How Do I...

An Occasional Series

This Week: How to Operate That Field Day Rig You Never Saw Before
Kenwood TS-570S Transceiver

This article first appeared in the September 2024 Meeting Agenda of the Cumberland Amateur Radio Club.

It has been reproduced here so that can be more readily accessible when needed.

The theme of this article is the identification and operation of various buttons and knobs found on the Kenwood TS-570S transceiver.
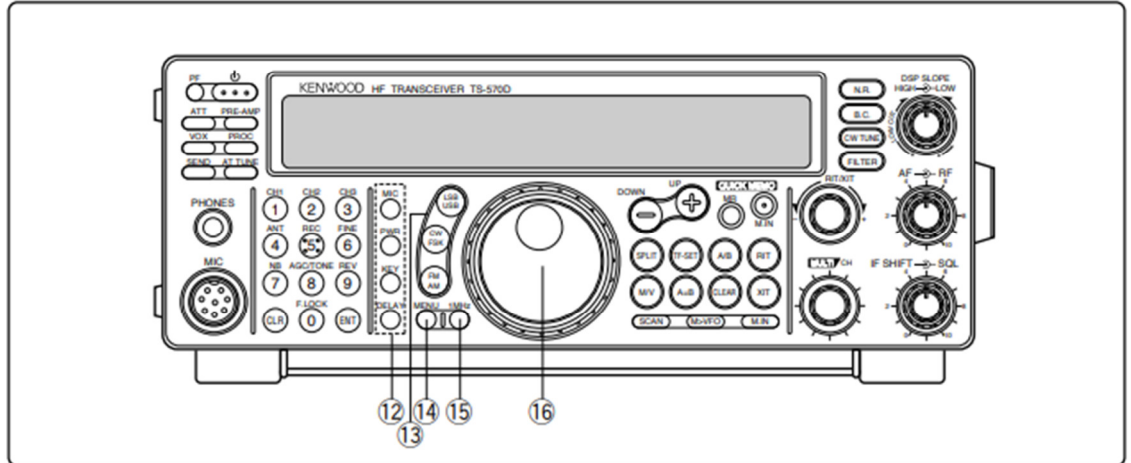
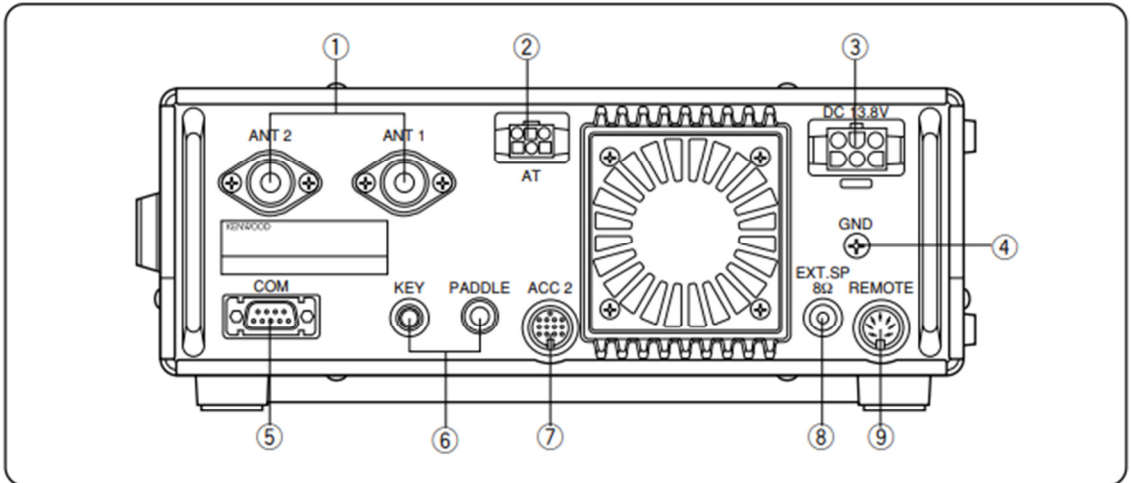|	

Kenwood TS-570S
Kenwood TS-570D
 	
Standard
Configuration
 	
Notes:
 	
When dealing with
headphone, morse
code key, or keyer
paddles:
 	
6 mm is the same
as ¼ inch.
 	
