hold then immediately dial a 6 to re-access the Trunk.

Programming Procedure:

See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting Centrex Trunk Operation.

(Mode 04) Loop Supervision Disconnect

Each Trunk can be set to support Loop Supervision Disconnect operation for automatic termination of Trunk calls by the Central Office exchange.

(MSG = Yes = Loop Supervision Disconnect)

Note: The facility used by Loop Supervision Disconnect is supplied by the Central Office exchange and is not available to every exchange (or country).

Programming Procedure:

See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting Loop Supervision Disconnect.

(Mode 05) Caller ID Name

When using Caller ID for identification on Incoming Calls, each Trunk can be set to display either the number or name for Keyphones.

(MSG = Yes = Caller ID Name, FLASH = No = Caller ID Number)

The Caller ID information is shown on the LCD display of the Keyphone and when printing Incoming SMDR Call Records.

Note: The facility used for Caller ID is supplied by the Central Office exchange and may not be able to always supply either number or name (not available in every country).

Refer to the *Installation Guide* for more information on using Caller ID.

Programming Procedure: See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting Caller ID Name.

(Mode 06) Ring-back Tone on Transfer

Each Trunk can be set to give Ring-back Tone in place of music on being transferred to a Station. (MSG = Yes = Ring-back on Transfer, FLASH = No = Music)

See (Trunk Programming Section - Mode 37) Trunk Music Source for how to set the music source for a Trunk on hold.

Programming Procedure:

See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting Ring-back Tone on Transfer.

(Mode 07) Disable Trunk

Each Trunk can be disabled. Disable Trunk is used to restrict access to an unconnected Trunk. Once disabled, the Trunk can not be accessed and it will not ring for an Incoming Call. It can also be used to temporarily disable a bad Trunk. (**MSG** = Yes = Disable Trunk, **FLASH** = No = Normal)

Programming Procedure:

See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting Disable Trunk.

(Mode 08) +3db Gain

Each Trunk can be programmed for +3db gain for increased volume. It is recommended for use where the Central Office experiences low volume conditions. This option is also effective in noisy environments.

(**MSG** = Yes = +3db Gain, **FLASH** = No = 0db Gain)

Programming Procedure:

See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting Disable Trunk.

(Mode 09) Enable Echo Cancellation

Each Trunk can be set to utilize the Echo Cancellation feature. This is only intended for full duplex speakerphone applications. When set for Echo cancellation simplex speakerphones may experience erratic audio performance.

(**MSG** = Yes = Echo Cancellation, **FLASH** = No = Normal)

Programming Procedure:

See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting Disable Trunk.

(Mode 10) Loud Bell 1 - Day

There are four zones available for Loud Bell operation. Each Trunk can be set to ring a Loud Bell for an Incoming Call for either Day Mode or Night Mode. The Loud Bell will ring immediately using the standard Trunk Ring cadence.

Each Trunk can be set to ring Loud Bell 1 for an Incoming Call during Day Mode. (**MSG** = Ring, **FLASH** = Not Ring)

Refer to the *Installation Guide* for more information on connecting a Loud Bell.

See (System Programming Section - Mode 40) External Relay Control for how to set an External Relay to work with a Loud Bell.

Programming Procedure:

See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting Loud Bell 1 - Day.

(Mode 11) Loud Bell 1 - Night

Each Trunk can be set to ring a Loud Bell 1 for an Incoming Call during Night Mode.

(MSG = Ring, FLASH = Not Ring)

Programming Procedure:

See (Trunk Programming Section - Mode 10) Loud Bell 1 - Day for how to set a Loud Bell to ring.

(Mode 12) Loud Bell 2 - Day

Each Trunk can be set to ring Loud Bell 2 for an Incoming Call during Day Mode.

(MSG = Ring, FLASH = Not Ring)

Programming Procedure:

See (Trunk Programming Section - Mode 10) Loud Bell 1 - Day for how to set a Loud Bell to ring.

(Mode 13) Loud Bell 2 - Night

Each Trunk can be set to ring a Loud Bell 2 for an Incoming Call during Night Mode.

(MSG = Ring, FLASH = Not Ring)

Programming Procedure:

See (Trunk Programming Section - Mode 10) Loud Bell 1 - Day for how to set a Loud Bell to ring.

(Mode 14) Loud Bell 3 - Day

Each Trunk can be set to ring Loud Bell 3 for an Incoming Call during Day Mode.

(MSG = Ring, FLASH = Not Ring)

Programming Procedure:

See (Trunk Programming Section - Mode 10) Loud Bell 1 - Day for how to set a Loud Bell to ring.

(Mode 15) Loud Bell 3 - Night

Each Trunk can be set to ring a Loud Bell 3 for an Incoming Call during Night Mode.

(MSG = Ring, FLASH = Not Ring)

Programming Procedure:

See (Trunk Programming Section - Mode 10) Loud Bell 1 - Day for how to set a Loud Bell to ring.

(Mode 16) Loud Bell 4 - Day

Each Trunk can be set to ring Loud Bell 4 for an Incoming Call during Day Mode.

(MSG = Ring, FLASH = Not Ring)

Programming Procedure:

See (Trunk Programming Section - Mode 10) Loud Bell 1 - Day for how to set a Loud Bell to ring.

(Mode 17) Loud Bell 4 - Night

Each Trunk can be set to ring a Loud Bell 4 for an Incoming Call during Night Mode.

(**MSG** = Ring, **FLASH** = Not Ring)

Programming Procedure:

See (Trunk Programming Section - Mode 10) Loud Bell 1 - Day for how to set a Loud Bell to ring.

(Mode 20) SMDR Incoming

The normal SMDR Call Record output shows only the outgoing calls. Incoming Calls can also be set to print. (**MSG** = Print Incoming Calls)

Refer to the *Installation Guide* for more information on the SMDR.

Programming Procedure:

See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting SMDR to print Incoming Calls.

(Mode 21) SMDR Transferred

The normal SMDR Call Record output shows only the outgoing calls. Trunk Calls can be set to print each time they are transferred. (**MSG** = Print for Transfer)

When set the Call duration is reset each time a Trunk is transferred.

Refer to the *Installation Guide* for more information on the SMDR.

Programming Procedure:

See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting SMDR to print transferred Trunk Calls.

(Mode 22) SMDR No Print

SMDR Call Records can be programmed on a per Trunk basis. When set to "No" for a particular Trunk SMDR records for that Trunk will not be sent to the serial port. (Port 2). (**MSG** = SMDR Printout)

(Port 2). (**MSG** = SMDR Printout)

Refer to the *Installation Guide* for more information on the SMDR.

Programming Procedure:

See (Trunk Programming Section - Mode 02) Trunk Signal Type and follow the programming procedure for setting SMDR to print transferred Trunk Calls.

Trunk Specifications

Trunk Specifications define the general operation of all Trunks.

(Mode 30) Trunk Names

Each Trunk can be assigned a Name up to eight characters long. The name is used in place of the Trunk number when making Trunk Calls, etc.

Keys:

1	QqZz
2	AaBbCc
3	DdEeFf
4	GgHhIi
5	JjKkLl
6	MmNnOo
7	PpQqRrSs
8	TtUuVv
9	WwXxYy
0	Space then complete ranges of characters.
*	Move left one space.
#	Move right one space.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **30**

```
M:30 .
TRUNK NAME
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 3 which has no name

```
M:30 03
TRUNK NAME
```

Step 4: Press **FLASH** to clear (any existing name).

```
M:30 03
TRUNK NAME
```

Step 5: Enter name by pressing the correct lettered key.

e.g. Press **5** five times for 'L' in Local 3.

```
M:30 03 L
TRUNK NAME
```

Step 6: Press **#** to move to next letter or ***** back to the previous letter.

e.g. Move to next letter

```
M:30 03 L
TRUNK NAME
```

Step 7: Enter next letter.

e.g. Press **6** six times for 'o' in
Local 3.

```
M:30 03 Lo
TRUNK NAME
```

Step 8: Repeat the above two steps until the Trunk name is entered.

Press **HOLD** to save change.

```
*:30 03 Local 3
TRUNK NAME
```

Step 9: (Optional) Press **TRF** to scroll forward to the next Trunk or **MIC** to scroll backward to the previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```
M:30 04
TRUNK NAME
```

(Mode 31) Pulse Dialing Pulses per Second

Trunk Pulse Dialing can be set to either 10 pps or 20 pps.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [PROG-PROG-1-2-3-HOLD] from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **31**

```
M:31          10
PULSE PER SECOND
```

Step 3: Press **MSG** for 10 pps or **FLASH** for 20 pps.

e.g. Set to 20 pps

```
M:31          20
PULSE PER SECOND
```

Step 4: Press **HOLD** to save change.

```
*:31          20
PULSE PER SECOND
```

(Mode 32) Pulse Dialing Break / Make Ratio

Trunk Pulse Dialing can use either 60 / 40 or 66 / 33 Break / Make Ratio.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **32**

```
M:32      60/40
B/M RATIO
```

Step 3: Press **MSG** for 66 / 33 or **FLASH** for 60 / 40

e.g. Set to 66 / 33 pps

```
M:32      66/33
B/M RATIO
```

Step 4: Press **HOLD** to save change.

```
*:32      66/33
B/M RATIO
```

(Mode 33) Trunk Flash Time

The Flash Time used on Trunks can be set from 50 ms to 2550 ms (n x 10 ms).

When the Trunk Flash Time is used for Redial it is set for a duration which will guarantee the termination of the Trunk Call.

When the Trunk Flash Time is used for Centrex Trunk Operation it is set for a shorter period than the minimum Flash time required for terminating a Trunk Call.

Note: The facility used for Centrex operation is supplied by the Central Office exchange and is not available to every exchange (or country).

See (Trunk Programming Section - Mode 03) Centrex Trunk Operation for how to set a Trunk for Centrex operation.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **33**

e.g. Currently set to 1800 ms

```
M:33      180
```

TRUNK FLASH TIME

Step 3: Press **FLASH** to clear (an existing time).

M:33 0
TRUNK FLASH TIME

Step 4: Enter new Flash Time **5 - 255**

e.g. Set to 1200 ms (n = 120)

M:33 120
TRUNK FLASH TIME

Step 5: Press **HOLD** to save change.

*:33 120
TRUNK FLASH TIME

Note: The minimum Trunk Flash Time is 50 ms (n = 5), and the maximum time is 2550 ms (n = 255).

(Mode 34) Trunk Pause Time

The Pause Time used on Trunks can be set from 500 ms to 2550 ms (n x 10 ms).

The Trunk Pause Time is used with Redial, Auto Redial, and Speed Dial. It is the delay after accessing a Trunk before automatic dialing.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M:.
Enter Mode No.

Step 2: Enter Mode **34**

e.g. Currently set to 1500 ms

M:34 150
TRUNK PAUSE TIME

Step 3: Press **FLASH** to clear (an existing time).

M:34 0
TRUNK PAUSE TIME

Step 4: Enter new Pause Time **50 - 255**

e.g. Set to 1800 ms (n = 180)

M:34 180
TRUNK PAUSE TIME

Step 5: Press **HOLD** to save change.

```

* : 34      180
TRUNK PAUSE TIME
    
```

Note: The minimum Trunk Pause Time is 500 ms (n = 50).

(Mode 35) DTMF Tone Length

The DTMF Tone Length can be set from 50 ms to 250 ms (n x 10 ms).

The DTMF Tone Length determines how quickly a Trunk generates DTMF dialing. Setting the DTMF Tone Length too short results in the Central Office exchange missing DTMF digits or ignoring the dialing completely.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```

M: .
Enter Mode No.
    
```

Step 2: Enter Mode **35**

e.g. Currently set to 70 ms

```

M: 35      7
DTMF TONE LENGTH
    
```

Step 3: Press **FLASH** to clear (an existing length).

```

M: 35      0
DTMF TONE LENGTH
    
```

Step 4: Enter new DTMF Tone Length **5 - 25**

e.g. Set to 80 ms (n = 8)

```

M: 35      8
DTMF TONE LENGTH
    
```

Step 5: Press **HOLD** to save change.

```

* : 35      8
DTMF TONE LENGTH
    
```

Note: The minimum DTMF Tone Length is 50 ms (n = 5), and the maximum is 250 ms (n = 25).

(Mode 36) Ring Pause Time

The Ring Pause Time used on Trunks can be set from 2000 ms to 6000 ms (n x 10 ms).

The Ring Pause Time is the maximum time, after a ring pulse, that the system waits for the next ring pulse. If this time lapses the system will clear ringing for the unanswered incoming Trunk call.

The Ring Pause Time allows for differences in ring cadences used by different Central Office exchanges that may have 2, 3, 4, or even 5 seconds between ring cycles. Setting the Ring Pause Time too low will result in the ringing for the incoming Trunk call being cleared before the next ring pulse.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **36**

e.g. Currently set to 3.2 seconds

```
M:36          320
RING PAUSE TIME
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:36          0
RING PAUSE TIME
```

Step 4: Enter new Pause Time **200 - 600**

e.g. Set to 4.2 seconds (n = 420)

```
M:36          420
RING PAUSE TIME
```

Step 5: Press **HOLD** to save change.

```
*:36          420
RING PAUSE TIME
```

Note: The minimum Ring Pause Time is 2000 ms (n = 200).

(Mode 37) Trunk Music Source

There are three music sources available to a Trunk on hold, one internal and two external. The two external music sources each require a device to be connected to the system.

Refer to the *Installation Guide* for more information on connecting an External Music Source.

See (Trunk Programming Section - Mode 06) Ring-back Tone on Transfer for how to set Ring-back Tone in place of music on a Trunk being transferred to a Station.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **37**

```
M:37 .
TK MUSIC SOURCE
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 4

```
M:37 04      1
TK MUSIC SOURCE
```

Step 4: Press **1** for internal, **2** for external 1, or **3** for external 2.

e.g. Set to External Music Source 1

```
M:37 04      2
TK MUSIC SOURCE
```

Step 5: Press **HOLD** to save change.

```
*:37 04      2
TK MUSIC SOURCE
```

Step 6: (Optional) Press **CONF** to set ALL Trunks the same.

```
*:37 04      2
TK MUSIC SOURCE
```

Step 7: (Optional) Press **TRF** to scroll forward to the next Trunk or **MIC** to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```
M:37 05      1
TK MUSIC SOURCE
```

Private Lines

(Mode 40) Private Line Assignment

Each Trunk can be set as a Private Line for up to eight Stations. Only the set Stations can access a Private Line unless Private Line Access is set to open.

Incoming Calls for a Private Line will ring only the assigned Flexible Ring Stations and the assigned Station Hunt Group for that Trunk (they do not need to be assigned to the Private Line). However, if the first position of the Private Line Assignment for the Trunk is vacant, the Private Line will ring as a normal Trunk.

See (Trunk Programming Section - Mode 67) Flexible Ring - Day and (Trunk Programming Section - Mode 69) Flexible Ring - Night for setting what Station Ports will ring for each Private Line.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 40

```
M:40 .
PRIV LINE ASSIGN
```

Step 3: Enter Trunk number 01- 16

e.g. Trunk 1

```
M:40 01 .
PRIV LINE ASSIGN
```

Step 4: Enter a memory position 1 - 8. Note: The memory position is a counter to keep track of how many ports have been entered, up to 8 ports can be assigned per Trunk.

e.g. The second position is Port 24

```
M:40 01 2 24
PRIV LINE ASSIGN
```

Step 5: Press FLASH to clear (any existing Station Port).

```
M:40 01 2
PRIV LINE ASSIGN
```

Step 6: Enter new Station Port number 001 - 400

e.g. Set to Station Port 021

```
M:40 01 2 21
PRIV LINE ASSIGN
```

Step 7: Press HOLD to save change.

```
*:40 01 2 21
PRIV LINE ASSIGN
```

Step 8: (Optional) Press TRF to move to the next memory position or MIC to scroll backward. Repeat from Step 6.

e.g. Move to next position Port 025 is the third Station Port.

```
M:40 01 3 25
PRIV LINE ASSIGN
```

TT-Trunk No.
XXX- Station Port

```
M:40 TTP XXX
PRIV LINE ASSIGN
```

(Mode 41) Private Line Access

Access to Trunks assigned as Private Lines is normally restricted to the Stations assigned to the Private Line. Private Line access can be set open.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **41**

```
M:41 .
PRIV LINE ACCESS
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 1

```
M:41 01  CLOSED
PRIV LINE ACCESS
```

Step 4: Press **MSG** for Open or **FLASH** for Closed.

e.g. Open Private Line access

```
M:41 01  OPEN
PRIV LINE ACCESS
```

Step 5: Press **HOLD** to save change.

```
*:41 01  OPEN
PRIV LINE ACCESS
```

Step 6: (Optional) Press **CONF** to set ALL Trunks the same.

```
*:41 01  OPEN
PRIV LINE ACCESS
```

Step 7: (Optional) Press **TRF** to move to the next Trunk or **MIC** to scroll backward. Repeat from Step 6.

e.g. Move to next Trunk

```
M:41 02  OPEN
PRIV LINE ACCESS
```

(Mode 42) Private Line - Common Ring Day

When in Day Mode, Incoming Calls on Private Lines can be set to also ring the Common Ring Day Stations.

See (Trunk Programming Section - Mode 74) Common Ring - Day and (Trunk Programming section - Mode 76) Common Ring - Night for setting Common Ring Stations.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
_____
```

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 42

```
M:42 .
PRIV DAY RING
```

Step 3: Enter Trunk number 01 - 16

e.g. Trunk 4

```
M:42 04      NO
PRIV DAY RING
```

Step 4: Press MSG for Ring (Yes) or FLASH for Not Ring (No).

e.g. Set to ring Common Ring Day Stations.

```
M:42 04      YES
PRIV DAY RING
```

Step 5: Press HOLD to save change.

```
*:42 04      YES
PRIV DAY RING
```

Step 6: Press CONF to set ALL Trunks the same.

```
*:42 04      YES
PRIV DAY RING
```

Step 7: (Optional) Press TRF to scroll forward to next Trunk or MIC to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```
M:42 05      YES
PRIV DAY RING
```

(Mode 43) Private Line - Common Ring Night

When in Night Mode, Incoming Calls on Private Lines can be set to also ring the Common Ring Night Stations.

See (Trunk Programming Section - Mode 74) Common Ring - Day and (Trunk Programming section - Mode 76) Common Ring - Night for setting Common Ring Stations.

Programming Procedure:

See (Trunk Programming Section - Mode 42) Private Line - Common Ring Day and follow the programming procedure for setting Common Ring - Night to ring for Private Lines.

(Mode 44) Private Line Pickup

Normally, only Stations that can access a Private Line can pickup a ringing Private Line. Private Line Pickup can be allowed by all Stations.

See (Station Programming Section - Mode 02) Call Pickup for how to set Call Pickup for Stations.

Programming Procedure:

See (Trunk Programming Section - Mode 42) Private Line - Common Ring Day and follow the programming procedure for setting Private Line Pickup.

Trunk Hunt Groups

Trunk Hunt Groups are used to set the order and priority of accessing Trunks and keep incoming calls away from outgoing calls. Trunk Hunt Groups allow local and long distance Trunks to be grouped separately. Redial, Auto Redial, Speed Dial, and Automatic Route Selection all use Trunk Hunt Groups to select Trunks.

(Mode 50) Trunk Hunt Group Programming

The system has eight Trunk Hunt Groups (1 - 8) which are used for Automatic Trunk Selection. Redial, Speed Dial, Auto Redial, and External Call Forwarding all use the Trunk Hunt Group assigned to the Station.

Note: Remove all unused Trunks from the Trunk Hunt Groups.

Each Trunk Hunt Group can have the maximum number of Trunks available for the system assigned to it.

See (Station Programming Section - Mode 74) Trunk Hunt Group Assignment for assigning a Trunk Hunt Group to a Station.

See (System Programming Section - Mode 16) Trunk Hunt Group Access Code for how to set the Access Code for assessing a Trunk Hunt Group.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **50**

```
M:50 .
TRUNK HUNT GROUP
```

Step 3: Enter Trunk Hunt Group number **1 - 8**

e.g. Trunk Hunt Group 2

```
M:50 2 .
TRUNK HUNT GROUP
```

Step 4: Enter a memory position number **01- 64** **Note:** The memory position is a counter to keep track of how many Trunks have been entered, up to 64 Trunks can be assigned per Trunk Group.

e.g. The fourth position is Trunk 4

M:50 2 04	4
TRUNK HUNT GROUP	

Step 5: Press **FLASH** to clear (an existing Trunk).

M:50 2 04	
TRUNK HUNT GROUP	

Step 6: Enter new Trunk number **01 - 96**

e.g. Set to Trunk 21

M:50 2 04	21
TRUNK HUNT GROUP	

Step 7: Press **HOLD** to save change.

*:50 2 04	21
TRUNK HUNT GROUP	

Step 8: Press **TRF** to scroll forward to next memory position or **MIC** to scroll backward to previous memory position. Repeat from Step 5.

e.g. Move to next position
Trunk 5 is the fifth Trunk
In the Group.

M:50 2 05	5
TRUNK HUNT GROUP	

(Mode 51) Automatic Trunk Hunt Group Access

When the Trunk Hunt Group Access Code (9 or 0), either the Trunk Hunt Group assigned to the Station is automatically used, or a second digit (1 - 8) must be dialed to specify which Trunk Hunt Group to use.

See (Station Programming Section - Mode 74) Trunk Hunt Group Assignment for assigning a Trunk Hunt Group to a Station.

See (System Programming Section - Mode 16) Trunk Hunt Group Access Code for how to set the Access Code for assessing a Trunk Hunt Group.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M:.	
Enter Mode No.	

Step 2: Enter Mode **51**

M:51	NO
AUTO TRUNK GROUP	

Step 3: Press **MSG** for Automatic Access (Yes) or **FLASH** for No.

e.g. Set to use Automatic Trunk Hunt Group Access.

```
M:51          YES
AUTO TRUNK GROUP
```

Step 4: Press **HOLD** to save change.

```
*:51          YES
AUTO TRUNK GROUP
```

(Mode 52) Terminal Trunk Hunt Group Access

Trunks are always accessed from a Trunk Hunt Group starting at the first position of the Trunk Hunt Group and accessing the first available idle Trunk found.

An alternative to terminal access is distributed access where the Trunks are accessed in rotation.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **52**

```
M:52 .
TERMINAL TK ACC
```

Step 3: Enter Trunk Hunt Group number **1 - 8**

e.g. Trunk Hunt Group 2

```
M:52 2        YES
TERMINAL TK ACC
```

Step 4: Press **MSG** for Terminal Access (Yes) or **FLASH** for Distributed Access (No).

e.g. Set to use distributed Access

```
M:52 2        NO
TERMINAL TK ACC
```

Step 5: Press **HOLD** to save change.

```
*:52 2        NO
TERMINAL TK ACC
```

Step 6: (Optional) Press **CONF** to set ALL Trunk Hunt Groups the same.

*:52 2	NO
TERMINAL TK ACC	

Step 7: (Optional) Move to next Group. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Trunk Hunt Group

M:52 3	NO
TERMINAL TK ACC	

DNIS GROUPS**(Mode 55) DNIS Ring Delay**

DNIS Ring Delay is used to delay ringing to the assigned Station or Console. This will ensure all DNIS digits are received from the Telephone Company before the Station or Console answers the ringing call.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **55**

```
M:55      0
DNIS RING DELAY
```

Step 3: Enter Delay Time **1 - 9999**

e.g. DNIS Delay is set for 2 seconds

```
M:55      2
DNIS RING DELAY
```

Step 4: Press **HOLD** to save change.

```
*:55      2
DNIS RING DELAY
```

(Mode 56) DNIS Table Assignment

DNIS Table Assignment is used to assign each individual Trunk to a DNIS Translation table (Mode 57) for proper call routing.

There are 4 programmable tables in Mode 57.

This Mode should only be set on T-1 channels.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **56**

```
M:56 .
DNIS TABLE ASSGN
```

Step 3: Enter Trunk No. **01 - 16**

e.g. Trunk 09 is entered

```
M:56 09
DNIS TABLE ASSGN
```

Step 4: Enter Table Number **1 - 4**

e.g. Trunk 09 is assigned to DNIS table 2

```
M:56 09      2
DNIS TABLE ASSGN
```

Step 4: Press **HOLD** to save change.

```
*:56 09      2
DNIS TABLE ASSGN
```

(Mode 57) DNIS Translation Tables

DNIS Translation Tables are used to assign DNIS digits received from the Telco to an Extension or Station Group in the KDX-500 switch.

There are 4 programmable tables each containing 96 (bins) translation entries.

The digits received from the Telco must be either 4 or 7 digits in length.

DNIS calls that go unanswered can be routed to Voice Mail. See Section 2 Modes 87 and 89.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **57**

```
M:57 .
DNIS TABLES
```

Step 3: Enter Table No. **1 - 4**

e.g. DNIS Table 1 is entered.

```
M:57 1 .
DNIS TABLES
```

Step 4: Enter Bin No. **01- 16**

e.g. Bin 01 is entered.

```
M:57 1 01
Port
```

Step 5: Enter DNIS digits expected **4 or 7** digits.

e.g. 3446 is entered.

```
M:57 1 013446
Port
```

Step 6: Press **HOLD** to save DNIS digits.

```
*:57 1 013446
Port
```

Step 7: Enter Port No. **01 - 40** or Station Group **1 - 8** to ring for DNIS digits.

e.g. Port 17 is entered.

```
M:57 1 013446
Port 17
```

Step 8: Press **HOLD** to save Port or Station Group.

e.g. Port 17 will ring when DNIS digits "3446" are received.

```
*:57 1 013446
Port 17
```

Note: Press "**MSG**" key once to enter a Station Group No. **1 – 8**. When a DNIS call is ringing that Group it will find the 1st available Station in that group to ring.

If you press the "**MSG**" key twice "**ALLGP**" will appear. When the DNIS call rings the group, all stations in that group will ring simultaneously.

(Mode 58) DNIS Default Station Ring Assignment

DNIS Default Station Ring Assignment is used to assign an alternate Station to ring if the Telco sends DNIS digits that are not found in the translation tables.

Each DNIS Table (1–4) can be assigned an alternate Station.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **58**

```
M:58 .
DNIS DEFAULT ST
```

Step 3: Enter Table No. **1- 4**

e.g. Table 1 is entered.

```
M:58 1
DNIS DEFAULT ST
```

Step 4: Enter Station Port Number **1– 40**.

e.g. Station Port 34 is assigned for Table 1.

```
M:58 1      34
DNIS DEFAULT ST
```

Step 4: Press **HOLD** to save change.

```
*:58 1      34
DNIS DEFAULT ST
```

Trunk Ringing

Trunk Ringing has a wide range of different ring options which allow both basic ringing and custom ringing for individual Trunks.

Normal Trunk Ringing

1. After Console Ring Delay Time expires, ring Console if set to ring.
2. After Second Console Ring Delay Time expires, ring Second Console if set to ring.
3. Ring a Station from a Station Hunt Group if set to ring.
4. After Flexible Ring Delay Time expires, ring Flexible Ring Stations.
5. After Common Ring Delay Time expires, ring all Common Ring Stations.

(Mode 60) Console Ring Delay Time

The Console has a Delay Time before the Console will ring for an Incoming Call. The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **60**

```
M: 60      0
CONS 1 DELAY
```

Step 3: Press **FLASH** to clear (an existing time).

```
M: 60      0
CONS 1 DELAY
```

Step 4: Enter new Console Ring Delay Time **0 - 9999**

e.g. Set Delay Time to 20 seconds

```
M: 60      20
CONS 1 DELAY
```

Step 5: Press **HOLD** to save change.

```
*: 60      20
CONS 1 DELAY
```

(Mode 61) Console Incoming Call Ringing

Incoming Calls can be set to ring at the Console (after the Console Ring Delay Time).

If the Console is set to Ring, it will be reminded when busy if Console Ring Busy Remind has been set. If set to Not Ring, it will still ring if set as a Flexible Ring Station or Common Ring Station.

See (Trunk Programming Section - Mode 64) Common Ring Busy Remind for how to set the Common Ring Busy Remind Time.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **61**

```
M:61 .
CONS 1 INCOMING
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 4

```
M:61 04 RING
CONS 1 INCOMING
```

Step 4: Press **MSG** for Ring or **FLASH** for Not Ring.

e.g. Set the Console to not ring

```
M:61 04 NOT RING
CONS 1 INCOMING
```

Step 5: Press **HOLD** to save change.

```
*:61 04 NOT RING
CONS 1 INCOMING
```

Step 6: (Optional) Press **CONF** to set ALL Trunks the same.

```
*:61 04 NOT RING
CONS 1 INCOMING
```

Step 7: (Optional) Press **TRF** to scroll forward to next Trunk or **MIC** to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```
M:61 05 RING
CONS 1 INCOMING
```

(Mode 62) Second Console Ring Delay Time

The Second Console has a Delay Time before the Second Console will ring for an Incoming Call.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

Programming Procedure:

See (Trunk Programming Section - Mode 60) Console Ring Delay Time and follow the programming procedure for setting Second Console Ring Delay Time.

(Mode 63) Second Console Incoming Call Ringing

Incoming Calls can be set to ring at the Second Console (after the Second Console Ring Delay Time).

If the Second Console is set to Ring, it will be reminded when busy if Console Ring Busy Remind has been set. If set to Not Ring, it will still ring if set as a Flexible Ring Station or Common Ring Station.

See (Trunk Programming Section - Mode 64) Common Ring Busy Remind for how to set the Common Ring Busy Remind Time.

Programming Procedure:

See (Trunk Programming Section - Mode 61) Console Incoming Call Ringing and follow the programming procedure to set Second Console Incoming Call Ringing.

(Mode 64) Console Off Hook Ringing

If the Console and Second Console are busy when an Incoming Call is trying to ring, an Off Hook Ring signal can be given that there is an Incoming Call.

The Console Off Hook Ring Time can be set from 1 to 9999 seconds. If set to 0 there will be no Off Hook Ringing.

The Console and Second Console will receive Off Hook Ringing when busy if the Consoles have been set to ring in Console Ring, Flexible Ring, or Common Ring.

See (Station Programming Section - Mode 10) Off Hook Ring Tone for how to restrict a Station Port from ringing when Off Hook.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **64**

e.g. The Remind Time is currently
30 seconds.

```
M: 64          30
CONS BUSY REMIND
```

Step 3: Press **FLASH** to clear (an existing time).

```
M: 64          0
CONS BUSY REMIND
```

Step 4: Enter new Console Ring Busy Remind Time **1 - 9999**

e.g. Set Remind Time to 40 seconds.

```
M: 64          40
CONS BUSY REMIND
```

Step 5: Press **HOLD** to save change.

```
*: 64          40
CONS BUSY REMIND
```

(Mode 65) Trunk Station Hunt Group Ringing - Day

Each Trunk can be set to ring a Station Hunt Group for Incoming Calls.

A Station Hunt Group can be set for both Day Mode and Night Mode.

If one or more Stations from the assigned Station Hunt Group are already ringing due to being a Flexible Ring Station, Console, or Second Console, no extra Station from the Station Hunt Group will ring.

If set to 0 no Station Hunt Group will be used.

See (Station Programming Section - Mode 60) Station Hunt Groups for how to set up a Station Hunt Group.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **65**

```
M:65 .
ST GP RING - DAY
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 4 has no Station Hunt Group set.

```
M:65 04      0
ST GP RING - DAY
```

Step 4: Enter Station Hunt Group number **1- 8** or press **FLASH** to set to 0.

e.g. Set to Station Hunt Group 2

```
M:65 04      2
ST GP RING - DAY
```

Step 5: Press **HOLD** to save change.

```
*:65 04      2
ST GP RING - DAY
```

Step 6: (Optional) Press **CONF** to set ALL Trunks the same.

```
*:65 04      2
ST GP RING - DAY
```

Step 7: (Optional) Press **TRF** to scroll forward to next Trunk or **MIC** to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk
Trunk 5 has no Station Hunt
Group set.

M:65 05	0
ST GP RING - DAY	

(Mode 66) Trunk Station Hunt Group Ringing - Night

Each Trunk can be set to ring a Station Hunt Group for Incoming Calls when the system is in Night Mode.

A Station Hunt Group can be set for both Day Mode and Night Mode.

If one or more Stations from the assigned Station Hunt Group are already ringing due to being a Flexible Ring Station, Console, or Second Console, no extra Station from the Station Hunt Group will ring.

If set to 0 no Station Hunt Group will be used.

See (Station Programming Section - Mode 60) Station Hunt Groups for how to set up a Station Hunt Group.

See (Trunk Programming Section - Mode 65) Trunk Station Hunt Group Ringing - Day and follow the programming procedure to set Trunk Station Hunt Group Ringing - Night.

(Mode 67) Flexible Ring Delay Time - Day

Each Trunk can have a Delay Time before the Flexible Ring Stations will ring for an Incoming Call.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

The Flexible Ring Delay Time can be set for Day Mode, Night Mode, or both.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M: .
Enter Mode No.

Step 2: Enter Mode **67**

M:67 .
FLEX RING DELAY

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 12 has a 10 second Flexible Ring Delay Time.

M:67 12	10
FLEX RING DELAY	

Step 4: Press **FLASH** to clear (an existing time).

M:67 12	0
FLEX RING DELAY	

Step 5: Enter new Flexible Ring Delay Time.

e.g. Set Delay Time to 15 seconds for Trunk 12.

M:67 12	15
FLEX RING DELAY	

Step 6: Press **HOLD** to save change.

*:67 12	15
FLEX RING DELAY	

Step 7: (Optional) Press **CONF** to set ALL Trunks the same.

*:67 12	15
FLEX RING DELAY	

Step 8: (Optional) Press **TRF** to scroll forward to next Trunk or **MIC** to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

M:67 13	0
FLEX RING DELAY	

(Mode 68) Flexible Ring - Day

Each Trunk can ring up to sixteen selected Stations for an Incoming Call. These Stations are known as the Flexible Ring Stations. The Flexible Ring Stations will ring for an Incoming Call only after the Flexible Ring Delay Time expires.

Flexible Ring Stations can be set for Day Mode, Night Mode, or both.

If a Flexible Ring Station is busy, it will be reminded if Flexible Off Hook Ringing (Trunk Programming Section - Mode 72) has been set.

See (Trunk Programming Section - Mode 40) Private Line Assignment if setting Flexible Ring for a Private Line.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **68**

```
M: 68 .
FLEX RING - DAY
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 5

```
M: 68 05 .
FLEX RING - DAY
```

Step 4: Enter a Flexible Ring Station memory position **01 – 16** **Note:** The memory position is a counter to keep track of how many ports have been entered, up to 16 Station ports can be assigned to Ring per Trunk.

```
M: 68 05 01
FLEX RING - DAY
```

Step 5: Press **FLASH** to clear an existing Station Port number.

```
M: 68 05 01
FLEX RING - DAY
```

Step 6: Enter new Station Port number 01 - 40

e.g. Set to Port 012

```
M:68 05 01 012
FLEX RING - DAY
```

OR Press MSG for Station Hunt Group 1 - 9

e.g. Set to Station Hunt Group 9.

```
M:68 05 01STGP:9
FLEX RING - DAY
```

Step 7: Press HOLD to save change.

```
*:68 05 01 12
FLEX RING - DAY
```

Step 8: (Optional) Press TRF to scroll forward to next memory position or MIC to move backward. Repeat from Step 4.e.g. Move to next memory position
To set Port 021 to ring.

```
M:68 05 02
FLEX RING - DAY
```

(Mode 69) Flexible Ring Delay Time - Night

Each Trunk can have a Delay Time before the Flexible Ring Stations will ring for an Incoming Call when the system is in Night Mode.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

The Flexible Ring Delay Time can be set for Day Mode, Night Mode, or both.

Programming Procedure:

See (Trunk Programming Section - Mode 67) Flexible Ring Delay Time - Day and follow the programming procedure to set Flexible Ring Delay Time - Night.

(Mode 70) Flexible Ring - Night

Each Trunk can ring up to sixteen selected Stations for an Incoming Call when the system is in Night Mode. These Stations are known as the Flexible Ring Stations. The Flexible Ring Stations will ring for an Incoming Call only after the Flexible Ring Delay Time expires.

Flexible Ring Stations can be set for Day Mode, Night Mode, or both.

If a Flexible Ring Station is busy, it will be reminded if Flexible Off Hook Ringing (Trunk Programming Section - Mode 72) has been set.

See (Trunk Programming Section - Mode 40) Private Line Assignment if setting Flexible Ring for a Private Line.

Programming Procedure:

See (Trunk Programming Section - Mode 68) Flexible Ring - Day and follow the programming procedure to set Flexible Ring - Night.

(Mode 71) Stepped Ringing

The Flexible Ring Stations for a Trunk can be set to ring all at once or in a stepped pattern.

When Stepped Ringing is set for a Trunk, only one Flexible Ring Station will initially ring for an Incoming Call, an additional Flexible Ring Station will start ringing every six seconds. They will ring in the order set in (Trunk Programming Section - Mode 68) Flexible Ring - Day and (Trunk Programming Section - Mode 70) Flexible Ring - Night.

Stepped Ringing affects both Private Lines and normal Trunks.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 71

```
M:71 .
STEPED RINGING
```

Step 3: Enter Trunk number 01 - 16

e.g. Trunk 2

```
M:71 02      NO
STEPED RINGING
```

Step 4: Press **MSG** (Yes) for Stepped Ringing or **FLASH** (No) for normal.

e.g. Set Trunk to use Stepped Ringing.

```
M:71 02      YES
STEPED RINGING
```

Step 5: Press **HOLD** to save change.

```
*:71 02      YES
STEPED RINGING
```

Step 6: (Optional) Press **CONF** to set ALL Trunks the same.

```

*:71 02      YES
STEPPED RINGING
    
```

Step 7: (Optional) Press **TRF** to scroll forward to the next Trunk or **MIC** to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```

M:71 03      NO
STEPPED RINGING
    
```

(Mode 72) Flexible Off Hook Ringing

Flexible Ring Stations that are busy when an Incoming Call is ringing can be given a Ring signal that there is an Incoming Call.

The Flexible Off Hook Ring Time can be set from 1 to 9999 seconds. When set to 0 there will be no Off Hook Ringing.

The Console and Second Console will receive Off Hook Ringing only if (Trunk Programming Section - Mode 64) Console Off Hook Ringing has been set.

See (Station Programming Section - Mode 10) Off Hook Ring Tone for how to restrict a Station Port from receiving Off Hook Ringing.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```

M:.
Enter Mode No.
    
```

Step 2: Enter Mode **72**

e.g. There is currently no Off Hook Ringing for Flexible Ring Stations.

```

M:72      0
FLEX BUSY REMIND
    
```

Step 3: Press **FLASH** to clear (an existing time).

```

M:72      0
FLEX BUSY REMIND
    
```

Step 4: Enter new Flexible Off Hook Ring Time **1 - 9999**

e.g. Set Off Hook Ring Time to 60 seconds.

```

M:72      60
FLEX BUSY REMIND
    
```

Step 5: Press **HOLD** to save change.

```
*:72          60
FLEX BUSY REMIND
```

(Mode 73) Common Ring Delay Time - Day

Each Trunk can have a Delay Time before the Common Ring Stations will ring for an Incoming Call.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

The Common Ring Delay Time can be set for Day Mode, Night Mode, or both.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **73**

```
M:73 .
COMM RING DELAY
```

Step 3: Enter Trunk number **01 - 16**

e.g. Trunk 3 has a 15 second
Common Ring Delay Time.

```
M:73 03      15
COMM RING DELAY
```

Step 4: Press **FLASH** to clear (an existing time).

```
M:73 03      0
COMM RING DELAY
```

Step 5: Enter new Common Ring Delay Time **0 - 9999**

e.g. Set Delay Time to 10 seconds for
Trunk 3.

```
M:73 03      10
COMM RING DELAY
```

Step 6: Press **HOLD** to save change.

```
*:73 03      10
COMM RING DELAY
```

Step 7: (Optional) Press **CONF** to set ALL Trunks to the same Time.

```
*:73 03      10
COMM RING DELAY
```

Step 8: (Optional) Press **TRF** to scroll forward to next Trunk or **MIC** to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```
M:73 04      0
COMM RING DELAY
```

(Mode 74) Common Ring - Day

The system can ring up to twenty-four selected Stations for an Incoming Call. These Stations are known as the Common Ring Stations. The Common Ring Stations will ring for an Incoming Call only after the Common Ring Delay Time expires.

Common Ring Stations will ring for Incoming Calls on all Trunks. (Private Lines are a possible exception depending on how the Private Line is set up.)

Common Ring Stations can be set for Day Mode, Night Mode, or both.

If a Common Ring Station is busy it will be reminded if a Common Off Hook Ring Time has been set.

See (Trunk Programming Section - Mode 40) Private Line Assignment if setting Common Ring for a Private Line.

See (Trunk Programming Section - Mode 68) Flexible Ring - Day and (Trunk Programming Section - Mode 70) Flexible Ring - Night for how to set Flexible Ring Stations.

See (Trunk Programming Section - Mode 77) Common Off Hook Ringing for how to make busy Common Ring Stations ring.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **74**:

```
M:74 .
COMM RING
```

Step 3: Enter a Common Ring Station memory position **01 – 24** **Note:** The memory position is a counter to keep track of how many ports have been entered, up to 16 Station ports can be assigned to Ring per Trunk.

e.g. Set Ports 13, 14, 16, and 18 as
Common Ring Stations.

```
M:74 01
COMM RING - DAY
```

Step 4: Press **FLASH** to erase an existing Station Port number.

```
M:74 01
COMM RING - DAY
```

Step 5: Enter new Station Port number **01 - 40**

e.g. Set to Port 13.

```
M:74 01      13
COMM RING - DAY
```

OR Press **MSG** for Station Hunt Group **1 - 9**

e.g. Set to Station Hunt Group 1

```
M:74 01  STGP:1
COMM RING - DAY
```

Step 6: Press **HOLD** to save change.

```
*:74 01      13
COMM RING - DAY
```

Step 7: (Optional) Press **TRF** to scroll forward to next memory position or **MIC** to move backward to previous memory position. Repeat from Step 4.

e.g. Move to next position to set
Port 14.

```
M:74 02
COMM RING - DAY
```

(Mode 75) Common Ring Delay Time - Night

Each Trunk can have a Delay Time before the Common Ring Stations will ring for an Incoming Call when the system is in Night Mode.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

The Common Ring Delay Time can be set for Day Mode, Night Mode, or both.

Programming Procedure:

See (Trunk Programming Section - Mode 73) Common Ring Delay Time - Day and follow the programming procedure to set Common Ring Delay Time - Night.

(Mode 76) Common Ring - Night

The system can ring up to twenty-four selected Stations for an Incoming Call when the system is in Night Mode. These Stations are known as the Common Ring Stations. The Common Ring Stations will ring for an Incoming Call only after the Common Ring Delay Time expires.

Common Ring Stations will ring for Incoming Calls on all Trunks. (Private Lines are a possible exception depending on how the Private Line is set up.)

Common Ring Stations can be set for Day Mode, Night Mode, or both.

See (Trunk Programming Section - Mode 77) Common Off Hook Ringing for how to make busy Night Common Ring Stations ring.

A Station from a Station Hunt Group can also be set to ring. Only one Station from the Station Hunt Group will be set to ring. Other Stations in the Station Hunt Group will not be busy reminded.

See (Trunk Programming Section - Mode 40) Private Line Assignment if setting Common Ring for a Private Line.

See (Trunk Programming Section - Mode 68) Flexible Ring - Day and (Trunk Programming Section - Mode 70) Flexible Ring - Night for how to set Flexible Ring Stations.

Programming Procedure:

See (Trunk Programming Section - Mode 74) Common Ring - Day and follow the programming procedure to set Common Ring - Night.

(Mode 77) Common Off Hook Ringing

Common Ring Stations that are busy when an Incoming Call is trying to ring can be given a Off Hook Ring signal that there is an Incoming Call.

The Common Off Hook Ring Time can be set from 1 to 9999 seconds. If set to 0 there will be no Off Hook Ringing.

The Console and Second Console will be reminded only if (Trunk Programming Section - Mode 64) Console Off Hook Ring has been set.

See (Station Programming Section - Mode 10) Off Hook Ring Tone for how to restrict a Station Port from receiving Off Hook Ringing.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M: .	
Enter Mode No.	

Step 2: Enter Mode **77**

e.g. The Off Hook Ring Time
is currently 30 seconds.

M:77	30
COMM BUSY REMIND	

Step 3: Press **FLASH** to clear (an existing time).

M:77	0
COMM BUSY REMIND	

Step 4: Enter new Common Off Hook Ring Time.

e.g. Set Off Hook Ring Time to
60 seconds.

M:77	60
COMM BUSY REMIND	

Step 5: Press **HOLD** to save change.

*:77	60
COMM BUSY REMIND	

(Mode 78) Softkey Pattern for Trunk Ringing

When an Incoming Call rings a Station, the line appearance on the Keyphone can be either a quick flashing red or steady green to indicate ringing.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .  
Enter Mode No.
```

Step 2: Enter Mode 78

```
M:78          RED  
TK RING PATTERN
```

Step 3: Press **MSG** for Green or **FLASH** for Red.

e.g. Use green to show Incoming Call.

```
M:78          GREEN  
TK RING PATTERN
```

Step 4: Press **HOLD** to save change.

```
*:78          GREEN  
TK RING PATTERN
```

External Call Forwarding

There are two methods of Call Forwarding: External and Station.

External Call Forwarding can be set individually for each Trunk for Day Mode and for Night Mode.

External Call Forwarding to an External number is achieved by the use of Speed Dial bins.

After the External Call Forwarding Delay Time expires, a second Trunk is accessed, using Automatic Trunk Selection, and then the number in the assigned Speed Dial bin is dialed. After the External Call Forwarding Duration time expires, both Trunks are automatically released.

Incoming Calls cannot be Call Forwarded to an external number when the Station set to Call Forward is busy. Each Station can handle only ONE External Call Forwarding at a time.

Note: Ensure that the Speed Dial bin is not restricted for the Station that has to dial the number. Speed Dial bins above the (System Programming Section - Mode 63) Speed Dial Toll Restriction Break Point are NOT Toll restricted.

See (Station Programming Section) Station Call Forwarding for how to set Call Forwarding for individual Stations.

(Mode 80) External Call Forwarding Delay Time

A Delay Time can be set for Incoming Call ringing duration, before External Call Forwarding is executed.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **80**

e.g. There is no delay

```
M:80          0
EXT C/F DELAY
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:80          0
EXT C/F DELAY
```

Step 4: Enter new External Call Forwarding Delay Time **0 - 9999**

e.g. Set Delay Time to 15 seconds.

```
M:80          15
EXT C/F DELAY
```

Step 5: Press **HOLD** to save change.

```
*:80          15
EXT C/F DELAY
```

(Mode 81) External Call Forwarding - Day

Speed Dialing is used to store the number to be dialed for External Call Forwarding. A separate Speed Dial bin (01 - 09, 100 - 499) can be assigned to each Trunk for Day Mode, Night Mode, or both.

If set to 0 there will be no External Call Forwarding.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **81**

```
M:81 .
EXT C/F - DAY
```

Step 3: Enter Trunk number **01 - 16**

```
_____
```

e.g. Trunk 18 is not External Call Forwarding.

```
M:81 18      0
EXT C/F - DAY
```

Step 4: Press **FLASH** to clear (an existing Speed Dial).

e.g. Set No Call Forwarding

```
M:81 18      0
EXT C/F - DAY
```

Step 5: Enter new Speed Dial bin (01 - 09, 100 - 499)

e.g. Set to Speed Dial bin 167

```
M:81 18      167
EXT C/F - DAY
```

Step 6: Press **HOLD** to save change.

```
*:81 18      167
EXT C/F - DAY
```

Step 7: (Optional) Press **TRF** to scroll forward to the next Trunk or **MIC** to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk
No Call Forwarding is set.

```
M:81 19      0
EXT C/F - DAY
```

(Mode 82) External Call Forwarding - Night

Speed Dialing is used to store the number to be dialed for External Call Forwarding. A separate Speed Dial bin (01 - 09, 100 - 499) can be assigned to each Trunk for Day Mode, Night Mode, or both.

Programming Procedure:

See (Trunk Programming Section - Mode 81) External Call Forwarding - Day and follow the programming procedure to set External Call Forwarding - Night.

(Mode 83) External Call Forwarding Duration

The External Call Forwarding Duration determines the length of the call before the Trunks are automatically released.

The call duration can be set from 1 to 9999 seconds. If set to 0 there will be no External Call Forwarding.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M:.  
Enter Mode No.
```

Step 2: Enter Mode **83**

e.g. Call Duration is currently
180 seconds.

```
M:83      180  
EXT C/F DURATION
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:83      0  
EXT C/F DURATION
```

Step 4: Enter new Call Duration.

e.g. Set Call Duration 300 seconds.

```
M:83      300  
EXT C/F DURATION
```

Step 5: Press **HOLD** to save change.

```
*:83      300  
EXT C/F DURATION
```

Trunk Dial Operation**(Mode 85) Call Duration Warning Tone Time**

When a Station is on an Outgoing Call an audible Warning Tone is given to the Station at a regular interval to indicate the duration of the call.

The time interval for the Warning Tone can be set from 30 to 9999 seconds.

See (Station Programming Section - Mode 08) Call Duration Warning Tone for how to set the Call Duration Warning Tone for individual Stations.

Warning: Do NOT set Call Duration Warning Tone on a Station port used for Voice Mail or Fax machine as it may interfere with operation of these devices.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **85**

e.g. Currently set to 180 seconds.

```
M:85      180
WARN TONE TIME
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:85      0
WARN TONE TIME
```

Step 4: Enter new Warning Tone Time **30 - 9999**

e.g. Set to 120 seconds.

```
M:85      120
WARN TONE TIME
```

Step 5: Press **HOLD** to save change.

```
*:85      120
WARN TONE TIME
```

(Mode 86) No Dial Time-out

A time duration can be set to limit Trunk access with no digits being dialed. The Trunk is released once the time has expired.

The No Dial Time can be set from 1 to 9999 seconds. If set to 0 there will be no Time-out.

Note: A Trunk can be accessed at the same time it is about to ring. This means the user connects with the Incoming Call but for the system it is an Outgoing Call. If this occurs when No Dial Time has been set, a digit has to be dialed, otherwise, the Trunk will be released once the No Dial Time has expired.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **86**

e.g. It is set for no Time-out.

```
M:86      0
NO DIAL TIME-OUT
```

Step 3: Press **FLASH** to clear (an existing time).

e.g. Set to no Time-out

```
M:86      0
NO DIAL TIME-OUT
```

Step 4: Enter new No Dial Time **1 - 9999**

e.g. Set No Dial Time to 20 seconds

```
M:86      20
NO DIAL TIME-OUT
```

Step 5: Press **HOLD** to save change.

```
*:86      20
NO DIAL TIME-OUT
```

(Mode 87) Keyphone Trunk Dial Time

A time duration can be set to limit Keyphone dialing time on a seized Trunk at the start of a Trunk Call.

Once the time expires the Keyphone can not dial out on the Trunk.

The Keyphone Trunk Dial Time can be set from 1 to 9999 seconds. If set to 0 there will be no Dial Time limit.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **87**

e.g. Dial Time is currently
40 seconds.

```
M:87      40
KEY TK DIAL TIME
```

Step 3: Press **FLASH** to clear (an existing time).

e.g. Set no Dial Time limit

```
M:87      0
KEY TK DIAL TIME
```

Step 4: Enter new Dial Time.

e.g. Set Dial Time to 25 seconds

```
M:87      25
KEY TK DIAL TIME
```

Step 5: Press **HOLD** to save change.

```
*:87      25
KEY TK DIAL TIME
```

SMDR Operation

The SMDR is used to output details of Call Records in ASCII format to a printer. The Call Records can also be used by a Call Accounting device, innFone Front Desk package, or a Property Management System (PMS).

Incoming Calls, Transferred Calls, Intercom Calls, Appointment / Wake-up Calls can also be printed by the SMDR.

Refer to the *Installation Manual* on how to set up the SMDR.

(Mode 90) SMDR Minimum Call Duration

A Minimum Call Duration for Outgoing Calls being printed by the SMDR (Station Message Detail Recorder) can be set. Outgoing Calls of duration less than the minimum will not be printed.

The Minimum Call Duration can be set from 0 to 9999 seconds.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **90**

e.g. Minimum Time is currently
15 seconds.

```
M:90      15
SMDR MIN DURATON
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:90      0
SMDR MIN DURATON
```

Step 4: Enter new Minimum Call Duration **0 - 9999**

e.g. Set Minimum Time to 10 seconds

```
M:90      10
SMDR MIN DURATON
```

Step 5: Press **HOLD** to save change.

```
*:90      10
SMDR MIN DURATON
```

(Mode 91) SMDR Print Intercom Calls

The SMDR is used to output details of Call Records in ASCII format to a printer. Intercom Calls can also be printed by the SMDR.

Setting Intercom Calls to print will result in one record for each Intercom Call made on the system. This is normally only used for trouble shooting.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **91**

```
M:91          NO
INTERCOM CALLS
```

Step 3: Press **MSG** for Print or **FLASH** for No Print.

e.g. Set to printing Intercom Calls

```
M:91          YES
INTERCOM CALLS
```

Step 4: Press **HOLD** to save change.

```
*:91          YES
INTERCOM CALLS
```

(Mode 92) SMDR Print Appointment Calls

The SMDR is used to output details of Call Records in ASCII format to a printer. Appointment / Wake-up Calls can also be printed by the SMDR.

Setting Appointment / Wake-up Calls to print will result in one record for each Appointment / Wake-up Call made on the system. All three attempts to make a Wake-up Call will be shown. This is normally only used for Hotel operation to confirm the Wake-up Call was made.

The Daily Wake-up / Remind Call is not printed.

Programming Procedure:

See (Trunk Programming Section - Mode 91) SMDR Print Intercom Calls and follow the programming procedure to set SMDR Print Appointment Calls.

(Mode 93) SMDR Date Format

The SMDR is used to output details of Call Records in ASCII format to a printer. The date format for each record can be in a DD/MM or MM/DD format.

Incoming Calls, Transferred Calls, Intercom Calls, Appointment / Wake-up Calls when printed by the SMDR also use this format.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **93**

```
M: 93          MM/DD
SMDR DATE FORMAT
```

Step 3: Press **MSG** for DD/MM or **FLASH** for MM/DD.

e.g. Set date to DD/MM format

```
M: 93          DD/MM
SMDR DATE FORMAT
```

Step 4: Press **HOLD** to save change.

```
*: 93          DD/MM
SMDR DATE FORMAT
```

Forced Account Code

(Mode 94) Forced Account Code

Forced Account Code can be used to ensure an account code is entered before an idle Trunk is accessed.

Forced Account Code can use either a length or a verification table to recognize account code numbers.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M: .
Enter Mode No.

Step 2: Enter Mode **94**

M: 94 NO
FORCE ACC CODE

Step 3: Press **MSG** (Yes) for Forced or **FLASH** (No) Not Forced.

e.g. Set to use Forced Account Code

M: 94 YES
FORCE ACC CODE

Step 4: Press **HOLD** to save change.

*: 94 YES
FORCE ACC CODE

(Mode 95) Forced Account Code Length

Forced Account Code can be used to ensure an account code is entered before an idle Trunk is accessed.

The account code length can be set from 1 to 6 digits. If set to 0 the Forced Account Code Table will be used to verify the account codes.

Note: The Forced Account Code Length must be set to 0 to use the Forced Account Code Table.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [PROG-PROG-1-2-3-HOLD] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 95

e.g. Account Code Length is set to 6 digits.

```
M: 95      6
ACC CODE LENGTH
```

Step 3: Press FLASH to clear (an existing length).

```
M: 95      0
ACC CODE LENGTH
```

Step 4: Enter new Account Code Length 0 - 6

e.g. Set for 4 digit Account Codes

```
M: 95      4
ACC CODE LENGTH
```

Step 5: Press HOLD to save change.

```
*: 95      4
ACC CODE LENGTH
```

(Mode 96) Forced Account Code Table

Forced Account Code can be used to ensure an account code is entered before an idle Trunk is accessed.

The account code table can have up to 96 different account codes. Forced Account Code Length must be set to 0 to use the account code table to verify the account codes.

Note: The Forced Account Code Length must be set to 0 to use the Forced Account Code Table.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **96**

```
M:96 .
ACC CODE TABLE
```

Step 3: Enter memory position number **01 – 96** **Note:** The memory position is a counter to keep track of how many Account codes have been entered, up to 96 Account codes can be assigned.

e.g. first Account Code

```
M:96 01 4728
ACC CODE TABLE
```

Step 4: Press **FLASH** to clear (an existing Account Code).

```
M:96 01
ACC CODE TABLE
```

Step 5: Enter new Account Code (up to 6 digits).

e.g. Set Account Code to 2881

```
M:96 01 2881
ACC CODE TABLE
```

Step 6: Press **HOLD** to save change.

```
*:96 01 2881
ACC CODE TABLE
```

Step 7: (Optional) Press **TRF** to scroll forward to next memory position or **MIC** to move backward to previous memory position. Repeat from Step 4.

e.g. Move to next Account Code

```
M:96 02 5532
ACC CODE TABLE
```

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Station Programming Section

System Programming is divided into three separate sections for ease of access. The sections are Trunk Programming Section, Station Programming Section, and System Programming Section.

Station Programming Section has been grouped into categories.

- Station Class-of-Service
- Console
- Operator Operation
- Station Hunt Groups
- Station
- Station Call Forwarding
- Single-line Telephone

Ports and Station Numbering

Station Port numbering is fixed by the position of the Port on the Station Card and the location of the Station Card in the system. The number of Station Ports depends on the configuration of the system. The Station Port number is used when doing System Programming.

A Station number is a flexible number assigned to each Station Port for intercom calling and identification. Station numbers can be one to four digits and different length Station numbers can be mixed (e.g. 1 - 6, 10 - 69, 100 - 699, 1000 - 6999).

Note: Watch for Station numbering conflicts. For example, if Station number 20 is used, Station numbers 200 - 209 and 2000 - 2099 are unavailable.

The default Station numbering is set by System DIP switch 6. Refer to the *Hardware Programming* section for more on setting DIP switches.

Programming using Flexible Station Numbers

When System Programming requires a Station Port number to be entered, a Station number can be entered instead. The Station number can be used in two places: one is as an index parameter, the second is as the data value to be saved.

To enter a Station number, press the **PROG** key and then enter the Station number. Once a valid Station number has been entered, proceed with the next step.

Example:

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **04**

```
M:04
Make Paging Call
```

Step 3: Enter a Station number (instead of Port No.) Press **PROG + Station No.**

e.g. System automatically enters proper Port number 16.

```
M:04 16      YES
ST:25      LCD
```

Proceed to next Step

Station Class-of-Service

Station Class-of-Service is used to define the operation of individual Station Ports.

(Mode 01) Put Call on Hold

Each Station Port can be restricted from putting a Trunk or Intercom Call on hold. When a Station Port, which is restricted from putting a call on hold, presses the **HOLD** key or does a hook-flash, the Station Port remains with the call.

Warning: The Console, Operator, and Voice Mail ports need to put a call on hold to transfer a call.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
```

Enter Mode No.

Step 2: Enter Mode 01

M:01 .
PUT CALL ON HOLD

Step 3: Enter Station Port number 001 - 400

e.g. Port 023 is Station 132.

M:01 23 YES
ST:132 LCD

Step 4: Press MSG (Yes) for Put Call on Hold or FLASH (No) to restrict.

e.g. Set to restrict putting a call on hold.

M:01 23 NO
ST:132 LCD

Step 5: Press HOLD to save change.

*:01 23 NO
ST:132 LCD

Step 6: (Optional) Press CONF to set ALL Station Ports the same. Please note Warning.

e.g. All Stations can not put a call on hold.

*:01 23 NO
ST:132 LCD

Step 7: (Optional) Press TRF to scroll forward to next Station Port or MIC to move backward. Repeat from Step 4.

e.g. Move to next Station Port Port 24 can put a call on hold.

M:01 24 YES
ST:138 LCD

(Mode 02) Call Pickup

Each Station Port can be restricted from doing Call Pickup.
(MSG = Yes = Allow Call Pickup)

All three types : System Call Pickup, Group Call Pickup, and Directed Call Pickup are restricted.

Refer to the *Easy Reference Guide* for how to use Call Pickup from a Station.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Call Pickup.

(Mode 03) Receive Paging Calls

Paging Calls can be made through External Page Zones or over the speaker of idle Keyphones. Station Ports can be restricted from receiving Paging Calls.
(MSG = Yes = Receive Paging Calls)

Refer to the *Easy Reference Guide* for how to make a Paging Call from a Station.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Receive Paging Calls.

(Mode 04) Make Paging Calls

Paging Calls can be made through External Page Zones or over the speaker of idle Keyphones. Station Ports can be restricted from making a Paging Call.
(MSG = Yes = Make Paging Calls)

Refer to the *Easy Reference Guide* for how to make a Paging Call from a Station.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Make Paging Calls.

(Mode 05) Be Barged Into

A Keyphone can be allowed to Barge or Monitor another Station. A Station can be protected from being Barged or Monitored.

(MSG = Yes = Not protected from Barging and Monitoring)

Refer to the *Easy Reference Guide* for how to make a Monitoring Call or Barge a Trunk or Station.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Be Barged Into.

(Mode 06) Barge Another Station

A Keyphone can be allowed to Barge or Monitor another Station. A Keyphone Station can be given the privilege of Barging or Monitoring another Station.

(MSG = Yes = Can Barge or Monitor another Station)

Refer to the *Easy Reference Guide* for how to make a Monitoring Call or Barge a Trunk or Station.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Barge Another Station.

(Mode 07) Ring for System Alarm

System Alarms can be set to put music over the speaker of idle Keyphones. A Keyphone Station can be restricted from receiving System Alarms.

(MSG = Ring for System Alarms, FLASH = Not Ring)

See (System Programming Section) System Alarms for how to set System Alarms.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Ring for System Alarms.

(Mode 08) Call Duration Warning Tone

When a Station is on an Outgoing Call an audible Warning Tone is given to the Station at a regular interval to indicate the duration of the call. A Station can be restricted from receiving the audible Warning Tone.

(MSG = Yes = Warning Tone)

See (Trunk Programming Section - Mode 85) Call Duration Warning Tone Time for setting the warning tone time.

Warning: Do NOT set Call Duration Warning Tone on a Station port used for Voice Mail or Fax machine as it may interfere with operation of these devices.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Call Duration Warning Tone.

(Mode 09) Camp-On Tone

When a Trunk or Station Call is transferred to a busy Station a Camp-On Tone is given to the Station. This is a short Ring burst if Keyphone or audible Tone if single-line telephone. A Station can be restricted from receiving the Camp-On Tone.

(MSG = Yes = Camp-On Tone)

Refer to the *Easy Reference Guide* for how to Transfer a Call to another Station.

Warning: Do NOT set Camp-On Tone on a Station port used for Voice Mail or Fax machine as it may interfere with operation of these devices.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Camp-On Tone.

(Mode 10) Off Hook Ring Tone

When an Incoming Call on a Trunk is ringing a busy Station a Ring Tone is given to the Station. This is a short Ring burst if Keyphone or audible Tone on handset if single-line telephone. A Station can be restricted from receiving the Off Hook Ring Tone.

(MSG = Yes = Off Hook Ring Tone)

See (Trunk Programming Section) Trunk Ringing for how to set a Station Port to ring for an Incoming Call.

Warning: Do NOT set Off Hook Ring Tone on a Station port used for Voice Mail, Fax machine or Modem as it may interfere with operation of these devices.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Busy Remind Tone.

(Mode 11) Hold Recall Remind Tone

When a Call has been on Hold for longer then the Hold Recall Time, the Call rings the Station which put the Call on Hold. If the Station is busy, a Hold Recall Remind Tone is given to the Station. This is a short Ring burst if Keyphone or audible Tone if single-line telephone. A Station can be restricted from receiving the Hold Recall Remind Tone. **(MSG = Yes = Hold Recall Remind Tone)**

See (Station Programming Section - Mode 77) System Hold Recall Time, (Mode 78) System Hold Recall Busy Remind, and (Mode 79) Transfer Recall Time for how to set Hold Recall.

Warning: Do NOT set Hold Recall Remind Tone on a Station port used for Voice Mail or Fax machine as it may interfere with operation of these devices.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Hold Recall Remind Tone.

(Mode 12) Programming Rights

A Keyphone can access System Programming using a password. The PROG Lamp on the Keyphone will light when accessing programming. A Station can be restricted from accessing System Programming. Restricting Programming Rights also denies System Speed Dial Programming access.

(MSG = Yes = Programming Rights)

Note: A Keyphone set as Console 1 can always access System Programming using the Master Password.

See *Introduction to Programming* for how to access System Programming from a Keyphone.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Programming Rights.

(Mode 13) Set Message Waiting Lamp

When a message has been set to a single-line telephone, a Message Waiting Lamp can be set to indicate that a message is waiting. If the Station is busy the Lamp will remain off. A Station can be set to use the Message Waiting Lamp feature.

(MSG = Yes = Set Message Waiting Lamp)

See (Station Programming Section - Mode 94) SLP Message Waiting Lamp Time for how to set the Message Waiting Lamp Cadence on a single-line telephone.

Note: The single-line telephone must have a Neon lamp which works with 90 VDC across Tip & Ring to be used as a Message Waiting Lamp. Not all systems provide the 90 VDC.

Refer to the *Easy Reference Guide* for more information about setting and answering a Message Waiting.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Set Message Waiting Lamp.

(Mode 14) Automatic Message Callback

When a message has been set to a Station Port, the Station will ring at a regular interval if idle to indicate that a message is waiting. When answered, the Station will call to the Station which left the message. A Station can be set to use the Automatic Message Callback feature.

(MSG = Yes = Automatic Message Callback)

See (Station Programming Section - Mode 95) Message Waiting Ring Time for how to set the interval between ring attempts.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Automatic Message Callback.

(Mode 15) Message Waiting Indication on DSS Unit

When a message has been set to a Station Port, a Message Waiting Lamp can be set to indicate that a message is waiting. When a Station has a Message Waiting, the DSS Unit can also be set to show an indication. This allows the Operator to know which Stations have a Message Waiting.

See (Station Programming Section) Single-line Telephone for how to set up Message Waiting for a Single-line Telephone Port.

Refer to the *Easy Reference Guide* for how to set a Message to a Station.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure to set Message Waiting Indication on DSS Unit.

(Mode 16) Transfer Recall to Voice Mail

Each Station Port can be set to send any transferred call from another Station port to Voice Mail. When set to "YES" all transferred calls recall to your Mailbox rather than the Station that transferred the call.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 16

```
M:16 .
TRF RECALL TO VM
```

Step 3: Enter Station Port number **001 - 400**

e.g. Port 023 is set to "NO"

```
M:16 23      NO
ST:132  LCD
```

Step 4: Press **MSG** (Yes) for Recall to VM or **FLASH** (No) to Recall to transferring Station.

e.g. Set to Recall to VM

```
M:16 23      YES
ST:132  LCD
```

Step 5: Press **HOLD** to save change.

```
*:16 23      YES
ST:132  LCD
```

Step 6: (Optional) Press **CONF** to set ALL Station Ports the same.

e.g. All Stations Recall to VM.

```
*:16 23      YES
ST:132  LCD
```

Step 7: (Optional) Press TRF to scroll forward to next Station Port or **MIC** to move backward. Repeat from Step 4.

e.g. Move to next Station Port.
Port 24 does not Recall to VM.

```
M:16 24      NO
ST:138  LCD
```

(Mode 17) Hold Recall to Voice Mail

Each Station Port can be set to send any call left on Hold to Voice Mail. When set to "YES" all calls left on Hold will recall to your Mailbox rather than your Station.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 17

```
M:17 .
HOLD RECALL TO V
```

Step 3: Enter Station Port number **001 - 400**

e.g. Port 023 is set to "NO"

```
M:17 23      NO
ST:132  LCD
```

Step 4: Press **MSG** (Yes) for Hold Recall to VM or **FLASH** (No) to Recall to Station.

e.g. Set to Hold Recall to VM.

```
M:17 23      YES
ST:132  LCD
```

Step 5: Press **HOLD** to save change.

```
*:17 23      YES
ST:132  LCD
```

Step 6: (Optional) Press **CONF** to set ALL Station Ports the same.

e.g. All Stations Recall to VM.

```
*:17 23      YES
ST:132  LCD
```

Step 7: (Optional) Press TRF to scroll forward to next Station Port or **MIC** to move backward. Repeat from Step 4.

e.g. Move to next Station Port
24 does not HOLD Recall to VM.

```
M:17 24      NO
ST:138  LCD
```

(Mode 19) Whisper Announce

Each Station Port can be set to receive Whisper Announcements while on another Trunk call. When receiving a Whisper announce the calling internal party is heard in the receiver of the handset along with the outside party.

Only the internal receiving party will hear the whisper announcement, the outside caller does not hear the Whisper announcement.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M:.
Enter Mode No.

Step 2: Enter Mode **19**

M:19 .
WHISPER ANNOUNCE

Step 3: Enter Station Port number **001 - 400**

e.g. Port 023 is set to "NO"

M:19 23	NO
ST:132	LCD

Step 4: Press **MSG** (Yes) to receive Whisper Announce or **FLASH** (No) to Restrict Whisper Announce.

e.g. Set to Receive Whisper Announce.

M:19 23	YES
ST:132	LCD

Step 5: Press **HOLD** to save change.

*:19 23	YES
ST:132	LCD

Step 6: (Optional) Press **CONF** to set ALL Station Ports the same.

e.g. All Stations Recall to VM.

*:19 23	YES
ST:132	LCD

Step 7: (Optional) Press TRF to scroll forward to next Station Port or **MIC** to move backward. Repeat from Step 4.

e.g. Move to next Station Port 24 which does not Receive Whisper Announce.

M:19 24	NO
ST:138	LCD

(Mode 20) Intercom Call Voice Announce

When receiving an Intercom Call, a Keyphone can be set to either ring until answered or give a short tone before switching to Voice Announce. If the Station has set Call Forward - Busy / No Answer then the Station will ring automatically. (**MSG** = Yes = Voice Announce, **FLASH** = No = Ring)

Warning: Do NOT use Intercom Call Voice Announce in an environment which has a high back ground noise level.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Intercom Call Voice Announce.

(Mode 21) Intercom Microphone On

When a Voice Announce Intercom Call is made to a Keyphone, the microphone can be set to automatically turn on for Voice response.

(MSG = Yes = Microphone On)

Note: If the microphone is set to turn on for a Voice Announce Call, then the call is considered to be answered (i.e. Call Pickup will not work).

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Intercom Microphone On.

(Mode 22) Voice Announce Ring

When an Intercom Call is made to a Keyphone which is set for Voice Announce, either a one-second ring or a short tone is received before the caller can announce the call.

(MSG = Ring, FLASH = Tone)

Note: If the microphone is set to turn on for a Voice Announce Call, then the call is considered to be answered (i.e. Call Pickup will not work).

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Voice Announce Ring.

(Mode 23) Automatic Outside Line

A Station Port can be set so that lifting the handset automatically accesses a Trunk from a Trunk Hunt Group. This eases operation of devices which only do outward dialing. (**MSG = Yes = Automatic Outside Line**)

See (Station Programming Section - Mode 74) Trunk Hunt Group Assignment for assigning a Trunk Hunt Group to a Station Port.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Automatic Outside Line.

(Mode 24) Idle Trunk Access Microphone

When a Keyphone accesses an idle Trunk, the microphone can be set to automatically turn on. (**MSG = Yes = Microphone On**)

Refer to the *Easy Reference Guide* for how to access an idle Trunk.

Warning: Do NOT use Idle Trunk Access Microphone in an environment which has a high back ground noise level.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Idle Trunk Access Microphone.

(Mode 25) Speed Dial Directory

A Keyphone can be set to use the Speed Dial Directory when accessing Speed Dial to preview the number and name before accessing a Trunk and dialing. (**MSG = Yes = Use Speed Dial Directory**)

Refer to the *Easy Reference Guide* for how to access and program Speed Dial bins.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Speed Dial Directory.

(Mode 26) Display Caller ID Information

When using Caller ID for identification on Incoming Calls, each Trunk can be set to display either the number or name for Keyphones. The Caller ID information is shown on the LCD display of the Keyphone and when printing Incoming SMDR Call Records.

(MSG = Yes = Display Caller ID Information)

See (Trunk Programming Section - Mode 05) Caller ID Name for how to set the Name of the calling party on the display.

Note: The facility used for Caller ID is supplied by the Central Office exchange and may not be able to always supply either number or name (not available in every country).

Refer to the *Installation Guide* for more information on using Caller ID.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Display Caller ID Information.

(Mode 27) Operator Call

A Station Port can be restricted from dialing 0 for the Operator when on a Trunk.

(MSG = Yes = Can Dial 0 for Operator)

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Operator Call.

(Mode 28) Headset Operation

A Station Port can be allowed to activate the Headset feature.

(MSG = No = Can not use the Headset operation)

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Operator Call.

(Mode 30) SLP Conference

A SLP Port can be restricted from setting up a 3 party conference.

(MSG = No = Can not use 3 party conferencing)

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Operator Call.

(Mode 31) House Phone

A Station Port can be set to work as a House Phone. Lifting the handset automatically calls the Operator. (**MSG** = Yes = House Phone)

See (Station Programming Section) Operator Operation for how to set Operator Call Destination.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting House Phone.

(Mode 32) Ring Door Phone Group 1

A Station Port can be set to ring all Stations assigned in Door Phone Ring Group 1. Lifting the handset automatically rings the Stations assigned to the ring group. (**MSG** = Ring, **FLASH** = Not Ring)

See (System Programming Section - Mode 45) Door Phone Ring Group 1 for how to set Station Ports to ring for the Door Phone.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Ring Door Phone Group 1.

(Mode 33) Ring Door Phone Group 2

A Station Port can be set to ring all Stations assigned in Door Phone Ring Group 2. Lifting the handset automatically rings the Stations assigned to the ring group. (**MSG** = Ring, **FLASH** = Not Ring)

See (System Programming Section - Mode 46) Door Phone Ring Group 2 for how to set Station Ports to ring for the Door Phone.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Ring Door Phone Group 2.

