ICOM®

Firmware Update Information

VHF/UHF DIGITAL TRANSCEIVER

ID-800H

Icom Inc.

FOREWORD

Thank you for purchasing this Icom product.
The firmware of ID-800H VHF/UHF DIGITAL TRANSCEIVER has been updated as described in this information.

Please read the contents, described in pages 13, 60–67, 71, 72, 74–76 and 103 of the instruction manual for details of the updated information.

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■ Call sign programming

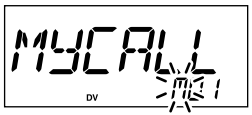
Four types of call sign memories are available for your own call sign “MyCALL,” other station call sign “UrCALL,” repeater call sign “RPT1 C” and “RPT2 C.” “MyCALL” can store up to 6, “UrCALL” can store up to 99 and “RPT1/2 C” can store up to 54 call signs, and each call sign can be programmed with up to 8 characters.

◇ Your own call sign programming

Your own call sign must be programmed for both digital voice and low-speed data communications (including GPS transmission).

① Push **[SET•LOCK]** to enter call sign set mode.
- Rotate **[DIAL]** to select “CALLS,” if “SET” or “MESSAG” is displayed.

② Push **[SET•LOCK]** or **[S.MW•MW]** several times to select “MyCALL,” then push **[BAND•MODE]**.

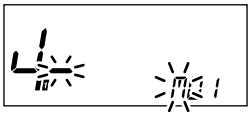


③ Rotate **[DIAL]** to select the desired call sign channel from “M01” to “M06.”

④ Push **[BAND•MODE]** for 1 sec. to enter call sign programming mode.
- The 1st digit blinks.

⑤ Rotate **[DIAL]** to select the desired character or code.
- Push **[SET•LOCK]** or **[S.MW•MW]** to move the cursor to right or left, respectively.

⑥ Push **[SET•LOCK]** to select 2nd digit, then rotate **[DIAL]** to select the desired character or code.
- 2nd digit blinks (1st digit stops blinking).
- Repeat this step for programming your own call sign.



⑦ Push **[BAND•MODE]** for 1 sec. to save the call sign and enter the note programming mode.
- Up to a 4-digit of note (operating radio type or area) can be set.

⑧ Push **[BAND•MODE]** for 1 sec. to save the note and exit the note programming mode.

⑨ Repeat steps ③ to ⑧ to program other call sign channels.

⑩ Push one of **[TONE•T-SCAN•BK]**, **[LOW•DUP]** or **[MONI•DTMF•EMR]** to exit call sign set mode.

NOTE: During the call sign programming mode (④ to ⑦), push **[V/MHz•SCAN]** to clear the entered call sign (the cursor returns to the 1st digit position), push **[V/MHz•SCAN]** again to display the previously saved call sign.

SET B

1 Push **[SET B(D-OFF)]** to enter call sign set mode.
  • Push **[▲]** or **[▼]** to select "CALLS," if necessary.
2 Push **[SET B(D-OFF)]** or **[ENT C(T-OFF)]** several times to select "MyCALL," then push **[BAND]**.
3 Push **[▲]** or **[▼]** to select the desired call sign channel.
4 Push **[BAND]** for 1 sec. to enter call sign programming mode.
  • The 1st digit blinks.
5 Push **[▲]** or **[▼]** to select the desired character or code.
  • Push **[SET B(D-OFF)]** or **[ENT C(T-OFF)]** to move the cursor to right or left respectively.
6 Push **[SET B(D-OFF)]** to select 2nd digit, then push **[▲]** or **[▼]** to select the desired character or code.
  • The 2nd digit blinks (1st digit stops blinking).
  • Repeat this step for programming your own call sign.
7 Push **[BAND]** for 1 sec. to save the call sign and enter the note programming mode.
  • Up to a 4-digit of note (operating radio type or area) can be set.
8 Push **[BAND]** for 1 sec. to save the note and exit the note programming mode.
9 Push **[▲]** or **[▼]** to select an another channel from "M01" to "M06."
10 Repeat 3 to 8 to program other call sign channels.
11 Push **[CLR A(MW)]** to exit call sign set mode.

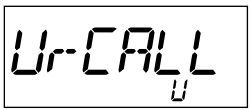
NOTE: During the call sign programming mode (4 to 7), push **[VFO/LOCK]** to clear the entered call sign (the cursor returns to the 1st digit position), push **[VFO/LOCK]** again to display the previously saved call sign.

◇ Station call sign programming

Station call sign must be programmed for the specified station call as well as repeater operation in both digital voice and low-speed data communications.

① Push **[SET•LOCK]** to enter call sign set mode.
- Rotate **[DIAL]** to select "CALLS," if "SET" or "MESSAG" is displayed.

② Push **[SET•LOCK]** or **[S.MW•MW]** several times to select "UrCALL," then push **[BAND•MODE]**.

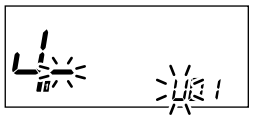


③ Rotate **[DIAL]** to select the desired call sign channel.
- "U" indication blinks.
- "U01" to "U99" are available.
- The call sign "CQCQCQ" is preprogrammed in the channel "U- -."

④ Push **[BAND•MODE]** for 1 sec. to enter call sign programming mode.
- The 1st digit blinks.

⑤ Rotate **[DIAL]** to select the desired character or code.
- Push **[SET•LOCK]** or **[S.MW•MW]** to move the cursor right or left, respectively.

⑥ Push **[SET•LOCK]** to select 2nd digit, then rotate **[DIAL]** to select the desired character or code.
- 2nd digit blinks (1st digit stops blinking).
- Repeat this step for programming station call sign.



⑦ Push **[BAND•MODE]** for 1 sec. to save the call sign.

⑧ Rotate **[DIAL]** to select an another channel from "U01" to "U99."

⑨ Repeat steps ③ to ⑦ to program other station call sign channels.

⑩ Push one of **[TONE•T-SCAN•BK]**, **[LOW•DUP]** or **[MONI•DTMF•EMR]** to exit call sign set mode.

