

HOBBY ELECTRONICS

INSTRUCTION MANUAL

MODEL **RF-660**



 **DAIWA CORPORATION**

INSTRUCTION MANUAL
Model RF-660 Quality RF Speech Processor
for Mobile/Home operation.

General Description:

The RF-660 is an RF speech processor, that gives 6 dB improvement in talk power. This unit has the following features:

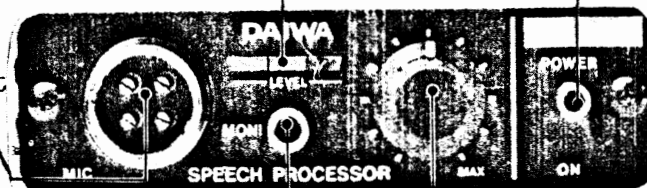
1. Low distortion with clipping at an RF frequency.
2. Easy installation to microphone lines.
3. Completely solid-state.
4. Splatter free performance.
5. Level indication.
6. Built-in monitoring circuit.

Specifications:

Talk power better than 6dB improvement.
Clipping threshold Less than 2mV at 1kHz.
Frequency response Approx. 300-3000 Hz at 12 dB down.
Distortion Less than 3% at 1kHz, 20 dB clip.
Output level More than 50mV at 1kHz.
Power requirement DC 13.5V 50 mA (when no input signal)
Dimensions 90(W) x 25(H) x 92(D) m/m
Net weight 360 g

LED clipping level indicator Power Switch
== Lights when power switch "ON". "ON" LED lights.
== Indicates proper clipping level.
=== Indicates over clipping level. "OFF" Power is removed
Mic. is connected direct
to transceiver.

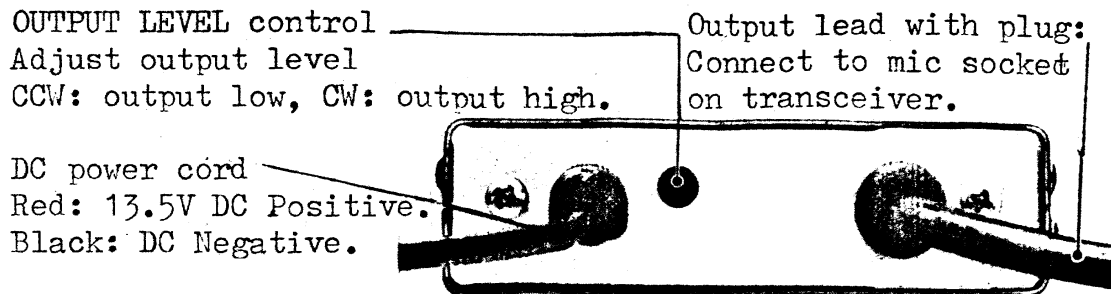
Mic. input socket
for microphone.



Monitor Jack:
Earphone connection for
monitoring of processed
speech.

Clipping level
control.
CCW: decreased clipping.
CW: increased clipping.

Rear View



(Wiring)

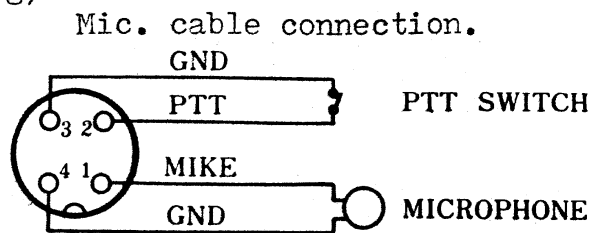


Fig.-1

It is necessary to check the microphone wiring before operating RF-660. The microphone cable connection to the RF-660 is shown in fig 1. Check your microphone connector and its wiring to ensure that they can be used with the RF-660. If your microphone connector cannot be used with the RF-660 remove it and connect the input connector to your microphone cable as shown in Fig 1. The output connector on the RF-660 is also wired as Fig 1. If it is not usable with your Transceiver, the output connector should be rewired to the microphone connector as shown in the instruction manual of the Transceiver you are using. This completes the wiring. The RF-660 is now ready for operation.

Operation:

It is recommended that initial tests and familiarization of the RF-660 be done with your Transceiver connected to a dummy load. Be sure the power switch of the RF-660 is in the "OFF" position. Connect the microphone to RF-660 input, and the output lead to Transceiver input as shown in fig 2. The microphone line is connected directly to the Transceiver input when the gain control of the RF-660 is in the full counter-clockwise position. Check the operation of the microphone to ensure it operates properly. If it does not function properly, check the wiring of the inter connection cable (see fig 1.) Set the gain control to the full clockwise position and the output control to the full counter-clockwise position. Turn

on the power switch. In SSB and AM modes, adjust the output level of the output control with audio until the ALC meter peaks around the right edge of the red zone.

If your Transceiver does not have an ALC meter, a plate current meter or an output power meter may be substituted. With an "FM" Transceiver, set output just below the maximum allowable deviation. Adjust the microphone gain control with audio (keeping microphone more than ten centimeter from your mouth) until the level indicator lights up (second position). With this adjustment, the talk power of the processed voice increases more than 4 times compared with your original voice.

The RF-660 is now ready to be tested on the air. It is advisable to try the RF-660 in both "ON" and "OFF" position of the Power Switch and check for the audio quality of your transmitter signal.

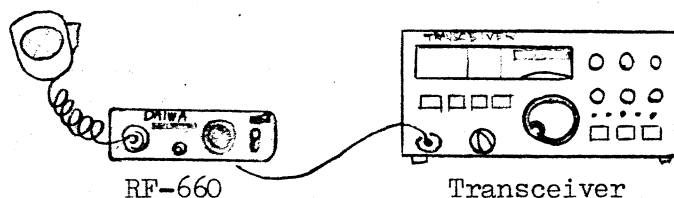
If there is a complaint of bellowing or pumping, ease off slightly of the gain control.

CAUTION.

Splatter can result from improper adjustment of the output control. The output control setting should be checked as frequently as possible to ensure that it is set at the proper level.

Keep the microphone more than 10 centimeter from your mouth when using the RF-660.

Microphone



(Fig 2)

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