3.5 mm is the same
as 1/8 inch.
 	
Coverage Notes:
 	
We are not dealing
with the following in
this document:
 	
Memory Channels,
Repeater Ops,
Menu Functions,
Programmable
Scanning,
Memory Channel
Scanning,
Microprocessor
Reset (DO NOT !),
Transverter Ops,
Digital Recording,
	Kenwood TS-570S supports HF and 50 MHz operation.
	Kenwood TS-570D supports HF operation, with no 50 MHz coverage.
	Both models produce up to 100 Watts RF Output
	Both models include an automatic Antenna Tuner
	Neither model supports 60 Meters
	
	Kenwood TS-570 Front Panel:
	
	Kenwood TS-570 Rear Panel
	
	Attach an Antenna or Two Antennas.
	    Ant 1 for HF. e.g. Butternut Multi-Band Vertical TS-570S also supports 50 MHz (6 meters)
	    Ant 2 for HF .e.g. Wire Dipole for 160 Meters TS-570S also supports 50 MHz (6 meters)
	Attach a DC Power Cord. Connection uses MOLEX 6 PIN plug and socket
	
	Maybe attach a CAT Cable. Radio connector uses DB-9 male. Your cable uses DB-9 female.
	
	Attach a Key or Paddle.
	The jack labeled KEY accepts a two-conductor plug and cord. This jack is used for a Straight
	Key, Bug, or Cootie Key connection. The plug specification is 3.5 mm, two-conductor
	The jack labeled PADDLE accepts a three-conductor plug and cord. This jack is used for an
	Electronic Keyer connection. The plug specification is 6 mm, three conductor
	DOT is TIP, DASH is SLEEVE, COMMON is RING

Kenwood TS-570S Kenwood TS-570D Push Buttons Bands and Modes Notes: Acronym LCD is Liquid Crystal Display.	Upon power-up the rig will have the same band and mode attributes as it had just prior to being powered-off at the end of the previous session.

Upon power-up the rig will have the same band and mode attributes as it had just prior to being powered-off at the end of the previous session.

The frequency is displayed in Megahertz (MHz) using up to 5 digits to the right of the decimal.

VFO A and VFO B. The button labeled A/B enables the operator to toggle between the frequency/mode stored in VFO A and the frequency/mode stored in VFO B. The LCD shows the active VFO letter to the right of the frequency read-out display.

Using the UP or DOWN button changes the digit(s) to the left of the decimal, as shown in the following list:

1 MHz	3 MHz	7 MHz	10 MHz	14 MHz	18 MHz	21 MHz	24 MHz	28-29 MHz	50 MHz
160 meters	80 meters	40 meters	30 meters	20 meters	17 meters	15 meters	12 meters	10 meters	6 meters

UP Refers to moving up to a higher frequency. Each button press increments the frequency band until reaching the upper limit. Then resumes at the lowest frequency band.

DOWN. Refers to moving down to a lower frequency. Each button press decrements the frequency band until reaching the lower limit. Then resumes at the highest frequency band.

LSB/USB Pressing the button toggles MODE between LSB (Lower Side Band) and USB (Upper Side Band).
Use LSB on the lower bands – 160, 80, and 40 meters. Morse Code L identifies LSB.
Use USB on the upper bands – 30*, 20, 17, 15,.12, 10, 6 meters. 30 meters does not permit the use of voice modes. Morse Code U identifies USB.

CW/FSK Pressing the button toggles MODE between CW (Continuous Wave, e.g. Morse Code) and FSK (Frequency Shift Keying). Morse Code C is CW, Morse Code F is FSK.

FM/AM Pressing the button toggles MODE between FM (Frequency Modulation) and AM (Amplitude Modulation). Morse Code F is FM, Morse Code A is AM.

Kenwood TS-570S
Kenwood TS-570D

Knobs

Note: Some knobs are nested. A small knob in the center and a larger ring around the outside. This permits two functions to be performed in the space usually occupied by one knob.

