

This application note describes how to substitute ERF-2030s for the discontinued Mitsubishi 2SC2166 and 2SC1969 RF transistors in the RCI-6900F25 and RCI-2950 DX 10 meter transceivers.

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Required Parts:

- 3pc ERF-2030
- 1pc EN-369DR
- 2pcs EN-369FN
- 1pc 470K ohm, 1/4 Watt Resistor
- 2pcs 33K ohm, 1/4 Watt Resistor

- 1) Remove Q60, Q61 and Q62.
- 2) Remove L27, L28 and L31.
- 3) Remove C223.
- 4) Install the three ERF-2030's at Q60, Q61 and Q62. Install the ERF-2030's exactly the same way the 2SC2166 and 2SC1969's were installed, using all the SAME HARDWARE.
- 5) Install the EN-369DR at Q62. Install this part on the solder side of the PCB. IMPORTANT: Do NOT stress the leads of the EN-369DR by bending them too aggressively. Bend the leads carefully and make sure that they are as short as possible.
 - a) Solder the EN-369DR positive lead (marked +) to the gate pin of the ERF-2030 at Q62.
 - b) Solder the EN-369DR negative lead (unmarked) to the source pin of the ERF-2030 at Q62.
- 6) Install the EN-369FN's at Q60 and Q61. Install these parts on the solder side of the PCB. IMPORTANT: Do NOT stress the leads of the EN-369FN's by bending them too aggressively. Bend the leads carefully and make sure that they are as short as possible.
 - a) Solder the EN-369FN's positive lead (marked +) to the gate pin of the ERF-2030's at Q60 and Q61.
 - b) Solder the EN-369FN's negative lead (unmarked) to the source pin of the ERF-2030's at Q60 and Q61.
- 7) Install the 470K ohm resistor from the gate pin of the ERF-2030 at Q62, to the jumper wire located at L36.
- 8) Install a 33K ohm resistor from the gate pin of the ERF-2030 at Q60, to the hole at R275 that is closest to the front of the radio.
- 9) Install a 33K ohm resistor from the gate pin of the ERF-2030 at Q61, to the hole at R274 that is closest to the front of the radio.

