

Yaesu FT-65 User Manual

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This is a dual band (VHF & UHF) Amateur Radio with an FM radio built in with an FCC ID K66 20665X20 granted on 2/13/17 under part 15B.

Receiver Ranges are: 65 – 108 MHz FM Broadcast
 136 – 174 MHz VHF
 400 – 480 MHz UHF

Antenna connection

The antennas for this radio need to be SMA female. I suggest the Nagoya NA-702.

Special Note

The **0 SET** button: SET has no function or purpose on this radio. This is confusing for users of other Yaesu radios like the FT-60 where F/W & SET opens the menu.

VFO / CH mode

Press the *V/M button. This switches between VFO and Memory.

Switch bands

In VFO mode, press the #BAND button.

Pressing the #BAND button in memory mode switched to offset tuning. It is also a way to see the frequency of the channel you are on. Press #BAND again to exit.

FM & WX & Flashlight

FM Broadcast In VFO mode, press the #BAND button to cycle to FM

Weather Press and hold the 1 button to turn on or off

 Use the arrow buttons to cycle through the WX channels

Weather Alert Press and hold the FUNCTION key (bottom key with 2 lines)

 Move to menu item 38 using the arrow buttons

 Press the FUNCTION key

 Use the arrow buttons to choose On or Off

 Press the FUNCTION key

 Press the PTT key to exit the menu system

Flashlight Press the orange button next to the volume knob to turn it On or Off

Accessing the menu system

NOTE: Yaesu calls the menu system "Set Mode."

The menu item list is in alphabetical order.

Press and hold the FUNCTION key (bottom key with 2 lines)

Move to menu item you want in the list by using the arrow buttons

Press the FUNCTION key

Use the arrow buttons to make your choice

Press the FUNCTION key to return to the menu item list

Press the PTT key to exit the menu system

Roger beep

This radio does not have this feature

Lock keys

Press and hold the number 6 button to lock or unlock the buttons

A lock icon will appear on the screen

Menu item 15 KEY LOCK allows you to change what gets locked out.

The front panel keypad, the PTT, or both.

Tuning

Tune to a frequency in the VFO (variable frequency oscillator) mode.

Cycle through the bands by pressing the #BAND button. VHF → UHF → FM

Directly input the frequency using the numbered keypad.

Adjust the frequency using the up and down arrows.

Menu item 30 STEP allows you to change the tuning steps.

Adjust the MHz step if it jumps away from the exact frequency you need.

This radio does not receive Air-Band so it does not need a 8.33kHz frequency step.

It does have 5 / 6.25 / 10 / 12.5 / 15 / 20 / 25 / 50 / 100 kHz and AUTO settings.

Repeater Shift + - ARS

FUNCTION KEY (bottom key with 2 lines) for navigating multi-selection menus.

- Press and hold the **FUNCTION** key
 - Enters the menu list
 - Backs out of the numbered menu item
- Press the **FUNCTION** key
 - Selects an item in the menu list
 - Goes into or out of the menu sub selection

Menu item 24 REPEATER allows you to change all repeater settings on one screen.

ARS : ON, OFF automatic repeater shift

MODE : SIMPLEX, +REP, -REP This is for manual setting of shifts

Mode is ignored if ARS is ON

SHIFT : Set the MHz shift for a repeater. It is a different number depending on the band you are in.

VHF 0.600M

UHF 5.00M

Squelch Codes

The FT-65 does allow “split tones” to be set from one menu screen on the radio.

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8 CTCSS
CTCSS TONE
TX : 100.0Hz
RX : 100.0Hz

11 DCS CODE
DCS CODE
TX : OFF
RX : OFF

29 SQL TYPE
OFF

Bold is most common

R-TONE

T-TONE *no RX tone used*

TSQL *Both TX &RX used*

REV TN

DCS *Use the DCS codes*

PAGER

The settings in menu items 8 and 11 are activated by the setting in menu item 29.

FUNCTION then **P3** accesses menu item 29 SQL TYPE.

Memory

There are 200 memory location.

10 memory banks that can be filled with any of the 200 memory channels.

In VFO mode, select the frequency and settings.

Press and hold the *V/M button

Use the up and down arrow buttons to go to the channel number you want to save to.

TAG: Use the letter buttons to input the characters.

Press the FUNCTION key to move the cursor to the next character position.

Press and hold the *V/M button to store the frequency and settings

Saving memory name "Tag"

One nice feature of the FT-65 is that the process of saving to memory includes naming it. (see above)

If you want to change the name, go to the memory channel, then use menu item 20 NAME TAG and follow the TAG process above.