Clockwise rotation increases the setting. Counter-Clockwise rotation decreases the setting.

Main Tuning Dial – turn to select the desired frequency.

AF Gain (Center Knob)   Audio Adjusts the sound volume from the Speaker or Headphones
RF Gain (Outer Ring)   Radio Frequency. Reduce RF gain in the presence of powerful nearby transmitters if they are affecting your reception.

DSP Slope High (Center Knob) Adjust to reduce interference having a high pitch frequency.
DSP Slope Low (Outer Ring) Adjust to reduce interference having a low pitch frequency.
Used with SSB or AM mode.

IF Shift (Center Knob) For most situations, position the knob at the half-way point.
SQL (Outer Ring) SQL=Squelch. Use with FM mode to cut off the speaker when no signal is being received.

		RIT – Receive Incremental Tuning. Press the nearby RIT button to toggle (On, Off). Use RIT knob to set the amount of offset up to +/- 9.,99 KHz. RIT can help improve the reception of an off-frequency signal without changing your own transmit frequency.

XIT – Transmit Incremental Tuning. Press the nearby XIT button to toggle (On, Off), Use XIT knob to set the amount of offset up to +/- 9.99 KHz. XIT is sometimes called the "Poor Man's SPLIT".

Remember the nearby CLEAR button which will reset BOTH the RIT and XIT offset to zero. |
| Kenwood TS-570S
Kenwood TS-570D

Orange Buttons
And MULTI knob | MULTI | Multi-Function knob used in conjunction with Front Panel buttons painted ORANGE. The Orange painted buttons are listed below. |
	MIC	Pressing this button and turning the MULTI knob adjusts the signal volume entering the radio from the Microphone.
	PWR	Pressing this button and turning the MULTI knob adjusts the RF Power Level produced by the radio. The range is 5 to 100 Watts. (Think "Approximately") FCC regulations require the use of the minimum power needed to make a connection.
	KEY	Pressing this button and turning the MULTI knob adjusts the speed of the code produced by the internal Electronic Keyer used in conjunction with external Keyer Paddles. Experienced CW operators know their sending speed preference. 20 to 25 words per minute is common for many operators.
	DELAY	Pressing this button and turning the MULTI knob adjusts the VOX (voice) or Break-In (CW) time duration when leaving Transmit and returning to Receive mode.
	FILTER	Pressing this button and turning the MULTI knob adjusts the receive bandwidth. The available filter bandwidths have dependency on the selected mode. Smaller numbers represent narrower bandwidths. Options include:
LSB/USB   WID unless additional filters have been purchased.
CW   50, 100, 200, 300, 400, 600, 1.0K, 2.0K
FSK   250, 500, 1.0K, 1.5K
AM   NAR, WID
FM   NAR, WID
Kenwood TS-570S
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Meters | Both radios have an LCD analog style meter.

In receive mode, the meter defaults to a S-Meter - showing the Received Signal Strength.

In transmit mode, the available meters are:
POWER – showing Transmit Output Power. Use the least amount needed to make the contact.

ALC – showing the Automatic Level Control status. Avoid going beyond the half-way point.

SWR – showing the Antenna System Standing Wave Ratio. Lower is better.

COMP – showing Speech Compression Level. Takes the place of the SWR meter when transmitting SSB/AM/FM and PROC button is Toggled ON. | |

Kenwood TS-570S Kenwood TS-570D Numeric Keypad and second functions	The numeric keypad is labeled with the telephone-style arrangement. 123 across the top. 456 in the next row down. 789 in the third row down. CLR 0 ENT in the bottom row. The text-function are the default. e.g. Press ANT 4 and you will toggle the Antenna selection. Numbers are an option for selecting a frequency. The numeric definition is invoked by first pressing the ENT button. If you want digits but forget to press ENT you probably will experience some strange operations. Assume that all seven digit positions of a desired frequency must be filled in order for the resulting frequency to meet your expectation.

