

YAESU
The radio

144/430MHz
DIGITAL/ANALOG TRANSCEIVER

C4FM FDMA

FT1DR

Instruction Manual
(GM Edition)

Thank you for purchasing our company product.

This instruction manual explains information related to the "GM Function".

For information on basic operation of the transceiver, please refer to the enclosed FT1DR instruction manual.

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Using the GPS Function

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The GM (Group Monitor) is a convenient function whereby registering members with whom you frequently communicate to a group, will enable exchange of position information, messages and images between the members. A notification that a registered member is in communication range is received. In addition, position information received from other stations can be used for navigation.

Up to 16 groups can be created for the GM function.

Up to 24 members, excluding your own station can be registered to each group.

Member lists and Group lists can also be traded with other members by saving them to a microSD memory card.

Caution

- The GM function does not function in the FM (analog) mode. Switch from the standard mode to digital mode for operation.
- When using the GM function, operate on the same frequency as group members.

Registering and Changing Group or Group Members

For group operation using the GM function, first register or change Group and Group members.

Registering a remote station within communication range as a group member.

Register a remote station within communication range as a group member.

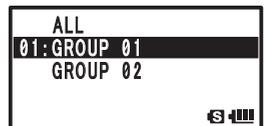
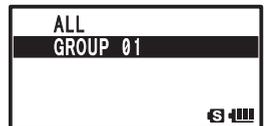
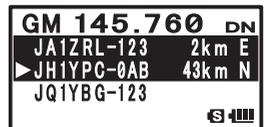
- 1 Press **GM**.
The group list appears
- 2 Turn **DIAL** to select [ALL].
- 3 Press **ENT**.
Stations within communication range are displayed
- 4 Turn **DIAL** to select the desired station
Select the station to register as a group member
- 5 Press **ENT**.
- 6 Continue to select other stations.
Repeat steps 4 to 5 to select the desired stations to register as group members.

Tip • The selected station blinks.

- 7 Press **ENT** over 1 second.
The group list appears
- 8 Turn **DIAL** to select [GROUP 01].
Select the group to register the station

Tip • The name of the registered group (GROUP 01) can be changed later.

- A number is added on the left of a group with registered members, along with a new group name (GROUP 02) without registered members appearing.



9 Press **ENT**.

The selected station is registered as a member.

Manually registering a member

Add a group member to an already created group by entering the CALLSIGN of another station.

Example: 01: When adding a member to GROUP 01

1 Press **GM**.

The group list appears

2 Turn **DIAL** to select [01: GROUP 01].

Select [01: GROUP 01], where member is to be registered, from the group list.

3 Press **ENT** over 1 second.

4 Turn **DIAL** to select a blank member slot.

Move the cursor to the slot where member information is displayed as a dashed line (----).

5 Press **ENT**.

The member entry screen appears.

6 Enter the member name using keypad keys.

Referring to the following table, enter the member name within 10 characters .

Numeric key	Alphabetic Character
1	1
2	ABC2
3	DEF3
4	GHI4
5	JKL5
6	MNO6
7	PQRS7
8	TUV8
9	WXYZ9
0	0

Tip • To delete a character, press **MV**. When **MV** is pressed, a character is deleted and the cursor moves to the left.

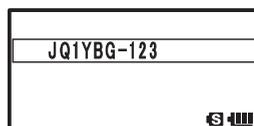
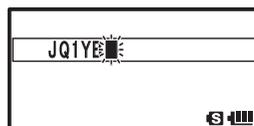
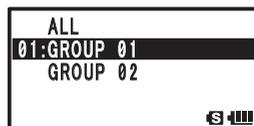
• Pressing **ENT** moves the cursor to the right.

• Turn **DIAL** to select [-] or [/]

7 Press **ENT** over 1 second.

Member name is registered.

8 Repeat steps 4 through 7 to register another member.



Registering and Changing Group or Group Members

- 9 Press **ENT** over 1 second.

