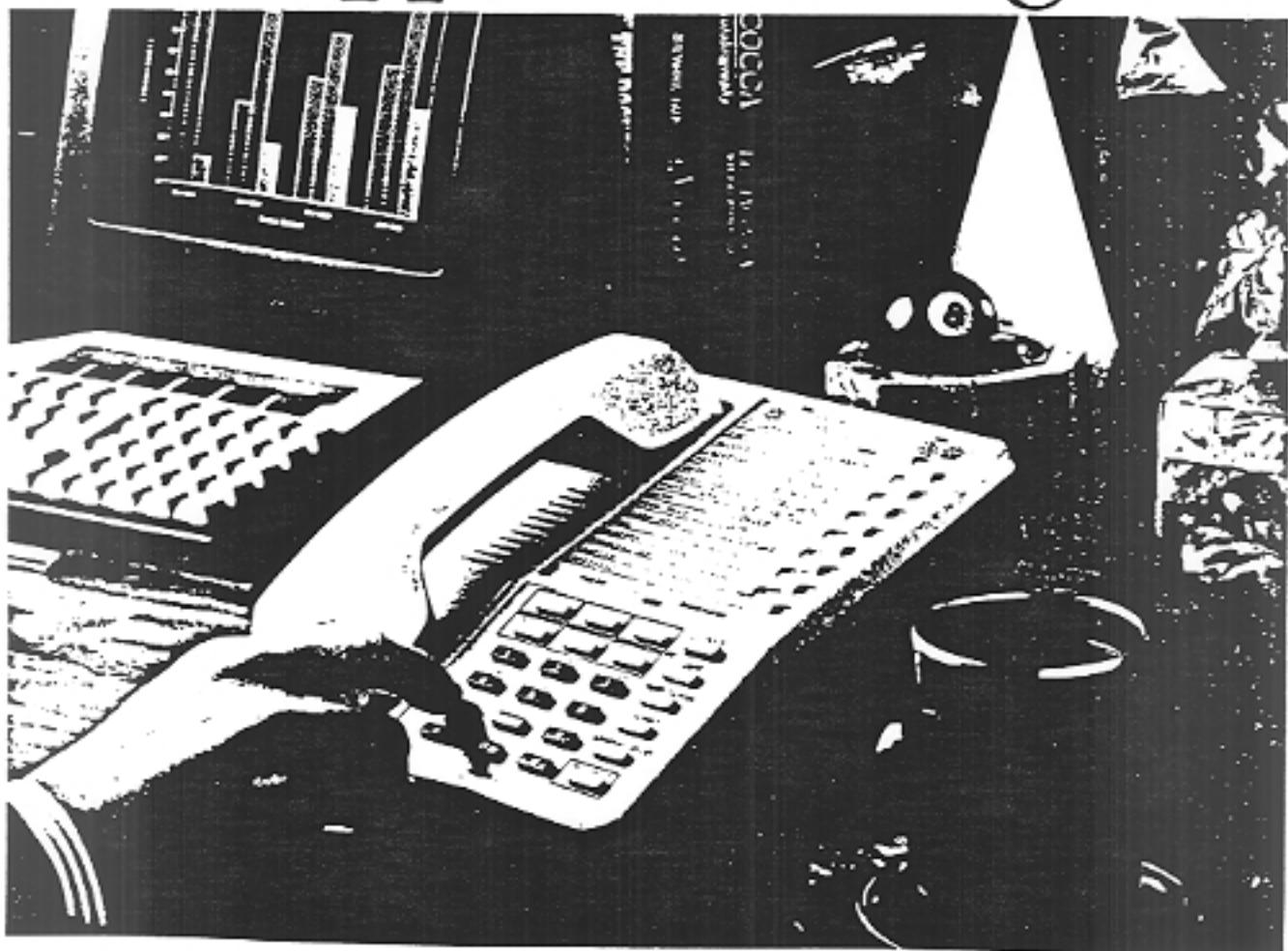




The Trillium 616
It can make
one of the world's
oldest business problems
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~~see page~~

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G108-1A

interface unit

For G16

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FCC Requirements

The Federal Communications Commission (FCC) has established rules which permit the Trillium Telephone Systems TalkTo 616 Electronic Key Telephone System to be directly connected to the telephone network. A jack is provided by the telephone company. Jacks for this type of customer provided equipment will not be provided on party lines or coin lines.

If the system is malfunctioning, it may also be causing harm to the telephone network; the system should be disconnected until the source of the problem can be determined and until repair has been made. If this is not done, the telephone company may temporarily disconnect service.

The telephone company may make changes in its technical operations and procedures; if such changes affect the compatibility or use of the system, the telephone company is required to give adequate notice of the changes.

Service Requirements

In the event of equipment malfunction, all repairs will be implemented by Trillium Telephone Systems. It is the responsibility of users requiring service to report the need for service to Trillium Telephone Systems or to one of their authorized agents.

Company Notification

Before connecting the TalkTo 616 Electronic Key Telephone System to the telephone network, the telephone company must be provided with the following:

- Your telephone number
- The FCC Registration Number →
- The Ringer Equivalence Number →
- The USOC jacks required.

The FCC Registration Number, and the Ringer Equivalence are indicated on the System label.

The jacks for the system are:

- Lines one and two — RJ14C.
- Line three and four — RJ14C.
- Lines five and six — RJ14C.

Warnings

Radio Frequency Energy

The TalkTo 616 Electronic Key Telephone System generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart I of Part 15 of FCC rules which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this

equipment causes interference to radio or television reception, which can be determined by unplugging the TalkTo 616 Key Service Unit (KSU), from electrical power, the user is encouraged to try to correct the interferences by one of the following measures:

- Re-orient the receiving antenna.
- Relocate TalkTo 616 units with respect to the receiver.
- Move TalkTo 616 units away from the receiver.

If necessary, the user should consult the supplier or an experienced radiotelevision technician for additional suggestions. The user may find the following booklet, prepared by the Federal Communications Commission, helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

Hearing Aid Compatibility

This telephone is not hearing aid-compatible as is defined in Section 68.316 of Part 68 FCC Rules. As such, the FCC rules prohibit the use of this telephone in the following locations:

- a) Coin telephones. All new and existing coin-operated telephones whether located on public property or in a semi-public location (e.g. drugstore, gas station, private club).
- b) Emergency use telephones. Telephones "provided for emergency use" include the following:
 - 1) Telephones in places where a person with impaired hearing might be isolated in an emergency, including but not limited to, elevators, automobiles, railroad or subway tunnels, and highways.
 - 2) Telephones specifically installed to alert emergency authorities, including, but not limited to, police or fire departments or medical assistance personnel.
 - 3) Telephones needed to signal life-threatening or emergency situations in confined settings, including, but not limited to, rooms in hospitals, residential health care facilities for senior citizens convalescent homes, and prisons. A telephone is not needed to signal life-threatening or emergency situations if an alternative means of signalling such a situation is available.
- c) Telephones frequently needed by the hearing impaired.
 - 1) Any telephone on which calls may only be paid for by credit card or other pre-arranged credit. Each such telephone must be hearing aid-compatible unless a hearing aid-compatible coin-operated telephone providing similar services is nearby and readily available.

2) Any telephone made available at the work station of a hearing-impaired employee for use by that employee in his or her employment duty. An employee's "work station" is defined as the location within a workplace where that employee is usually found in the course of his or her employment duties.

3) Any telephone, including internal extensions and telephones restricted to local calling areas, made available for use by the public in places of business or buildings in which visits by the public are reasonably expected. Examples include, but are not limited to, telephones located in lobbies of hotels or apartment buildings; telephones in stores, which are used by patrons to order merchandise; telephones in public transportation terminals which are used to call taxis or to reserve rental automobiles.

4) Any telephone in a hotel or motel room. Provided that, if at least ten percent of the rooms in a hotel or motel are equipped to accommodate a hearing impaired customer, the hotel or motel need not purchase or install a compatible telephone when it replaces a telephone. A room is equipped to accommodate a hearing impaired customer if (1) it contains a permanently installed hearing aid-compatible telephone; or (2) it contains a telephone which will accept a plug-in hearing aid-compatible handset, which shall be provided to the hearing impaired customer by the hotel or motel; or (3) the room contains a jack into which a hearing aid-compatible telephone provided to the customer by the hotel or motel may be plugged (i.e., in addition to a permanently installed telephone which is not hearing aid-compatible).

If fewer than ten percent of the rooms in a hotel or motel are hearing aid-compatible, when replacing a telephone the hotel or motel must, until the ten percent minimum is reached: (1) replace it with a hearing aid-compatible telephone, or (2) procure and maintain a plug-in hearing aid-compatible telephone handset which it will provide to a hearing impaired customer upon request at check-in.

5) Any telephone in the locations listed in (b) (3) in which an alternative means of signalling a life-threatening or emergency situation is not available.

* * *

Introduction

This manual details the procedures to install and program the TalkTo 616 Electronic Key Telephone System. A section on Troubleshooting is also included.

Installation is easy, and can be carried out by a certified installer, using standard cable runs and modular jacks; or if so desired by the end-user, using standard modular telephone line cords, extension cords, and adapters.

Preparation

The installer should ensure that the area chosen to mount the KSU is:

- Clean, dry and well ventilated. The temperature should be between 0° and 40°C (32° and 104°F). The relative humidity should be 90% or less, and be non-condensing.
- Within seven feet of the C.O./PABX line terminations.
- Within close proximity to the station terminations (in the case where outdated equipment is being replaced). The distance to each station is limited to a maximum of 2000 feet (609 meters) when 24 AWG wire is used.
- Within five feet (1.5 meters) of a 110V ac 60Hz three-wire dedicated unswitched power outlet.

Station wiring should be standard two pair twisted communication cable, 24 AWG. It is assumed that the C.O. lines are terminated at RJ style modular jacks.

Pre-installation Requirements

Unpack the system and check that all items conform to the list of parts ordered. Make sure that the customer's feature requirements have been documented on a Customer Feature Selection form.

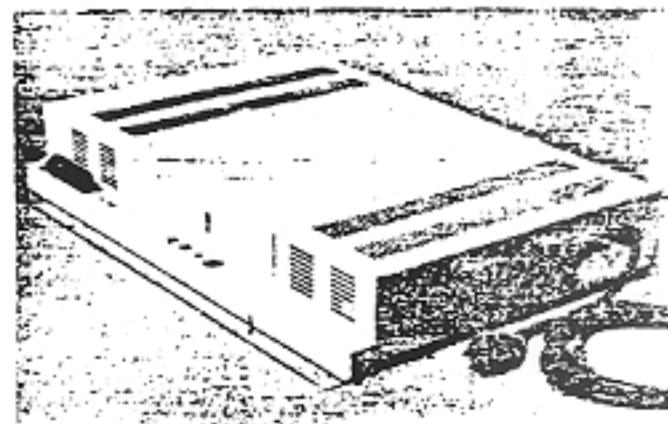
Description	Part Number
TalkTo 616 Key Service Unit (KSU) (DTMF)	90-0050
TalkTo 616 Key Service Unit (KSU) (Rotary or DTMF)	90-0054
TalkTo 616 Set	90-0056
TalkTo 616 Set (Handsfree)	90-0051
TalkTo Door Answer Unit	90-0057
TalkTo Door Module	90-0058
TalkTo Power Fail Transfer Unit	90-0052

If the Key Service Unit (KSU) is to be mounted on a concrete or masonry wall, a plywood backboard should be provided.

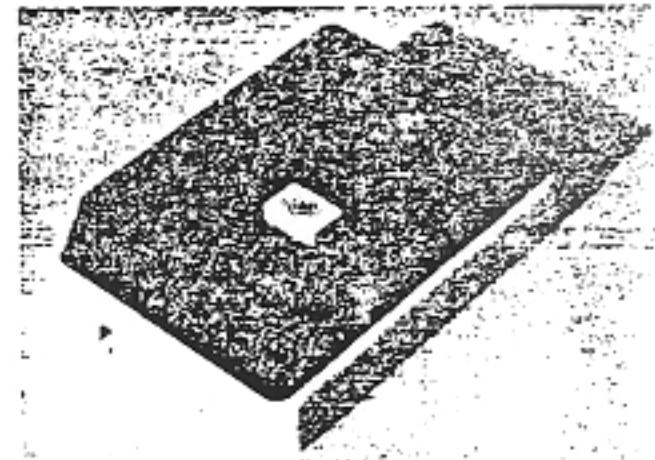
It is recommended that a surge protector be provided for the dedicated power outlet. A suitable device is the TII Model 428 plug-in protector or equivalent.



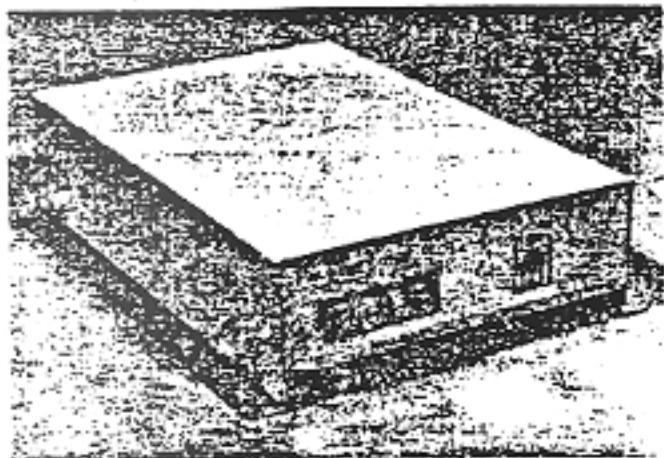
The TalkTo 616 Set is intended for desk or table use, but can be wall mounted using a special bracket available as an option.



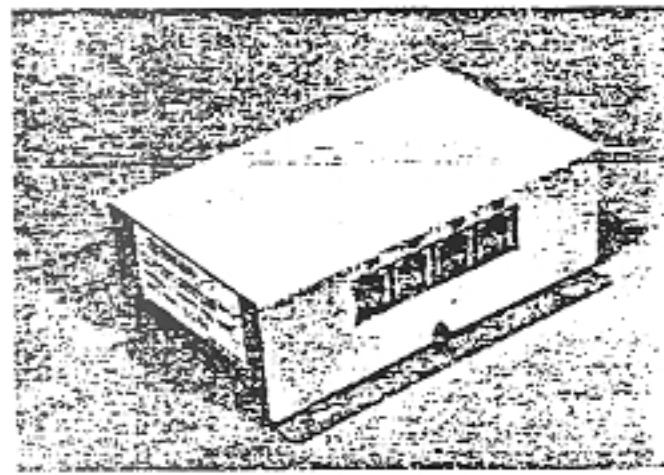
The Key Service Unit (KSU) is contained in a metal cabinet and should be wall mounted.



The Door Answer Module is molded in plastic, measures 4 inches x 5 inches, and is fitted at the door requiring intercom service.



The Door Answer Unit measures 6.25 inches x 8 inches and should be wall mounted adjacent to the KSU.



The Power Fail Transfer Unit measures 3.5 inches x 4.5 inches and should be wall mounted adjacent to the KSU.

