INFORMATION

IC-9700 Version 1.30

The following features are now changed in, or added to, the IC-9700.

Added : New functions and/or menus have been added.
Changed : Some operations, items, and/or options that already exist have been changed.

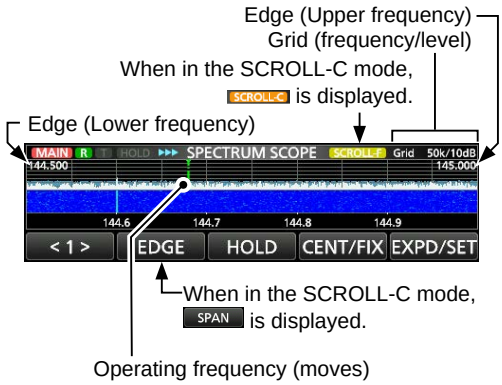
Changed Scope operation

- The Scroll mode is added.
- When the scope span or Edge frequency is changed, such as by touching [SPAN] or [EDGE], the selected scope span or the selected Edge frequency display is enlarged.
- In the SCOPE SET menu, “Marker Position (FIX Type)” is renamed to “Marker Position (FIX Type/ SCROLL Type).”
- The maximum number of Fixed Edges for each band is increased from 3 to 4.
- Each band memorizes the Reference level.

◇Scroll mode

Displays signals within a selected span. When the operating frequency moves outside of the screen, the displayed frequency range is automatically scrolled.

1. Display the SPECTRUM SCOPE screen.
   MENU » SCOPE
2. Touch [CENT/FIX] for 1 second to select the Scroll mode.
   - When changing the Center mode to the Scroll mode, “SCROLL-C” is displayed.
     You can change the scope span by touching [SPAN].
   - When changing the Fixed mode to the Scroll mode, “SCROLL-F” is displayed.
     You can change the Edge frequencies by touching [EDGE].
3. Touch [CENT/FIX] to return to the previous mode.
   - When returning to the Center mode, the scope span does not return to the previous setting.
   - When returning to the Fixed mode, the Edge frequencies return to the last selected “Fixed Edges.” If the operating frequency is above the upper Edge frequency, or below the lower Edge frequency, “>>” or “<<” is displayed in the upper side corners of the SPECTRUM SCOPE screen.



Added PRESET menu

[PRESET] is added to the MENU screen.

You can save the combination of the following settings for the data mode to quickly change the settings, depending on your operating needs.

Preset Name	COMP
Mode	SSB TBW
Filter	SSB TX Bandwidth
Filter BW (144M)	USB SEND
Filter BW (430M)	USB Keying (CW)
Filter BW (1200M)	USB Keying (RTTY)
Filter Type	Inhibit Timer at USB Connection
USB Output Select	
USB AF Output Level	CI-V Baud Rate
USB AF SQL	CI-V Address
USB IF Output Level	CI-V Transceive
USB MOD Level	CI-V USB Port
DATA MOD	CI-V USB Baud Rate
SSB-D TX Bandwidth	CI-V USB Echo Back
DATA OFF MOD	

ⓘ The transceiver has a total of 5 memories.

◇Loading the preset memory

The preset memory contents are loaded into the Main band that is displayed on the upper half of the screen.

1. Push MENU.
2. Touch ② at the center bottom of the screen.
3. Touch [PRESET].

4. Touch the preset memory to load.
5. Touch [YES].
   - The selected preset memory is loaded, and “In Use” is displayed on the PRESET screen. If you change the transceiver settings, and they do not match the contents of the preset memory, “In Use” disappears.

   ⓘ Touching [UNLOAD] returns the transceiver settings to those set before loading the preset memory.

NOTE:
- You can load a memory whose mode is set to “DD” only when the 1200 MHz band is selected.
- You cannot load the preset memory whose “Mode” is checked while:
  - Transmitting in the DV mode.
  - The DR function is ON.
  - The DV Gateway function is ON.
  - The transceiver is in the Satellite mode.
  - Selecting a blank Memory channel in the Memory mode.
- You cannot load a preset memory that is displayed as “(BLANK).”

◇Editing the memory contents

NOTE: You cannot edit the preset memory that is in use. To edit it, first touch [UNLOAD], and then edit the memory.

1. On the PRESET screen, touch a preset memory to edit for 1 second.
   - Opens the QUICK MENU screen.
2. Touch “Edit the Preset Memory.”

   ⓘ When touching “Save to the Preset Memory,” all of the contents are set to the current settings before editing.
3. Touch the check box to select whether or not to load the item.
   - “✓” is displayed on the left side of the loading item.
4. Touch the item name, and then touch the option to set.
5. Repeat steps 3 and 4 to edit the preset memory.
6. Touch “<<Write>>.”
7. Touch [YES].