(Mode 34) Voice Mail Port

A Station Port can be set as a Voice Mail Port. Voice Mail Ports are single-line telephone ports. Programming a Station Port as a Voice Mail Port will stop

interference from Camp-On Tone, Busy Remind Tone, and Hold Recall Remind Tone, which will interfere with Voice Mail operation. DTMF signals will also be generated for Station Ports which do not generate DTMF. Supervised transfers will automatically ring voice announce Keyphones. (**MSG = Yes = Voice Mail Port**)

See (System Programming Section) Voice Mail Interface for how to set a Station Port as a Voice Mail Port.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Voice Mail Port.

(Mode 35) Receive DTMF on Intercom

A Station Port can be set to receive DTMF during an Intercom Call. A second Inband Signaling scheme is available for a second set of devices that require Inband Signaling. DTMF signals will also be generated for Station Ports that do not generate DTMF. (**MSG = Yes = Receive DTMF on Intercom**)

See (System Programming Section) Inband Signaling 2 for how to set a Station Port to receive DTMF on Intercom.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Receive DTMF on Intercom.

(Mode 36) Allow Intercom Calls

A Station Port is normally allowed to make Station to Station Intercom Calls. A Station can be restricted from initiating an Intercom Call. Stations can not be restricted from receiving an Intercom Call. (**MSG = Yes = Allow Intercom Calls**)

Refer to the *Easy Reference Guide* for how to make an Intercom Call to another Station.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for setting Allow Intercom Calls.

(Mode 37) Reserve a Trunk or Station (7)

A Station Port can be allowed to reserve a busy Trunk or Station. When the Trunk or Station become idle the reserving Station will be automatically called, answering

will access the Trunk or call the reserved Station. A Station can be restricted from reserving a busy Trunk or Station. (**MSG** = Yes = Allow Reserve a Trunk or Station)

Refer to the *Easy Reference Guide* for how to reserve a busy Trunk or Station.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Reserve a Trunk or Station.

(Mode 38) Use Call Forward (71, 72)

A Station Port can use Call Forwarding to forward a call directed at that Station. A Station can forward all calls or when busy / no answer. A Station can be restricted from using Call Forward. (**MSG** = Yes = Allow setting Call Forward)

See (Station Programming Section) Station Call Forwarding for how to set a Station Call Forwarding.

Refer to the *Easy Reference Guide* for how to access and program Call Forward.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Use Call Forward.

(Mode 39) Set Wake-up / Remind Calls (741, 742)

A Station Port can be allowed to set a Wake-up / Remind Call. A daily or once only call can be set up. A Station can be restricted from setting a Wake-up / Remind Call.

(**MSG** = Yes = Allow setting a Wake-up / Remind Call)

Refer to the *Easy Reference Guide* for how to set a Wake-up / Remind Call.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Set Wake-up / Remind Calls.

(Mode 40) Set Message Waiting (743)

A Station Port can be allowed to set a Message Waiting on another Station. The MSG Lamp on a Keyphone or single-line telephone will light when a message is waiting. A Station can be restricted from setting a Message Waiting.
(MSG = Yes = Allow setting Message Waiting)

Refer to the *Easy Reference Guide* for how to set a Message Waiting.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Set Message Waiting.

(Mode 41) Answer a Page Call (745)

Paging Calls can be made through External Page Zones or over the speaker of idle Keyphones. A Paging Call can be answered from a Station. Station Ports can be restricted from answering Paging Calls.
(MSG = Yes = Allow Answer Paging Calls)

Refer to the *Easy Reference Guide* for how to make a Paging Call from a Station.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Answer Paging Calls.

(Mode 42) Program Personal Speed Dial (746)

Each Station Port has nine Personal Speed Dial bins (01 - 09). A Speed Dial bin has to be programmed before it can be used. A Station can be restricted from programming the Personal Speed Dial bins.
(MSG = Yes = Allow Program Personal Speed Dial)

Refer to the *Easy Reference Guide* for how to access and program Speed Dial bins.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Program Personal Speed Dial.

(Mode 43) Set Do-Not-Disturb (747)

A Station Port can be allowed to set Do-Not-Disturb for privacy or blocking calls to the Station. The DND Lamp on a Keyphone will light when Do-Not-Disturb is set.

A Station can be restricted from setting Do-Not-Disturb. Single-line telephones will receive special tone when Do-Not-Disturb is set.

(MSG = Yes = Allow setting Do-Not-Disturb)

Refer to the *Easy Reference Guide* for how to set Do-Not-Disturb.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Use Do-Not-Disturb.

(Mode 44) Use Conference (748)

A Station Port can be allowed to set up a Conference Call between two or more parties. The INT Lamp on a Keyphone will light when a Conference is made. A Station can be restricted from setting up a Conference Call.

(MSG = Yes = Allow making Conference Call)

Refer to the *Easy Reference Guide* for how to set up a Conference Call.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Use Conference.

(Mode 45) Use Lock Code (749)

A Station Port can be allowed to lock the Station to restrict access for outgoing calls. Check In / Check Out can be used to clear lock codes. A Station can be restricted from using a Lock Code. **(MSG = Yes = Allow setting Lock Code)**

Refer to the *Easy Reference Guide* for how to use Lock Code.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Use Lock Code.

(Mode 46) Use Hold Pickup (75)

A Station Port can be allowed to access the last Trunk or Station put on hold by another Station. This is an alternate to using a Call Park Bin. A Station can be restricted from using Hold Pickup. **(MSG = Yes = Allow using Hold Pickup)**

Refer to the *Easy Reference Guide* for how to use Hold Pickup.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Use Hold Pickup.

(Mode 47) Use Call Parking (76)

A Trunk or Station can be transferred into one of ten system Call Park bins. A Station Port can be restricted from accessing the Call Park bins.

(MSG = Yes = Allow using Call Parking)

Refer to the *Easy Reference Guide* for how to use Call Parking.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Use Call Parking.

(Mode 48) Use Individual Trunk Access (77)

Individual Trunks can be accessed by a Station Port. The Trunk is accessed if it is either idle or on hold. A Station can be restricted from using individual trunk access.

(MSG = Yes = Allow using Individual Trunk Access)

Refer to the *Easy Reference Guide* for how to access individual Trunks.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting Use Individual Trunk Access.

(Mode 49) Access Speed Dial (70)

The system has 400 System Speed Dial bins (100 - 499) and each Station Port has nine Personal Speed Dial bins (01 - 09). Speed Dial bins are also used for Call Forwarding. A Station can be restricted from accessing Speed Dial bins.

(MSG = Yes = Allow access to Speed Dial)

Note: Speed Dial bins are also used for Call Forwarding. Denying access will also deny the Call Forwarding.

Refer to the *Easy Reference Guide* for how to access and program Speed Dial bins.

Programming Procedure:

See (Station Programming Section - Mode 01) Put Call on Hold and follow the programming procedure for restricting access to Speed Dial.

Console

The system can operate with one or two Consoles.

The Second Console can work either in parallel or differently to the main Console. The Console(s) have separate Incoming Call Ringing assignments, Console System Hold Recall Delay times, and when called as the Operator.

When a Station calls the Operator the call will ring the Tenant Operator, a Station from a Station Hunt Group or the Console(s).

(Mode 50) Console

The Station that is to be used as the main Console can be selected. The Console can be assigned two different Station Ports. One for Day Mode and one for Night Mode.

There must always be a Console and the Console must be a Keyphone.

Refer to the *Easy Reference Guide* on how to set an alternate Operator for the Operator Stations.

See (Station Programming Section) Operator Destination for how to set the Operator Call destination.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **50**

```
M:50 .
CONSOLE 1
```

Step 3: Enter **1** for Day or **2** for Night

e.g. The Day Console is currently Port 1.

```
M:50 1      1
CONSOLE 1
```

Step 4: Press **FLASH** to clear (an existing Station Port number).

```
M:50 1
CONSOLE 1
```

Step 5: Enter new Station Port number for Console 001 - 400

e.g. Set Day Console to Port 14.

```
M:50 1      14
CONSOLE 1
```

Step 6: Press HOLD to save change.

```
*:50 1      14
CONSOLE 1
```

Step 7: (Optional) Press TRF to scroll forward to (2) Night Console.

e.g. Night Console is Port 1.

```
M:50 2      1
CONSOLE 1
```

(Mode 51) Second Console

The Station Port to be used as the Second Console can be selected. The Second Console can be assigned two different Station Ports. One for Day Mode and one for Night Mode.

Normally when the Operator is dialed, the main Console will ring. The Second Console will ring if the main Console is busy. However both the Console and Second Console can ring simultaneously when the Operator is called.

See (Station Programming Section) Operator Destination for how to set the Operator Call destination.

Refer to the *Easy Reference Guide* on how to set an alternate Operator for the Operator Stations.

Programming Procedure:

See (Station Programming Section - Mode 50) Console and follow the programming procedure to set the Second Console.

(Mode 52) Console Hold Recall Busy Remind

If the Console and Second Console are busy when a call put on hold is trying to recall, a Remind signal can be given that there is a recalling Trunk or Station.

The Console Hold Recall Busy Remind can be set from 1 to 9999 seconds. If set to 0 there will be no Busy Remind.

Console Hold Recall Busy Remind overrides System Hold Recall Busy Remind for the Console and Second Console.

See (Trunk Programming Section - Mode 64) Console Ring Busy Remind for setting a Remind signal to the Console and Second Console for an Incoming Call.

See (Station Programming Section - Mode 77) System Hold Recall Time for setting the Hold Recall Time for calls put on hold by the Console and Second Console.

See (Station Programming Section - Mode 79) Transfer Recall Time for setting the Recall Time for unanswered transferred Trunk Calls.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M: .	
Enter Mode No.	

Step 2: Enter Mode **52**

e.g. No Console Hold Recall
Busy Remind.

M: 52	0
CONS HOLD REMIND	

Step 3: Press **FLASH** to clear (an existing time).

M: 52	0
CONS HOLD REMIND	

Step 4: Enter new Console Hold Recall Busy Remind time **1 - 9999**

e.g. Set Console Hold Recall Busy
Remind to 60 seconds.

M: 52	60
CONS HOLD REMIND	

Step 5: Press **HOLD** to save change.

*: 52	60
CONS HOLD REMIND	

(Mode 53) Console System Hold Recall Delay Time

When a Trunk has been on hold for the duration of System Hold Recall Time it will try to ring the Station which put it on hold. After a Trunk Call recalls a Station it will also recall the Console(s). The delay after a Station is recalled can be programmed. After the Console(s) have been ringing for the Console System Hold Recall Release Time, and is unanswered, the Trunk Call will be released.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

Intercom Calls on hold, by another Station, for the System Hold Recall Time will not recall to the Console and Second Console.

See (Station Programming Section - Mode 77) System Hold Recall Time for setting the System Hold Recall Time.

See (Station Programming Section - Mode 79) Transfer Recall Time for setting the Recall Time for unanswered transferred Trunk Calls.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **53**

e.g. The Delay Time is currently
60 seconds.

```
M:53          60
SYS HOLD DELAY 1
```

Step 3: Press **FLASH** to clear an existing time.

```
M:53          0
SYS HOLD DELAY 1
```

Step 4: Enter new Console System Hold Recall Delay Time **0 - 9999**

e.g. Set Delay Time to 45 seconds.

```
M:53          45
SYS HOLD DELAY 1
```

Step 5: Press **HOLD** to save change.

```
*:53          45
SYS HOLD DELAY 1
```

┌──────────┐

(Mode 54) Second Console System Hold Recall Delay Time

When a Trunk has been on hold for the System Hold Recall Time it will try to ring the Station that put it on hold. After a Trunk Call recalls a Station it will also recall the Console(s). The delay after a Station is recalled can be programmed. After the Console(s) have been ringing for the Console System Hold Recall Release Time, and is unanswered, the Trunk Call will be released.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

Intercom Calls on hold, by another Station, for the System Hold Recall Time will not recall to the Console and Second Console.

See (Station Programming Section - Mode 77) System Hold Recall Time for setting the System Hold Recall Time.

See (Station Programming Section - Mode 79) Transfer Recall Time for setting the Recall Time for unanswered transferred Trunk Calls.

Programming Procedure:

See (Station Programming Section - Mode 53) Console System Hold Recall Delay Time and follow the programming procedure to set the Second Console System Hold Recall Delay Time.

(Mode 55) Console System Hold Recall Release Time

When a Trunk has been on hold for the System Hold Recall Time it will try to ring the Station that put it on hold. After a Trunk Call recalls a Station it will also recall the Console(s). After the Console(s) have been ringing for the Console System Hold Recall Release Time, and is unanswered, the Trunk Call will be released. This does not affect Trunk Calls put on hold by the Console(s).

The Release Time can be set from 1 to 9999 seconds. When set to 0 there will be no release.

See (Station Programming Section - Mode 77) System Hold Recall Time for setting the System Hold Recall Time.

See (Station Programming Section - Mode 79) Transfer Recall Time for setting the Recall Time for unanswered transferred Trunk Calls.

Programming Procedure:

See (Station Programming Section - Mode 53) Console System Hold Recall Delay Time and follow the programming procedure to set the Console System Hold Recall Release Time.

(Mode 56) Console Call Waiting Busy Remind

If the Console and Second Console are busy when a Station is trying to call the Operator, a Remind signal can be given that there is a Station trying to call.

The Console Call Waiting Busy Remind can be set from 1 to 9999 seconds. If set to 0 there will be no Busy Remind.

See (Station Programming Section - Mode 59) Camp-On Ring for Station calling Busy Operator for setting Stations to Camp-on Ring the Console and Second Console.

Programming Procedure:

See (System Programming Section - Mode 53) Console System Hold Recall Delay Time and follow the programming procedure for setting the Console Call Waiting Busy Remind.

Operator Destination

When a Station calls the Operator the call will ring the Tenant Operator, a Station from a Station Hunt Group or the Console(s).

Normally when the Operator is dialed, the main Console will ring. The Second Console will ring if the main Console is busy. However both the Console and Second Console can ring simultaneously when the Operator is called.

A Station Hunt Group can be assigned as the destination for Operator Calls. This allows a group of Stations to share the Operator duties.

When using Tenant Service the Station assigned as Tenant Operator has priority over the assigned system Operator(s).

(Mode 57) Operator Call Destination

Normally when the Operator is dialed, the Console or Second Console will ring.

A Station Hunt Group can be assigned as the destination for Operator Calls. This allows a group of Stations to share the Operator duties.

See (Station Programming Section - Mode 50) Console and (Station Programming Section - Mode 51) Second Console for how to set a Station as a Console.

See (Station Programming Section - Mode 60) Station Hunt Groups for how to set up a Station Hunt Group.

See (System Programming Section - Mode 15) Operator Access Code for how to set the code to call the Operator.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **57**

e.g. Operator is Console and
Second Console.

```
M:57      0
OPERATOR DESTN
```

Step 3: Press **FLASH** to clear (an existing Station Hunt Group).

e.g. Set to Console

```
M:57      0
OPERATOR DESTN
```

Step 4: Enter Station Hunt Group number 1 - 8

e.g. Set Operator to Station
Hunt Group 2.

```
M:57      2
OPERATOR DESTN
```

Step 5: Press **HOLD** to save change.

```
*:57      2
OPERATOR DESTN
```

(Mode 58) Ring Two Operators

Normally when the Operator is dialed, the main Console will ring. The Second Console will ring if the main Console is busy. However both the Console and Second Console can ring simultaneously when the Operator is called.

When a Station calls the Operator both the Console and Second Console will ring if idle. If Operator Destination is set to a Station Hunt Group then two idle Stations are selected to ring from the Group.

See (Station Programming Section - Mode 50) Console and (Station Programming Section - Mode 51) Second Console for how to set a Station as a Console.

See (Station Programming Section - Mode 60) Station Hunt Groups for how to set up a Station Hunt Group.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode 58

```
M:58      NO
RING TWO OPERATO
```

Step 3: Press **MSG** (Yes) for Ring Two Operators or **FLASH** (No) for Ring 1st Console.

e.g. Set to ring two Operators.

```
M:58      YES
RING TWO OPERATO
```

Step 4: Press **HOLD** to save change.

```
*:58      YES
```

RING TWO OPERATO

(Mode 59) Camp-On Ring for Station calling Busy Operator

When a Station calls the Operator the call will ring the Tenant Operator, a Station from a Station Hunt Group or the Console(s). But when the assigned Operator Station(s) are all busy, the Station gets Busy Tone.

For a busy Operator the Station can camp-on to the Operator and be connected when the Operator becomes available. The Station will receive Ring-Back Tone.

See (Station Programming Section - Mode 50) Console and (Station Programming Section - Mode 51) Second Console for how to set a Station as a Console.

Programming Procedure:

See (Station Programming Section - Mode 58) Ring Two Operators and follow the programming procedure to set Camp-On Ring for Station calling Busy Operator.

Station Hunt Groups

(Mode 60) Station Hunt Groups

The system has nine Station Hunt Groups. The first eight are regular Station Hunt Groups which can be used for many purposes while Station Hunt Group 9 is used specifically for Voice Mail. Each group can have up to sixteen Stations assigned.

See (Trunk Programming Section - Mode 65) Trunk Station Hunt Group Ringing - Day and (Trunk Programming Section - Mode 66) Trunk Station Hunt Group Ringing - Night for how to set a Trunk to ring a Station Hunt Group.

See (System Programming Section - Mode 50) Voice Mail Station Hunt Group for how to set a Station Hunt Group for Voice Mail.

Refer to the *Easy Reference Guide* on how to access a Station Hunt Group.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **60**

```
M:60 .
ST HUNT GROUP
```

Step 3: Enter Station Hunt Group number **1 - 8**

e.g. Station Hunt Group 1

```
M:60 1 .
ST HUNT GROUP
```

Step 4: Enter memory position number **01 – 16** **Note:** A memory position is a counter to keep track of how many Station Ports have been entered, up to 16 ports can be assigned per Station Group.

e.g. The fourth position is not set.

```
M:60 1 04
ST HUNT GROUP
```

Step 5: Press **FLASH** to clear an existing Station Port number.

```
M:60 1 04
ST HUNT GROUP
```

Step 6: Enter new Station Port number 001 - 400

e.g. Set to Port 21

```
M:60 1 04      21
ST HUNT GROUP
```

Step 7: Press HOLD to save change.

```
*:60 1 04      21
ST HUNT GROUP
```

Step 8: Press TRF to scroll forward to next memory position or MIC to move backward to previous memory position. Repeat from Step 5.

e.g. Move to next position

```
M:60 1 05
ST HUNT GROUP
```

(Mode 61) Terminal Station Hunt Group Access

Stations are always accessed from a Station Hunt Group starting at the first position of the Station Hunt Group and accessing the first idle Station.

An alternative to terminal hunting is distributed hunting where the Stations are accessed in rotation.

See (System Programming Section - Mode 50) Voice Mail Station Hunt Group for how to set a Station Hunt Group for Voice Mail.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [PROG-PROG-1-2-3-HOLD] from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode 61

```
M:61 .
TERMINAL ST ACC
```

Step 3: Enter Station Hunt Group number 1 - 9

e.g. Station Hunt Group 2

```
M:61 2      YES
TERMINAL ST ACC
```

Step 4: Press MSG (Yes) for terminal or FLASH (No) for distributed.

```
_____
```

e.g. Set to use distributed Access

M:61 2	NO
TERMINAL ST ACC	

Step 5: Press **HOLD** to save change.

*:61 2	NO
TERMINAL ST ACC	

Step 6: (Optional) Press **CONF** to set ALL Station Hunt Groups the same.

*:61 2	NO
TERMINAL ST ACC	

Step 7: (Optional) Press **TRF** to scroll forward to next Group or **MIC** to move backward to previous Group. Repeat from Step 4.

e.g. Move to next Station Hunt Group

M:61 3	NO
TERMINAL ST ACC	

Station

(Mode 70) Flexible Station Number Assignment

A Station number is a flexible number assigned to each Port for Intercom Calling and identification. Each Port can be assigned only one Station number.

Station numbers can be one to four digits and different length Station numbers can be mixed (e.g. 1 - 6, 10 - 69, 100 - 699, and 1000 - 6999).

Refer to the *Ports and Station Numbering* section for more information on Station numbers.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **70**

```
M:70 .
FLEX NO. ASSIGN
```

Step 3: Enter Station Port number **001 - 400**

e.g. Port 016 is Station number 116

```
M:70 16      116
ST:116
```

Step 4: Press **FLASH** to clear (an existing Station number).

e.g. Erase Station number.

```
M:70 16
ST:116
```

Step 5: Enter new Station number.

e.g. Set Port 016 to Station number 219.

```
M:70 16      219
ST:116
```

Step 6: Press **HOLD** to save change.

```
*:70 16      219
ST:219
```

Step 7: (Optional) Press **TRF** to scroll forward to next Port or **MIC** to move backward to previous Port. Repeat from Step 4.

e.g. Move to next Port
Port 17 is Station number 117.

```
M:70 17      117
ST:117
```

(Mode 71) Station Names

Each Station can be assigned a Name up to eight characters long. The name is used in place of the Station number when making Intercom Calls, etc.

Keys:

- 1 QqZz
- 2 AaBbCc
- 3 DdEeFf
- 4 GgHhIi
- 5 JjKkLl
- 6 MmNnOo
- 7 PpQqRrSs
- 8 TtUuVv
- 9 WwXxYy
- 0 Space then complete range of characters.
- * Move left one space.
- # Move right one space.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 71

```
M:71 .
STATION NAMES
```

Step 3: Enter Station Port number **001 - 400**

e.g. Port 12 is Station 112.

```
M:71 12
ST:112
```

Step 4: Press **FLASH** to clear (an existing name).

```
M:71 12
ST:112
```

Step 5: Enter name by pressing the correct lettered key.

e.g. Press **2** for 'A' in Accounts

```
M:71 12 A
ST:112
```

Step 6: Move to next letter. # moves right and * moves back to the left.

e.g. Move to next letter

```
M:71 12 A
ST:112
```

Enter next letter.

e.g. Press 2 six times for 'c' in Accounts.

```
M:71 12 Ac
ST:112
```

Step 7: Repeat the above two steps until the Station name is entered.

Step 8: Press **HOLD** to save change.

```
*:71 12 Accounts
ST:112
```

Step 9: (Optional) Press **TRF** to scroll forward to next Port or **MIC** to move backward to previous Port.

e.g. Move to next Port

```
M:71 13
ST:113
```

(Mode 72) Station Group Assignment

There are eight Station Groups (1 - 8) to which Stations can be assigned. Stations are grouped together for Paging a Group of Keyphones, and Group Call Pickup. A Station can be assigned to more than one Group or no groups.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **72**

```
M:72 .
ST GROUP ASSIGN
```

Step 3: Enter Station Port number **001 - 400**

e.g. Port 11 is Station 111.

```
M:72 11 .
ST:111
```

Step 4: Enter Group number **1 - 8**

e.g. Group 3

M:72 11 3	NO
ST:111	

Step 5: Press **MSG** (Yes) to set Station Group or **FLASH** (No) to clear.

e.g. Set Port 11 to Group 3

M:72 11 3	YES
ST:111	

Step 6: Press **HOLD** to save change.

*:72 11 3	YES
ST:111	

Step 7: (Optional) Press **CONF** to set ALL Stations the same.

*:72 11 3	YES
ST:111	

Step 8: (Optional) Press **TRF** to scroll forward to next Group or **MIC** to move backward to previous Group. Repeat from Step 5.

e.g. Move to next position
Port 11 is not part of
Station Group 4.

M:72 11 4	NO
ST:111	

(Mode 73) Softkey Assignment

Each LD40 Keyphone has up to thirty-two programmable softkeys 01-32 (DT36 Keyphones use 01-24, 25-48). Softkey positions (33 - 64) can also be programmed to provide additional Softkeys that are accessed using the **FLASH** key (2nd Level) when the Keyphone is idle.

Each DSS Unit has sixty-four programmable softkeys (01 - 64) used when a DSS Unit is identified as being connected to the Port.

Each softkey can be used for Direct Station Selection (DSS/BLF), Station Hunt Group Access, Direct Trunk Selection, Trunk Hunt Group Access, One Touch Speed Dial, Park Bin Access, Wake-Up Call Access, Check Out / In Access, Record, Call Forwarding Access, Volume Up, Volume Down, Caller I.D. or VAX.

Softkey plans are ignored for Single-Line Telephone Ports as they have no effect.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M:.
Enter Mode No.

Step 2: Enter Mode 73

```
M:73 .
SOFTKEY ASSIGN
```

Step 3: Enter Station Port number 001 – 192

e.g. Port 18.

```
M:73 18 .
ST:18
```

Step 4: Enter a softkey 01 - 24.

e.g. The fifth softkey is Trunk 5

```
M:73 18 05 TK:5
ST:18
```

Step 5: Press FLASH to clear the existing setting.

```
M:73 18 05
ST:18
```

Step 6: Press MSG to step through the softkey types : Direct Station Selection (DSS/BLF), Station Hunt Group Access, Direct Trunk Selection, Trunk Hunt Group Access (Trunk Pool key), One Touch Speed Dial ect....

1. Direct Station Selection (DSS/BLF):

Enter new Station Port number **001 - 400**

e.g. Set to Port 34.

```
M:73 18 05 34
ST:18
```

2. Station Hunt Group Access:

Press **MSG** once to enter new Station Hunt Group.

```
M:73 18 05STGP:
ST:18
```

Enter Station Hunt Group number **1 - 9**

e.g. Set to Station Hunt Group 4

```
M:73 18 05STGP:4
ST:18
```

3. Direct Trunk Selection:

Press **MSG** twice to enter new Trunk.

```
M:73 18 05 TK:
ST:18
```

Enter Trunk number **01 - 96**

e.g. Set to Trunk 2

```
M:73 18 05 TK:02
ST:18
```

4. Trunk Hunt Group Access:

Press **MSG** three times to enter new Trunk Hunt Group.

```
M:73 18 05TKGP:
ST:18
```

Enter Trunk Hunt Group number **1 - 8**

e.g. Set to Trunk Hunt Group 2

```
M:73 18 05TKGP:2
ST:18
```

5. One Touch Speed Dial:

Press **MSG** four times to enter new Speed Dial.

```
M:73 18 05SD
ST:18
```

Enter Speed Dial bin **01 - 09, 100 - 499**

e.g. Set to Speed Dial bin 109.

```
M:73 18 05SD 109
ST:18
```

6. Park Bin Access:

Press **MSG** five times to enter Park Bin Access.

```
M:73 18 05Park
ST:18
```

Enter Park bin **0 - 9**

e.g. Set to Park bin 2

```
M:73 18 05Park 2
ST:18
```

7. Call Forwarding Access:

Press **MSG** six times to enter new Call Forwarding Access.

```
M:73 18 05Fwrdd
ST:18
```

Enter type of Call Forwarding 1 - 2 for All or Busy / No Answer.

e.g. Set to 2 for Busy / No Answer

```
M:73 18 05Fwrdd 2
ST:18
```

8. Wake-Up Call Access:

Press **MSG** seven times to enter Wake-Up Call Access.

```
M:73 18 05WAKEUP
ST:18
```

9. Check Out / In Access:

Press **MSG** eight times to enter Check Out / In Access.

```
M:73 18 05CHKOUT
ST:18
```

10. Record Button:

Press **MSG** nine times to enter Record button.

```
M:73 18 05RECORD
ST:18
```

11. Volume Up Button:

Press **MSG** ten times to enter Volume Up button.

```
M:73 18 05VOL UP
ST:18
```

12. Volume Down Button:

Press **MSG** eleven times to enter Volume Down button.

```
M:73 18 05VOL DN
ST:18
```

13. Caller I.D. Button:

Press **MSG** thirteen times to enter Caller I.D. button.

```
M:73 18 05 CLID
ST:18
```

Step 7: Press **HOLD** to save change.

```
*:73 18 05 TK:2
ST:18
```

Step 8: Press **CONF** to set All Stations the same.

e.g. Set to Speed Dial 109 for all Stations.

```
C:73 18 05SD>109
ST:11
```

Step 9: Press **TRF** to scroll forward to next softkey or **MIC** to move backward to previous softkey. Repeat from Step 5.

e.g. Move to next softkey
The sixth Softkey is Trunk 6.

```
M:73 18 06 TK:6
ST:18
```

14. VAX Button: Voice Activated Exchange is a future release.

(Mode 74) Trunk Hunt Group Assignment

There are eight Trunk Hunt Groups (1 - 8) which can be used by Stations for Automatic Trunk Selection.

See (Trunk Programming Section - Mode 50) Trunk Hunt Group Programming for how to set the Trunk Hunt Groups.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **74**

```
M:74 .
TK GROUP ASSIGN
```

Step 3: Enter Station Port number **001 - 400**

e.g. Port 014 is Station 113 and is using Trunk Hunt Group 3.

```
M:74 14 3
ST:113
```

Step 4: Enter new Trunk Hunt Group **1 - 8**

e.g. Set to Trunk Hunt Group 2.

```
M:74 14 2
ST:113
```

Step 5: Press **HOLD** to save change.

```
*:74 14 2
ST:113
```

Step 6: (Optional) Press **CONF** to set ALL Stations the same.

```
*:74 14      2
  ST:113
```

Step 7: (Optional) Press **TRF** to scroll forward to next port or **MIC** to move backward to previous Port. Repeat from Step 4.

e.g. Move to next Port 015 is using
Trunk Hunt Group 1.

```
M:74 15      1
  ST:114
```

(Mode 75) Station Music Source

There are three music sources available to a Station Port for back ground music, one internal and two external. The two external music sources each require a device to be connected to the system.

Refer to the *Installation Guide* for more information on connecting an External Music Source.

Refer to the *Easy Reference Guide* on how to access Back Ground Music for a Keyphone.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **75**

```
M:75 .
ST MUSIC SOURCE
```

Step 3: Enter Station Port number **001 - 400**

e.g. Port 7 is Station 106

```
M:75 07      1
  ST:106
```

Step 4: Press **1** (internal), **2** (external 1), or **3** (external 2).

e.g. Set to External Music Source 1.

```
M:75 07      2
  ST:106
```

Step 5: Press **HOLD** to save change.

```
_____
```

*:75 07	2
ST:106	

Step 6: (Optional) Press **CONF** to set ALL Stations the same.

*:75 07	2
ST:106	

Step 7: (Optional) Press **TRF** to scroll forward to next Port or **MIC** to move backward to previous Port. Repeat from Step 4..

e.g. Move to next Station Port.

M:75 08	1
ST:107	

(Mode 76) Maximum Trunk Call Duration

A Maximum Trunk Call Duration time can be set. If the duration is exceeded the Trunk Call is terminated. A warning tone will be given ten seconds before the call is terminated.

The Maximum Trunk Call Duration can be set from 1 to 9999 seconds. If set to 0 there will be no Maximum Trunk Call Duration.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M: .	
Enter Mode No.	

Step 2: Enter Mode **76**

M:76 .	
MAX TK CALL TIME	

Step 3: Enter Station Port number **001 - 400**

e.g. Port 24, Station 123 has a limit of 600 seconds (10 minutes).

M:76 24	600
ST:123	

Step 4: Press **FLASH** to clear (an existing time).

M:76 24	0
ST:123	

Step 5: Enter new Maximum Trunk Call Duration.

e.g. Set Maximum Time to 1200 seconds.

M:76 24	1200
ST:123	

Step 6: Press **HOLD** to save change.

```

* :76 24      1200
  ST:123

```

Step 7: Press **CONF** to set ALL Stations the same.

```

* :76 24      1200
  ST:123

```

Step 8: Press **TRF** to scroll forward to next Port or **MIC** to move backward to previous Port.

e.g. Move to next Port.
Port 25 has no limit.

```

M :76 25      0
  ST:225

```

(Mode 77) System Hold Recall Time

The System Hold Recall Time for a Trunk or Intercom Call can be set from 1 to 9999 seconds.

If the System Hold Recall Time is set to 0, a call put on hold will never recall (Infinite Hold Recall).

System Hold Recall Time is also used by all Intercom Calls put on hold and only the Station that put the Intercom Call on hold will be recalled.

See (Station Programming Section - Mode 53) Console System Hold Recall Delay Time and (Station Programming Section - Mode 54) Second Console System Hold Recall Delay Time for how a Trunk Call will eventually recall to the Console and Second Console.

See (Station Programming Section - Mode 76) Maximum Trunk Call Duration and follow the programming procedure for setting the System Hold Recall Time.

(Mode 78) System Hold Recall Busy Remind

Stations which are busy when a call put on hold is trying to recall can be given a Remind signal that there is a recalling Trunk or Station.

The System Hold Recall Busy Remind can be set from 1 to 9999 seconds. If set to 0 there will be no Busy Remind.

Console Hold Recall Busy Remind overrides System Hold Recall Busy Remind for the Console and Second Console.

See (Trunk Programming Section - Mode 72) Flexible Ring Busy Remind and (Trunk Programming Section - Mode 77) Common Ring Busy Remind for setting a Remind signal to a Station for an Incoming Call.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M: .	
Enter Mode No.	

Step 2: Enter Mode **78**

e.g. System Hold Recall Busy Remind is 60 sec.

M:78	60
SYS HOLD REMIND	

Step 3: Press **FLASH** to clear (an existing time).

M:78	0
SYS HOLD REMIND	

Step 4: Enter new System Hold Recall Busy Remind time **1 - 9999**

e.g. Set System Hold Recall Busy Remind to 90 seconds.

M:78	90
SYS HOLD REMIND	

Step 5: Press **HOLD** to save change.

*:78	90
SYS HOLD REMIND	

(Mode 79) Transfer Recall Time

The Transfer Recall Time for a Trunk Call can be set from 1 to 9999 seconds.

If the Transfer Recall Time is set to 0, a transferred Trunk Call which is not answered by the target Station will not recall to the Station which transferred the Trunk.

Transfer Recall Time is not used for transferred Intercom Calls.

Programming Procedure:

See (Station Programming Section - Mode 76) Maximum Trunk Call Duration and follow the programming procedure for setting the Transfer Recall Time.

(Mode 81) Reserve Recall Time

When a Station is ringing for a reserved Trunk or Station, the callback will be automatically canceled if not answered within the Reserve Recall Time.

The Reserve Recall Time can be set from 1 to 9999 seconds.

Refer to the *Easy Reference Guide* for how to reserve a busy Trunk or Station.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **81**

e.g. Reserve Recall Time is
20 seconds.

```
M:81      20
RESERVE RECALL
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:81      0
RESERVE RECALL
```

Step 4: Enter Reserve Recall Time.

e.g. Set Reserve Recall Time to
15 seconds.

```
M:81      15
RESERVE RECALL
```

Step 5: Press **HOLD** to save change.

```
*:81      15
RESERVE RECALL
```

(Mode 82) Keyphone Automatic Busy Release Time

A Keyphone receiving Busy Tone automatically releases and resets after the Automatic Busy Release Time expires. A Keyphone in System Programming does not release.

The Automatic Busy Release Time can be set from 1 to 9999 seconds. If set to 0 there is no Automatic Release.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
```

```
Enter Mode No.
```

Step 2: Enter Mode 82

e.g. Automatic Release after
15 seconds.

```
M:82      15
AUTO RLS TIME
```

Step 3: Press FLASH to clear (an existing time).

e.g. Set no Automatic Release

```
M:82      0
AUTO RLS TIME
```

Step 4: Enter Keyphone Automatic Release Time.

e.g. Set Automatic Release Time to
10 seconds.

```
M:82      10
AUTO RLS TIME
```

Step 5: Press HOLD to save change.

```
*:82      10
AUTO RLS TIME
```

Station Call Forwarding

There are two methods of Call Forwarding: External and Station.

Station Call Forwarding can be set individually for each Station.

A Station has the choice of two ways to forward calls: All or Busy / No Answer. Each can be set to Call Forward to either another Station or to an External number. Call Forwarding to an External number is achieved by the use of Speed Dial bins.

Call Forwarding - All Calls - All Calls are automatically forwarded with no delay.

Call Forwarding - Busy / No Answer - All Calls will be forwarded if the Station is busy or after the Station rings for the programmed no answer time.

Call Forwarding to an External number - A Trunk ringing the Station is treated the same as External Call Forwarding. Stations calling the Station will access a Trunk automatically and dial the number in the assigned Speed Dial bin.

A Call can not be transferred to a Station which has Call Forwarding - All Calls or Call Forwarding - Busy (when busy) set to an External number. This would automatically connect the calling Station to an outside line.

Note: Ensure that the Speed Dial bin is not restricted for the Station that has to dial the number. Speed Dial bins above the (System Programming Section - Mode 63) Speed Dial Toll Restriction Break Point are NOT Toll restricted.

Programming Procedure:

See (Trunk Programming Section) External Call Forwarding for how to set Call Forwarding for individual Trunks.

Refer to the *Easy Reference Guide* for how to set Call Forwarding for a Station.

(Mode 83) No Answer Forward Time

When using Call Forward - Busy / No Answer a Station can be programmed to forward calls to another Station (or External number) if not answered within a programmed time.

The No Answer Forward Time can be set from 10 to 9999 seconds. One Trunk ring cycle equals 4 seconds.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **83**

e.g. Currently set to 10 seconds.

