

NEC ENGINEERING TECHNICAL INFORMATION

Electra mark II

ETI NUMBER: MK-004
DATE: AUGUST, 1987

ELECTRA MARK II DSS/BLF CO ADD-ON MODULE UPGRADE

1. DESCRIPTION

This Engineering Technical Information (ETI) procedure describes the steps necessary to upgrade existing EDE-30-1 Revision A () units to revision B. EDE-30-1 revision B units can be used as either a DSS/BLF Console or as a CO ADD-ON Module.

2. LIMITATIONS

Only EDE-30-1 units in boxes marked with a uP on the outside of the box, after the revision level, can be upgraded to revision B using the information contained in this ETI procedure.

3. PARTS REQUIRED

3.1 Microprocessor D75104CW 063 and revision labels provided with each EDE-30-1 unit by NEC America, Inc

- 3.1.1 Three revision B labels
- 3.1.2 One revision 3 label.

3.2 Anti static wrist band and grounding strap (3M Model 2213 or similar, locally provided).

3.3 Anti-static mat (3M Model 8501 or similar, locally provided).

3.4 Chip insertion/extraction tool (locally provided).

CAUTION: Microprocessors and some other chips used on the EDE-30-1 unit are static sensitive devices. Proper care in handling is necessary to assure that neither the microprocessor nor the printed circuit board (PCB) is damaged. This procedure minimizes the possibility of damage due to static electricity discharge.

4. SET UP PROCEDURE

4.1 Attach the anti-static mat to earth ground.

4.2 Put on the anti static wrist band and attach the band to the anti-static mat.

4.3 Unpack the new microprocessor and labels provided.

5. PROCEDURE

- 5.1 Verify that the revision level stamped on the EDE-30-1 unit packing box is **A()**. Only packing boxes with a **uP** stamped after the revision level contain the microprocessor required to upgrade the EDE-30-1 to revision **B**. For location of revision level, see Figure 1B.
- 5.2 Turn the EDE-30-1 unit face down and loosen the cross head retaining screw located at the bottom of the EDE-30-1 housing (See Figure 1A).
- 5.3 Refer to Figure 1A and separate the lower and upper housing halves of the EDE-30-1 unit by applying inward pressure to the upper half while at the same time lifting up on the lower half.
- 5.4 Using the chip extraction/insertion tool remove the installed microprocessor IC1 from its socket (Refer to Figure 2). Follow the IC extractor manufacturer's recommended procedure.
- 5.5 Using the same tool as in step 5.4, and following the IC insertion tool manufacturer's recommended procedure, insert the supplied microprocessor into the IC1 chip socket. Observe IC polarity and ensure that the IC pins are not bent and that all pins are properly inserted in the IC socket (Refer to Figure 2).
- 5.6 Using the revision 3 label provided, change the revision number on the PCB to **REV 3** (See Figure 2).
- 5.7 Use a revision **B** label and change the revision level on the outside of the bottom half of the EDE-30-1 unit (See Figure 1C). Affix the other two revision **B** labels to the outside of the packing box, in two places, following the lot number (See Figure 1B).
- 5.8 Reassemble the upper and lower housing halves of the EDE-30-1 unit.
- 5.9 Test the unit for proper operation both as a DSS/BLF Console and as a CO ADD-ON Module. Refer to the Electra MarkII Installation Service Manual, Chapter 3, for programming instructions and Chapter 4, Station Operation, for operating instructions.

