Time-Out Timer

Most often used on FM, the transmitter's Time-Out Timer (TOT) feature disables the transmitter after a user-defined period of transmission. This feature may be useful in preventing a "stuck microphone" (accidental closure of the **PTT** switch) from causing interference to other users, and it will also force you to keep your transmission short, thereby conserving battery power.

To activate the Time-Out Timer:

1. Press and hold in the [F] key for one second to enter the Menu mode.
2. Rotate the [SEL] knob to recall Menu #49 (TOT TIME).
3. The default setting for this feature is "off." Rotate the [DIAL] knob to set a new time-out setting (from 1 minute to 20 minutes).
4. When you have made your selection, press and hold in the [F] key for one second to save the new setting and exit to normal operation.

WeatherFax Monitoring

Monitoring of HF WeatherFax broadcasts is easily accomplished using the **FT-818**.

1. Before proceeding, be certain that the WeatherFax demodulator is properly connected to Pins 5 (DATA OUT 1200bps) and 2 (GND) of the rear panel **DATA** jack.
2. Set the transceiver to the VFO mode, and set the operating mode to "DIG," setting Menu #26 to PSK31-U, as described previously.
3. Now, select the operating frequency of the station transmitting the WeatherFax broadcast. Note that, in the USB mode, the frequency you should program onto the display is typically 1.90 kHz *below* the station's "assigned" frequency. Thus for a WeatherFax station assigned to 8.682.0 MHz, tune to 8.680.1 MHz.
4. When the WeatherFax broadcast begins, no further operator intervention should be needed from the transceiver standpoint. The audio level from the **DATA** jack on the rear of the transceiver is fixed, and cannot be adjusted.

Fine adjustments in the gray-scale and the frame alignment are accomplished using the computer and software connected to your WeatherFax demodulator.

QMB CHANNEL

QMB Channel Storage

1. Tune in the desired frequency and set the operating mode and bandwidth. If this is an FM channel, set up any required CTCSS/DCS and repeater shift configurations.
2. Press and hold in the [V/M] key until a *double* "beep" is heard. The second beep provides audible confirmation that the data has been stored into the QMB memory.

Pressing the [A] (A/B) ***key momentarily while in Operating Function Row 3*** [STO, RCL, PMS] ***will also store a frequency into the QMB register.***

QMB Channel Recall

1. Press the [F] key momentarily, then rotate the [SEL] knob, as needed, until Operating Function Row 3 [STO, RCL, PMS] appears on the display.
2. Press the [B] (RCL) key momentarily to recall the QMB memory. "QMB" will appear at the upper right corner on the LCD.
3. Press the [B] (RCL) key once more to return to the previous frequency (either a VFO frequency or a Memory channel).

If you move the [DIAL] ***knob or*** [SEL] ***knob while in the QMB mode, you can change frequencies as if you were in a "VFO" mode. You also can change operating mode by pressing the*** [MODE(◀)] ***or*** [MODE(▶)] ***key. When this is done, the "***MTQMB***" will appear in the display, where "***MT***" represents "Memory Tuning." Press the*** [B] (RCL) ***key once more to return to the originally-stored QMB frequency.***

Memory Operation on "Regular" Memory Channels

Normal Memory Storage

1. Tune in the desired frequency, and set the operating mode and bandwidth. If this is an FM channel, set up any required CTCSS/DCS and repeater shift configurations. Standard (default) repeater shifts do not require you to utilize the "split" frequency memory technique, described later.
2. Press the [F] key momentarily, then rotate the (SEL) knob, as needed, until Operating Function Row 2 [MW, MC, TAG] appears on the display.
3. Press the [A] (MW) key momentarily to enter the "Memory Check" mode, which is used to find an unused memory channel. The frequency stored (if any) on the *current* memory channel will be shown in the display.
4. Rotate the (SEL) knob to select the channel number on which you wish to store the current frequency data.
5. Press and hold in the [A] (MW) key for one second until you hear a double beep; the second beep confirms that the frequency information was successfully stored.

Split-Frequency Memory Storage

You can also store "Split" frequencies, such as when operating on a repeater system not utilizing a "standard" offset. This procedure may also be used for DX work on 7 MHz SSB, etc.

