

FT 90R Operation Notes

Microphone (MIC) Switches

DWN	lower VFO or MR; hold 1 sec to start scanning
UP	higher VFO or MR; hold 1 sec to start scanning
PTT	push-to-talk button
ACC	activate Priority Channel monitoring system
VFO/MR	switch between VFO and MR modes
LOCK	disables the MIC buttons
LAMP	up to enable lamp for night operation
P1	select tone squelch type: CTSSSW, DCS, BELL, or OFF (no tone), p. 28
P2	power output level; LOW (5w), MID2 (10w), MID1(20w) and HIGH (35w UHF/50w VHF)

Front Panel Switches

PWR	power on/off
DISP SS	change display
MAIN DIAL	move up/down between frequencies or Memory Channels, within the selected band of operation. See page 20 for setting the 1 MHz or 10 MHz ranges.
VOL	change volume
SQL	adjust squelch – to set, turn clockwise <u>slightly</u> past the point where the background band noise is muted, turn all the way counterclockwise for maximum sensitivity to weak signals
◀ RV	Reverse
SET - VU	switch between VHF/UHF in VFO mode, Frequency/Alpha in Memory Mode
▶ RP (RPTR)	Repeater Shifts are ARS (automatic repeater shift), - (minus), + (plus), OFF (simplex), etc

Display Options

Voltage Display	DC supply voltage
Control Mode	V is VFO, M is Memory, m is Memory Only, P is Priority Channel Scanning, p is Programmable Memory Scan (Band Limits)

Locking

MIC keypad	use the LOCK switch on the right side of the microphone
Front panel	menu item “20LOCK”
RF Squelch	press menu item “27RfSql”; select the squelch threshold (S-3, S-5, S-FULL, OFF). Save the new setting. Now, only signals exceeding the prescribed S-meter level will open the squelch. Now set SQL as above.

Memory Operations

Memory Storage

1. In VFO mode, select the desired frequency, repeater shift, CTCSS tone, TX power level.
2. Press and hold in the VFO/MR button on the MIC for 1 second.
3. Within 5 seconds, use the MAIN DIAL (or MIC UP/DOWN buttons) to select the desired memory channel.
4. Press the VFO/MR button again momentarily to store the data into the memory channel.

Naming and Displaying Memories

1. Recall the memory to be named.
2. Press and hold SET for 1 second, then rotate MAIN DIAL to menu item “02ALPHc”.
3. For each blinking position, use ◀ or ▶ to choose the desired character. Press SET to set the character and move one position to the right.

Loading a Memory into the VFO – or how to start from an existing Memory without Erasing It

1. Recall the Memory Channel.
2. Press and hold the MAIN DIAL for one second. The radio will switch to VFO mode, with all the memory channel settings as they were.
3. Continue with the Memory Storage process or VFO tuning.

Memory Recall

1. If in VFO mode, momentarily press VFO/MR button.
2. Use the MAIN DIAL knob or the MIC UP/DOWN buttons to select the memory channel. Or, use **direct keypad memory recall**: press the digits on the keypad, followed by the * key.

Menu Setting

1. Press and hold SET key for 1 second.
2. Turn the MAIN DIAL to the menu item.
3. Press ▶ to change between settings. Note that the display may show a ▼ character to show what to press to change settings.
4. Press and hold SET for 1.5 sec to save the new setting.