* * *

Installation

The TalkTo 616 System is easily installed using the following procedures:

- KSU installation
- Station Wiring (2 methods)
- Music Input
- Paging Output
- Door Answer Option
- Power Fail Transfer Option

KSU Installation

The KSU contains no user adjustable controls or parts. All switches used during programming are accessible at the exterior of the KSU. An indicator on the left side of the KSU flashes when the system is up and running.

The 110V ac three-wire outlet should be dedicated to the KSU. At the service panel, the electrical breaker for this outlet should be equipped with a locking clip, or marked with label, to prevent accidental shutdown of the system. A surge protector should be installed at the 110V ac outlet.

A suitable unit is the TII Model 428, plug-in power line surge protector. Install the protector in accordance with the manufacturer's instructions.

The KSU is intended for wall mounting only. If a backboard is to be used, start the KSU installation by mounting the backboard on the wall. Then:

- Mark the position of the four KSU mounting screws on the backboard.
- Drive in four screws (supplied with the KSU) to within 1/8 inch of the board surface.
- Using the four keyhole slots in the KSU cabinet, hang the unit on the four screws.
- Tighten the screws to secure the KSU to the backboard.

Connect the ground lug of the KSU to a metal cold water pipe or ground stake, using 12 AWG (2.64mm diameter) or heavier, copper wire. If a cold water pipe is used, ensure that the continuity to ground is not broken by the use of plastic pipe. If a ground stake is used for this purpose, it must be properly installed in accordance with the local electrical code.

Caution: Failure to properly ground the KSU may affect the system warranty.

Carry out a preliminary check of the KSU operation as follows:

- Set the switch, **Battery**, to **On**.
- Set the Switches, **Program 1** and **2**, to **Off**.
- Connect the KSU power cord to the surge protector previously installed at the 110V ac power outlet.
- **Status Indicator** lamp should flash.

This indicates that the KSU is operative.

To prevent accidental damage to the KSU while the system wiring is being installed, remove the power from the KSU as follows:

- Set the switch, **Battery**, to **Off**.
- Disconnect the power cord from the surge protector.

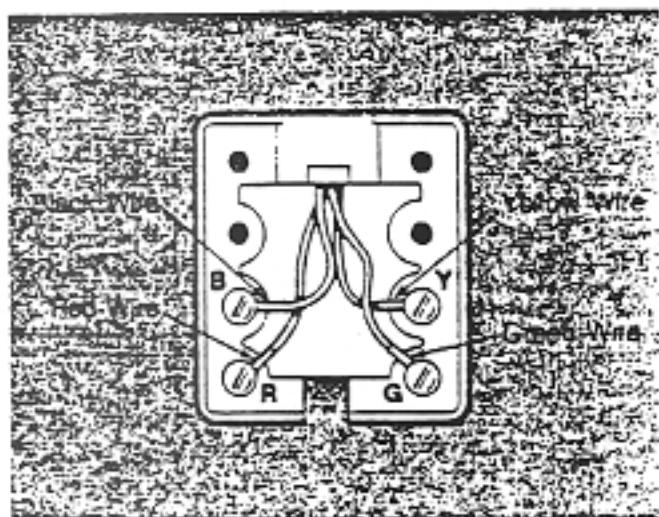
Station Wiring — Method 1

This method uses 25 pair standard cabling and a 66 Type Punch Down Block, to connect 12 stations, and 4 modular line cords and half 66 Type Punch Down Block to connect the remaining 4 stations. Cable runs to the station locations use communication cable (2 pair 24 AWG), 625 type four-wire jacks, and modular line cords.

Adjacent to the left hand side of the KSU, install the 66 Type Punch Down Block (**S66-M1-50R or similar**). Prepare a 25 pair cable of appropriate length with a jack on the KSU end and a plug at the Punch Down Block end. (If a **S66M1-50** block is used, installer cut down will be required at the block). Connect the 25 pair cable to the KSU and 66 type block (see Method 1 Wiring Table). Run communication cable to each station location, and terminate each run with a 625 type modular jack. Install each set with a modular line cord (one is supplied with each set).

Adjacent to the right hand side of the KSU, install the half 66 Type Punch Down Block (**S66-M4-25TLM-A**) or similar. Prepare four short 4-wire modular line cords of appropriate length, with a plug at both ends. Plug the cords into the KSU (**STA22-STA25**), and into the four modular jacks on the Punch Down Block. Observe the correct station connections at block. Run communication cable to each set location, and terminate each run with a 625 type modular jack. Install each set using a modular line cord (one is supplied with each set).

You are now ready to connect the KSU to the C.O./PABX lines.

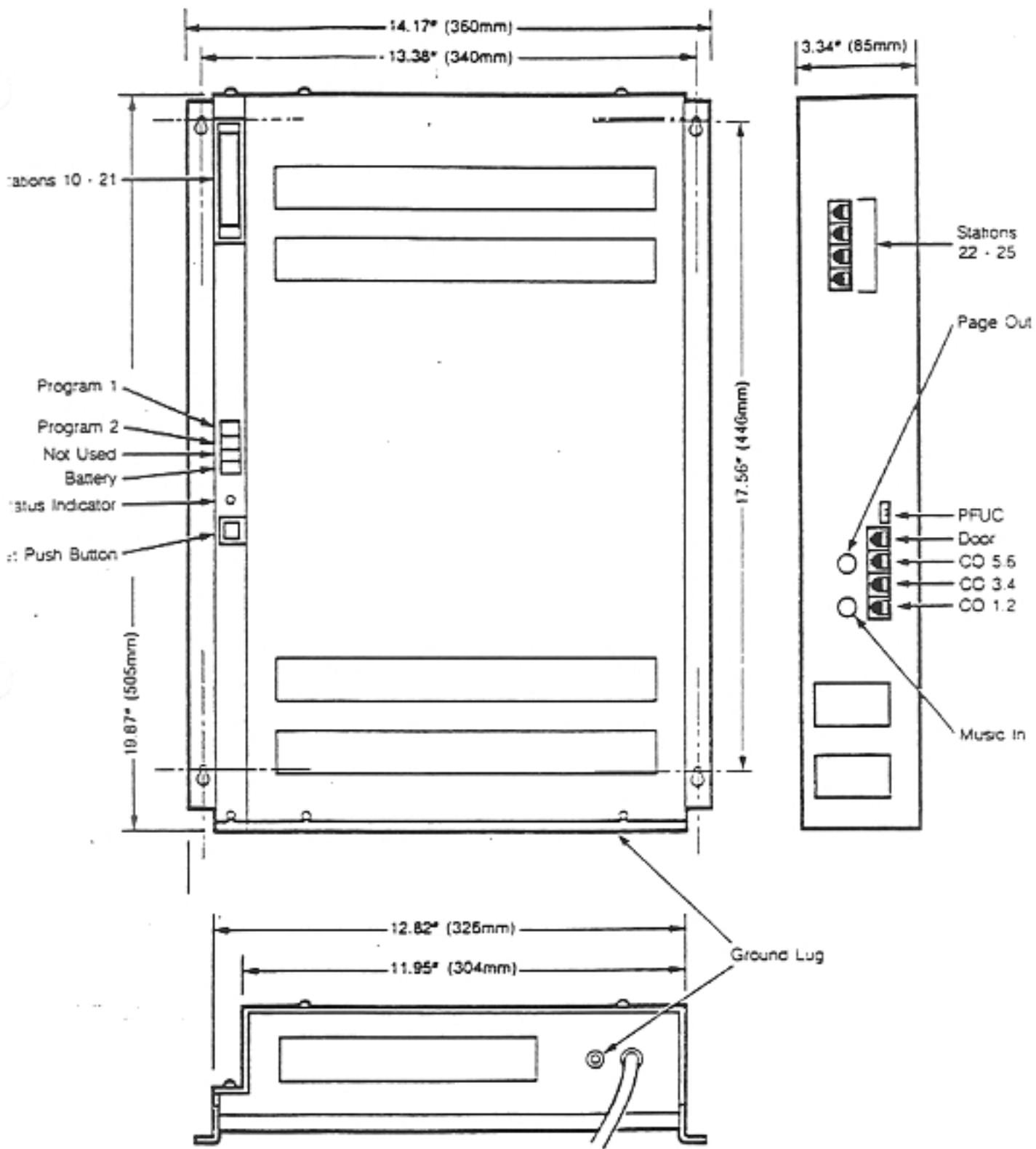


Typical 625 type jack showing wiring connections.

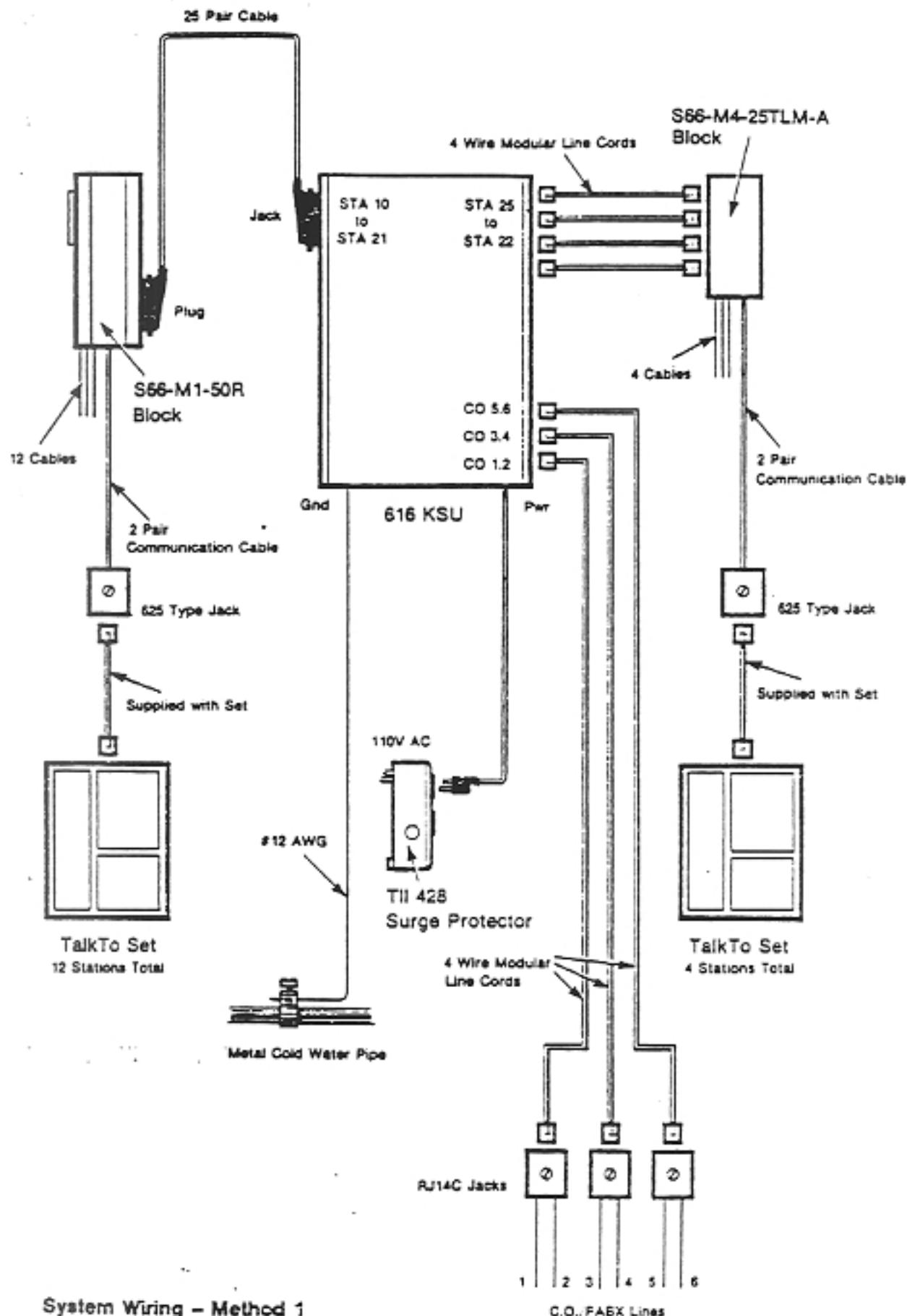
Method 1 Wiring Table

Pin	Lead Design.	25 Pair Cable Colors	Comm. Cable Colors	Line Cord Colors	Sta. No.
26	1VT	White-Blue	White-Blue	Green	
1	1VR	Blue-White	Blue-White	Red	10
27	1DT	White-Orange	White-Orange	Black	
2	1DR	Orange-White	Orange-White	Yellow	
28	2VT	White-Green	White-Blue	Green	
3	2VR	Green-White	Blue-White	Red	11
29	2DT	White-Brown	White-Orange	Black	
4	2DR	Brown-White	Orange-White	Yellow	
30	3VT	White-Slate	White-Blue	Green	
5	3VR	Slate-White	Blue-White	Red	12
31	3DT	Red-Blue	White-Orange	Black	
6	3DR	Blue-Red	Orange-White	Yellow	
32	4VT	Red-Orange	White-Blue	Green	
7	4VR	Orange-Red	Blue-White	Red	13
33	4DT	Red-Green	White-Orange	Black	
8	4DR	Green-Red	Orange-White	Yellow	
34	5VT	Red-Brown	White-Blue	Green	
9	5VR	Brown-Red	Blue-White	Red	14
35	5DT	Red-Slate	White-Orange	Black	
10	5DR	Slate-Red	Orange-White	Yellow	
36	6VT	Black-Blue	White-Blue	Green	
11	6VR	Blue-Black	Blue-White	Red	15
37	6DT	Black-Orange	White-Orange	Black	
12	6DR	Orange-Black	Orange-White	Yellow	
38	7VT	Black-Green	White-Blue	Green	
13	7VR	Green-Black	Blue-White	Red	16
39	7DT	Black-Brown	White-Orange	Black	
14	7DR	Brown-Black	Orange-White	Yellow	
40	8VT	Black-Slate	White-Blue	Green	
15	8VR	Slate-Black	Blue-White	Red	17
41	8DT	Yellow-Blue	White-Orange	Black	
16	8DR	Blue-Yellow	Orange-White	Yellow	
42	9VT	Yellow-Orange	White-Blue	Green	
17	9VR	Orange-Yellow	Blue-White	Red	18
43	9DT	Yellow-Green	White-Orange	Black	
18	9DR	Green-Yellow	Orange-White	Yellow	
44	10VT	Yellow-Brown	White-Blue	Green	
19	10VR	Brown-Yellow	Blue-White	Red	19
45	10DT	Yellow-Slate	White-Orange	Black	
20	10DR	Slate-Yellow	Orange-White	Yellow	
46	11VT	Violet-Blue	White-Blue	Green	
21	11VR	Blue-Violet	Blue-White	Red	20
47	11DT	Violet-Orange	White-Orange	Black	
22	11DR	Orange-Violet	Orange-White	Yellow	
48	12VT	Violet-Green	White-Blue	Green	
23	12VR	Green-Violet	Blue-White	Red	21
49	12DT	Violet-Brown	White-Orange	Black	
24	12DR	Brown-Violet	Orange-White	Yellow	
50	—	Violet-Slate	—	—	—
25	—	Slate-Violet	—	—	—

