



AN/PRC-1177 Tactical Radio Set

NEW ELECTRONIC DESIGN EFFICIENT ELECTRONIC CONVERSION TO 25 KHz SPACING - 1840 CHANNELS

AN/PRC-1177:

- The worldwide increasing application of wireless communication technique necessitated an increasing of the operating channels available with the radio sets in use.
- Associated Industries has developed a very decisive modification to the PRC-77 resulting with the PRC-1177. Two advantages of the PRC-77 design for the basis of this modification are the rugged design and selective tuning via the variable tuning capacitors through which a high special purity of the transceiver can be gained.
- Associated Industries utilizes the 25 KHz sector arm modification that is installed in the front panel gearing mechanism. This type of modification allows the same type "user friendly" features of the PRC-77 which has a proven track record.
- The module A40 is replaced with the module A40/AS that contains a different switch on the A40-1 board and an additional two reference crystal oscillators (5.625 and 5.675 MHz). In the receiver path, the IF- Crystal filter with its + 16 KHz bandwidth is exchanged for a crystal filter with + 8.5 KHz bandwidth.
- In addition there is a slight modification to the A22 module creating the A22/AS which allows the decrease in nominal FM deviation to 6 KHz and the 150 Hz tone signaling is set to 2.0 Hz deviation.
- The AN/PRC-1177 modification is a very simple and low priced solution permitting the adaptation of inventories to the more modern tactical requirements.

OUTSTANDING FEATURES

- Fully solid state circuitry.
- Modular construction for rapid in field servicing.
- Synthesizer provides crystal control and assures immediate netting with other radio systems.
- Capability for application in "Secure Voice" systems adds greatly to its versatility.
- Completely waterproof, compact, rugged, lightweight. Same convenient front panel tuning and bandwidth controls permit easy channel presetting and frequency selection.
- 1840 channels in two frequency bands 30.00 to 52.95 MHz (low), 53.00 to 75.95 MHz (high).
- Compatible with AN/PRC-25, AN/PRC-77, AN/GRC-125, AN/GRC-160, VRC-53, AN/VRC-12, AN/VRC-43 through VRC-49 radio sets.

TECHNICAL DATA:

Frequency range:	Low band - 30.00 to 59.95 MHz. High band - 53.00 to 75.95 MHz.
Number of Channels:	1,840.
Channel spacing:	25 KHz.
Types of transmission and reception:	Transmission - Voice and 150-Hz squelch tone. Reception - Voice (no squelch); or voice and 150-Hz squelch tone.
Transmission and reception Power requirements:	Transmission - 12.5 to 15 volts DC. 780 MA average. Reception - 12.5 to 15 volts DC, 60 MA average.
Type of modulation:	FM.
Transmitter output power:	1.5 to 2.0 watts.
Type of squelch:	Tone operated by 150-Hz signal.
Distance range:	5 miles (8 km.) (varies with conditions).
Types of Antennas:	Short antenna - AT-892/PRC-77; 3' long, semi-rigid steel tape. Long antenna - AT-271A/PRC/ 10' long, multi-section whip.
Power source:	Dry battery BA-386/U, BA-398/U, BA-4386/U, or BA-7477N nickel cadmium rechargeable battery cassette.
Battery life:	(BA-398/U) - 30 hours (with a 9:1 receive-transmit ratio).
RT-841/PRC Receiver-transmitter:	Dimensions - 4" X 11" X 14" high. Weight - 13.75 lbs.

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