

DATU-LC/RT

IMPORTANT NOTES:

1. Before the DATU is even **touched**, verify that it is operating correctly on local and pair gain lines. You will save yourself much grief later on if any problems occur during the upgrade because you will know that it was working properly before the upgrade process was started.
2. When you upgrade **all system programming will be lost** (The system password will be reset to *2222222). Please be sure to record passwords, prefixes, dialing method, RT information, and any other items which may have been programmed into the DATU.

Step 1 - Replace Two Front Panel Labels



NOTE: A grounded wrist strap must be worn for this procedure.

1. Ground yourself (Make a metallic connection between your skin and a known ground).
2. Unplug the DATU from the MFT bay.
3. Peel off the small Issue and Bar Code Labels from the front panel of the DATU (see Figure 1).
4. Attach the new Issue 5 label, enclosed in the kit (see Figure 1).
5. Attach the appropriate new CLEI label (either MTPMUM09AA [DATU-LC] or MTPMJM09AA [DATU-RT]) enclosed in the kit (see Figure 1).

Step 2 - Replace the U3 EPROM

1. Place the DATU flat on a table or counter with the components visible. You should see several EPROMs in a row along one end.
2. The EPROM to replace is labeled **U3**. On the PC board, you will see tiny letters and numbers identifying the EPROMs. See Figure 2 for the location of the EPROM.
3. Using the IC Extraction tool provided in the kit, clip the ends of the Extraction tool over the EPROM, squeeze the handle of the Extraction tool, and gently pulled upward to remove the EPROM from the socket.

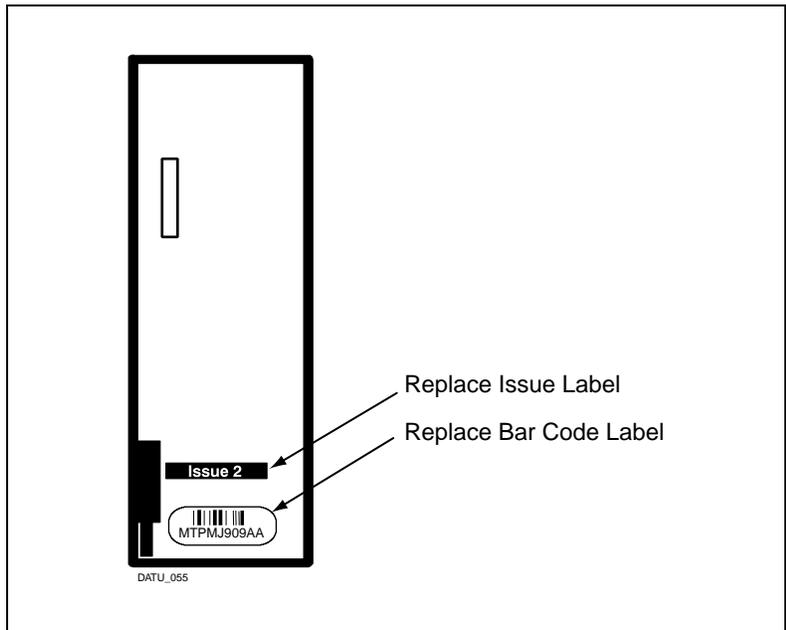


Figure 1. DATU Front Panel

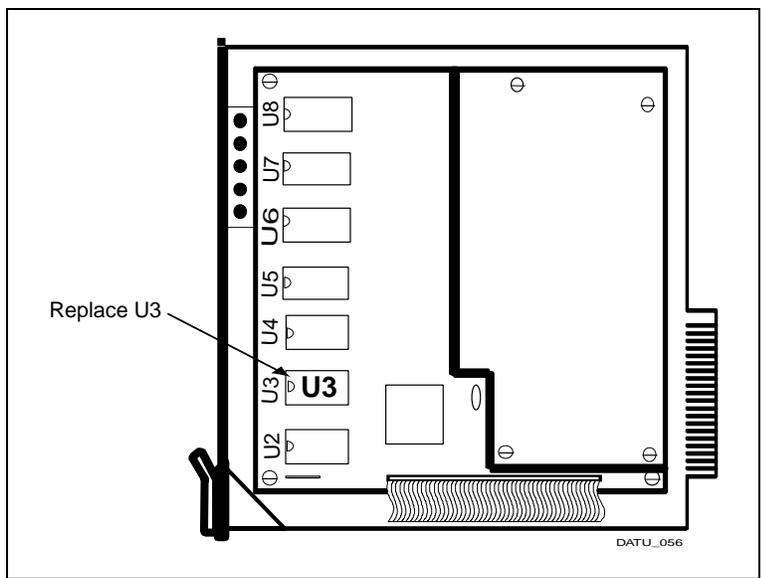


Figure 2. DATU to View

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4. Load new EPROM into the IC Insertion tool (also provided in the kit).
 5. The EPROM has a tiny notch at one end. When inserting the new EPROM, be sure that the notch in the EPROM is aligned with the half-circle (notch) on the IC socket on the PC board.
 6. Using the IC Insertion tool push in the new EPROM into the U3 socket until fully seated. If a pin gets bent, or "misses" the socket, remove the EPROM, straighten the pins, and gently insert it again. Try not to flex the board when inserting or removing devices. Look at the other ICs on the board and be sure they did not become loose during the operation. Make sure none of the legs of the EPROM are bent underneath or outside of the IC socket.
 7. Plug the DATU back into the MFT slot. If you are using a Harris Pair Gain Applique (PGA) with the DATU, make sure that the PGA is powered up and its status light is blinking prior to plugging the DATU back into its slot. Unground yourself.