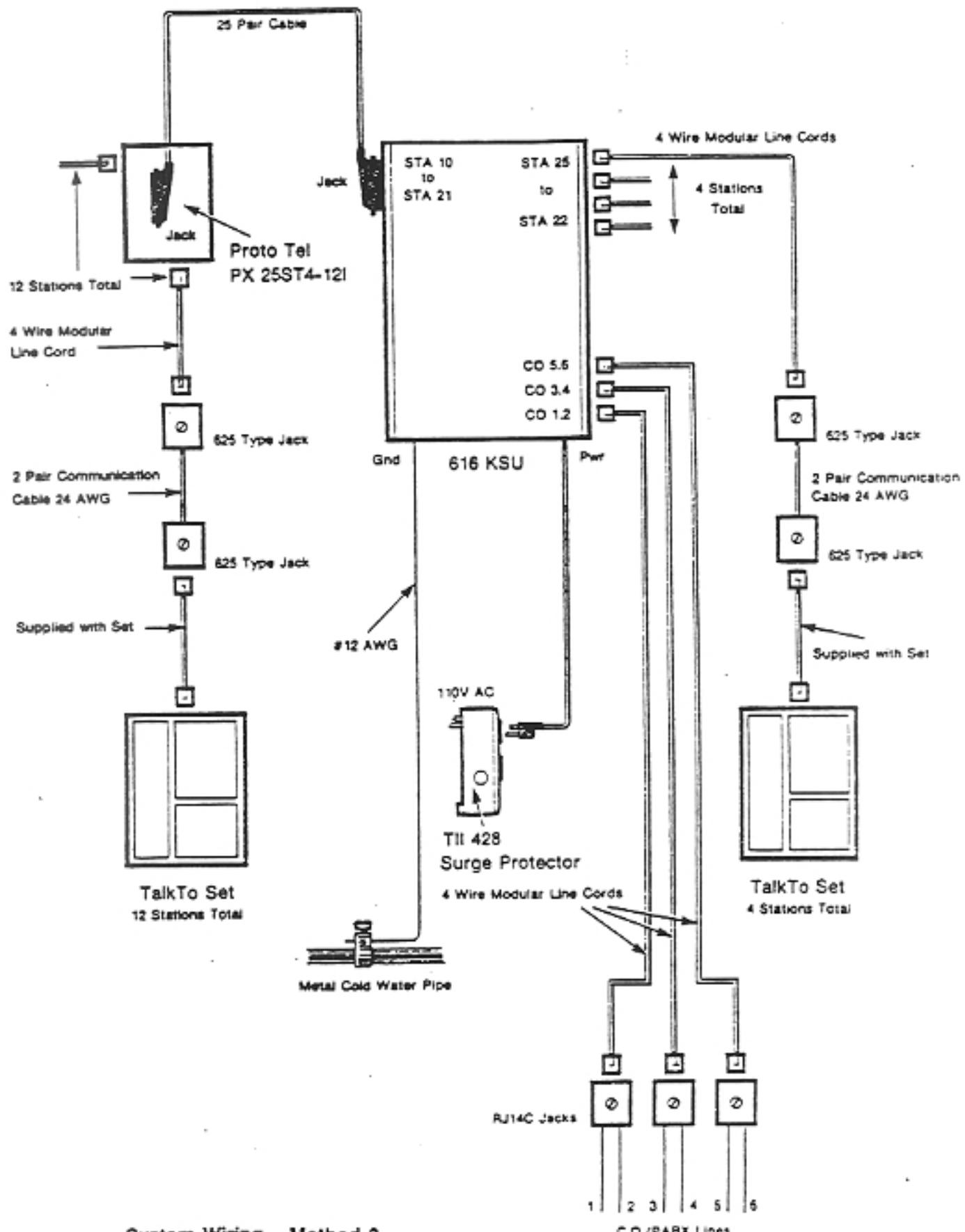
VT: Voice Tip VR: Voice Ring DT: Data Tip DR: Data Ring

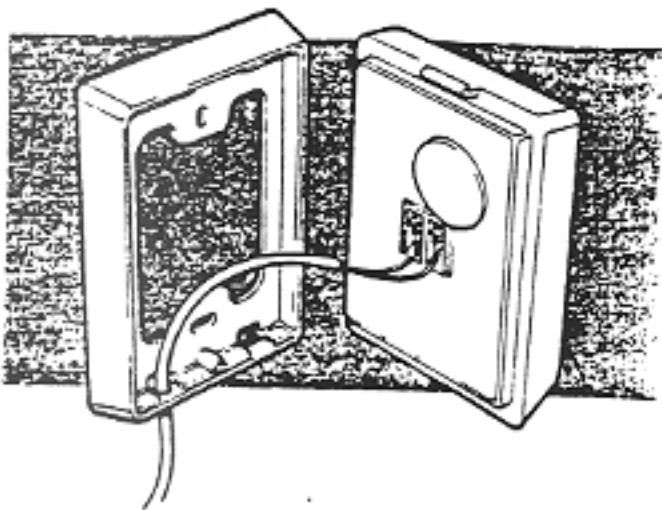


TalkTo 616 KSU Cabinet – Dimensions



System Wiring – Method 1

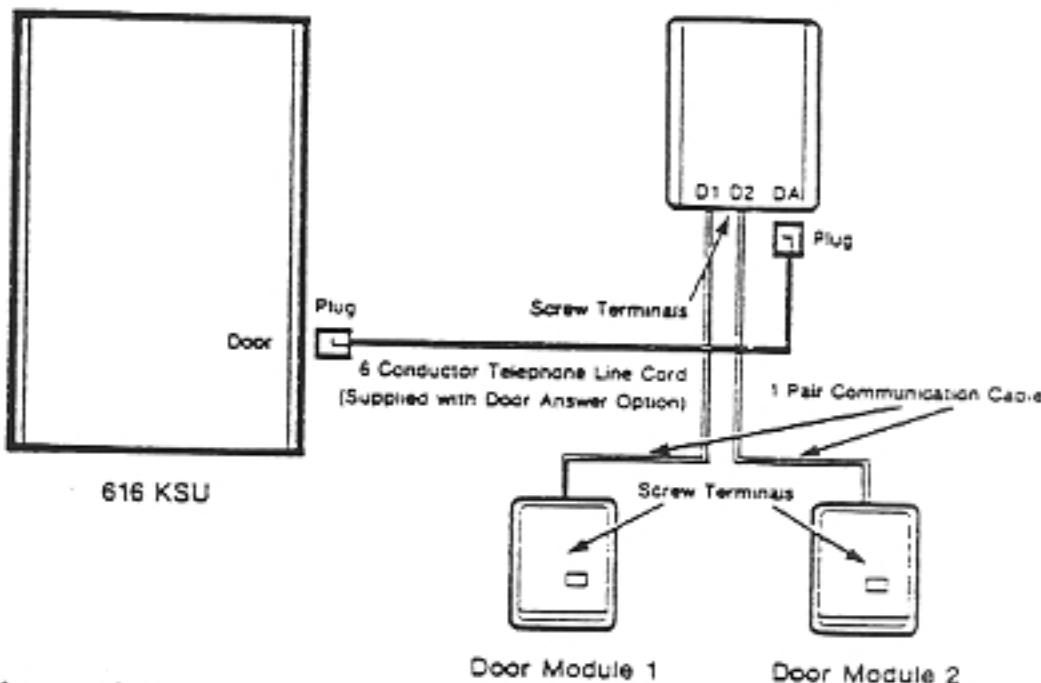




The Door Answer Module with front cover detached showing the two screw terminals.

Door Answer Unit

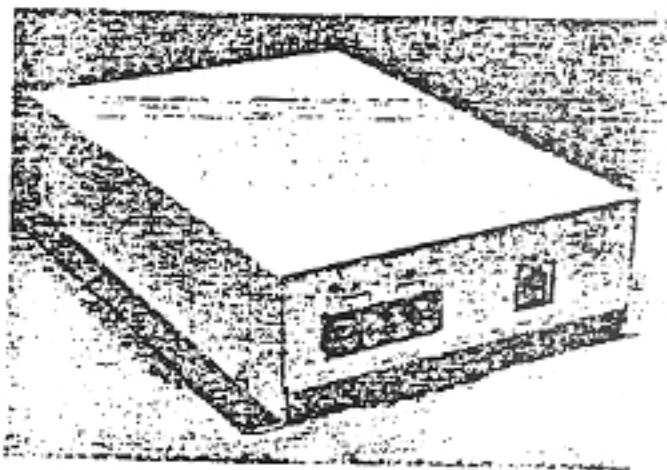
The Door Answer Unit (DAU) is mounted on the backboard with the screws supplied. The Door Answer Unit is connected with a modular 6 conductor cord supplied with the Unit. At the KSU plug the 6 conductor cord into the jack labeled *Door*. At the Door Answer Unit, plug the cord into the jack labeled *DA*.



Door Answer Option Connections

Mount each of the door modules adjacent to the door to be equipped with intercom service. The door module consists of 2 pieces, the base and the electronics unit. To separate the base from the electronics unit, remove the screw at the bottom front face. Mount the base on the wall or on an electrical outlet box using the screws provided.

Run 2 conductor cable from the Door Answer Unit to each of the door modules. Connect the wires under the few terminals at each end. At the Door Answer Unit, *Door 1* connects to *D1* terminals and *Door 2* connects *D2* terminals. After connecting the 2 wires at the door module, replace the electronics unit in the base.



Station Wiring — Method 2

This method assumes that connections from the KSU to stations will be made using 625 jacks and modular cords, and does not require the use of any special tools. However, since twelve station outputs from the KSU are terminated with a 25 pair plug, it is necessary to use a short 25 pair cable, and an adapter which converts the 25 pair cable to 12 modular jacks (Proto-Tel **PX 25ST4-121** or similar).

Adjacent to the left hand side of the KSU, install the **PX-25ST4-121** Type Adapter in accordance with the manufacturer's instructions. Using a 25 pair cable of appropriate length (plug at the adapter end and a jack at the KSU end), connect the adapter to the KSU. At the adapter, break out the plastic tabs protecting the modular jacks. Break only those which are to be used. Close the cover of the adapter.

Mount 625 type 4-wire jacks adjacent to the KSU. If more than twelve stations are being installed, 12 jacks should be installed close to the Proto-Tel Adapter, and four should be installed adjacent to the KSU outputs for stations 22 to 25 (right hand side of KSU).

Run communication cable (2 pair 24 AWG) from each 625 type jack to the location of each set. Terminate each run with a 625 type jack. Always observe the colour codes, as shown in the following table.

625 Type Jack	Quad Cable	Communication Cable	Function
Green	Green	White/Blue	Voice Tip
Red	Red	Blue/White	Voice Ring
Black	Black	White/Orange	Data Tip
Yellow	Yellow	Orange/White	Data Ring

The older type quad cable is shown for reference.

At the KSU installation, connect each of the modular jacks of the Proto-Tel Adapter to one of the 625 type jacks using modular 4-wire line cords. Note the station allocation. If KSU station jacks STA22 to 25 are being used, connect these to the adjacent 625 jacks using short modular 4-wire line cords.

Install the sets using modular 4-wire line cords (one supplied with each set).

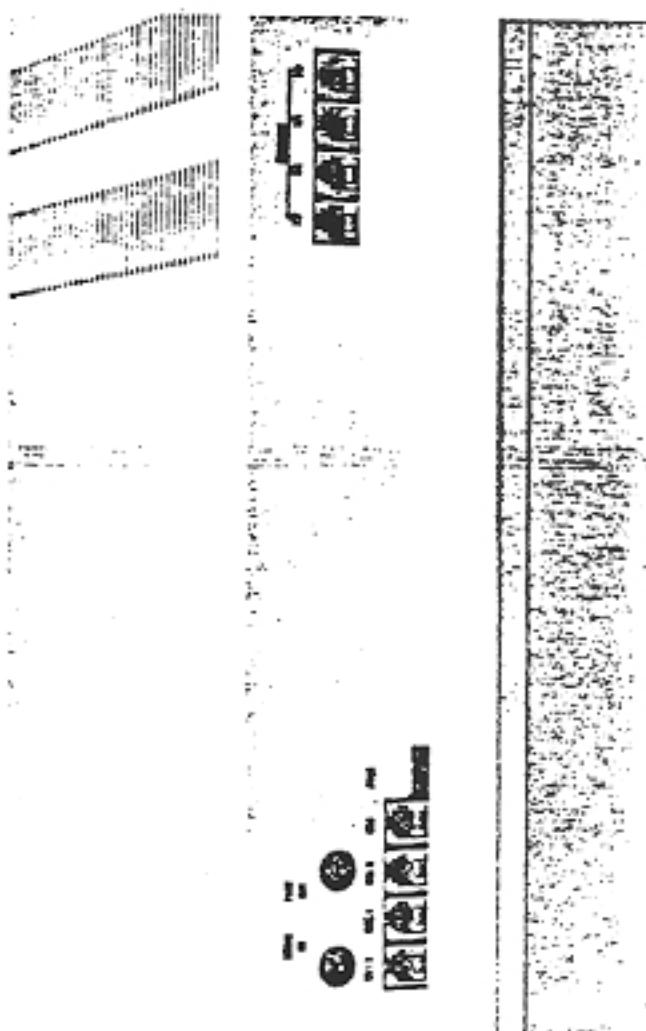
You are now ready to connect the KSU to the O/PABX lines.

Central Office/PABX Line Connection

These lines are normally terminated by RJ type jacks. When requesting service from the telephone company, please request that the lines are terminated with RJ4C type jacks. Alternatively, if the lines are already installed using RJ11C type jacks, an adapter such as an **SE 267B** (Suttle Apparatus Corp.) will be required.

Where the connection is made directly from the CO line 625 type jack to the KSU, use a four conductor modular line cord.

Where the connection is made using the splitter adapter **SE 267B**, the connections from the 625 type CO line jacks to the adapter are made using modular line cords. The connection from the adapter to the KSU is made using a modular telephone extension cord (female to male).



* * *

Music Input

The TalkTo 616 System provides both music on hold (OH) and background music if an external music source is provided. This music source is connected via the **Music In** jack on the KSU with a 1/8 inch miniature plug. The KSU requires a music signal not exceeding 50mV rms.

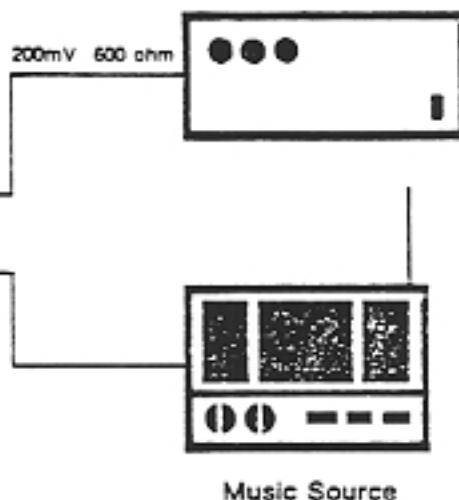


616 KSU

Paging Output

The TalkTo 616 System provides external loudspeaker paging by the stations through the **Page Out** jack. The voice output from the KSU to the customer provided external amplifier is connected with a 1/8 inch miniature plug. The output is 200mV rms at 600 ohm impedance.