```
M:83      10
NO ANSWER TIME
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:83      0
NO ANSWER TIME
```

Step 4: Enter new No Answer Forward Time.

e.g. Set to 16 seconds.

```
M:83      16
NO ANSWER TIME
```

Step 5: Press **HOLD** to save change.

```
*:83      16
NO ANSWER TIME
```

Note: The minimum No Answer Forward Time is 10 seconds.

(Mode 84) Call Forward Busy Ring Time

When using Call Forward - Busy / No Answer a Station can be programmed to ring for a programmed time before forwarding calls to another Station (or External number) if the Station is busy.

The Call Forward Busy Ring Time can be set from 0 to 9999 seconds.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **84**

e.g. Currently set to 10 seconds.

```
M:84      20
C/F BUSY TIME
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:84      0
C/F BUSY TIME
```

Step 4: Enter new Call Forward Busy Ring Time **0 - 9999**

e.g. Set to 10 seconds.

```
M:84      10
C/F BUSY TIME
```

Step 5: Press **HOLD** to save change.

```
*:84      10
C/F BUSY TIME
```

(Mode 85) Call Forward - All Calls

A Station has the choice of two ways to forward calls: All or Busy / No Answer.

All Calls are automatically forwarded with no delay to either another Station, a Station Hunt Group, or to an External number. A Speed Dial bin (01 - 09, 100 - 499) is used to store the External number to be dialed.

Call forwarding to an External number has to be set from the individual Stations.

Warning: Careful consideration must be taken when setting Call Forwarding for Voice Mail ports, Fax machines, Modems, and other similar devices.

Refer to the *Easy Reference Guide* for how to set Call Forwarding for a Station.

See (Station Programming Section - Mode 38) Use Call Forward for allowing or restricting Stations from setting Call Forward.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 85

```
M:85 .
C/F ALL CALLS
```

Step 3: Enter Station Port number **001 - 400**

e.g. Port 11 is Station 110.

```
M:85 11
ST:110
```

Step 4: Press **FLASH** to clear (an existing Station Port number).

e.g. Set No Call Forwarding.

```
M:85 11
ST:110
```

Step 5: Enter new Station Port number **001 - 400**

e.g. Set to Station Port 45

```
M:85 11      45
ST:110
```

OR Press **SPEED** + Speed Dial bin **01 - 09, 100 - 499**

e.g. Set to Station Port 45

```
M:85 11      45
ST:110
```

Step 6: Press **HOLD** to save change.

```
*:85 11      167
ST:110
```

Step 7: (Optional) Press **CONF** to set ALL Stations the same. **Please note Warning.**

```
*:85 11      167
ST:110
```

Step 8: (Optional) Press **TRF** to scroll forward to next Station Port or **MIC** to move backward to Previous Port. Repeat from Step 4.

e.g. Move to next Station Port
No Call Forwarding is set.

```
M:85 12
ST:111
```

(Mode 86) Call Forward - Busy / No Answer

A Station has the choice of two ways to forward calls: All or Busy / No Answer.

All Calls will be forwarded if the Station is busy or after the Station rings for the programmed no answer time to either another Station, a Station Hunt Group, or to an External number. A Speed Dial bin (01 - 09, 100 - 499) is used to store the External number to be dialed.

A busy Station can be programmed to ring for a programmed time before forwarding calls to another Station (or External number).

Call forwarding to an External number has to be set from the individual Stations.

Warning: Careful consideration must be taken when setting Call Forwarding for Voice Mail ports, Fax machines, Modems, and other similar devices.

Refer to the *Easy Reference Guide* for how to set Call Forwarding for a Station.

See (Station Programming Section - Mode 38) Use Call Forward for allowing or restricting Stations from setting Call Forward.

Programming Procedure:

See (Station Programming Section - Mode 85) Call Forward - All Calls and follow the programming procedure to set Call Forward - Busy / No Answer.

(Mode 87) Call Forward Incoming Calls

When an Incoming Call on a Trunk is ringing a Station, which has Call Forwarding set, the Incoming Call will be forwarded. A Station can be restricted from Call Forwarding unanswered Incoming Calls.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M: . Enter Mode No.

Step 2: Enter Mode 87

M:87 . C/F INCOMING

Step 3: Enter Station Port number **001- 400**

e.g. Port 23 is Station 132

M:87 23 ST:132	YES
-------------------	-----

Step 4: Press **MSG** (Yes) for Call Forward Incoming Calls or **FLASH** (No) to restrict.

e.g. Set to stop forwarding Incoming Calls.

M:87 23 ST:132	NO
-------------------	----

Step 5: Press **HOLD** to save change.

*:87 23 ST:132	NO
-------------------	----

Step 6: (Optional) Press **CONF** to set ALL Station Ports the same.

e.g. All Stations can not forward Incoming Calls.

*:87 23 ST:132	NO
-------------------	----

Step 7: (Optional) Press **TRF** to scroll forward to next Station Port or **MIC** to move backward to previous Port. Repeat from Step 4.

e.g. Move to next Station Port. Port 24 can forward Incoming Calls.

M:87 24 ST:138	YES
-------------------	-----

(Mode 88) Call Forward Busy Ring

When a Trunk or Station is attempting to ring a busy Station, which has Call Forward - Busy / No Answer set, the call will be forwarded. An optional delay can

be added to allow the Station time to answer the call. (**MSG** = Yes = Call Forward Busy Ring)

See (Station Programming Section - Mode 87) Call Forward Incoming Calls and follow the programming procedure for setting Call Forward Busy Ring.

(Mode 89) Call Forward DNIS to Voice Mail

When a DNIS Call is ringing a Station, which has Call Forwarding to V-Mail set, the DNIS Call can be forwarded to the corresponding Mailbox for that ringing station.

Since the DNIS call is considered a Incoming Call Section 2 Mode 87 will also need to be programmed.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **89**

```
M:89 .
C/F DNIS TO VM
```

Step 3: Enter Station Port number **001- 400**

e.g. Port 23 which is Station 132 is set to "NO"

```
M:89 23      NO
ST:132
```

Step 4: Press **MSG** (Yes) for Call Forward DNIS Calls or **FLASH** (No) to restrict.

e.g. Set to forward Incoming DNIS calls to V-Mail.

```
M:89 23      YES
ST:132
```

Step 5: Press **HOLD** to save change.

```
*:89 23      YES
ST:132
```

Step 6: (Optional) Press **CONF** to set ALL Station Ports the same.

e.g. All Stations set to forward DNIS calls to V-Mail.

```
*:89 23      YES
ST:132
```

Step 7: (Optional) Press **TRF** to scroll forward to next Station Port or **MIC** to move backward to previous Port. Repeat from Step 4.

e.g. Move to next Station Port.
Port 24 is set to "NO" for
DNIS calls to V-Mail.

M:89 24	NO
ST:138	

Single-line Telephone (Mode 90) SLP Dial Time

On some systems single-line telephones must share a DTMF receiver(s). For equal sharing of this facility a time limit for dialing must be set. Only single-line telephones that are assigned a DTMF receiver will get Dial Tone. The single-line telephone will receive a Busy Tone after the Dial Time has expired if not making a Trunk or Intercom Call.

The SLP Dial Time can be either an absolute time beginning from when the single-line telephone first receives Dial Tone or a time-out after the last digit dialed.

DTMF single-line telephones can still dial through on a Trunk after the elapsed time.

The SLP Dial Time can be set from 5 to 9999 seconds.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **90**

e.g. Dial Time is currently
40 seconds.

```
M:90          40
SLP DIAL TIME
```

Step 3: Press **FLASH** to clear (an existing time).

e.g. Clear before entering new time.

```
M:90          0
SLP DIAL TIME
```

Step 4: Enter new Dial Time **5 - 9999**

e.g. Set Dial Time to 25 seconds.

```
M:90          25
SLP DIAL TIME
```

Step 5: Press **HOLD** to save change.

```
*:90          25
SLP DIAL TIME
```

(Mode 91) SLP Absolute Dial Timer

On some systems single-line telephones must share a DTMF receiver(s). For equal sharing of this facility a time limit for dialing must be set. The SLP Dial Time

can be either an absolute time beginning from when the single-line telephone first receives Dial Tone or a time-out after the last digit dialed.

Note: SLP Dial Time is redundant for some systems and single-line interface cards as they have one DTMF receiver per port.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **91**

```
M: 91          YES
ABSOLUTE TIMER
```

Step 3: Press **MSG** (Yes) for Absolute Timer or **FLASH** (No) for Reset every digit.

e.g. Set to reset timer after every digit dialed.

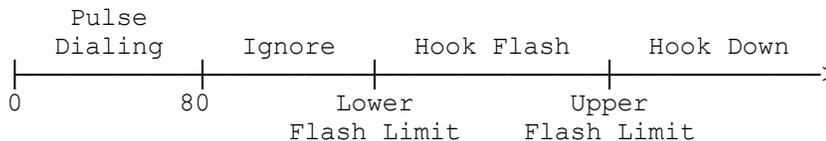
```
M: 91          NO
ABSOLUTE TIMER
```

Step 4: Press **HOLD** to save change.

```
*: 91          NO
ABSOLUTE TIMER
```

(Mode 92) SLP Lower Flash Limit

The Upper and Lower SLP Flash Limits can be set to ensure accurate Flash or Hook Flash detection (n x 10 ms).



Any pulses less than 80 ms are considered to be Pulse dialing.
 All pulses or flashes between 80 ms and the Lower Flash Limit are ignored.
 Any flashes between the Upper and Lower Flash Limits are considered to be a hook switch Flash.
 All flashes greater than the Upper Flash Limit are considered to be a disconnect.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **92**

e.g. Lower Flash Limit is currently
80 ms.

```
M:92      8
MIN SLP FLASH
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:92      0
MIN SLP FLASH
```

Step 4: Enter new Lower Flash Limit

e.g. Set Lower Flash Limit to
120 ms (n = 12).

```
M:92      12
MIN SLP FLASH
```

Step 5: Press **HOLD** to save change.

```
*:92      12
MIN SLP FLASH
```

Note: The minimum SLP Upper and Lower Flash Limit is 80 ms (n = 8); maximum time is 1000 ms (n = 100).

(Mode 93) SLP Upper Flash Limit

The Upper and Lower SLP Flash Limits can be set to ensure accurate Flash or Hook Flash detection (n x 10 ms).

The Upper Flash Limit should be higher then the Lower Flash Limit.

Programming Procedure:

See (Station Programming Section - Mode 92) SLP Lower Flash Limit and follow the programming procedure to set the SLP Upper Flash Limit.

(Mode 94) SLP Message Waiting Lamp Time

When a message has been set to a single-line telephone, a Message Waiting Lamp can be set to indicate that a message is waiting. If the Station is busy the Lamp will remain off. A Station can be set to use the Message Waiting Lamp

feature. When a single-line telephone has a Message Waiting the Lamp will flash at a programmable interval.

The SLP Message Waiting Lamp Time can be set from 1 to 20 seconds. If set to 0 there will not be Message Waiting Lamps.

Note: The single-line telephone must have a Neon lamp that works with 90 VDC across Tip & Ring to be used as a Message Waiting Lamp. Not all systems provide the 90 VDC.

Refer to the *Easy Reference Guide* for more information about setting and answering a Message Waiting.

See (Station Programming Section - Mode 13) Set Message Waiting Lamp for how to set the Message Waiting Lamp on a single-line telephone.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **94**

```
M: 94      0
SLP MESSAGE LAMP
```

Step 3: Press **FLASH** to clear an existing time

e.g. Set to no Message Waiting Lamps.

```
M: 94      0
SLP MESSAGE LAMP
```

Step 4: Enter SLP Message Waiting Lamp Time **1 - 20**

e.g. Set Message Waiting Lamp to flash every 10 seconds.

```
M: 94      10
SLP MESSAGE LAMP
```

Step 5: Press **HOLD** to save change.

```
*: 94      10
SLP MESSAGE LAMP
```

(Mode 95) Message Waiting Ring Time

When a Station Port has a Message Waiting it can be set to give a RING RING at a programmable interval. If the Station is answered during the ringing it can be set to call back to the Station that set the message.

The Message Waiting Ring Time can be set from 1 to 15 minutes. If set to 0 there is no ring for Message Waiting.

Refer to the *Easy Reference Guide* for more information about setting and answering a Message Waiting.

See (Station Programming Section - Mode 14) Automatic Message Callback for how to set a Station to automatically call back the Station leaving the message.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **95**

```
M:95      0
SLP MESSAGE RING
```

Step 3: Press **FLASH** to clear (an existing time).

e.g. Set to no ring for Message waiting.

```
M:95      0
SLP MESSAGE RING
```

Step 4: Enter Message Waiting Ring Time **1 - 15**

e.g. Set Stations to ring every 2 minutes for Message Waiting.

```
M:95      2
SLP MESSAGE RING
```

Step 5: Press **HOLD** to save change.

```
*:95      2
SLP MESSAGE RING
```

(Mode 96) Set SLP Special Tone

When a message has been set to a single-line telephone, a Message Waiting Lamp can be set to indicate that a message is waiting. When a single-line telephone goes off-hook and there is a Message Waiting, the single-line telephone can be given a special tone to indicate that a message is waiting.

Note: Use of the Special Tone for Message Waiting Indication on single-line telephones is not necessary when using Message Waiting Lamps.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M:.
Enter Mode No.

Step 2: Enter Mode **96**

M:96	YES
SLP SPECIAL TONE	

Step 3: Press **MSG** (Yes) for Special Tone or **FLASH** (No) for normal Dial Tone.

e.g. Set to receive normal Dial Tone.

M:96	NO
SLP SPECIAL TONE	

Step 4: Press **HOLD** to save change.

*:96	NO
SLP SPECIAL TONE	

(Mode 97) SLP Basic or Advanced Ringing

This mode is currently not used. It will be available in later versions of software.

(Mode 98) Urgent Call Time

When a Single-line Telephone goes off-hook it can be made to call the Operator after a period of time to notify about the off-hook condition. Urgent Call Time sets the time after which the off-hook Single-line Telephone will ring the Operator.

The Urgent Call Time can be set from 1 to 9999 seconds. If set to 0 there is no Urgent Call Time.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M:.  
Enter Mode No.
```

Step 2: Enter Mode **98**

```
M:98      0  
URGENT CALL TIME
```

Step 3: Press **FLASH** to clear (an existing time).

e.g. Set to no Urgent Call Time.

```
M:98      0  
URGENT CALL TIME
```

Step 4: Enter Urgent Call Time **1 -9999**

e.g. Set SLP to ring after 2 minutes.

```
M:98      120  
URGENT CALL TIME
```

Step 5: Press **HOLD** to save change.

```
*:98      120  
URGENT CALL TIME
```

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System Programming Section

System Programming is divided into three separate sections for ease of access. The sections are Trunk Programming Section, Station Programming Section, and System Programming Section.

System Programming Section has been grouped into categories.

- General Defaults
- Feature Access Codes
- Tenant Service
- System Alarms
- Paging
- External Relay Controls
- Door Phone
- Voice Mail Interface
- Inband Signaling 2
- Toll Restriction
- Automatic Route Selection

General Defaults

(Mode 01) System Password

The System Password is used when accessing System Programming.

The System Password is a combination of up to six keys (0 - 9, *, #).

Refer to the start of the *Programming Guide* on how to enter System Programming.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M: . Enter Mode No.

Step 2: Enter Mode **01**

e.g Default password

M:01 123 PASSWORD

Step 3: Press **FLASH** to erase an existing or default password.

M:01 PASSWORD

Step 4: Enter new password (up to 6 keys).

e.g. Enter key combination

M:01 #92*13 PASSWORD

Step 5: Press **HOLD** to save new password.

*:01 #92*13 PASSWORD

(Mode 02) Clock Display Format

The clock display on LCD Keyphones can be set to either 12 Hour or 24 Hour format. This mode also sets the format used with the SMDR output of Call Records.

See (System Programming Section - Mode 09) System Date & Time for how to change the system date and time.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M:.  
Enter Mode No.
```

Step 2: Enter Mode **02**

```
M:02      24 HOUR  
CLOCK FORMAT
```

Step 3: Press **MSG** for 12 Hour or **FLASH** for 24 Hour.

e.g. Set to 12 Hour format

```
M:02      12 HOUR  
CLOCK FORMAT
```

Step 4: Press **HOLD** to save change.

```
*:02      12 HOUR  
CLOCK FORMAT
```

(Mode 03) Automatic Night Transfer on Weekends

When the system using Night Service has been set to use Automatic Night Transfer for automatically switching between Day Mode and Night Mode, it is often undesirable to have the system stay in Night Mode on weekends.

The system can be set to ignore Automatic Night Transfer on weekends. Thus, when the system switches to Night Mode on Friday, it stays in Night Mode until switching to Day Mode on Monday.

Note: Automatic Night Transfer on Weekends has no affect when Night Service is set using Manual Night Transfer.

Refer to the *Easy Reference Guide* on how to set Night Service and Automatic Night Transfer.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M:.
Enter Mode No.

Step 2: Enter Mode **03**

M:03	NO
WEEKEND TRANSFER	

Step 3: Press **MSG** (Yes) for stay in Night Mode or **FLASH** (No) for Night Transfer.

e.g. Set to stay in Night Mode
for weekend.

M:03	YES
WEEKEND TRANSFER	

Step 4: Press **HOLD** to save change.

*:03	YES
WEEKEND TRANSFER	

(Mode 04) Conference Tone

When a Conference is established by a Station a Tone can be used to signal to the parties in the Conference that they are in a Conference. The Conference Tone is generated once every 32 seconds. (**MSG** = Yes = Conference Tone)

Programming Procedure:

See (System Programming Section - Mode 03) Automatic Night Transfer on Weekends for how to set Conference Tone.

(Mode 05) Transfer Call on Hook Down

To transfer a Trunk or Station to another Station, the call is first put on hold, the receiving Station is called, then the **TRF** key is pressed to transfer the Trunk or Station. An alternate method is available which merely involves hanging up to actually do the transfer instead of pressing the **TRF** key.

(**MSG** = Yes = Transfer on Hook Down, **FLASH** = No = Press **TRF** key to transfer)

Programming Procedure:

See (System Programming Section - Mode 03) Automatic Night Transfer on Weekends for how to set Transfer Call on Hook Down.

(Mode 06) Headset Operation

Individual Keyphones can be set to work with Headset Operation. Headset Operation is switched On and Off from each individual Keyphone. All Keyphones can be restricted from setting Headset operation.

(**MSG** = Yes = Allow Stations to be set for Headset Operation)

Note: Only certain types of Keyphone can use Headset operation. Headset Operation also stops the Keyphone from being used in Handsfree mode.

Refer to the *Special Feature Section - Headset Operation* on how to set Headset Operation can be set for a Keyphone.

Programming Procedure:

See (System Programming Section - Mode 03) Automatic Night Transfer on Weekends for how to set Headset Operation.

(Mode 07) Local Digit Length

When using the KDX-T1 Card the system can be set up for 10 digit local dialing. To ensure proper outbound dialing from the KDX-T1 card.

(MSG = Yes = Allow 10-digit dialing out over the KDX-T1 card)

Programming Procedure:

See (System Programming Section - Mode 03) Automatic Night Transfer on Weekends for how to set Headset Operation.

(Mode 08) Set Voice Mail Wake-up

When using the 742 dial code for wake-up the system can be set to automatically call the Voice mail with integration to allows the end user to enter their wake-up call through the Mailbox.

(MSG = Yes = Allow Wake-up feature through Voice Mail)

Programming Procedure:

See (System Programming Section - Mode 03) Automatic Night Transfer on Weekends for how to set Headset Operation.

(Mode 09) System Date & Time

The System is equipped with a real-time clock.

The real-time clock is used for setting the start time of Trunk Calls and for the date and time displayed on the LCD displays.

See (System Programming Section - Mode 02) Clock Display Format to change the time format on the LCD display between 24 Hour and 12 Hour.

Refer to the *Easy Reference Guide* on how to set the System Date and Time from the Console or Second Console.

Day of Week (0 = Sun, 1 = Mon, 2 = Tues, 3 = Wed, 4 = Thurs, 5 = Fri, 6 = Sat)

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [PROG-PROG-1-2-3-HOLD] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 09

e.g. The current Date is shown.

```
M:09 1
Date 98/01/01
```

Step 3: Enter new Date - must be YYYYMMDD

e.g. 981108 for 8th November 1998

M:09 1
Date 98/11/08

Step 4: Display automatically changes.

Enter new Time - must be HHMM (In 24 Hour format)

e.g. 1547 for 3:47 in the afternoon.

M:09 2
Time 15:47

Step 5: Display automatically changes.

Enter Day of Week 0 - 6

e.g. 4 for Thursday

M:09 3
Day of Week Thu

Step 6: Press HOLD at any stage to save a change.

*:09 3
Day of Week Thu

Feature Access Codes

There are five Feature Access Codes that can be set to customize the system operation for users. These codes can be changed to allow flexibility in Station numbering schemes. The Feature Access Codes are listed by priority below:

- Operator Access Code
- Trunk Hunt Group Access Code
- Trunk Hunt Group 8 Access Code
- Dial 7 Feature Access Code
- Intercom Call Access Code

(Mode 15) Operator Access Code

When a Station calls the Operator the call will ring the Tenant Operator, a Station from a Station Hunt Group or the Console(s). The access code for calling the Operator can be programmed. If 0 is used for the Operator Access Code then 0 should not be set for any other access code.

See (Station Programming Section - Mode 50) Console and (Station Programming Section - Mode 51) Second Console for how to set a Station as the Console.

See (Station Programming Section) Operator Destination for how to set an alternate Operator for the Operator Stations.

See (System Programming Section - Mode 22) Tenant Operators for how to set an Operator for a Tenant Group.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 15

e.g. "0" is the default code.

```
M:15      0
OPERATOR ACCESS
```

Step 3: Press **FLASH** to clear.

```
M:15
OPERATOR ACCESS
```

Step 4: Enter new access code **0 - 9, *, #**

e.g. Set 1 for Operator Access

```
M:15      1
OPERATOR ACCESS
```

Step 5: Press **HOLD** to save change.

```
*:15      1
OPERATOR ACCESS
```

(Mode 16) Trunk Hunt Group Access Code

Automatic Trunk Selection can be done by dialing an access code. If 9 is used for the Trunk Hunt Group Access Code then 9 should not be set for any other access code.

When accessing a Trunk Hunt Group, either the Trunk Hunt Group assigned to the Station is automatically used, or a second digit (1 - 8) must be dialed to specify which Trunk Hunt Group to use.

See (Trunk Programming Section - Mode 50) Trunk Hunt Group Programming for how to set up Trunk Hunt Groups.

See (Station Programming Section - Mode 74) Trunk Hunt Group Assignment for how to set the default Trunk Hunt Group for a Station.

Programming Procedure:

See (System Programming Section - Mode 15) Operator Access Code for how to set the Trunk Hunt Group Access Code.

(Mode 17) Trunk Hunt Group 8 Access Code

A second Trunk Hunt Group Access Code is provided for accessing Trunk Hunt Group 8. If 8 is used for the Trunk Hunt Group 8 Access Code then 8 should not be set for any other access code.

See (Trunk Programming Section - Mode 50) Trunk Hunt Group Programming for how to set up Trunk Hunt Groups.

Programming Procedure:

See (System Programming Section - Mode 15) Operator Access Code for how to set the Trunk Hunt Group 8 Access Code.

(Mode 18) Dial 7 Feature Access Code

A number of features are available to each Station which all start with the same access code. This allows the features to be accessed by Single-line Telephones. If 7 is used for the Dial 7 Feature Access Code then 7 should not be set for any other access code.

Refer to the *Easy Reference Guide* on how to use the Dial 7 Features from a Station.

See (Station Programming Section) Station Class-of-Service for how to restrict Dial 7 Features to Stations.

Programming Procedure:

See (System Programming Section - Mode 15) Operator Access Code for how to set the Dial 7 Feature Access Code.

(Mode 19) Intercom Call Access Code

A Intercom Call Access Code can be set for access Stations. If a Intercom Access Code is set than it must be dialed to provide access to Station numbers.

See (Station Programming Section - Mode 70) Flexible Station Number Assignment for how to set a Flexible number for a Station.

Programming Procedure:

See (System Programming Section - Mode 15) Operator Access Code for how to set the Intercom Call Access Code.

Tenant Service**(Mode 20) Trunk Tenant Service**

Up to eight Tenants can be supported on the same system. Stations can be restricted to accessing Trunks with the same Tenant number. 0 means the Trunk is unrestricted and can be accessed by any Station.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **20**

```
M:20 .
TRUNK TENANT
```

Step 3: Enter Trunk number **01 - 96**

e.g. Trunk 1

```
M:20 01      2
TRUNK TENANT
```

Step 4: Press **FLASH** to clear (an existing Tenant number).

```
M:20 1      0
TRUNK TENANT
```

Step 5: Enter new Tenant number **1 - 8**

e.g. Set Trunk 1 to Tenant 3

```
M:20 1      3
TRUNK TENANT
```

Step 6: Press **HOLD** to save change.

```
*:20 1      3
TRUNK TENANT
```

Step 7: (Optional) Press **TRF** to scroll forward to next Trunk or **MIC** to move backward to previous Trunk. Repeat from Step 4.

e.g. Move to next Trunk

```
M:20 2      0
TRUNK TENANT
```

(Mode 21) Station Tenant Service

Up to eight Tenants can be supported on the same system. Stations can be restricted to calling Stations with the same Tenant number. 0 means the Station is unrestricted and can be called by any Station.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **21**

```
M:21 .
STATION TENANT
```

Step 3: Enter Port number **001 - 400**

e.g. Port 12 has not been assigned a Tenant number.

```
M:21 12      0
ST:12
```

Step 4: Press **FLASH** to clear (an existing Tenant number).

```
M:21 12      0
ST:12
```

Step 5: Enter new Tenant number **1 - 8**

e.g. Set Station 12 to Tenant 3

```
M:21 12      3
ST:12
```

Step 6: Press **HOLD** to save change.

```
*:21 12      3
ST:12
```

Step 7: (Optional) Press **TRF** to scroll forward to next Port or **MIC** to move backward to previous Port. Repeat from Step 4.

e.g. Move to next Station

```
M:21 13      0
ST:13
```

(Mode 22) Tenant Operators

Each Tenant can be assigned a different Station to ring when the Operator is called. The Tenant Operator does not have to be assigned the same Tenant number. The Station assigned as Tenant Operator has priority over the assigned system Operator. If no Tenant Operator is assigned then the system Operator is used.

See (Station Programming Section - Mode 50) Console and (Station Programming Section - Mode 51) Second Console for how to set a Station as the Console.

See (Station Programming Section) Operator Destination for how to set an alternate Operator for the Operator Stations.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 22

```
M:22 .
TENANT OPERATORS
```

Step 3: Enter Tenant number 1 - 8

e.g. Tenant 3

```
M:22 3
TENANT OPERATORS
```

Step 4: Press **FLASH** to clear (an existing Station Port).

```
M:22 3
TENANT OPERATORS
```

Step 5: Enter new Station Port 1 - 400

e.g. Set Tenant 3 Operator to Station port 021.

```
M:22 3      21
TENANT OPERATORS
```

Step 6: Press **HOLD** to save change.

```
*:22 3      21
TENANT OPERATORS
```

Step 7: (Optional) Press **TRF** to scroll forward to next Tenant or **MIC** to move backward to previous Tenant. Repeat from Step 4.

e.g. Move to next Tenant.

```
M:22 4
```

TENANT OPERATORS

(Mode 23) Unrestricted Tenant Intercom Access

Each Tenant is restricted from calling Stations assigned to other Tenants. Each Tenant can be set for unrestricted Intercom access.

Intercom restriction does not apply when calling Operator Stations.

See (Station Programming Section) Operator Destination for how to set an alternate Operator for the Operator Stations.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M: . Enter Mode No.

Step 2: Enter Mode 23

M:23 . TENANT INTERCOM

Step 3: Enter Tenant number 1 - 8

e.g. Tenant 5

M:23 5 NO TENANT INTERCOM

Step 4: Press **MSG** for Intercom access (Yes) or **FLASH** (No) for No Intercom access.

e.g. Set Tenant 5 Stations to
unrestricted Intercom access.

M:23 5 YES TENANT INTERCOM
--

Step 5: Press **HOLD** to save change.

*:23 5 YES TENANT INTERCOM
--

Step 6: (Optional) Press **TRF** to scroll forward to next Tenant number or **MIC** to move backward to previous Tenant number. Repeat from Step 4.

e.g. Move to next Tenant

M:23 6 NO TENANT INTERCOM

System Alarms

There are three sets of System Alarms, each effective during a specific time of the week: Monday to Friday inclusive (Mode 30), Saturday (Mode 31), and Sunday (Mode 32).

(Mode 30) Weekday System Alarms

There can be up to eight System Alarms set for the weekdays (effective for Monday to Friday inclusive). A System Alarm puts the Background Music over the External Paging Port and through the Keyphone speakers.

See (Station Programming Section - Mode 07) Ring for System Alarm for how to stop the System Alarm for individual Keyphones.

Refer to the *Easy Reference Guide* for how to set Station Alarms.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 30

```
M:30 .
SYS ALARMS
```

Step 3: Enter Alarm number 1 - 8

e.g. Alarm 1 is currently not set

```
M:30 1      00:00
SYS ALARMS  0
```

Step 4: Press **FLASH** to clear (an existing Alarm).

```
M:30 1      00:00
SYS ALARMS  0
```

Step 5: Enter new Alarm Time (must be HHMM in 24 Hour format).

e.g. 1725 for 5:25 in the afternoon.

```
M:30 1      17:25
SYS ALARMS  0
```

Step 6: Enter Alarm duration 1 - 9999 seconds

e.g. Set to 15 seconds.

M:30 1	17:25
SYS ALARMS	15

Step 7: Press HOLD to save change.

*:30 1	17:25
SYS ALARMS	15

Step 8: Move to next alarm. Press MIC to scroll backward, TRF to scroll forward.

e.g. Move to next alarm
No Alarm has been set.

M:30 2	00:00
SYS ALARMS	0

(Mode 31) Saturday System Alarms

There can be up to eight System Alarms set for Saturday. A System Alarm puts the Background Music over the External Paging Port and through the Keyphone speakers.

Programming Procedure:

See (System Programming Section - Mode 30) Weekday System Alarms and follow the programming procedure to set Saturday System Alarms.

(Mode 32) Sunday System Alarms

There can be up to eight System Alarms set for Sunday. A System Alarm puts the Background Music over the External Paging Port and through the Keyphone speakers.

Programming Procedure:

See (System Programming Section - Mode 30) Weekday System Alarms and follow the programming procedure to set Sunday System Alarms.

(Mode 33) Station Alarm Duration

The duration for a Station to ring for a Wake-Up / Remind Call can be set.

The Station Alarm Duration can be set from 10 to 9999 seconds.

Refer to the *Easy Reference Guide* for how to set Station Wake-Up / Remind Calls.

See (Station Programming Section - Mode 39) Set Wake-up / Remind Calls for how to restrict a Station from setting a Wake-up / Remind Call.

See (Operator Feature Section) Hotel Features for how to set a Wake-up / Remind Call for a Station from an Operator Station.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M: . Enter Mode No.

Step 2: Enter Mode **33**

e.g. Station Alarm Time is
25 seconds.

M:33	25
ST ALARM TIME	

Step 3: Press **FLASH** to clear (an existing time).

M:33	0
ST ALARM TIME	

Step 4: Enter Station Alarm Time **10 - 9999**

e.g. Set Station Alarm Time to
30 seconds.

M:33	30
ST ALARM TIME	

Step 5: Press **HOLD** to save change.

*:33	30
ST ALARM TIME	

(Mode 34) DVA Port (Digital Voice Announcer)

When a Station has been set up with a Wake-up / Remind Call the Station will ring at the programmed time. When answered, the Station will receive either music or be connected to the DVA Port. If there is no assigned DVA Port or if the DVA Port is busy then the Station will only get music.

A Station Hunt Group can also be assigned as the DVA Port. Only one Station from the Station Hunt Group will be selected.

Refer to the *Easy Reference Guide* for how to set Station Wake-Up / Remind Calls.

See (Station Programming Section - Mode 39) Set Wake-up / Remind Calls for how to restrict a Station from setting a Wake-up / Remind Call.

See (Operator Feature Section) Hotel Features for how to set a Wake-up / Remind Call for a Station from an Operator Station.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **34**

```
M: 34
DVA PORT
```

Step 3: Press **FLASH** to erase (an existing Station Port or Station Group).

```
M: 34
DVA PORT
```

Step 4: Enter a new Station Port **001 - 400**

e.g. Set to Port 013

```
M: 34          13
DVA PORT
```

OR Press **MSG** for Station Hunt Group **1 - 9**

e.g. Set to Station Hunt Group 1

```
M: 34          STGP: 1
DVA PORT
```

Step 5: Press **HOLD** to save change.

```
*: 34          13
DVA PORT
```

Paging

(Mode 35) Zone Paging Port Assignment

There can be up to eight Zones assigned for External Paging. The eighth Zone is the External Paging connection built into the system. The other seven Zones use normal Station Ports.

Refer to the *Easy Reference Guide* for how to do Paging.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **35**

```
M:35 .
ZONE PAGE ASSIGN
```

Step 3: Enter Zone number **1 - 7**

e.g. Zone 1 is currently set to
Port 26.

```
M:35 1      26
ZONE PAGE ASSIGN
```

Step 4: Press **FLASH** to erase (an existing Port number).

```
M:35 1
ZONE PAGE ASSIGN
```

Step 5: Enter new Port number **001 - 400**

e.g. Set to Port 65

```
M:35 1      65
ZONE PAGE ASSIGN
```

Step 6: Press **HOLD** to save change.

```
*:35 1      65
ZONE PAGE ASSIGN
```

Step 7: (Optional) Press **TRF** to scroll forward to next Zone or **MIC** to move backward to previous. Repeat from next Step 4.

e.g. Move to next Zone
No Port has been set

```
M:35 2
ZONE PAGE ASSIGN
```

(Mode 36) Page Tone

When making a Paging Call, a tone can be given at the start to announce the Paging Call.

Refer to the *Easy Reference Guide* for how to do Paging.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M: . Enter Mode No.

Step 2: Enter Mode **36**

M: 36	NO
PAGE TONE	

Step 3: Press **MSG** (Yes) for Page Tone or **FLASH** (No) for none.

e.g. Set to use Page Tone

M: 36	YES
PAGE TONE	

Step 4: Press **HOLD** to save change.

*: 36	YES
PAGE TONE	

(Mode 37) Page Music Source

There are three music sources available to the External Paging Output, one internal and two external. The two external music sources each require an external music source to be connected to the system.

Refer to the *Installation Guide* for more information on connecting an External Music Source.

Refer to the *Easy Reference Guide* for how to do Paging.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M: .	
Enter Mode No.	

Step 2: Enter Mode 37

M:37	1
PAGE MUSIC SOURC	

Step 3: Press **1** (internal), **2** (external 1), or **3** (external 2).

e.g. Set to External Music Source 1

M:37	2
PAGE MUSIC SOURC	

Step 4: Press **HOLD** to save change.

*:37	2
PAGE MUSIC SOURC	

Dry Contact Relay Control

(Mode 40) Dry Contact Relay Control

There are 6 programmable Dry Contact Relays located on the KDX-MDF. They can be used in conjunction with Station Ports, Trunk Lines, Loud Bells 1-4, Zone paging, Music on Hold Power Control 1-2 or Door Lock control.

Refer to *Installation Manual* for more information on connecting Dry Contact Relays.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **40**

```
M:40 .
DRY CONTACT CTRL
```

Step 3: Enter a Dry Contact Relay **1 - 6**

e.g. Enter Dry Contact Relay 1

```
*:40 1
DRY CONTACT CTRL
```

Step 4: Enter Station Port **001 - 460** or Press **MSG** to Scroll through the other options.

e.g. Press MSG "once" for TK
Enter 01 for Trunk 01

```
M:40 1 TK:01
DRY CONTACT CTRL
```

Step 5: Press **HOLD** to save change.

e.g. Dry Contact Relay 1 is
set for Trunk 1

```
*:40 1 TK:01
DRY CONTACT CTRL
```

Step 6: (Optional) Press **TRF** to scroll forward to next Dry Contact Relay or **MIC** to move backward to previous Dry Contact Relay. Repeat from Step 4.

e.g. Move to next Dry Contact Relay

```
M:40 2
DRY CONTACT CTRL
```

(Mode 41) Dry Contact Relay Default

The 6 Dry Contacts Relays can be programmed to be normally open or normally closed.

Refer to *Installation Manual* for more information on connecting Dry Contact Relays.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **41**

```
M:41 .
DRY CONTACT DEF.
```

Step 3: Enter Dry Contact Relay **1 – 6**.

e.g. Enter "1" for Dry Contact Relay 1
Default is "OPEN".