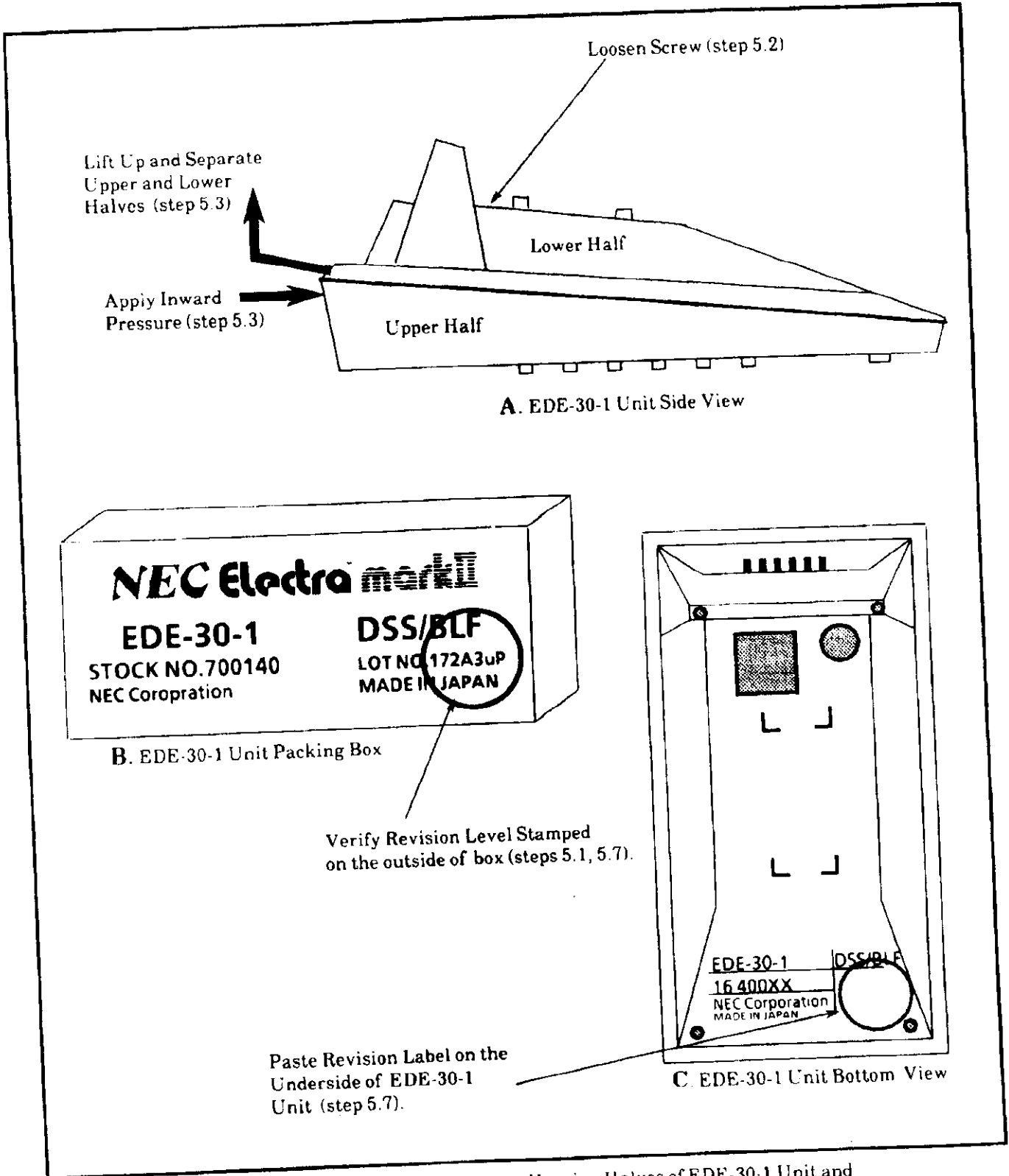


Figure 1 Separating Upper and Lower Housing Halves of EDE-30-1 Unit and Locating Revision Level Label

