

## FL - 101 TRANSMITTER

### INSTALLATION OF RF PROCESSOR

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The following installation procedure is applicable to the FL-101 transmitters bearing serial numbers 308001 and up only.

#### Required Parts:

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|--|-------|
| - RF Processor Unit B completed and tested | 1 pce |
| - Tapping Screws 3 x 6                     | 4 pcs |
| - Insulation Tube 3 mm dia                 | 4 cm  |

#### MODIFICATION

Remove the top and bottom covers from the transmitter.

- (a) Locate black vinyl tube and cut a harness band as illustrated by (1) in Fig. 1 and remove the black vinyl tube from the yellow and green colored coax cable. As the coax cables are longer than necessary, cut a 50 mm piece from the end.
- (b) Prepare the ends of the coax cables as illustrated in Fig. 2. Remove a wire (2) between pin 2 of MJ-1 and soldering post. Locate white wire (3) between pin 5 of MJ-2 and soldering post and disconnect wire from the soldering post. Remove yellow wire (4) from pin 2 of MJ-2 and the soldering post. Disconnect white/yellow wire (5) from the soldering post.
- (c) Solder the yellow coax cable (6) prepared in Step (b) to MJ-1, inner conductor to pin 2 and outer braid to pin 1. Solder the green coax cable (7) to the soldering post and outer braid to ground as illustrated in Fig. 3.
- (d) Solder the white wire disconnected from the soldering post in Step (b) to pin 1 (8) of MJ-2. Connect the white/grey and two white wires (9) together using a yellow wire (4) removed in Step (b) and solder them.

Solder the white/yellow wire (5) disconnected from the soldering post in Step (b) to the other post of the soldering post where a yellow wire (10) is soldered.

- (e) Remove harness band (11) from the top of VFO unit. Cut a harness band marked \*. Remove vinyl tube covering the wire harness as illustrated in Fig. 4.
- (f) Install the RF processor unit as illustrated in Fig. 5. Use the tapping screws supplied. Solder the wires as illustrated in Fig. 6.

## ADJUSTMENT

The RF processor unit is carefully aligned and tested at the factory so that it can be installed without any further alignment in accordance with the description on Page 8 of the instruction manual.

The following adjustments, however, may be necessary in order to eliminate a slight tolerance of the ALC circuit transistors.

- (a) Tune the FL-101 up on the 20 meter band and set mode switch to USB position. Apply a 1 kHz 20 mV signal to the microphone input. Set the processor switch to "ON" position and LEVEL control to a fully clockwise position. Adjust MIC GAIN control until IC reaches 200 mA.
- (b) Peak T1 and T3 in the processor circuit for a maximum IC reading.
- (c) Set the processor switch to "OFF" and adjust MIC GAIN control for a 200 mA IC reading. Peak T2 for a maximum IC reading. Then, adjust MIC GAIN control until RF voltage at "IF IN" post reaches 50 mV. Adjust VR1 until RF voltage at "IF OUT" reaches 50 mV.
- (d) Disconnect audio generator from the MIC input and set the meter switch to ALC. Adjust VR2 until the meter indicates full scale in transmit without modulation.

