

*How Do I...*

*An Occasional Series*

*This Week: How to Operate That Field Day Rig  
You Never Saw Before  
ICOM 718 Transceiver*

This article first appeared in the October 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 ICOM 718 transceiver.

❖ How to Operate that Field Day Rig You Never Saw Before -- This month ICOM 718

**ICOM 718**

**Standard Configuration**

**Front and Rear Panels**

**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.

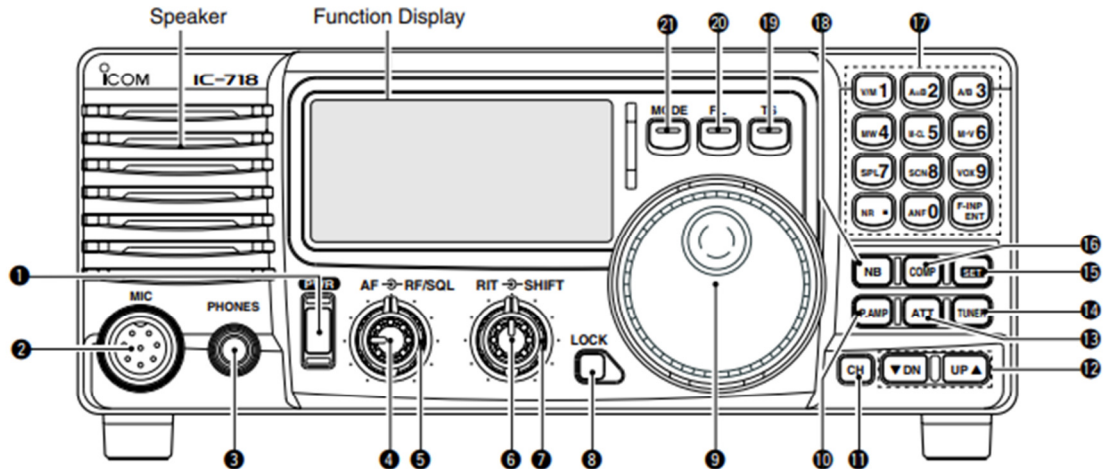
**Coverage Notes:**

We are not dealing with the following topics in this document:

Memory Channels, Programmable Scanning, Memory Channel Scanning, Microprocessor Reset (DO NOT !),

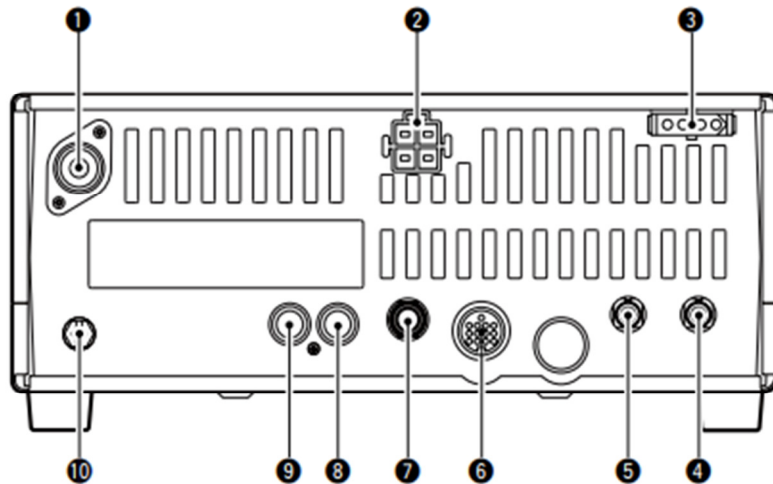
ICOM 718 supports HF operation. 160, 80, 40, 30, 20, 17, 15, 12, and 10 Meter bands. Supports the following modes: CW, SSB, RTTY, AM. Does not support FM. Produces up to 100 Watts RF Output Does not include an automatic Antenna Tuner. Does not operate on 60 Meters

**ICOM 718 Front Panel:**



The ICOM 718 has a small array of front panel control knobs. Many of the features that previously would have been assigned to a knob or button can now be found in QUICK SET or INITIAL SET menus.

**ICOM 718 Rear Panel**



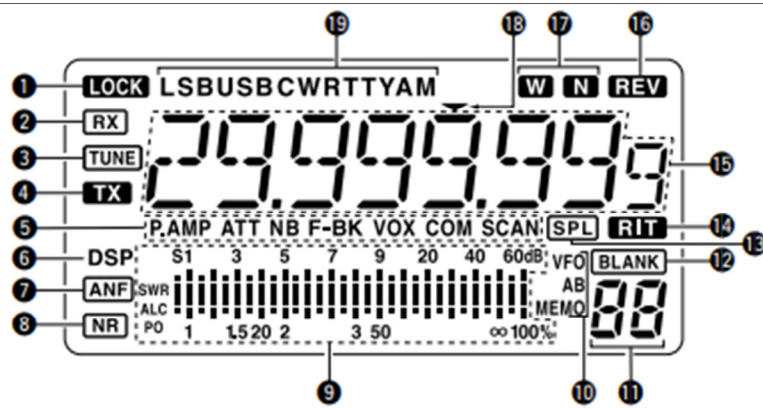
Attach an Antenna feedline.  
 Attach a DC Power Cord. Connection uses MOLEX 4 PIN plug and socket  
 Optionally attach a CI-V Cable in order to use Rig Control. Radio connector uses 1/8<sup>th</sup> in. Male. Your cable probably uses USB-A.  
 Attach a Key or Paddle.  
 The jack labeled KEY accepts 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  
 When switching between a Straight Key and Keyer Paddle, use the INITIAL SET MENU to match the KEY TYPE setting to the physical key you are using.

Optionally connect a MICROPHONE in order to use any of the voice modes. The microphone connection uses an 8 pin Round connector. Supported hand-held mics include HM-36 and HM-219. Supported desk mics include SM-30 and SM-50.

Optionally connect a set of HEADPHONES. The impedance specification is 8 ohms. When a headphone is plugged in, the internal speaker or external speaker is automatically disconnected.

ICOM 718  
 Liquid Crystal Display Panel



The liquid crystal display panel is shown, with all data elements present, to provide a frame of reference as to the information an Operator may see while operating the transceiver.

ICOM 718  
 Push Buttons  
 Bands and Modes  
 Notes:  
 Acronym LCD is Liquid Crystal Display.

**POWER** Press momentarily to power ON. Press and hold for one second to power OFF.

The frequency is displayed in Megahertz (MHz) using up to 6 digits to the right of the decimal.

The UP or DN buttons are used to perform various operations depending on the context.

- UP and DN may refer to the selection of Memory Channel Numbers.
- UP and DN may refer to the selection of items in the Initial Set menu of configurable options or the Quick Set menu of configurable options.
- UP and DN may refer to the selection of a frequency or wavelength band on which to operate.

The digit(s) to the left of the decimal, as shown in the upper row of the following list, designate a frequency band. The lower row identifies the corresponding wavelength.

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

	<p>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.</p> <p>MODE Pressing the button toggles MODE among CW, SSB, RTTY, and AM</p> <ul style="list-style-type: none"> <li>• When SSB is showing, press and hold MODE for 1 second to toggle between LSB (Lower Side Band) and USB (Upper Side Band). Use LSB on the lower bands – 160, 80, and 40 meters. Use USB on the upper bands – 30*, 20, 17, 15,.12, 10, 6 meters. 30 meters does not permit the use of voice modes.</li> <li>• When CW is showing, press and hold MODE for 1 second to toggle between CW and CW REVERSE.</li> <li>• When RTTY is showing, press and hold MODE for 1 second to toggle between RTTY and RTTY REVERSE.</li> </ul>
<p>ICOM 718</p> <p>Knobs</p> <p>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.</p>	<p>Clockwise rotation increases the setting. Counter-Clockwise rotation decreases the setting.</p> <p><b>FIL Filter.</b> Toggles among Normal, Wide, and Narrow bandwidth in an attempt to improve reception of desired signals.</p> <p><b>TS Quick Tuning Step.</b> Toggles the setting ON or OFF. Press again to select 1 KHz steps. Press and hold for one second to turn on 1 Hz steps. Press and hold for two seconds to invoke the Tuning Step Set mode. Choose among 0.1, 1, 5, 9, 10, and 100 KHz steps by rotating the Main Tuning Dial. Push TS to exit this set mode.</p> <p><b>MAIN TUNING DIAL</b> – turn to select the desired frequency.</p> <p><b>AF Audio Gain</b> (Inner Knob) Adjusts the sound volume from the Speaker or Headphones.</p> <p><b>RF /SQL Radio Frequency Gain and Squelch.</b> (Outer Ring) Use SQL in any mode to cut off the speaker when no signal is being received. The INITIAL SET mode determines the operation of the RF/SQL knob. See page xxxx. Reduce RF gain in the presence of powerful nearby transmitters if they are affecting your reception.</p> <p><b>RIT Receiver Incremental Tuning.</b> (Inner Knob) Permits making a change to the receive frequency without affecting the transmit frequency. RIT can be used in an attempt to improve the sound characteristics of a received signal, or to reduce the effect nearby signals may have on the reception of a desired signal. Set RIT to zero when you want to Transmit and Receive on the same frequency.</p> <p><b>SHIFT IF SHIFT</b> (Outer Ring) provides a means for positioning the center frequency of the receiver's Intermediate Frequency Passband. This feature can be used in an attempt to reduce interference from nearby signals. For most situations, position the knob at the half-way point.</p> <p><b>LOCK</b> Press momentarily to toggle the <b>DIAL LOCK</b> function ON or OFF to help prevent accidental changes to the radio settings.</p>

	<p>CH Press momentarily to toggle the <b>Memory Channel Select</b> function ON or OFF. The feature is ON when you can see MEMO blinking in the display panel. Press the CH button one or more times until the desired Memory Channel appears.</p> <p>P.AMP Press momentarily to toggle the <b>Pre-Amplifier</b> ON or OFF in an attempt to improve reception of weak signals.</p> <p>ATT Toggles a 20 dB <b>Attenuation</b> ON or OFF in an attempt to improve reception of the desired signal.</p> <p>TUNER The TUNER button supports the use of an optional <b>External Tuner</b> such as the ICOM AH-4 or AT-180. The ICOM 718 does not have an internal tuner. CARC does not own either of those optional external tuners</p> <p>COMP Toggles the <b>Microphone Speech Compressor</b> processing ON or OFF.</p> <p>NB Toggles the Noise Blanker feature ON or OFF. Press for one second to enter the Noise Blanker configuration setting mode.</p> <p><b>NB Noise Blanker Switch</b> Press to toggle the Noise Blanker ON or OFF in an attempt to reduce interference from pulse-type noise e.g. Automobile Ignition. Press and hold NB for 1 second to invoke the Noise Blanker Level Setting mode.</p> <p><b>SET SET Switch</b></p> <ul style="list-style-type: none"> <li>• Press to select the desired Meter function – Power Output, ALC, SWR.</li> <li>• Press and hold for 1 second to invoke the QUICK SET mode. See QUICK SET instructions elsewhere in this document.</li> <li>• With the power OFF, press and hold SET while pressing POWER to invoke the INITIAL SET mode. See INITIAL SET instructions elsewhere in this document.</li> </ul>
<p>ICOM 718</p> <p>Meters</p>	<p>The ICOM 718 has an LCD analog style meter. The meter appears below the frequency display.</p> <p>In receive mode, the meter defaults to a S-Meter - showing the Received Signal Strength.</p> <p>In transmit mode, choose the desired meter by pressing the SET button The available meters are:</p> <p>POWER – showing Transmit Output Power. Use the least amount needed to make the contact.</p> <p>ALC – showing the Automatic Level Control status. Avoid going beyond the half-way point.</p> <p>SWR – showing the Antenna System Standing Wave Ratio. Lower is better. A “Best Match” will be 1.5 or lower. SWR can be measured when the FV power output is over 30 watts. Set MODE to CW or RTTY</p>

ICOM 718

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. # 0 ENT in the bottom row.

The text-functions are the default. e.g. Press A=B 2 and you will copy the contents of VFO B into VFO A.

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.

V/M 1	A=B 2	A/B 3
MW 4	M CL 5	M-V 6
SPL 7	SCN 8	VOX 9
NR #	ANF 0	F-INP ENT

**V/M VFO/Memory Switch** Toggles between frequency select by VFO or MEMORY CHANNEL

**A=B VFO Equalization Switch.** Press to copy the VFO B Frequency and Operating Mode into VFO A.

**A/B VFO Select Switch.** When in VFO mode, push to toggle between VFO A and VFO B When the Split Frequency function is ON, toggle between the Transmit and Receive frequency.

**MW Memory Write Switch.** Press and Hold for 1 second to save the current frequency and operating mode into the selected memory channel

**M CL Memory Clear Switch.** When in the Memory mode, press and hold for 1 second to clear the contents of the selected memory channel.

**M-V Memory to VFO Switch.** Press and hold for 1 second to copy the selected memory channel contents to the VFO.

**SPL SPLIT Switch.** Toggles the Split Frequency function ON or OFF

**SCN SCAN Switch.** When in VFO mode, starts or stops the Programmed Scan. When in MEMORY mode, starts or stops the Memory Scan.

**VOX VOX Switch.** When in the SSB (LSB or USB) mode, press to toggle the VOX feature ON or OFF.

**NR** Toggles the **Noise Reduction** function ON or OFF. Press and hold for 1 second to invoke the Noise Reduction Level Set mode. Requires UT-105 Digital Signal Processor.

**ANF** Toggles the **Automatic Notch Filter** function ON or OFF. Applicable to SSB and AM modes. Requires UT-106 Digital Signal Processor.

	<p>F-INP a.) Invokes <b>Direct Frequency Input</b> mode. b.) Press [CH], then F-INP to invoke <b>Direct Memory Number Selection</b> mode.</p>
<p>ICOM 718 Quick Set</p> <p>Quick Set items are the type that an Operator may wish to change while operating to adapt to current and changing conditions.</p>	<p>To access the QUICK SET mode:</p> <ul style="list-style-type: none"> <li>• With the POWER ON, press and hold the SET button for one second.</li> <li>• Use the UP and DN buttons to navigate the Quick Set selections. A sometimes cryptic keyword will appear where the frequency display usually appears. Stop on a selection that you wish to modify.</li> <li>• Rotate the MAIN TUNING DIAL to vary the setting of the chosen Quick Set option. The setting value will appear in the lower right corner of the display screen.</li> <li>• Repeat for any additional changes you wish to make.</li> <li>• When finished and you wish to EXIT -- Press the SET button momentarily.</li> </ul> <p><b>RF POWER</b> (RF PoWEr) RF Output Power. Range is from 1 to 99 watts and H (Maximum Power). Default is H.</p> <p><b>MIC GAIN</b> (MIC GAIn) Microphone Gain. Range is from 0 to 99 and H. Default is 50.</p> <p><b>VOX GAIN</b> (VoX GAIn) Voice Activated Transmit. Adjust so that your speaking triggers VOX to transmit. Default is 50.</p> <p><b>VOX DELAY</b> (VOX DELy) Adjusts the length of time when you are not speaking before VOX turns off the transmitter. This helps minimize the choppiness of your transmission. Range 0 to 2 seconds in 0.1 second units. Default is 10, meaning 1 second.</p> <p><b>ANTI VOX LEVEL</b> (AN VoX) Adjusts the VOX feature so that it can ignore sounds (i.e the noise floor, or static crashes) coming from the radio speaker.</p> <p><b>CW PITCH</b> (CW PITCh) Adjusts the CW tone. Range 300 Hz to 900 Hz in 10 Hz steps. Default is 60, meaning 600 Hz.</p> <p><b>BK-IN</b> (BK—IN) Selects the type of CW BreakIn you desire. oF = Off No BreakIn, SE = Semi BreakIn meaning you can hear the received signal between words or letters, FL = Full BreakIn meaning you can hear the received signal between dits and dahs.</p> <p><b>BK-IN DELAY</b> (BK—DELAy) Used in conjunction with the Semi-BreakIn option (see above). Range 2.0 to 13 dots Default is 7.</p> <p><b>KEY SPEED</b> (KEY SPD) Adjusts the CW keying speed from 6 to 60 words per minute. Default is 20 wpm.</p> <p><b>KEY RATIO</b> (KEY RAT) Adjusts the CW keying weight in the range 2.9 to 4.5 Default is 3.0</p> <p><b>RTTY MARK TONE</b> (ToN2 12s) Toggles among 1275, 1615, and 2125 Hz. Default 2125 Hz</p> <p><b>RTTY SHIFT</b> (SIFT 85o) Toggles among 170, 200, 425, and 850 Hz. Default is 170 Hz.</p> <p><b>DIMMER</b> (DIMMER) Selects the LCQ back light brightness. Toggles among Off, Low, High. Default is HI (High).</p>