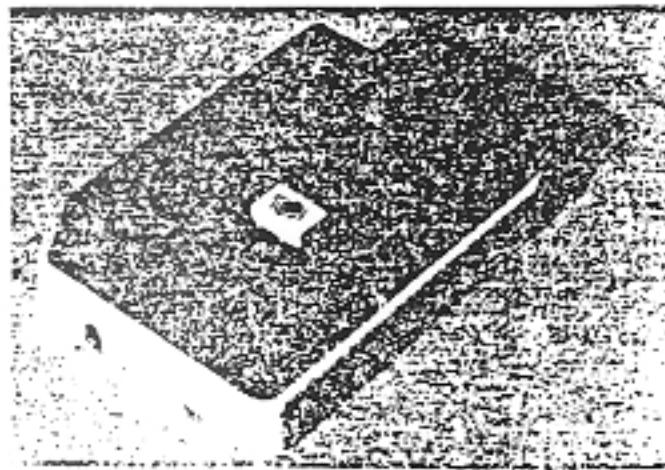
Paging Amplifier



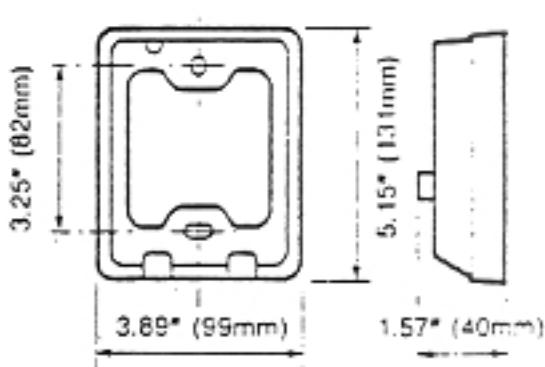
Music and Paging Connections

Door Answer Option

The TalkTo 616 System will provide door signaling and 2 way conversation with up to 2 doors. To provide this option, one door answer unit and a maximum of 2 door modules are required.

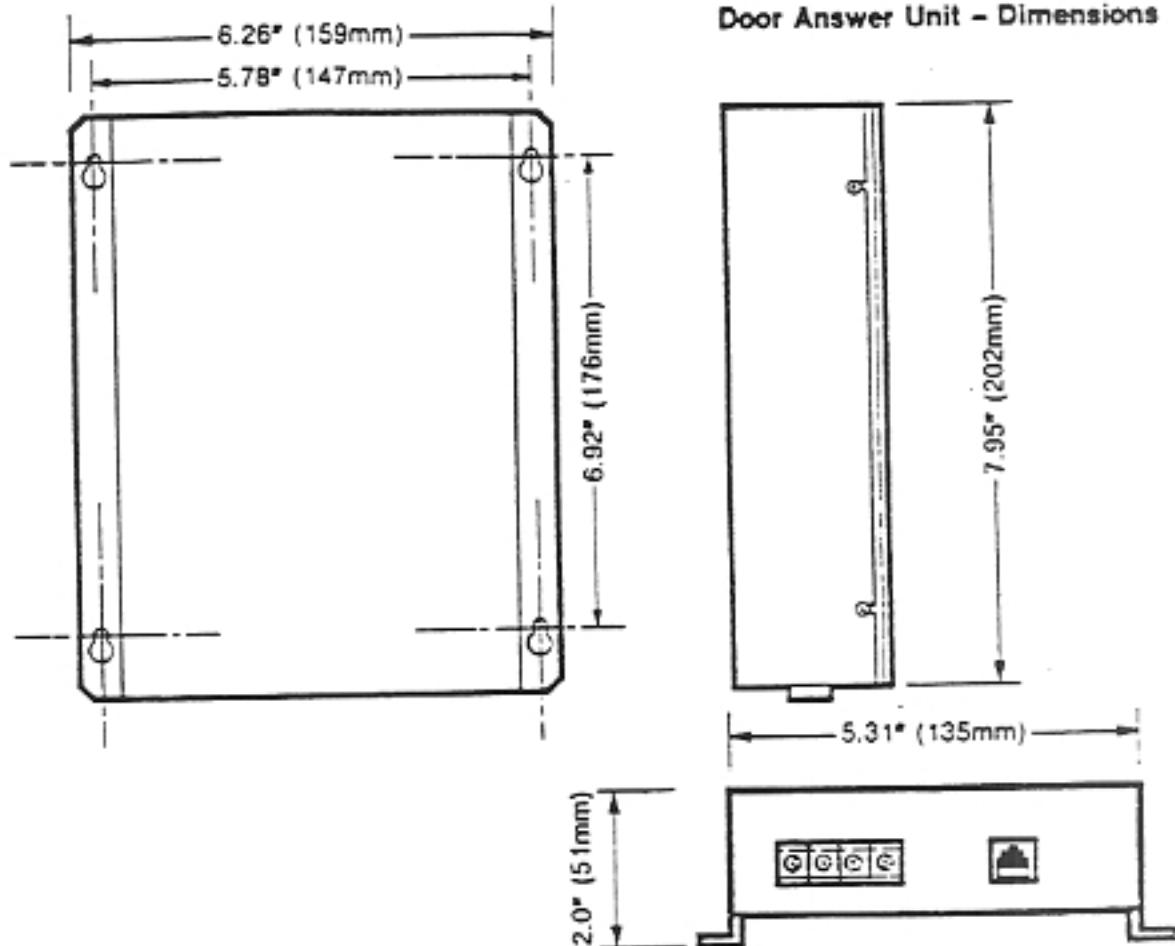


The Door Answer Module is moulded in plastic, measures 4 inches x 5 inches, and is fitted at the door requiring intercom service.



Caution: If the Door Answer Unit is connected it replaces the sixth C.O./PABX line; therefore with the door option installed the system will only accommodate 5 C.O./PABX lines. Do not use jack C.O. S.

Door Answer Unit - Dimensions



Power Failure Transfer Option

To provide telephone service in the event of a commercial power outage, a Power Failure Transfer Unit (PFT) must be installed. The PFT will allow all 6 of the TalkTo 616 system's C.O./PABX lines to be transferred to 6 individual industry standard 2 wire telephones when the commercial power fails.

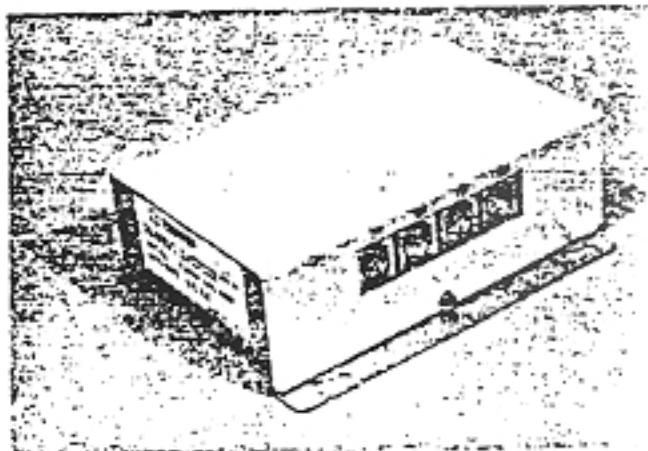
Mount the PFT unit on the backboard near the KSU. Install the 2 conductor special cable supplied with the unit. At the KSU, plug one end into the jack marked **PFUC**. At the PFT unit, plug the other end into the jack marked **CNJ**.

If all six C.O. lines are to be equipped with standard 2-wire telephones, it will be necessary to install a second PFT unit. The 2 conductor special cables supplied with the unit should be plugged into the jack marked **CNJ** at the first PFT unit, and into the jack marked **CNJ** at the second unit.

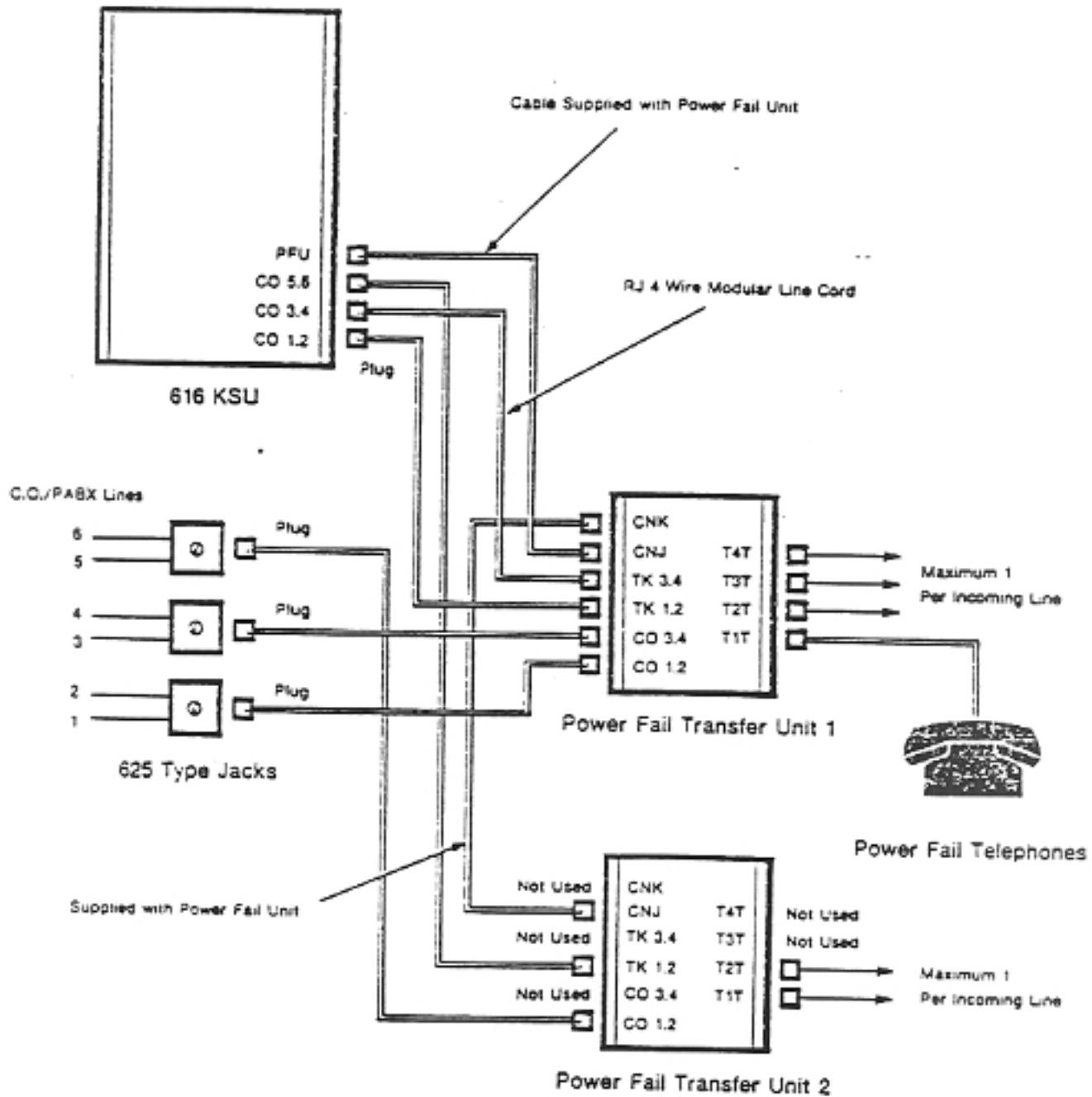
Using 4 conductor modular line cords, connect the C.O./PABX lines to the jacks marked **CO 1.2**, **CO 3.4** on the first PFT unit and into **C.O. 1.2** on the second unit. Connect the PFT line outputs to the KSU using 4 conductor modular line cords. At first PFT unit, connect **TK 1.2** and **TK 3.4**, to **CO 1.2**, and **CO 3.4** respectively, at the KSU. At the second PFT unit, connect **TK 1.2** to **CO 5.6** at the KSU.

Mount up to 6 industry standard 2 wire telephone sets in convenient locations. Connect four of these to the jacks marked **T1T** through **T4T** on the first PFT unit. Connect two more to the jacks marked **T1T** and **T2T** on the second PFT unit.

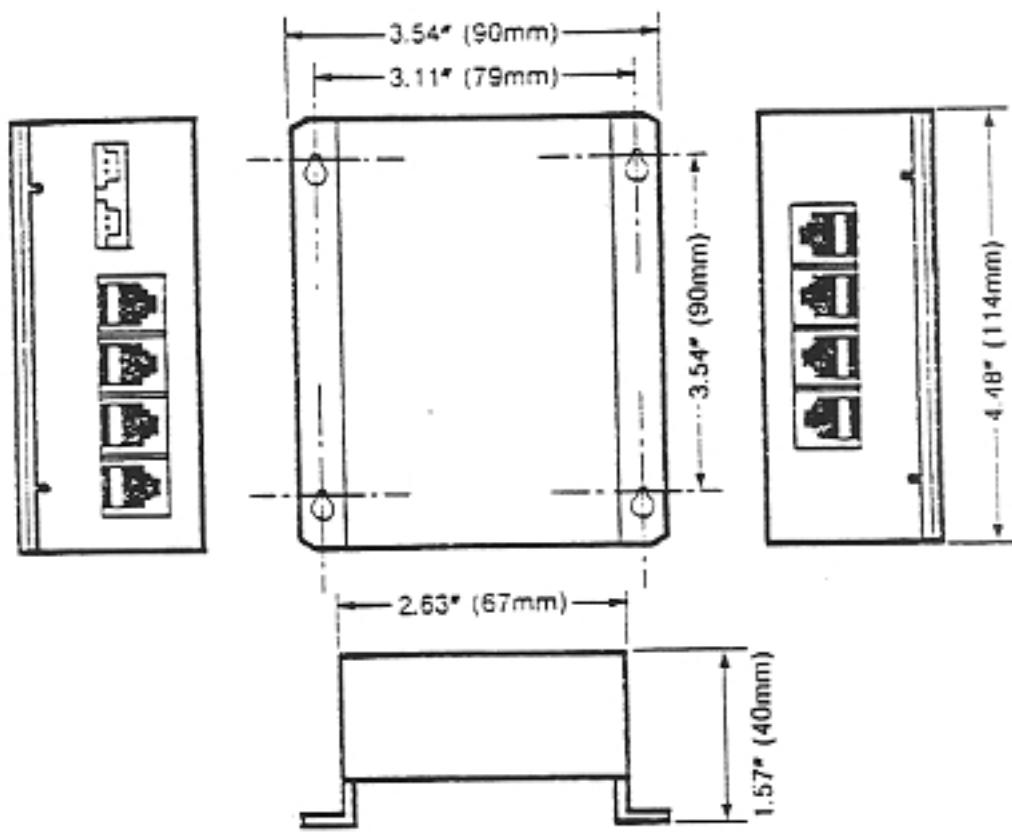
The system is now ready for programming.