```
M:41 1 OPEN
DRY CONTACT DEF.
```

Step 4: Press **FLASH** for Closed or **MSG** for Open.

e.g. Changed to Closed

```
*:41 1 CLOSED
DRY CONTACT DEF.
```

Step 5: Press **HOLD** to save change.

e.g. Dry Contact Relay 1 is closed

```
*:41 1 CLOSED
DRY CONTACT DEF.
```

Step 6: (Optional) Press **TRF** to scroll forward to next Dry Contact Relay or **MIC** to move backward to previous Dry Contact Relay. Repeat from Step 4.

e.g. Move to next Dry Contact Relay

```
M:41 2 OPEN
DRY CONTACT DEF.
```

Door Phone**(Mode 45) Door Phone Ring Group 1**

When a Station is set to work as a Door Phone, a ring group of Station Ports need to be assigned. Lifting the handset automatically rings the Station Ports assigned to Ring Group 1. All Station Ports in Ring Group 1 will ring if idle.

See (Station Programming Section - Mode 32) Ring Door Phone Group 1 for how to set a Station Port to work as a Door Phone Port.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **45**

```
M:45 .
DOOR RING GP 1
```

Step 3: Enter position number **01 - 16**

e.g. No port has been set for position 1

```
M:45 01      26
DOOR RING GP 1
```

Step 4: Press **FLASH** to erase (an existing Port number).

```
M:45 01
DOOR RING GP 1
```

Step 5: Enter new Port number **1 - 400**

e.g. Set to Port 65.

```
M:45 01      65
DOOR RING GP 1
```

Step 6: Press **HOLD** to save change.

```
*:45 01      65
DOOR RING GP 1
```

Step 7: (Optional) Press **TRF** to scroll forward to next position or **MIC** to move backward to previous position. Repeat from Step 4.

e.g. Move to next position
No Port has been set

```
M:45 02
DOOR RING GP 1
```

(Mode 46) Door Phone Ring Group 2

When a Station is set to work as a Door Phone, a ring group of Station Ports need to be assigned. Lifting the handset automatically rings the Station Ports assigned to Ring Group 2. All Station Ports in Ring Group 2 will ring if idle.

See (Station Programming Section - Mode 33) Ring Door Phone Group 2 for how to set a Station Port to work as a Door Phone Port.

Programming Procedure:

See (System Programming Section - Mode 45) Door Phone Ring Group 1 and follow the programming procedure for setting Door Phone Ring Group 2.

Voice Mail Interface**(Mode 50) Voice Mail Station Hunt Group (9)**

The system has nine Station Hunt Groups. The first eight are regular Station Hunt Groups that can be used for many purposes while Station Hunt Group 9 is used specifically for Voice Mail.

See (Station Programming Section - Mode 60) Station Hunt Groups for how to set a normal Station Hunt Group.

Refer to the *Easy Reference Guide* on how to access a Station Hunt Group.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **50**

```
M:50 .
VM ST HUNT GROUP
```

Step 3: Enter a memory position **01 – 16** **Note:** The memory position is a counter to keep track of how many ports have been entered, up to 16 ports can be assigned.

e.g. The fourth position is not set.

```
M:50 04
VM ST HUNT GROUP
```

Step 4: Press **FLASH** to clear (an existing Station Port number).

```
M:50 04
VM ST HUNT GROUP
```

Step 5: Enter new Station Port number **001 - 400**

e.g. Set to Port 21.

```
M:50 04      21
VM ST HUNT GROUP
```

Step 6: Press **HOLD** to save change.

```
*:50 04      21
VM ST HUNT GROUP
```

Step 7: (Optional) Press **TRF** to scroll forward to next position or **MIC** to move backward to previous position. Repeat from Step 4.

e.g. Move to next position

```
M:50 05
VM ST HUNT GROUP
```

(Mode 51) Use Voice Mail Inband Signaling

When using Voice Mail with the system, integration between the Voice Mail and system can be either SMDI or Inband Signaling.

Refer to the *Installation Guide* for more information on connecting a Voice Mail system.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **51**

```
M:51          NO
USE VM INBAND
```

Step 3: Press **MSG** (YES) for Inband Signaling or **FLASH** (No) for none.

e.g. Set to use Inband Signaling

```
M:51          YES
USE VM INBAND
```

Step 4: Press **HOLD** to save change.

```
*:51          YES
USE VM INBAND
```

(Mode 52) Voice Mail Inband Signaling Packets

This mode is currently not used. It will be available in later versions of software.

(Mode 53) Voice Mail Trunk Incoming Call Packets

This mode is currently not used. It will be available in later versions of software.

(Mode 54) Inband Signaling DTMF Tone Length

The Inband Signaling DTMF Tone Length can be set from 50 ms to 250 ms (n x 10 ms).

The Inband Signaling DTMF Tone Length determines how quickly the DTMF is generated for Inband Signaling. Setting the DTMF Tone Length too short results in the device receiving the Inband Signaling to miss digits or ignore the Inband Signaling completely.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **54**

e.g. Currently set to 100 ms

```
M:54      10
INBAND DTMF LEN
```

Step 3: Press **FLASH** to clear (an existing length).

```
M:54      0
INBAND DTMF LEN
```

Step 4: Enter new DTMF Tone Length **5 - 250**.

e.g. Set to 80 ms (n = 8)

```
M:54      8
INBAND DTMF LEN
```

Step 5: Press **HOLD** to save change.

```
*:54      8
INBAND DTMF LEN
```

Note: The minimum Inband Signaling DTMF Tone Length is 50 ms (n = 5), and the maximum is 250 ms (n = 25).

Inband Signaling 2**(Mode 55) Use Inband Signaling 2**

This mode is currently not used. It will be available in later versions of software.

(Mode 56) Inband Signaling Packets 2

This mode is currently not used. It will be available in later versions of software.

(Mode 57) Trunk Incoming Call Packets 2

This mode is currently not used. It will be available in later versions of software.

Toll Restriction

Toll Plans are designed to restrict Station user access for making outgoing calls. There are fifteen separate Toll Plans.

Toll Plan	Restriction	Key
0	No Restriction	FLASH
1	Fully Programmable	1
2	Fully Programmable	2
3	Fully Programmable	3
4	Fully Programmable	4
5	Fully Programmable	5
6	Fully Programmable	6
7	1st digit cannot be 0	7
8	1st digit cannot be 1	8
9	1st digit cannot be 0 or 1	9
A	1st digit must be 1	0
B	1st two digits cannot be 00	*
C	1st two digits cannot be 09	#
D	Use only Common Unrestricted Numbers	CONF
E	Use only System Speed Dial	CAMP
F	No outward dialing	REDIAL

If a Station Port is set to Toll Plan 0, there is no call restriction.

Toll Plans 1 to 6 have a (Mode 73) Digit Length Restriction and can have a Class-of-Restriction (Toll Plan) set for each Trunk. See (Mode 74) Class-of-Restriction - Trunk, (Mode 75) Local Call Restriction, and (Mode 76) Long Distance Call Restriction.

Toll Plans 1 to F can be further restricted using Common Restriction tables. See (Mode 70) Common Restricted Numbers and (Mode 71) Common Unrestricted Numbers.

See (Mode 60) Station Toll Plan Assignment - Day and (Mode 61) Station Toll Plan Assignment - Night for setting the Toll Plan for Stations.

(Mode 60) Station Toll Plan Assignment - Day

Each Station Port can be assigned two different Toll Plans; One for Day Mode and one for Night Mode.

Toll Plans are designed to restrict what calls the user can make on the system. There are fifteen separate Toll Plans. If a Station Port is set to Toll Plan 0, it will have no call restriction.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **60**

```
M:60 .
TOLL PLAN - DAY
```

Step 3: Enter Port number **001 - 400**

e.g. Port 37 is Station number 37
Currently has no restriction

```
M:60 37      0
ST:37
```

Step 4: Press **FLASH** to reset a Toll Plan to 0.

```
M:60 37      0
ST:37
```

Step 5: Enter new Toll Plan **0 - F**

e.g. Set Port 37 to Toll Plan 7
Cannot dial numbers starting
With 0

```
M:60 37      7
ST:37
```

Step 6: Press **HOLD** to save change.

```
*:60 37      7
ST:37
```

Step 7: Press **TRF** to scroll forward to next port or **MIC** to scroll backward to previous port.

e.g. Move to next Port
Port 38 currently has no
restriction

```
M:60 38      0
ST:38
```

(Mode 61) Station Toll Plan Assignment - Night

Each Station Port can be assigned two different Toll Plans; One for Day Mode and one for Night Mode.

Toll Plans are designed to restrict what calls the user can make on the system. There are fifteen separate Toll Plans. If a Station Port is set to Toll Plan 0, it will have no call restriction.

See (System Programming Section - Mode 60) Station Toll Plan Assignment - Day and follow the programming procedure to assign a Toll Plan.

(Mode 62) Toll Restriction Override Password

Toll Restriction on a Trunk Line can be overridden by a password. There are eight Toll Restriction Override Passwords available to the system.

The password is a combination of up to six keys (0 - 9, *, #).

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **62**

```
M: 62
TOLL OVERRIDE
```

Step 3: Enter Password number **1 - 8**

e.g. Password 1 is currently not set

```
M: 62 1
TOLL OVERRIDE
```

Step 4: Press **FLASH** to erase an existing password.

```
M: 62 1
TOLL OVERRIDE
```

Step 5: Enter new password (up to 6 keys).

e.g. Enter key combination

```
M: 62 1 #11*22
TOLL OVERRIDE
```

Step 6: Press **HOLD** to save new password.

```
*: 62 1 #11*22
TOLL OVERRIDE
```

Step 7: Move to next Password. Press **TRF** to scroll forward or **MIC** to move backward.

e.g. Move to next Password

```
M: 62 2
TOLL OVERRIDE
```

(Mode 63) Speed Dial Toll Restriction Break Point

A range of System Speed Dial bins can be set to ignore Toll Restriction. The Speed Dial Break Point can be set from 100 to 499.

If the Break Point is set to 200 then System Speed Dial bins 100 - 199 are Toll Restricted while System Speed Dial bins 200 - 499 are **NOT** Toll Restricted.

Note: If a Station is set to Toll Plan 0 (No Restriction) then it can dial any System Speed Dial bins with NO restriction.

Refer to the *Easy Reference Guide* for how to program System Speed Dial numbers.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **63**

```
M:63      200
SPD BREAK POINT
```

Step 3: Press **FLASH** to clear an existing Break Point.

```
M:63      0
SPD BREAK POINT
```

Step 4: Enter new Break Point.

e.g. Set Speed Dial bins 400 - 499 as
NOT Toll Restricted

```
M:63      400
SPD BREAK POINT
```

Step 5: Press **HOLD** to save change.

```
*:63      400
SPD BREAK POINT
```

(Mode 64) Check-In Call Restriction

When the Operator uses the Check-In / Check-Out feature, the Operator can lock a Station, set Do-Not-Disturb, or change the Toll Restriction. The Toll Restriction for the Station can be set to either 0 for All Calls (Toll Plan 0), 1 for Local (Toll Plan 9), 2 for Credit Card (Toll Plan 4), and 3 for Speed Dial only (Toll Plan D).

The Toll Restriction that is used for restricting Local Calls can be programmed.

See (Operator Features Section) Hotel Features for how to set an alternate Operator for the Operator Stations.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **64**

```
M: 64 .
CHECK-IN TOLL RN
```

Step 3: Enter a position number **1 - 4**

e.g. Local restriction is
set for Toll Plan 9

```
M: 64 2          9
CHECK-IN TOLL RN
```

Step 4: Press **FLASH** to clear existing Toll Plan.

```
M: 64 2
CHECK-IN TOLL RN
```

Step 5: Enter new Toll Plan **0 - F**

e.g. Set to Toll Plan 7 for Local
and Credit Card calls

```
M: 64 2          7
CHECK-IN TOLL RN
```

Step 6: Press **HOLD** to save change.

```
*: 64 2          7
CHECK-IN TOLL RN
```

Step 7: Press **TRF** to scroll forward to next position or **MIC** to move backward.

e.g. Move to next number
second number is currently
set to 1975.

```
M: 64 3          4
CHECK-IN TOLL RN
```

(Mode 70) Common Restricted Numbers

There can be up to eight Common Restricted Numbers set.

Common Restricted Numbers affect all Stations restricted by Toll Plans 1 to C and can be used for setting system-wide restrictions.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **70**

```
M:70 .
COMMON RESTRICT
```

Step 3: Enter a position number **1 - 8**.

e.g. first number is currently
set to 1411

```
M:70 1 1411
COMMON RESTRICT
```

Step 4: Press **FLASH** to erase an existing number.

```
M:70 1
COMMON RESTRICT
```

Step 5: Enter new number up to 6 digits

e.g. Set number to 1900

```
M:70 1 1900
COMMON RESTRICT
```

Step 6: Press **HOLD** to save change.

```
*:70 1 1900
COMMON RESTRICT
```

Step 7: Press **TRF** to scroll forward or **MIC** to move backward to previous position.

e.g. Move to next number
second number is currently
set to 1975

```
M:70 2 1975
COMMON RESTRICT
```

(Mode 71) Common Unrestricted Numbers

There can be up to eight Common Unrestricted Numbers set.

Common Unrestricted Numbers affect all Stations restricted by Toll Plans 1 to F and can be used for setting system-wide restrictions.

See (Mode 70) Common Restricted Numbers and follow the programming procedure to set Common Unrestricted Numbers.

(Mode 72) Long Distance Call Prefix

The Long Distance Call Prefix needs to be set for use with (Mode 76) Long Distance Call Restriction. These tables can be ignored by clearing the Long Distance Call Prefix.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **72**

e.g. Long Distance Call Prefix is 1

```
M:72      1
LONG DIST PREFIX
```

Step 3: Press **FLASH** to ignore Long Distance Call Restriction tables.

```
M:72
LONG DIST PREFIX
```

Step 4: Enter new Long Distance Call Prefix.

e.g. Set Long Distance Call Prefix to "0".

```
M:72      0
LONG DIST PREFIX
```

Step 5: Press **HOLD** to save change.

```
*:72      0
LONG DIST PREFIX
```

(Mode 73) Digit Length Restriction

Toll Plans 1 - 6 have a Digit Length Restriction (0 - 32).

Digit Length Restriction provides a simple call restriction. When set to 7 only local numbers can be dialed. When set to 0 there will be no Digit Length Restriction.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **73**

```
M:73 .
DIGIT LENGTH
```

Step 3: Enter Toll Plan number **1 - 6**

e.g. Toll Plan 3 has Length Restriction 7

```
M:73 3      7
DIGIT LENGTH
```

Step 4: Press **FLASH** to clear an existing length.

e.g. Set no Digit Length Restriction

```
M:73 3      0
DIGIT LENGTH
```

Step 5: Enter new Length Restriction **1 - 32**

e.g. Set Length Restriction to 8

```
M:73 3      8
DIGIT LENGTH
```

Step 6: Press **HOLD** to save change.

```
*:73 3      8
DIGIT LENGTH
```

Step 7: Move to next Toll Plan. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to previous Toll Plan
Toll Plan 2 has Length Restriction 9

```
M:73 2      9
DIGIT LENGTH
```

(Mode 74) Class-of-Restriction - Trunk

Toll Plans 1 - 6 can have a Class-of-Restriction (Toll Plan) set for each Trunk.

This allows very complex Toll Restrictions.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M:.
Enter Mode No.
```

Step 2: Enter Mode **74**

```
M:74 .
COR TRUNK
```

Step 3: Enter Toll Plan number **1 - 6**

e.g. Toll Plan 2

```
M:74 2 .
COR TRUNK
```

Step 4: Enter Trunk number **01 - 96**

e.g. Trunk 15 has
Class-of-Restriction 0

```
M:74 2 15 0
COR TRUNK
```

Step 5: Press **FLASH** to clear an existing Class-of-Restriction.

e.g. Set to Class-of-Restriction 0.

```
M:74 2 15 0
COR TRUNK
```

Step 6: Enter new Class-of-Restriction **1 - F**

e.g. Set to Class-of-Restriction 5

```
M:74 2 15 5
COR TRUNK
```

Step 7: Press **HOLD** to save change.

```
*:74 2 15 5
COR TRUNK
```

Step 8: Move to next Trunk. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Trunk. Trunk 16
has Class-of-Restriction 7.

```
M:74 2 16 7
COR TRUNK
```

(Mode 75) Local Call Restriction

Class-of-Restrictions 1 - 6 each has two Call Restriction tables of 48 numbers. One set of tables is used for Local Call Restriction and the other for Long Distance Call Restriction. The tables can be used for listing which numbers to be allowed or denied.

The table default is Allow, so a Deny (**CAMP**) must be put at the top of the table when listing which numbers to be denied. When used as an "Allow table" only entries in the table will be allowed, everything else is automatically denied. When used as a "Deny table" only entries in the table will be denied, everything else is automatically allowed.

The digit * is a "wildcard" entry (* = all digits 0 - 9). More than one wildcard can be used in a number.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **75**

```
M:75 .
LOCAL RESTRICT
```

Step 3: Enter Class-of-Restriction number **1 - 6**

e.g. Class-of-Restriction 2

```
M:75 2 .
LOCAL RESTRICT
```

Step 4: Enter position number **01 - 48**

e.g. position 1 has no number set

```
M:75 2 01
LOCAL RESTRICT
```

Step 5: Press **FLASH** to erase an existing number.

```
M:75 2 01
LOCAL RESTRICT
```

1. Press **CAMP** to set the table for Deny.

e.g. Set table to Deny

```
M:75 2 01 D
LOCAL RESTRICT
```

2. Enter new number (up to 6 digits).

e.g. Enter number 5571

```
M:75 2 01 5571
LOCAL RESTRICT
```

3. Enter new number (up to 6 digits) with a wildcard.

e.g. Enter number 3*7
(i.e. 307, 317, 327, 337, ..., 397)

```
M:75 2 01 3*7
LOCAL RESTRICT
```

Step 6: Press **HOLD** to save change.

```
*:75 2 01 3*7
LOCAL RESTRICT
```

Step 7: Move to next position. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next position.
Position 2 has number 55567
entered

```
M:75 2 02 55567
LOCAL RESTRICT
```

(Mode 76) Long Distance Call Restriction

Class-of-Restrictions 1 - 6 each has two Call Restriction tables of 48 numbers. One set of tables is used for Local Call Restriction and the other for Long Distance Call Restriction. The tables can be used for listing which numbers to be allowed or denied.

When using the Long Distance Restriction tables, the Long Distance Call Prefix is assumed so it is not required to be entered into the tables.

The table default is Allow, so a Deny (**CAMP**) must be put at the top of the table when listing which numbers to be denied. When used as an "Allow table" only entries in the table will be allowed, everything else is automatically denied. When used as a "Deny table" only entries in the table will be denied, everything else is automatically allowed.

See (Mode 72) Long Distance Call Prefix for how to set the Long Distance Call Prefix.

See (Mode 75) Local Call Restriction and follow the programming procedure to set Long Distance Call Restriction tables.

(Mode 77) PABX Trunk Access Code

A PABX Trunk Access Code can be set for PABX Lines.

When a Trunk is as a PABX Line the PABX Trunk Access Code will not be appear on the SMDR output.

See (Trunk Programming Section - Mode 01) Trunk Type for setting a Trunk as a PABX Line.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing **[PROG-PROG-1-2-3-HOLD]** from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **77**

e.g. PABX Trunk Access Code is 1

```
M:77      1
PABX TK ACCESS
```

Step 3: Enter new PABX Trunk Access Code.

e.g. Set PABX Trunk Access Code to 0

```
M:77      0
PABX TK ACCESS
```

Step 4: Press **HOLD** to save change.

```
*:77      0
PABX TK ACCESS
```

(Mode 78) Ignore PABX Access Code

The system can be set to ignore the PABX Access Code on PABX Lines when using Toll Restriction.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

M: . Enter Mode No.

Step 2: Enter Mode 78

M: 78	NO
IGNORE PABX CODE	

Step 3: Press **MSG** to ignore PABX Access Code or **FLASH** to not ignore.

e.g. Set to ignore PABX Access Code

M: 78	YES
IGNORE PABX CODE	

Step 4: Press **HOLD** to save change.

*: 78	YES
IGNORE PABX CODE	

Automatic Route Selection

(Mode 80) Use Automatic Route Selection

Automatic Route Selection can be used to direct calls to specific Trunk Hunt Groups when placing outside calls. This allows the user to access the most economical line available.

When Automatic Route Selection is set the system waits until Keyphone users have dialed three or four digits before accessing a Trunk. For Single-Line Telephone users the system waits until there is a pause in dialing before accessing a Trunk.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 80

```
M:80          NO
AUTO ROUTE SELCT
```

Step 3: Press **MSG** to use ARS (Yes) or **FLASH** to not use ARS (No).

e.g. Set to use Automatic
Route Selection

```
M:80          YES
AUTO ROUTE SELCT
```

Step 4: Press **HOLD** to save change.

```
*:80          YES
AUTO ROUTE SELCT
```

(Mode 81) Force ARS

A Station can be forced to use Automatic Route Selection when trying to access an individual Trunk or when using 77 to access Trunks. This only applies when using Automatic Route Selection.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **81**

```
M:81 .
FORCE ARS
```

Step 3: Enter Station Port number **001 - 400**

e.g. Port 28 is Station 127

```
M:81 28      NO
ST:127 LCD
```

Step 4: Press **MSG** for Force ARS (Yes) or **FLASH** for No.

e.g. Set to Force ARS

```
M:81 28      YES
ST:127 LCD
```

Step 5: Press **HOLD** to save change.

```
*:81 28      YES
ST:127 LCD
```

Step 6: Press **CONF** to set ALL Station Ports the same.

e.g. All Stations must follow ARS

```
*:81 28      YES
ST:127 LCD
```

Step 7: (Optional) Move to next Station Port. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Station Port
Port 24 must always follow ARS

```
M:81 29      YES
ST:128 LCD
```

(Mode 82) Automatic Route Selection Time-out

For Automatic Route Selection, Keyphones automatically access a Trunk after 3 to 4 digits, Single-Line Telephones require a pause after dialing to show the complete number has been dialed. This is because the DTMF signals generated by the Single-Line Telephone will interfere with the Auto Dialing after the system has determined which Trunk to access.

The Automatic Route Selection Time-out can be set from 1 to 9999 seconds. A time of 3 to 5 seconds is recommended.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **82**

e.g. ARS Time-out is 5 seconds

```
M:82      5
ARS TIME-OUT
```

Step 3: Press **FLASH** to clear (an existing time).

```
M:82      0
ARS TIME-OUT
```

Step 4: Enter ARS Time-out.

e.g. Set ARS Time-out to 3 seconds

```
M:82      3
ARS TIME-OUT
```

Step 5: Press **HOLD** to save change.

```
*:82      3
ARS TIME-OUT
```

(Mode 83) Area Code Table

There can be up to ninety-six Area Codes set in the Area Code Table. The Area Code Table is used when the telephone number dialed starts with the Long Distance Call Prefix.

Each three digit Area Code can be set to one of eight routes. The order is 01 - 96 with the first match being the one used. If an Area Code is not present in the Area Code Table the default route 1 is used.

The digit * can be used as a "wildcard" (* = all digits 0 - 9). More than one wildcard can be used in a Area Code.

See (Mode 72) Long Distance Call Prefix for setting the Long Distance Call Prefix.

See (Mode 85) Route Table for how to set up the routes.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **83**

```
M:83 .
AREA CODE TABLE
```

Step 3: Enter position number **01 - 96**

e.g. first position is empty

```
M:83 01      1
AREA CODE TABLE
```

Step 4: Press **FLASH** to erase an existing Area Code.

```
M:83 01      1
AREA CODE TABLE
```

Step 5: Enter new Area Code **3 digits**

e.g. Set number to 213

```
M:83 01      213 1
AREA CODE TABLE
```

Step 6: Enter new Route **1 - 8**

e.g. Set to route 3

```
M:83 01      213 3
AREA CODE TABLE
```

Step 7: Press **HOLD** to save change.

*:83 01	213 3
AREA CODE TABLE	

Step 8: Move to next position. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next number

M:83 02	1
AREA CODE TABLE	

(Mode 84) Office Code Table

There can be up to ninety-six Office Codes set in the Office Code Table. The Office Code Table is used when the telephone number dialed does not start with the Long Distance Call Prefix.

Each three digit Office Code can be set to one of eight routes. The order is 01 - 96 with the first match being the one used. If an Office Code is not present in the Office Code Table the default route 1 is used.

The digit * can be used as a "wildcard" (* = all digits 0 - 9). More than one wildcard can be used in a Office Code.

Programming Procedure:

See (Mode 83) Route Table for how to set up the routes.

(Mode 85) Route Table

Each route can have a Trunk Hunt Group set for each Time Period (1 - 8). Time Periods 1 - 7 are programmable while Time Period 8 is used for Holidays and Weekends.

See (Mode 86) Time Period for how to set Time Periods for routes.

See (Mode 87) Holiday Table for setting Holidays.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **85**

```
M:85 .
ROUTE TABLE
```

Step 3: Enter Route number **1 - 8**

e.g. Route 3

```
M:85 3 .
ROUTE TABLE
```

Step 4: Enter Time Period **1 - 8**

e.g. Time Period 2

```
M:85 3 2 1
ROUTE TABLE
```

Step 5: Enter new Trunk Hunt Group **1 - 8**

e.g. Set to Trunk Hunt Group 5

```
M:85 3 2 5
ROUTE TABLE
```

Step 6: Press **HOLD** to save change.

```
*:85 3 2 5
ROUTE TABLE
```

Step 7: Move to next Time Period. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Time Period

```
M:85 3 3 1
ROUTE TABLE
```

(Mode 86) Time Period

Each route has eight Time Periods (1 - 8). Time Periods 1 - 7 are programmable while Time Period 8 is used for Holidays and Weekends.

The seven programmable Time Periods are defined by six programmable times. The times can be set to the hour.

Time Period 1	- Midnight to Time 1
Time Period 2	- from Time 1 to Time 2
Time Period 3	- from Time 2 to Time 3
Time Period 4	- from Time 3 to Time 4
Time Period 5	- from Time 4 to Time 5
Time Period 6	- from Time 5 to Time 6
Time Period 7	- from Time 6 to Midnight

If the times are not set then Time Period 1 is used by default. If a Time is not set then it is treated as midnight.

See (Mode 85) Route Table for setting Routes.

See (Mode 87) Holiday Table for setting Holidays.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 86

```
M:86 .
ARS TIME PERIOD
```

Step 3: Enter Time 1 - 6

e.g. Time 1

```
M:86 1 0
ARS TIME PERIOD
```

Step 4: Press **FLASH** to erase an existing Time.

e.g. Time Period 1

```
M:86 1 0
ARS TIME PERIOD
```

Step 5: Enter new Time 0 - 24

e.g. Set to 8:00 am

M:86 1	8
ARS TIME PERIOD	

Step 6: Press HOLD to save change.

*:86 1	8
ARS TIME PERIOD	

Step 7: Move to next Time Period. Press MIC to scroll backward, TRF to scroll forward.

e.g. Move to next Time Period

M:86 1	0
ARS TIME PERIOD	

(Mode 87) Holiday Table

There can be up to sixteen Holidays set for Automatic Route Selection.

When a Holiday is set the day is treated the same as a Weekend. The set Time Periods are ignored and the Trunk Hunt Group set for Time Period 8 is used instead.

See (Mode 85) Route Table for how to set up the routes.

See (Mode 86) Time Period for how to set Time Periods for routes.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **87**

```
M:87 .
HOLIDAY TABLE
```

Step 3: Enter position number **01 - 16**

e.g. fourth date is March 15

```
M:87 04 03/15
HOLIDAY TABLE
```

Step 4: Press **FLASH** to erase an existing Date.

```
M:87 04 /
HOLIDAY TABLE
```

Step 5: Enter new Date **MM/DD**

e.g. Set date to April 25

```
M:87 04 04/25
HOLIDAY TABLE
```

Step 6: Press **HOLD** to save change.

```
*:87 04 04/25
HOLIDAY TABLE
```

Step 7: Move to next date. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next date (blank)

```
M:87 05 /
HOLIDAY TABLE
```

(Mode 88) Addition / Subtraction Table

Each route can have a number dialed modifier to route the number through the selected telephone service. This provides for the deletion and addition of digits.

The deletion and addition of digits occur at the front of the number dialed. Up to sixteen digits can be set for addition for each route.

See (Mode 85) Route Table for how to set up the routes.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **88**

```
M:88 .
ADD / SUB TABLE
```

Step 3: Enter route **1 - 8**

e.g. route 2 has no modification set.

```
M:88 2
```

Step 4: Press **FLASH** to erase an existing entry.

```
M:88 2
```

Press **REDIAL** to enter the number of digits to delete.

```
M:88 2
```

Enter the number of digits to delete 1 - 9 digits

e.g. Delete 4 digits

```
M:88 2
R4
```

Enter new digits to be added 1 - 16 digits

e.g. Dial access code 9584
before number.

```
M:88 2
R49584
```

Step 5: Press **HOLD** to save change.

*:88 2 R49584

Step 6: Move to next position. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next number

M:88 3

System 56 Voicemail

Installation and Programming Manual

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Introduction



The System 56 Voicemail is a Voice Mail/Automated Attendant system for organizations that have between eight and eighty employees. Developed by KS Telecom, a leader in the field of Telephone Equipment and Voice Processing Systems. The System 56 Voicemail incorporates state of the art technology, including DSP, flash memory and SMT production.

The System 56 Voicemail is four ports. It features 128 mailboxes and provides from 5 hours storage and expands to 8 hours.

The system administrator can program the System 56 Voicemail by touch-tone telephone or in the future by computer using the Voicemail Utility Program (VUP).

The System 56 Voicemail is ready for use immediately after the system administrator completes a short procedure that includes setting up mailboxes, notification type, system schedules and opening greetings. Each mailbox owner can then set up his own personal mailbox parameters.

Features and Services

The System 56 Voicemail is a powerful voice mail system at an affordable price. It contains most of the useful features and services provided by PC-based systems but at a lower cost. The voicemails features can be divided into three groups:

- System
- Automated Attendant
- Voice Mail

System Features

- **Configuration**

The System 56 Voicemail comes with four ports and five hours of storage. The system administrator can upgrade the System 56 Voicemail by:

- Replacing the two hour and forty minute storage card with a five hours and twenty minutes of storage space to increase the total storage capacity to eight hours

- **Programming**

The system administrator can program the System 56 Voicemail by:

- Touch-tone telephone using DTMF tones
- (Future option) Computer using the Voicemail Utility Program, a Windows-based proprietary program developed by Key System US. The installer should save a file containing the parameters set in each installation.

- **Integration with your PBX**

- The System 56 Voicemail integrates with the KSU using a dedicated connector. This means there is no additional wiring required.

- **Message Notification**

The System 56 Voicemail automatically notifies the mailbox owner of new messages in different ways according to the system configuration. Notification may be local (to an extension) or remote (to a telephone at a remote location, a cellular telephone or a pager).

- **Security Passwords**

The System 56 Voicemail supports three types of passwords, each with four digits:

- ***System Administrator***. Gives access to all data stored in the System 56 Voicemail.
- ***Operator***. Gives access to the operating modes.
- ***Mailbox***. Gives access to individual mailboxes. The mailbox owner can change the password any time.

Automated Attendant Features

The System 56 Voicemail's automated attendant answers incoming calls and, through a series of recorded menus and telephone directories, helps the callers reach the desired extensions.

- **Opening Greeting**

The System 56 Voicemail plays a pre-recorded greeting to callers. The opening greeting usually includes the organization's name, how to reach an extension, department or operator, how to leave a message and how to access a directory.

During the greeting, callers can access a department by dialing a single digit, dialing the extension number or holding for assistance.

- **Operating Modes**

Depending on the time and the system schedule, the System 56 Voicemail answers external calls with one of four opening greetings:

- **Day Mode**

During normal business hours, the System 56 Voicemail answers calls with a pre-recorded daytime greeting. The daytime greeting enables the caller to reach a requested extension, mailbox, department, directory or operator.

- **Night Mode**

During non-working hours, the System 56 Voicemail answers calls with a pre-recorded nighttime greeting that enables the caller to leave a message in a requested mailbox.

- **Holiday Mode**

During holidays, the System 56 Voicemail answers calls with a special greeting that enables the caller to leave a message in a specific mailbox or in the operator's mailbox. The holiday mode can be activated by the operator (password protected).

- **Break Mode**

The system administrator can program part of the day mode as break time. During break time, the System 56 Voicemail answers calls with a special greeting that enables the caller to leave a message in a specific mailbox or in the operator's mailbox.

- **System Schedules (Auto-Mode)**

If your organization has operating hours that vary from day to day, the system administrator can define the daily operating schedules on a weekly basis, including daytime, nighttime and break time hours. When the Auto mode is activated, the System 56 Voicemail automatically switches between the day, night and break modes according to your pre-defined schedule.

The operator can override the pre-defined system schedule and switch manually to day, night, break, or holiday mode using a password.

- **Fax Detection**

If the System 56 Voicemail detects a fax tone (CNG) during the opening greeting, it automatically transfers the call to the pre-defined fax extension.

- **Directory**

The system administrator can set up a directory containing the names and extensions of all the organization's employees. A caller can access this directory by following instructions during the opening greeting.

- **Call Transfer**

The system administrator can program the System 56 Voicemail to detect the Call Progress tones sent by the KSU and transfer the calls to extensions in one of the following modes:

- **Non-Supervised.** The System 56 Voicemail transfers the call immediately without verifying the status of the extension.
- **Supervised.** The System 56 Voicemail checks for a busy or answer signal before transferring the call to the extension.
- **Semi-Supervised.** The System 56 Voicemail only checks for a busy signal before transferring the call to the extension.

- **Answering on the First Ring**

To avoid delays, the system administrator can set up the System 56 Voicemail on each individual port to answer incoming calls on the first ring.

- **Script Menus**

The System 56 Voicemail supports up to 25 script menus. A script menu is a recorded announcement that can accept a digit entry (0-9) during playback. Based on the digit entered, the System 56 Voicemail can take one of the following actions:

- Transfer the call to another script menu
- Transfer the call to an extension or hunt group
- Transfer the call to a mailbox or a mailbox group
- Retrieve messages from a mailbox
- Disconnect the line

Voice Mail Features

The System 56 Voicemail system enables a caller to leave in any mailbox a message recorded in his own voice. The mailbox owner can access his mailbox at any time from any touch-tone telephone and listen to his messages. He can also modify his mailbox parameters.

- **Real/Virtual Mailboxes**

The System 56 Voicemail supports up to 128 real and/or virtual mailboxes. A real mailbox is associated with a telephone extension. A virtual mailbox is not associated with a telephone extension.

- **Personalized Mailboxes**

Each mailbox owner can personalize his mailbox by recording a personal greeting, assigning a personal password to the mailbox and setting optional parameters.

- **Personal Greeting**

Each mailbox owner can record or change his personal greeting at any time from any touch-tone telephone. Callers first hear the personal greeting of the called extension and then can leave a message.

- **Day and Time Stamp**

The system administrator can program the System 56 Voicemail to indicate at the start of each message the day and time the message was recorded.

- **Message Deletion**

A mailbox owner can manually delete messages or the system administrator can program the System 56 Voicemail to automatically delete all messages after a specific number of days.

- **Message Redirection**

A mailbox owner can forward a copy of a message to another mailbox or mailbox group. The mailbox owner can also record an introduction to the forwarded message.

- **Mailbox Groups**

A caller can send at one time a message to all the members of a mailbox group.

All defined mailboxes belong to the “All Group” mailbox group. In addition, the system administrator can create up to four mailbox groups, each containing up to twenty mailboxes. Mailboxes can belong to more than one group and can be added to or deleted from a mailbox group by the system administrator.

- **Year 2000 Compliance**

About this Manual

This manual presents information needed to install, program and maintain the System 56 Voicemail, Version 4.xx. It is divided into the following sections:

- 1. INTRODUCTION**
Introduces the System 56 Voicemail and lists its features.
 - 2. DESCRIPTION AND INSTALLATION**
Provides a functional description of the System 56 Voicemail, installation instructions and specifications.
 - 3. DTMF PROGRAMMING**
Describes how to program the System 56 Voicemail from any DTMF or system telephone.
 - 4. PROGRAMMING BY COMPUTER (Future Option)**
Describes how to program the System 56 Voicemail using the Voicemail Utility Program.
 - 5. USER OPERATING INSTRUCTIONS**
Explains how to program and use a mailbox.
 - 6. TROUBLESHOOTING**
Presents answers to commonly asked questions on operating the System 56 Voicemail.
- APPENDIX A**
Summarizes the programming commands.
- APPENDIX B**
Contains the DTMF programming forms.
- APPENDIX C**
Lists the system messages

Description and Installation



The System 56 Voicemail is a digital system consisting of a:

- Sophisticated DSP voice-processing device
- Flash memory for voice recording and storing KSU parameter information
- Central Processing Unit
- Four audio channels
- Real-time clock

The System 56 Voicemail provides two major services:

- **Automated Attendant Service**

Uses predefined menus to direct calls to a specific department, extension or mailbox.

- **Voice Mail Service**

Receives and delivers messages. Each mailbox has its own number and the mailbox owner has a password to enable him to access his mailbox.

Messages can be saved, deleted or transferred to other mailboxes. In one step, the mailbox owner can also send an identical message to a group of mailboxes or to all the mailboxes in the system.