Step 3 - Program and Test the Upgraded DATU-LC/RT

1. Please refer to the DATU-LC/RT Service Manual and any applicable Addendums to the Service Manual for instructions on how to program the DATU-LC/RT. Since all previous programming was erased when the upgrade was made, all system parameters and RT information must be entered. Chapter 3 of the DATU Service Manual covers Programming System Functions.
2. After all programming is completed, test the system:

Tests for both DATU-LC and DATU-RT:

Preparation: Get telephone numbers served from three (3) types of channel units in the Pair Gain System: Single Party (1FR), Multi-Party (2FR) and Coin. (One number from each type).

- a. Dial the telephone number assigned to the DATU. The DATU will return a 440 Hz dial tone. After receiving this tone, enter the User Password (User Password must be entered within seven (7) seconds or the DATU will disconnect).

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- b. After receiving the valid User Password, the DATU will return the 440 Hz tone again. Enter a **single party pair gain** subscriber line number. If the line is busy, the DATU will provide the message: BUSY LINE. Keep trying different single party lines until you find an idle one. If the line is idle, the DATU should provide the following speech messages:

PAIR GAIN LINE.
PROCESSING. (Possibly repeating several times.)
SINGLE PARTY LINE.

If the line is idle and the DATU does not report that it is a Single Party Line, there may be a problem with the Upgrade of the unit, or with the Pair Gain Test Controller.

- c. Dial # for new subscriber line. Enter a **multi party pair gain** subscriber line number. If the line is busy, the DATU will provide the message: BUSY LINE. Keep trying different multi party lines until you find an idle one. If the line is idle, the DATU should provide the following speech messages:

PAIR GAIN LINE.
PROCESSING. (Possibly repeating several times.)
MULTI PARTY LINE.

If the line is idle and the DATU does not report that it is a Multi Party Line, there may be a problem with the Upgrade of the DATU, or with the Pair Gain Test Controller.

- d. Dial # for new subscriber line. Enter a **coin pair gain** subscriber line number. If the line is busy, the DATU will provide the message: BUSY LINE. Keep trying different coin lines until you find an idle one. If the line is idle, the DATU should provide the following speech messages:

PAIR GAIN LINE.
PROCESSING. (Possibly repeating several times.)
COIN LINE.

If the line is idle and the DATU does not report that it is a Coin Line, there may be a problem with the Upgrade of the DATU, or with the Pair Gain Test Controller.

- e. If a through d do not test out correctly, or for technical assistance at another time, contact Harris Professional Services at 805-987-9511, from 8:00 a.m. to 5:00 p.m. Pacific Time, Monday through Friday.

Tests for DATU-RT only:

Preparation: Get telephone numbers served from three (3) types of channel units in the Pair Gain System: Single Party (1FR), Multi-Party (2FR) and Coin (one number from each type).

3. If this upgrade is being performed on a DATU-RT; the following additional tests should be performed to ensure that the unit is working properly:

- a. Program the DATU to be able to access at least two (2) Harris remote units, using the programming instructions provided in chapter 3 of the DATU-RT Service Manual and any applicable **addendums**.
- b. Dial the telephone number assigned to the DATU. The DATU will return a 440 Hz dial tone. After receiving this tone, enter the User Password.
- c. After receiving the valid User Password, the DATU will return the 440 Hz tone again. Enter a **single party pair gain** subscriber line number. If the line is busy, the DATU will provide the message: BUSY LINE. Keep trying different single party lines until you find an idle one. If the line is idle, the DATU should provide the following speech messages:

PAIR GAIN LINE.
PROCESSING. (Possibly repeating several times.)
SINGLE PARTY LINE.
PLEASE ENTER PAIR GAIN SYSTEM ID. DIAL STAR TO END.

- d. Enter the Pair Gain System ID. which was programmed into the DATU which matches the Pair Gain System ID for this subscriber line. If this is a "split" Pair Gain System, the DATU should provide the following speech message:

ENTER PAIR NUMBER. DIAL STAR TO END.

If the Pair Gain System is not "split", the DATU will skip this message.

- e. Enter the pair number for the subscriber line. Now the DATU should provide the following speech message:

ACCESSING PAIR GAIN SYSTEM I.D. xxxx.

PROCESSING.

RT TEST SYSTEM CONNECTED TO vvv-vvvv. OK.

DIAL 33 FOR SHORT TO GROUND...(etc).

Note: Where xxxx represents the Pair Gain System ID entered.

Note: Where vvv-vvvv represents the subscriber line number under test. With 10 digit dialing enabled, the subscriber line number is represented by (yyy) yyy-yyyy.

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- f. Verify that High Level Tone, Short, and Short to Ground are working.
 - g. Repeat b through f for multi-party and coin lines.

Congratulations. If the unit passed all the above tests, the upgrade should be complete and successful.

Restore all previous recorded parameters (e.g., password, dialing method, etc.).

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