ICOM 718

Initial Set

Initial Set options are the type that an Operator probably will set once and rarely or infrequently have any need to change the setting.

Field Day and Special Event Operators are requested to use good judgement if considering a change in this Initial Set area.

To access the Initial Set mode:

- With the POWER OFF, press and hold SET while pressing POWER. Release both.
- Use the UP and DN buttons to navigate the Initial Set selections. Stop on a selection that you wish to modify.
- Rotate the MAIN TUNING DIAL to vary the setting of the chosen Initial Set option.
- Repeat for any additional changes you wish to make.
- When finished, to EXIT press and hold the POWER button for one second to power down.
- If or when you wish to resume use of the ICOM 718, press POWER again to power up the rig.

**MODE SELECT (MoDE)** Inhibits the presentation of unneeded operating modes the Operator is unlikely to use. Default is ON for all modes

**RF/SQL VR (RF/SQL)** Defines the operation of the RF/SQL knob. Toggles among rS, At, Sq. Default is rS (RF Gain combined with Squelch)

If the INITIAL SET selection is (as shown in the first column) then the RF/SQL knobs works as shown in the second and third columns.

INITIAL SET	MODE: USB, LSB, CW, RTTY	MODE: AM
rS (RF/SQL)	Think "Clock Face" Start with the knob at "12" o'clock Noon. Knob acts as RF GAIN for roughly "7" o'clock to "11" o'clock. Knob acts as SQL for roughly "1" o'clock to "5" o'clock.	
At (Auto) **- Recommended	Knob acts as RF GAIN only.	Knob acts as SQL only.
Sq (SQL)	Knob acts as SQL only.	Knob acts as SQL only.

**BEEP (BEEP)** Toggles the sounds created when a button is pressed On, Off. Default On.

**BEEP LEVEL (BP LEVELI)** Adjusts the sound volume of the beep introduced above. Default is 50 with no indication of the range or unit of measure.

**BAND EDGE BEEP (BAND BEp)** Choice of whether the radio should produce warning sounds when the operating frequency enters or exits an amateur radio range. Default is On.

**SIDE TONE LEVEL (CW—T LVI)** Adjust the sound volume of the CW side-tone when transmitting. Default is 30 with no indication of the range or unit of measure.

**METER PEAK HOLD (P--HoLD)** Toggles the meter peak hold function. On, Off

**SCAN SPEED (SCN SPD)** Toggles the speed at which channels or frequencies are scanned during scan operations. Low, High. Default is HI (High).

**SCAN RESUME (SCN RS)** Toggles the action taken while using the scan function.  
ON resumes scanning 10- seconds after stopping on a signal, or 2 seconds after the signal disappears.  
OFF Scan does not resume. However, the Priority Watch scan will remain paused until the signal disappears. Default is ON.



**AM NOISE BLANKER (AM NB)** Blanks some types of unwanted noise when receiving AM Mode signals. Default is ON.

**AUTO TS (AUTo TS)** When set ON, invokes a higher tuning speed in conjunction with quick rotation of the tuning dial. OFF tunes 1.5 KHz per rotation using 10 Hz steps. ON tunes 30 KHz per rotation in 50 Hz steps.

**KEY TYPE (CW PADDI)** Selects the desire CW paddle type.  
 Lower case n Normal for electronic keyer use  
 Lower case r Reversed dot and dash paddles for electronic keyer use  
 oF Turns OFF the electronic keyer for use with straight key.  
 Lower case ud for use of the microphone UP and DN buttons instead of using a paddle.  
 Default is n (normal).