Recall a memory

There are two ways to recall a channel when in Memory mode

- 1) Use up and down arrow buttons
- 2) Type in the memory channel number

Memory Banks

The 10 memory banks that can be filled with any of the 200 memory channels.

Use (recall) Banks	Exit Banks	Add Memory to Bank	Remove Memory from Bank
In Memory mode	In Bank mode	In Memory mode select the channel	Recall (go to) Bank
Press & Hold #BAND	Press & Hold #BAND	Press & Hold #BAND	Select the channel to remove
Select BANK 1 thru 10	Select NO BANK	Select BANK 1 thru 10	Press & Hold #BAND
Press *V/M	Press *V/M	Press & Hold FUNCTION key	Press & Hold FUNCTION key
		Press PTT	

Move Memory Frequency and settings to the VFO

This radio does not have this feature

Scan

Press and hold the up or down arrow button.

Press an up or down arrow button to stop scanning.

Menu item 25 RESUME sets how the scan resumes after stopping on a frequency.

This radio does not have a CTCSS/DCS scanning feature

Skip a memory on scan

NOTE: A skipped memory channel will have a M-in-an-arrow-box icon

Press and hold the FUNCTION key (bottom key with 2 lines)

Move to menu item 28 SKIP by using the arrow buttons

Press the FUNCTION key

Use the arrow buttons to move to the memory channel you want to skip

Press the FUNCTION key to cycle between skip and scan (skip is the highlighting)

Press and hold the FUNCTION key to return to the menu item list

Press the PTT key to exit the menu system

Output power

NOTES: Power levels are 0.5, 2.5 and 5 Watts

Low and Medium power display their letter in the lower left of the screen

Two ways to change power levels (This can be done in VFO & Memory mode)

- 1) Menu item 32 "TX PWR"
- 2) Press the FUNCTION key then press the P2 button, press FUNCTION key to exit

Battery voltage

The bars in the battery icon are accurate.

Two ways to check the actual battery voltage

- 1) Watch the screen when you turn on the radio
- 2) Menu item 10 DC VOLT

Battery options

SBR-25LI 1,950 mAh Lithium Ion

SBR-26LI 2,500 mAh Lithium Ion

The battery is labeled 7.4 Volts DC

It charges up to about 8.3 Volts and is empty at about 6.9 volts

Function buttons P1, P2, etc.

The FT-65 has four programmable buttons. The preassigned functions are accessed by pressing FUNCTION and then the P button.

Keystrokes	Function called
FUNCTION then P1	Go to HOME channel How to change the home channel: In VFO, press the #BAND button (VHF, UHF, FM) and select the desired frequency. Press the P1 button. HOME-IN will appear.
FUNCTION then P2	TX PWR setting
FUNCTION then P3	SQL TYPE setting
FUNCTION then P4	REV (reverses the repeater input and outputs)

What happens when the P buttons are pressed can be user programmed.

1. Go to a frequency, Memory channel, Menu item or FM station.
2. Then press and hold the P button you want to program.

Recall the setting by pressing the P button.

MARS CAP modification to unlock, open TX

This is a software reset on the radio. It does not delete the memories or settings.

With the radio Off. Press and hold the PTT and MONI key (middle key with 1 lines)

Turn on the radio and release the keys

Type 62406665

The radio will restart with extended transmit enabled

Repeat the process to disable extended transmit

Extras

This is a “user” radio that is specialized for Amateur radio operators of all skill levels.

By “user” radio, I mean that its type of operation can be limited so you can put the radio in anyone’s hands and they can’t mess anything up.

RESET / USER LIMITS / CLONING

With the radio Off. Press and hold the PTT and MONI key (middle key with 1 lines)

Turn on the radio and release the keys

Purpose	Display	Description
Reset	F1: SET RESET	Reset the set (menu) settings to factory defaults.
Reset	F2: MEM RESET	Clear the memory settings to factory default.
Reset	F3: BANK RESET	Clear the memory bank assignments.
Reset	F4: ALL RESET	Clear all memory and other settings to factory default.
User	F5: MEM-ONLY	Operation on Memory mode only. Using at an event?
User	F6: VHF-ONLY	Operation on the VHF band only. Antenna restrictions?
User	F7: UHF-ONLY	Operation on the UHF band only. Antenna restrictions?
User	F8: DUAL DISP See Dual Display on next page	Display both VFO-A and VFO-B on the same screen. Two-line display in Memory mode. Or Split band VFO use. RX on one band and TX on another
Cloning	F9: CLONE	Enters clone mode.