The Power Fail Transfer Unit should be wall mounted adjacent to the KSU.



Power Fail Transfer Option Connections



Power Fail Transfer Unit – Dimensions

System Programming

Before programming the system, check that the customer has completed a **Features Selection** form. A copy of the form and instructions for feature selection is included in this section.

It is recommended that the system is programmed immediately following installation. Programming makes use of station 10 dial pad, keys and indicator lamps when entering selected feature parameters.

System Requirements for Programming

For the system to be programmed to meet your requirements, it is necessary to decide what features are needed, and what parameters are required for those features selected. The following notes are intended to aid you in choosing the correct features and parameters. For reference purposes, please complete the accompanying programming form.

(1) Hold Recall Time: Determines the time period between putting a caller on hold and receiving a tone reminder that the caller is still on hold. Periods are 1 minute, 2 minutes, 3 minutes or no hold recall.

(2) Tone Duration: This sets the time duration for each dialed DTMF tone. Can be 55ms or 75ms.

(3) Flash/Cancel: Which function is the flash/cancel key to have? There are four calibrated periods — 250ms, 500ms, 1 sec., or 3 secs. to choose from.

(4) Pause on Number: Allows an automatic pause to be inserted into speed called numbers. Used when the system is behind a PABX, and it is necessary to wait a short period of time for C.O. dial tone to be returned. Pause can be inserted after the digit 7, 8, 9 or 0.

(5) C.O./PABX Line: Used to tell the system whether the lines are C.O. or PABX types.

(6) Incoming Call Only By Line: Allows individual C.O./PABX lines to be restricted to incoming calls only. Selection is system wide.

(7) Outgoing Call Restriction By Station: Allows individual stations to be restricted for toll and outgoing calls. There are three classes of service: A, B or C.

- Class A: No restriction.
- Class B — C.O. Line: Dialing 0 + a number, 1 + a number or dialing more than 8 digits, is restricted.
- Class B — PABX Line: Dialing C.O. line access code + 0 + a number, C.O. line access code + 1 + a number, or C.O. line access code + more than 8 digits, is restricted.

- Class C: Calling is restricted to other stations connected to the system. No outside access at all.

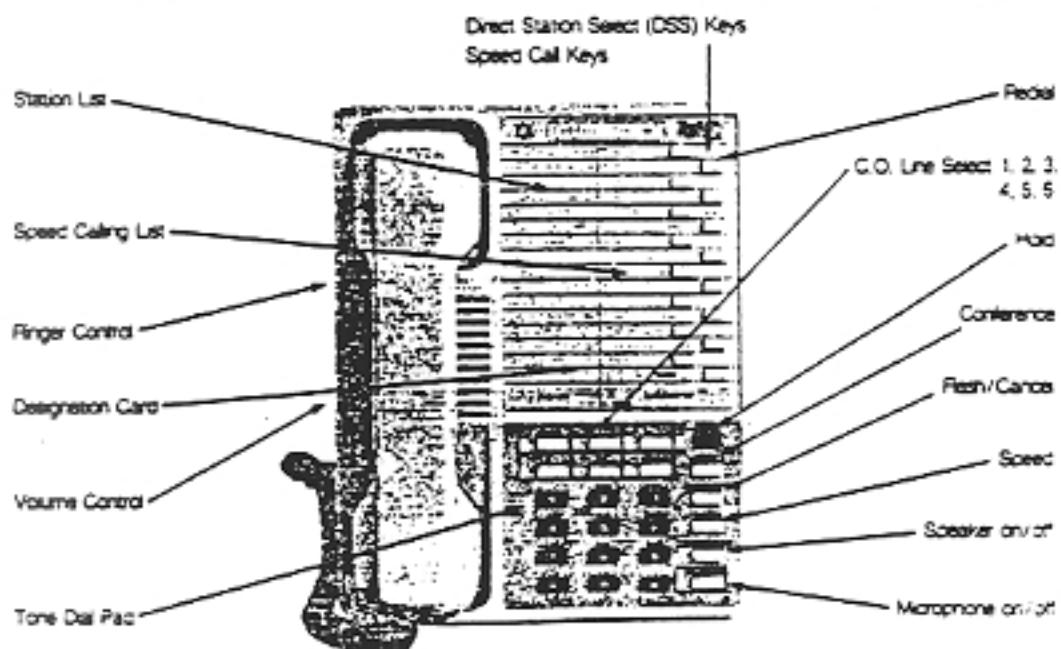
If class B is selected private speed call numbers are restricted, common speed call numbers are not.

(8) Night Transfer: Allows ringing to be assigned to selected stations when the system is put into a night transfer mode. At least one station must be selected, if night transfer is to be used.

(9) Private Line: Allows line 1 to be assigned to a designated station as a private line. Other stations do not have access to the assigned C.O./PABX line.

(10) Flexible Ringing Assignment: Allows ringing to be assigned by C.O. line at selected stations. Note that if C.O. line 1 is assigned as a private line to a designated station, ringing will be heard, at that station irrespective of whether ringing is assigned or not.

(11) Door Answering: If the door option is equipped, C.O. line 6 is always associated with door answering, and cannot be used as a C.O./PABX line.



Talk To 616 Set keys and switch layout.

Customer Feature Selection

Hold Recall (1)*		*Select one item per Line 1 min <input type="checkbox"/> 2 min <input type="checkbox"/> 3 min <input type="checkbox"/> No Recall <input type="checkbox"/>	
Tone Duration (2)*		55ms <input type="checkbox"/> 75ms <input type="checkbox"/>	
Flash/Cancel (3)*	Flash <input type="checkbox"/> Cancel <input type="checkbox"/>	250 ms <input type="checkbox"/> 500ms <input type="checkbox"/> 1 sec <input type="checkbox"/> 3 sec <input type="checkbox"/> 500ms is recommended for calibrated flash	
Pause on Number (4)	Yes <input type="checkbox"/> No <input type="checkbox"/>	7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 0 <input type="checkbox"/>	
C.O./PABX LINE (5)	C.O. <input type="checkbox"/> PABX <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>	
Incoming Call Only			
By Line (6)	Yes <input type="checkbox"/> No <input type="checkbox"/>	Line 1 <input type="checkbox"/> Line 2 <input type="checkbox"/> Line 3 <input type="checkbox"/> Line 4 <input type="checkbox"/> Line 5 <input type="checkbox"/> Line 6 <input type="checkbox"/>	
Outgoing Call Restriction			
By Station (7)	Stn/Class	1 0 <input type="checkbox"/> 1 1 <input type="checkbox"/> 1 2 <input type="checkbox"/> 1 3 <input type="checkbox"/> 1 4 <input type="checkbox"/> 1 5 <input type="checkbox"/> 1 6 <input type="checkbox"/> 1 7 <input type="checkbox"/> 1 8 <input type="checkbox"/> 1 9 <input type="checkbox"/> 2 0 <input type="checkbox"/> 2 1 <input type="checkbox"/> 2 2 <input type="checkbox"/> 2 3 <input type="checkbox"/> 2 4 <input type="checkbox"/> 2 5 <input type="checkbox"/>	
Night Transfer (8)	Stn #		
	Yes <input type="checkbox"/> No <input type="checkbox"/>		
Private Lines (9)	Yes <input type="checkbox"/> No <input type="checkbox"/>	Str/Line	
Flexible Ringing (10)	Yes <input type="checkbox"/>	Stn/Line	1 0 <input type="checkbox"/> 1 1 <input type="checkbox"/> 1 2 <input type="checkbox"/> 1 3 <input type="checkbox"/> 1 4 <input type="checkbox"/> 1 5 <input type="checkbox"/> 1 6 <input type="checkbox"/> 1 7 <input type="checkbox"/> 1 8 <input type="checkbox"/> 1 9 <input type="checkbox"/> 2 0 <input type="checkbox"/> 2 1 <input type="checkbox"/> 2 2 <input type="checkbox"/> 2 3 <input type="checkbox"/> 2 4 <input type="checkbox"/> 2 5 <input type="checkbox"/>

Should you require service, please call the following number:

Preparation

Before attempting to program the system, check:

- Station 10 is connected.
- The switches, **Program 1** and **Program 2**, are set to *Off*.
- The KSU is connected to a 110V ac power supply.
- The **status indicator** on the KSU is *flashing*.
- The switch, **Battery**, is set to *On*.
- A Features Selection form, completed by the customer, is available.

Note: Default Data

Default data is automatically loaded as feature programming if the switches, **Program 1** and **Program 2**, are set to *On*, and the **Reset** button is pressed. The default states are shown in the Feature Programming Tables.

Programming Mode

Caution: If the system is already in use and is to be reprogrammed, the following operations should be carried out at a low traffic period. The system cannot be used during programming.

Initial Programming

To put the system into programming mode; at the KSU:

- Ensure that the switch, **Battery**, is set to *On*.
- Set the switches, **Program 1** and **Program 2** to *On*.
- Press the **Reset** key.

- Status Indicator lamp stops flashing.
- Set the switch, **Program 1** to *Off*.
- Press the **Reset** key.
- Press ***** key on station 10.
- **Int.** indicator comes on.
- System now ready to be programmed.

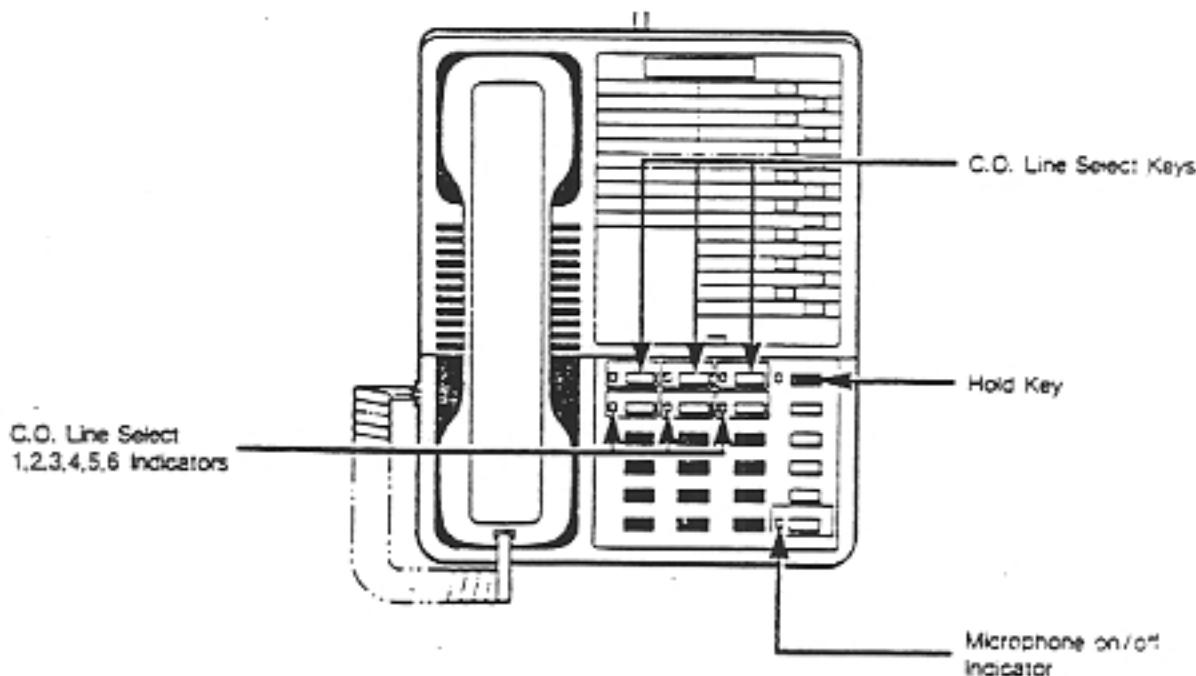
Reprogramming

To put the system into a reprogramming mode; at the KSU:

- Ensure that the switch, **Battery**, is set to *On*.
- Set the switch, **Program 2**, to *On*.
- Press the **Reset** key.
- Status indicator lamps stop flashing.
- Press ***** key on station 10.
- **Int.** indicator comes on.
- System now ready to be reprogrammed.

Feature Programming

Feature programming is entered using station 10. Each feature is accessed using a 3-digit code entered from the dial pad. The status of the feature is then displayed on the C.O. Line 1, 2, 3, 4, 5, 6 and *mic. on/off* indicator lamps. The status can be changed by pressing the key associated with appropriate indicator lamp. In the case of the *mic. on/off* indicator, the key used is *hold*. Each access key functions as a press on/off switch; press once, the lamp turns on, press again, the lamp turns off.



Individual Feature Programming

Features need not necessarily be programmed in a specific order. Each is accessed simply by entering the specific 3-digit access code. The following charts show the Feature, the Access Code the Access Keys and their functions.

Hold Recall — Pulse Duration —

Flash/Cancel

Access Code 010

Default is — No recall — 75ms — Flash

Feature Data	C.O. 1	C.O. 2	C.O. 3	C.O. 4	C.O. 5	C.O. 6	hold mic. on/off
No Recall	off	off					
1 Minute	on	off					
2 Minutes	off	on					
3 Minutes	on	on					
55ms Tones							
75ms Tones			on				
(Recommended)			off				
Flash							off
Cancel							on
Examples:							
1 Minute Recall	on	off	on				off
55ms Tones							
Flash							
1 Minute Recall	on	off	off				on
75ms Tones							
Cancel							

C.O./PABX Line

Access Code 060

Default is — C.O.

Feature Data	C.O. 1	C.O. 2	C.O. 3	C.O. 4	C.O. 5	C.O. 6	hold mic. on/off
C.O. Line 1	off						
PABX Line 1	on						
C.O. Line 2		off					
PABX Line 2		on					
C.O. Line 3			off				
PABX Line 3			on				
C.O. Line 4				off			
PABX Line 4				on			
C.O. Line 5					off		
PABX Line 5					on		
C.O. Line 6						off	
PABX Line 6						on	
Example:							
Line 1 — C.O.							
Line 2 — C.O.							
Line 3 — C.O.							
Line 4 — C.O.							
Line 5 — PABX							
Line 6 — PABX	off	off	off	off	on	on	

Incoming Call Only - By Line Access Code 070 Default is — No Restriction

Feature Data	C.O. 1	C.O. 2	C.O. 3	C.O. 4	C.O. 5	C.O. 6	hold mic. on/off
Line 1 Unrestricted	off						
Line 1 Restricted	on						
Line 2 Unrestricted		off					
Line 2 Restricted		on					
Line 3 Unrestricted			off				
Line 3 Restricted			on				
Line 4 Unrestricted				off			
Line 4 Restricted				on			
Line 5 Unrestricted					off		
Line 5 Restricted					on		
Line 6 Unrestricted						off	
Line 6 Restricted						on	
Examples:							
Line 1 Unrestricted							
Line 2 Unrestricted							
Line 3 Unrestricted							
Line 4 Restricted							
Line 5 Restricted							
Line 6 Restricted	off	off	off	on	on	on	

Outgoing Call Restriction, Night Transfer and Private Lines — By Station

Access Code 1XX (where XX is station number 10 - 25)

Default is — No Restriction, No Ringing, No Private Line

Feature Data	C.O. 1	C.O. 2	C.O. 3	C.O. 4	C.O. 5	C.O. 6	hold mic. on/off
C.O. Line Restrictions							
Class A— No Restriction	off	off					
Class B— Dialing 0 + number — Dialing 1 + number — Dialing more than 8 digits	on	off					NOT APPLICABLE
Class C— Dialing an outside line	off	on					
Night Transfer				off			
No ringing				on			
Ringing							
Private Line (only applies to Line 1)							
C.O. Line 1							
No							
C.O. Line 1							
Yes							
Examples:							
Station 13 Class B Restrictions.							
Night Transfer							
Ringing							
C.O. 1 Private Line							
Access Code 113	on	off	on				NOT APPLICABLE
							on

Notes:

Class B Restrictions — If the line is a PABX line, the C.O. access code is included in the restriction.