You can customize the System 56 Voicemail's Automated Attendant and Voice Mail systems to suit the needs of your company. You can configure:

- KSU parameters, such as hook flash time.
- Automated Attendant script menus and customized "Busy", "No Answer" and "Do Not Disturb" menus.
- Voice Mail features, including the number of voice mailboxes, number of mailbox groups and type of new message notifications for each mailbox.

Base System

The System 56 Voicemail comes with 4 ports and 5 hours of storage time.

You can upgrade the System 56 Voicemail by:

- Replacing the existing memory card with a 5 hour storage card to increase the total storage capacity to 8 hours

Note: You may only install one memory expansion card per system.

Physical Description

Expanding the System

The basic SYSTEM 56 VOICEMAIL includes hours of storage time. You can expand the System 56 Voicemail up to eight hours of recording time by adding expansion cards.

Expanding Flash Memory

The System 56 Voicemail has one type of expansion memory cards:

- Five hours and twenty minutes card with 4 memory chips

► To install the memory expansion card:

1. Disconnect all external cables and connectors.
1. Turn the main power switch on the System 56 to the OFF position to turn the System 56 Voicemail off.
2. Insert the memory card into the SIMM connector.
3. Turn the System 56 back on.

The System 56 Voicemail automatically detects memory size when it is turned on.



Although the memory modules may look like regular PC memory they are not. Installing regular PC memory may result in damage to the system and void your warranty.

Specifications

DC Power Supply	5V DC/400 mA
Line Voltage	24V to 72V DC
DC Leakage Current	< 10 μ A
On-hook Insulation Resistance between Line Terminal and the Ground	0V to 100V DC > 5 M Ω 100V to 200V DC > 30 K Ω 500V AC/50 Hz > 20 K Ω 100V AC/25 Hz > 100 K Ω
Ring Capacitor	0.47 μ F \pm 10%
On-hook Impedance	@ 50V DC, 40V AC/25 Hz > 3000 Ω
Ring Detect	27V to 100V AC/16 to 60 Hz
DC Resistance (off-hook)	24V to 66V DC @ 20 to 100 mA 100 to 350 Ω
Impedance (off-hook)	300 to 3400 Hz 500 to 700 Ω
Imbalance Ratio	300 to 3400 Hz > 46 db
Return Loss	300 to 3400 Hz > 18 db
Current during Break	< 700 μ A
DTMF Transmission: Frequency Tolerance	+1.5%
Frequency Level (High Group)	-6 to -8 dBm
Frequency Level (Low Group)	-8 to -10 dBm
Inter-digit Pause in Tone Dialing	70 to 80 ms
Fax CNG Tone Detection	1100 Hz \pm 38 Hz

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DTMF Programming



You can program the System 56 Voicemail by:

- Telephone using DTMF tones
- Computer using the Voicemail Utility Program (see Section 4)

This section describes programming the System 56 Voicemail using DTMF tones.

Note: You will hear a confirmation tone every time you enter a programming command.

Entering and Exiting the Programming Mode

The System 56 Voicemail does not handle calls when in the programming mode.

► **To enter the programming mode:**

1. Dial 739 from any extension on the system.
2. Wait until the System 56 Voicemail answers and plays the opening menu. Then dial *900.
3. Dial the System Administrator's password (the default password is 1234) to enter the programming mode.

► **To exit the programming mode:**

- Dial *900.
-or-
Do not dial for one minute.

*Note: If you exited the programming mode by dialing *900, the System 56 Voicemail plays the opening menu. You can then test the changes made to the system.*

First Time Programming Checklist

1. Dial *900 and the administrator password (default: 1234) to enter the programming mode.
2. Set the KSU parameters (see Sections 0 and 6) to ensure the proper operation of the System 56 Voicemail with your KSU.

Note: These parameters are set by the factory for a 2-digit system all flash times and message light parameters should not have to be changed.

3. Set the System 56 Voicemail's real-time clock (see Section 0).
4. Set the system schedule (see Section 0).
5. Create mailboxes (see Section 0).
6. Define a notification type for each mailbox (see Section 0).
7. Define notification parameters (i.e., message light on and message light off and interval between ring notification in Section 0.) Message light parameters are set from the factory.
8. Record (see Section 0) and program (see Section 0) script menus for the Automated Attendant. Make sure you define the mailboxes before building Automated Attendant script menus.

Important: Make sure you record the Day Opening script (script 00) before using the SYSTEM 56 VOICEMAIL for the first time.

Defining KSU Parameters

To integrate the System 56 Voicemail with your KSU, apply the following parameters to the System 56 Voicemail. To obtain your current KSU parameters, check your Programming Manual or the current programming setup.

Table 0-1 presents the commands you must enter to apply the KSU parameters to the System 56 Voicemail.

Table 0-1 PBX Parameter Commands

OPERATION	COMMAND	DEFAULT
Extension Size	*300 + X Where X is a digit 1-4 You can only change this parameter if mailboxes and/or legal extensions have not yet been defined.	2
Cut off time for continuous call progress tone detection	*301 + X Where X= cut off time in seconds (0-9)	6 seconds
Number of rings before the line is answered	*310 + X + Y Where X is the port number (1-4) Y is the number of rings (1-9) <i>Note: this field will only be in affect if the SMDI integration is not working. To program ringing to voicemail see APPENDIX E.</i>	1 for port 1 1 for port 2 1 for port 3 1 for port 4
Time to wait for No-Answer	*311 + XX Where XX is 00-99 seconds. This code is applicable only when supervised transfer is selected	20 seconds
Legal Extensions KSU	*320 + Y + First Ext. + Last Ext. + # where Y is a group number (0-9). Example: *320 0 330 350 # *320 1 355 375 # You can define up to 10 groups of legal extensions. If a caller dials an extension by direct dialing (code 170), System 56 Voicemail checks if the extension is legal. If the extension is not legal, System 56 Voicemail does not transfer the call.	None
Resetting a group	*320 + Y + 000 + 000 + # (the two groups of zeros can be 2, 3, or 4 digits long, according to the extension size)	None
Resetting all groups	*320 + #	None

OPERATION	COMMAND	DEFAULT
Operator ID Code	*330 + X where X is a digit 0-9 When the caller dials this digit during <u>any</u> script message, the call is transferred to the operator.	0
Programmable code for retrieving messages	*331 + X Where X is a digit 0-9 When the caller dials this digit at the no answer or busy greeting for their mailbox the system will prompt them for their password	9
Disconnect Code	*333 + Code¹ + # The System 56 Voicemail terminates the call when it receives the disconnect code. The code can include up to four digits. Legal values for this code can be any combination of 0-9, *, # and A-D	###
Clear Disconnect Code	*333 + #	
External Access Code	*340 + X where X is the external access code (0-9). This code is applicable for external notification.	9
Clear External Access Code	*340 + #	
Pause before and after external access code	*341 + X Where X is the length of the pause in seconds (0-9)	2 seconds
Transfer mode for all extensions	*350 + X + Y X = 1; All Extensions except the operator X = 2; Operator extension only Y = 0; Non Supervised Y = 1; Supervised Mode Y = 2; Semi Supervised Mode	Non-Supervised

OPERATION	COMMAND	DEFAULT
Day Operator, Night Operator, Fax and Supervisor's Extension numbers	<p>*360 + X + YYYY + # where: X = 1; Day operator X = 2; Night operator X = 3; Fax extension X = 4; Supervisor extension</p> <p><i>One mailbox can be defined as Supervisor. When the storage memory reaches 80% of its capacity, a message is sent to this mailbox indicating the situation.</i></p> <p>YYYY = Corresponding extension number</p>	0 0 - -
Delete the extension assignments	<p>*360 + X + # Where: X = 1; Day operator X = 2; Night operator X = 3; Fax extension X = 4; Supervisor extension</p>	
Volume level	<p>*369 + X Where: X = volume level (0-9), 9 = Loudest</p>	5
Flash-1	<p>*370 + XXX where XXX is a 3-digit number (000-980) in increments of 20 ms. Example: *370 300 sets Flash-1 to 300 ms</p>	600 ms
Flash-2	<p>Flash-2 is fixed at 1200 ms. Flash-2 is used in some KSU's for Recall from No-Answer or Busy Codes.</p>	1200 ms
Busy, Disconnect and DTMF Off/On time	<p>*371 + X + YYY where: X = 1; busy off (100-980 ms) X = 2; busy on (100-980 ms) X = 3; disconnect off (100-980 ms) X = 4; disconnect on (100-980 ms) X = *; DTMF off (000-980 ms) X = #; DTMF on (000-980 ms) YYY = Cadence in milliseconds in increments of 20 milliseconds</p>	500 ms 500 ms 240 ms 240 ms 200 ms 60 ms

OPERATION	COMMAND	DEFAULT
Busy Signal Cadence Check	*375 + XXXX + # Where XXXX is a busy extension number. Checks the busy signal by dialing the busy extension number and playing the busy cadence values.	
Voice and DTMF Sensitivity	*376 + X + Y X = 1; Voice sensitivity level X = 2; DTMF sensitivity level Y = Sensitivity level (0-9) The volume at which the System 56 Voicemail detects voice when the called extension answers or the volume level at which the unit detects DTMF throughout it's operation. <i>Note: The higher the sensitivity level, the higher the sensitivity to voice or DTMF.</i> In order to activate the new selection, a new call must be initiated	5 5
Automatic Gain Control (AGC)	*377 + X X = 0 AGC disabled X = 1 AGC enabled When enabled, System 56 Voicemail will adjust the incoming messages volume to a set volume level. In order to activate the new selection, a new call must be initiated	Enabled
DTMF amplitude	*379 + X Where X = volume level (0-9), 9 = Loudest	5
Procedural codes sent to the PBX in order to perform a specific task	*380 + X + CODE¹ + # X = 1; LED 1 notification code X = 2; LED 2 notification code X = 3; LED notification off code X = 4; Transfer code X = 5; Recall from Busy X = 6; Recall from No Answer CODE¹ = Respective PBX code	743X - 740X Flash 1 + Ext Flash 1 Flash 1

OPERATION	COMMAND	DEFAULT
Delete a specific procedural code	*380 + X + # X = 1; LED 1 notification code X = 2; LED 2 notification code X = 3; LED notification off code X = 4; Transfer code X = 5; Recall from Busy X = 6; Recall from No Answer	
Answer number of samples	*386 + X Where: X = number of samples (0-9) Used for Supervised Transfers to determine an answer condition	5

¹ Refers to Key System codes. Each code contains digits 0-9, *, #, Flash-1, Flash-2, Pause and Extension Number.

Note: The PBX codes for Message Light On and Message Light Off can also include A-D.

When entering a code, dial:

*0	for	extension	*5	for	A
*1	for	pause	*6	for	B
*2	for	Flash-1	*7	for	C
*3	for	Flash-2	*8	for	D
*4	for #		**	for *	

Setting the Time and Date

Table 0-2 presents commands used to set the System 56 Voicemail clock and calendar.

Table 0-2 Commands to Set the System 56 Voicemail Clock and Calendar

OPERATION	COMMAND
Setting the time	<p>*420 + HH + MM where HH = hour (00-23) MM = minutes (00-59) Example: *420 15 25 stands for 3:25 P.M.</p>
Setting the date	<p>*430 + DD + MM + YY where DD = date of the month (01-31) MM = month (01-12) YY = year (00-99) Example: *430 15 03 97 March 15, 1997 <i>Note: 00 represents Year 2000.</i></p>
Listening to the system time	<p>*440 The system announces the date and time.</p>

Programming the Operational Mode

The System 56 Voicemail can operate in Day, Night, Break, or Holiday mode. If the System 56 Voicemail is in the Auto mode, it automatically changes modes according to programmed weekly working hours.

Table 0-3 Programming the Operational Modes

OPERATION	COMMAND
Selecting an Operational Mode	<p>*400 + X</p> <p>where X stands for the operational mode.</p> <p>Day mode = 0 (default mode)</p> <p>Night mode = 1</p> <p>Holiday mode = 2</p> <p>Auto mode = 3</p> <p>Break mode = 4</p>
Selecting time stamp format (Applicable to English only)	<p>*410 + X</p> <p>where</p> <p>X = 0 means the time stamp is in 12-hour format (default)</p> <p>X = 1 means the time stamp is in 24-hour format</p>
Setting the Working Time (for Auto mode only)	<p>*450 + D + HH MM + HH MM</p> <p>where</p> <p>D is the day of the week (1-7)¹</p> <p>First HH MM = start of work time</p> <p>Second HH MM = end of work time</p> <p>Repeat for all days of the week.</p> <p>Example: *450 1 08 30 1700 means that the System 56 Voicemail will play the Day mode opening greeting (script message 00) on Monday from 8:30 until 17:00. It will play the Night mode opening greeting (script message 10) the rest of the time.</p> <p><i>Note: Day 1 is Monday day 2 is Tuesday day 3 is Wednesday day 4 is Thursday day 5 is Friday day 6 is Saturday and day 7 is Sunday.</i></p>

OPERATION	COMMAND
Setting the Break Time (for Auto mode only)	<p>*460 + D + HH MM + HH MM where D is the day of the week (1-7)¹ First HH MM = start of break time Second HH MM = end of break time</p> <p>Repeat for all days of the week.</p> <p>Example 1: *460 1 13 15 14 30 System 56 Voicemail will play the Break mode opening greeting (script message 15) on Monday, from 13:15 until 14:30.</p> <p><i>Note: Day 1 is Monday day 2 is Tuesday day 3 is Wednesday day 4 is Thursday day 5 is Friday day 6 is Saturday and day 7 is Sunday.</i></p>
Entering annual holiday dates (For Auto mode only)	<p>*470 + DD + MM + hh:mm + hh:mm Where: DD = Day of month (01-31) MM = Month (01-12) Hh:mm = Start time; Hour and minutes in 24 hour format Hh:mm = End time; Hour and minutes in 24 hour format</p> <p>Repeat for multiple days</p> <p>Example 1: *470 02 12 08 15 23 45 The System 56 Voicemail will play the Holiday mode opening greeting on December 2nd, from 8:15 until 11:45.</p>
Delete all holidays on a specific date	<p>*470 + DD + MM # Where: DD = Day of month (01-31) MM = month (01-12)</p>
Delete all holidays on a specific month	<p>*470 + ** + MM + # Where: MM = month (01-12)</p>
Delete all holidays	*470 + #

OPERATION	COMMAND
External Notification Active Time	<p>*490 + hh:mm + hh:mm</p> <p>Where:</p> <p>hh:mm = Start time; Hour and minutes in 24 hour format</p> <p>hh:mm = End Time; Hour and minutes in 24 hour format</p> <p>Example 1: *490 09 00 20 00</p> <p style="padding-left: 40px;">System 56 Voicemail will activate the external notification between 9 am to 8 pm.</p>

Programming the Voice Mail

Creating Mailboxes

You can define up to 128 mailboxes. The mailbox number and its extension number are identical. Make sure that the number of digits in the mailbox number conforms to the number of digits in an extension (*300).

You can also create a virtual mailbox for a user who does not have an extension. When a caller dials a virtual mailbox number on the Automated Attendant menu, the call is immediately transferred to the Do Not Disturb menu and the caller is given the option to leave a message.

You may use the external notification features for the virtual mailboxes. Do not select internal notification because virtual mailboxes do not have extensions to light message waiting lights on.

You can assign a mailbox for announcing messages without the ability to record incoming messages. This mailbox is called an Announcer mailbox. All mailboxes can be changed from regular mailboxes to an announcer and vice versa at any time.

Table 0-4 Commands to Create Mailboxes

OPERATION	COMMAND
Creating a range of mailboxes	*500 + First Mailbox + Last Mailbox + #
Creating one mailbox	*501 + Mailbox Number + #
Selecting an announcer mailbox	*502 + XXXX + Y + # Where: XXXX = existing mailbox number Y = 0; Regular mailbox (default) Y = 1; Announcer mailbox
Deleting a mailbox	*510 + Mailbox Number + # Make sure to remove any transfer to the deleted mailbox from the Automated Attendant scripts.
Creating a range of <u>virtual</u> mailboxes	*520 + First Mailbox + Last Mailbox + #
Creating one <u>virtual</u> mailbox	*521 + Mailbox Number + #
Defining whether to play or skip the time and date stamp during message playback for a range of mailboxes real or virtual.	*530 + First Mailbox + Last Mailbox + B + # where B = 0; Play the date and time stamp (default) B = 1; Skip the date and time stamp
Defining whether to play or skip the time and date stamp during message playback for one mailbox real or virtual	*531 + Mailbox Number + B + # where B = 0; Play the date and time stamp (default) B = 1; Skip the date and time stamp

Creating Mailbox Groups

You can create up to four mailbox groups for distributing messages. Each mailbox group can contain up to twenty mailboxes. The group numbers are by default 000, 001, 002 and 003. Group 099 consists of all mailboxes (real and virtual).

You can select a different number for the first digit of the mailbox groups using code *545. **Make sure that you select a number that does not interfere with your KSU's numbering plan.**

Table 0-5 Commands to Create Mailbox Groups

OPERATION	COMMAND
Adding a mailbox to a group	*540 + Group Number + Mailbox Number + # <i>Note: You must define the mailbox before adding it to a group.</i>
Changing the number of the first digit in the mailbox groups	*545 + X where X is the first digit of the mailbox groups. Default is 0.
Deleting a mailbox from a group	*550 + Group Number + Mailbox Number + #
Resetting a group	*560 + Group Number + # <i>Note: Resetting a group deletes all the mailboxes within that group.</i>

Notification

System 56 Voicemail notifies the mailbox owner of new messages in different ways according to the system configuration. Notification may be local or remote.

Notification is *always done on port two*.

Local Notification

You can select one of the following options:

- **None.** The notification feature is disabled.
- **Message Light On.** The System 56 Voicemail signals the Key System that a mailbox has received the first message. The Key System then turns on the message light of the telephone extension. If the Message Light Off code is programmed, the code is sent to the KSU after the mailbox owner retrieves all his new messages.
- **Rings.** The System 56 Voicemail rings the notified extension for a programmed time period (code *730). When the mailbox owner answers, the System 56 Voicemail prompts him to enter his password. After entering the password, the mailbox owner may retrieve his messages. If the mailbox owner does not answer, the System 56 Voicemail tries again at programmed intervals (code *720). The System 56 Voicemail stops sending Ring notifications after the mailbox owner retrieves all his new messages or the maximum number of retries has been made (code *750).

Remote Notification

The mailbox owner may choose to be notified at a remote location (i.e., his mobile or home telephone number) by entering a remote telephone number of up to 20 digits. You can use any combination of *, #, A-D, 0-9, and Pause (*1) when setting the remote notification telephone number.

After remote notification is enabled, the System 56 Voicemail will dial the remote telephone number and notify the mailbox owner of any new messages. After entering the password, the mailbox owner can retrieve his messages. The duration of remote notification rings is programmed using code *730.

The System 56 Voicemail stops sending Ring notifications after the mailbox owner retrieves all his new messages or the maximum number of retries has been made (code *750). The mailbox owner must obtain permission from the System Administrator to enable remote notification. The System Administrator must use code *710 or *711 to grant permission.

When permission has been granted and the mailbox owner enables remote notification, the System 56 Voicemail first dials the external access digit (programmed using code *340) and then dials the mailbox owner's remote telephone number.

Note: Make sure that you enter the remote telephone number before enabling remote notification.

Notification is *always done on port two*.

Setting Notification for Mailboxes

Notes:

- 1. Virtual mailboxes do not have extensions and may not be configured for internal notification.*

Table 0-6 Commands to Program Notification for Mailboxes

OPERATION	COMMAND
Setting local notification for a range of real mailboxes	*700 +First Mailbox + Last Mailbox + X+# where X = 0 means notification is disabled X = 1 means Message Light On 1 is selected X = 2 means Message Light On 2 is selected X = 4 means Rings is selected
Setting local notification for one real mailbox	*701 + Mailbox + X + # where X is defined as above
Permitting remote notification for a range of mailboxes real or virtual	*710 + First Mailbox + Last Mailbox + Y + # where Y = 0 means remote notification is not permitted Y = 1 means remote notification is permitted
Permitting remote notification for one mailbox real or virtual	*711 + Mailbox + Y + # where Y is defined as above
Message Notification Interval	*720 + XX where XX is a 2 digit number in minutes. Default is 30 minutes. This timer is how often the system checks to see if a mailbox has a new message waiting to notify the mailbox owner.
Ring Notification Duration	*730 + X where X = 0 stands for short time for rings (default) X = 1 stands for long time for rings
Number of Ring Notification retries	*750 + XX where XX refers to the number of ring notification attempts. Default is 05.
Activate the LED notification	*760 + X Where X = 0 for the 1 st new message (Default) X = 1 for every new message

Programming the Automated Attendant Script Menu

The System 56 Voicemail supports up to 21 script messages (00-20) for building the Automated Attendant menu. The System 56 Voicemail also supports another five script messages (21-25) for Busy, No Answer and Do Not Disturb menus (see Section 0).

The following numbers are dedicated to specific script messages:

- Script message number 00 to the Day Mode Opening Menu
- Script message number 10 to the Night Mode Opening Menu
- Script message number 15 to the Break Time Opening Menu
- Script message number 20 to the Holiday Mode Opening Menu

The rest of the script messages (01-09, 11-14 and 16-19) may be used in all modes without limitations.

Each script message has three parts:

- Script message number
- Recorded announcement
- Programming that indicates the action to be taken when a caller dials one digit (0-9) or dials nothing during an announcement

Recording Script Messages

Table 0-7 describes how to record script messages.

Table 0-7 Commands for Recording Script Messages

OPERATION	COMMAND
Recording a script message	*100 + XX + Beep + Record + #
Playback a script message	*101 + XX
Deleting a script message	*102 + XX

Note: XX is script message 00-25.

IMPORTANT: You must record script message 00 for System 56 Voicemail to operate properly.

Programming Script Messages

You can program each script message separately. The programming command format for script messages is:

*** + Command Code + XX + B + YY + #**

Where:

- **Command Code** defines the action that should be taken when B is pressed during playback of script message XX.
- **XX** refers to one of 25 script message numbers.
- **B** refers to the digit dialed by the caller during playback of script message XX or at the end of the message. B can be 0-9 or * (for end of message).
- **YY** refers to the destination, which can be an extension, mailbox or another script message.

IMPORTANT: Do not define the Operator ID digit on script messages. Table 0-1 describes how to define the operator ID digit which is then automatically reserved on all script messages.

The command codes used to build the Automated Attendant Script Menu are presented on the following pages. You can program one of the following actions for each script message:

- Play another script message
- Return to the opening menu
- Transfer the call to an extension
- Transfer the call to the operator
- Transfer the call to a mailbox
- Disconnect the line
- Leave a message in a mailbox
- Retrieve messages from a mailbox
- Directly dial an extension
- Directly transfer a call to a mailbox
- Place a call on hold

- Blind Transfer to the busy extension

Technicians and System Administrators should program the script messages according to the application.

Programming the EOM Timeout for Each Script

Sets the EOM timeout period for each script individually. This is the amount of time to wait after playing the script message before processing the EOM option.

Command: ***105 + XX + Y + #**

Where:

XX = Script number

Y = Timeout in seconds

Example 1: ***105 05 6 #**

The System 56 Voicemail sets the EOM timeout to 6 seconds for script message 05.

Play Another Script Message

Build sub-menus by transferring the caller from one script message to another when the caller dials a certain digit.

Command: ***110 + XX + B + YY + #**

Example: ***110 00 3 02 #**

The System 56 Voicemail plays script message 02 when “3” is dialed during playback of script message 00.

Note: Make sure to record any script message you use.

Select Opening Script

Selects the opening script message for individual ports. This allows you to have different greetings for different ports.

Command: ***112 + XX + YY + Z + #**

Where:

XX = Default script number 00,10,15 or 20

YY = Replacement script number 00-20

Z = Port Number 1-4

Return to the Opening Menu

Transfers the caller to the opening main menu. Used mainly by Busy and No-Answer script messages (21-24), where the caller is given the option to return to the main menu. The caller is transferred to script 00 in Day mode, script 10 in Night mode, script 15 in Break mode and script 20 in Holiday mode.

Command: ***115 + XX + B #**

Example: *115 21 5 #

The System 56 Voicemail plays the opening menu when “5” is dialed during playback of script message 21.

Transfer the Call to an Extension

Transfers the caller to an extension or department (hunt group).

The designated extension number may contain up to 4 digits and does not have to be in the range of legal extensions.

Command: ***120 + XX + B + extension number + #**

Example 1: *120 05 3 123#

The System 56 Voicemail transfers the call to extension 123 when “3” is dialed during playback of script message 05.

Example 2: *120 00 * 782 #

The System 56 Voicemail transfers the call to hunt group 2 at the end of script message 00.

Transfer the Call to the Operator at the End of the Script Message (If nothing is dialed by the caller)

Transfers the call to the operator **at the end of the script message**. The operator extension is defined in Table 0-1 (codes *360 and *361).

The System 56 Voicemail transfers the call in supervised, semi-supervised or non-supervised mode depending on code *351 (see Section 0).

Command: ***125 + XX + #**

Example: *125 00 #.

The System 56 Voicemail transfers the call to the operator at the end of script message 00.

Transfer the Call to a Mailbox

Transfers the caller to a specific mailbox number. The mailbox must be defined (see Section 0).

Command: ***130 + XX + B+ Mailbox number + #**

Example: *130 01 5 152 #

Transfers the call to mailbox 152 when “5” is dialed during playback of script message 01.

Disconnect the Line

Disconnects the call at the end of the script message or if the caller dialed the disconnect digit during playback.

This command may or may not include the following system message:

“Thank you and good-bye.”

Command: ***140 + XX + *+Z+#**

Where:

Z = 0; means disconnect the line with no message.

Z = 1; means disconnect the line with the above system message

Example: *140 10 * 1 #

The System 56 Voicemail plays the disconnection message and then disconnects the call at the end of script message 10.

Leave a Message in a Mailbox

Initiates the procedure for leaving a message in a mailbox. This can be used either during a greeting or in script messages 21, 23 and 25. When used during a greeting the user will be able to dial B+XX and then press TRF to send the caller directly into a mailbox. When used during script messages 21, 23 and 25 the system will put the caller into the mailbox that the call was for.

Command: ***150 + XX + B + #**

Example: *150 00 8 #

The System 56 Voicemail asks for a mailbox number when “8” is dialed during playback of script message 00. After dialing the requested mailbox number, the caller hears the mailbox greeting and can leave a message.

Retrieve Messages from a Mailbox

Initiates the procedure for retrieving messages from a mailbox.

Command: ***160 + XX + B + #**

Example: *160 00 9 #

The System 56 Voicemail asks for a mailbox number and password when “9” is dialed during playback of script message 00. After dialing the requested mailbox number and password, the mailbox owner can retrieve his messages and access the user menu to record a personal greeting, change his password, etc.

Directly Dial an Extension

Enables the caller to dial an extension directly by programming the first digit of the extension. When a caller dials the first digit of an extension during playback of a script message, the System 56 Voicemail stops the message and waits for the rest of the digits of the extension. The number of digits in an extension is defined by code *300 in Table 0-1. You can enter up to four different digits.

Note: You must program this option to enable the voicemail to transfer calls to extensions in the system.

Command: ***170 + XX + first digit(s) + #**

Example 1: *170 00 2 #

The System 56 Voicemail waits for the rest of the extension number when “2” is dialed during playback of script message 00. After the caller dials the rest of the extension number, the System 56 Voicemail transfers the call to the extension.

Example 2: *170 00 2 4 #

Same as Example 1, except the extension number starts with 2 or 4 (for extension numbers 2XX and 4XX).

Directly Transfer a Call to a Mailbox

Transfers the call directly to a mailbox number on the opening greeting script message only. This feature is similar to directly dialing an extension, except the call is transferred directly to a mailbox. This feature is used to place a caller directly into the mailbox of someone who may be out of the office or unavailable to take the call. You can enter up to four different digits.

*Note: Do not confuse this with *150. This option would be used (for example) if you had a live operator answering and transferring calls and then asking the caller if they want to leave a message.*

*Note: This option will not work if *170 is programmed for the same digit entry in the same script message.*

Command: ***175 + XX + first digit(s) + #**

Example 1: *175 00 2 #

The System 56 Voicemail waits for the rest of the mailbox number when “2” is dialed during playback of script message 00. After the caller dials the rest of the mailbox number, the System 56 Voicemail transfers the call to the mailbox.

Example 2: *175 00 2 4 #

Same as Example 1, except the mailbox number starts with 2 or 4.

Place a Call on Hold

Gives the caller the option to remain on hold. Valid only for script messages 21-22, which are reserved for the extension Busy menus.

Command: ***180 + XX + B + #**

Example: *180 21 3 #

The System 56 Voicemail places the call on hold for 10 seconds before trying to transfer the call again when “3” is dialed during playback of script message 21.

Blind Transfer to a Busy Extension

Transfers a call in blind mode to a busy extension. Valid only for script messages 21-22, which are reserved for the extension’s Busy menus.

Command: ***185 + XX + B + #**

Example: *185 21 5 #

The System 56 Voicemail immediately tries to transfer the call again when “5” is dialed during playback of script message 21.

Note: Both Place a Call on Hold and Blind Transfer to a Busy Extension are used to transfer calls to a busy extension. Place a Call on Hold retries every 10 seconds to transfer the call until the extension is available. Blind Transfer to a Busy Extension transfers the call immediately and unconditionally to the busy extension.

Directory Listing Programming

The directory-listing feature (Dial By Name) allows calls to be transferred to proper extensions based on recorded names and codes of mailbox owners. The directory listing parameters are set through the commands explained in the following paragraphs

Directory listing format

Changes the format of the directory listing. The System 56 Voicemail supports two directory-listing formats.

Command: ***011 + X**

Where:

X = 0; List according to the last name (Default)

X = 1; List according to the first name

Transfer to the directory listing

Transfer the call to the directory listing.

Command: *111 + XX + B + #

Where:

XX = Script Number

Example: *111 00 5 #

Play the directory listing when “5” is dialed during playback of script message 00.

Reset Script Message Programming to Default

Resets a complete script message or only one entry (see Section 0) Does not delete the recorded script message.

Resetting a Complete Script Message

Command: *190 + XX + #

Example: *190 03 #

Resets script message 03 to its default values.

Resetting One Entry in a Script Message

Command: *190 + XX + B + #

Example: *190 02 5 #

Resets entry 5 in script message 02 to its default value.

Default Values

- 0-9. If a caller dials a digit that has not been programmed (or set to default) during playback of a script message, the System 56 Voicemail plays “This entry is not supported” and repeats the script message.

- If the caller dials the Operator ID code, the call is forwarded to the operator extension regardless of script message programming.
- At the end of a script message. If the caller does not dial a number during playback of a script message, System 56 Voicemail disconnects the call at the end of the message, unless otherwise programmed.

Supervised, Semi-Supervised and Non-Supervised Transfers

Transfer to an extension may be supervised, semi-supervised or non-supervised. In the supervised mode, the System 56 Voicemail checks for Busy and No-Answer conditions. In the semi-supervised mode, the System 56 Voicemail only checks for a Busy condition. In the non-supervised mode, the System 56 Voicemail transfers the call to the extension without checking for a Busy or No-Answer condition.

The System 56 Voicemail is configured to detect Answer, Busy and Do Not Disturb conditions by recognizing and analyzing the Call Progress tones sent by the KSU.

The System 56 Voicemail distinguishes between two types of transfers:

- Transfer to operator
- Transfer to the rest of the extensions

Table 0-8 explains how to program supervised, semi-supervised and non-supervised transfers to the operator and to the rest of the extensions.

Table 0-8 Commands to Program the Transfer Modes

OPERATION	COMMAND	DEFAULT
Transfer mode to all extensions	*350 + X + Y where X = 1; All extensions except the operator X = 2; Operator extension only Y = 0; Non Supervised Y = 1; Supervised Mode Y = 2; Semi Supervised Mode	Non Supervised

Detecting a Busy Extension

If the System 56 Voicemail detects a busy extension, it performs a Recall-from-Busy and by default plays system message 96 (if the extension has a mailbox) or 103 (if the extension does not have a mailbox). Refer to Section 0 for information on changing the default system messages.

Detecting a No Answer from an Extension

If the System 56 Voicemail does not detect an answer from the extension, it performs a Recall-from-No-Answer and by default plays system message 97 (if the extension has a mailbox) or 104 (if it does not have a mailbox). Refer to Section 0 for information on changing the default system messages.

Changing the Busy and No Answer Menus

System messages 96, 97, 103, and 104 are default messages. The System Administrator can replace the system messages with script messages as follows:

- System message 96 (Busy and the extension has a mailbox) is replaced by script message 21.
- System message 103 (Busy and the extension does not have a mailbox) is replaced by script message 22.
- System message 97 (No-Answer and the extension has a mailbox) is replaced by script message 23.
- System message 104 (No-Answer and the extension does not have a mailbox) is replaced by script message 24.

For instructions on programming the above script messages, see Section 0. For instructions on recording the script messages, see Section 0.

Additional Features

Changing Passwords

The System 56 Voicemail uses three types of passwords:

- System Administrator's password
- Operator's password
- Mailbox owner's password (see Section 5.2.2)

A password always contains four digits (0-9). The default for all three types of passwords is 1234.

Changing the System Administrator's Password

The System Administrator can change his password by dialing code *900 to enter the programming mode, dialing the current password and then dialing:

***600 + XXXX**

Where XXXX is the new 4-digit password. Use digits 0-9 only. Do not dial * and #.

Note: The System Administrator's password cannot be disabled.

Changing the Operator's Password

The System Administrator can change the operator's password by dialing code *900 to enter the programming mode, dialing the System Administrator's password and then dialing:

***601 + XXXX**

Where XXXX is the new 4-digit password. Use digits 0-9 only. Do not dial * and #.

To disable the operator's password, enter "0000".

Resetting the Mailbox Password

The System Administrator can reset a mailbox password to its default (1234) by dialing code *900 to enter the programming mode, dialing the System Administrator's password and then dialing:

***570 + XXXX + #**

Where XXXX is the mailbox number.

Activate Force Reorganize

The force reorganize option automatically reorganizes and optimizes the data stored in the System 56 Voicemail

The system administrator can activate the Force Reorganize option by calling the System 56 Voicemail and, during the opening greeting, dialing

***900 + Password + *610**

Changing to/from Day Light Saving Time

The operator can change to/from Day Light Saving time by calling the System 56 Voicemail and, during the opening greeting, dialing:

***7 + XXXX + Y**

Where:

XXXX refers to the operator's password.

This password can be disabled. See Section 3.8.1.2.

Y = 0; Reduce the time by one hour

Y = 1; Increase the time by one hour

Changing the Operational Mode

The operator can change the operational mode by calling the System 56 Voicemail and, during the opening greeting, dialing:

***8 + XXXX + Y**

Where:

XXXX refers to the operator's password.

This password can be disabled. See Section 0.

Y = 0; Day Mode

Y = 1; Night Mode

Y = 2; Holiday Mode

Y = 3; Auto Mode

Y = 4; Break Mode

Playing a System Message

You can listen to any system message by dialing:

***690 + 0 + XXX**

Where:

XXX is the message number

See Appendix C for a list of system messages.

Listening to the Software Version Number

To hear the System 56 Voicemail's software version number, dial *680.

Listening to the System Time and Date

To hear the current System 56 Voicemail date and time, dial *440.

Resetting the System

The System Administrator can reset the System 56 Voicemail to its factory default settings by dialing: ***654 + * + XXXX + #**

Where XXX is the System Administrator's password.

Adjusting Recording Length

The System Administrator can select the length of the recorded messages in the System 56 Voicemail. The selected length of message (in minutes) will effect all recorded messages. The types of recorded messages that are effected are: script recordings, mailbox owners' greetings, name recordings and recorded incoming calls. To set message length dial *900 and the administrator password to enter the programming mode, then dial:

***790 + X**

Where X = 1-9 minutes.

This parameter is set to two minutes by default.

Programming By Computer (FUTURE OPTION)



This section describes how to program the System 56 Voicemail using the Voicemail Utility Program (VUP). You can work with the VUP online or off-line.

The VUP enables you to:

- Define PBX parameters
- Set the System 56 Voicemail clock and calendar
- Create and maintain mailboxes
- Build Automated Attendant menus
- Review traffic statistics
- Print system parameters and statistics

All changes to the System 56 Voicemail configuration are stored in the computer's memory until you send them as one block to the System 56 Voicemail. We recommend that you save the new configuration in a file.

Using the VUP, you can also:

- Open a configuration file to make more changes or to download to the System 56 Voicemail
- Open the default configuration file
- View System 56 Voicemail statistics, e.g., line and memory utilization

Connecting the Computer to the System 56 Voicemail

To work online, connect your computer to the System 56 Voicemail.

► **To connect your computer to the System 56 Voicemail:**

1. Connect one end of the RS-232 cable to one of the unused serial ports of your PC and the other end to the System 56 Voicemail's RS-232 connector as shown in Figure 0-1.