After registration is complete, press **ENT** over 1 second to return to the Group Selection screen.

Press **GM** to end the GM function and return to the frequency display screen.

Creating a new Group

Name and create a new group.

- 1 Press **GM**.

The group list appears

- 2 Turn **DIAL** to select a Group.

Select a new group (a group without a number on the left) from the group list.

- 3 Press **ENT**.

Group name entry screen appears.

- 4 Enter the group name using keypad keys.

Referring to the following table, enter the group name within 16 characters.

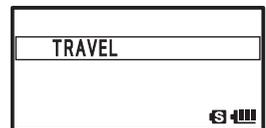
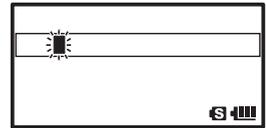
Numeric key	Alphabetic Character
1	1
2	abc2ABC
3	def3DEF
4	ghi4GHI
5	jkl5JKL
6	mno6MNO
7	pqr7PQRS
8	tuv8TUV
9	wxyz9WXYZ
0	0_-%/?!..#

Tip • To delete a character, press **MW**. When **MW** is pressed, a character is deleted and the cursor moves to left.

• Pressing **ENT** moves the cursor to the right.

- 5 Press **ENT** over 1 second.

Group name is registered.



Changing group name

Changing already created Group Name

1 Press **GM**.

The group list appears

2 Turn **DIAL** to select a group.

Select the group name from the group list that you would like to change.

3 Press **ENT** over 1 second.

4 Press **ENT**.

The Group Name Edit screen appears.

5 Change the group name using keypad keys.

Referring to the following table, enter the group name with up to 16 characters.

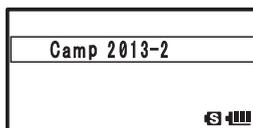
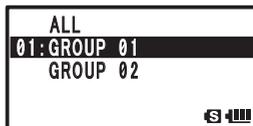
Numeric key	Alphabetic Character
1	1
2	abc2ABC
3	def3DEF
4	ghi4GHI
5	jkl5JKL
6	mno6MNO
7	pqrs7PQRS
8	tuv8TUV
9	wxyz9WXYZ
0	0_-%/?!:.#

Tip • To delete a character, press **MW** **DEL**. When **MW** **DEL** is pressed, a character is deleted and the cursor moves to left.

• Pressing **ENT** moves the cursor to the right.

6 Press **ENT** over 1 second.

The edited group name is registered.



Tip

- When an already registered group name (GROUP 01) is edited, a 2 digit number appears on the left of the name and the name of the new group without registered members changes to [GROUP 01].



Changing name (CALLSIGN) of group members

Change the name (CALLSIGN) of group members registered to a group

1 Press .

The group list appears

2 Turn  to select a Group.

Select the group from the group list with the group member name you would like to change.

3 Press  over 1 second.

4 Turn  to select a group member.

Move the cursor to the group member to change.

5 Press .

6 Change the group member name using keypad keys.

Referring to the following table, enter a member name within 10 characters.

Numeric key	Alphabetic Character
1	1
2	ABC2
3	DEF3
4	GHI4
5	JKL5
6	MNO6
7	PQRS7
8	TUV8
9	WXYZ9
0	0

Tip • To delete a character, press . When  is pressed, a character is deleted and the cursor moves to left.

• Pressing  moves the cursor to the right.

• Turn  to select [-] or [/]

7 Press  over 1 second.

The edited member name is registered.



Caution

- Even if the name of a group member (CALLSIGN) is changed, if a signal with the same radio ID is received, the CALLSIGN of the received signal is prioritized and the member name is automatically updated.

Registering members to a microSD memory card

Register Group information saved to a microSD memory card of another station (transceiver) as Group information for your station (transceiver).

- 1 Remove the microSD memory card from the other transceiver.

Caution • Be sure to turn off the power of the transceiver before removing the microSD memory card.

- 2 Insert the microSD memory card to your transceiver.

- 3 Press .

