RAM Card Backup Battery Replacement Instructions

In the early 80s, the most cost effective way to implement data processing and memory functions was through a DRAM (Dynamic Random Access Memory) to control the CPU. This DRAM was a volatile memory integrated circuit which required a lithium battery to retain its instruction set.

The lithium batteries in these units typically lasted about 5 to 7 years before replacement was required. This was specifically noted in each of the Owners Manuals for the products.

This lithium battery can be replaced by the radio owner if care is used. The following is the recommended procedure.

Cautions

- Do not use an AC powered 3 Volt DC source, your grounded soldering iron tip could short out the battery (+) terminal. Use a 3 Volt battery DC source only (2 alkaline cells for example).
- Do not solder the external DC wires directly to the lithium battery tab pads. If you do so, you will not be able unsolder the battery without having the wires drop off.
- If by accident you lose power to the RAM unit it must be sent to Icom America for reprogramming.
- Be careful not to damage or bend the connector pins on the radio side while removing or reinstalling the RAM card.

Procedure

1. Disconnect the power cable from the radio, and take the cover off.

2. Unplug the RAM board and remove it from the radio.

3. Temporarily solder a 3 V DC battery source across the existing battery terminals (see the suggested connection points on the circuit board as shown in the following pictures). If by accident you lose power to the RAM unit, it must be sent to ICOM America for reprogramming.

4. On solder the original lithium battery and replace it with a new one. (BR2325 1 HC, Icom stock number 94503112.)

5. Desolder your temporary 3 V DC source.

6. Reinstall the RAM board into the radio.
Pictures
There are two versions of the Icom RAM boards. Both are identical in operation, and they are interchangeable. The differences are in the circuit board layouts only. Note that the black and red wires visible on these images are the suggested way of connecting the external CD backup voltage while the battery is being replaced.

RAM card version A images:

RAM card version B images: