

## Application Note AN-2030-1a

ERF-2030 Conversion for AM/FM 10 Meter Radios Manufactured by Ranger Communications Inc. (RCI)

This application note describes how to substitute an ERF-2030 for the discontinued Mitsubishi 2SC1969 final RF transistor in the Galaxy DX33HML, DX44V, DX55V, DX66V, and DX73V 10 meter transceivers. This application note may apply to other similar transceivers manufactured by RCI.

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Required Parts:

1pc ERF-2030

1pc EN-369DR

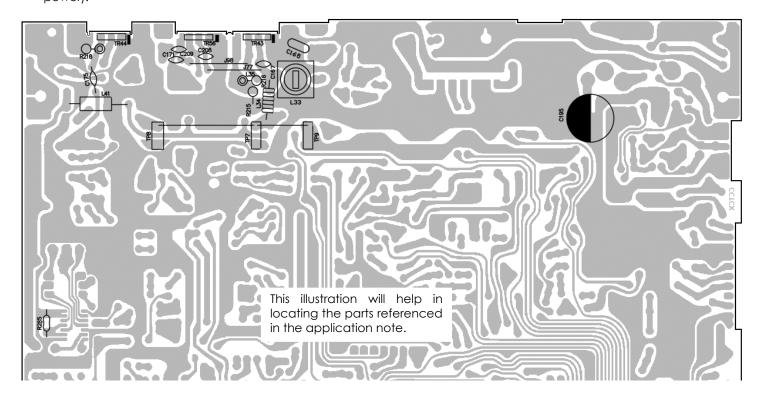
1pc 68pF Ceramic Disc Capacitor (optional, see below)

- 1) Remove the 2SC1969 at TR43.
- 2) Install the ERF-2030 at TR43. Install ERF-2030 exactly the same way the 2SC1969 was installed, using all the SAME HARDWARE that was used with the 2SC1969.
- Remove capacitor at C167.
- 4) Remove the 22µH choke installed from location R215 to R216.
- 5) Install the EN-369DR at TR43. Install this part on the solder side of the PCB. IMPORTANT: Do NOT stress the leads of the EN-369DR by bending them to 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 TR43.
  - b) Solder the EN-369DR negative lead (unmarked) to the source pin of the ERF-2030 at TR43.
- 6) Install a 68pF capacitor across C165 (this step is optional, but should help to maximize output power).
- 7) Remove tuning slug from L33 (this step is optional, but should help to maximize output power).



## ERF-2030 Pins:

- 1. Gate
- 2. Drain
- 3. Source



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