NOTE: During the call sign programming mode (④ to ⑥), push **[V/MHz•SCAN]** to clear the entered call sign (the cursor returns to the 1st digit position), push **[V/MHz•SCAN]** again to select "CQCQCQ," "/" and the previously saved call sign.

SET B

1 Push **[SET B(D-OFF)]** to enter call sign set mode.
• Push **[▲]** or **[▼]** to select "CALLS," if necessary.
2 Push **[SET B(D-OFF)]** or **[ENT C(T-OFF)]** several times to select "UrCALL," then push **[BAND]**.
3 Push **[▲]** or **[▼]** to select the desired call sign channel.
4 Push **[BAND]** for 1 sec. to enter call sign programming mode.
• The 1st digit blinks.
5 Push **[▲]** or **[▼]** to select the desired character or code.
• Push **[SET B(D-OFF)]** or **[ENT C(T-OFF)]** to move the cursor to right or left respectively.
6 Push **[SET B(D-OFF)]** to select 2nd digit, then push **[▲]** or **[▼]** to select the desired character or code.
• The 2nd digit blinks (1st digit stops blinking).
• Repeat this step for programming other station call signs.
7 Push **[BAND]** for 1 sec. to save the call sign.
8 Push **[▲]** or **[▼]** to select an another channel from "U01" to "U99."
9 Repeat 3 to 7 to program another station call sign channels.
10 Push **[CLR A(MW)]** to exit call sign set mode.

NOTE: During the call sign programming mode (4 to 6), push **[VFO/LOCK]** to clear the entered call sign (the cursor returns to the 1st digit position), push **[VFO/LOCK]** again to select "CQCQCQ," "/" and the previously saved call sign.

■ Digital voice mode operation

① Set the desired frequency in VFO mode. (Instruction manual; pgs. 11, 12)
• Select output power, if desired. (Instruction manual; p. 19)
② Push and hold **[BAND•MODE]** for 1 sec. to enter the mode selection condition.
③ Rotate **[DIAL]** to select "DV," then push **[BAND•MODE]** to set the digital mode.
• "DV" appears.
④ Push **[SET•LOCK]** to enter the call sign set mode.
• Rotate **[DIAL]** to select "CALLS," if necessary.
⑤ Push **[SET•LOCK]** or **[S.MW•MW]** several times until "MyCALL" appears.
⑥ Rotate **[DIAL]** to select the desired your own call sign channel (if you have programmed several call signs), then push **[SET•LOCK]** for 1 sec. to set the call sign and return "MyCALL."
• "M" indication stops blinking.
⑦ Push **[SET•LOCK]** once to select "UrCALL."
⑧ Select the desired call sign as "When sending a CQ (see p. 6)" or "When calling the desired station (see p. 7)."
⑨ Push and hold **[PTT]** to transmit and speak into the microphone at normal voice level.
• Transmit indicator appears and the RF meter shows the output power level.
⑩ Release **[PTT]** to return to receive.
• The other station call sign will be received.
• Received call signs are stored into the received call record automatically.

1 Set the desired frequency in VFO mode. (Instruction manual; pgs. 11, 12)
2 Push and hold **[BAND]** for 1 sec. to enter the mode selection condition.
3 Push **[▲]** or **[▼]** to select "DV," then push **[BAND]** to set the digital mode.
• "DV" appears.
4 Push **[SET B(D-OFF)]** to enter call sign set mode.
• Push **[▲]** or **[▼]** to select "CALLS," if necessary.
5 Push **[SET B(D-OFF)]** or **[ENT C(T-OFF)]** several times until "MyCALL" appears.
6 Push **[▲]** or **[▼]** to select the desired own call sign channel, if you have programmed several call signs, then push **[SET B(D-OFF)]** for 1 sec. to set the call sign and return "MyCALL."
• "M" indication stops blinking.
7 Push **[SET B(D-OFF)]** once to select "UrCALL."
8 Select the desired call sign as "When sending a CQ (see p. 6)" or "When calling the desired station (see p. 7)."
9 Push and hold **[PTT]** to transmit and speak into the microphone at normal voice level.
• Transmit indication appears and the RF meter shows the output power.
10 Release **[PTT]** to return to receive.

✔ For your information
See page 14 for the set call sign confirmation.

◇ When sending a CQ

• Select "CQ" as the call sign

① Push **[SET• LOCK]** to enter call sign set mode.
- Rotate **[DIAL]** to select "CALLS," if "SET" or "MESSAG" is displayed.

② Push **[SET•LOCK]** or **[S.MW•MW]** several times until "UrCALL" appears, then push **[BAND•MODE]**.

③ Rotate **[DIAL]** to select the call sign channel, that "CQCQCQ" is programmed.
- "CQCQCQ" is preprogrammed in "U - -" as the default.

④ Push **[SET•LOCK]** for 1 sec. to set "CQCQCQ" for operation.
- "U" indication stops blinking.

⑤ Push one of **[TONE•T-SCAN•BK]**, **[LOW•DUP]** or **[MONI•DTMF•EMR]** to exit call sign set mode.

⑥ Push and hold **[PTT]** to transmit and speak into the microphone at normal voice level.
- Transmit indicator appears and the RF meter shows the output power.

⑦ Release **[PTT]** to return to receive.
- The other station call sign will be received.
- Received call signs are stored into the received call record automatically.

SET B

1 Push **[SET B(D-OFF)]** to enter call sign set mode.
- Push **[▲]** or **[▼]** to select "CALLS," if necessary.

2 Push **[SET B(D-OFF)]** or **[ENT C(T-OFF)]** several times until "UrCALL" appears, then push **[BAND]**.

3 Push **[▲]** or **[▼]** to select the call sign channel, that "CQCQCQ" is programmed.
- "CQCQCQ" is programmed in "U - -" as the default.

4 Push **[SET B(D-OFF)]** for 1 sec. to set the "CQCQCQ" for operation.
- "U" indication stops blinking.

5 Push **[CLR A(MW)]** to exit call sign set mode.

6 Push and hold **[PTT]** to transmit and speak into the microphone at normal voice level.
- Transmit indication appears and the RF meter shows the output power.

7 Release **[PTT]** to return to receive.

NOTE: In digital mode operation; when the "BUSY" indicator appears but no sound comes out the speaker, it may be because of the analog FM mode interference. In this case, to prevent to interference from analog FM, set the digital monitor setting (instruction manual; p. 88) to "AN (analog)" then listen on the channel before transmitting by pushing **[MONI•DTMF]** on the front panel or **[MONI 1(BANK)]** on the microphone.

◇ When calling the desired station

• Select the desired call sign

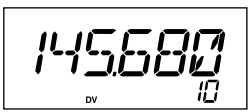
①Push **[SET• LOCK]** to enter call sign set mode.
- Rotate **[DIAL]** to select "CALLS," if "SET" or "MESSAG" is displayed.

②Push **[SET•LOCK]** or **[S.MW•MW]** several times until "UrCALL" appears, then push **[BAND•MODE]**.

③Rotate **[DIAL]** to select the desired call sign channel.
- See p. 3 for station call sign programming.

④Push **[SET•LOCK]** for 1 sec. to set the selected call sign for operation.
- "U" indication stops blinking.

⑤Push one of **[TONE•T-SCAN•BK]**, **[LOW•DUP]** or **[MONI•DTMF•EMR]** to exit call sign set mode.



⑥Push and hold **[PTT]** to transmit and speak into the microphone at normal voice level.
- Transmit indicator appears and the RF meter shows the output power level.

⑦Release **[PTT]** to return to receive.
- The other station call sign will be received.
- Received call signs are stored into the received call record automatically.

NOTE: The digital mode operation is vastly different from FM mode. One of the differences is in digital mode the squelch does not function as in FM mode. Changing the squelch setting will not open it to hear the hiss of "White Noise." It only activates for digital squelch functions such as CSQL (Digital code squelch) or DSQL (Digital call sign squelch).

SET B

1 Push **[SET B(D-OFF)]** to enter call sign set mode.
- Push **[▲]** or **[▼]** to select "CALLS," if necessary.

2 Push **[SET B(D-OFF)]** or **[ENT C(T-OFF)]** several times until "UrCALL" appears, then push **[BAND]**.

3 Push **[▲]** or **[▼]** to select the desired call sign channel.
- See p. 4 for station call sign programming.

4 Push **[SET B(D-OFF)]** for 1 sec. to set the selected call sign for operation.
- "U" indication stops blinking.

5 Push **[CLR A(MW)]** to exit call sign set mode.

6 Push and hold **[PTT]** to transmit and speak into the microphone at normal voice level.
- Transmit indication appears and the RF meter shows the output power.

7 Release **[PTT]** to return to receive.

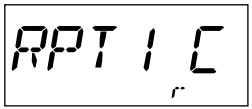
■ Digital repeater operation

Repeater call sign must be programmed for repeater operation in both digital voice and low-speed data communications.

◇ Repeater call sign programming

①Push **[SET•LOCK]** to enter call sign set mode.
- Rotate **[DIAL]** to select "CALLS," if "SET" or "MESSAG" is displayed.

②Push **[SET•LOCK]** or **[S.MW•MW]** several times to select either the repeater call sign item, "RPT1 C" or "RPT2 C," then push **[BAND•MODE]**.
- "RPT1 C" or "RPT2 C" appears for repeater call sign.

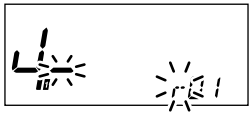


③Rotate **[DIAL]** to select the desired call sign channel.
- "r01" to "r54" appears.

④Push **[BAND•MODE]** for 1 sec. to enter call sign programming mode.
- The 1st digit blinks.

⑤Rotate **[DIAL]** to select the desired character or code.
- Push **[SET•LOCK]** or **[S.MW•MW]** to move the cursor right or left, respectively.

⑥Push **[SET•LOCK]** to select 2nd digit, then rotate **[DIAL]** to select the desired character or code.
- 2nd digit blinks (1st digit stops blinking).
- Repeat this step for programming repeater call sign.



⑦Push **[M/CALL•PRIO]** to turn the gateway setting ON, if desired.
- "G" indication appears as the 8th digit.
- Add the gateway setting only when programming a gateway repeater call sign with gateway connection usage.

⑧Push **[BAND•MODE]** for 1 sec. to save the call sign.

⑨Rotate **[DIAL]** to select an another channel from "r01" to "r54."

⑩Repeat steps ④ to ⑦ to program other repeater call sign channels.

⑪Push one of **[TONE•T-SCAN•BK]**, **[LOW•DUP]** or **[MONI•DTMF•EMR]** to exit call sign set mode.

NOTE: During the call sign programming mode (④ to ⑦), push **[V/MHz•SCAN]** to clear the entered call sign (the cursor returns to the 1st digit position), push **[V/MHz•SCAN]** again to select the previously saved call sign.

SET B

1 Push **[SET B(D-OFF)]** to enter call sign set mode.
- Push **[▲]** or **[▼]** to select "CALLS," if necessary.

2 Push **[SET B(D-OFF)]** or **[ENT C(T-OFF)]** several times to select the call sign item, then push **[BAND]**.
- "RPT1 C" or "RPT2 C" appears for repeater call sign.

3 Push **[▲]** or **[▼]** to select the desired call sign channel.
- "r01" to "r54" appears.

4 Push **[BAND]** for 1 sec. to enter call sign programming mode.
- The 1st digit blinks.

5 Push **[▲]** or **[▼]** to select the desired character or code.
- Push **[SET B(D-OFF)]** or **[ENT C(T-OFF)]** to move the cursor right or left respectively.

6 Push **[SET B(D-OFF)]** to select 2nd digit, then push **[▲]** or **[▼]** to select the desired character or code.
- The 2nd digit blinks (1st digit stops blinking).
- Repeat this step for programming other station call signs.

7 Push **[BAND]** for 1 sec. to save the call sign.

8 Push **[▲]** or **[▼]** to select an another channel from "r01" to "r54."

9 Repeat 4 to 7 to program another station call sign channels.

10 Push **[CLR A(MW)]** to exit call sign set mode.

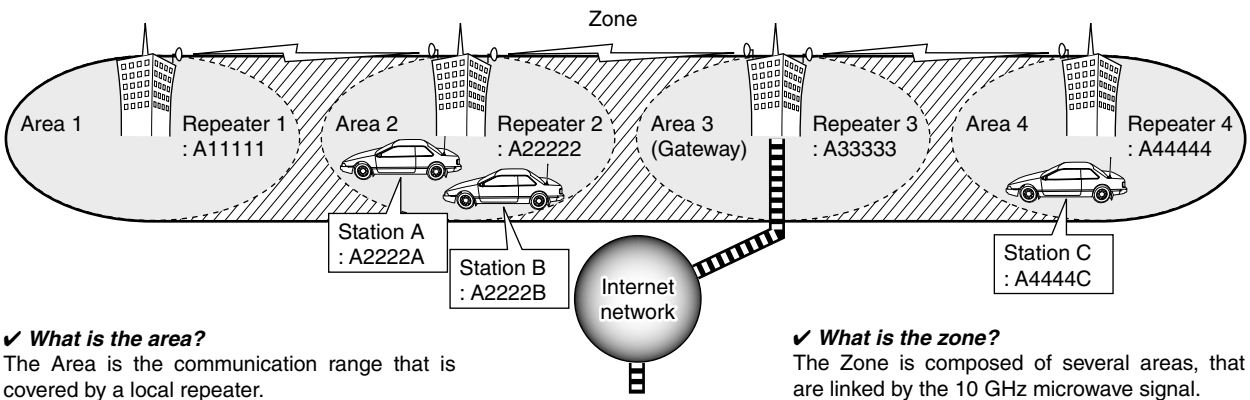
NOTE: During the call sign programming mode (4 to 6), push **[VFO/LOCK]** to clear the entered call sign (the cursor returns to the 1st digit position), push **[VFO/LOCK]** again to select the previously saved call sign.

◇ Repeater operation in the same zone

①Set the desired repeater's frequency, offset and shift direction in VFO mode. (instruction manual; p. 21)
• Select "DV" mode in advance.
②Set your own call sign. (p. 5)
• See p. 1 for your own call sign programming.
③ Set the desired station call sign. (pgs. 6, 7)
• See p. 3 for station call sign programming.
④ Set the repeater's call sign as follows;
(1) Push **[SET•LOCK]** to enter call sign set mode
• Rotate **[DIAL]** to select "CALL" if necessary.
(2) Push **[SET•LOCK]** or **[S.MW•MW]** several times to select "RPT1 C."
(3) Rotate **[DIAL]** to select the nearest repeater's call sign.
(4) Push **[SET•LOCK]** for 1 sec. to set the call sign for "RPT1 C."
(5) Push **[SET•LOCK]** to select "RPT2 C."
(6) Rotate **[DIAL]** to select the desired repeater's (in the same zone) call sign.
• Select "r - - (NOTUSE)" when not operating RPT2.
(7) Push **[SET•LOCK]** for 1 sec. to set the call sign for "RPT2 C."
(8) Push one of **[TONE•T-SCAN•BK]**, **[LOW•DUP]** or **[MONI•DTMF•EMR]** to exit call sign set mode.
⑤ Push **[PTT]** to transmit; release to receive.

1 Set the desired repeater's frequency, offset and shift direction in VFO mode. (instruction manual; p. 22)
• Select "DV" mode in advance.
2 Set your own call sign. (p. 5)
• See p. 2 for your own call sign programming.
3 Set the desired station call sign. (pgs. 6, 7)
• See p. 4 for station call sign programming.
4 Set the repeater's call sign as follows;
(1) Push **[SET B(D-OFF)]** to enter call sign set mode.
• Push **[▲]** or **[▼]** to select "CALL" if "SET" or "MESSAG" is displayed.
(2) Push **[SET B(D-OFF)]** or **[ENT C(T-OFF)]** several times to select "RPT1 C."
(3) Push **[▲]** or **[▼]** to select the nearest repeater's call sign.
(4) Push **[SET B(D-OFF)]** for 1 sec. to set the call sign for "RPT1 C."
(5) Push **[SET B(D-OFF)]** to select "RPT2 C."
(6) Push **[▲]** or **[▼]** to select the desired repeater's (in the same zone) call sign.
• Select "r - - (NOTUSE)" when not operating RPT2.
(7) Push **[SET B(D-OFF)]** for 1 sec. to set the call sign for "RPT2 C."
(8) Push **[CLR A(MW)]** to exit call sign set mode.
5 Push **[PTT]** to transmit; release to receive.

• Setting example 1



✔ ***What is the area?***
The Area is the communication range that is covered by a local repeater.
The Local repeater is called as an area repeater in the D-STAR® system.

✔ ***What is the zone?***
The Zone is composed of several areas, that are linked by the 10 GHz microwave signal.
The areas 1 to 4 make up a zone in the example above.

❑ **The setting when the Station A is calling the Station B**

MyCALL : A2222A
UrCALL : A2222B
RPT1 C : A22222
RPT2 C : NOTUSE

❑ **The setting when the Station A is making a CQ call in area 1**

MyCALL : A2222A
UrCALL : CQCQCQ
RPT1 C : A22222
RPT2 C : A11111

❑ **The setting when the Station A is calling the Station C**

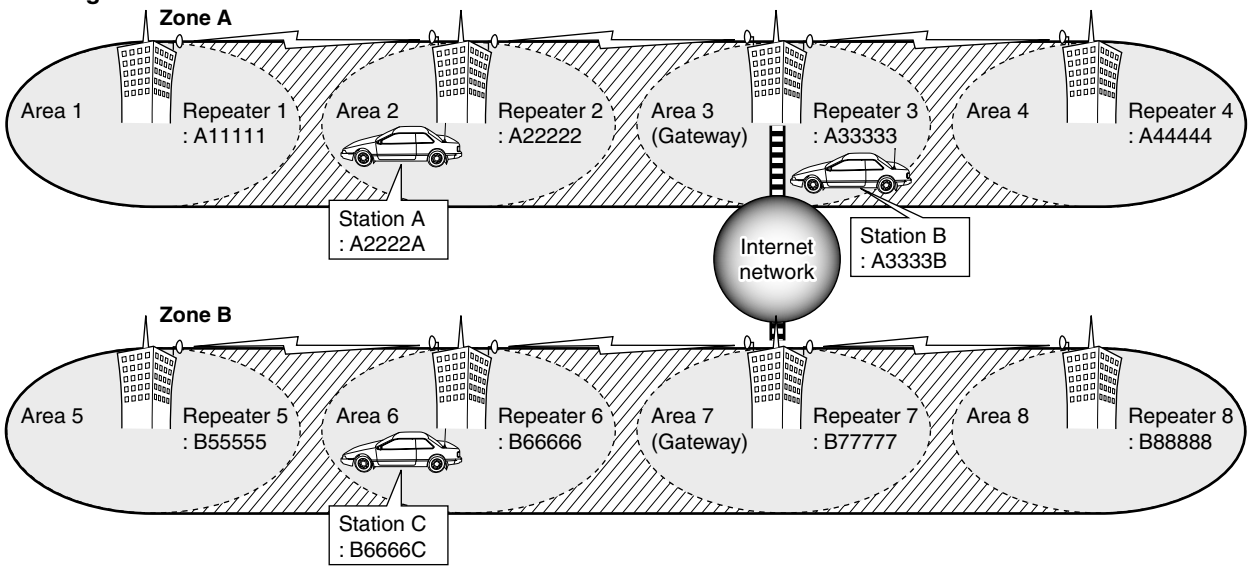
MyCALL : A2222A
UrCALL : A4444C
RPT1 C : A22222
RPT2 C : A44444

◇ Repeater operation into another zone

①Set the desired repeater's frequency, offset and shift direction in VFO mode. (instruction manual; p. 21)
• Select "DV" mode in advance.
②Set your own call sign. (p. 5)
③Set the desired station call sign. (pgs. 6, 7)
• When making a CQ call
Set the desired repeater's (in a different zone) call sign, for the area you want to make a CQ call, into "UrCALL."
- "/," stands for "CQCQCQ," is added at the 1st digit automatically.
④Set the repeater's call sign as follows;
(1) Push **[SET•LOCK]** to enter call sign set mode
• Rotate **[DIAL]** to select "CALL" if necessary.
(2) Push **[SET•LOCK]** or **[S.MW•MW]** several times to select "RPT1 C."
(3) Rotate **[DIAL]** to select the nearest repeater's call sign.
(4) Push **[SET•LOCK]** for 1 sec. to set the call sign for "RPT1 C."
(5) Push **[SET•LOCK]** to select "RPT2 C."
(6) Rotate **[DIAL]** to select the gateway repeater's (in the same zone) call sign.
• The call sign should have "G" setting as the 8th digit.
(7) Push **[SET•LOCK]** for 1 sec. to set the call sign for "RPT2 C."
(8) Push one of **[TONE•T-SCAN•BK]**, **[LOW•DUP]** or **[MONI•DTMF•EMR]** to exit call sign set mode.
⑤Push **[PTT]** to transmit; release to receive.

1 Set the desired repeater's frequency, offset and shift direction in VFO mode. (instruction manual; p. 21)
• Select "DV" mode in advance.
2 Set your own call sign. (p. 5)
3 Set the desired station call sign. (pgs. 6, 7)
• When making a CQ call
Set the desired repeater's (in a different zone) call sign, for the area you want to make a CQ call, into "UrCALL."
4 Set the repeater's call sign as follows;
(1) Push **[SET B(D-OFF)]** to enter call sign set mode.
• Push **[▲]** or **[▼]** to select "CALL" if necessary.
(2) Push **[SET B(D-OFF)]** or **[ENT C(T-OFF)]** several times to select "RPT1 C."
(3) Push **[▲]** or **[▼]** to select the nearest repeater's call sign.
(4) Push **[SET B(D-OFF)]** for 1 sec. to set the call sign for "RPT1 C."
(5) Push **[SET B(D-OFF)]** to select "RPT2 C."
(6) Push **[▲]** or **[▼]** to select the gateway repeater's (in the same zone) call sign.
• The call sign should have "G" setting as the 8th digit.
(7) Push **[SET B(D-OFF)]** for 1 sec. to set the call sign for "RPT2 C."
(8) Push **[CLR A(MW)]** to exit call sign set mode.
5 Push **[PTT]** to transmit; release to receive.

• Setting examle 2



❑ The setting when the Station A is calling the Station C

MyCALL : A2222A
UrCALL : B6666C
RPT1 C : A22222
RPT2 C : A33333 G

❑ The setting when the Station A is making a CQ call in area 8

MyCALL : A2222A
UrCALL : /B88888
RPT1 C : A22222
RPT2 C : A33333 G

❑ The setting when the Station B is calling the Station C

MyCALL : A3333A
UrCALL : B6666C
RPT1 C : A33333
RPT2 C : A33333 G

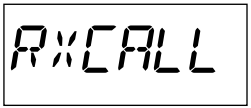
■ Received call sign

When a call in digital voice mode is received, the calling station and using repeater call signs being used can be stored into the received call record. The stored call signs are viewable in the following manner.

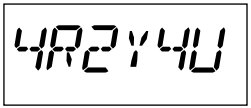
◇ Desired call record indication

① Push **[SET•LOCK]** to enter call sign set mode.
- Rotate **[DIAL]** to select "CALLS" if necessary.

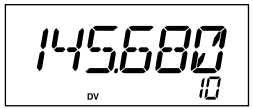
② Push **[SET•LOCK]** or **[S.MW•MW]** several times to select the received call indication.
- "RXCALL," "RXRPT1," and "RXRPT2" are available for the received station, repeater 1 and repeater 2 call signs, respectively.



③ To confirm the received call, push **[BAND•MODE]** to enter the received call sign indication mode.
- Push **[SET•LOCK]** or **[S.MW•MW]** to display last 6-digit or first 6-digit of the call sign, respectively.
- When "RXCALL" is selected in step ②, the additional note can be displayed by pushing **[BAND•MODE]**.
- Push **[BAND•MODE]** once or twice to exit the indication mode.



④ Push one of **[TONE•T-SCAN•BK]**, **[LOW•DUP]** or **[MONI•DTMF•EMR]** to exit call sign set mode.



SET B

1 Push **[SET B(D-OFF)]** to enter call sign set mode.
- Push **[▲]** or **[▼]** to select "CALLS," if necessary.

2 Push **[SET B(D-OFF)]** or **[ENT C(T-OFF)]** several times to select the received call indication.
- "RXCALL," "RXRPT1" and "RXRPT2" are available for the received station call sign, repeater 1 and repeater 2 call sign, respectively.

3 To confirm the received call, push **[BAND]** to enter the received call sign indication mode.
- When "RXCALL" is selected in step 2, the additional note can be displayed by pushing **[BAND]**.

4 Push **[CLR A(MW)]** to exit call sign set mode.

NOTE: The record is cleared once turning power OFF, or overwritten when another call is received.

For your information

By selecting "MyCALL," "UrCALL," "RPT1 C" or "RPT2 C" at step ② as at above left, the programmed call sign can also be displayed for confirmation.

[DIAL] rotation is necessary to select the desired call sign channel in this case.

◇ Received station call sign indication

➥ Push and hold **[TONE•T-SCAN•BK]**, until 2 beeps sound, to display the received station call sign.
- The first 6-digit of the stored call sign in "RXCALL" are displayed.
- While continuing to hold **[TONE•T-SCAN•BK]** even if 2 beeps sound, a long beep will sound and the stored call signs (in "RXCALL," "RXRPT1" and "RXRPT2") are set for operation (see "One-touch reply using the call record" as below). While continuing to hold **[TONE•T-SCAN•BK]** even if a long beep sounds, a long beep will sound again and the break-in function will be set (see p. 22)

◇ One-touch reply using the call record

The stored call signs in the call record can be set for operation to reply to the call.

① After receiving a call, push and hold **[TONE•T-SCAN•BK]** until 2 regular and 1 long beeps sound.
Or, during the received call sign indication as described in "Desired call sign indication" at left, push **[SET•LOCK]** for 1 sec.
- Set your own call sign (MyCALL) in advance.
- The call sign stored in "RXCALL" is set to "UrCALL," "RXRPT1" is set to "RPT2 C" and "RXRPT2" is set to "RPT1 C."

② Push **[PTT]** to transmit; release to receive.

Important!
The set call signs with the "One-touch reply using the call record" operation as at below left are for temporary operation only. Therefore, the set call signs will be erased when another call sign is set.
- Never saved into a call sign memory.

If you want to save the set call signs, see "Copying the set call sign contents for temporary operation" (p. 17) for details.

For your information
When the call that is specifying your own call sign is received, the station and the using repeater call signs being used can be set for operation automatically.

- When "Auto Received Call sign Write (RCW)" (instruction manual; p. 87) is set to ON, the stored station call sign in "RXCALL" is set to "UrCALL" automatically.

- When "Auto Received Repeater Call sign Write (RRW)" (instruction manual; p. 88) is set to ON, the stored station call sign in "RXRPT1" is set to "RPT2 C" and "RXRPT2" is set to "RPT1 C" automatically.

■ Copying the call sign

◇ Copying the call sign memory contents

This function is convenient when saving additional notes for areas (for mobile operation) or unit number/initials (if several transceivers are available), or modifying a part of the current call sign.

① During VFO mode, push **[SET•LOCK]** to enter call sign set mode.
- Rotate **[DIAL]** to select "CALL" if necessary.

② Push **[SET•LOCK]** or **[S.MW•MW]** several times to select "MyCALL," "UrCALL," "RPT1 C" or "RPT2 C" as desired.

③ Rotate **[DIAL]** to select the desired call sign channel to be copied.
- M01 to M06, U01 to U99 and r01 to r54 are available.

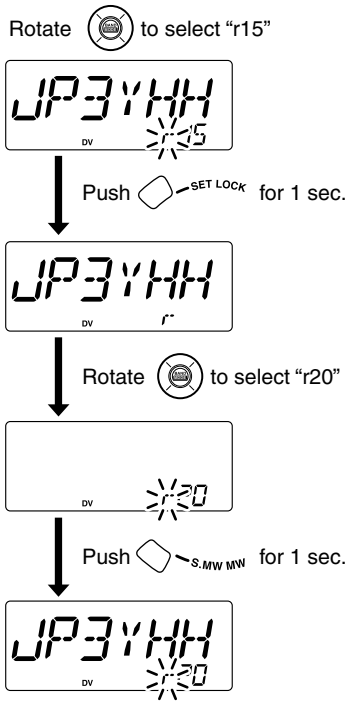
④ Push **[SET•LOCK]** for 1 sec. to set the selected call sign for operation.

⑤ Rotate **[DIAL]** to select the desired call sign channel to copy to.

⑥ Push **[S.MW•MW]** for 1 sec. to copy the selected call sign into the selected call sign memory.

⑦ Modify the copied call sign as described in "Call sign programming" (pgs. 1–4) or "Repeater call sign programming" (pgs. 8, 9).

• Example— Copying the call sign memory "r15" into "r20"



◇ Copying the set call sign contents for temporary operation

This is a way to program the set operating frequency with other settings into a memory channel and the set call sign (“UrCALL,” “RPT1 C” and “RPT2 C”), from the call record, at the same time.

① After a call is received, perform “One-touch reply using the call record” (p. 15) to set the call signs.
- When the call that is specifying your own call sign is received, during “Auto Received Call sign Write (RCW)” (instruction manual; p. 87) and/or “Auto Received Repeater Call sign Write (RRW)” (instruction manual; p. 88) is/are ON, the received station and/or repeater call signs are set automatically.

② When the call is received in memory mode, perform “Copying memory contents—Memory/call VFO” (instruction manual; p. 31) to copy the memory contents into VFO.

③ During VFO mode, push **[S.MW•MW]** momentarily.
- “M” indicator and the memory channel number blink.

④ Rotate **[DIAL]** to select the desired memory channel to be programmed.

⑤ Push **[S.MW•MW]** for 1 sec. to program the operating frequency with other settings into the selected memory channel. The set call signs in “UrCALL,” “RPT1 C” and “RPT2 C” are saved into their respective blank channels (U01–U99 and r01–r54) at the same time.

NOTE:
When call sign memories are full (no blank channel is available), the call sign is unable to be saved and the function display shows the following indication.

• When no blank channel is available in “UrCALL”

• When no blank channel is available in “RPT1/2 C”

• When no blank channel is available in both “UrCALL” and “RPT1/2 C”

For your information

If **[S.MW•MW]** is pushed for 1 sec. at step ③ as at left, the operating frequency and another settings can be stored into the displayed memory channel. (steps ④ and ⑤ can be skipped)

However, the memory channel is over-written, and the currently programmed frequency and settings will be lost.
- The saved contents in the call sign memories are kept.

■ Message items

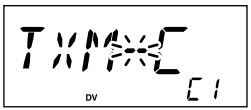
◇ TX message programming

TX messages are available for up to 6 channels and each channel can be programmed with a message of up to 20 characters. Available characters are **0** to **9**, **A** to **Z** (capital letters only), some symbols and space.

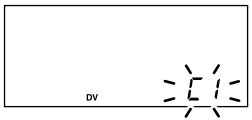
A TX message channel C1 must be programmed, if you want to use the GPS message. The GPS message is transmitted from channel C1 only.

① Push **[SET•LOCK]** to enter message set mode.
- Rotate **[DIAL]** to select "MESSAG," if "CALLS" or "SET" is displayed.

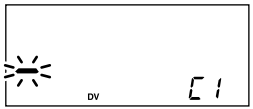
② Push **[SET•LOCK]** or **[S.MW•MW]** several times until "TXM-C" appears.



③ Push **[BAND•MODE]** then rotate **[DIAL]** to select the message channel.
- One of either "C1" to "C6" blinks.

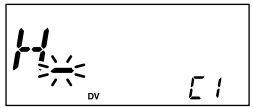


④ Push **[BAND•MODE]** for 1 sec. to enter message programming mode.
- The 1st digit blinks and the channel indication stops blinking.



⑤ Rotate **[DIAL]** to select the desired character.
- Push **[SET•LOCK]** or **[S.MW•MW]** to move the cursor right or left, respectively.

⑥ Push **[SET•LOCK]** to select 2nd digit, then rotate **[DIAL]** to select the desired character.
- 2nd digit blinks (1st digit stops blinking).
- Repeat this step for programming.



⑦ Push **[BAND•MODE]** for 1 sec. to save the message.
⑧ Repeat steps ② to ⑦ to set other message channels.
⑨ Push **[M/CALL•PRIO]**, **[TONE•T-SCAN•BK]**, **[LOW•DUP]** or **[MONI•DTMF•EMR]** to exit the message set mode.

SET B

1 Push **[SET B (D-OFF)]** to enter message set mode.
- Push **[▲]** or **[▼]** to select "MESSAG" if necessary.

2 Push **[SET B(D-OFF)]** or **[ENT C (T-OFF)]** several times to select "TXM-C."

3 Push **[BAND]** then push **[▲]** or **[▼]** to select the message channel.
- One of either "C1" to "C6" blinks.

4 Push **[BAND]** for 1 sec. to enter message programming mode.
- The 1st digit blinks and channel indicator stops blinking.

5 Push **[▲]** or **[▼]** to select the desired character.
- Push **[SET B(D-OFF)]** or **[ENT C(T-OFF)]** to move the cursor right or left, respectively.

6 Push **[SET B(D-OFF)]** to select the 2nd digit, then push **[▲]** or **[▼]** to select the desired character.
- 2nd digit blinks and 1st digit stops blinking.
- Repeat this step for programming.

7 Push **[BAND]** for 1 sec. to save the message.

8 Repeat steps 2 to 7 to set other message channels.

9 Push **[CLR A(MW)]** to exit the message set mode.

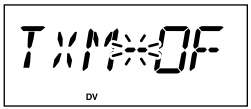
• Available characters

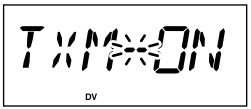
(space)	(!)	(")	(#)	($)	(%)	(&)	(')	(()	())	(*)
(+)	(,)	(–)	(.)	(/)	(0)	(1)	(2)	(3)	(4)	(5)
(6)	(7)	(8)	(9)	(:)	(;)	(<)	(=)	(>)	(?)	(@)
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
(L)	(M)	(N)	(O)	(P)	(Q)	(R)	(S)	(T)	(U)	(V)
(W)	(X)	(Y)	(Z)	([)	(\)	(])	(^)			

◇ Message Transmission

Select the message transmission function ON and OFF. When ON is selected, the transceiver transmits a text message (pre-programmed). (default: OFF)

① Set the operating frequency, call signs and other settings, such as repeater, as desired.
② Push **[SET•LOCK]** to enter message set mode.
• Rotate **[DIAL]** to select "MESSAG," if "CALLS" or "SET" is displayed.
③ Push **[SET•LOCK]** or **[S.MW•MW]** several times until "TXM-C" appears.
④ Rotate **[DIAL]** to select the desired message channel.
• "C1" to "C6" available.
• See pgs. 18 and 19 for message programming.
⑤ Push **[S.MW•MW]** to select the message transmission setting, then rotate **[DIAL]** to select "TXM-ON."





⑥ Push **[M/CALL•PRIO]**, **[TONE•T-SCAN•BK]**, **[LOW•DUP]** or **[MONI•DTMF•EMR]** to exit message set mode.
⑦ Push **[PTT]** to transmit and send the selected message simultaneously.

1 Set the operating frequency, call signs and other settings, such as repeater, as desired.
2 Push **[SET B (D-OFF)]** to enter message set mode.
• Push **[▲]** or **[▼]** to select "MESSAG" if necessary.
3 Push **[SET B(D-OFF)]** or **[ENT C (T-OFF)]** several times until "TXM-C" appears.
4 Push **[▲]** or **[▼]** to select the desired message channel.
5 Push **[ENT C(T-OFF)]** then **[▲]** to select "TXM-ON."
6 Push **[CLR A(MW)]** to exit message set mode.
7 Push **[PTT]** to transmit and send the selected message simultaneously.

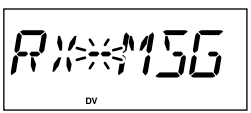
◇ RX message indication

When a call with a message is received, the message can be stored into the RX message record.
The message is cleared once turning power OFF, or overwritten when another message is received.

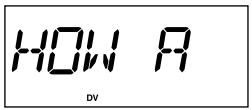
① When the call with a message is received, the digital message indicator blinks.

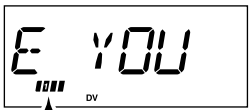
② Push **[SET•LOCK]** to enter message set mode.
- Rotate **[DIAL]** to select "MESSAG," if necessary.

③ Push **[SET•LOCK]** or **[S.MW•MW]** several times until "RX-MSG" or "RX-CAL" appears.
- When "RX-CAL" is displayed, rotate **[DIAL]** to select "RX-MSG."
- When "RX-CAL" is selected, the station call sign, that the message is send, is displayed at the next step.
  Push **[SET•LOCK]** or **[S.MW•MW]** to display last 6-digit or first 6-digit of the call sign, respectively, in this case.



④ Push **[BAND•MODE]** to display the message, then push **[SET•LOCK]** or **[S.MW•MW]** several times to scroll the message.





Scroll indicator appears

⑤ Push **[M/CALL•PRIO]**, **[TONE•T-SCAN•BK]**, **[LOW•DUP]** or **[MONI•DTMF•EMR]** to exit the message set mode.

SET B

1 When the call with a message is received, the digital message indicator blinks.
2 Push **[SET B (D-OFF)]** to enter message set mode.
- Push **[▲]** or **[▼]** to select "MESSAG" if necessary.

3 Push **[SET B(D-OFF)]** or **[ENT C (T-OFF)]** several times to select "RX-MSG" or "RX-CAL."
- When "RX-CAL" is displayed, push **[▲]** or **[▼]** to select "RX-MSG,"

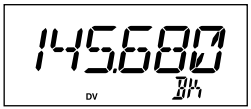
4 Push **[BAND]** to display the message.
5 Push **[SET B(D-OFF)]** or **[ENT C (T-OFF)]** to scroll the message.
6 Push **[CLR A(MW)]** to exit the message set mode.

For your information
When "Auto RX message Display (RMD)" (instruction manual; p. 89) is set to ON, the received message will be displayed and scrolls automatically.

■ Break-in communication

The break-in function allows you to break into an another station's communications in both digital voice and low-speed data operation.

① While receiving an another station's communication, push and hold **[TONE•T-SCAN•BK]** until 2 regular and 2 long beeps sound to turn the break-in setting ON.
• "BK" appears.

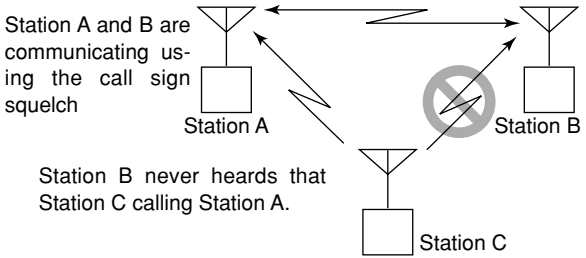


②When both stations are in standby, transmit to send a break-in call.
• Programmed call sign station receives the break-in call as well as your call sign.
③Wait for the reply call from the station who receives the break-in call.
④After receiving the reply call, communicate normally.
⑤To cancel the break-in, push and hold **[TONE•T-SCAN•BK]** for 1 sec. to turn OFF.

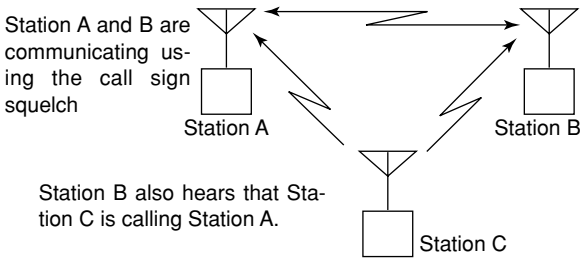
• How to use the break-in

While operating with the call sign squelch, the squelch never opens (no audio sounds) even if a call is received, unless your own call sign ("MyCALL") is specified.
However, when the call including the "BK ON" signal (break-in call) is received, the squelch will open and audio sounds even if the call is specified for another station.

• Station C calling to Station A with "BK OFF"



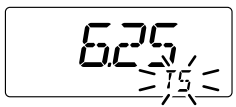
• Station C calling to Station A with "BK ON"



■ Tuning step

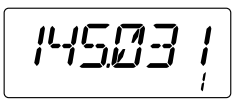
USING SET MODE

A “6.25 kHz” tuning step is additionally available with the firmware update. The “6.25 kHz” tuning step can be used for all bands, except the 900 MHz band.
Also, the set mode indication is also modified as follows.



NOTE: During the “6.25 kHz” tuning step selection, the operating frequency indication below 1 kHz, 0.25 kHz and 0.75 kHz indications, won’t be displayed on the function display.

Indication example;
When 145.03125 MHz is set.



■ Exiting set mode

The key operation to exit from each set mode, “SET,” “CALLS” and “MESSAG,” has been changed as follows.

“SET” : Push **[V/MHz•SCAN]**, **[M/CALL•PRIO]**, **[TONE•T-SCAN•BK]**, **[LOW•DUP]** or **[MONI•DTMF•EMR]** to exit set mode.

“CALLS” : Push **[TONE•T-SCAN•BK]**, **[LOW•DUP]** or **[MONI•DTMF•EMR]** to exit call sign set mode.

“MESSAG” : Push **[M/CALL•PRIO]**, **[TONE•T-SCAN•BK]**, **[LOW•DUP]** or **[MONI•DTMF•EMR]** to exit message set mode.

■ [F-1]/[F-2] keys on HM-133

In addition to the current band condition, the set call signs ("UrCALL," "RPT1 C" and "RPT2 C") and the condition of the set mode and initial set mode settings can also be memorized into **[F-1]** and **[F-2]** keys (**[FUNC]** must be pushed before pushing **[F-1]**/**[F-2]**) with the firmware update.
The memorized call signs are independent from the call sign memory as well as the temporary setting for operation.

Programming the condition

➥ Push **[FUNC]** then push and hold **[F-1]** or **[F-2]** for 1 sec.

Recalling the condition

➥ Push **[FUNC]** then push **[F-1]** or **[F-2]** momentarily.

NOTE: The initialization of these keys is no longer available from the HM-133 key operation.

MEMO

Count on us!

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