TIP: Depending on your software, you may need to change the “CI-V Address” setting.
For example, you use a software that is not compatible with the IC-9700. In that case, you may be able to use the software by setting “CI-V Address” to a compatible transceiver’s address.

Added Front Key Customize function

You can change the [VOX/BK-IN], [AUTO TUNE] / [AFC], and [TONE RX>CS] keys function.

[MENU] » SET > Function > **Front Key Customize**

Function	Description	[VOX/BK-IN]	[AUTOTUNE/ AFC]	[TONE/RX>CS]
VOX/BK-IN	• Push to turn the VOX function in the Voice operation modes and the Break-in function in the CW mode ON or OFF. • Hold down for 1 second to open its function menu.	●	N/A	N/A
AUTOTUNE/AFC	**In the CW mode** Push to automatically tune the operating frequency to a close-by CW signal. **In the FM or DV mode** Push to turn the Auto Frequency Control function ON or OFF.	N/A	●	○
AUTOTUNE/AFC/ RX>CS	**In the CW mode** Push to automatically tune the operating frequency to a close-by CW signal. **In the FM, DV or DD mode** • In the FM or DV mode, push to turn the Auto Frequency Control function ON or OFF. • In the DV or DD mode, hold down for 1 second to display the RX History list.	N/A	○	N/A
TONE/RX>CS	**In the FM mode** • Push to display the Tone Set window. • Hold down for 1 second to display the TONE FREQUENCY window. ⓘ For European versions: While holding down [PTT], hold down this key to send the 1750 Hz tone. **In the DV or DD mode** • Push to display the RX History list. • Hold down for 1 second to capture the latest received call sign (station or repeater) as a temporary call destination.	N/A	○	●
CD	Push to open the received call history.	○	○	N/A
CD/RX>CS	• Push to open the received call history. • In the DV or DD mode, hold down for 1 second to display the RX History list.	N/A	○	○
PRESET	Push to open the PRESET screen.	○	○	N/A
PRESET/ RX>CS	• Push to open the PRESET screen. • In the DV or DD mode, hold down for 1 second to display the RX History list.	N/A	○	○
Home CH	Push to directly select the Home Channel that is set to the selected mode (VFO/Memory) or DR screen. ⓘ While in the Call channel mode, or when no Home CH is set, an error beep sounds.	○	○	N/A
Home CH/ RX>CS	• Push to directly select the Home Channel that is set to the selected mode (VFO/Memory) or DR screen. ⓘ While in the Call channel mode, or when no Home CH is set, this function is not activated. • In the DV or DD mode, hold down for 1 second to display the RX History list.	N/A	○	○
Temporary Skip	Push to set the frequency to be skipped while scanning. The selected frequencies are temporarily skipped for faster scanning.	○	○	N/A
Temporary Skip/ RX>CS	• Push to set the frequency to be skipped while scanning. The selected frequencies are temporarily skipped for faster scanning. • In the DV or DD mode, hold down for 1 second to display the RX History list.	N/A	○	○
Voice/Keyer/RTTY Memory 1 Voice/Keyer/RTTY Memory 2 Voice/Keyer/RTTY Memory 3 Voice/Keyer/RTTY Memory 4	**In the SSB, AM, FM, or DV mode** • Push to transmit the voice audio recorded on the SD card once. • Hold down for 1 second to repeatedly transmit the voice audio. ⓘ This key function can also be used on the DR screen. ⓘ If the voice audio is not saved in the Voice TX memory (T1 ~ T4), this function is disabled. **In the CW mode** • Push to transmit the Keyer memory content once. • Hold down for 1 second to repeatedly transmit the memory content. ⓘ If the Keyer memory content (M1 ~ M4) is not entered, this function is disabled. **In the RTTY mode** Push to transmit the RTTY memory content once. ⓘ If the RTTY memory content (RT1 ~ RT4) is not entered, this function is disabled.	○	○	N/A

Added MIC Key Customize function

You can change the microphone's [UP]/[DN] keys function.