Class C Restrictions — If the line is a PABX line dialing the C.O. line access code only, is restricted.

Flexible Ringing — By Station and C.O. Line

Access Code 2XX (where XX is station number 10 to 25) Default is — No Ring

Feature Data	C.O. 1	C.O. 2	C.O. 3	C.O. 4	C.O. 5	C.O. 6	hold mic. on/off
C.O. 1 No ringing C.O. 2 No ringing C.O. 3 No ringing C.O. 4 No ringing C.O. 5 No ringing C.O. 6 No ringing	off	off	off	off	off	off	
C.O. 1 Ringing C.O. 2 Ringing C.O. 3 Ringing C.O. 4 Ringing C.O. 5 Ringing C.O. 6 Ringing	on	on	on	on	on	on	NOT APPLICABLE
Examples: Station 10 rings for C.O. 1 and 2, but not C.O. 3 Access Code 210	on	on	off	off	off	off	
Station 17 rings for C.O. 3 only Access Code 217	off	off	on	off	off	off	NOT APPLICABLE

Calibrated Flash/Cancel

Access Code .030 Default is — 250ms

Feature Data	C.O. 1	C.O. 2	C.O. 3	C.O. 4	C.O. 5	C.O. 6	hold mic. on/off
250ms	Not applic- able	off		Not applic- able	off		
500ms		on			off		
1 second		off			on		
3 seconds		on			on		

Note: 500ms is recommended for calibrated flash.

Pause on Number

Access Code 040 Default is — no pause

Feature Data	C.O. 1	C.O. 2	C.O. 3	C.O. 4	C.O. 5	C.O. 6	hold mic. on/off
7	on	off	off				off
8	off	on	off				off
9	off	off	on				off
0	off	off	off				on
No pause	off	off	off				off
Examples							
Pause on 7, 8, only	on	on	off				off
Pause on 9 only	off	off	on				off

Operating Mode

Once programming has been satisfactorily completed, the system should be switched to its operating mode as follows:

At the set:

- Press # key.
- All indicator lamps at station 10 turned off.

At the KSU:

- Set the switch, **Program 2**, to **Off**.
- Press **Reset** key.
- Indicator lamp at KSU starts to flash.

The system is now ready for use.

Speed Calling — Common Numbers, Programming

A maximum of forty numbers can be programmed. Numbers are stored against two digit access codes in the range 20 to 59 inclusive. These numbers must be programmed from station 10.

Before programming check that the *Int.* indicator is off.

- Press the **speed** key.
- *Int.* indicator winks slowly (My-Line).
- Internal dial tone is heard at the Set's speaker.
- Dial the two digit access code (20 to 59).
- *Int.* indicator flashes very quickly, and dial tone is turned off.
- Dial the speed call number to be programmed (Maximum number of digits is 16).

- For each subsequent number to be programmed, press the **speed** key, dial the two digit access code, followed by the speed call number to be programmed.
- the completion of programming:
- Press the **speaker on/off** key.
- *int.* indicator stops flashing.

New numbers can be entered at anytime. Simply press the **speed** key, dial the two digit access code, enter the speed call number, and then press the **speaker on/off** key.

Speed call numbers can be access codes for PABX, Centrex, and C.O. Calling Features. Numbers greater than 16 digits can be linked together by programming two access codes.

Common Speed Calling List

Access	Telephone Number	Name/Company
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
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42		
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54		
55		
56		
57		
58		
59		

Operating Instructions

The small "hand" symbol represents an instruction option for the model 90-0123 Handsfree Set.

Making an Outgoing Call

Each TalkTo1032 Set user has access to each of the ten outside lines (unless programmed otherwise) by pressing a line select key. If a line indicator lamp is On, that line is in use.

On-Hook Dialing (with the handset in the cradle)

- Press the line key of an unused outside line.
 - Dial the telephone number.
 - When the call is answered, lift the handset.
- Handsfree Sets may remain on-hook provided the microphone indicator is On.
- If the call is unanswered, press the speaker key.

Off-Hook Dialing (with the handset lifted)

- Lift the handset.
- Press the line key of an unused outside line.
- Dial the telephone number.

Answering an Incoming Call

To Answer an Incoming Call

- Lift the handset.
- Handsfree Sets may remain on-hook provided the microphone indicator is On.
- Press the appropriate line key.

Last Number Redial

The last number dialed at your Set is automatically saved and can be redialed on any line, either with the handset on-hook or off-hook.

On-Hook Dialing

- Press the line key of an unused outside line.
 - Press the redial key.
 - When the call is answered, lift the handset.
- Handsfree Sets may remain on-hook provided the microphone indicator is On.

Off-Hook Dialing

- Lift the handset.
- Press the line key of an unused outside line.
- Press the redial key.

Call Hold

To Place an Outside Call on Hold

- Press the hold key (line indicator flashes). The handset may be placed on-hook.

To Retrieve the Call at Any Set

- Lift the handset.
- Handsfree Sets may remain on-hook provided the microphone indicator is On.
- Press the appropriate line key.

Call Transfer

To Transfer a Call to Another Set

- Press the hold key (line indicator flashes).
- Press and release the hookswitch (a continuous tone is heard).

- Handsfree Sets may remain on-hook. Ensure the microphone indicator is On.
- Press the speaker key.

- Dial the number of the desired station (one tone burst is heard) and announce which line the call is on.
- If the called party is not available, press the key of the line on hold to retrieve the call.

Exclusive Call Hold

Exclusive Call Hold allows the call to be retrieved only at the Set which placed the call on Exclusive Hold.

To Place a Call on Exclusive Hold

- Press the hold key twice (line indicator flashes quickly).
- The handset may be placed on-hook.

To Retrieve a Call on Exclusive Hold

- Lift the handset.
- Handsfree Sets may remain on-hook provided the microphone indicator is On.
- Press the appropriate line key.

Line Monitoring

If you are put on hold during an outside call you can monitor the outside line through the speaker while you are waiting.

- Press the speaker key.
Audio from the outside line is now heard through the speaker.
- Replace the handset.
When you hear the caller return, lift the handset and continue the call.

Conference Calls

An external or an internal call may be added to an existing call to form:

- a one external and two internal party conference.

To dial private numbers off-hook

- Lift the handset.
- Press an unused line key.
- Press the appropriate key on the Display (10 to 26).

Common Speed Call

A maximum of 80 telephone numbers, each up to 16 digits in length can be programmed as common speed call numbers. Programmed telephone numbers may contain feature access codes for Centrex, PABX and custom calling networks. Long distance telephone numbers can be accessed by all Set users even if Class B toll restrictions are programmed. Numbers are stored using two-digit speed call codes from 20 to 99 inclusive and are programmed from Set number 10.

Programming

Before programming check that the internal indicator is off. To begin programming a common speed call number from Set number 10:

- Press the speed key (a continuous tone is heard).
- Dial the appropriate two-digit code (20 to 99).
- Dial the number to be programmed (16 digits maximum).

To continue programming

- Press the speed key.
- Dial another two-digit code (20 to 99).
- Dial another telephone number (16 digits maximum).

To stop programming

- Press the speaker key.

Dialing

To dial common numbers on-hook

- Press an unused line key.
- Press the speed key.
- Dial the appropriate two-digit access code (20 to 99).
- When the call is answered lift the handset.
 Handfree Sets may remain on-hook provided the microphone indicator is On.
- If the call is unanswered, press the speaker key.

To dial common numbers off-hook

- Lift the handset.
- Press an unused line key.
- Press the speed key.

- Dial the appropriate two-digit access code (20 to 99).

Room Monitoring

You can monitor any room where another TalkTo Set is situated, provided the microphone at the Set to be monitored is On and your microphone is Off.

To Activate Room Monitoring

- Press the speaker key (a continuous tone is heard).
- Dial the number of the Set to be monitored. A single tone is heard at both Sets.

To Cancel Room Monitoring

- Press your speaker key.

Flash/Cancel

The flash/cancel key of your Set has been preprogrammed during the installation procedure to function as a calibrated hookswitch flash or a cancel, but not both.

Check to see which function your System has been programmed for. The flash/cancel key can not be used on an inside line.

Flash simulates the rapid pressing and releasing of the hookswitch and provides access to PABX and custom calling features.

Cancel ends an outside call and returns dial tone without hanging up.

To Use Calibrated Flash

- While on an outside line, press the flash/cancel key once. The preprogrammed flash time is generated automatically.

To Use Cancel

- While on an outside call, press the cancel key once. The call is cut off and dial tone is returned.

Do Not Disturb

When activated, internal calls will not ring at your Set and the party calling you will hear busy tone. Your Set will still receive outside calls.

To Activate Do Not Disturb

- Lift the handset.
- Dial *6.
- Replace handset (internal indicator flashes). To cancel Do Not Disturb repeat the above procedure and the internal indicator will turn Off.

Music (On Hold and Background)

When a music source is connected to the system,

Operating Instructions

- a one internal and two external party conference.
- a three internal party conference.

To Set Up a Conference – 1 external party, 2 internal parties

When an outside call is already in progress, an internal party may be added to the call:

- Press the hold key.
 - Press and release the hookswitch (a continuous tone is heard).
-  Handfree Sets may remain on-hook.
Ensure the microphone indicator is On.
Press the speaker key.
- Dial the station number of the party to be added to the call.
 - When the called party answers, press the conference key.
 - Press the key of the line placed on hold.
A three-party conference is established.
Any of the parties may leave the conference simply by going on-hook.

To Set Up a Conference – 2 external parties, 1 internal party

When an outside call is already established, another external party can be added to the call:

- Press the hold key.
- Press the line key of an unused outside line, and dial the second outside party.
- When the second outside call is established, press the conference key.
- Press the key of the outside line on hold.

A three-party conference is now established.
During the conference both calls may be placed on hold simply by pressing the hold key.

To Recall Both Lines into the Conference

- Press the line key for one of the lines on hold.
- Press conference key.
- Press the line key for the other line on hold.
The conference is now re-established.
If during the conference you wish to return to a two-party conversation, press the line key of the outside line you wish to keep.
The other line will be dropped automatically.

To Set Up a 3 Party Internal Conference

When an internal off-hook or handfree call is already established, a third internal party can be added to the call:

- Press the conference key.

- Dial the station number of the party to be added.
The first two parties are heard through the speaker of the third.
- When the called party answers, a three-party conference is established.
If the called party does not answer, press the conference key to return to the original two-party call.
Any one of the parties may hang up to return to a two-party call.

Direct Station Calling

Direct station calls (intercom calls) can be made directly to other TalkTo stations in the system.

To Make a Direct Station Call

- Lift the handset.
-  Handfree Sets may remain on-hook.
Ensure the microphone indicator is On.
Press the speaker key.
- Dial the number of the desired station.
One tone burst is heard.
 - Make your announcement.

Note: If the internal indicator is On before you start, all intercom paths are busy. If the called party is on another call, you will hear busy tone. Call Announce Units can only receive paging announcements.

To Answer a Direct Station Call On-Hook

- Press the microphone key to turn the microphone indicator On and speak in the direction of the Set.

Note: The Set initiating the internal call must be off-hook or handfree before your response can be made on-hook.

To Answer a Direct Station Call Off-Hook

- Lift the handset and speak.

All Station Paging

Allows you to make an announcement to all other Sets simultaneously. The message is preceded at all stations by two tone bursts.

Note: If a Call Announce Unit is connected at your location, it may be necessary to turn your Set volume down to prevent feedback (squeal).

To Page All Stations

- Lift the handset.
-  Handfree Sets may remain on-hook.
Ensure the microphone indicator is On.
Press the speaker key.
- Dial 50. Two tone bursts are heard at all Sets.
 - Make the announcement.

Operating Instructions

To answer an All Station Page – (Meet Me Answer)

- Lift your handset.
- Dial *1.
- You are now connected to the calling party.

External Loudspeaker Paging

This feature allows any Set user to make an announcement through a customer provided external paging system.

To Make an Announcement

- Lift the handset
-  Handfree Sets may remain on-hook. Ensure the microphone indicator is On. Press the speaker key.
- Dial 59. A short tone is heard.
- Make your announcement.

Private Speed Call

- TalkTo1032 Sets and Attendant Sets can be programmed by the user, to speed call 17 private numbers, each up to 16 digits in length. On a standard Set each private speed call number is assigned a two-digit code from 00 to 16. On an Attendant Set each private speed call number is assigned to a specific key.

Numbers greater than 16 digits in length can be entered and dialed using two access codes or two keys.

Feature access codes for PABX, Centrex, and custom calling features can also be programmed as speed call numbers.

Programming (at Standard Sets)

Before programming check that the internal indicator is Off.

To begin programming private speed call numbers

- Press the speed key (a continuous tone is heard)
 - Dial the appropriate two-digit code (00 to 16)
 - Dial the telephone number to be stored – maximum 16 digits.
- Numbers longer than 16 digits can be entered by programming the excess digits into the next speed call code.

To continue programming

- Press the speed key.
- Dial the next two-digit code.
- Dial the telephone number to be entered.

To stop programming

Press the speaker key.

Programming (at Attendant Sets)

Before programming check that the internal indicator is Off.

To begin programming private speed call numbers

- Press the speed key (a continuous tone is heard).
 - Press the desired key on the display (10 to 26).
 - Dial the telephone number to be stored – maximum 16 digits.
- Numbers longer than 16 digits can be entered by programming the excess digits into the next key.

- Fill out the directory card.

To continue programming

- Press the speed key.
- Press the desired key on the Display.
- Dial the telephone number to be entered.

To stop programming

- Press the speaker key.

Dialing (at Standard Sets)

To dial private numbers on-hook

- Press an unused line key.
- Press the speed key.
- Dial the appropriate two-digit code (00 to 16).
- When the call is answered, lift the handset.
-  Handfree Sets may remain on-hook provided the microphone indicator is On.
- If the call is unanswered, press the speaker key.

To dial private numbers off-hook

- Lift the handset.
- Press an unused line key.
- Press the speed key.
- Dial the appropriate two-digit code (00 to 16).

Dialling (at Attendant Sets)

To dial private numbers on-hook

- Press an unused line key.
- Press the appropriate key on the Display (10 to 26).
- When the call is answered, lift the handset.
-  Handfree Sets may remain on-hook provided the microphone indicator is On.
- If the call is unanswered, press the speaker key.

