

YAESU

The radio

HF/VHF/UHF ALL MODE TRANSCEIVER

C4FM FDMA/FM

FT-991

INSTRUCTION MANUAL

(GM Edition)

Thank you for purchasing this Yaeau product.

This instruction manual explains operations and settings associated with the "GM Function".

For information on basic operation of the transceiver, please refer to the FT-991 Operating Manual.

INTRODUCTION

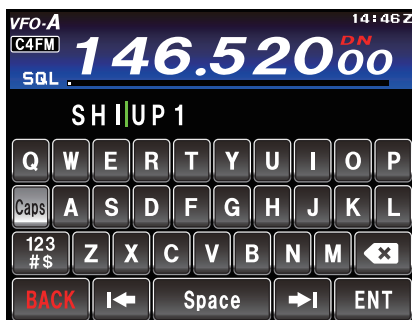
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OPERATING THE CHARACTER INPUT SCREEN

The following screen is displayed when inputting text, such as group names, into the radio.

Alphabet Input Screen



- [Caps]** The input keypad between lower and upper case characters each time this key is touched.
- [123#\\$]** The screen changes to the number input screen when this key is touched.
- [←][→]** The cursor in the input field moves left or right when these keys are touched.
- [ENT]** When this key is touched, the entered characters are confirmed and the display returns to the previous screen.
- [BACK]** The display returns to the previous screen when this key is touched.
- [X]** Touch this key to delete the character to the left of the cursor.

Numbers and Symbols Input Screen



- [ABC]** Touch this key to change the keypad screen to the alphabet input.

WHAT IS THE GM FUNCTION?

The GM (group monitor) function monitors the set frequency to find if there are any stations operating with the GM function within communication range.

The **FT-991** can then display the position, distance and other information for each group member call sign on the screen.

Besides identifying GM stations that are within the sphere of communications, the GM function is also a convenient method to instantly note the relative positions of all the members in the group.



- A maximum of 5 groups can be created in the GM function of the transceiver.
- A maximum of 24 stations (excluding this station) can be registered as Members in each group.

NOTE:

To utilize the GM function, all group members must operate on the same frequency.



ADVICE:

The GM function does not work in the analog FM mode.

BASIC METHODS TO USE THE GM FUNCTION

There are two ways to use the GM function:

- (1) Display all stations operating the GM function that are within communications range (maximum of 24 stations can be displayed)
- (2) Register the ID of partners into a memory group and then display only the Group Member partners

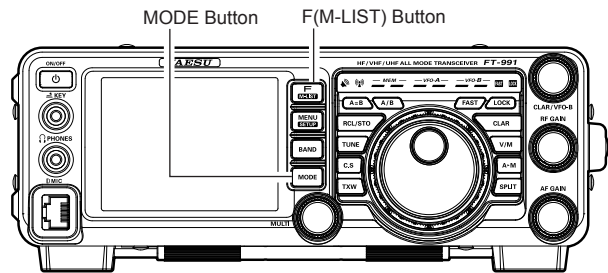
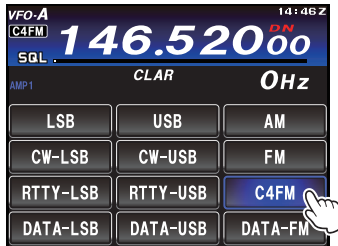
An explanation of the two methods of starting the GM operation is given on the following pages.

USING THE GM FUNCTION

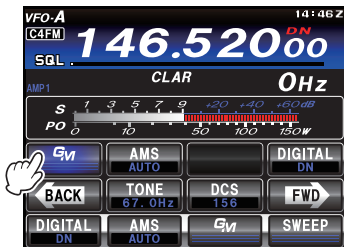
BASIC METHODS TO USE THE GM FUNCTION

Displaying all the Stations where the GM Function is in Operation

1. Press the **MODE** button, and then touch the corresponding C4FM key on the LCD to set the operating mode. The “**C4FM**” icon appears in the display.



2. Set the desired operating frequency.
3. Press the **F(M-LIST)** button, then touch **[GM]** on the LCD.



4. Touch **[BACK]** on the LCD. The GM function will be turned off and the display will return to the previous screen.



Up to 24 stations operating with the GM function within the sphere of communications will be listed on the TFT display.

The call sign and position and distance of stations operating in the DN mode with the GM function in operation that are within communications range, will be displayed.

ADVICE:

- Stations within the sphere of communications are displayed in blue.
- Stations outside the sphere of communications are displayed in grey.
- The display may be switched to show either the distance and direction information, or the signal strength information. See page 17.

NOTE:

The distance and direction information are displayed only when the locations of this station and the other stations have been registered to the transceivers memories. For details on how to register the location information, see page 6.

BASIC METHODS TO USE THE GM FUNCTION

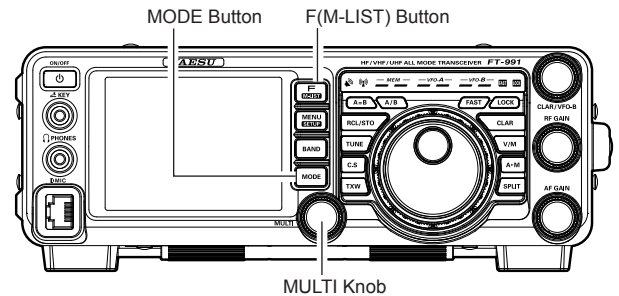
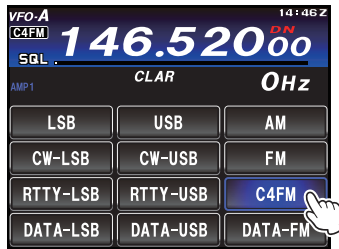
Displaying only Partners Registered in the GM Group

Up to 5 groups can be created. Names such as “FRIENDS”, “CAMP” etc. can be assigned to the groups.

Up to 24 stations can be registered as members in each group.

After a group has been created it may be selected from the group list and then when the screen is touched, the status of the members registered in that group will be displayed.

1. Press the **MODE** button, then touch the corresponding key on the LCD to select the C4FM operating mode. The “**C4FM**” icon appears in the display.



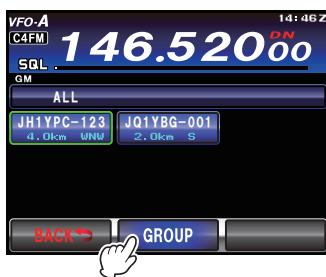
2. Set the desired operating frequency.
3. Press the **F(M-LIST)** button, then touch [**GM**] on the TFT display.



6. To return to the group list, touch [**GROUP**] on the LCD the display.



4. Touch [**GROUP**] on the LCD, then rotate the **MULTI** knob, or touch the screen to select a group.



ADVICE:

Touch [**BACK**] on LCD, the GM function will be turned off and the display will return to the previous screen.

5. Touch the screen to select the group.



7. Touch [**BACK**] twice on the LCD. The GM function will be turned off and the display will return to the previous screen.

Up to 24 group members with the GM function in operation at the same frequency will be displayed.

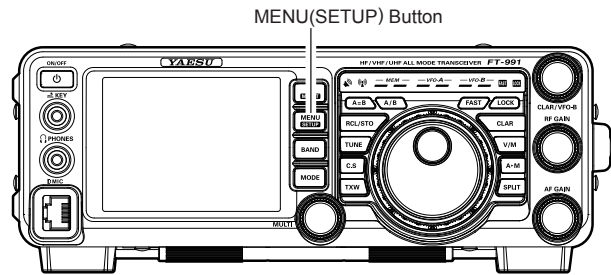
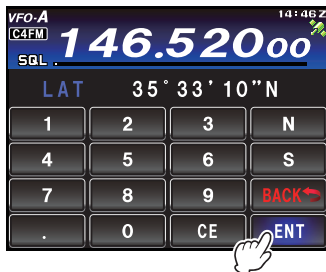
USING THE GM FUNCTION

ENTERING THE LOCATION INFORMATION MANUALLY

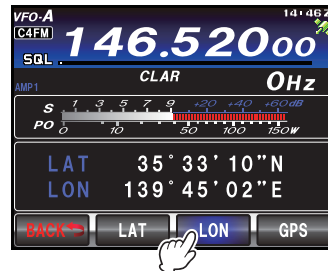
1. Press and hold the **MENU(SETUP)** button.
2. Touch **[LAT/LON]** on the LCD.
3. Touch **[LAT]** on the LCD.



