

Radio Layout



Specs

Receivers Single receiver, dual watch (first to break squelch wins)

Receives 108–520 MHz AM/FM, 700–999 MHz AM/FM

Transmits 144–148 MHz @ 5 W FM, 430–450 MHz @ 5 W FM

Antenna connector SMA F on radio; needs SMA M antenna

Modes FM

Memory Channels 1000

Power 6–16 V DC, EIAJ-02 barrel style, 4mm OD, 1.7mm ID plug, center positive

Model year 2004

Standard Tasks

Program frequency in the field

1. If you aren't already in VFO mode, press **[V/M]**. The screen will show channel numbers in the upper left if you aren't in VFO mode.
2. Set frequency: use the keypad (144390 for 144.390 MHz).
3. Enter menu mode: press **[F/W]** **[0]** (SET).
4. Set transmit tone type: use the knob to select **48:SQL.TYP.** Press **[F/W]** to adjust, and use the knob to select from **TONE** (transmit tone, no tone squelch), **TSQL** (transmit tone and receive tone), **REV TN** (squelch when tone received), **DCS** (DCS) or **OFF**. Press **[F/W]** when done.
5. Set transmit tone: use the knob to select **50:TN FRQ.** Press **[F/W]** to adjust tone frequency. Use the knob to adjust, and press **[F/W]** when done. Use menu **13:DCS.COD** instead for DCS.
6. Set repeater shift: use the knob to select **38:RPT.MOD.** Press **[F/W]** to adjust, and use the knob to select from **RPT. +**, **RPT.OFF** (simplex) or **RPT. -**. Press **[F/W]** when done.
7. Exit menu mode: hold **[F/W]** for at least half a second.
8. Set transmit power: press **[F/W]** **[3]** (TX PO). Use the knob to select power level: **HIGH 5 W**, **MID 2 W**, or **LOW 0.5 W**. Press and release **[F/W]** to set.
9. Write to a memory: hold **[F/W]** for at least half a second.
10. Use the knob to select the desired memory.
11. Press and release **[F/W]** to write.
12. Go to memory mode: press **[V/M]**. The display will show **MEMORY** briefly and then show a channel number in the upper left.
13. Select the memory you just wrote: use the knob.

Lock/unlock radio

Press **F/W** **6** (LOCK) to lock/unlock.

Check repeater input frequency

Press and release **HM/RV** to switch between reverse and regular modes.

Change power in the field

To set transmit power, press **F/W** **3** (TX PO). Use the knob to select power level: HIGH 5 W, MID 2 W, or LOW 0.5 W. Press and release **F/W** to set.

Adjust volume

Rotate the center power/volume knob to adjust volume.

Adjust squelch

Rotate the outer ring of the selection knob to adjust RF squelch.

Weird Modes

If someone says you have WIRES mode turned on

You are transmitting a DTMF tone that interrupts your first few syllables. You will see ☒ in the upper right of screen. Press and release the **0** (SET) key once. The ☒ should go away.

Radio shows OUTRNG

This means you have ARTS mode enabled. Press and hold **4** (CODE) for two seconds to disable.

Can't enter VFO mode

This radio has a "memory-only" mode which prevents you from entering frequencies directly. To disable it (or re-enable it), hold **MONI** and turn the radio on. Use the knob to select F5:M-ONLY. Press **F/W**. The radio will reboot.

Can't enter VHF or UHF frequencies

This radio can be locked to UHF only or VHF only. To disable (or re-enable) this mode, hold **MONI** and turn the radio on. Use the knob to select F6:V-ONLY or F7:U-ONLY. The radio will reboot.

DTMF doesn't send tone on transmit

By default, the radio starts up in DTMF Memory mode. Pressing a number key while you hold **PTT** will send the number stored in that memory. Usually these memories are empty so nothing will be sent, although ***** and **#** always transmit.

To have the radio play the appropriate touchtone instead, press **F/W** **9** (DTMF). The radio will show **CODE**. At that point, pushing a number while **PTT** is held will send the touch tone. Press **F/W** **9** again to switch back to memory mode (**MEM**), if desired.

Useful Information

There are two programmable function keys, **7** (P1) and **8** (P2). By default, **7** (P1) is assigned to **29:PAGER** and **8** (P2) is assigned to **46:SKIP**. These can be changed: enter memory mode with **F/W** **0** (SET) and then select a menu using the knob. Next, hold **7** (P1) or **8** (P2) for one second to assign the menu item to that button. Hold **F/W** to exit the menu.

Factory reset

To reset everything, hold **MONI** and turn the radio on. Use the knob to select **F4:ALLRST** (reset everything). Press **F/W** to reset.

Memory reset

To reset all memories, hold **MONI** and turn the radio on. Use the knob to select **F2:MEMRST** (reset memories). Press **F/W** to reset.

Memory bank reset

To reset memory bank assignments but not memories, hold **MONI** and turn the radio on. Use the knob to select **F3:MB RST** (reset memory banks). Press **F/W** to reset.

Settings reset

To reset most settings but leave memories intact, hold **MONI** and turn the radio on. Use the knob to select **F1:SETRST** (reset settings). Press **F/W** to reset.