ICOM

OPTIONAL INSTRUCTIONS

VHF FM TRANSCEIVER

IC-V8000

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Icom Inc.

1 ANI FUNCTION

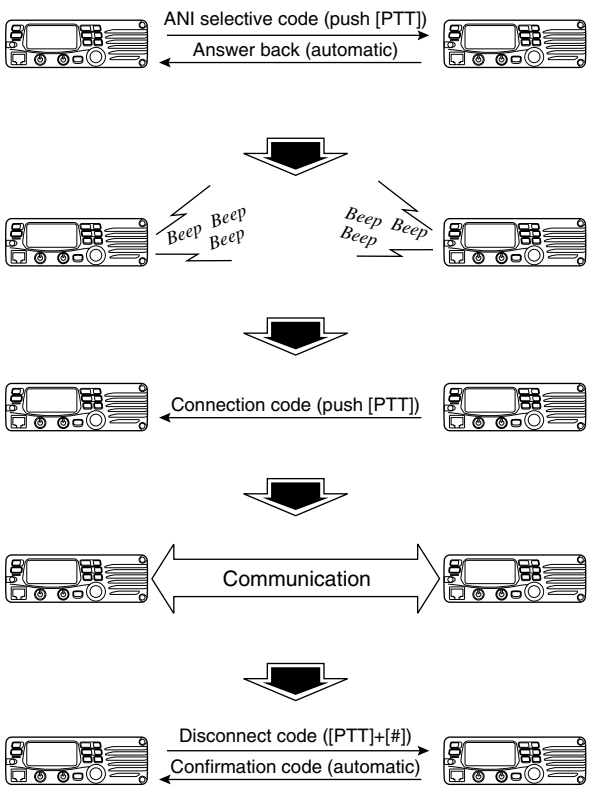
■ General

The ANI (Automatic Number Identification) function is a method of selective calling which features an answer back function. This allows you to confirm whether or not a call has reached the receiving party, even if the operator is temporarily away from the transceiver.

In order to use the IC-V8000's ANI function, the following items and operation are necessary.

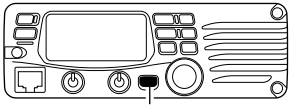
- UT-108 DTMF DECODER UNIT
- ANI code programming (via transceiver or PC, using the optional CS-V8000 CLONING SOFTWARE)
- HM-118TN/TAN or HM-133V

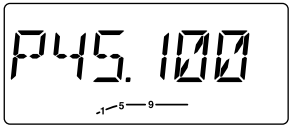
Once ANI mode is selected, the transceiver cannot be used in frequency indication mode unless frequency indication mode is selected (initial set mode or PC cloning), or the CPU is reset.



■ Preparation

① Push [BANK(OPT)] for 1 sec. to select the pager mode.
- Repeat several times if necessary.
- 100 MHz digit shows “P.”


[BANK(OPT)]



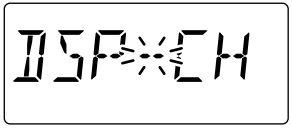
② Program your ID and the station codes.
- Set your ID into channel C0 and station codes into C1 to C6.
  - ➥ Push [SET(LOCK)].
  - ➥ Rotate the tuning dial to select the code channel.
  - ➥ Push [MW(S.MW)] then rotate the tuning dial to set the 1st digit of a code. Repeat this step 2 more times to input 3-digit code, then push [MW(S.MW)].
  - ➥ Push [TONE(T-SCAN)] to return to step ① condition.

③ Set the operating frequency, code channel and other conditions, such as tone squelch, tone frequency, etc., if desired.
- When entering set mode to select tone frequency or DTCS code, you must deactivate the pager mode.
  - ➥ Push [SET(LOCK)].
  - ➥ Push [SET(LOCK)] or [MW(S.MW)] several times to select the desired item.
  - ➥ Rotate the tuning dial to select a tone frequency or DTCS code and polarity.
  - ➥ Push [TONE(T-SCAN)] to return to the previous indication.

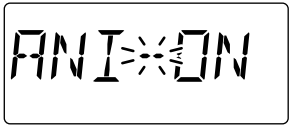
④ Push [MW(S.MW)] for 1 sec. to program the contents into the desired memory channel.
- Memory bank can also be selected, if desired.

⑤ Repeat steps ③ and ④ to program other settings.

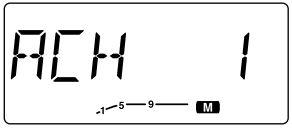
⑥ Select channel number indication mode.
- ➥ Turn the power OFF.
- ➥ While pushing [SET(LOCK)] turn the power ON.
- ➥ Push [SET(LOCK)] or [MW(S.MW)] several times until “DSP” appears.
- ➥ Rotate the tuning dial to select “DSP--CH.”



⑦ Turn the ANI mode ON.
- ➥ Push [SET(LOCK)] or [MW(S.MW)] several times until “ANI” appears.
- ➥ Rotate the tuning dial to select “ANI--ON.”



⑧ Push [PWR] to exit initial set mode.
- ANI mode is selected— “A” is displayed as below.



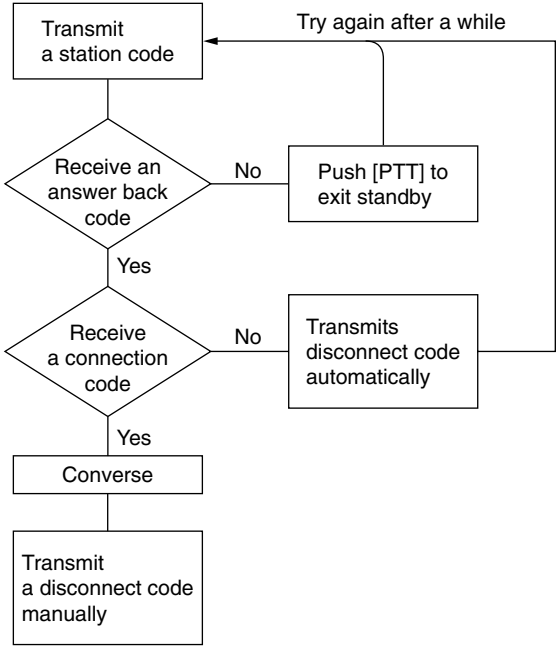
■ Operation

◇ Calling a specific station

① Turn the power ON.
② Rotate the tuning dial to select the desired channel.
• "A" is displayed beside the channel number on the ANI set channel.
③ Push [SET(LOCK)] then rotate the tuning dial to select the desired code channel C1 to C6, or set the 3-digit ANI code, if desired.
• Push [TONE(T-SCAN)] to return to the previous conditions.
④ Push [PTT] to connect to the selected station.
• Transmits the pre-programmed station code.
⑤ When the transceiver rings (an answer back is received), wait for a connection code from the connected station; when the transceiver doesn't ring, push [PTT] again to exit the standby condition, then try again from step ③ after waiting a while.
⑥ When the connection code is received, the connection code sounds, then "📡" blinks; when the connection code is not received within 10 sec., the transceiver transmits a disconnect code automatically. Try again from step ③ after waiting a while.
⑦ When "📡" blinks, you can converse with the connected station.
• Push [PTT] to transmit; release to receive.
⑧ When your conversation is finished, push [#] while pushing [PTT] (for HM-118TN/TAN), or push [DTMF-S] then [SQL▼ #(16KEY-L)] (for HM-133V) to transmit a disconnect code.

NOTE:
When your conversation extends into the time-out time, the transceiver transmits a disconnect code automatically.

• ANI operation flow chart



◇ Calling group stations

① Select the desired ANI set channel.

② ***When using HM-118TN/TAN:***
Push [✱] then enter the 3-digit group code. [A] or [D] must be included at least once.
When using HM-133V:
Push [✱(TONE-1)] then enter the 3-digit group code. [CLR A(MW)] or [SQL▲ D(MUTE)] must be included at least once.
- Transmits automatically after the 3rd digit code is entered.
- When making group calls, the transceiver does not ring and no answer back connection code is received.
- You can make an announcement to your group immediately without a connection procedure.
- "📡" blinks.

③ Operate the transceiver in the normal way (push [PTT] to transmit; release [PTT] to receive).

④ When your conversation is finished, push [#] while pushing [PTT] (HM-118TN/TAN), or push [DTMF-S] then [SQL▼ #(16KEY-L)] (HM-133V) to transmit a disconnect code.

◇ Group code examples

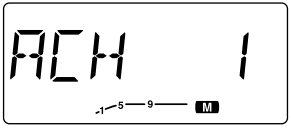
[Example 1]: If the "11D (11A)" is transmitted, the transceivers with ID codes "110" to "119" are called.

[Example 2]: If the "1D3 (1A3)" is transmitted, the transceivers with ID codes "103," "113,"..."183" and "193" are called.

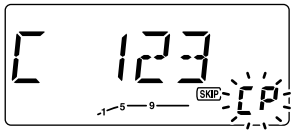
NOTE: When "DDD (AAA)" code is transmitted, all transceivers are called.

◇ Waiting for a call

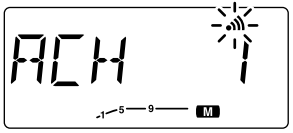
① Select the desired ANI set channel, or push [V//MHz(SCAN)] for 1 sec.



② When receiving a selective call, the display changes as below, and ringing beeps are heard.



When called from the station "123."



During ANI conversation.

③ Push [PTT] to send a connection code within 10 sec.
- A disconnect code is sent automatically instead of a connection code in case [PTT] operation is not performed within 10 sec.

④ While "📡" blinks, converse with the connected station.
- Transmitting the disconnect code from your side (push [#] while pushing [PTT] or push [DTMF-S] then push [SQL▼ #(16KEY-L)]) is also available. (except for group call receive)
- "📡" stops blinking.

■ Related functions

The following functions for the ANI operation are added to the initial set mode when the optional UT-108 DTMF DECODER UNIT is installed.

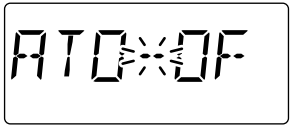
Initial set mode programming

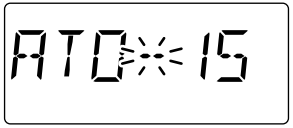
① While pushing [(SET(LOCK)], turn the power ON.
② Push [SET(LOCK)] or [MW(S.MW)] several times to select the desired item.
③ Rotate the tuning dial to set the condition or value.
• Push [PWR] to exit the initial set mode.

◇ Time-out timer

To prevent accidental prolonged transmission, etc., particularly in ANI operation. This function transmits a disconnect code just before it cuts a transmission OFF after 0.5–15 min. (0.5 min. steps) of continuous transmission automatically.

ATO--OF : The time-out timer is turned OFF. (default)
ATO--0.5–15 : The transmission is cut OFF after the set period elapses.

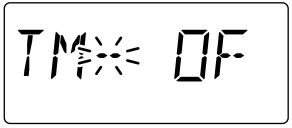


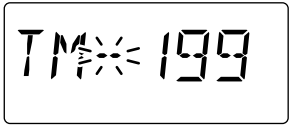


◇ Transmit channel

Select the transmit channel during scan from 0–199 and OFF.

TM--0–199 : Pauses scan and transmits the programmed code on the selected channel. 2 sec. after a disconnect code is transmitted or received, scan resumes.
TM--OF : Searches clear channels automatically. After scanning stops once, the transceiver transmits on a clear channel.





NOTE: When specifying a transmit channel, turn the scan skip setting OFF for the channel. When the channel set as a skip channel, transmission is inhibited.

✔ RECOMMENDATION!

When the scanning function is used with the ANI operation, selecting up to 7 channels only for scanning is recommended. Scanning of more than 8 channels may cause the ANI code not to be detected correctly.

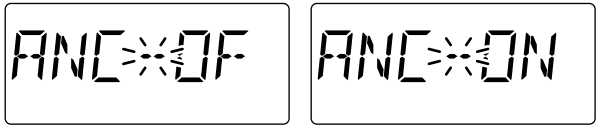
When using the memory bank scan, select a transmit channel from the scanning bank. Otherwise the scan resumes in another bank— not in the previously scanned bank.

◇ Lock out function

Turns the busy channel lock out function ON and OFF.

ANC--ON : Transmit is inhibited when the channel is busy.

ANC--OF : Transmit is permitted even when the channel is busy.

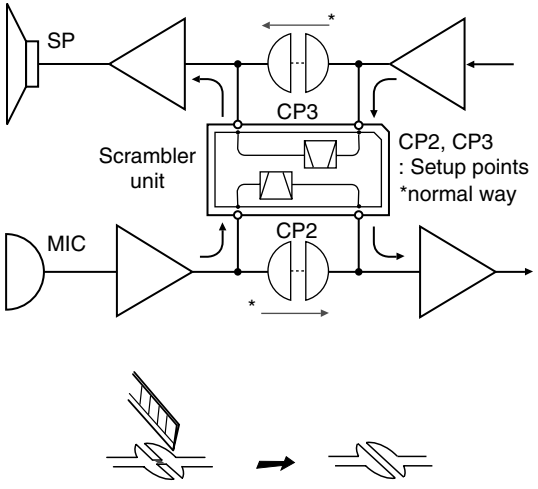


2 VOICE SCRAMBLER

■ Preparation

◇ Hardware setup

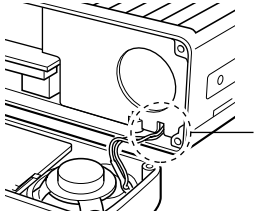
The following hardware setup is required before installing the optional UT-109/UT-110 VOICE SCRAMBLER UNIT, as the scrambler unit is installed into the microphone amplifier circuit (for transmission) and AF circuit (for reception).



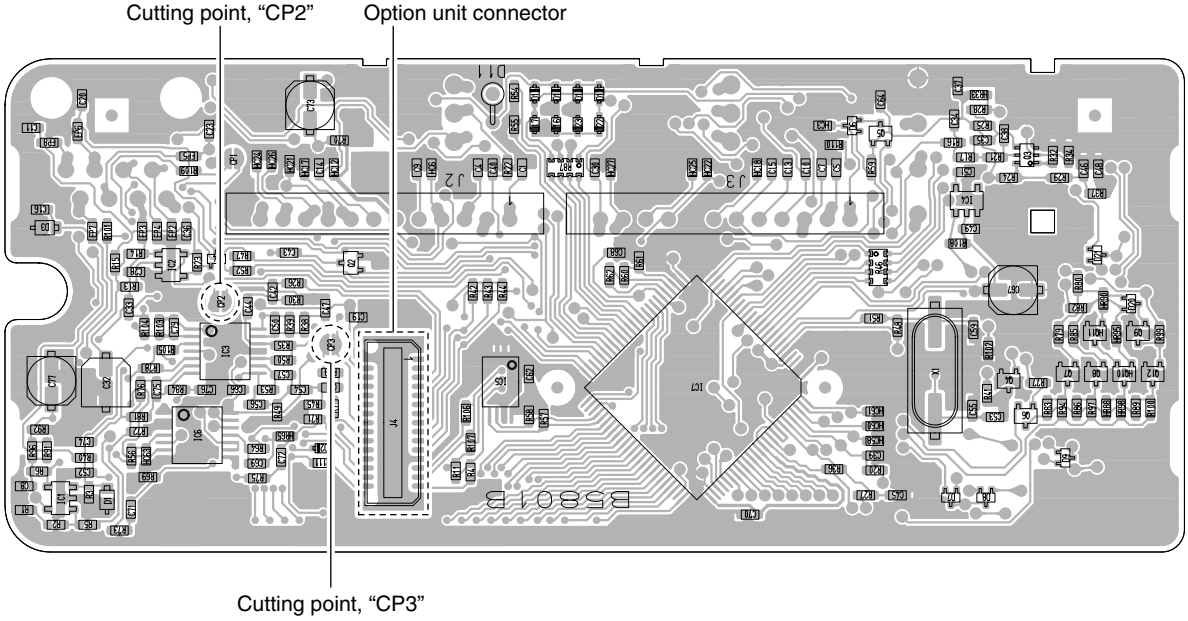
◇ Setup instructions

① Turn the power OFF, then disconnect the power cable.
② Remove the 3 allen-socket bolts from the front panel using with an allen wrench (2.5 mm; 1/10″).
③ Remove the front panel from the transceiver.
④ Cut the printed circuit pattern on the PCB at point CP2 and CP3, as described at right.
⑤ Install the voice scrambler unit.
⑥ Return the front panel and the allen-socket bolts to their original position.

NOTE: When attaching the front panel to the main unit, make sure the speaker wires are running in the groove as illustrated below to prevent catching between front panel and main unit.

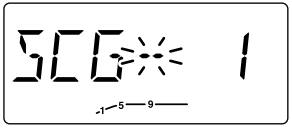


Running the wires in the groove.

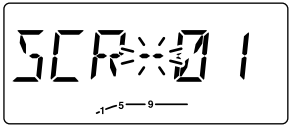

Cutting point, “CP2”
Option unit connector
Cutting point, “CP3”

◇ Scrambler setting

① Push [SET(LOCK)] to enter set mode.
② Push [SET(LOCK)] or [MW(S.MW)] several times until "SCG" appears.
• When the UT-109 is installed, skip steps ② and ③. Continue from step ④.



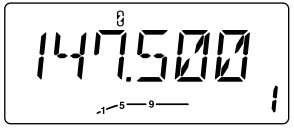
③ Rotate the tuning dial to select the desired group code from 1–4.
• The same group code must be selected in your group.
④ Push [SET(LOCK)] or [MW(S.MW)] several times until "SCR" appears.
⑤ Rotate the tuning dial to select the desired scramble code.
• Select a scramble code from 0–20 (32 codes; hexadecimal digit) when UT-109, 0–FF (256 codes) when UT-110 is installed.



⑥ Push [TONE(T-SCAN)] to exit set mode.

■ Operation

① Set the desired operating frequency.
• Set other conditions, such as repeater, tone squelch, etc.
② Push [BANK(OPT)] for 1 sec. to turn the voice scrambler function ON.
• "🔒" appears.



③ Operate the transceiver in the normal way (push [PTT] to transmit; release [PTT] to receive).
④ To turn the voice scrambler function OFF, push [BANK(OPT)] for 1 sec. again
• "🔒" disappears.

MEMO

Count on us!

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