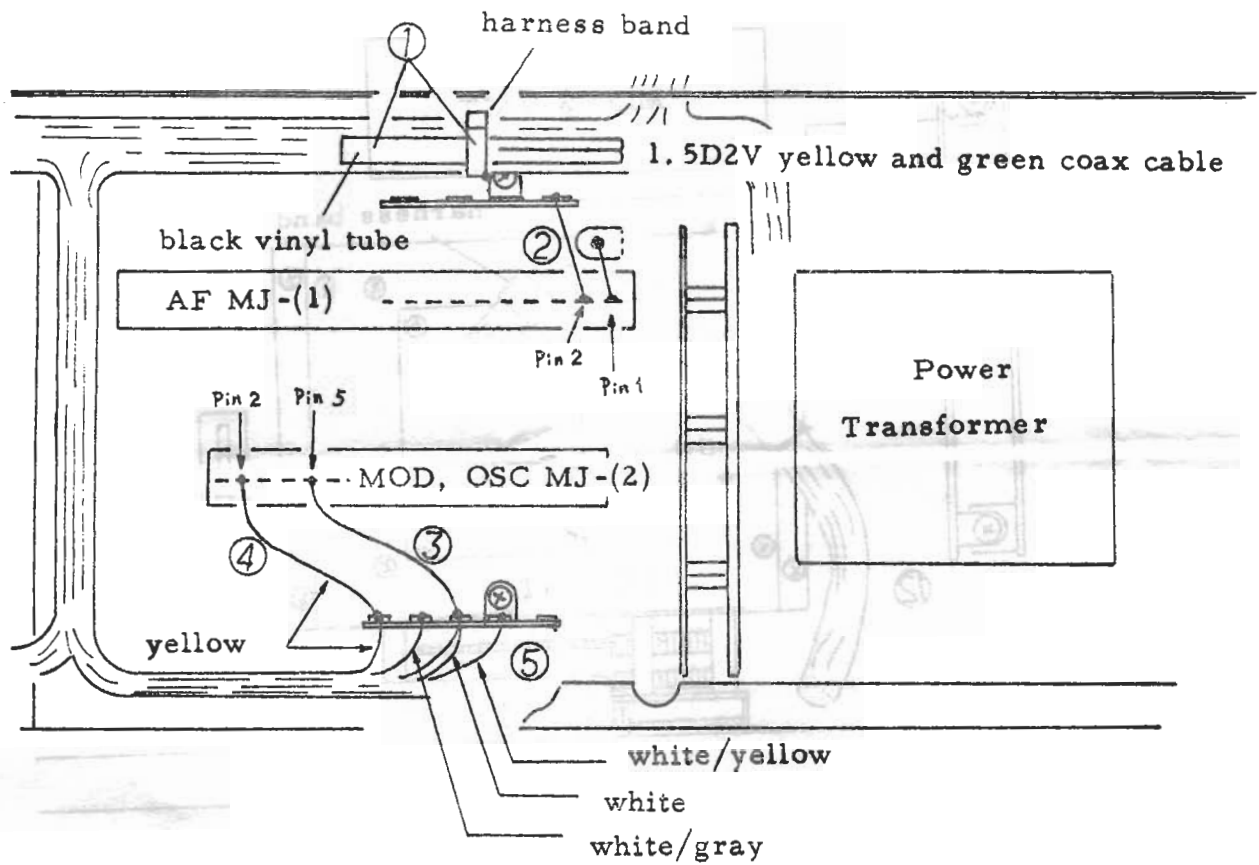


Fig. 1

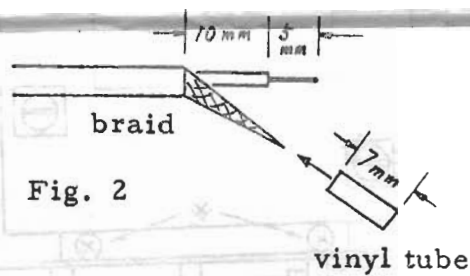


Fig. 2

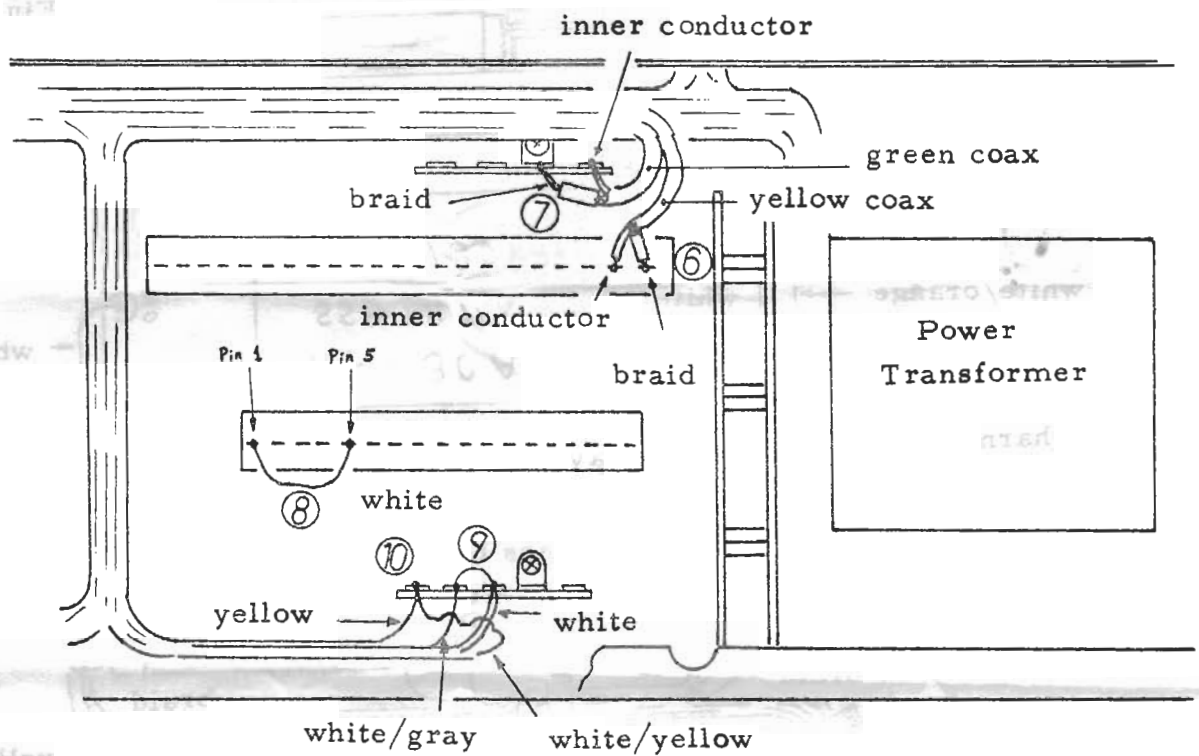


Fig. 3