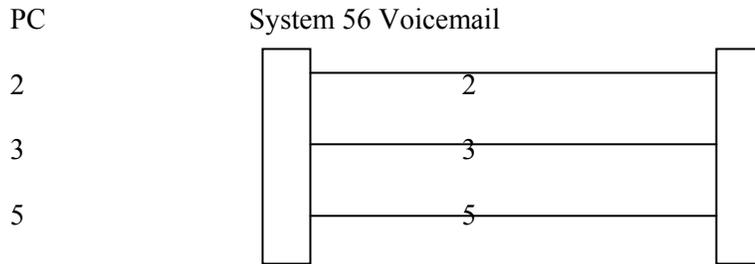


Figure 0-1 RS-232 Cable Connection

System Requirements

Before installing the VUP, check that your computer meets the following minimum requirements:

- PC 486 or higher
- 8 MB RAM
- 2 MB free hard disk space
- Microsoft Windows 3.1, Windows 95/98 or Windows NT

Installing the VUP

► **To install the VUP:**

1. Exit all open applications.
2. Insert the VUP installation diskette into the floppy drive on your computer.
3. Use File Manager or Windows Explorer to locate the setup file. Or with Windows 95/98 you may click on start, select run and type in X:\SETUP.EXE where X equals the drive letter
4. Double-click the setup file.
5. Follow the instructions on the screen.

Starting VUP

► **To start the VUP:**

- Click the **VUP** icon.
- Or in Windows 95/98 click on start, then click on Programs, Click on VUP and select VUP.

Note: You may press the F1 key at any time to receive help on the current field that you are working in.

*Note: If the VUP issues a warning message that it cannot open the current COM port, click **OK**.*

The VUP loads the data stored in the default configuration file and opens the main screen.

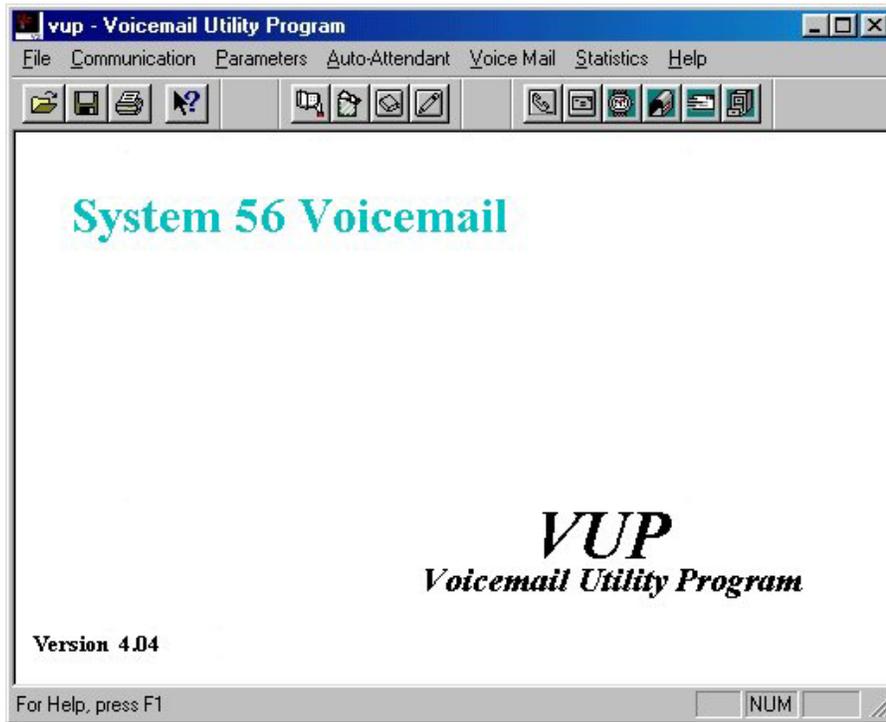


Figure 0-2 VUP Main Screen

► **To select a COM port:**

1. On the **Communication** menu, click **Com Port**.
The **Communication Port** dialog box opens.
2. Click the appropriate COM port (1-4) according to your computer's configuration.

Then select Ok to enable the COM port.

Note: If you are unsure of your COM port and you are using a portable/laptop computer try selecting COM 1, as this is usually the default setting on most of these types of systems.

► **To load the data stored in the System 56 Voicemail database:**

- On the **Communication** menu, click **Read Parameters**.

The VUP reads the System 56 Voicemail database and overwrites the current settings.

► **To load data stored in a configuration file:**

1. On the **File** menu, click **Open**.
2. In the **Open** dialog box, locate the configuration file and click **OK**.

The VUP opens the file, overwrites the current VUP settings with those stored in the file and displays the filename on the title bar of the main screen.

► **To load data stored in the default configuration file:**

- On the **File** menu, click **Open Default**.

The VUP opens the default file and overwrites the current VUP settings with those stored in the default file.

Note: Overwriting the current VUP settings with those in the default file does not delete recorded script messages. For information on how to delete recorded script messages, see Section 3.7.1.

Defining the System 56 Voicemail Parameters

The System 56 Voicemail parameters are divided into two groups:

- PBX parameters
- System Parameters

Defining PBX Parameters

To integrate the System 56 Voicemail with your PBX, define the PBX parameters in the System 56 Voicemail. To obtain your current PBX parameters, check your PBX manual or the current PBX setup configuration.

For detailed information on PBX parameters, see Section 3.3.

► **To define the PBX parameters:**

- On the **Parameters** menu, click **PBX Parameters**.

The **PBX Parameters** dialog box opens.

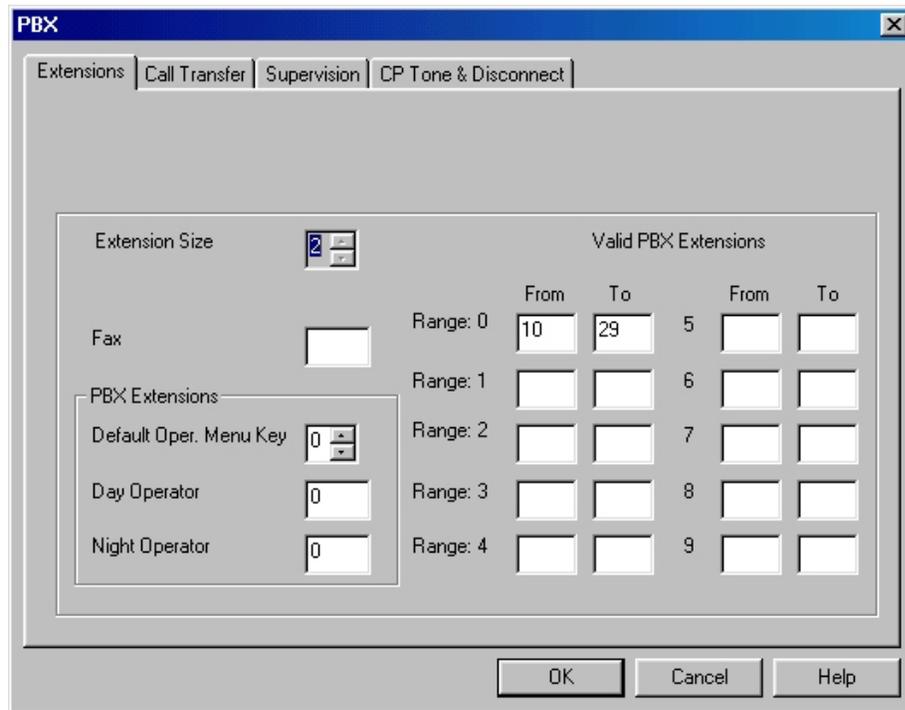


Figure 0-3 PBX Parameters Extension Screen

The PBX Parameters are divided into four sections; Extensions, Call Transfer, Supervision and CP Tone & Disconnect.

Defining Extension Parameters

On the extension screen there are six fields that should be filled in.

- Extension Size – This is the length in digits that your extensions in your KSU are set at.
- Fax – This is the extension that your fax machine is attached to in the system. If you do not have a fax machine installed on the system leave this field blank.
- Default Oper. Menu Key – Defines the key that is to be used to call the operator in the system.
- Day Operator – Defines the extension to send operator calls to during day mode.
- Night Operator – Defines the extension to send operator call to during night mode.

- Valid PBX Extensions – Used to define groups of valid extensions in the PBX. You can define up to ten groups in the System 56 Voicemail

Defining Call Transfer Parameters

To switch to the Call Transfer Parameters screen click on the tab for Call Transfer. The following screen will open.

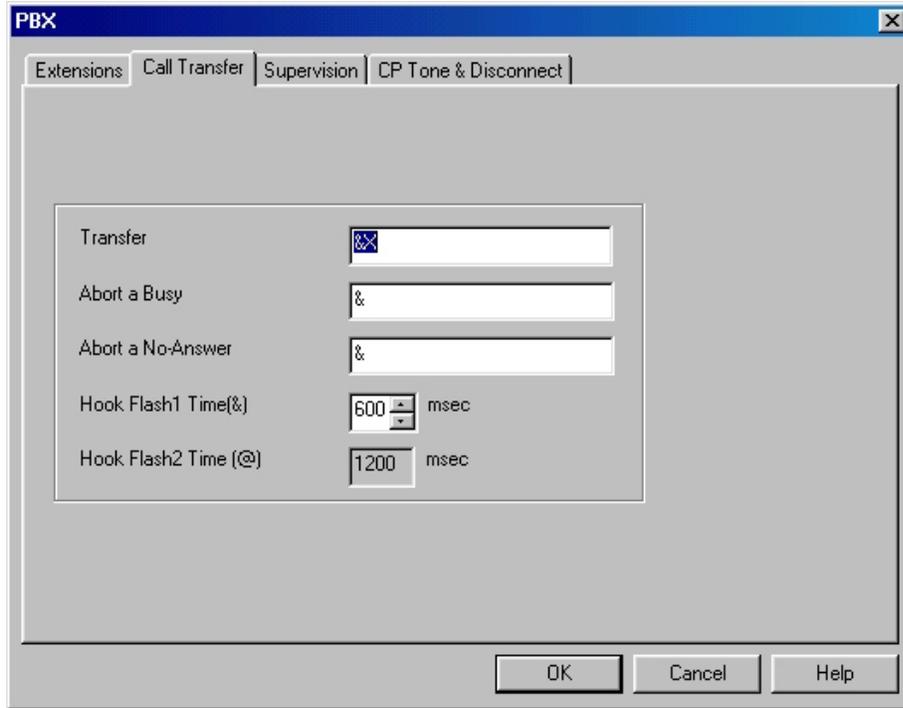


Figure 0-4 PBX Parameters Call Transfer Screen

There are four fields programmable on the Call Transfer screen.

- Transfer – This is the sequence that the System 56 Voicemail will dial to transfer a call to an extension. The default setting of “&X” will do a hook flash and then dial the extension.
- Abort a Busy – This is the sequence the System 56 Voicemail will execute to bring back a transferred call from a busy extension. The default code of “&” will perform a hook flash.

- Abort a No-Answer – This is the sequence the System 56 Voicemail will execute to bring a transferred call back from a no answer situation. The default code of “&” will do a hook flash.
- Hook Flash1Time – This field defines the length of the hook flash that will be performed by the system. This field must be in between your upper and lower flash time on your PBX. Please see PBX manuals for the times on your system.

Defining Supervision Parameters

The Supervision parameters define how the system will transfer calls. To open this screen click on the Supervision tab on the screen. The following window will open.

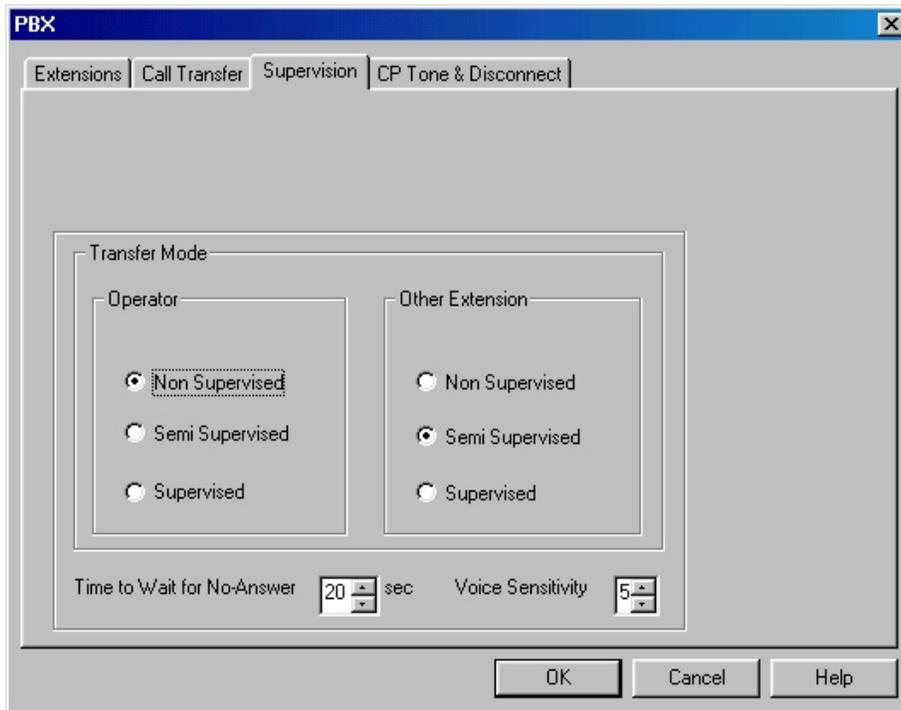


Figure 0-5-5 PBX Parameters Supervision Screen

The transfer mode is broken up into two sections; operator and other extension. This determines how the calls will be transferred to the extensions on the system. The three different types of transfer modes are:

- Non-Supervised – The System 56 Voicemail will transfer the call to the extension without checking the status of that extension on the PBX.
- Semi Supervised – The System 56 Voicemail will transfer the call to the extension after checking to see if that extension is busy. If the extension is busy it will pull back the caller and play the busy menu. If the extension is not busy the System 56 Voicemail will proceed to transfer the call in a Non Supervised mode.
- Supervised – The System 56 Voicemail will transfer the call with full supervision. This means the System 56 Voicemail will monitor the call for both busy and no answer conditions and then either bring the call back to the appropriate menu or transfer the call to the station. This should only be used if your system supplies no integration.

Time to Wait for No-Answer is the amount of time the System 56 Voicemail will wait for an extension to answer when the system is using Supervised mode to transfer the calls.

Voice Sensitivity is used to determine when a station has picked up a call when the call is transferred in a Supervised mode. The higher the number the more sensitive the System 56 Voicemail will be at detecting an answer.

Defining CP Tone & Disconnect Parameters

The CP Tone & Disconnect Parameters screen is not used for integrating the System 56 Voicemail with any Key System US product.

Defining System Parameters

The System parameters include:

- Maximum Recording Time
- Default System Language
- Automatic Gain Control
- Directory Listing

► To define the System parameters:

On the **Parameters** menu, click **System Parameters**.

The **System Parameters** dialog box opens.



Figure 0-6 System Parameters Dialog Box

There are four fields to define under the System Parameters screen. They are Maximum recording time, Default System Language, Automatic Gain Control and Directory Listing.

- **Maximum Recording Time** – This is the maximum message length the AVMJR will allow a caller to record. The value can be set from 1 to 9 minutes.
- **Default System Language** – This defines the default language for the System 56 Voicemail. Unless you have purchased additional languages for your system this field should be set at 1st language.

- **Auto Gain Control** – This option will enable or disable the Automatic Gain Control in the System 56 Voicemail this option will automatically adjust the volume of incoming messages to a pre-defined level.
- **Directory Listing** – Determines whether the Dial by Name directory will be by first or last name.

Programming the Voice Mail

Using the VUP, you can:

- View a list of all existing mailboxes
- Create new mailboxes
- Change parameters of existing mailboxes
- Delete existing mailboxes
- Create mailbox groups
- Set Notification parameters

For detailed information on Voice Mail features, see Section 3.6.

Viewing the Mailbox List

If you are working online, you can view the status of all active mailboxes in the System 56 Voicemail. If you are working off-line with a configuration file, you can review the status of the mailboxes configured for that file.

► **To view the mailbox list:**

- On the **Voice Mail** menu, click **List of Mailboxes**.

The **List of Mailboxes** dialog box opens.

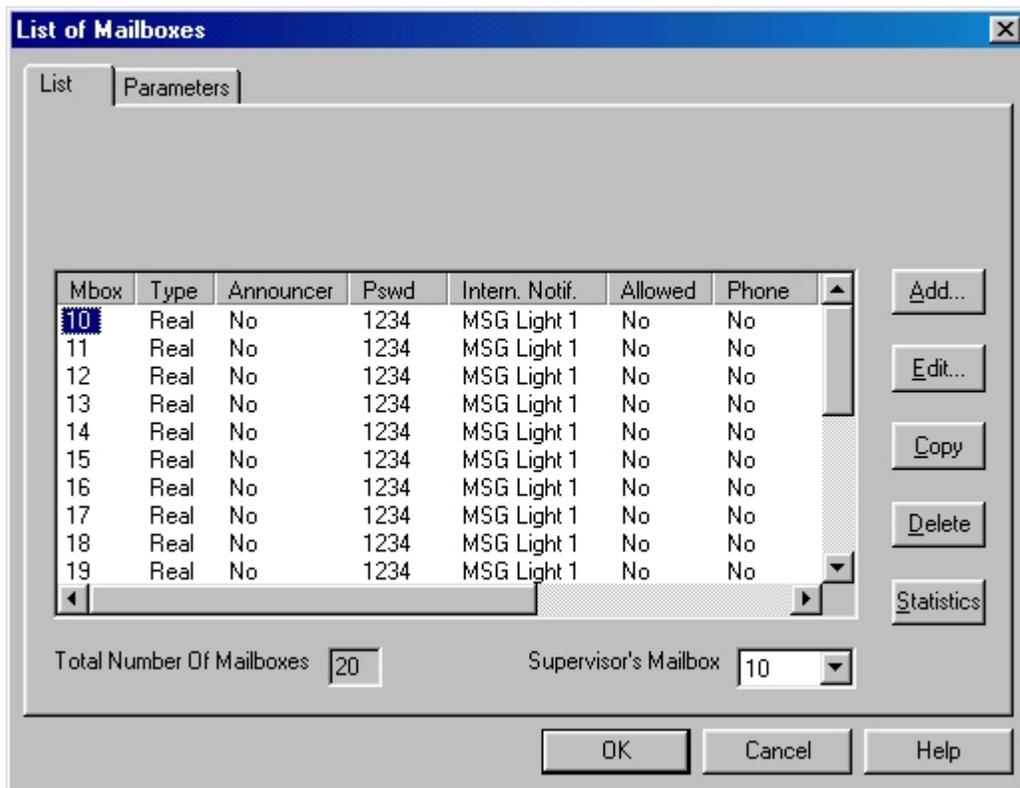


Figure 0-7List of Mailboxes Dialog Box

Creating Mailboxes

➤ **To create a new mailbox:**

1. On the **Voice Mail** menu, click **List of Mailboxes**.
The **List of Mailboxes** dialog box opens (see Figure 0-7).
2. Click **Add**.
The **New Mailbox** dialog box opens.

The image shows a 'New Mailbox' dialog box with the following fields and controls:

- Mailbox Parameters:**
 - MailBox:** An empty text input field.
 - User Password:** A text input field containing '1234' and a 'Reset' button.
 - MailBox Type:** A dropdown menu currently set to 'Real'.
 - User Language:** A dropdown menu currently set to '1st Language'.
- Internal Notification:**
 - A dropdown menu currently set to 'None'.
 - Announcer**
 - Time Stamp**
- External Notification:**
 - Allowed**
 - Telephone Number:**
 - Enabled**
 - An empty text input field.
 - Pager Number:**
 - Enabled**
 - An empty text input field.

At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Help'.

Figure 0-8 New Mailbox Dialog Box

3. In the **Mailbox** box, type the number of the new mailbox.
4. In the **Internal Notification** list, select a notification type.
5. Under **External Notification**, do the following:
 - a. Click **Yes** in the **Allowed** box to grant permission to the user for External Notification.
 - b. Click **Yes** in the appropriate **Enabled** box to activate the External Notification feature for either telephone or pager.
 - c. In the number box, type the telephone number (containing 0-9, A-D, *, \$, # and P only) to which the System 56 Voicemail will send notification.

6. Under **Type**, click **Real** to create a real mailbox or **Virtual** to create a virtual mailbox.
7. Under **Time Stamp**, click **Yes** to play the time and date stamp during message playback or **No** to skip it.
8. Under **Announcer** click to enable the box to be an announcer box. (This will enable the box to only play an outgoing message and not record any incoming messages.)
9. Click **OK**.

A new mailbox is created, the **New Mail Box** dialog box closes and the new mailbox appears on the **List of Mailboxes** dialog box. This mailbox is only activated after you click **Send to System 56 Voicemail**.

Creating a Duplicate Mailbox

You can create a new mailbox with the same features as an existing mailbox. The VUP assigns to the newly duplicated mailbox a number that is one higher than the highest existing mailbox number.

By duplicating a series of mailboxes, you can, in effect, create a range of mailboxes.

► To create a duplicate mailbox:

1. On the **List of Mailboxes** dialog box, click the mailbox you want to duplicate.
2. Click **COPY**.

A new mailbox is created with the same parameters. The VUP assigns a number to the mailbox (the number will be the next number available after the last mailbox number) and lists it in the **List of Mailboxes** dialog box.

Changing the Parameters of an Existing Mailbox

► To change the parameters of an existing mailbox:

1. On the **List of Mailboxes** dialog box, click the mailbox you want to change.
2. Click **EDIT**.

The **Change Mailbox** dialog box opens.

3. Change the mailbox settings.

4. If the mailbox owner forgot his password, click **Reset** to reset the mailbox password to the default password (1234).
5. Click **OK**.

The changes to the mailbox are saved, the **Change Mailbox** dialog box closes and the changes appear in the **List of Mailboxes** dialog box.

Deleting an Existing Mailbox

► **To delete an existing mailbox:**

1. On the **List of Mailboxes** dialog box, click the mailbox you want to delete.
2. Click **Delete** to remove the mailbox from the List of Mailboxes.
3. Repeat steps 1 and 2 until all mailboxes to be deleted have been removed from the List of Mailboxes.
4. Click **OK**.

Organizing Mailbox Groups

You can organize up to four mailbox groups for distributing messages. Each group can contain up to twenty real or virtual mailboxes. A fifth mailbox group contains all the mailboxes in the Voice Mail system.

Note: You can only add an existing mailbox to a mailbox group.

You can also select a different number for the first digit of the mailbox groups. Make sure that you select a number that does not interfere with your KSU's numbering plan. The default number is 0.

► **To organize a mailbox group:**

1. On the **Voice Mail** menu, click **Group of Mailboxes**.
The **Groups of Mailboxes** dialog box opens.

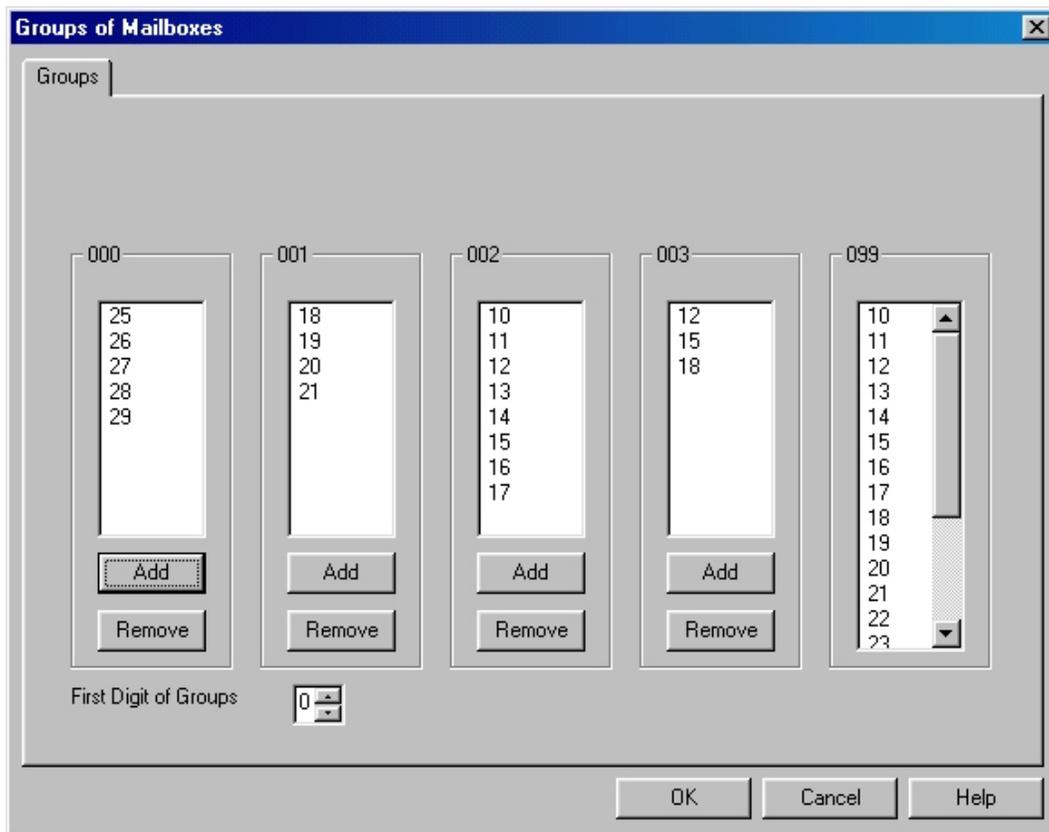


Figure 0-9 Group of Mailboxes Dialog Box

2. If you want to add a mailbox to a group, do the following:
 - a. Click on the box to add in group 099. (To add multiple boxes hold the CTRL key while selecting the additional mailboxes.)
 - b. In the group you wish to add the box(es) to click on the **ADD** button, the box will no be displayed in that group.
3. If you want to remove a mailbox from a group, select the mailbox and then click **Remove** at the bottom of the group.
4. To change the first digit on the mailbox group numbers, type a number in the **First Digit of Group** box.

Note: Do not assign the first digit to be the same number as any digit your extensions start with.

5. Click **OK** to save and return to the main screen.

Setting Notification Parameters

Use the following codes when entering notification parameters: 0-9, #, *, P for pause, X for extension, & for Flash-1, @ for Flash-2 and A-D.

For detailed information on the notification parameters, see Section 3.6.3.

► **To set notification parameters:**

1. On the **Voice Mail** menu, click **Notification Parameters**.

The **Notification Parameters** dialog box opens.

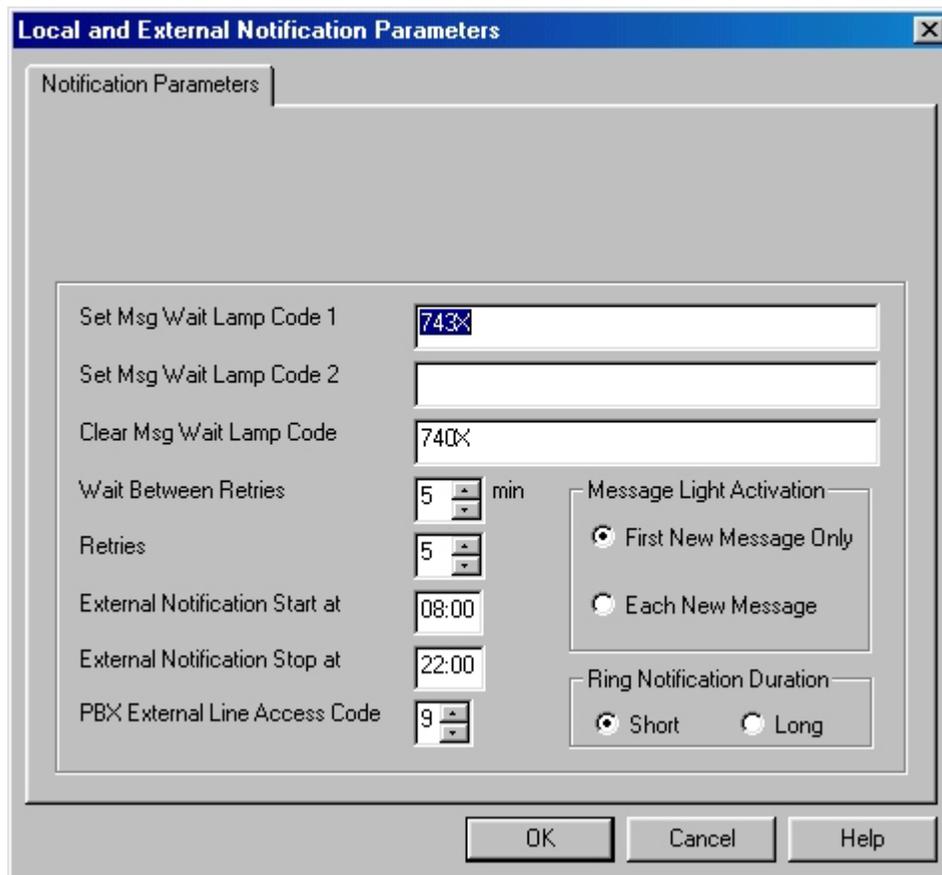


Figure 0-10 Notification Parameters Dialog Box

2. Type the notification parameters. The external access code is used only for remote notification and should match your PBX external access code.
3. Click **OK** to save and return to the main screen.

Note: the message light parameters should only be changed if instructed to do so by technical support.

Programming the Automated Attendant

The System 56 Voicemail supports up to 21 script messages (00-20) for building the Automated Attendant menu. The System 56 Voicemail also supports another five script messages (21-25) for Busy, No Answer and Do Not Disturb menus (see Section 3.7).

To program a script message

On the **Auto-Attendant** menu, click **Script Menu**.

The **Auto Attendant Script Menu** dialog box opens.

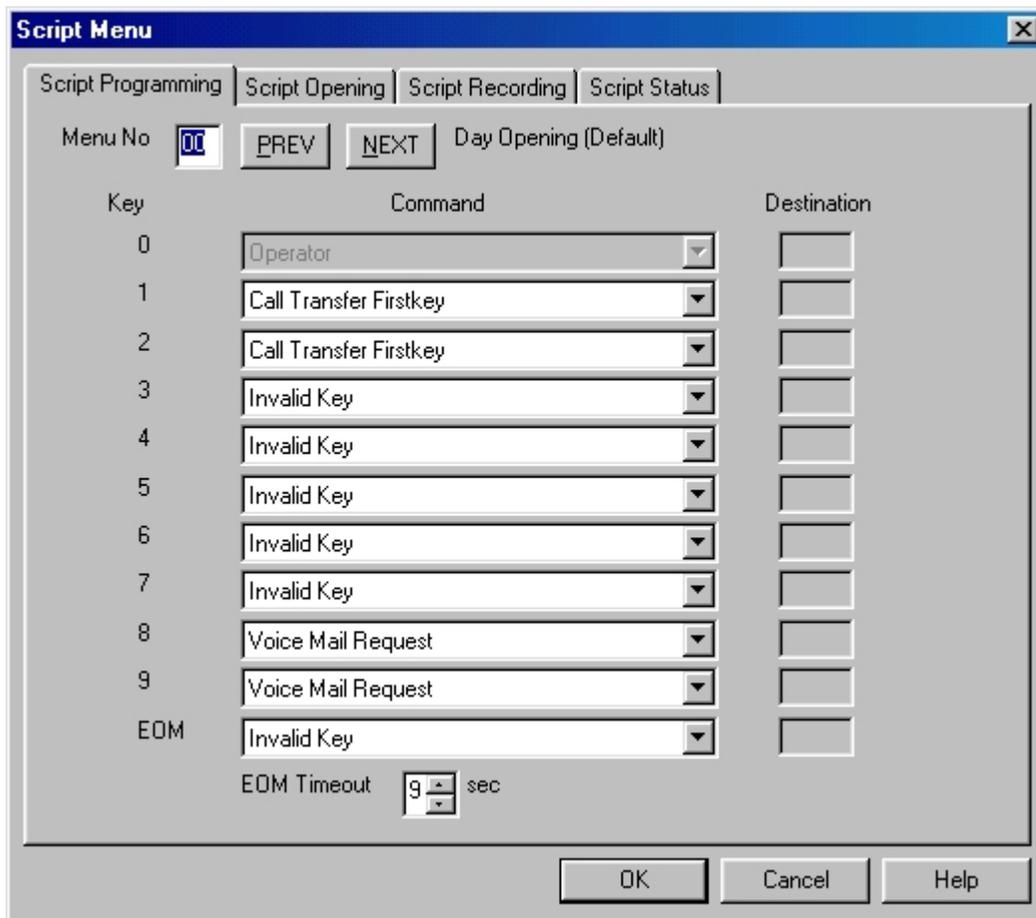


Figure 0-11 Auto Attendant Script Menu Dialog Box

The Key column contains the digit the caller can dial while the Automated Attendant plays a script message. EOM (End of Message) refers to a condition in which the script reaches its end and the caller has not dialed a number.

The Command column describes the action the System 56 Voicemail takes when the caller dials a digit or the script message comes to an end. Each action corresponds to a number in the DTMF column.

The Destination column lists to which extension, mailbox or submenu to transfer the call.

1. In the **Menu No.** box, type the number of the script message you want to program and press **ENTER**. Or press the **NEXT** and **PREVIOUS** buttons to scroll through all of the script menus

The VUP displays past programming for the script message selected.

2. Under **Command**, click the arrow button to select an action for a corresponding DTMF digit.
3. Under **Destination**, type an extension number, mailbox number or submenu number, if applicable.
4. Click **OK** to save and return to the main menu.

Setting Up Different Script Menus Per Port

The System 56 Voicemail allows you to set up different Script Menus per port. To set this up open the Script menu screen by selecting **Auto Attendant** and then **Script Menu**. Then click on the **Script Opening** tab. The following screen will appear.

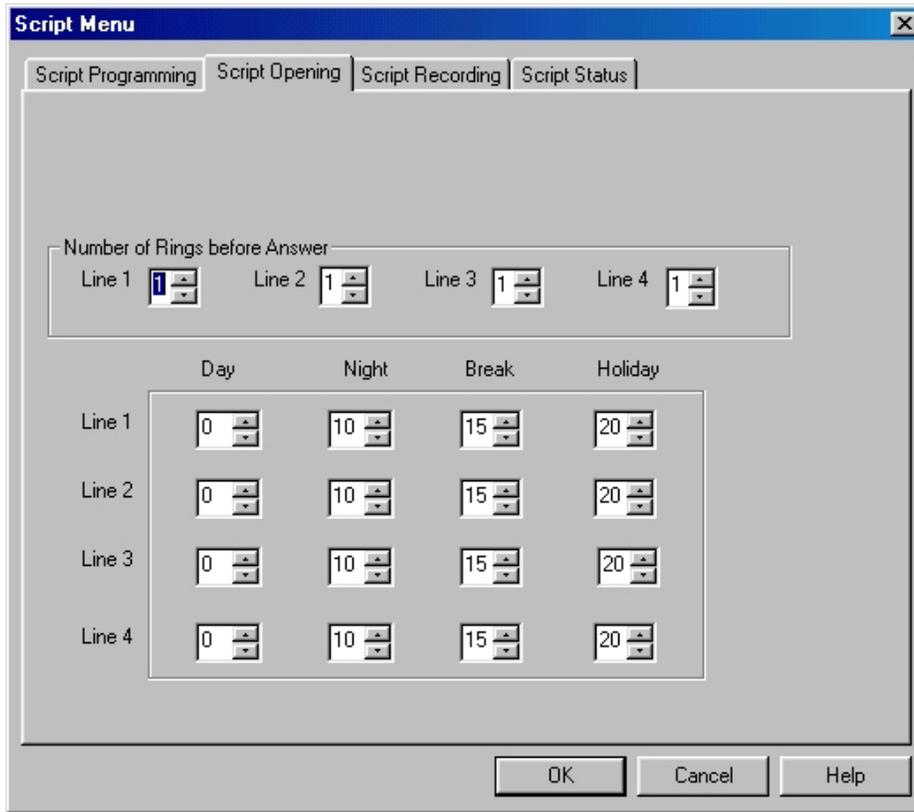


Figure 0-12 Script Opening Screen

The System 56 Voicemail allows for up to four different greetings per port when the system is set to auto mode. To program the system to answer with a different script message on a particular port select the port you wish to change, then select the mode that you wish to change the script message for. Once you have selected the appropriate item to change use the up and down arrow keys to select the new script number to play. (This script will now replace the default script on that particular port for that particular mode.)

The Number of Rings Before Answer field should be left at one. If you wish to program a delay answer for the voicemail please refer to section E.1.4 or E.2.4 depending on your system.

Setting the Time, Date and Operation Mode

The VUP enables you to adjust the System 56 Voicemail clock and calendar using a 24-hour format.

► **To set the System 56 Voicemail clock and calendar and mode:**

1. On the **Auto-Attendant** menu, click **Time & Date**.

The **Time & Date** dialog box opens.