The transceiver is turned on.

- 4 Press  over 1 second.

To enter the Set mode.

- 5 Turn  to select [10 SD CARD].

- 6 Press .

- 7 Turn  to select [3 GROUP ID].

- 8 Press .

- 9 Turn  to select [Read from SD].

- 10 Press .

- 11 The content of the microSD memory card appears.

Group information saved on the microSD memory card is displayed.

- 12 Turn  to select the desired group information.

Select the group information to read from the microSD memory card.

The selected group information blinks.

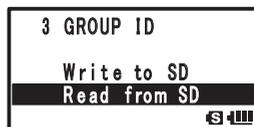
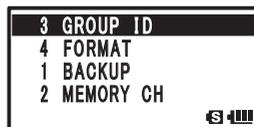
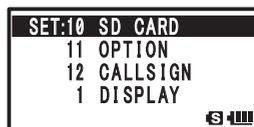
- 13 Press .

[OK?] appears on the LCD.

- 14 Press  over 1 second.

Once reading is completed, a tone will sound and the transceiver will reboot with the copied content of the microSD memory card.

Tip • Group information registered to your station can also be saved to a microSD memory card (Basic Operation page 138).



Blinks when reading is in progress

Deleting groups

Delete a registered group

- 1 Press  over 1 second.
To enter the Set mode.
- 2 Turn  to select [6 GM].
- 3 Press .
- 4 Turn  to select [2 DELETE GROUP].
- 5 Press .

The group list appears

- 6 Turn  to select a group.
Select the group to delete
- 7 Press .
- 8 Turn  to select [OK?].
Or to cancel deletion, select [Cancel].
- 9 Press .

[Completed] appears on the LCD and the selected group is deleted.

- 10 Press .

Exits from the Set mode.



Deleting group members

Delete a group member registered to a group

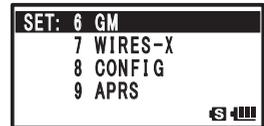
- 1 Press  over 1 second.
To enter the Set mode.
- 2 Turn  to select [6 GM].
- 3 Press .
- 4 Turn  to select [3 DELETE MEMBER].
- 5 Press .

The group list appears

- 6 Turn  to select group.
Select the group where the group member for deletion is registered.
- 7 Press .

The group list appears

- 8 Turn  to select the group member.
Select the group member to delete.



Registering and Changing Group or Group Members

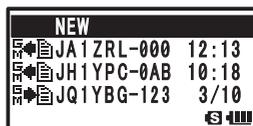
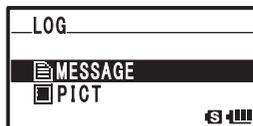
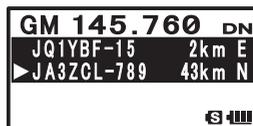
- 9 Press **ENT**.
- 10 Turn **DIAL** to select [OK?].
To cancel deletion, select [Cancel].
- 11 Press **ENT**.
[Completed] appears on the LCD and the selected group member is deleted.
- 12 Press **PTT**.
Exits from the Set mode.



Checking received messages and images.

Check messages and images on the LOG List using the GM function.

- 1 Press **GM**.
The group list appears
- 2 Turn **DIAL** to select group.
- 3 Press **ENT**.
A list of group members appear. Members available for communication are shown in reverse display, and the distance and direction to the remote station are displayed.
- 4 Press **MW** and then **LOG**.
7.69
- 5 Turn **DIAL** to select [MESSAGE] or [PICT].
Select the information type (MESSAGE or PICT) you would like to check.
- 6 Press **ENT**.
The group list appears



Tip • The icon that appears on the left side of the LOG List indicates the following meanings:

- : GM MESSAGE Received
- : GM MESSAGE Received (Unread)
- : GM MESSAGE Sent
- : GM MESSAGE Failed to send
- : GM PICT Received
- : GM PICT Received (Unread)
- : GM PICT Sent
- : GM PICT Failed to send

Checking received messages and images.