<div align="center">

CH1 1	CH2 2	CH3 3
ANT 4	REC 5	FINE 6
NB 7	AGC/TONE 8	REV 9
blank CLR	F.LOCK 0	blank ENT

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CH1	Programmed CW or Digital Recorder Unit Message #1
CH2	Programmed CW or Digital Recorder Unit Message #2
CH3	Programmed CW or Digital Recorder Unit Message #3
ANT	Antenna Toggle 1 or 2. Selects RF Input from #1 or #2 antenna connector. Look at the LCD to identify the selected Antenna
REC	Recording Toggle for programmed messages
FINE	VFO Granularity Toggle. Invokes 1/10th the usual granularity.
NB	Noise Blanker Toggle (On, Off)

AGC/TONE   Automatic Gain Control Toggle
When operating in FM Mode, pressing AGC/TONE toggles TONE: On (letter T). CTCSS, Off (Blank). Look at LCD bottom-right row.

When operating in any other mode the AGC is toggled (Slow (Blank), Fast. Look at LCD top row)

REV   Reverse Sideband Toggle for CW or *CW*-R. Personal preference. Most CW Operators will understand this concept. No one else needs to know.

F.LOCK   Function Lock Toggle (Unlocked, Locked) to prevent accidental button press.

Kenwood TS-570S Kenwood TS-570D Other Buttons Note: The chosen setting will be "sticky" for the current band. In other words, returning to that	PF	User Defined Programmable Function. Not very useful for contest operations.
	ATT	Attenuator Toggle (On, Off)
	VOX	Voice Operated Control Toggle (On, Off)
	SEND	Manual Transmit Control Toggle (Send, Receive)
	PRE-AMP	Pre-Amplifier Toggle (On, Off)
	PROC	Speech Compression Toggle (On, Off)

band will restore the same, previously used values.	AT TUNE	Antenna Tuner Toggle (On, Off, Long Press - Force a Tuning Cycle)
	MENU	Access the Configuration Menu Toggle (Menu Functions, Radio Functions)
	1 MHz	Alters the operation of the main tuning dial to use 1 MHz increments instead of the customary smaller increments.
	N.R	Noise Reduction Toggle (Level 1, Level 2, Off). Just try it. If it helps, keep it.
	B.C	Beat Cancel. Usable when operating SSB/FM/AM, Attempts to eliminate certain types of interference located close to the desired listening frequency. 1st press activates, 2nd press raises the effect, Long Press restores original attenuation level.
	CW TUNE	Automatically adjusts the CW Transmit Frequency to align with the CW Receive Frequency (within certain limits)
Kenwood TS-570S Kenwood TS-570D Quick Memo Two Buttons	MR	Recalls data from the Quick Memory
	M.IN	Writes data into a Quick Memory channel, or selects Memory Scroll mode.
		Advanced Operators may recognize situations when the Quick Memory can be helpful.
	SPLIT	Toggle SPLIT Frequency Control (On, Off) ON enables transmitting and receiving on separate frequencies, as is often expected by rare DXpeditions
	TF-SET	When operating SPLIT, lets you listen to or change your Transmit Frequency.
	A/B	Toggle between the use of VFO A settings and VFO B settings
	RIT	Toggle RECEIVE Incremental Tuning (On, Off)
	M/V	Toggle Frequency Control between MEMORY CHANNELS and VFO DIAL
	A=B	Copy the active VFO settings into the other VFO. (Frequency and Mode
	CLEAR	Resets the RIT and XIT frequency offset to zero. If you want to reset one but keep the other – tough. Make a note beforehand, then re-enter the desired value.
	XIT	Toggle TRANSMIT Incremental Tuning (On, Off)
Kenwood TS-570S Kenwood TS-570D Three oblong buttons at bottom	SCAN	Toggles the Scanning Functions (On, Off)
	M>VFO	Transfers data from a Memory Channel into a VFO. Note: Do not confuse this M>VFO button with the nearby M/V button which selects Frequency Control by Memory Channel, or the VFO Tuning Knob.
	M.IN	When programming a Memory Channel this button can be used to write data into a memory channel, or to invoke the Memory Scroll Mode – Context Sensitive. In other words – Editor recommends: Stay away from Memory Channel Functions.