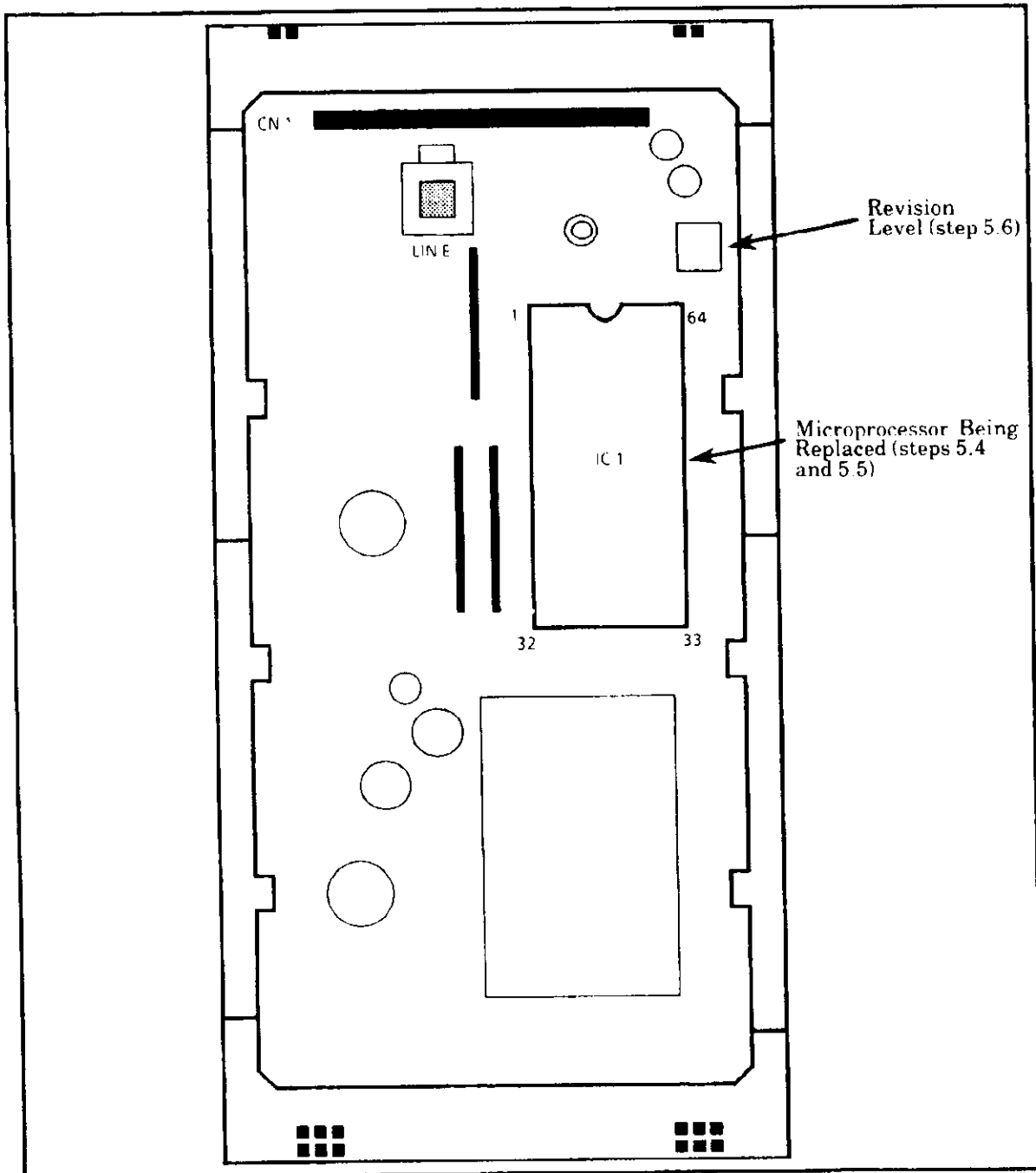


Figure 2 View of EDE-30-1 Unit PCB

A-3 ADD-ON CONFERENCE A-3

GENERAL DESCRIPTION

The Add-On Conference feature establishes a conference call with a maximum of four parties with various combinations of CO/PBX lines and extensions. This increases efficiency by allowing multiple parties to enter into a conversation. Group discussions spread information rapidly and allow exchange of viewpoints. This feature reduces loss of time and improves the decision making process.

STATION APPLICATION

All stations.

OPERATING PROCEDURE

To use this feature with a Multiline Terminal (One Extension Line Key) with a call in progress:

1. Depress the CNF key. The CNF key LED flashes, the ANS key LED is lit, and a second dial tone is received.
2. Dial the internal or outside party and inform answering party of conference.
3. Depress the CNF key again, talk with both parties.
4. Repeat steps 1 through 3 to add an additional party.

To use this feature with a Multiline Terminal (Two Extension Line Keys) with a call in progress:

1. Depress the CNF key. The CNF key LED flashes and a second dial tone is heard.
2. Depress another line key. An outside dial tone is heard if the line key is an outside line. An internal dial tone is heard if the line key is an extension.
3. Dial the internal or outside party and inform answering party of conference.
4. Depress the CNF key again, talk with both parties.
5. Repeat steps 1 through 4 to add an additional party.

NOTE

If at least one party is an outside call, the originator's display changes to show Elapsed Conference Call Time on both the One Extension Line Key and Two Extension Line Keys operation explained above.

To use this feature with a Single Line Telephone (SLT) with a call in progress:

1. Provide a hookflash to receive second dial tone.
2. Dial the internal or outside party and inform the answering party of conference.
3. Provide a hookflash again to establish the conference. Talk with both parties.
4. Repeat steps 1 through 3 to add an additional party.

SERVICE CONDITIONS

- A maximum of four (4) simultaneous conferences per system are allowed. A CNF-E ETU is required for each conference. Each CNF-E ETU occupies an interface slot and uses four (4) universal ports in a Central Control Unit (CCU).