7 Turn  to select the information you would like to check.



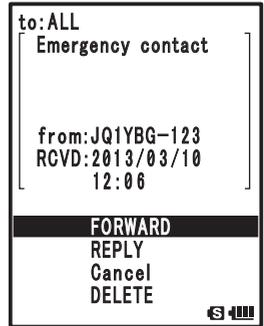
[For MESSAGE]

8 Press .

The selected information is displayed.

Tip • When  is pressed, the position where MESSAGE was sent, or PICT was taken, is shown in the compass display.

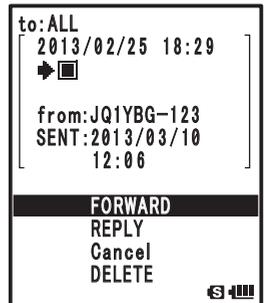
- Received information can be forwarded to other group members by selecting [FORWARD] with  (See page 14).
- You can reply to the sender by selecting [REPLY] with  (See page 13).
- Received information can be deleted by selecting [DELETE] with .



9 Press  over 1 second.

Returns to a list screen of group members

[For PICT]



Transmitting MESSAGE and PICT (images)

Transmit messages and images using the GM function.

There are 4 methods for transmitting a message or picture.

- (1) Create and transmit new MESSAGE
- (2) Reply to a checked MESSAGE or PICT (images)
- (3) Forward a checked MESSAGE or PICT (images)
- (4) Transmit a captured PICT (images)

Creating and transmitting new MESSAGE

Create and transmit a new message to a group member

- 1 Press **GM**.

The group list appears

- 2 Turn **DIAL** to select a group.

- 3 Press **ENT**.

A list of group members appear. Members available for communication are shown in reverse display, and the distance and direction to the remote station are displayed.

- 4 Press **MW** and then **LOG**.

- 5 Turn **DIAL** to select [MESSAGE].

- 6 Press **ENT**.

The LOG List appears

- 7 Turn **DIAL** to select [NEW].

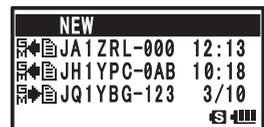
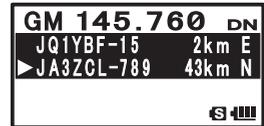
- 8 Press **ENT**.

The MESSAGE entry screen appears.

- 9 Enter a message using numeric keys.

Referring to the following table, enter a message using the keypad keys.

Numeric key	Alphabetic Character
1	1
2	abc2ABC
3	def3DEF
4	ghi4GHI
5	jkl5JKL
6	mno6MNO
7	pqrs7PQRS
8	tuv8TUV
9	wxyz9WXYZ
0	0_-%/?!.:#



Transmitting MESSAGE and PICT (images)

- Tip**
- To delete a character, press . When  is pressed, a character is deleted and the cursor moves to the left.
 - Pressing  moves the cursor to the right.
 - By selecting the fixed text icon with , you can select a message from 19 types of registered fixed texts.

1	QRM	11	Good night
2	QRP	12	Send messages
3	QRT	13	Send pictures
4	QRX	14	on my way
5	QRZ	15	wait for you
6	QSY	16	Pick me up
7	Good morning	17	Thank you
8	Good job	18	OK
9	Good day	19	urgent
10	Good evening		

- 10** Press  over 1 second.

The entered character is determined.

- 11** Turn  to select [SEND].

- Tip**
- To cancel transmission, select [BACK].
 - To save a entered message, select [SAVE].
 - To continue entering a message, select [Cancel].

- 12** Press .

The Member List screen appears.

- 13** Turn  to select [to: ALL].

Transmits message to all destinations set as [ALL].

To set the destination as a specific group member, turn  to select a group member in communication range.

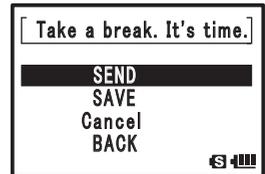
- Caution** • Messages cannot be transmitted to group members outside of communication range.

