

APCO P-25 Sound Quality Fine Tuning

With each APCO Project 25 system, particularly at 800MHz, the sound quality (C4FM Demodulation Threshold) may need to be fine tuned specifically for that system. If the scanner is not adjusted correctly, the P-25 voice transmissions will sound robotic or unintelligible.

To adjust the sound quality to match the P-25 system you want to monitor follow these four steps:

1. While monitoring a specific APCO P-25 frequency, press the **HOLD/MAN** key.

Note: In the Trunking mode, press the **TRUNK** key instead of the **HOLD/MAN** key.

2. Press and hold the number **9** key.
3. On Line 1 of the screen you will see SOUND QULTY: 0050 (for example).

SOUND QULTY:0050
867.8375 P25.■■■■
Low Mid Upp
0533 1985 3342

This shows the Sound Quality. The lower the level the better the Sound Quality. For better Sound Quality rotate the **VFO** up or down. As the threshold adjusts in increments of 50 at the bottom of the screen watch the Sound Quality level increase or decrease and continue to rotate the **VFO** until you have achieved the lowest Sound Quality level.

- Note:**
- When APCO P-25 signal is not received, SOUND QULTY: ***** appears on the display.
 - You must have the BCi25D card installed and have an APCO P-25 signal during this adjustment.
 - A chart showing the Threshold Adjustment Range is listed below.

Threshold Adjustment Range

Band	Lower			Mid	Upper		
	Min	Default	Max	Default	Min	Default	Max
800MHz	33	533	1883	1985	1992	3342	3842
UHF	33	633	1883	1985	1992	3342	3842
VHF	330	930	2130	2147	2264	3464	4064

- Note:**
- The above Min and Max values are the calculated values that can be

assigned theoretically, and the values are not to guarantee the operation of the unit.

- The Mid threshold value will not change while adjusting the upper and lower limits.
4. Once you have adjusted the Sound Quality to the lowest possible level, press the **E** key.

Press the **RSM** key to exit the Sound Quality Adjustment Mode.

- * To cancel the adjusted threshold level, press \odot (Decimal) key.
- * The adjusted threshold level for the current frequency can be set back to the default value by pressing and holding the \odot (Decimal) key.
- * When you change the Sound Quality it affects all other APCO P-25 signals in that same band. (UHF, VHF, or 800MHz)
- * You cannot enter the "Sound Quality Fine Tuning" mode when the scanner is operating as follows:
 - 1) The receiving frequency is 0 MHz.
 - 2) Air Band Frequency
 - 3) BCi25D card is not inserted
 - 4) BCi25D / P-25 monitoring is disabled