For User settings, do the process again to turn it off.

Cons

Has a non-standard speaker/microphone jack. The Yaesu part numbers that work are:

Speaker/Mic SSM-17B and Earpiece/Mic SSM-512B

FT-65 Dual Display – the undocumented feature

Turn dual display function on and off

FT-65R/FT-65E Operating Manual, page 24 Steps 1 – 5

FT-65R/FT-65E Advance Manual, page 7 Steps 1 – 4

- With the radio turned off
- Hold the **PTT** and **Monitor** (single line) buttons *(these are the top two buttons on the side)*
- Turn the radio on
- Release the side buttons
- Move in the menu to F8:DUAL DISP
- Press the **Function** (two lines) button
 - The screen will flash and enter the new mode

VFO Split Mode or Dual Display

↓ In the Manual ↓

Once in the F8:DUAL DISP dual display mode you have two VFO functions to choose from.

1) Split Mode Set menu item 34 VFO.SPL to ON

- Split mode is for working repeaters with odd splits or communicating with astronauts on orbiting space vehicles.
 - The top line is the receive frequency.
 - The bottom line is the transmit frequency.
- The split mode is well described in FT-65R/FT-65E Advance Manual, page 7, Steps 1 – 14.

↓ Undocumented ↓

2) Dual Display Set menu item 34 VFO.SPL to OFF *default*

- This is the setting that most people are expecting to see when they think of a dual display radio.
- The dual display mode VFO screen is shown in FT-65R/FT-65E Operating Manual, page 13.
- No other documentation is in the manuals for the non-split dual display operation.
- Dual Display has three screens
 - **A** VFO as the main channel with **B** underneath. Transmits on **A**.
 - **B** VFO as the main channel with **A** underneath. Transmits on **B**.
 - Dual display for a memory channel.
 - Memory name (tag) on top
 - Memory frequency on the underneath

How to change 34 VFO.SPL

- Menu item 34 VFO.SPL can only be chosen if you are in F8:DUAL DISP dual display mode.
- Press and hold the **Function** (two lines) button
- Use the arrow keys to find menu item 34 VFO.SPL
- Press the **Function** (two lines) button
- Use the arrow keys to select ->VSP.ON or ->VSP.OFF *(default is OFF)*
- Press the **PTT** button or press and hold the **Function** (two lines) button to accept and exit

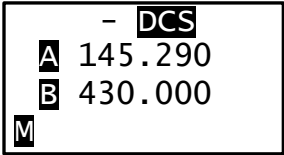
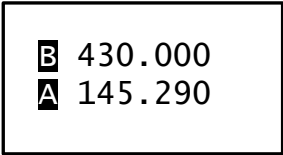
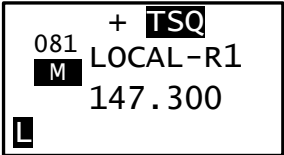
FT-65 Dual Display – the undocumented feature

How Dual Display Works 34 VFO.SPL to OFF

Overview

- * Transmit happens on the main band (top frequency display).
- * The settings in the display are for the main band.
- * Receive happens on both A & B, but only one at a time unless the FM radio is being listened to.
- * FM broadcast radio can only be received on B band.

The Three Screens

VFO	VFO	Memory
		
Press *V/M	Press *V/M	
A is the main band Medium power 2.5W 144.010 – repeater shift With Digital Coded Squelch #BAND button VHF -> UHF -> VHF	B is the main band High power 5W UHF simplex No squelch tone is set #BAND button VHF -> UHF -> FM -> VHF	You are in memory mode Low power 0.5W Local repeater with + offset Tone Squelch (TX & RX) The alpha name and frequency are shown for memory 081 #BAND button memory offset tuning (page 33)

Listening to FM broadcast stations

FT-65R/FT-65E Operating Manual

page 22

- Press the *V/M button until **B** is on top
- Press the BAND# button to cycle to the FM broadcast
- Type in the station frequency or
 - Search for a station by holding down an arrow key
 - Press the arrow key when found (the decimal point will stop blinking)
 - B** will flash when a station is heard

Quick Reference

Press	*V/M	A B	B A	M	↵
	#BAND	UHF	FM	VHF	↵

- Dual/single display:
- 1) Hold the **PTT** and **Monitor** (single line) buttons while turning the radio on
 - 2) Move in the menu to F8:DUAL DISP
 - 3) Press the **Function** (two lines) button