- Tip** • The only difference in destination is whether to display [ALL] or a specific CALLSIGN (name) of another station in the destination display of the LCD.

Even if a CALLSIGN (name) for another station is specified as the destination, other stations operating GM on the same frequency in communication range can view the message.

- 14** Press .

The message is transmitted.



Replying to a checked MESSAGE or PICT (images)

Reply to a station that has sent a MESSAGE or PICT.

1 Press .

The group list appears

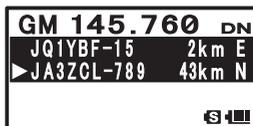


2 Turn  to select a Group



3 Press .

A list of group members appear. Members available for communication are shown in reverse display, and the distance and direction to the remote station are displayed.



4 Press  and then .

5 Turn  to select [MESSAGE] or [PICT].

Select the information type (MESSAGE or PICT) you would like to reply to.



6 Press .

The LOG List appears



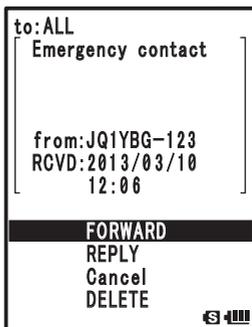
7 Turn  to select the information you would like to reply to.



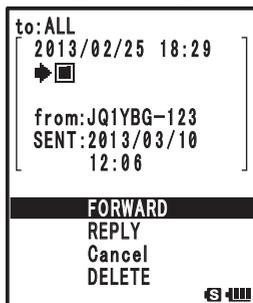
8 Press .

The selected information is displayed.

[For MESSAGE]



[For PICT]



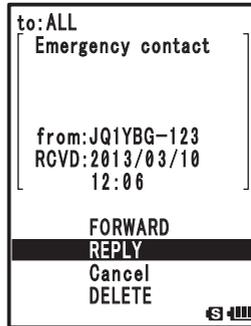
Transmitting MESSAGE and PICT (images)

9 Turn  to select [REPLY].

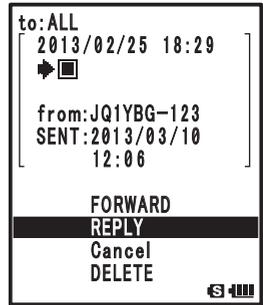
10 Press .

The MESSAGE entry screen appears.

[For MESSAGE]



[For PICT]



11 Enter a reply message.

Enter a reply message by following steps in [Creating and transmitting new MESSAGE (See page 11)].

Tip • When REPLY is selected, the destination is automatically specified as the station that sent the MESSAGE or PICT.

12 Press  over 1 second.

The entered character is determined.

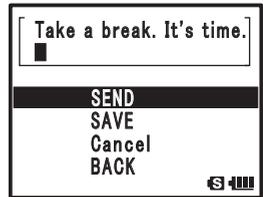
13 Turn  to select [SEND].

14 Press .

The reply is transmitted to the station that has sent a MESSAGE or PICT.

Tip • The only difference in destination is whether to display [ALL] or a specific CALLSIGN (name) of another station in the destination display of the LCD.

Even if the CALLSIGN (name) of the station that sent the MESSAGE or PICT is specified as the destination, other stations operating GM on the same frequency in communication range can view the message.



Forwarding checked MESSAGE or PICT (images)

Forward a checked MESSAGE or PICT to group members.

1 Press .

The group list appears



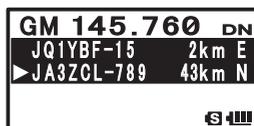
2 Turn  to select a Group.



Transmitting MESSAGE and PICT (images)

- 3 Press **[ENT]**.

A list of group members appear. Members available for communication are shown in reverse display, and the distance and direction to the remote station are displayed.



- 4 Press **[F]**, and then press **[7RS]**.

- 5 Turn **[DIAL]** to select [MESSAGE] or [PICT].