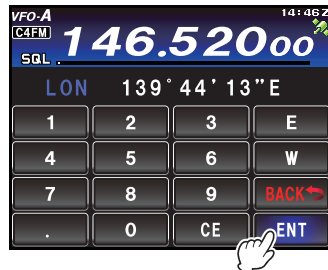
4. Enter the latitude, then touch **[ENT]** followed by **[BACK]**.



5. Touch **[LON]** on the LCD.



6. Enter the longitude, then touch **[ENT]** followed by **[BACK]**.



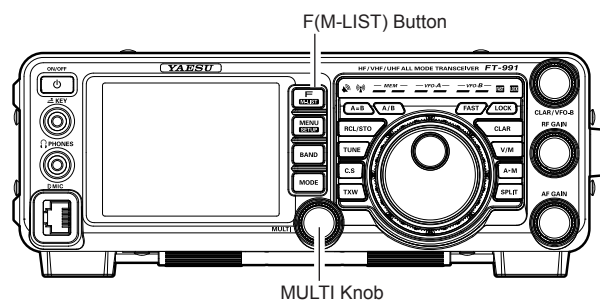
7. Press the **MENU(SETUP)** button to exit to normal operation.

REGISTERING GROUPS AND GROUP MEMBERS

CREATING A NEW GROUP

To use the GM function for group operation, the group and group members must be saved to the memory in advance. Up to 5 groups can be created for use by the GM function.

1. Press the **F(M-LIST)** button, then touch **[GM]** on the TFT display.



2. Touch **[GROUP]** on the LCD, then rotate the **MULTI** knob, or touch the screen to select a new box with "NEW" displayed on the left hand side.



5. Touch **[ENT]** on the LCD. The group will be created and a list of the group members will be displayed on the screen.



3. Touch **[ENTRY]** or touch the selected new box on the LCD. The character input screen will be displayed.



6. Touch **[BACK]** on the LCD. Return to the group list. The created group will be displayed at the top of the list.

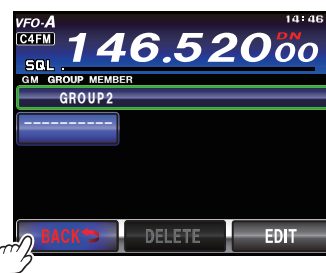
ADVICE:

Before touching **[BACK]**, the members can be registered manually. Please refer to "Manual registration" (p.7) for the procedure.

4. Touch the character keys to enter the group name. The touched characters will be displayed at the top of the screen.

ADVICE:

- Up to 16 characters can be entered.
- English characters, numbers and symbols can be used.



REGISTERING GROUPS AND GROUP MEMBERS

REGISTERING THE GROUP MEMBERS

Registering from the Group List Summary

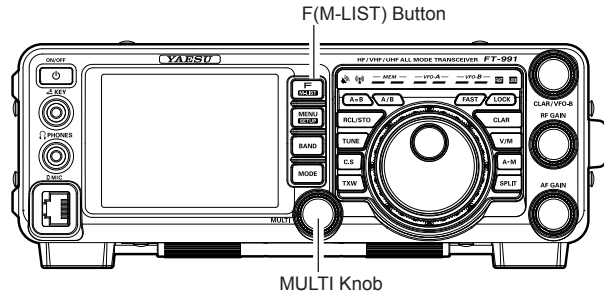
To use the GM function for group operation, the group and group members must first be saved to the memory in advance. The desired stations can be selected from the group list summary and registered as group members.

1. Press the **F(M-LIST)** button, then touch **[GM]** on the TFT display.

The call signs, direction and distance of stations operating within communications range, in the DN mode and those with the GM function in operation, will be displayed.

ADVICE:

- Stations within the sphere of communications are displayed in blue.
- Stations outside the sphere of communications are displayed in grey.



2. Touch **[GROUP]** on the LCD, then rotate the **MULTI** knob, or touch the screen to select the station that you would like to register.
- The selected station will be enclosed in a green box.



3. Touch the station enclosed in the green box.
 4. Repeat Steps 2 and 3 to select additional stations.
- All the selected call signs will blink.

ADVICE:

Up to 24 stations can be selected.



5. Touch **[ENTRY]** on the LCD.
6. Rotate the **MULTI** knob, or touch the screen to select the group that you would like to register the member into.

ADVICE:

To complete the input of the group name when creating and registering a new group, Follow Steps 3 to 6 in on page 5 “Creating a new group”.

7. Touch **[ENTRY]** on the LCD.
- A list of the group members will be displayed with the selected station added to the list.



REGISTERING GROUPS AND GROUP MEMBERS

REGISTERING THE GROUP MEMBERS

Manual Registration

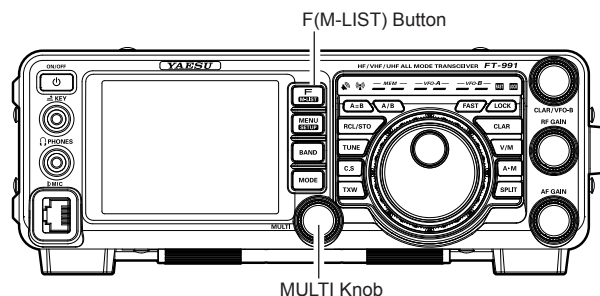
The call signs of stations can be directly entered and added as group members.

1. Press the **F(M-LIST)** button, then touch **[GM]** on the TFT display.

The call signs, direction and distance of stations operating within communications range, in the DN mode and those with the GM function in operation, will be displayed.

ADVICE:

- Stations within the sphere of communications are displayed in blue.
- Stations outside the sphere of communications are displayed in grey.



2. Touch **[GROUP]** on the LCD. The group list will be displayed.

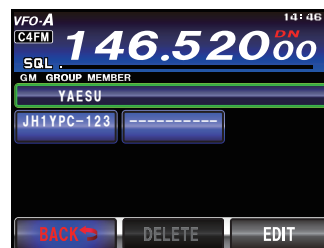


3. Rotate the **MULTI** knob, or touch the screen to select the group that you would like to add the member.
4. Touch **[EDIT]** on the LCD. A list of the group members will be displayed on the screen.



5. Touch the call sign box in which "-----" is displayed.

The touched box will be enclosed in a green box.



6. Touch **[EDIT]** on the LCD. The character input screen will be displayed.



7. Touch the character keys to enter the call sign. The touched characters will be displayed at the top of the screen.

ADVICE:

- Up to 10 characters can be entered.
- English characters, numbers and symbols can be used.



REGISTERING GROUPS AND GROUP MEMBERS

REGISTERING THE GROUP MEMBERS

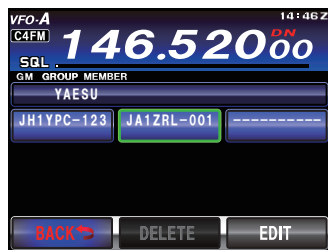
8. Touch **[ENT]** on the LCD.
The entered call sign tag will be added to the list of group members on the screen.
Repeat Steps 5 to 8 to continue adding additional members.

ADVICE:

Up to 24 stations can be registered.



9. Touch **[BACK]** on the LCD.
The screen will return to the group list.

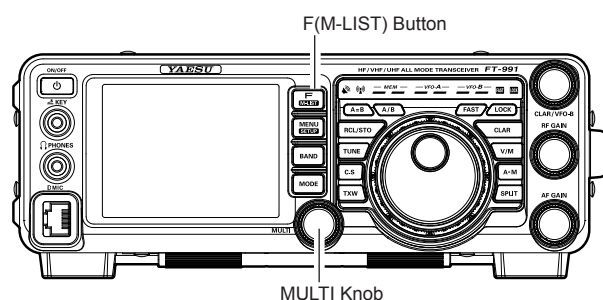
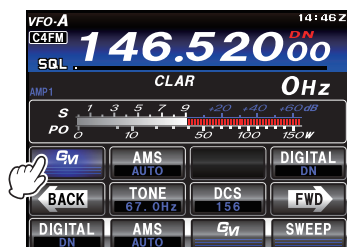


REGISTERING GROUPS AND GROUP MEMBERS

CHANGING THE GROUP NAME

The name of a group that has already been created can be edited.

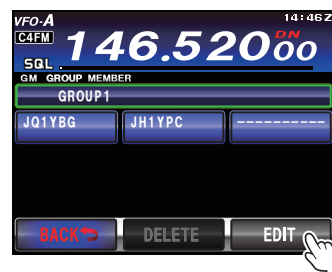
1. Press the **F(M-LIST)** button, then touch **[GM]** on the TFT display.



2. Touch **[GROUP]** on the LCD.
The group list will be displayed.



5. Touch **[EDIT]** on the LCD.
The character input screen will be displayed.



3. Rotate the **MULTI** knob, or touch the screen to select a group whose name you would like to edit.
4. Touch **[EDIT]** on the LCD.

A list of the group members will be displayed on the screen.

Check that the group name at the top of the screen is enclosed in a green box at this point.



6. Touch the character keys to edit the group name.
The characters on the right hand side of the cursor will be overwritten.

ADVICE:

- Up to 16 characters can be entered.
- English characters, numbers and symbols can be used.



REGISTERING GROUPS AND GROUP MEMBERS

CHANGING THE GROUP NAME

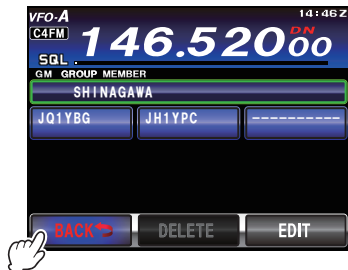
7. Touch **[ENT]** on the LCD.

The screen will return to the list of group members and the group name that has been changed will be displayed.



8. Touch **[BACK]** on the LCD.

Return to the group list. The group name that has been changed will be displayed in the list.

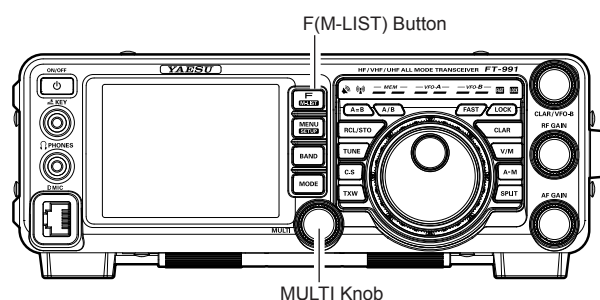


REGISTERING GROUPS AND GROUP MEMBERS

CHANGING THE NAME (CALL SIGN) OF A GROUP MEMBER

The call sign of a group member that has already been registered can be edited.

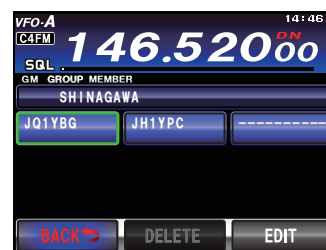
1. Press the **F(M-LIST)** button, then touch **[GM]** on the TFT display.



2. Touch **[GROUP]** on the LCD.
The group list will be displayed.



5. Touch the member call sign you want to change.
The touched member call sign will be enclosed in a green box.



3. Rotate the **MULTI** knob, or touch the screen to select the group where the member call sign you want to edit is registered.
4. Touch **[EDIT]** on the LCD.
A list of the group members will be displayed on the screen.



6. Touch **[EDIT]** on the LCD.
The character input screen will be displayed.



REGISTERING GROUPS AND GROUP MEMBERS

CHANGING THE NAME (CALL SIGN) OF A GROUP MEMBER

7. Touch the character keys to edit the call sign.
The characters on the right hand side of the cursor will be overwritten.

ADVICE:

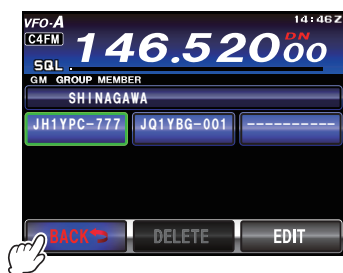
- Up to 10 characters can be entered.
- English characters, numbers and symbols can be used.



8. Touch [ENT] on the LCD.
The screen will return to the list of group members and the member name that has been changed will be displayed.



9. Touch [BACK] on the LCD.
Return to the group list.



NOTE:

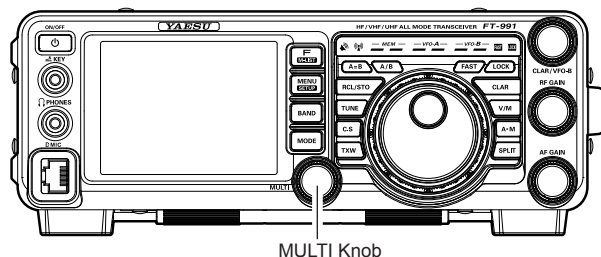
Even if the name (call sign) of a group member is changed, when a station with the same ID (the specific radio identification number) is received, the call sign of the signal received will be given priority and updated automatically.

REGISTERING GROUPS AND GROUP MEMBERS

DELETING A GROUP

A registered group can be selected and deleted from the list.

1. Display the group list
2. Rotate the **MULTI** knob, or touch the screen to select the group to be deleted.



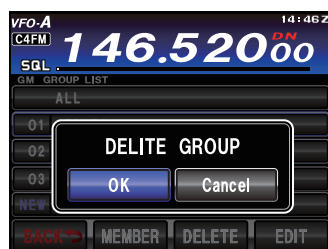
3. Touch **[DEL]** on the LCD.
A deletion confirmation screen will be displayed.



4. Touch **[OK]** on the LCD.
The group is deleted and the screen will then return to the group list.

ADVICE:

Touch **[Cancel]** to cancel the deletion.

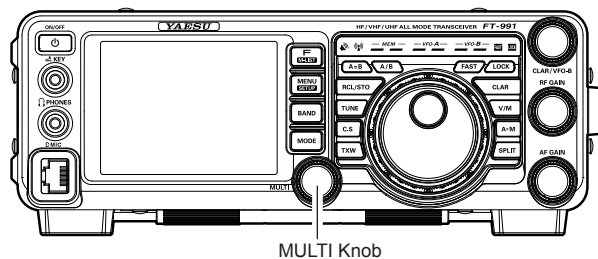


REGISTERING GROUPS AND GROUP MEMBERS

DELETING A GROUP MEMBER

A member that is registered in a group can be selected and deleted from the list.

1. Display the group list
2. Rotate the **MULTI** knob, or touch the screen to select the group where the member you want to delete is registered.
3. Touch **[EDIT]** on the LCD.
A list of the group members will be displayed on the screen.



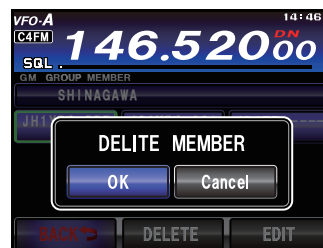
4. Touch the member entry that you want to delete.
The touched member entry will be enclosed in a green box.



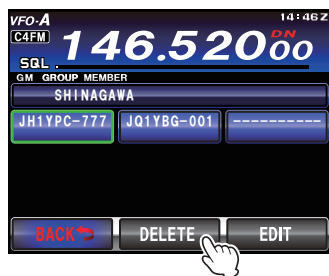
6. Touch **[OK]** on the LCD.
The member entry will be deleted and the screen will return to the list of group members.

ADVICE:

Touch **[Cancel]** to cancel the deletion.



5. Touch **[DELETE]** on the LCD.
A deletion confirmation screen will be displayed.



SET-UP MENU FOR THE GM FUNCTION

SET-UP MENU LIST FOR THE GM FUNCTION

No.	Menu Function	Available Settings	Default Value
087	RADIO ID	Displays the unique transceiver ID (The ID is exclusive to each transceiver and cannot be changed.)	*****
090	GM DISPLY	DISTANCE/STRENGTH	DISTANCE
091	DISTANCE	km/mile	mile

USING THE MENU FOR THE GM FUNCTION

Specific ID Display by Transceiver

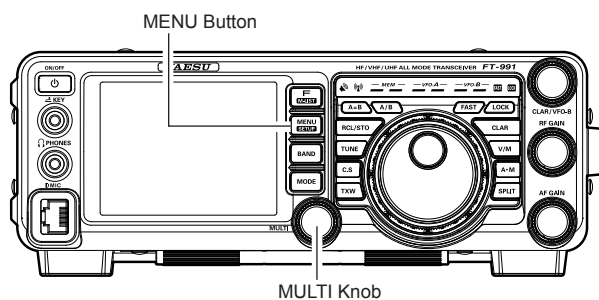
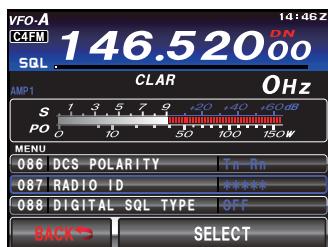
You can check the unique ID (5-digit number) assigned to each transceiver when it was first shipped from the factory. The ID cannot be changed.

ADVICE:

The ID is a code to identify transceivers that support the GM function. It is sent separately from the call sign during digital communication.

1. Press the **MENU(SETUP)** button to enter the Menu mode.
2. Rotate the **MULTI** knob to select Menu item "087 RADIO ID".

A 5-digit radio ID will be displayed in the setting field of menu item [087 RADIO ID].



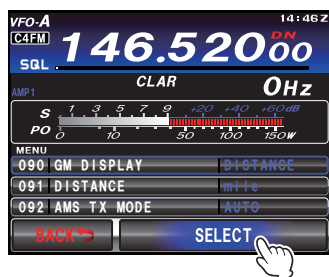
SET-UP MENU FOR THE GM FUNCTION

USING THE MENU FOR THE GM FUNCTION

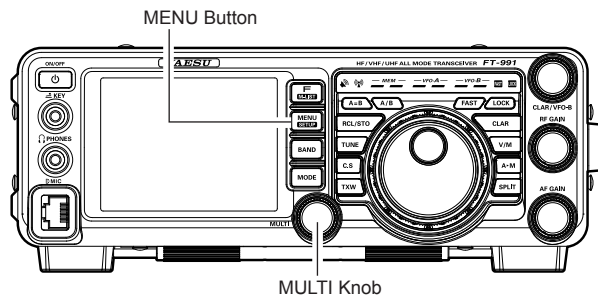
Switching the Information of the Other Stations

The information received from other stations that is displayed on the screen can be toggled between “distance and direction” and “signal strength”.

1. Press the **MENU(SETUP)** button to enter the Menu mode.
2. Rotate the **MULTI** knob to select Menu item “090 GM DISPLAY”.
3. Touch **[SELECT]** on the LCD, then rotate the **MULTI** knob to select the information of partner stations that you would like to be displayed.



4. Touch **[ENTER]** on the LCD, then touch **[BACK]** on the LCD or press the **MENU** button to save the new setting and exit to normal operation.



- “Distance and Direction” display



- “Signal strength” display



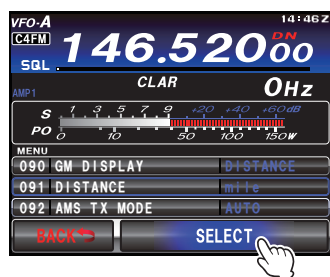
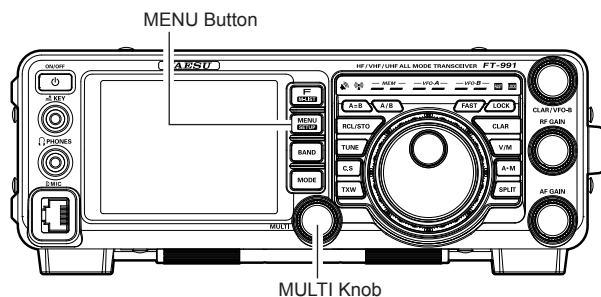
SET-UP MENU FOR THE GM FUNCTION

USING THE MENU FOR THE GM FUNCTION

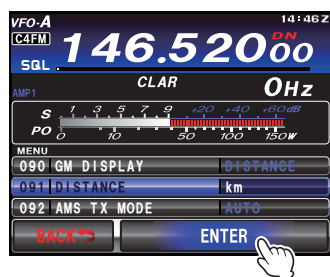
Setting the Distance Unit

When displaying the distance between your station and the other stations, the distance unit can be set to “km” or “mile”.

1. Press the **MENU(SETUP)** button to enter the Menu mode.
2. Rotate the **MULTI** knob to select Menu item “091 DISTANCE”.
3. Touch [**SELECT**] on the LCD, then rotate the **MULTI** knob to select the distance unit that you would like to be displayed.



4. Touch [**ENTER**] on the LCD, then touch [**BACK**] on the LCD or press the **MENU** button to save the new setting and exit to normal operation.





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