Operating Instructions

background music is available through the speaker of your Set or through the external paging system (if connected).

Calls placed on hold will hear the background music automatically.

To Turn Background Music On at Your Set

- Lift the handset.
 - Dial *4.
 - Replace the handset.
- To turn background music off repeat the above procedure.

To Activate Background Music through the External Paging System

- Lift the handset.
 - Dial *7.
 - Replace the handset.
- To turn the external music off, repeat the above procedure.

Night Transfer

The System has been preprogrammed during the installation procedure, so that selected TalkTo 1032 Sets will ring when Night Transfer is activated.

To Activate Night Transfer

- Lift the handset at Set number 10.
- Dial *9.
- Replace the handset.

To Cancel Night Transfer

- Lift the handset at Set number 10.

- Dial *8.
- Replace handset.

Door Answering (optional)

The TalkTo Door Answering feature, when connected, allows one or two doors to be equipped with intercom service. When a visitor presses the Door Module button, distinctive tone ringing will be heard through all Sets, allowing you to determine which module is active.

To Answer a Door Call

- Lift the handset.
- Handsfree Sets may remain on-hook provided the microphone indicator is on.
- Press line key "10".
 - Speak with the visitor at the door.
- The visitor at the door answers by speaking in the direction of the Door Module.
- To end the conversation, press speaker / hang up

To Place an Intercom Call to Door Module Number One

- Lift the handset.
- Handsfree Sets may remain on-hook provided the microphone indicator is on.
- Press line key "10".
 - One ringing burst is heard.
 - At the end of the ringing burst, make your announcement. The called party answers by speaking in the direction of the Door Module.
 - To end the conversation, press the speaker key.

Power Fail Transfer (optional)

If your TalkTo System is equipped with the Power Fail Transfer option, regular telephone service is made available through standard telephones during an electrical power failure.

You should familiarize yourself with the location of these telephones. Programmed data are maintained during an electrical power failure by a battery situated in the KSU.

Full service will be restored to your TalkTo 1032 Set automatically when electrical power is restored to the System.

Call Announce Unit (optional)

The Call Announce Unit allows you to receive paging announcements while busy on another call. See "Direct Station Calling" for operation.

Troubleshooting

The purpose of this section is to assist maintenance personnel in locating and clearing faults in the TalkTo 616 System.

The system is composed of the following major components:

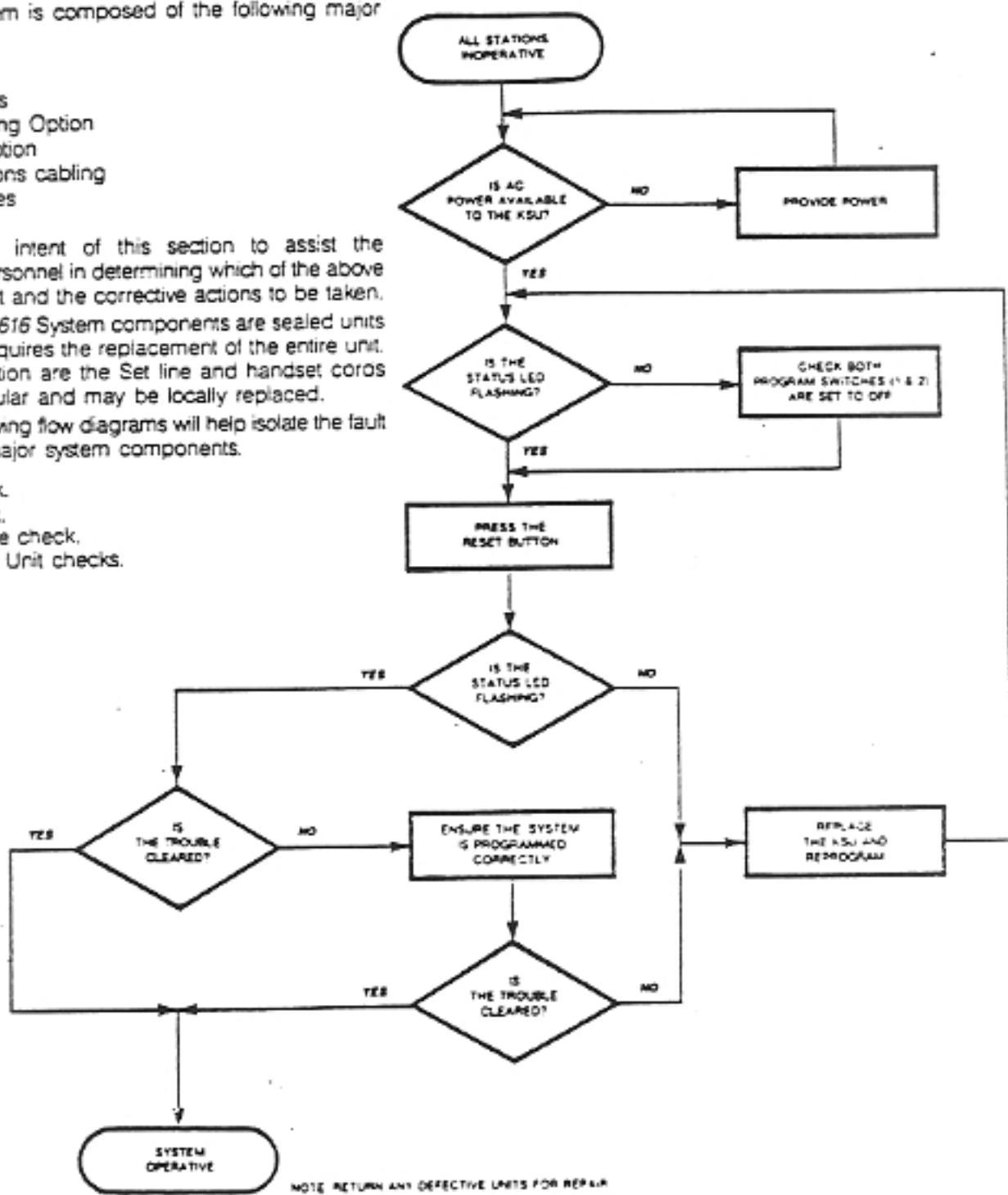
- KSU
- TalkTo 616 Sets
- Door Answering Option
- Power Fail Option
- Communications cabling
- C.O./PABX lines

It is the intent of this section to assist the maintenance personnel in determining which of the above items are at fault and the corrective actions to be taken.

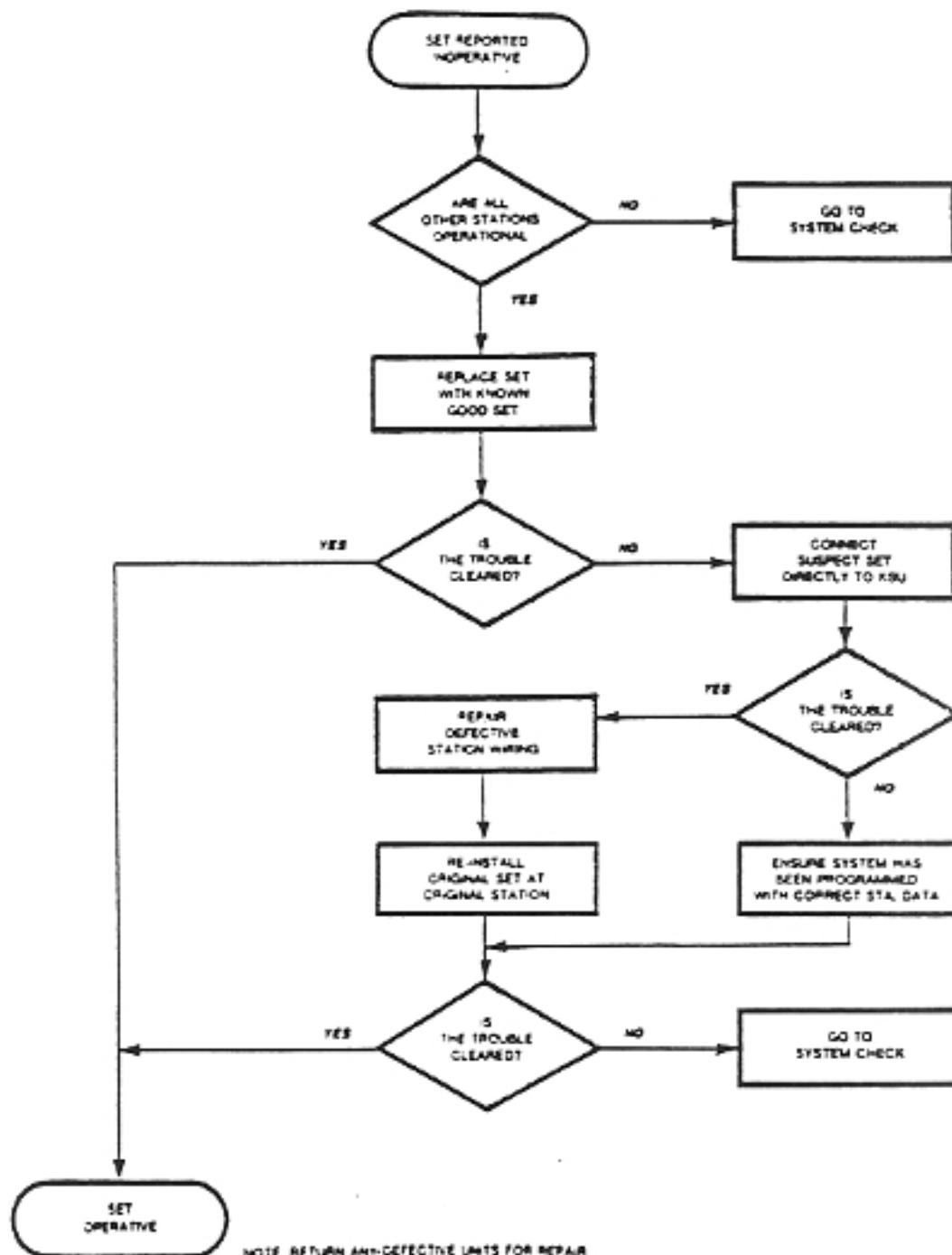
All TalkTo 616 System components are sealed units and any fault requires the replacement of the entire unit. The only exception are the Set line and handset cores which are modular and may be locally replaced.

The following flow diagrams will help isolate the fault to one of the major system components.

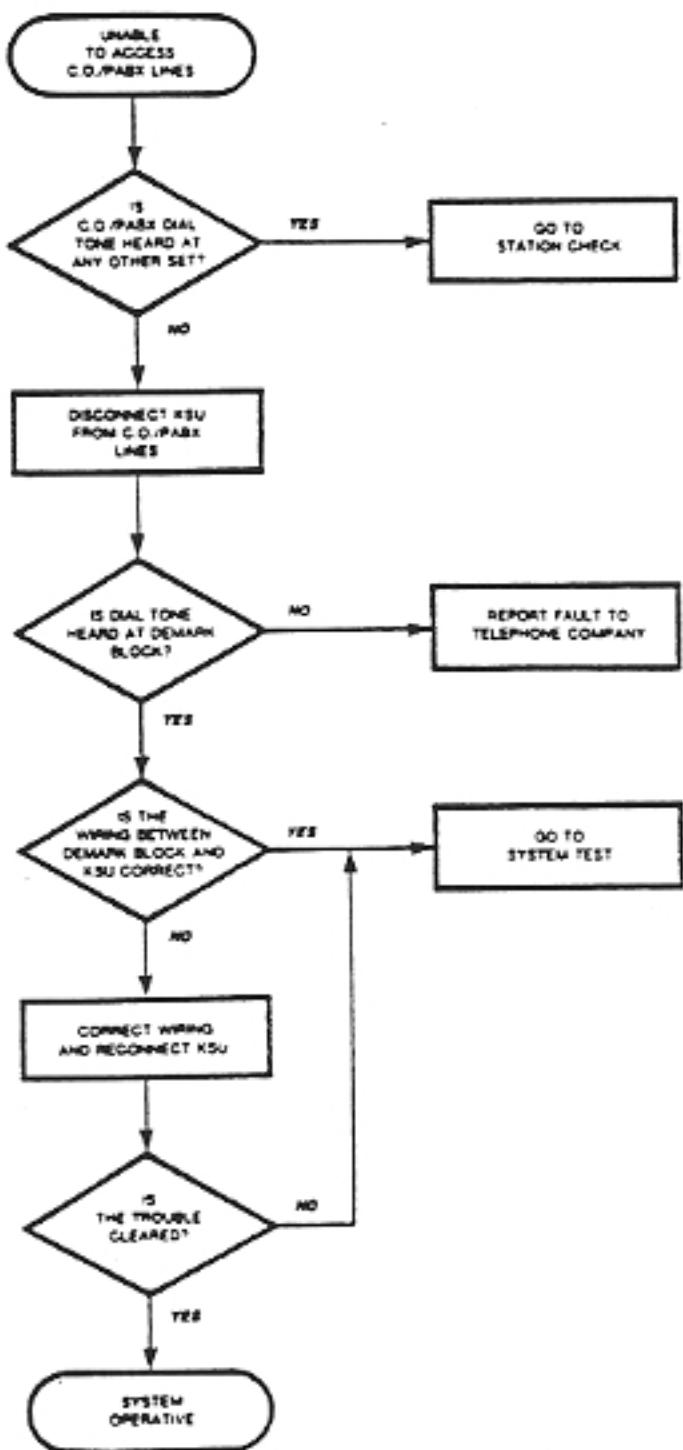
- System check.
- Station check.
- C.O./PABX line check.
- Door Answer Unit checks.