Menu #	Name	Settings	Explanation	Page
01	ALPH	On, Off	Enable/disable the Alphanumeric Display	53
02	ALPHc	--	Allows alphabetic entry of names for memory channels	36
03	APO	1 – 12 hrs, OFF	Automatic Power Off. Turns the radio completely off after the defined # of hours with no PTT activity.	46
04	not used			
05	ARTS	RX, TX, TRX, OFF	Sets the Auto Range Transpond System	43
06	BEEP	On , Off	Turns on/off the audible feedback for the buttons; note that the volume level of the beeps is fixed	22
07	CWID	On, Off	Turns on the CD ID (Morse Identifier)	44
08	CWID#	--	Allows setup of CW ID (Morse Identifier); part of the ARTS feature	44
09	D Con	0 – 12	Set the display contrast; default is 6	23
10	D Dim	d1 , d2, d3, d4 or OFF	Set the display illumination	23
11	DCIN	--	Indication of the supply voltage	54
12	DCS#	104 std DCS codes	Set the DCS code to one of the 104 standard codes; default is 023	54
13	DCS	--	Active the DCS Code Search Scanner	30
14	DCSnr	TRX NOR , RX REV, TX REV, TRX REV	Normally, this should not be changed. See manual. Selection of Normal or Inverted DCS code	48-49
15	DTMFd	50, 250, 450 , 750, 1000 ms	Set delay between the time the SET key is pressed and the first DTMF digit is sent	32
16	DTMFs	50 ms , 100 ms	Set speed at which DTMF digits are sent	32
17	DTMFw	--	Sets/Accesses the autodialer feature	31
18	FAN	AUTO, TX, AUTO/TX , OFF	Changes the operating mode of the cooling fan. AUTO = high speed fan when temp rises, low speed otherwise; TX = high speed during Tx + 30 sec, otherwise low; AUTO/TX = AUTO and TX conditions; OFF = the fan is continuously low speed	47
19	LckTx	BAND A, BAND B, BOTH , OFF	Lock out PTT and prevent transmission BAND A = VHF, BAND B=UHF	24
20	LOCK	On, Off	Lock front panel	20
21	PCKT	1200 bps , 9600 bps	Sets the packet baud rate; can be set separately for each band	17,45
22	Pg: ◀	TONE, PRI, SCAN UP,	Programming the ◀ key assignment, default is REVERSE	47
23	Pg: ▶	SCAN DN, RPTR,	Programming the ▶ key assignment, default is RPTR	47
24	Pg:P1	REVERSE, T.BURST,	Programming the P1 key assignment, default is TONE	47
25	Pg: P2	TX PWR, HOME CH,	Programming the P2 key assignment, default is TX PWR	47
26	Pg: AC	VFO/MR	Programming the ACC key assignment, default is PRI	47
27	RfSql	S-3, S-5, S-FULL, Off	Set RF squelch so that only signals exceeding the prescribed S-meter level will open the squelch	18
28	RPTR	ARS , Shift -, Shift +, OFF	Setting the Repeater Shift Direction	57
29	SCAN	Busy , Time	Sets the scan-resume mode: Busy stops as long as signal is present, Time stops for 5 seconds only	38
30	Shift	Multiples of 50kHz	Sets the default repeater shift; factory set at 600 kHz VHF and 5.0 MHz UHF (US)	25
31	SKIP	SKIP/STOP	Marks memory channels to be skipped during scanning, see manual	39
32	STEP	5.0 , 10.0, 12.5, 15.0, 20.0, 25.0 , 50.0	Sets KHz step size for the current operating band; default is 5.0 for VHF , and 25 for UHF .	22
33	TONE	ENC, ENC/DEC, BELL, DCS, OFF	Select the CTCSS/DCS Operation Mode	28,58
34	TONEf	39 std CTCSS Tones	Select the CTCSS Tone Frequency; default is 100.0	28,58
35	TOT	1 – 60 min., Off	Sets the Time Out Timer, which is the maximum TX time for the MIC. Default is 6 minutes .	46
36	TxNar	On, Off	Reduce MIC gain; set the transmitter deviation to Narrow, to minimize interference on tightly clustered bands	32
37	TxPwr	HIGH , MID1, MID2, Low	set the TX output power; used to set for memory channel storage	24,34
38	AM	INHIBIT, AM, AUTO	Set AM Model Activation: inhibit = don't allow activation of AM mode within 110-136 MHz, AM = force the mode to be AM within the range, auto = automatic mode selection within the range	21