1. In the VFO mode, set the desired *Receive* frequency and mode.
2. Press the [F] key momentarily, then rotate the (SEL) knob, as needed, until Operating Function Row 2 [MW, MC, TAG] appears on the display.
3. Press the [A] (MW) key momentarily to enter the "Memory Check" mode, which is used to find an unused memory channel. The frequency stored (if any) on the current memory channel will be shown in the display.
4. Rotate the (SEL) knob to select the channel on which you wish to store the receive frequency data.
5. Press and hold in the [A] (MW) key for one second until you hear a double beep, which confirms that the *Receive* frequency data is now stored.
6. Now, set the desired *Transmit* frequency and mode on the VFO.
7. Press the [A] (MW) key momentarily; ***do not*** rotate the (SEL) knob!
8. While the "memory channel number" is blinking, press and hold in the **PTT** switch; while holding it in, press and hold in the [A] (MW) key for one second. The double "beep" will confirm that independent *Transmit* frequency data is now stored. You may now release the **PTT** switch.

In step 8 above, pressing the* PTT *switch does not activate the transmitter. It simply sends a signal to the microprocessor that an independent Transmit frequency is being stored on the same channel as a previously-stored Receive frequency.

Memory Operation

Memory Channel Recall

1. If you currently are in the VFO tuning mode, press the [V/M] key once to enter the "Memory" mode (a memory channel number "M-nnn" will appear on the display in she space previously occupied by "VFOa" or "VFOb").
2. To select another memory channel, turn the [SEL] knob.
3. When your memory channels are partitioned into Memory Groups via Menu #34, it is easy to change Memory Groups; press the [SEL] knob momentarily (a Group Number ("a" ~ "j") will blink), then turn the [SEL] knob to step through the channels until you enter another. You may now press the [SEL] knob once more to restrict memory channel access to the newly-selected Group.

Memory Group "OFF"

Memory Group "ON"

4. Once you are operating on a memory channel, you may tune off of the originally-memorized frequency (as though you were in the VFO mode). Just rotate the [DIAL] knob; the "Memory Channel Number" will be replaced by one which indicates "MTUNE," indicating that you have now shifted into the "Memory Tuning" mode. When operating the Memory Tuning mode, if you find another frequency you wish to store into another memory channel, just press the [A] (MW) key momentarily, select a new memory channel via the [SEL] knob, then press and hold in the [A] (MW) key until you hear the double beep.
5. To exit the Memory Tuning mode, press the [V/M] key as follows:
   - ❍ One touch of the [V/M] key returns you to the original memory frequency.
   - ❍ A second touch of the [V/M] key will cause you to exit the Memory mode and return to the VFO mode (the memory channel number will be replaced by "VFOa" or "VFOb").

When operating on a "Split" frequency memory, a special "⊟⊞" indication will appear on the LCD.

Masking Memory

Frequency data stored on a memory channel can be deleted, if desired, from any memory channel except channel "1." The deletion process is not a "hard" erasure, so if you erase a channel by mistake using this procedure, the memory channel contents can be recovered.

1. Press the [F] key momentarily, then rotate the (SEL) knob, as needed, until Operating Function Row 2 [MW, MC, TAG] appears on the display.
2. Press the [A] (MW) key momentarily, then rotate the (SEL) knob to select the memory channel to be deleted.
3. Press the [B] (MC) key momentarily. The frequency display field on the LCD will go blank, and the memory channel number will blink.
4. Wait about three seconds; when the memory channel number stops blinking, the data will now be "masked" and will not be available for operation.
5. To restore the masked frequency data, repeat the above steps. However, if you store new frequency information on a channel containing masked data, the masked data will be over-written and lost.
6. Memory Channel 1 is used for Priority operation, and frequency information may only be over-written (not masked) on this channel.

MEMORY OPERATION ON "HOME" CHANNEL MEMORIES

Four Special one-touch "Home" channels are available, for special frequencies you use often. Either "simplex" or "split" frequency/mode data may be stored in the "Home" channel locations. Special "Home" channels are available for HF (any frequency between 1.8 and 29.7 MHz), 50 MHz, 144 MHz, and 430 MHz.