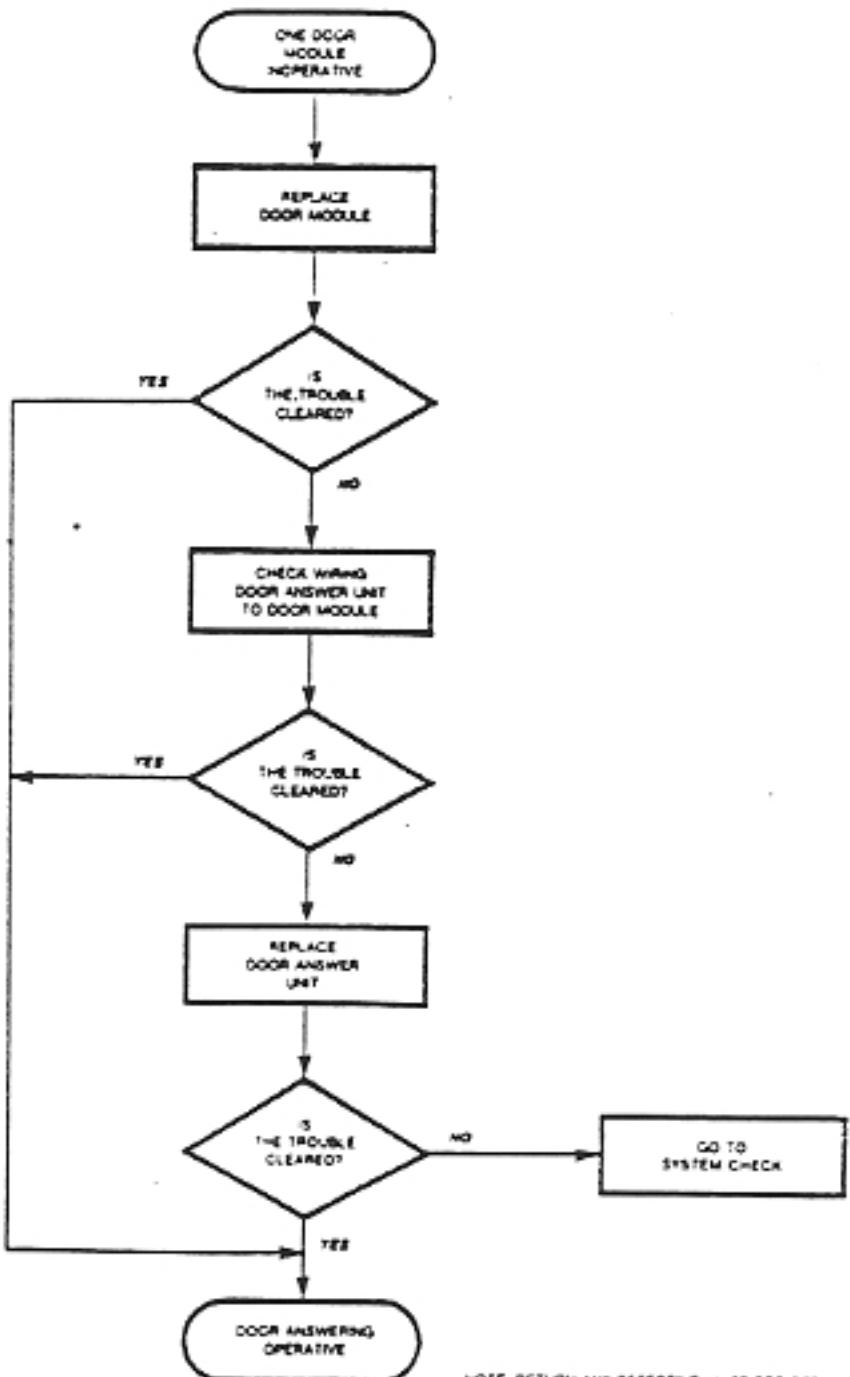
TROUBLESHOOTING



Station Check

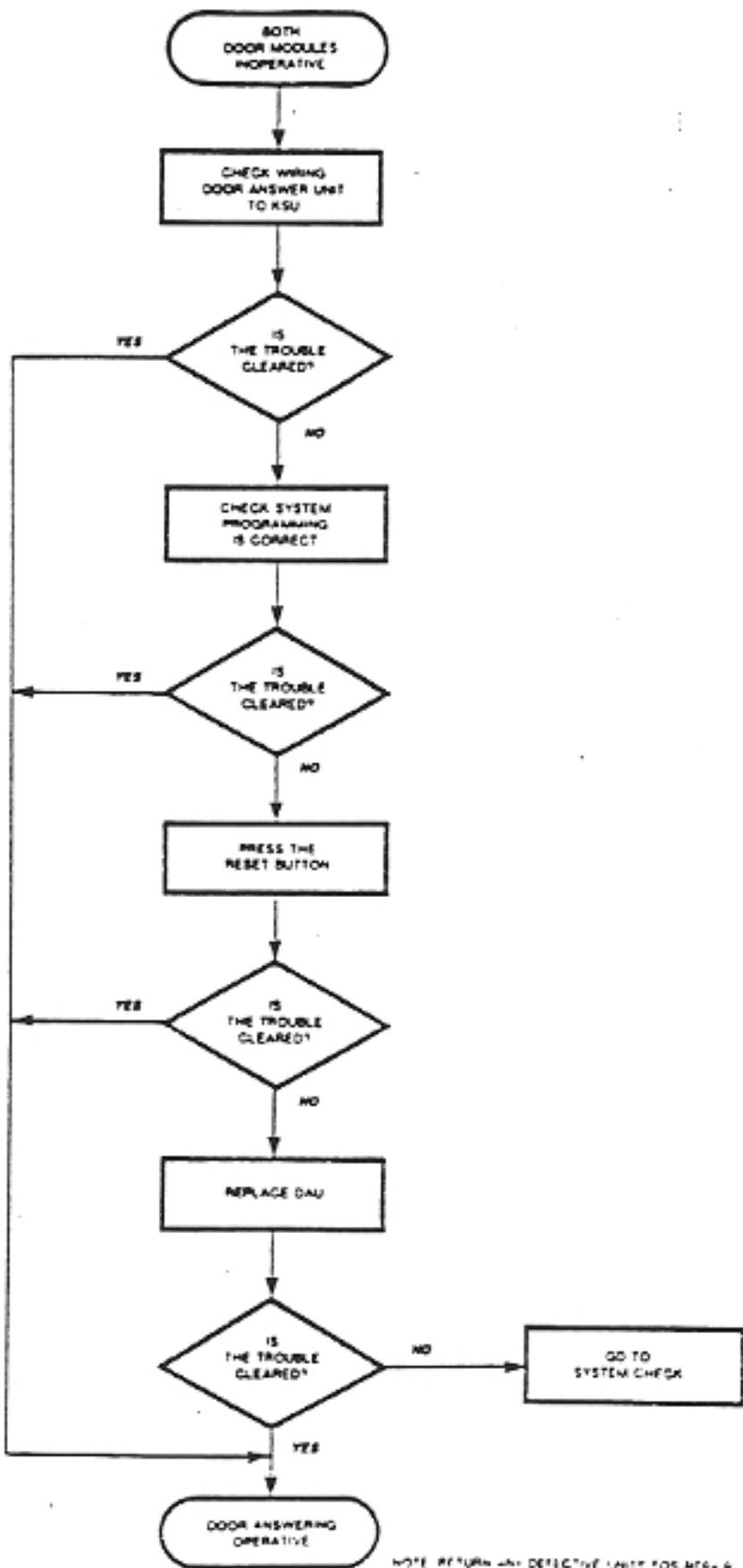


C.O./PABX Line Access Check



NOTE: RETURN ANY DEFECTIVE UNITS FOR REPAIR.

Door Answering – One Door Module



NOTE: RETURN ANY DEFECTIVE PARTS FOR REPAIR.

Notes

System Requirements for Programming

For the system to be programmed to meet your requirements, it is necessary to decide what features are needed, and what parameters are required for those features selected. The following notes are intended to aid you in choosing the correct features and parameters. For reference purposes, please complete the accompanying programming form.

(1) **Hold Recall Time:** Determines the time period between putting a caller on hold and receiving a tone reminder that the caller is still on hold. Periods are 1 minute, 2 minutes, 3 minutes or no hold recall.

(2) **Tone Duration:** This sets the time duration for each dialed DTMF tone. Can be 55ms or 75ms.

(3) **Flash/Cancel:** Which function is the flash/cancel key to have? There are four calibrated periods — 250ms, 500ms, 1 sec., or 3 secs. to choose from.

(4) **Pause on Number:** Allows an automatic pause to be inserted into speed called numbers. Used when the system is behind a PABX, and it is necessary to wait a short period of time for C.O. dial tone to be returned. Pause can be inserted after the digit 7, 8, 9 or 0.

(5) **C.O./PABX Line:** Used to tell the system whether the lines are C.O. or PABX types.

(6) **Incoming Call Only By Line:** Allows individual C.O./PABX lines to be restricted to incoming calls only. Restriction is system wide.

(7) **Outgoing Call Restriction By Station:** Allows individual stations to be restricted for toll and outgoing calls. There are three classes of service: A, B or C.

- **Class A:** No restriction.
- **Class B — C.O. Line:** Dialing 0 + a number, 1 + a number or dialing more than 8 digits, is restricted.
- **Class B — PABX Line:** Dialing C.O. line access code + 0 + a number, C.O. line access code + 1 + a number, or C.O. line access code + more than 8 digits, is restricted.

- **Class C:** Calling is restricted to other stations connected to the system. No outside access at all.

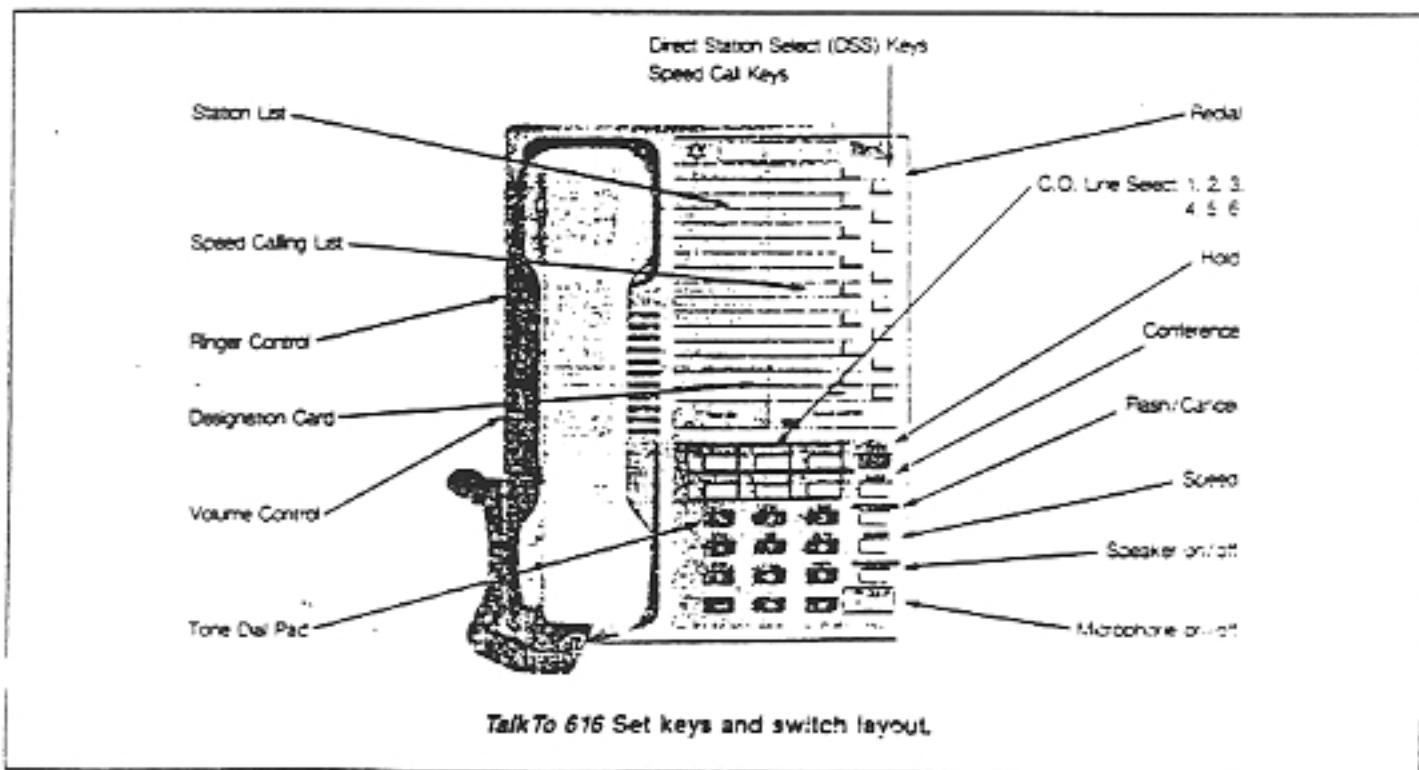
If class B is selected private speed call numbers are restricted, common speed call numbers are not.

(8) **Night Transfer:** Allows ringing to be assigned to selected stations when the system is put into a night transfer mode. At least one station must be selected if night transfer is to be used.

(9) **Private Line:** Allows line 1 to be assigned to a designated station as a private line. Other stations do not have access to the assigned C.O./PABX line.

(10) **Flexible Ringing Assignment:** Allows ringing to be assigned by C.O. line at selected stations. Note that if C.O. line 1 is assigned as a private line to a designated station, ringing will be heard at that station irrespective of whether ringing is assigned or not.

(11) **Door Answering:** If the door option is equipped C.O. line 6 is always associated with door answering and cannot be used as a C.O./PABX line.



Customer Feature Selection

Hold Recall (1)*		*Select one item per Line 1 min <input type="checkbox"/> 2 min <input type="checkbox"/> 3 min <input type="checkbox"/> No Recall <input type="checkbox"/>																			
Tone Duration (2)*		55ms <input type="checkbox"/> 75ms <input type="checkbox"/>																			
Flash/Cancel (3)*	Flash <input type="checkbox"/> Cancel <input type="checkbox"/>	250 ms <input type="checkbox"/> 500ms <input type="checkbox"/> 1 sec <input type="checkbox"/> 3 sec <input type="checkbox"/> 500ms is recommended for calibrated flash																			
Pause on Number (4)	Yes <input type="checkbox"/> No <input type="checkbox"/>	7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 0 <input type="checkbox"/>																			
C.O./PABX LINE (5)	C.O. <input type="checkbox"/> PABX <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>																			
Incoming Call Only By Line (6)	Yes <input type="checkbox"/> No <input type="checkbox"/>	Line 1 <input type="checkbox"/> Line 2 <input type="checkbox"/> Line 3 <input type="checkbox"/>																			
Outgoing Call Restriction By Station (7)		Stn/Class	<table border="1"><tr><td>1 0</td><td>1 1</td><td>1 2</td><td>1 3</td></tr><tr><td>1 4</td><td>1 5</td><td>1 6</td><td>1 7</td></tr><tr><td>1 8</td><td>1 9</td><td>2 0</td><td>2 1</td></tr><tr><td>2 2</td><td>2 3</td><td>2 4</td><td>2 5</td></tr></table>	1 0	1 1	1 2	1 3	1 4	1 5	1 6	1 7	1 8	1 9	2 0	2 1	2 2	2 3	2 4	2 5		
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1 4	1 5	1 6	1 7																		
1 8	1 9	2 0	2 1																		
2 2	2 3	2 4	2 5																		
Night Transfer (8)	Yes <input type="checkbox"/> No <input type="checkbox"/>	Stn #	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>																		
Private Lines (9)	Yes <input type="checkbox"/> No <input type="checkbox"/>	Stn/Line	<table border="1"><tr><td></td><td></td><td></td></tr></table>																		
Flexible Ringing (10)	Yes <input type="checkbox"/>	Stn/Line	<table border="1"><tr><td>1 0</td><td>1 1</td><td>1 2</td><td>1 3</td><td>1 4</td><td>1 5</td><td>1 6</td><td>1 7</td><td>1 8</td><td>1 9</td><td>2 0</td><td>2 1</td><td>2 2</td><td>2 3</td><td>2 4</td><td>2 5</td></tr></table>	1 0	1 1	1 2	1 3	1 4	1 5	1 6	1 7	1 8	1 9	2 0	2 1	2 2	2 3	2 4	2 5		
1 0	1 1	1 2	1 3	1 4	1 5	1 6	1 7	1 8	1 9	2 0	2 1	2 2	2 3	2 4	2 5						

Should you require service, please call the following number: