PROGRESS
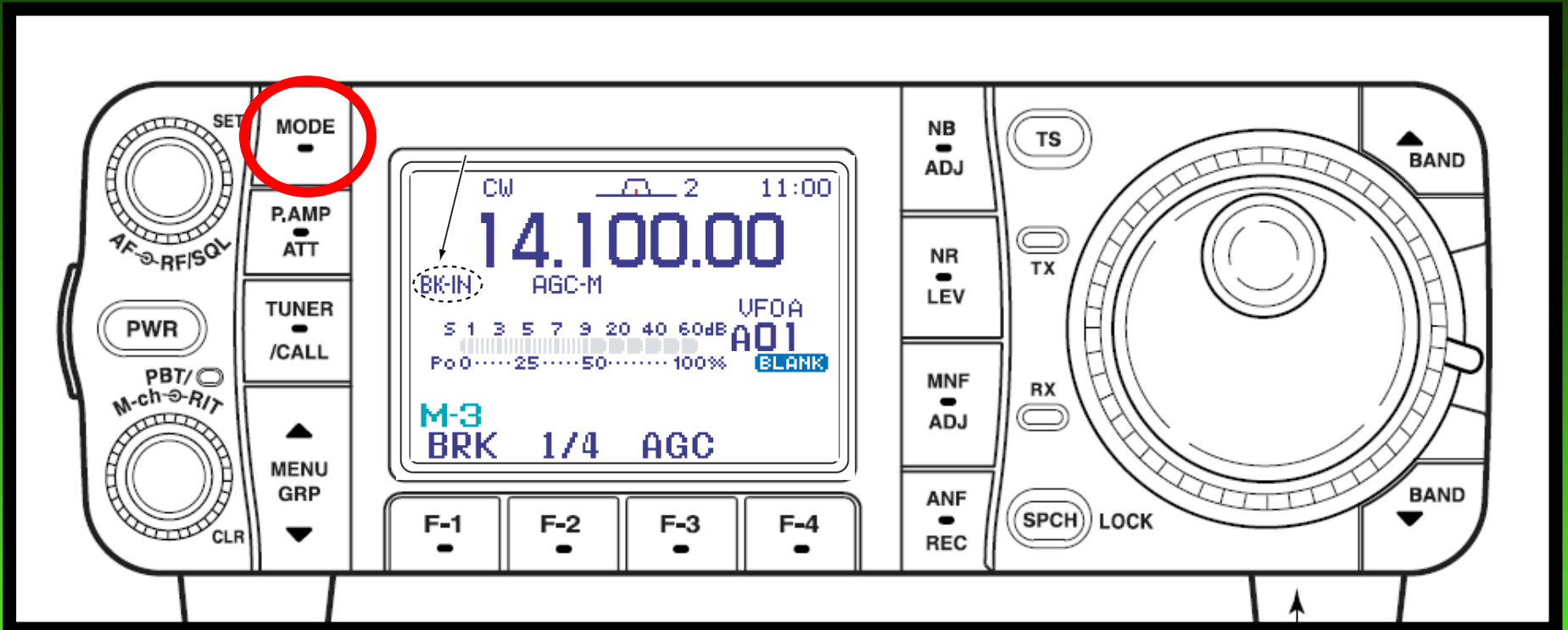
- Radio setup – front panel display/controls, rear panel connections
- VFO behavior and selection
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CW Telegraphy Operation

Selecting CW.

CW – Setup Functions

① Connect a paddle or straight key as on page 22.
② Push [▲(BAND)]/[▼(BAND)] to select the desired band or push a band key on the HM-151.
③ Push [MODE] momentarily to select CW mode.
   · After CW mode is selected, push and hold [MODE] for 1 sec. to toggle between CW and CW-R modes.
④ Rotate [DIAL] to tune in a desired signal with the desired tone frequency.
⑤ Rotate [AF] to set audio to a comfortable listening level.
⑥ Set CW break-in operation as semi break-in, full break-in or OFF.
   · Push and hold [MENU/GRP] for 1 sec. once or twice to select the menu group M.
   · Push [MENU/GRP] momentarily one or more times to select the menu M-3.

   · Push [F-1 BRK] one or more times to select the CW break-in operation.
   · "BK-IN," "F-BK," and "OFF (no indication)" appears.
      ▶ BK-IN : semi break-in
      ▶ F-BK : full break-in
      ▶ OFF : no break-in (ACC socket connection is necessary as shown on page 22.)

⑦ Set the CW delay time when semi break-in operation is selected.
   · Push and hold [F-1 BRK] for 1 sec. to enter the break-in delay time set mode.
   · Rotate [DIAL] to set the desired delay time.
⑧ Set CW setting in the keyer set mode (S-1).
   · Push and hold [MENU/GRP] for 1 sec. once or twice to select the menu group S.
   · Push [MENU/GRP] momentarily one or more times to select the menu S-1.

   · Push [F-2 KEY], [▼(MENU/GRP)], then [F-4 SET] to enter the keyer set mode. (p. 49)
⑨ Keying to transmit, use the electric keyer or paddle to send your CW signals.
   · [TX] indicator lights red.
   · The Po meter indicates transmitted CW signal strength.
⑩ Stop keying to return to receive.

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CW – Receive Functions

- **Preamp and attenuator** (p. 72)
  - ➥ Push **[P.AMP/ATT]** momentarily to turn the pre-amp ON or OFF.
    - "P.AMP" appears when the preamp is set to ON.
  - ➥ Push **[P.AMP/ATT]** for 1 sec. to turn the attenuator ON.
    - Push **[P.AMP/ATT]** momentarily to turn the attenuator OFF.
    - "ATT" appears when the attenuator is set to ON.

- **Twin PBT (passband tuning)** (p. 77)
  - ➥ Push **[PBT/M-ch/RIT]** (switch) momentarily once or twice to select the twin PBT ON or OFF (M-ch RIT).
    - PBT indicator lights green when the twin PBT is selected.
  - ➥ Rotate **[PBT/M-ch/RIT]** (controls–inner/outer).
    - Push **[PBT/M-ch/RIT(CLR)]** to clear the settings.

- **AGC (auto gain control)** (p. 74)
  - ➥ While "M-3" is selected, push **[F-3 AGC]** momentarily one or more times to select AGC fast, AGC middle and AGC slow.
    - Push and hold **[MENU/GRP]** for 1 sec. once or twice to select the menu group M.
    - Push **[MENU/GRP]** momentarily one or more times to select the menu M-3.
    - "AGC-F," "AGC-M" and "AGC-S" appears when the fast time constant, middle time constant and slow time constant is selected, respectively.
  - ➥ While "M-3" is selected, push and hold **[F-3 AGC]** for 1 sec. to enter the AGC set mode.
    - Push **[F-2 FAST]**, **[F-3 MID]** or **[F-4 SLOW]** to select the time constant, then rotate **[DIAL]** to adjust the time constant.

- **Noise blanker** (p. 78)
  - ➥ Push **[NB/ADJ]** to turn the noise blanker ON and OFF.
    - "NB" appears when the noise blanker is set to ON.
  - ➥ Push and hold **[NB/ADJ]** for 1 sec. to enter the noise blanker set mode, then rotate **[DIAL]** to adjust the threshold level, or noise pulse width.

- **DSP noise reduction** (p. 79)
  - ➥ Push **[NR/LEV]** to turn the DSP noise reduction ON and OFF.
    - "NR" appears when the DSP noise reduction is set to ON.
  - ➥ Push and hold **[NR/LEV]** for 1 sec. to enter the noise reduction level set mode, then rotate **[DIAL]** to adjust the DSP noise reduction level.

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CW – Receive Functions

- **Manual notch filter** (pgs. 80, 81)
  - ➡ Push **[MNF/ADJ]** to turn the manual notch filter ON and OFF.
    - "**MN**" appears when the manual notch filter is set to ON.
  - ➡ Push and hold **[MNF/ADJ]** for 1 sec. to enter the manual notch filter set mode.
    - Push **[F-2 NF1]**, **[F-3 NF2]** to select the notch filter, push **[F-4 NW]** to set the filter width, rotate **[DIAL]** to set the attenuated frequency.

- **¼ function** (p. 32)
  - ➡ While "M-3" is selected, push **[F-2 1/4]** to turn the ¼ function ON and OFF.
    - "**¼**" indicator appears when the function is activated.

- **CW pitch control** (p. 44)
  - ➡ Push **[AF(SET)]**, then **[F-1 QS]** to enter the quick set mode. Select an item with **[F-1 ▲]/[F-2 ▼]**, then rotate **[DIAL]** to set the desired CW pitch from 300 to 900 Hz in 5 Hz steps.

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CW – Transmit Functions

- **Break-in function** (p. 85)
  - ➡ While "M-3" is selected, push **[F-1 BRK]** one or more times to select the CW break-in operation.
    - Push and hold **[MENU/GRP]** for 1 sec. once or twice to select the menu group M.
    - Push **[MENU/GRP]** momentarily one or more times to select the menu M-3.
    - "BK-IN" or "F-BK" appears when the semi break-in or full break-in is set to ON, respectively.

- **Memory keyer function** (p. 45)
  - ➡ While "S-1" is selected, push **[F-2 KEY]** to enter the keyer set memu.

How do I send CW?!   Use 1 of 3 "Break-in" modes:
1. Semi-break-in quiets the receiver between notes (similar to VOX delay).
2. Full-break-in enables the receiver between notes— someone can break in, but this can be distracting to some operators.
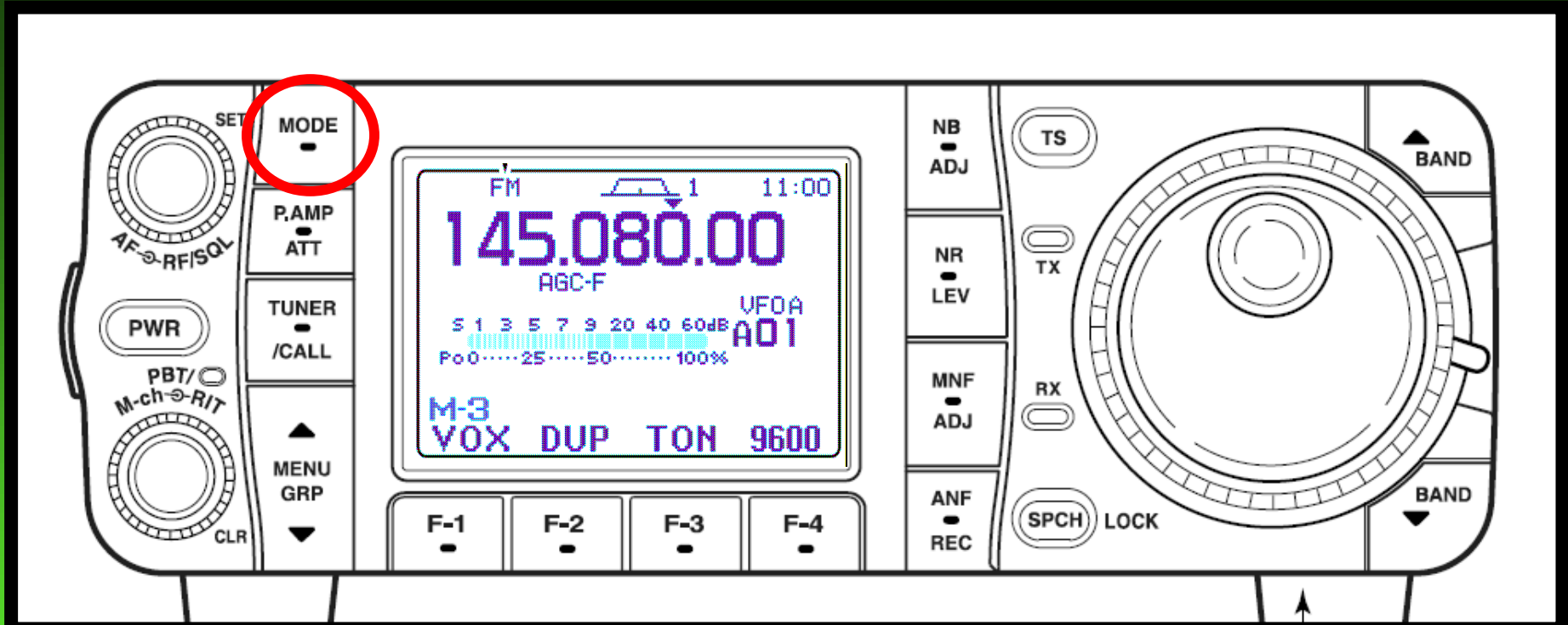3. No display indication, no RF, audio sidetone only (practice/warm-up prior to that CQ).

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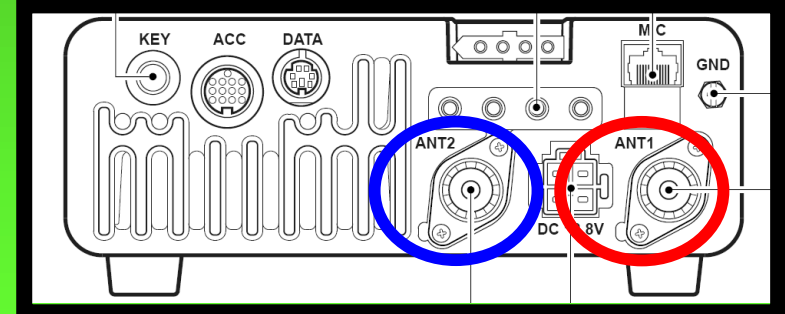- SSB operation
- CW operation
- FM operation

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Frequency Modulation Phone Operation

Antenna FM 2m/70cm "ANT2"
Antenna FM 10m/6m "ANT1"

FM – Receive Functions

- **Preamp and attenuator** (p. 72)
  ➡ Push **[P.AMP/ATT]** momentarily to turn the pre-amp ON or OFF.
    - " P.AMP " appears when the preamp is set to ON.
  ➡ Push and hold **[P.AMP/ATT]** for 1 sec. to turn the attenuator ON.
    - Push **[P.AMP/ATT]** momentarily to turn the attenuator OFF.
    - " ATT " appears when the attenuator is set to ON.

- **Auto notch filter** (p. 80)
  ➡ Push **[ANF/*REC]** to turn the auto notch filter ON and OFF.
    - " AN " appears when the auto notch filter is set to ON.
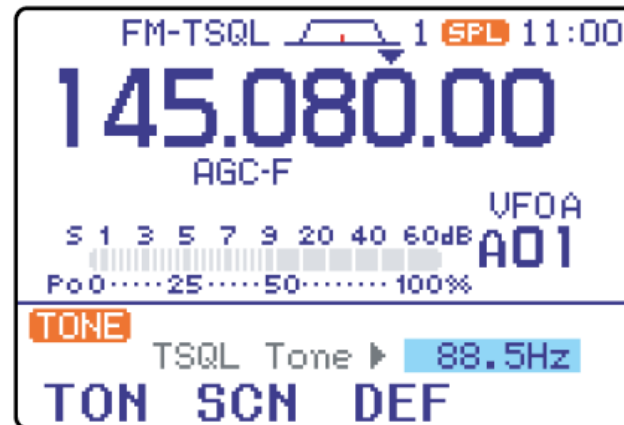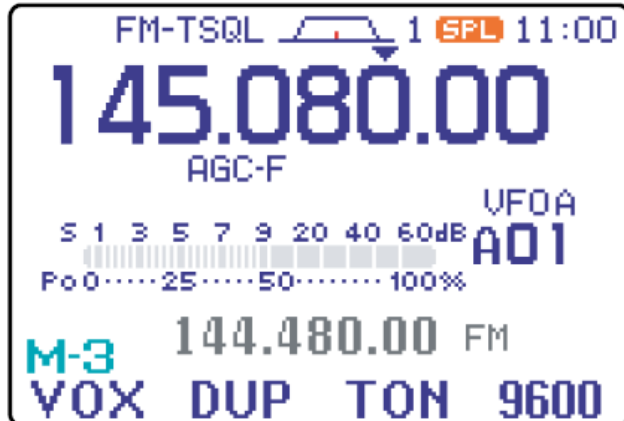
- **DSP noise reduction** (p. 79)
  ➡ Push **[NR/LEV]** to turn the DSP noise reduction ON and OFF.
    - " NR " appears when the DSP noise reduction is set to ON.
  ➡ Push and hold **[NR/LEV]** for 1 sec. to enter the noise reduction level set mode, then rotate **[DIAL]** to adjust the DSP noise reduction level.

- **VSC (voice squelch control)** (p. 82)
  ➡ While "S-1" is selected, push **[F-4 VSC]** to turn the VSC function ON and OFF.
    - "VSC" appears when VSC function is set to ON.

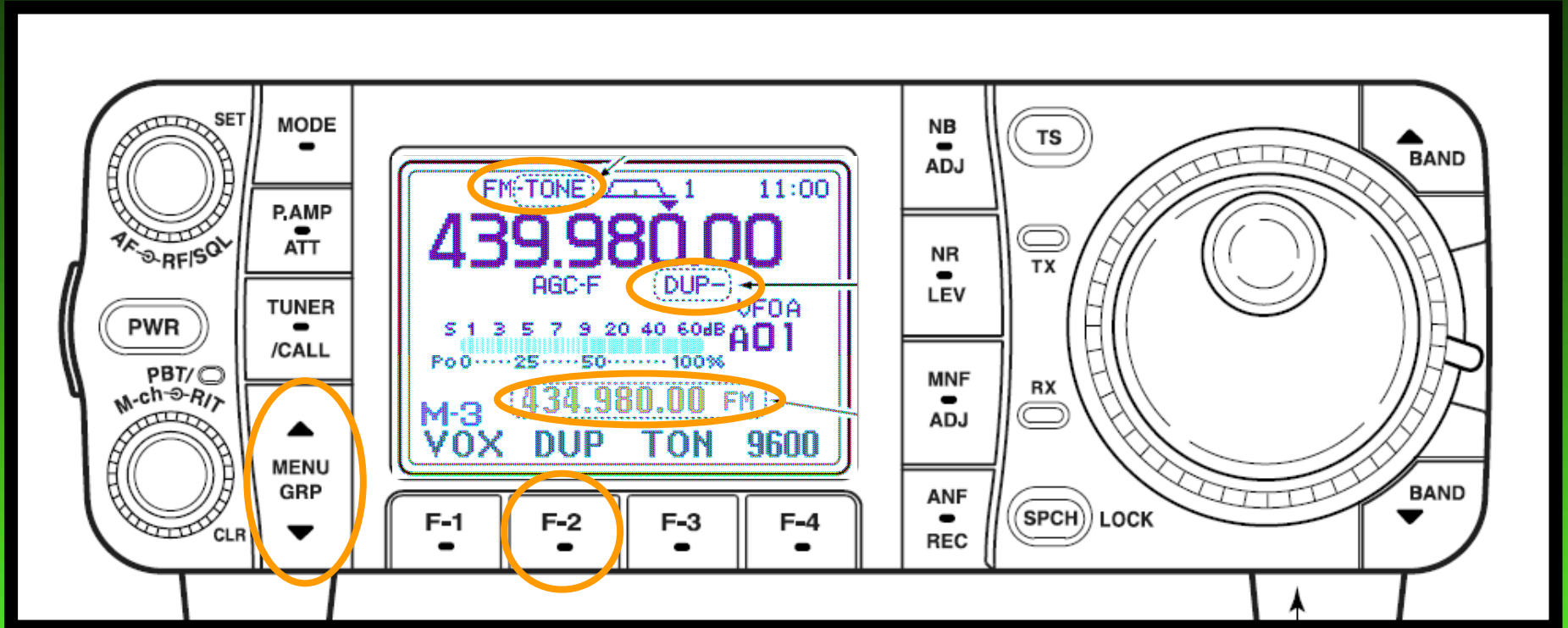# FM – Tone Squelch Functions

① Push **[MODE]** one or more times to select FM mode.
② Select M-3.
- Push and hold **[MENU/GRP]** for 1 sec. once or twice to select the menu group M.
- Push **[MENU/GRP]** momentarily one or more times to select the menu M-3.

③ Push **[F-3 TON]** momentarily several times to turn the tone squelch function ON.
- "TSQL" appears.
④ Push and hold **[F-3 TON]** for 1 sec. to enter the FM tone set mode.
- The selected tone frequency for TSQL appears.
- Other tone functions can be set by pushing **[F-1 TON]**.
⑤ Rotate **[DIAL]** to set the desired subaudible tone frequency.
- See table at right for available tone frequencies.
- Push and hold **[F-3 DEF]** for 1 sec. to select the default frequency.
- Push **[▼(MENU/GRP)]** to exit the FM tone set mode.
⑥ Communicate in the usual manner.
- Push and hold **[PTT]** to transmit; release **[PTT]** to receive.
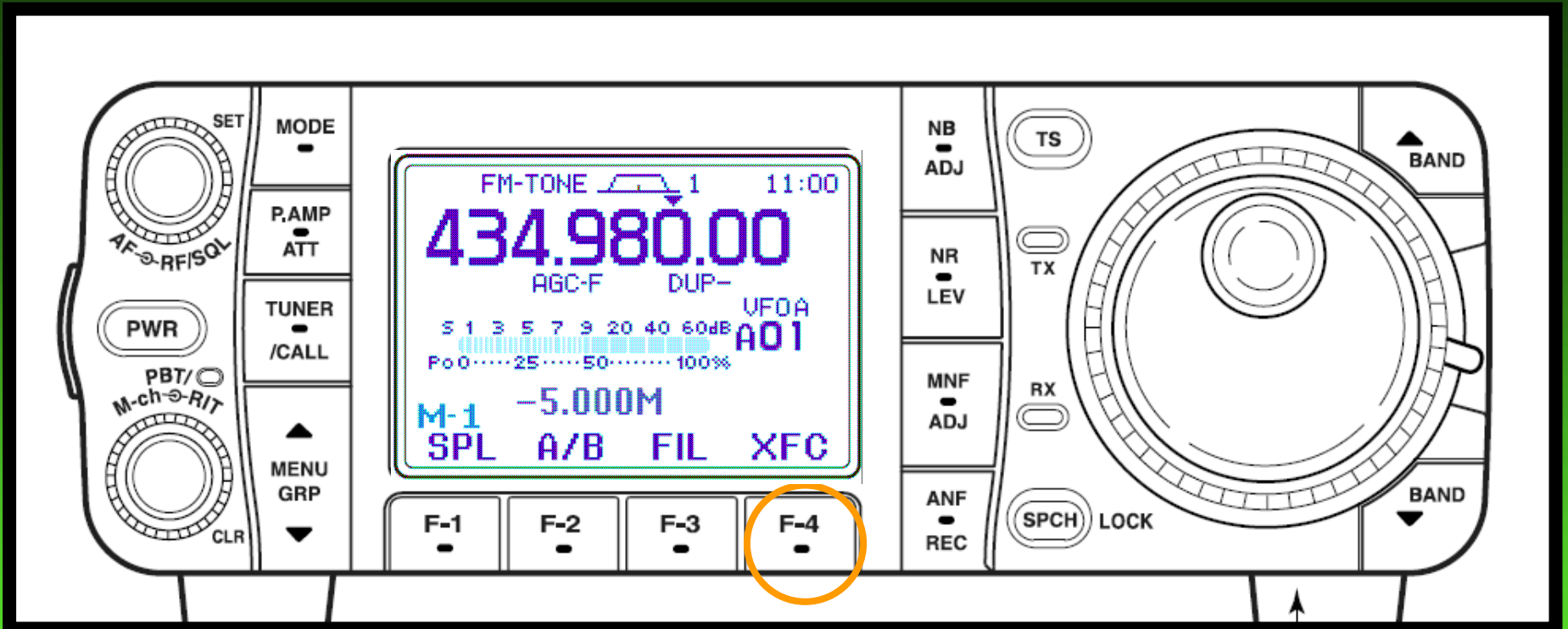
FM – Repeater Operation

Display indicators & soft-keys:
- transmit frequency
- repeater mode "duplex"
- menu keys

FM – Repeater Reverse

Is simplex an option?
Listen on the repeater input:
Transmit Freq. Check "XFC"

FM – Transmit Functions

• **VOX (voice operated transmit)** (p. 83)
➥ While "M-3" is selected, push **[F-1 VOX]** to turn the VOX function ON and OFF.

  • Push and hold **[MENU/GRP]** for 1 sec. once or twice to select the menu group M.
  • Push **[MENU/GRP]** momentarily one or more times to select the menu M-3.

  • "VOX" appears when the VOX function is set to ON.
➥ While "M-3" is selected, push **[F-1 VOX]** for 1 sec. to enter the VOX set mode.
  • Push **[F-1 ▲]/[F-2 ▼]** to select an item.
  • Rotate **[DIAL]** to set the value/conditions.

• **Transmit quality monitor** (p. 87)
➥ Push **[AF(SET)]**, then **[F-4 OTH]** to enter the miscellaneous (others) set mode. Select an item with **[F-1 ▲]/[F-2 ▼]**, then rotate **[DIAL]** to turn the monitor function ON and OFF.

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Conclusion

We've discussed these basic IC7000 topics.
There are also many more features. Enjoy!

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