



AN/PRC-52 with AC and DC power module, and transport bag.

AN/PRC-52

Country of origin: USA

Remarks

The AN/PRC-52 was a fully transistorised miniature modular HF transmitter receiver. It had four crystal controlled channels for either the receiver and transmitter. Crystals were plug-in miniature types which allowed easy channel changes in a workshop. The set operated on 3-8MHz or 8-16MHz, using three different modules for each band, plus an optional RF power amplifier. The receiver module could be used independently from the transmitter as it had internal batteries and a separate aerial socket. A built-in Morse key with pullout lever and sockets for an external key were on the transmitter module. The associated power unit module acted as a base for the main modules, together with a folding frame to hold all the modules tightly together. There were two versions of the 6/12V DC power module: for low power accepting three modules, and for high power accepting four modules. The AC mains power module was for high power versions only. Additionally there was an Adapter, Battery Terminal U/218/Frame LP. Both 3-8MHz and 8-16MHz Antenna Matching Network could be used for low and high power versions. Eleven experimental sets were tested in 1961, of which the RF amplifiers still had a valve. In later trial models the RF amplifiers were transistorised. The 3-8MHz transmitter AN/PRT-2 (T-797), receiver AN/PRR-7 (R-1026) and Antenna Matching Network (CL-863/R) modules of the AN/PRC-52 were eventually used to construct the Delco 5300, which with minor changes became the AN/PRC-64. One source reported that the 'official' name of the station was Radio Station, Modular, Solid State. No further evidence on this was found. Another source mentioned 'Lightweight Communications Transmitter, Receiver No. SCC 1998'. Noted was another version (set of modules) for the 16-32 MHz range. There is no evidence that these were ever produced.

DATA SUMMARY

Organisation: US Army, possibly CIA.
Design/Manufacturer: Delco Radio Division and Victory.
Year of Introduction: Prototypes mid 1962; introduction probably mid 1960s.
Purpose: Agents; Special Forces.
Transmitter/receiver:
Frequency Coverage: 3-8 or 8-16MHz; Originally a 16-32MHz version was catered for but probably never produced. Four switched crystal controlled channels with separate crystals for transmit and receive. TX CW only. Rx CW and AM R/T.
Receiver: Single superhet using 7 transistors, 455kHz mechanical IF filter (2kHz at 3dB, 20kHz at 60dB) and variable BFO.
RF output: 5W or 20W with RF power amplifier module.
Aerial: Two lengths of wire with counterpoise.
Power Supply: Various AC voltages. 6V and 12V DC. The receiver module had two internal 1½V penlight batteries.
Size (Inches):

	Height	Width	Length
Receiver module:	3	4	1
Transmitter module:	3	4	1
RF PA module:	3	4	1½
Ant. Matching Network:	3	4	1½
LP DC power module:	3	4	1½
HP DC power module:	3	4	2
AC power supply:	3	4	2

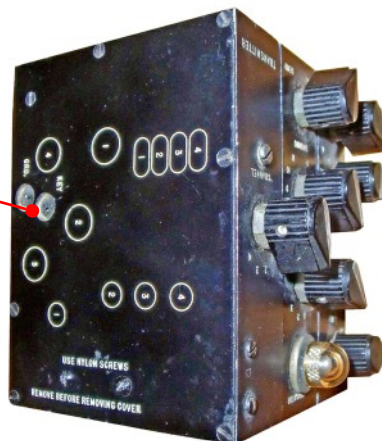
Weight: Complete station in bag without accessories:
 LP ~7lb HP ~10lb



Detail view of AC mains power unit. Note the Morse key pullout lever on the bottom side of the transmitter module.

Sockets for connecting an external Morse key.

Positions of alignment points and crystals were printed on the side panel of the receiver module.



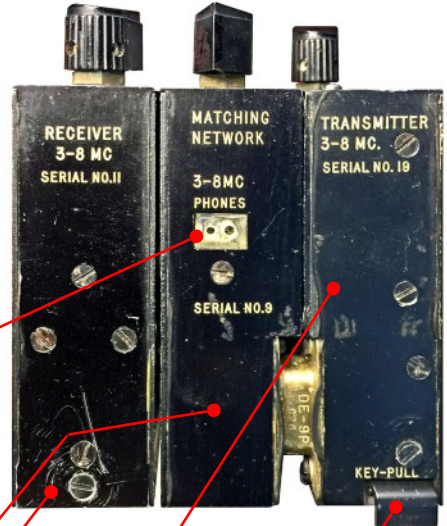
References:

- Photographs and information for this chapter was kindly provided by Brian Harrison, KN4R, USA.
- Photographs of HP version and historical development data courtesy Pete McCollum, N0TDM, USA.
- 'AN/PRC-52, Long Range HF Pouch set', British Defence Research report, April 1961.
- 'Lightweight Communications Transmitter, Receiver No. SCC 1998, Performance of engineering test models dated 2 April 58, and Amndt. No. 2, dated 6 Feb 60 - by Delco Corporation.



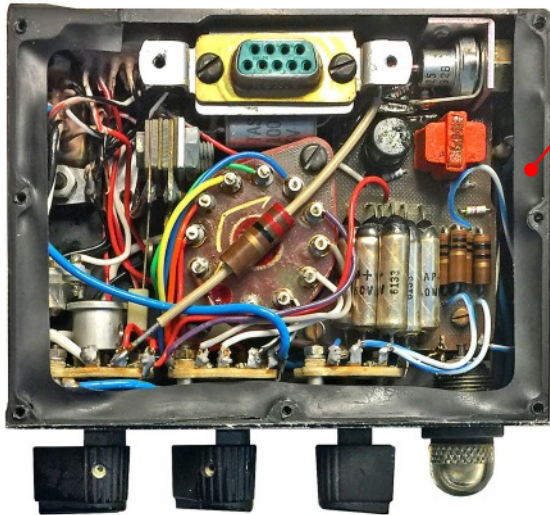
Bottom view of LP modules which were clipped on power unit module. (Low power version)

An assembled HP station. It included an RF PA and AC mains power module.
Note the RF power amplifier between the transmitter and matching network.

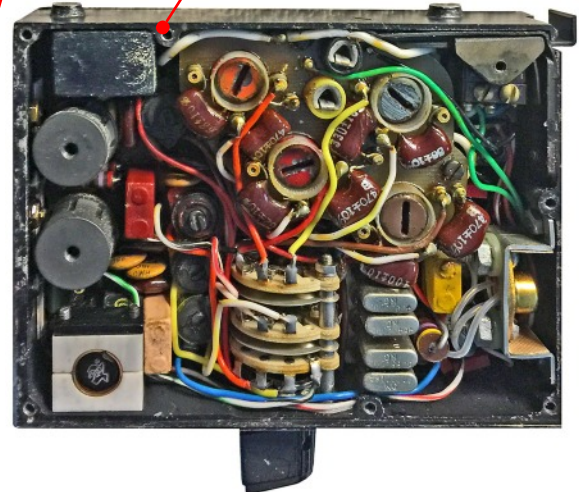


Side view low power version.

Morse key with pullout lever using a micro-switch.



Internal view Antenna Matching Network module.



Internal view of the Transmitter module.



Receiver module, both sides shown.