MENU » SET > Function > **MIC Key Customize**

[UP] (Default: UP (VFO: kHz))
[DN] (Default: DOWN (VFO: kHz))

Function	Description
---	No function
UP	Push to increase the frequency (in 50 Hz steps*), Memory channel, repeater, or select the next station call sign. * When the Tuning Step function is ON, increases the frequency in the selected Tuning Step.
DOWN	Push to decrease the frequency (in 50 Hz steps*), Memory channel, repeater, or select the previous station call sign. * When the Tuning Step function is ON, increases the frequency in the selected Tuning Step.
UP (VFO: kHz)	Push to increase the frequency (in 1 kHz steps*), Memory channel, repeater, or select the next station call sign. * When the Tuning Step function is ON, increases the frequency in the selected Tuning Step.
DOWN (VFO: kHz)	Push to decrease the frequency (in 1 kHz steps*), Memory channel, repeater, or select the previous station call sign. * When the Tuning Step function is ON, increases the frequency in the selected Tuning Step.
XFC	While holding down the key, the transceiver monitors signals.
CALL	Push to select the Call channel mode.
VFO/MEMO	• Push to select the VFO mode and the Memory mode. • Hold down for 1 second to copy a Memory channel contents to the VFO.
DR	Push to turn the DR function ON or OFF.
FROM/TO (DR)	**In the DR screen** Push to select "FROM" or "TO."
Home CH	Push to directly select the Home Channel that is set to the selected mode (VFO/Memory) or DR screen. ⓘ While in the Call channel mode, or when no Home CH is set, an error beep sounds.
BAND UP	**In the VFO or Memory mode** • Push to increase an operating band. • Hold down for 1 second to recall the Band Stacking Register contents.
BAND DOWN	**In the VFO or Memory mode** • Push to decrease an operating band. • Hold down for 1 second to recall the Band Stacking Register contents.
SCAN	• Push to start the previously selected scan. While scanning, push to stop the scan. • Hold down for 1 second to open the SCAN SELECT screen.
Temporary Skip	Push to set the frequency to be skipped while scanning. The selected frequencies are temporarily skipped for faster scanning.
SPEECH	Push to announce the frequency, operating mode, or call sign. ⓘ In the VFO, Memory, or Call channel mode, the frequency and the operating mode are announced. ⓘ In the DR screen, the call sign is announced. If Simplex is selected, the frequency is announced.
MAIN/ DUAL	• Push to select the Main or Sub band. • Hold down for 1 second to turn the Dualwatch function ON or OFF.
MODE	• Push to select the operating mode. • Hold down to toggle USB and LSB, CW and CW-R, or RTTY and RTTY-R.
Voice/ Keyer/ RTTY Memory 1	**In the SSB, AM, FM, or DV mode** • Push to transmit the voice audio recorded on the SD card once. • Hold down for 1 second to repeatedly transmit the voice audio. ⓘ This key function can also be used on the DR screen. ⓘ If the voice audio is not saved in the Voice TX memory (T1 ~ T4), this function is disabled. **In the CW mode** • Push to transmit the Keyer memory content once. • Hold down for 1 second to repeatedly transmit the memory content. ⓘ If the Keyer memory content (M1 ~ M4) is not entered, this function is disabled. **In the RTTY mode** Push to transmit the RTTY memory content once. ⓘ If the RTTY memory content (RT1 ~ RT4) is not entered, this function is disabled.
Voice/ Keyer/ RTTY Memory 2	
Voice/ Keyer/ RTTY Memory 3	
Voice/ Keyer/ RTTY Memory 4	
T-CALL	Push to transmit a 1750 Hz Tone. (Only for European version.)
RX>CS	**In the DV or DD mode** • Push to display the RX History list. • Hold down for 1 second to set the last calling station's call sign to "TO" (destination).
TS	• Push to turn the Tuning Step function ON or OFF. • Hold down for 1 second to open the TS screen.
MPAD	• Push to sequentially call up the contents in the Memo Pads. • Hold down for 1 second to save the displayed contents into the Memo Pad.
SPLIT	• Push to turn the Split function ON or OFF. • Hold down 1 second to turn ON the Quick Split function.
A/B	• Push to select the VFO A or VFO B. • Hold down for 1 second to set the displayed VFO's frequency to the VFO that is not displayed.

Changed Latitude/Longitude unit

“ddd.dddd°” is added to Latitude/Longitude unit setting.

MENU » SET > Display > Display Unit > **Latitude/Longitude**

When the Latitude/Longitude unit is set to “ddd.dddd°,” “Alarm Area (Group)” is set to between 0.0014° and 0.9999° (0.0001° steps).

MENU » GPS > GPS Alarm > **Alarm Area (Group)**

Added A new function when touching the GPS icon

You can display the GPS INFORMATION screen by touching the GPS icon.

Changed Multi-function dial

- You can cancel a function assigned to MULTI on the Multi-function menu by:
  - Touching the Function indicator for Multi-function control.
  - Holding down MULTI for 1 second.
- When you assign “kHz,” and rapidly rotate MULTI, the acceleration automatically speeds up the tuning dial speed.