**TUNER TYPE (TUNER)** Chooses the antenna tuner type  
 Lower case no No tuner is connected  
 4 The optional AH-4 antenna tuner is connected. Also used for tuner AH-740  
 18 The optional AT-180 antenna tuner is connected.

**AUTO TUNE (AT-TUNE)** Enables a feature of the AT-180 tuner which has auto-start capability.  
 ON The tuning sequence begins when SWR is greater than 1.5 even if the AT-180 is OFF.  
 OFF The tuner remains off despite the presence of HIGH SWR  
 Default is OFF

**PTT TUNE (PTT-TUNE)** Any of the supported tuners (AH-4, AH-740, AT-180) can automatically start tuning the moment the PTT (Push To Talk) button is pressed. Default is OFF.

**SPEECH LANGUAGE (SP LANG)** Selects English or Japanese as the spoken language used by the optional UT-102 voice synthesizer unit. Default is En (English). This feature no longer is offered.

**SPEECH SPEED (SP SPD)** Spoken language is delivered FASTER or SLOWER. Default is HI (High). This feature no longer is offered.

**SPEECH S-METER LEVEL (SP MET)** \*This feature no longer is offered.

**CI-V BAUD RATE (CIV BAUd)** Selects the Data Transfer Rate. Default is At (AUTO).

**CI-V ADDRESS (CIV ADD)** Specifies the hexadecimal address assigned by ICOM to a given transceiver model. Default is 5E for the ICOM 718. More complex settings come into play when there is more than one ICOM transceiver in an operating environment.

**CI-V TRANSCEIVE (CIV TRN).** This feature is not applicable to CARC.

**CI-V 731 MODE (CIV 731)** Default is oF (OFF) This feature is not applicable to CARC.

**OPTIONAL FILTER (FIL no)** If or when an optional bandwidth filter is installed this setting must be updated. Not applicable to CARC.

	<p><b>EXPANDED FILTER SELECTION</b> (EXP Fil) When an optional filter has been installed this setting expands the filter choices shown when pressing the FIL key. Not applicable to CARC.</p> <p><b>FILTER SELECTION</b> (WIDE/NARROW) (WIDE THu or NARW Nor). Not applicable to CARC.</p>
<p>ICOM 718</p> <p>Split Frequency Operations</p>	<p><b>Split Frequency Operation</b> allows you to transmit and receive on two different frequencies – one in VFO A and the other in VFO B.</p> <p>The following example illustrates a rare DXpedition operating CW on the 40 meter band.</p> <ul style="list-style-type: none"> <li>• The DX station is transmitting his signal on 7.025 MHz. You are receiving his signal on 7.025 MHz</li> <li>• The DX station is announcing “UP 10” to the pileup. This means the DX Station is listening for about 10 KHz higher up the band than where he is transmitting. You should transmit about 10 KHz higher up the band than where the DX station is transmitting. In other words, you transmit about 7.035 MHz.</li> </ul> <p>The following example instruction example has:  VFO A set for you to RECEIVE from the DX Station at 7.025 MHz, and...  VFO B set for you to TRANSMIT to the DX Station at 7.035 MHz when it is your turn.</p> <p>If the frequency band is not already in the 40 meter band use the UP or DN buttons to change the frequency.</p> <p>If the MODE is not already CW, press the MODE button to operate as CW.</p> <p>Observe the liquid crystal display looking for the selected VFO to the middle right of the screen. If not already showing VFO B, press the A/B (Number 3) button to make a change. With VFO B showing on the screen, turn the Main Tuning Dial to 7.035 MHz.</p> <p>Press the A/B (Number 3) button to change your operation to VFO A.  Turn the Main Tuning Dial to 7.025 MHz</p> <p>Press the SPL (Number 7) button to invoke SPLIT mode.</p> <p>You should hear the DX Station at 7.025 MHz on VFO A when you are receiving. When you key your transmitter its frequency will change to 7.035 MHz on VFO B.</p> <p>Feel free to fine tune the DX Station signal using the Main Tuning Dial while on VFO A.</p> <p>The most successful DX Chasers have tricks up their sleeve. They attempt to discover where the DX Station was listening when he made the previous QSO and set their transmitter very close to that frequency. If you want to try this technique, be sure to make the change to VFO B and leave VFO A unchanged.</p>