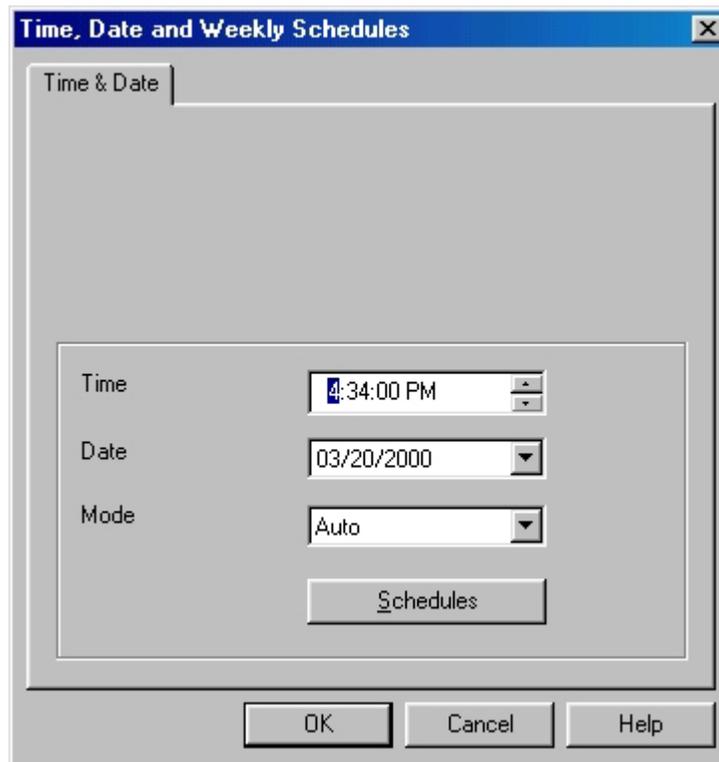


Figure 0-13 Date & Time Dialog Box

2. In the **Time** box, type a new time.
3. In the **Date** box, type a new calendar date.
4. In the **Mode** box, select the mode you wish the system to run in.
 - a.) Auto – The System 56 Voicemail will automatically switch among day, night, break and holiday modes depending on a predefined schedule.

- b.) Day – The System 56 Voicemail will operate in Day mode playing the appropriate script menu(s) setup in section 4.7.2.
 - c.) Night – The System 56 Voicemail will operate in Night mode playing the appropriate script menu(s) setup in section 4.7.2.
 - d.) Break – The System 56 Voicemail will operate in Break mode playing the appropriate script menu(s) setup in section 4.7.2.
 - e.) Holiday – The System 56 Voicemail will operate in Holiday mode playing the appropriate script menu(s) setup in section 4.7.2.
5. Click **OK**.

Setting up Auto Mode

Auto mode allows the System 56 Voicemail to switch between operation modes automatically on a pre-defined schedule. This mode can switch between day, night, break and/or holiday mode. To enable this you must set up the schedule for auto mode.

Programming Daily Schedules

To program the daily schedules click on the Auto-Attendant menu, click Time & Date.

The **Time & Date** dialog box opens. Click on **Schedules** to edit the schedule field. The following screen will appear:

	Working Time		Break Time	
	From	To	From	To
Monday	00:00	00:00	00:00	00:00
Tuesday	00:00	00:00	00:00	00:00
Wednesday	00:00	00:00	00:00	00:00
Thursday	00:00	00:00	00:00	00:00
Friday	00:00	00:00	00:00	00:00
Saturday	00:00	00:00	00:00	00:00
Sunday	00:00	00:00	00:00	00:00

Figure 0-14 Auto Mode Schedule

At this point you should proceed to enter the working time and break modes for each day of the week. The working time is the time of day the system will play the day script menu. The system will play the night script menu at all other times during the day except for the break time if it is entered.

Programming Holiday Schedules

The System 56 Voicemail allows you to set up an automatic holiday mode. This allows the system to switch between normal operation and holiday mode on a pre-defined schedule. To program the holiday schedule click on the Auto-Attendant menu, click Time & Date.

The **Time & Date** dialog box opens. Click on **Schedules** to edit the schedule field, and then click on the Holiday Schedules tab. The following screen will appear:

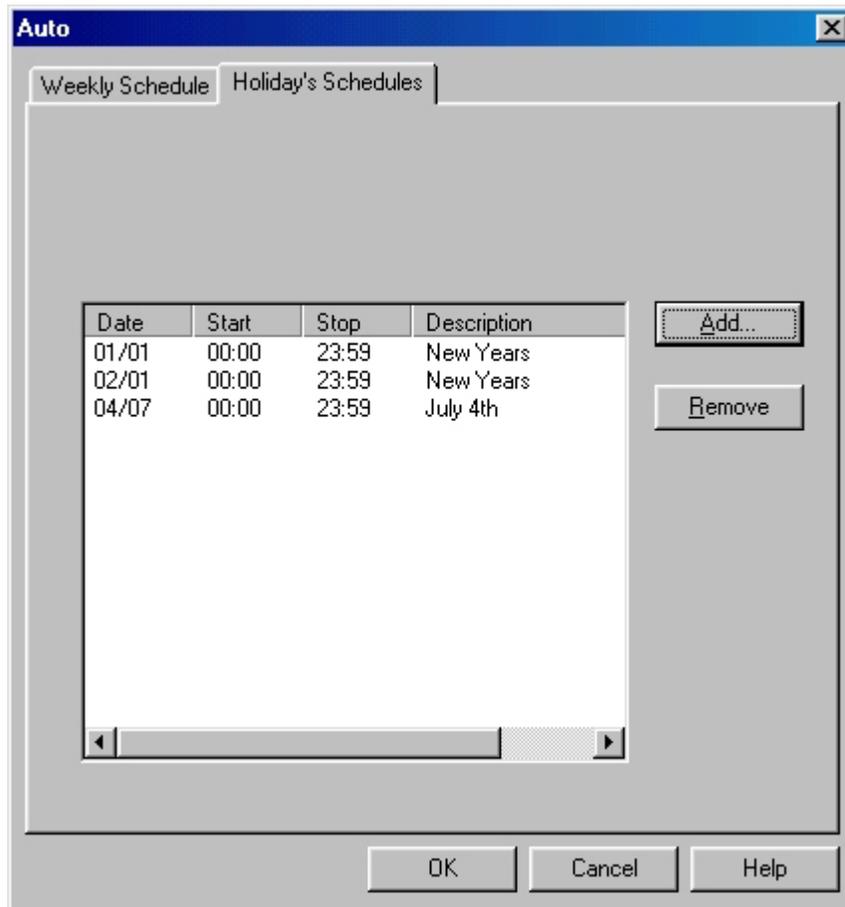


Figure 0-15 Holiday Schedule Screen

At this point you may either add or delete a scheduled holiday

Adding a Holiday

To add a holiday click on the add button. The add to holiday list screen will appear. Select the day you wish to program the holiday greeting for by clicking on the arrow next to the date and the selecting the day on the calendar by clicking on the day you wish. Set the start and stop time and then give the holiday a

description for future reference. If you wish to have the holiday mode be in effect all day long set the start time to 00:00 and the stop time to 23:59.

Removing a Holiday

To remove a holiday click on the date of the holiday you wish to remove and then click on the remove key.

Working with Configuration Files

You can program the System 56 Voicemail parameters and save them as a file on your hard disk. Later you can download the data on the file to the System 56 Voicemail.

► **To save the current parameters as a new configuration file:**

1. On the **File** menu, click **Save As**.
2. In the **Save As** dialog box, type a file name.
3. Click **OK**.

► **To save current settings and values into an open configuration file:**

- On the **File** menu, click **Save**.

Downloading Data to the System 56 Voicemail

You can download data to the System 56 Voicemail only if the VUP is online. See Section 0.

► **To download data to the System 56 Voicemail:**

1. On the **Communication** menu, click **Send Parameters**.
2. Type the System Administrator's password and press **ENTER**.

If the password is correct, the data is downloaded from the PC to the System 56 Voicemail. If the password is incorrect, the VUP issues an error message and asks you to retype the password.

Viewing Statistical Information Stored in the System 56 Voicemail Database

The VUP organizes statistical information stored in the System 56 Voicemail database into the following tables:

- List of all new and saved messages, including mailbox number, date and time of entry and status
- List of messages per mailbox, including date and time of entry and status
- Status of the flash memory, including total time available, amount of time used, amount of time remaining and percent of memory used
- Number of incoming calls on each line

► **To view statistical information stored in the System 56 Voicemail database:**

1. On the **Communication** menu, click **Read Parameters**.
2. On the **Statistics** menu, click the report you want.
3. Click **OK** to close the report and return to the main screen.

Printing Reports

You can organize and print reports on the System 56 Voicemail parameters and on statistical information stored in the System 56 Voicemail database.

► **To print a report:**

1. On the **File** menu, point to **Print Settings Menu** and click select the information you wish to print out. You may only select one option from this menu.
2. On the **File** menu, point to **Print**. The print screen will appear. Select the correct printer and the number of copies.
3. Click **OK**.

Saving Reports

You can organize and save reports on the System 56 Voicemail parameters and on statistical information stored in the System 56 Voicemail database.

➤ **To save a report:**

1. On the **File** menu, point to **Print** and click **System Parameters** to open the **System Parameters** dialog box or **Statistics** to open the **Statistics** dialog box.
2. Select the appropriate check boxes.
3. Click **OK**.
The **Output Location** dialog box opens.
4. Click **To a File**.
The **Save As** dialog box opens.
5. Type a file name and click **OK**.
The System 56 Voicemail saves the report.

You can print the report from DOS or by using any Windows print utility.

Getting Help

You can get help on a topic in two ways:

- Click **Index** on the **Help** menu to open the comprehensive online index.
- Highlight a text box on any dialog box and press F1 to see a short description of the option.

Closing the VUP

➤ **To close the VUP:**

- On the **File** menu, click **Exit**.

User Operating Instructions



Introduction

The following paragraphs describe the user's operational menus.

User's Main Menu

When the caller user logs into their mailbox the System 56 Voicemail announces the number of messages and then plays the user's main menu.

DIGIT	NAME	DESCRIPTION
1	Retrieve Message	Enter Retrieve Message menu
2	Mailbox Parameters	Enter Mailbox Parameters menu
8	Send Message	Send a message to a specific mailbox
9	Return to Auto Attendant	Exit current menu and return to Auto Attendant

Retrieve Message Menu

If the mailbox owner dials "1" while in the user's main menu, the System 56 Voicemail plays the new messages, followed by previously saved messages. At the end of each message, the System 56 Voicemail plays the Retrieve Message menu:

DIGIT	NAME	DESCRIPTION
1	Next Message	Plays the next message
2	Replay	Replay the current message
3	Save	Save the current message
4	Forward	Forward current message to another mailbox
5	Reply	Reply to message sender (Internal messages only)
8	Delete	Delete current message
9	Return to Previous Menu	Return to previous menu (User's main menu)

Mailbox Parameters

If the mailbox owner dials "2" while in the user's main menu, the System 56 Voicemail plays the Mailbox Parameters menu:

DIGIT	NAME	DESCRIPTION
1	Record Greeting	Record a greeting message for the mailbox
2	Record Name	Record your name
3	Directory Listing	Set directory listing parameters
4	Change Password	Change the mailbox access password
6	External Notification	Set the external notification parameters (if allowed)
7	Pager Notification	Set the pager notification parameters (if allowed)
9	Return to Previous Menu	Return to previous menu (User's main menu)

Record Greeting

The mailbox owner can record a personal greeting by dialing “1” on the User’s Parameters menu. The System 56 Voicemail then plays the Record Greeting menu:

DIGIT	NAME	DESCRIPTION
1	Play Back	Play existing recording
2	Record	Record a new greeting message
8	Delete	Delete existing message
9	Return to Previous Menu	Return to previous menu (User’s parameters menu)

Record Name

The mailbox owner can record his personal name by dialing “2” on the user’s parameters menu. The System 56 Voicemail then plays the Record Name menu:

DIGIT	NAME	DESCRIPTION
1	Play Back	Play existing recording
2	Record	Record a new name
8	Delete	Delete existing name
9	Return to Previous Menu	Return to previous menu (User’s parameters menu)

Directory Listing

The mailbox owner can set the directory listing parameters by dialing “3” on the user’s parameters menu. The System 56 Voicemail then plays the Directory Listing menu:

DIGIT	NAME	DESCRIPTION
1	Play Back	Play current directory listing code
2	Change	Change directory listing code
8	Delete	Delete directory listing code
9	Return to Previous Menu	Return to previous menu (User's parameters menu)

Change Password

A mailbox password consists of four digits. The default password is 1234. To disable the password, enter 0000.

The mailbox owner can change their password by dialing "4" on the user's parameters menu. The System 56 Voicemail then plays the Change Password menu:

DIGIT	NAME	DESCRIPTION
1	Play Back	Plays the current password
2	Change	Change existing password
9	Return to Previous Menu	Return to previous menu (User's parameters menu)

External Notification

If the System Administrator grants permission, the mailbox owner can:

- Enable/disable remote notification
- Enter their remote telephone number
- Listen to the current remote telephone number

By dialing "6" on the user's parameters menu.

DIGIT	NAME	DESCRIPTION
1	Change Mode	Toggles the external notification state (enabled/disabled)
2	Telephone Number	Enter the selected telephone number for external notification. Codes ¹ 0-9, extension number, *, #, A-D, P and Q can be used
8	Play Back	Play back the external telephone number
9	Return to Previous Menu	Return to the previous menu (User's parameters menu)

Codes¹:

P (1 second pause) = *1 # = *4 B = *6 D = *8 * = **

Q (4 second pause) = *2 A = *5 C = *7 Ext No. = *0 0-9 = 0-9

Pager Notification

If the System Administrator grants permission, the mailbox owner can:

- Enable/Disable pager notification
- Enter their pager number
- Listen to the current pager number

By dialing “7” on the user's parameters menu.

DIGIT	NAME	DESCRIPTION
1	Change Mode	Toggles the pager notification state (enabled/disabled)
2	Pager Number	Enter the selected pager number for pager notification. Codes ¹ 0-9, extension number, *, #, A-D, P, Q and SID can be used
8	Play Back	Play back the pager number
9	Return to Previous Menu	Return to previous menu (User's parameters menu)

Codes¹:

P (1 second pause) = *1 # = *4 B = *6 D = *8 * = **

Q (4 second pause) = *2 A = *5 C = *7 Ext No. = *0 0-9 = 0-9

SID = *3 (SID will wait for the pager confirmation tone before the system continues dialing <beep, beep, beep>)

Return to Previous Menu

The mailbox owner can dial “9” on the user’s parameters menu to return to the user’s main menu.

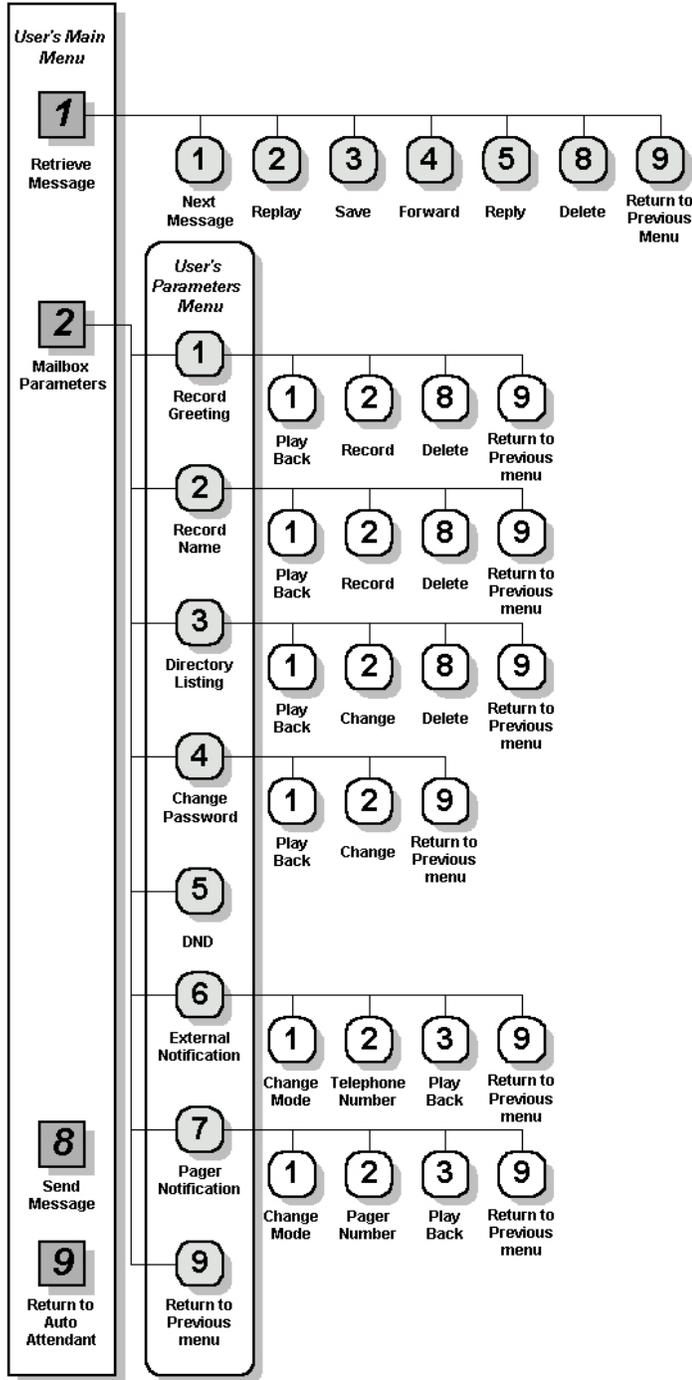
Send Message

The mailbox owner can leave a message in any mailbox or group of mailboxes by dialing “8” on the user’s main menu.

Return to Auto Attendant

The mailbox owner can dial “9” on the user’s main menu to return to the auto attendant.

Quick Reference Guide



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Troubleshooting



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Appendix a

The following table presents a summary of DTMF programming commands.

Note: The DTMF and PC columns list the sections in which the DTMF and computer programming operations are discussed in this manual.

OPERATOR COMMANDS			
OPERATION	COMMAND	DTMF	PC
Day Light Savings Time	*7 + XXXX + Y XXXX = operator's password Y = 0; Reduce the time by one hour. Y = 1; Increase the time by one hour.	3.8.3	
Change the operational mode (without entering the programming mode)	*8 + XXXX + Y XXXX = operator's password Y = 0; Day Y = 1; Night Y = 2; Holiday Y = 3; Auto Y = 4; Break	3.8.4	4.9

SCRIPT PROGRAMMING COMMANDS			
OPERATION	COMMAND	DTMF	PC
Directory listing format	*011 + X X = 0; Directory by last name X = 1; Directory by first name	3.7.3.1	4.5.2
Record a message	*100 + XX + Beep + Record + #	3.7.1	N/A
Play a message	*101 + XX + Beep + Playback	3.7.1	N/A
Delete a message	*102 + XX	3.7.1	N/A
SCRIPT PROGRAMMING COMMANDS (CONT'D)			

Select EOM timeout for each script	*105 + XX + Y + # XX = Script No. Y = Timeout in seconds	3.7.2.1	4.7
Transfer to a script message	*110 + XX + B + Destination script message + #	3.7.2.2	4.7
Select Opening Script	*112 + XX + YY + Z + # XX = Default script number 00, 10, 15 or 20 YY = Replacement script number 00-20 Z = Port number 1-4	3.7.2.3	4.7.2
Transfer to opening menu	*115 + XX + B + #	3.7.2.4	4.7
Transfer to an extension	*120 + XX + B + Extension + #	3.7.2.5	4.7
Transfer to an operator	*125 + XX + #	3.7.2.6	4.7
Transfer to a mailbox	*130 + XX + B + Mailbox + #	3.7.2.7	4.7
Disconnect	*140 + XX + B + Z + # Z = 0, no message Z = 1 with message	3.7.2.8	4.7
Leave a message in a mailbox	*150 + XX + B + # XX = script No.	3.7.2.9	4.7
Retrieve messages from a mailbox	*160 + XX + B + # XX = script No.	3.7.2.10	4.7
Direct transfer to an extension	*170 + XX + first digit(s) + #	3.7.2.11	4.7
Direct transfer to a mailbox	*175 + XX + first digit(s) + #	3.7.2.12	4.7
Hold	*180 + XX + B + #	3.7.2.13	4.7
Blind Transfer to Busy Extension	*185 + XX + B + #	3.7.2.14	4.7
Reset a specific message entry to its default value	*190 + XX + B + #	3.7.4	4.7
Reset all message entries to defaults	*190 + XX + #	3.7.4	4.7

PBX PARAMETERS			
No. Of digits in extension	*300 + X	3.3	4.5.1.1
Cut off time for continuous call progress tone detection	*301 + X X = cut off time in seconds (0-9)	3.3	4.5.1.4
No. Of rings before the line is answered	*310 + line number + number of rings	3.3	4.5.1
Time to wait for No Answer	*311 + XX	3.3	4.5.1
PBX legal extensions	*320 + Y + First Ext. + Last Ext. + # Y = group number (0-9)	3.3	4.5.1
Operator ID code.	*330 + X X = 0-9	3.3	4.5.1
Key to retrieve messages during mailbox greeting playback	*331 + X X = 0-9; Retrieve digit	5.2	N/A
Disconnect code	*333 + XXXX + #	3.3	4.5.2
External access code	*340 + X X = external access digit (0-9)	3.3	4.6.6
Pause before and after external access code	*341 + X X = pause length in seconds (0-9)	3.3	N/A
Transfer mode for all extensions except the operator's extension	*350 + X + Y X = 1; All extensions except the operator X = 2; Semi-Supervised Y = 0; Non Supervised Y = 1; Supervised Y = 2; Semi Supervised	3.7.5	4.5.2
Day operator extension no.	*360 + X + YYYY + # X = 1; Day operator X = 2; Night operator X = 3; Fax extension X = 4; Supervisor extension YYYY = extension number *360 + X + # to delete extension	3.3	4.5.1

PBX PARAMETERS (CONT'D)			
Volume level	*369 + X X = volume level (0-9) 9 = loudest	3.3	N/A
Flash 1	*370 + XXX	3.3	4.5.1.2
Voice sensitivity	*376 + X	3.3	4.5.2
Automatic Gain Control (AGC)	*377 + X X = 0 AGC disabled X = 1 AGC enabled (Default)	3.3	4.5.2
DTMF amplitude	*379 + X X = volume level (0-9), 9 = Loudest	3.3	4.5.1.3
Procedural codes sent to the PBX in order to perform a specific task.	*380 + X + CODE¹ + # X = 1; LED1 notification code X = 2; LED2 notification code X = 3; LED off code X = 4; Transfer code X = 5; Recall from busy X = 6; Recall from no answer Code = Respective PBX CODE ¹ *380 + X + # to cancel code	3.3	4.5

SETTING TIME & DATE			
Change the operational mode	*400 + X X = 0; Day X = 3; Auto X = 1; Night X = 4; Break X = 2; Holiday	3.5	4.9
Select time stamp format	*410 + X	3.5	N/A
Set time and day	*420 + Hour + Minutes	3.4	4.8
Set date	*430 + Date + Month + Year	3.4	4.8
Listen to the system time	*440	3.4	N/A
Set working hours	*450 + Day + Starting time + Ending time	3.5	4.9

OPERATION	COMMAND	DTMF	PC
Set break time	*460 + Day + Starting time + Ending time	3.5	4.9
Entering annual holiday dates	*470 + DD + MM + hh:mm + hh:mm DD = Day of month MM = Month HH:MM = Start time Hh:mm = End time <i>Note:</i> Time as in 24hr format	3.5	4.8.1.2
Delete all holidays	*470 + #	3.5	4.8.1.2
Delete all holidays on a specific date	*470 + DD + MM + # DD = Day MM = Month	3.5	4.8.1.2
Delete all holidays for a specific month	*470 + ** + MM + # MM = Month	3.5	4.8.1.2
External notification active time	*490 + HH:MM + hh:mm HH:MM = Start time Hh:mm = End time <i>Note:</i> Time as in 24hr format	3.6.3	4.6.6

MAILBOX CONFIGURATION COMMANDS			
OPERATION	COMMAND	DTMF	PC
Create a range of mailboxes	*500 + First mailbox + Last mailbox + #	3.6.1	4.6.2.1
Create a mailbox	*501 + Mailbox + #	3.6.1	4.6.2
Change to announce mailbox	*502 + XXXX + Y + # XXXX = Existing mailbox number Y = 0; Regular mailbox Y = 1; Announcer mailbox	3.6.1	4.6.2
Delete a mailbox	*510 + Mailbox number + #	3.6.1	4.6.4
MAILBOX CONFIGURATION COMMANDS (CONT'D)			

OPERATION	COMMAND	DTMF	PC
Create a range of virtual mailboxes	*520 + First mailbox + Last mailbox + #	3.6.1	4.6.2.1
Create a virtual mailbox	*521 + Mailbox number + #	3.6.1	4.6.2
Play or skip time and date stamp for a range of mailboxes	*530 + First mailbox + Last mailbox + B + # B = 0; Play the date and time B = 1; Skip the date and time	3.6.1	4.6.2.1
Play or skip time and date stamp for a mailbox	*531 + Mailbox number + B + # B = 0 or 1	3.6.1	4.6.2.1
Add a mailbox to a group	*540 + Group number + Mailbox number + #	3.6.2	4.6.5
Change the first digit of the group numbers	*545 + First Digit of the Group Numbers	3.6.2	4.6.5
Delete a mailbox from a group	*550 + Group number + Mailbox number + #	3.6.2	4.6.5
Reset a mailbox group	*560 + Group number + #	3.6.2	4.6.5
Reset a user password	*570 + Mailbox number + #	5.2.2	4.6.3

SYSTEM FUNCTIONALITY COMMANDS			
OPERATION	COMMAND	DTMF	PC
Change the system administrator's password	*600 + * + Old password + New password	3.8.1.1	N/A
Change the operator's password	*601 + * + Old password + New password	3.8.1.2	N/A
Resetting the system to default	*654 + * + XXXX + # XXXX is the system administrator password	3.8.9	N/A
Listen to the software version number	*680	3.8.5	N/A
Play a system message	*690 + Z + XXX Z = 0, 1 or 2 (language number) XXX = system message number	3.8.4	N/A

MAILBOX NOTIFICATION COMMANDS			
OPERATION	COMMAND	DTMF	PC
Set local notification for a range of mailboxes	*700 + First mailbox + Last mailbox + X + # X = 0; disabled X = 1; LED 1 X = 2; LED 2 X = 3; Ring Signs X = 4; Rings	3.6.3.1	4.6.2
Set local notification for one mailbox	*701 + Mailbox + X + # X = 0; disabled X = 1; LED 1 X = 2; LED 2 X = 3; Ring Signs X = 4; Rings	3.6.3.1	4.6.2
Permit remote notification for a range of mailboxes	*710 + First mailbox + Last mailbox + X + # X = 0; not permitted X = 1; permitted	3.6.3.1	4.6.2
Permit remote notification for one mailbox	*711 + Mailbox + X + # X = 0; not permitted X = 1; permitted	3.6.3.1	4.6.6
Ring Notification Interval	*720 + XX XX is in minutes	3.6.3.1	4.6.6
Ring Notification Duration	*730+ X X = 0 means short ring X = 1 means long ring	3.6.3.1	4.6.6
Maximum no. Of days to store a message in the system	*740 + XX XX is number of days 00-99.	3.6.3.1	N/A
Ring notification Retries	*750 + XX	3.6.3.1	4.6.6
MSG light activation method	*760 + X X = 0; Only on first new message X = 1; On every new message	3.6.3.1	4.6.6
Adjusting recording length	*790 + X X = 1-9 minutes	3.8.10	4.6.6

¹ Refers to PBX codes. Each code contains digits 0-9, *, #, Flash-1, Flash-2, Pause and Extension Number.
When entering a code, dial:

*0	for	extension	*5	for	A
*1	for	pause	*6	for	B
*2	for	Flash-1	*7	for	C
*3	for	Flash-2	*8	for	D
*4	for #		**	for *	

N/A stands for Not Applicable.

Appendix b



The following pages include forms to help you properly setup and maintain the System 56 Voicemail system using DTMF programming commands.

OPERATION	COMMAND	VALUE
Selecting opening menu	*112 ____# ____# ____# ____#	
No. Of digits in an extension	*300 ____	
No. Of rings before the line is answered	Line 1: *310 1 ____ Line 2: *310 2 ____ Line 3: *310 3 ____ Line 4: *310 4 ____	
Time to wait for No Answer	*311 ____	
Legal PBX extensions	Group 1: *320 0 ____# Group 2: *320 1 ____# Group 3: *320 2 ____# Group 4: *320 3 ____# Group 5: *320 4 ____# Group 6: *320 5 ____# Group 7: *320 6 ____# Group 8: *320 7 ____# Group 9: *320 8 ____# Group 10: *320 9 ____#	
Operator ID Code.	*330 ____	
Disconnect Code	*333 ____#	
External Access Code	*340 ____	
Day Operator's Extension No.	*360 ____#	
Night Operator's Extension No.	*360 ____#	
Fax Extension No.	*360 ____#	
Flash 1	*370 ____	

NOTIFICATION PARAMETERS

Delay between notification of Ring Signs and Rings: *720 _____
 Ring time notification of Ring Signs and rings *730 _____
 Activate the LED notification *760 _____

SYSTEM TIME AND DATE

See Section 3.4 for information on setting the system time and date using codes *420 and *430.

SETTING THE WORKING TIME

See Section 3.5 for information on setting the following schedule using codes *450 and *460.

Day	Working Hours		Break Time	
	Start	End	Start	End
1 (Monday)	_____	_____	_____	_____
2 (Tuesday)	_____	_____	_____	_____
3 (Wednesday)	_____	_____	_____	_____
4 (Thursday)	_____	_____	_____	_____
5 (Friday)	_____	_____	_____	_____
6 (Saturday)	_____	_____	_____	_____
7 (Sunday)	_____	_____	_____	_____

SETTING THE OPERATIONAL MODE

Operational Mode: *400 __ Select: Day (0)/Night (1)/Holiday (2)/Auto (3)/Break (4)

This form contains the programming schedule for up to four script message. Please copy the form if you have more than four script messages.

Note: The following numbers are dedicated to specific script messages:

- *Script message number 00 to the Day Mode Opening Menu*
- *Script message number 10 to the Night Mode Opening Menu*
- *Script message number 15 to the Break Time Opening Menu*
- *Script message number 20 to the Holiday Mode Opening Menu*

The rest of the script messages (01-09, 11-14 and 16-19) may be used in all modes without limitations.

Script No. _____

0 _____

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

8 _____

9 _____

EOM _____

Script No. _____

0 _____

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

8 _____

9 _____

EOM _____

Script No. _____

0 _____

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

8 _____

9 _____

EOM _____

Script No. _____

0 _____

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

8 _____

9 _____

EOM _____

appendix c



This section lists the System 56 Voicemail system messages and their numbers. You can hear each of these messages in the programming mode by dialing:

*690 + language digit (0, 1 or 2) + system message number

NO.	SYSTEM MESSAGE
000	This system has not been programmed. Please refer to the installation manual for instructions. Thank you.
001	Please hang up now.
002	Please enter your password.
003	Invalid entry. Please try again.
004	Pease hold..
005	Message was received on
006	At...
007	Zero
008	O'clock
009	No

NUMBERS

010	One	024	Fifteen
011	Two	025	Sixteen
012	Three	026	Seventeen
013	Four	027	Eighteen
014	Five	028	Nineteen
015	Six	029	Twenty
016	Seven	030	Thirty
017	Eight	031	Forty
018	Nine	032	Fifty
019	Ten	033	Sixty
020	Eleven	034	Seventy
021	Twelve	035	Eighty
022	Thirteen	036	Ninety
023	Fourteen		

DATES

037	First	048	Twelfth
038	Second	049	Thirteenth
039	Third	050	Fourteenth
040	Fourth	051	Fifteenth
041	Fifth	052	Sixteenth
042	Sixth	053	Seventeenth
043	Seventh	054	Eighteenth
044	Eighth	055	Nineteenth
045	Ninth	056	Twentieth
046	Tenth	057	Thirtieth
047	Eleventh		

MONTHS

058	Of January	064	Of July
059	Of February	065	Of August
060	Of March	066	Of September
061	Of April	067	Of October
062	Of May	068	Of November
063	Of June	069	Of December

NO.	SYSTEM MESSAGE
070	...and....
071	You have...
072	...New messages
073	...New message
074	...Messages
075	To retrieve messages, press 1. To change mailbox settings press 2. To send a message to press 8. To return to the main menu, press 9.
076	You have no messages.
077	Message saved. Please hold.
078	To skip this message, press 1. To replay press 2. To save press 3. To forward press 4. To reply to message sender, press 5. To delete the message, press 8. To return to previous menu, press 9.
079	Message saved.
080	Message deleted.
081	Please enter a new four digit password.
082	To delete skipped messages, press 8. To save all messages, press 9.
083	...Yesterday...
084	...Today...

NO.	SYSTEM MESSAGE
085	Please enter your Mailbox number.
086	Invalid Mailbox number. Please try again.
087	Incorrect password. Please try again.
088	Please record your personal greeting after the tone. Press the pound key when you have finished.
089	Please record your name after the tone. Press the pound key when you have finished.
090	Calls will be transferred to your extension.
091	Calls will not be transferred to your extension.
092	Please enter the mailbox number.
093	You have reached the mailbox of...
094	You have reached the mailbox number...
095	Please leave a message after the tone. When you are finished press star for further options or simply hang up.
096	The dialed extension is busy. To reach another extension, dial '1' and the extension number. To hold, dial '2'. To leave a message, dial '8'. To reach the operator, dial '0'. To return to the Main Menu, dial '9'.
097	There is no answer from the extension.. To reach another extension, dial '1' and the extension number. To leave a message, dial '8'. To reach the operator, dial '0' To return to the Main Menu, dial '9'.
098	We are sorry. No more messages may be recorded at the moment.
099	The Voice Mail is in use. Please wait.

NO.	SYSTEM MESSAGE
100	A.M.
101	P.M.
102	You have a call.
103	The dialed extension is busy. To reach the operator, dial '0'. To reach another extension, dial '1' and the extension number. To stay on hold, dial '2'. To return to the Main Menu, dial '9'.
104	There is no answer from the extension. To reach the operator, dial '0'. To reach another extension, dial '1' and the extension number. To return to the Main Menu, dial '9'.
105	You have exceeded the maximum message length. The message will be transferred as is.
106	Sunday
107	Monday
108	Tuesday
109	Wednesday
110	Thursday
111	Friday
112	Saturday
113	O (i.e., eight-O-two for 8:02)
115	Please leave your comments after the tone. Dial the pound key at the end.

NO.	SYSTEM MESSAGE
116	To change the remote notification mode, dial '1'. To enter your remote phone number, dial '2'. To hear the current remote phone number, dial '3'. To return to the previous menu, dial '9'.
117	Remote Notification is disabled.
118	Remote Notification is enabled.
119	You have a new message. Please dial '1' to receive your messages.
120	Please enter your remote phone number. Dial the pound key at the end.
121	Your call to the requested extension cannot be completed at the moment. To reach the operator, dial '0'. To reach another extension, dial '1' and the extension number. To leave a message, dial '8'. To return to the main menu, dial '9'.
122	Invalid extension number. Please try again.
123	Unsaved messages are deleted.
124	To hear the current recording, dial '1'. To record, dial '2'. To delete the current recording, dial '8'. To return to the previous menu, dial '9'.
125	The recording does not exist.
126	The Busy On-Time is...
127	The Busy Off-Time is...
128	To hear your current password, dial '1'. To change your password, dial '2'. To return to the previous menu, dial '9'.
129	The message was received...
130	For Pager notification, press 1. To enter the pager number, press 2. To listen to the pager number, press 3. To return to the previous menu, press 9.
131	Pager notification is disabled.

NO.	SYSTEM MESSAGE
132	Pager notification is enabled
133	Please enter your pager number. Press the pound key when you are finished.
134	...saved messages
135	...saved message
136	That mailbox is currently unavailable
137	Storage space is nearing capacity
138	For...
139	...press...
140	To return to the previous list, press 7.
141	For additional listings, press 8.
142	To enter another name, press 0. To return to the main menu, press 9.
143	No directory listing is available.
144	To record your greeting, press 1. To record your name, press 2. To access directory listing options, press 3. To change your password, press 4. To change external notification, press 6. To change pager notification, press 7. To return to the previous menu, press 9.
145	To listen to your directory listing, press 1. To enter your directory listing, press 2. To delete your directory listing, press 8. To return to the previous menu, press 9.
146	Operation successful.
147	Using your keypad, please enter the first 3 letters of your last name. For Q press 7 for Z press 9.

NO.	SYSTEM MESSAGE
148	Using your keypad, please enter the first 3 letters of the person's last name. For Q press 7 for Z press 9.
149	Using your keypad, please enter the first 3 letters of your first name. For Q press 7 for Z press 9.
150	Using your keypad, please enter the first 3 letters of the person's first name. For Q press 7 for Z press 9.
151	Your call is being transferred to...
152	To join the directory listing, please make sure your name is recorded.
153	Product version is...
154	To try another extension, press 1 followed by the extension number. To transfer to the operator, press 0. To return to the main menu, press 9.
155	This value has not been set.
156	To change mailbox settings, press 2. To send a message, press 8. To return to the main menu, press 9.
157	To skip this message, press 1. To replay, press 2. To save, press 3. To forward, press 4. To delete, press 8. To return to the previous menu, press 9.
158	To record your greeting, press 1. To record your name, press 2. To access directory-listing options, press 3. To change your password, press 4. To return to the previous menu, press 9.

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