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Alignment Procedure

Prepared by	
Approved by	
Rev.	A

Cat No. : 32-1258

Recommended Test Devices:

HP8920: RFCTS
 HP8591: RFSA
 DC Power
 BNC cable

Recommended Alignment Conditions:

Supply Voltage

Receiver: 12 DC+/- 0.2V or Supplied AC-DC adapter

Transmitter: 3.0 ±0.05V DC

Alignment Procedures

Transmitter Section

Frequency Accuracy Adjustment

1. Connect a BNC cable's opened end to P5 point by soldering and others BNC terminal connect to the RFIN of the RFSA.
2. Turn on the DC power and set the SW200 (OFF/MUTE/TALK) to **MUTE** mode, LED D202 lights on.
3. Set the RFSA as below:
Center freq: UUT's channel frequency
Span: 50KHz
4. Adjust L101 and VR100 until the desired frequency +/- 1KHz is obtained from the RFSA.

Distortion Tuning

1. Connect a BNC cable's opened end to P5 point by soldering and others BNC terminal connect to the RFIN of the RFCTS.
2. Connect a BNC cable's opened end to MIC+ and MIC- and others BNC terminal connect to the AUDIO OUT of the RFCTS.
3. Setup the RFCTS as follow:
TX mode
Filter: 300-3KHz
Emphasis: ON
IF filter: 230KHz

AUDIO OUT : 9.5mV

4. Turn on the DC power and set the SW200 (OFF/MUTE/TALK) to **TALK** mode, LED D202 lights on.
5. Adjust VR200 until 7KHz deviation is obtained, read the distortion from the RFCTS which will be $\leq 3\%$.
6. If the distortion is bigger than 3%, adjust VR100 until the desired value is obtained.

Mike Sensitivity Tuning

1. Setup the RFCTS as follow:
 - TX mode
 - Filter: 300-3KHz
 - Emphasis: OFF
 - IF filter: 230KHz
 - ANT IN
2. Insert an antenna to ANT In of the RFCTS.
3. Adjust the Speaker Level of the Test jig to 106dBspl .
4. Put the UUT into the Test Jig and set the SW200 (OFF/MUTE/TALK) to **TALK** mode.
5. Adjust VR200 until 7KHz deviation is obtained.