

TK-285 Tuning procedure

Before attempting to tune the transceiver, connect the unit to a suitable power supply. Whenever the transmitter tuned, unit must be connected to a suitable dummy load, unless the instruction specify otherwise. The speaker output connector must be terminated with a 4 Ohm dummy load at any time during the tuning and connected to an AC voltmeter and an audio distortion meter or a SINAD measurement at all the time during the tuning.

Power SW on during "B" push to test mode [1-1] then push "A" to tuning mode.
This mean using 3 numbers from CHANNEL NOB.

1 Transmitter section

1.1 Frequency adjustment

Set test mode CH1, Push "S" to enter tuning mode, Select [FREQ], then PTT on.
160.100MHz±50Hz.

1.2 TX High power adjustment

Set test mode CH1, Push "S" to enter tuning mode, Select Hpow, Push "A" to 5 points.

- a) Select [L Hpow] then PTT on 4.8W±0.1W.
- b) Push "D" to select [L2 Hpow] then PTT on, push "C" after tuned.
- c) Push "D" to select [C Hpow] then PTT on, push "C" after tuned.
- d) Push "D" to select [H2Hpow] then PTT on, push "C" after tuned.
- e) Push "D" to select [H Hpow] then PTT on, push "A" to return test mode.
The TX current is 2.2A or less.

1.3 TX Low power adjustment

Set test mode CH1, Push "S" to enter tuning mode, Select L pow, Push "A" to 5 points.

- a) Select [L Lpow] then PTT on 1.0W±0.1W.
- b) Push "D" to select [L2 Lpow] then PTT on, push "C" after tuned.
- c) Push "D" to select [C Lpow] then PTT on, push "C" after tuned.
- d) Push "D" to select [H2 Lpow] then PTT on, push "C" after tuned.
- e) Push "D" to select [H Lpow] then PTT on, push "A" to return test mode.
The TX current is 1.0A or less.

1.4 DQT BAL adjustment

Set test mode CH1, Push "S" to enter tuning mode, Select [BAL] Push "A" to enter 3 Points,

- a) Select [LBAL] adjustments mode then PTT on Push "C" after tuned .
- b) Push "D" to select [C BAL] then PTT on push "C" after tuned.
- c) Push "D" to select [H BAL] then PTT on push "C" after tuned.
Push "B" to return to tuning mode.

1.5 Max deviation adjustment

Set test mode CH1, push "S" to enter tuning mode, Push "A" to 3 points adjustment mode.

- a) Select [L MAX] then PTT on push "B" after tuned.
- b) push "D" to select [C MAX] then PTT on push "C" after tuned.
- c) push "D" to select [H MAX] then PTT on push "C" after tuned
Push "B" to return tuning mode.

Deviation±1.85KHz

1.6 QT Deviation adjustment

- a) Push "A" to enter tuning mode select [FQT□□□] push "B" to adjustment mode.
Select [L FQT□□□] then PTT on push "C" after tuned.
Deviation □0.35KHz
- b) same [C FQT□□□]
- c) same [H FQT□□□]

1.7 DQT Deviation adjustment

- a) Same as QT. Select [FDQT□□□]
 - b) same as [L FDQT□□□]
 - c) same as [C FDQT□□□]
 - d) same as [H FDQT□□□]
- Deviation □0.35KHz

1.8 DTMF Deviation adjustment

- a) Select [DTMF□□□] Deviation □1.4KHz(□0.05KHz)

1.9 MSK Deviation adjustment

- a) Select [FMSK□□□] Deviation □1.4KHz(□0.05KHz)

1.10 TONE Deviation adjustment

- a) Select [DTMF□□□] Deviation □1.4KHz(□0.05KHz)

2 Receiver section

2.1 Sensitivity

- a) Select [SENS□□□] 12dB SINAD or more.

2.2 Tight squelch adjustment

- a) Select [SQL□□□] Adjust to point of opening squelch.

3 Reference shift low(Use KPG-36,KPG-49D)

- a) connect to PC and FPU cable with Radio.
- b) Push to "Alt" to test mode from program.[CH:No1, Signaling No:1]
- c) Push to PF10 to tuning mode.
- d) Select Reference shift Low.
- e) Push SPARE BAR(PTT ON)

4 Reference shift low(Use KPG-36,KPG-49D)

- a) Push to "Alt" to test mode from program.[CH:No1, Signaling No:1]
- b) Push to PF10 to tuning mode.
- b) Select Reference shift High.
- e) Push SPARE BAR(PTT ON)