Changed Keyboard entry

On the Full Keyboard screen, the Capital Lock function is not canceled, even if you toggle between the alphabet and numeric modes.

Changed Default tuning step in the CW mode

The default tuning step in the CW mode is changed from 1 kHz to 100 Hz.

Changed QUICK MENU item in the Terminal/AP mode

“<<Normal Mode>>” is added to the QUICK MENU of Terminal mode and Access Point mode.
You can cancel the Terminal/AP mode by touching “<<Normal Mode>>” on the QUICK MENU.

Changed Tone Control settings in the Data mode

In the Data mode, the Tone Control settings are automatically disabled.

MENU » SET > Tone Control/TBW > **RX**

- RX HPF/LPF (Default: – – – – – – – – – –)
- RX Bass (Default: 0)
- RX Treble (Default: 0)

Changed CI-V commands

The following commands are changed in, or added to the conventional Command table.

Cmd.	Sub cmd.		Data	Description
1A*	05	0170	00 ~ 02	SET > Display > Display Unit > Latitude/Longitude (00=ddd°mm.mm′, 01=ddd°mm′ss″ 02=ddd.dddd°)
		0190	00 or 01	SCOPE > Marker Position (FIX Type/ SCROLL Type) (00=Filter Center, 01=Carrier Point)
		0343	See the right.	SET > Function > Front Key Customize > [VOX/BK-IN]
		0344	See the right.	SET > Function > Front Key Customize > [AUTOTUNE/AFC]
		0345	See the right.	SET > Function > Front Key Customize > [TONE/RX>CS]
		0346	See p. 7.	SET > Function > MIC Key Customize > [UP]
		0347	See p. 7.	SET > Function > MIC Key Customize > [DN]
		0348	See p. 7.	SCOPE > Fixed Edges > 144M > No.4
		0349	See p. 7.	SCOPE > Fixed Edges > 430M > No.4
		0350	See p. 7.	SCOPE > Fixed Edges > 1200M > No.4
27*	00		See p. 8.	Read the Scope waveform data (Only when “Scope ON/OFF status” (Command: 27 10) and “Scope data output” (Command: 27 11) are set to “ON,” outputs the waveform data to the controller.)
	14		See p. 8.	Send/read the Scope Center mode, Fixed mode, SCROLL-C mode, or SCROLL-F mode setting
	15		See p. 8.	Send/read the Span setting in the Center mode or SCROLL-C mode Scope
	16		See p. 8.	Send/read the Edge number setting in the Fixed mode or SCROLL-F mode Scope
	20		00 or 01	Send/read the Marker Position (FIX Type/SCROLL Type) setting (00=Filter Center, 01=Carrier Point)

*(Asterisk) Send/read data

◇Command formats

• [VOX/BK-IN] setting

Command: 1A 05 0343

Data	Function
00	VOX/BK-IN
01	CD
02	PRESET
03	Home CH
04	Temporary Skip
05	Voice/Keyer/RTTY Memory 1
06	Voice/Keyer/RTTY Memory 2
07	Voice/Keyer/RTTY Memory 3
08	Voice/Keyer/RTTY Memory 4

• [AUTOTUNE/AFC] setting

Command: 1A 05 0344

Data	Function
00	AUTOTUNE/AFC
01	AUTOTUNE/AFC/RX>CS
02	TONE/RX>CS
03	CD
04	CD/RX>CS
05	PRESET
06	PRESET/RX>CS
07	Home CH
08	Home CH/RX>CS
09	Temporary Skip
10	Temporary Skip/RX>CS
11	Voice/Keyer/RTTY Memory 1
12	Voice/Keyer/RTTY Memory 2
13	Voice/Keyer/RTTY Memory 3
14	Voice/Keyer/RTTY Memory 4

• [TONE/RX>CS] setting

Command: 1A 05 0345

Data	Function
00	AUTOTUNE/AFC
01	TONE/RX>CS
02	CD/RX>CS
03	PRESET/RX>CS
04	Home CH/RX>CS
05	Temporary Skip/RX>CS

Changed CI-V commands

◇ Command formats

• **MIC Key Customize setting**

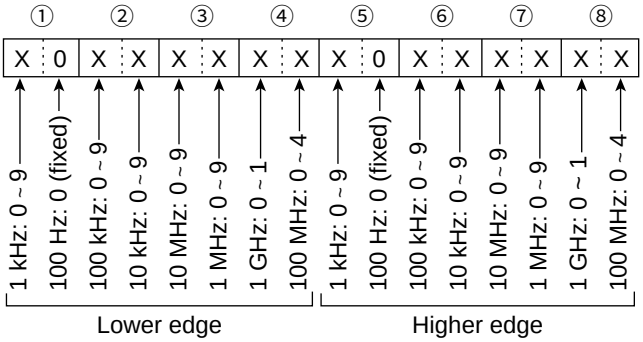
Command: 1A 05 0346, 0347

Data	Function
00	No function
01	UP
02	DOWN
03	UP (VFO: kHz)
04	DOWN (VFO: kHz)
05	XFC
06	CALL
07	VFO/MEMO
08	DR
09	FROM/TO (DR)
10	Home CH
11	BAND UP
12	BAND DOWN
13	SCAN
14	Temporary Skip
15	SPEECH
16	MAIN/DUAL
17	MODE
18	Voice/Keyer/RTTY Memory 1
19	Voice/Keyer/RTTY Memory 2
20	Voice/Keyer/RTTY Memory 3
21	Voice/Keyer/RTTY Memory 4
22	T-CALL
23	RX>CS
24	TS
25	MPAD
26	SPLIT
27	A/B

• **Bandscope edge frequency settings**

Command: 1A 05 0202 ~ 1A 05 0210

1A 05 0348 ~ 1A 05 0350



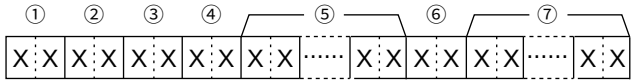
Changed CI-V commands

◇ Command formats

• Scope waveform data

Command: 27 00

Outputs the waveform data to the controller.



① Main or Sub scope data
- 00=Main scope, 01=Sub scope

② Order of division data (Current): 01~11

③ Division number (Maximum): 01(LAN), 11(USB)

ⓘWhen data is sent to the controller through the LAN port, all data is sent together. However, when the data is sent through the USB port, the data is divided by 11 and sent in sequential order.

ⓘThe 1st data sends only the wave information (① ~ ⑥) without the waveform data (⑦). The 2nd or later data sends the minimum wave information (① ~ ③) with waveform data (⑦).

④ Spectrum scope mode data:
- 00 = Center mode scope
- 01 = Fixed mode scope
- 02 = SCROLL-C mode scope
- 03 = SCROLL-F mode scope

⑤ Waveform information:
The waveform information differs, depending on the Spectrum scope mode.
- In the Center mode:
  Center frequency and span are sent.
  See page 13 of the CI-V Reference Guide for Operating frequency data, and the Scope span settings ② ~ ⑥ to the right.
- In the Fixed, SCROLL-C, and SCROLL-F modes:
  Lower edge and higher edge frequencies are sent. See the Scope Fixed edge frequency settings ③ ~ ⑫ to the right.

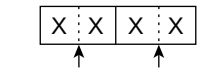
⑥ Out of range information:
- 00 = In range
- 01 = Out of range

ⓘIf the scope data is out of range, the waveform data (⑦) is omitted.

⑦ Waveform data:
The transceiver outputs the drawn waveform data. The data range or data length of the waveform data is judged by the controller. (The data range is basically the same as the display size of the scope on the controller.)
- Data range: 0 ~ 160
- Data length: 475

• Scope mode settings

Command: 27 14



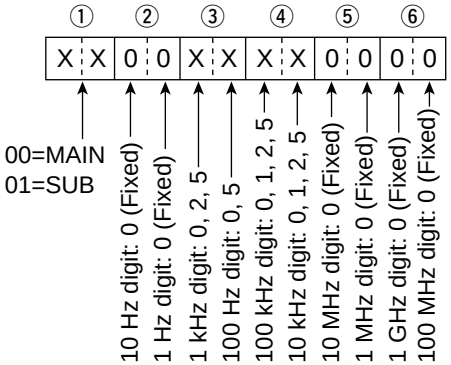
00=MAIN
01=SUB

00=Center mode
01=Fixed mode
02=SCROLL-C mode
03=SCROLL-F mode

• Scope span settings

(in the Center mode and SCROLL mode Scope)

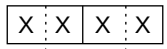
Command: 27 15



Span (kHz)	
2500	2.5
5000	5
10000	10
25000	25
50000	50
100000	100
250000	250
500000	500

• Scope Edge number settings

Command: 27 16

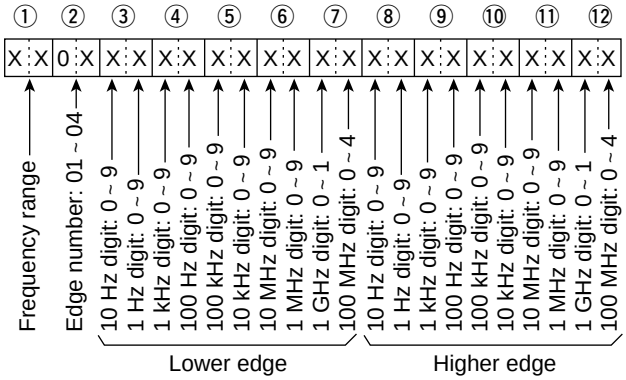


00=MAIN
01=SUB

01=Edge 1
02=Edge 2
03=Edge 3
04=Edge 4

• Scope Fixed edge frequency settings

Command: 27 1E



ⓘEntry of less than 1 kHz digits is ignored.

① Selectable Frequency ranges:

Data	Frequency range (MHz)
01	144.000 ~ 148.000
02	430.000 ~ 450.000
03	1240.000 ~ 1300.000

② Selectable Edge number: 01=1, 02=2, 03=3, 04=4

INFORMATION

IC-9700 Version 1.20

The following features are now changed in, or added to, the IC-9700.

Added : New functions and/or menus have been added.
Changed : Some operations, items, and/or options that already exist have been changed.

Changed Set mode

The following items are added to the Set mode.

MENU » SET > **Connectors**

PTT Port Function

(Default: PTT Input + SEND Output)

Set the behavior of the PTT pin on the [MIC] connector.

- PTT Input:
  While transmitting, the transceiver does not output the SEND signal (TX status) from the PTT pin, but does detect the PTT input (PTT operation) on the microphone.
- PTT Input + SEND Output:
  While transmitting using other than the operating microphone, the transceiver does not detect the PTT input (PTT operation) of the microphone, due to the output SEND signal from the PTT pin.

NOTE: If you want to do the following operations, set to "PTT Input."

- Transmit voice audio by holding down [PTT] on the microphone while transmitting an image in the DV Fast Data mode.
- Cancel transmitting the recorded audio by pushing [PTT] on the microphone.

MENU » SET > **Display**

RX Picture Indicator

(Default: ON)

Select whether or not to display the RX Picture Indicator when a picture is included in the received signal.

- OFF: No indicator is displayed, even if a picture is included in the received signal.
- ON: The indicator is displayed when a picture is included in the received signal.

ⓘ When "RX Call Sign Display" is set to "OFF," the indicator is not displayed, even if the picture is included in the received signal.

MENU » SET > **SD Card**

TX/RX Picture View

Displays the pictures that are saved on the SD card.

ⓘ The transceiver cannot display the picture while transmitting picture data.
ⓘ The transceiver can display up to 500 pictures.

Changed Maximum characters

The maximum number of characters in the following file names are increased to 23 characters.

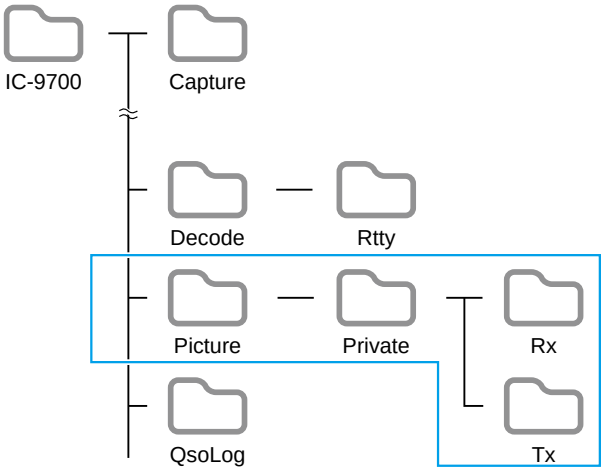
- icf format file
- CSV format file

Added The Share Pictures function

The Share Pictures function is added.
With this function, you can transmit a picture, and view a received picture, even if you do not use the RS-MS1A.
ⓘSee "About the Share Pictures function" that can be downloaded from the Icom website for details.

Added SD card folders

Some folders are added on the SD card.
ⓘAfter inserting an SD card into the transceiver (version 1.20 or late), the Picture folders are automatically created in the IC-9700 folder.



- **Picture folder**
  Saves the pictures in the "jpg" format that are used with the Share Pictures function.
- **Private folder**
  Saves RX Picture History and TX Picture History.
- **Rx folder**
  Saves RX Picture History in the "dat" format.
  ⓘ The RX Picture History contents are not displayed on the PC.
- **Tx folder**
  Saves TX Picture History in the "dat" format.
  ⓘ The TX Picture History contents are not displayed on the PC.

Added Reflector setting

"DCS" and "XLX" are added to the Reflector type to select when directly inputting a Reflector.

INFORMATION

IC-9700 Version 1.13

The following features are now changed in, or added to, the IC-9700.

Added : New functions and/or menus have been added.
Changed : Some operations, items, and/or options that already exist have been changed.

Added Firmware update confirmation

A confirmation dialog is added when updating the firmware.

- When you touch [YES], the backup file is made on the SD card, and then the Firmware selection screen is displayed.

Changed REF adjustment

“REF Adjust” and “REF Adjust (FINE)” in the Set mode are displayed to the tenths place digit.

INFORMATION

IC-9700 Version 1.10

The following features are now changed in, or added to, the IC-9700.

Added : New functions and/or menus have been added.
Changed : Some operations, items, and/or options that already exist have been changed.

Changed Set mode

The following items are added to the Set mode.

MENU » SET > **Function**

Home CH Beep (Default: ON)

Turn the Home CH Beep ON or OFF.

ⓘ In the VFO or Memory mode, when the Home Channel frequency or the Home Channel Memory is selected, the Home CH Beep sounds.
ⓘ In the DR screen, when the Home Channel Access repeater is set in FROM, the Home CH Beep sounds.

- OFF: No beep sounds.
- ON: Sounds a beep when you select the Home Channel.

MENU » SET > **SD Card**

Save Form (Default: Now Ver)

Selects the format to save the settings to an SD card.

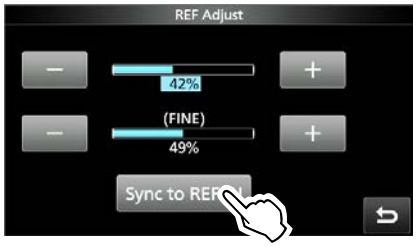
- Now Ver: Saves the settings in the current version format.
- Old Ver (x.xx - x.xx): Saves the settings in an older version format indicated in the parenthesis (x.xx = version).

ⓘ If you select “Old Ver (x.xx - x.xx),” a function that is added when the transceiver’s firmware format is updated will not be saved.
ⓘ You cannot load a setting file that is saved in the current version format to an earlier firmware version.

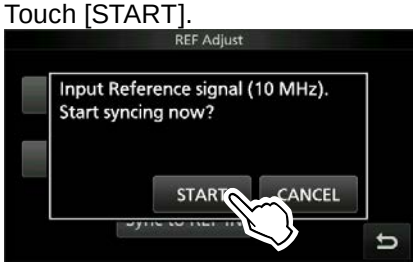
Changed REF adjustment

[AUTO ADJ] on the “REF Adjust” screen is changed to [Sync to REF IN].
While synchronizing to REF IN, automatically adjusts the internal reference frequency to match the external 10 MHz reference frequency.

1. Apply a highly accurate and stable 10 MHz reference frequency signal to the [REF IN 10MHz] connector.
2. Open the “REF Adjust” screen.
   MENU » SET > Function > **REF Adjust**
3. Touch [Sync to REF IN].



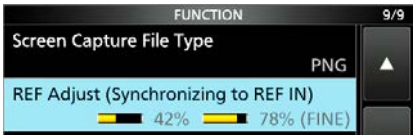
4. Touch [START].



   - “Synchronizing. Please wait...” is displayed, and “Synchronized.” is displayed when the Synchronization is completed.
5. Push EXIT several times to close the REF Adjust screen.

ⓘInformation

- While synchronizing, “REF Adjust (Synchronizing to REF IN)” is displayed, and you cannot manually adjust the internal reference frequency.



- To cancel the REF IN synchronization, touch [Cancel Sync] in Step 3.
- The REF IN synchronization is not automatically canceled, even if you turn OFF the transceiver, then turn it ON again.

NOTE: Sudden changes of temperature, for example when you turn ON the transceiver, or start transmission, may cause the transceiver to take a longer time to synchronize.

Added Home Channel function

Home Channels are often-used frequencies you can preset in the transceiver's VFO mode, Memory mode, and DR screen.

ⓘ In the VFO mode and Memory mode, each band memorizes the Home Channel.

◇Home Channel setting

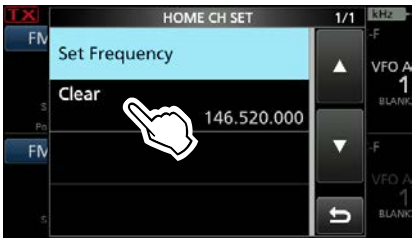
Example: In the VFO mode

1. Select a mode (VFO or Memory) or the DR screen in which you want to set the Home Channel.
2. Select a frequency, channel, or a repeater to be set as the Home Channel.
   ⓘ On the DR screen, select "FROM."
3. Push [QUICK].
4. Touch "Home CH Set."

5. Touch "Set Frequency."

ⓘ In the Memory mode, touch "Set Channel." On the DR screen, touch "Set Repeater."

TIP: Touching "Clear" in Step 4 clears the Home Channel setting.



◇Home CH Beep function

When the set Home Channel is selected, a beep sounds.

You can confirm the Home Channel selection without looking at the display.

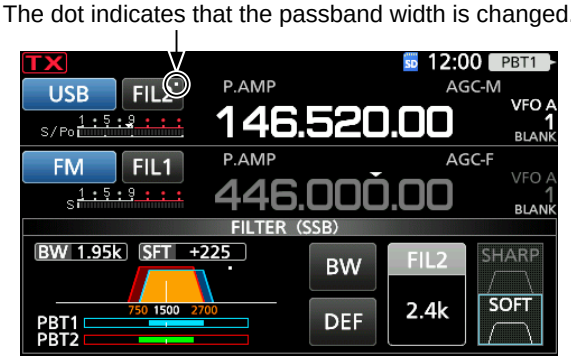
ⓘ You can turn OFF the Home CH Beep function.

[MENU] » SET > Function > **Home CH Beep**

Changed The passband width indication for the Digital Twin PBT

A dot "·" appears on the IF Filter Indicator when you change the IF passband width, using the Digital Twin PBT.

The dot indicates that the passband width is changed.



Changed SCAN key action

The [SCAN] action on the SCAN SELECT screen is changed.

Old Ver: Pushing [SCAN] closes the SCAN SELECT screen.

New Ver: Pushing [SCAN] starts the selected scan.

Added UDP Hole Punch function

The UDP Hole Punch setting is added to the INTERNAL GATEWAY SETTINGS screen.

ⓘ Depending on your Network environment, this function may not be usable.

[MENU] » (2) > DV GW > **Internal Gateway Settings**

UDP Hole Punch (Default: OFF)

Select whether or not to use the UDP Hole Punch function. This function enables you to communicate with other station who uses the Terminal or Access Point mode even if you do not forward port 40000 of a router.

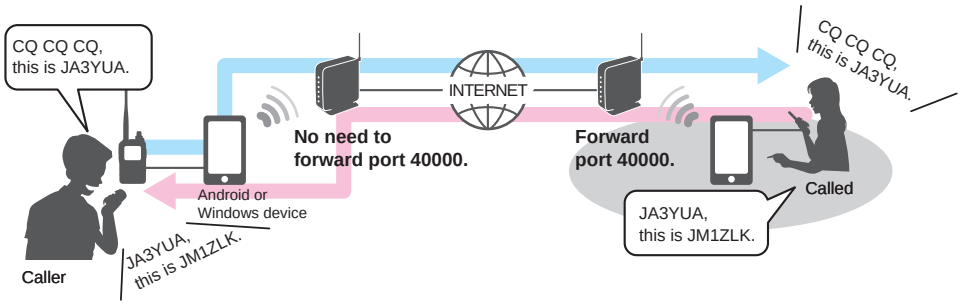
ⓘInformation

- You cannot communicate using this function when the destination station uses the software that is not compatible with the UDP Hole Punch function.
- When forwarding port 40000 of a router, select "OFF."

About the UDP Hole Punch function

When both the caller station and the called station use the Terminal or Access Point mode, the caller station does not need to:

- Forward port 40000 when connecting to the Internet using the router.
- Use a device assigned a static or dynamic Global IP address.



ⓘ Information

- Depending on your Network environment, you cannot use this function.
- The caller station must set **UDP Hole Punch** to "ON" in the RS-MS3W/RS-MS3A or IC-9700 (When using the Internal Gateway function) to use this function.
  When not using this function, set **UDP Hole Punch** to "OFF."
- A few minutes* after the call, the caller station cannot receive from the called station. In this case, the caller station must transmit to the called station again.
  * Less than 3 minutes, depending on the router.

NOTE:

- The UDP Hole Punch function is only usable with version 1.30 or later of the RS-MS3W/RS-MS3A application software, or version 1.10 or later of the IC-9700 firmware when using the Internal Gateway function.
- The caller station cannot communicate with the called station when:
  - The caller station is using an earlier version software or firmware.
  - The called station using an earlier version software or firmware.
  - The called station calls through a local repeater instead of using the Terminal or Access Point mode.
- Even if using the latest version, the called station needs to forward port 40000 when connecting to the Internet using a router, or to use a device assigned a static or dynamic Global IP address to communicate with the caller station.