These memories may prove particularly useful for monitoring propagation beacons, providing one-touch recall of the beacon frequency for a quick check of band conditions.

HOME Channel Storage

1. Tune the desired frequency, and set the operating mode. If this is an FM channel, set up any required CTCSS/DCS and repeater shift configurations.
2. Press the [F] key momentarily, then rotate the (SEL) knob, as needed, until Operating Function Row 2 [MW, MC, TAG] appears on the display.
3. Press the [A] (MW) key momentarily to enter the "Memory Check" mode.
4. Press and hold in the [HOME] key for one second. This stores the frequency data into the "Home" channel location. As usual, you will hear a double beep to confirm the successful storage of the frequency data.
5. If you wish to store a "Split" frequency pair into the "Home" channel, store the *Receive* frequency in steps 1 ~ 4 above. Now set the desired *Transmit* frequency.
6. Once more, press the [A] (MW) key momentarily.
7. Press and hold in the microphone's **PTT** switch; while holding the **PTT** switch, again press and hold the [HOME] key for one second. This stores the transmit frequency data into the "Home" channel location.

HOME Channel Recall

1. Press the [HOME] key momentarily to recall the Home Channel on the band group where you currently are operating (HF, 50 MHz, 144 MHz, or 430 MHz). The "HOME" indication will appear on the display.
2. Press the [HOME] key once more to return to the previously-used frequency (either a VFO frequency or a memory channel).

LABELING MEMORIES

You may wish to append an alpha-numeric "Tag" (label) to a memory or memories, to aid in recollection of the channel's intended use (such as a club name, etc.). This is easily accomplished using the Menu mode.

1. Recall the memory channel onto which you wish to appended a label.
2. Press and hold in the [F] key for one second to enter the Menu mode.
3. Rotate the (SEL) knob to recall Menu #35 (MEM TAG).
4. Press the (SEL) knob to enable the programming of the label.
5. Rotate the (DIAL) knob to select the first character (number, letter, or symbol) in the name you with to store, then rotate the (SEL) knob clockwise to move to the next character.
6. Again rotate the (DIAL) knob to select the next number, letter, or symbol, then rotate the (SEL) knob clockwise to move to the next character's slot.
7. Repeat step 6 as many times as necessary to complete the name tag for the memory, then press and hold in the [F] key for one second to save the A/N (Alpha-Numeric) name entry and exit to normal operation.

During Memory operation, press the [F] key momentarily, then rotate the (SEL) knob, as needed, until Operating Function Row 2 [MW, MC, TAG] appears on the display. Press the [C] (TAG) key momentarily to activate the alpha-numeric Tag. Repeatedly pressing this key will toggle operation between "Frequency" display and "Tag" display.

You can recall Menu #35 (MEM TAG) ***instantly by pressing and holding in the*** [C] (TAG) ***key for one second.***

"Frequency" Display

"Tag" Display

Spectrum Scope Monitor Operation

Note: This operation does not function in the FM Broadcast frequencies.

The Spectrum Scope Monitor allows viewing of operating activity on 5 channels above and 5 channels below the current operating channel in the VFO mode. When the Spectrum Scope Monitor is activated, the display indicates the relative signal strength on channels immediately adjacent to the current operating frequency.

Two basic operating modes for Spectrum Scope are available:

CONT: In this mode, the transceiver sweeps the current band repeatedly until the Spectrum Scope is turned off.

CHK: In this mode, the transceiver sweeps the current band one cycle every 10 seconds.

Setting the Spectrum Scope Mode

1. Press and hold in the [F] key for one second to enter the Menu mode
2. Rotate the (SEL) knob to select Menu #43 (SCOPE).
3. Rotate the (DIAL) knob to select the desired sweep mode (see above).
4. When you have made your selection, press and hold in the [F] key for one second to save the new setting and exit to normal operation.

Activate the Spectrum Scope

1. Set the transceiver to the VFO mode in the desired band.
2. Press the [F] key momentarily, then rotate the (SEL) knob, as needed, until Operating Function Row 6 [SSM, SCH, ART] appears on the display.
3. Press the [A] (SSM) key momentarily to engage the Spectrum Scope.
4. When the Spectrum Scope is in operation, the relative signal strength of stations on channels immediately adjacent to the current frequency will be indicated on the display.
5. To disable the Spectrum Scope, press the [A] (SSM) key once more.

The receiver's audio output and S-meter are disabled when using the Spectrum Scope.

Smart Search™ Operation

Note: This operation does not function in the FM Broadcast frequencies.

The Smart Search™ feature automatically stores frequencies where activity is encountered on the current band. When Smart Search™ is engaged, the transceiver quickly searches above your current frequency, storing active frequencies as it goes (without stopping on them even momentarily). These frequencies are stored in a special Smart Search™ memory bank, consisting of 50 memories. This feature available on the FM and AM modes.

The Smart Search™ feature is especially helpful when traveling, as you can instantly store active FM repeater frequencies without having to look up the frequencies in a reference book.

1. Set the SQL/RF knob to the point where background noise is silenced. A typical setting, for effective Smart Search™ operation, will be at 12 o'clock or slightly clockwise from this position.
2. Set the VFO to the frequency on which you wish to begin the search (the Smart Search™ feature is available on the VFO mode only).
3. Press the F key momentarily, then rotate the SEL knob, as needed, until Operating Function Row 6 [SSM, SCH, ART] appears on the display.
4. Now press the B (SCH) key momentarily; the blinking "SRCH" indicator will appear on the LCD, and the transceiver will sweep upward on the current band, loading channels on which it encounters a signal strong enough to open the squelch.
5. All channels where activity is present (up to 50 channels) will be loaded into the Smart Search™ memories. Whether or not all 50 memories are filled, the search will stop after one sweep.
6. Now you can turn the SEL knob to select from the just-stored Smart Search™ memories. If you find frequencies you wish to store into a "regular" memory, just follow the procedures described previously; just don't press the B (SCH) key while storing these memories, because this will disable Smart Search™ operation (see step 7).
7. To disable Smart Search™ operation, press the B (SCH) key momentarily.

The Smart Search™ memories are so-called "soft" memories; they will be lost if you initiate a new Smart Search™ sweep of the band.

Scanning Operation

Note: This operation does not function in the FM Broadcast frequencies.

This transceiver contains a wide variety of scanning capabilities. Whether you are in the VFO mode or one of the memory modes, scanning operation is fundamentally identical in all configurations, but with the following differences:

- ❒ In the VFO mode, scanning causes the transceiver to sweep up or down the band, pausing or halting on any signal encountered;
- ❒ In the Memory mode, the scanner will scan the programmed memories, and can be instructed to skip certain memories during scanning;
- ❒ In the Programmable Memory Scan (PMS) mode, the scanner will scan the band within user-programmed frequency limits.

Scanning Operation

1. Set the (SQL/RF) knob to the point where background noise is silenced. A typical setting, for effective scanning operation, will be at 12 o'clock or slightly clockwise from this position.
2. Set the transceiver into the operating configuration in which you wish to scan (VFO or Memory; PMS will be described later).
8. Press the [F] key momentarily, then rotate the (SEL) knob, as needed, until Operating Function Row [SCN, PRI, DW].
3. Press the [A] (SCN) key momentarily to start upward scan (toward higher frequencies or higher memory channel numbers).
4. Rotate the (DIAL) knob or (SEL) knob counterclockwise to toggle the scanning direction downward.
5. The scanner will now cause the transceiver to increment in the chosen direction until a signal is detected. When a signal is encountered which opens the Squelch, ***In the FM/AM modes***, the scanner will pause until the signal disappears (at the end of the other station's transmission), at which point scanning will resume. While the transceiver is in the "Pause" condition, the decimal points in the frequency display area will blink. See "Scan-Resume Choices" on the next page for details of how to customize the resumption of scanning, ***In the SSB/CW modes***, the scanner will slow down (but doesn't stop).
6. Press the **PTT** switch on the microphone to cancel scanning.

You may also press and hold in either the [**UP**] ***or*** [**DWN**] ***key on the microphone for 1/2 second to initiate upward or downward scanning, respectively, if Menu #37*** (MIC SCAN) ***is set to "***ON***".***