Select the information type (MESSAGE or PICT) you would like to forward.



- 6 Press **[ENT]**.

The LOG List appears

- 7 Turn **[DIAL]** to select the information you would like to forward.

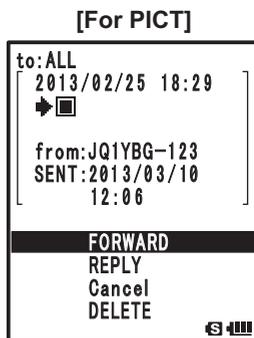


- 8 Press **[ENT]**.

The selected information is displayed.

- 9 Turn **[DIAL]** to select [FORWARD].

- 10 Press **[ENT]**.



- 11 Turn **[DIAL]** to select [to: ALL].

Transmits message to all destinations set as [ALL].

To set the destination as a specific group member, turn **[DIAL]** to select a group member in communication range.



Caution • Messages cannot be transmitted to group members outside of communication range.

Tip • The only difference in destination is whether to display [ALL] or a specific CALLSIGN (name) of another station in the destination display of the LCD.

Even if a CALLSIGN (name) for another station is specified as the destination, other stations operating GM on the same frequency in communication range can view the message.

• A PICT (image) can be received without GM operation when on the same frequency.

- 12 Press **[ENT]**.

MESSAGE or PICT (image) is forwarded to group members.

Transmitting captured PICT (images)

Transmit a picture captured with the optional camera equipped speaker microphone (MH-85A11U) to other group members.

Tip

- For instructions on how to capture pictures using the optional camera equipped speaker microphone (MH-85A11U), refer to [Taking picture with the optional camera mounted on speaker microphone Snapshot Function (See page 83)] in Basic Operation.

1 Press **[GM]**.

The group list appears

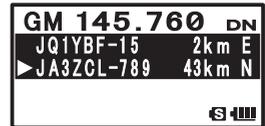


2 Turn **[DIAL]** to select a Group



3 Press **[ENT]**.

A list of group members appear. Members available for communication are shown in reverse display, and the distance and direction of the other station are displayed.



4 Press **[MW]** and then **[LOG]**.



5 Turn **[DIAL]** to select [PICT]



6 Press **[ENT]**.

A list of images saved to the microSD memory card is displayed.



7 Turn **[DIAL]** to select the image you would like to transmit.

8 Press **[ENT]**.

The image selected for transmission is determined.

Tip • The time displayed in the 1st character position can be freely edited as the title by following the steps below.

- Turn **[DIAL]** to specify the time.
- Press **[ENT]**.
- Enter the characters using keypad keys.
- Press **[ENT]** over 1 second when entry is finished.

- 9 Turn  to select [SEND].

The selected image is transmitted to group members.

- Tip** • To cancel transmission, select [Cancel].
• To delete the image, select [DELETE].

- 10 Press .

The Member List screen appears.

- 11 Turn  to select [to: ALL].

Transmits message to all destinations set as [ALL].

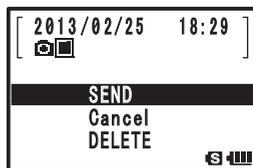
To set the destination as a specific group member, turn  to select a group member in communication range.

- Caution** • Images cannot be transmitted to group members outside of communication range.

- Tip** • The only difference in destination is whether to display [ALL] or a specific CALLSIGN (name) of another station in the destination display of the LCD.
Even if a CALLSIGN (name) for another station is specified as the destination, other stations on the same frequency in communication range can view the PICT (image).

- 12 Press .

The image is transmitted.



Automatically displaying the position of remote station

The position of a group member in communication range is shown on compass display. In addition, the position information of remote station at a certain time can be saved.

Acquiring the position of remote station

- 1 Press .

The group list appears

- 2 Turn  to select a group.

- 3 Press .

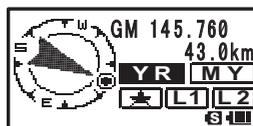
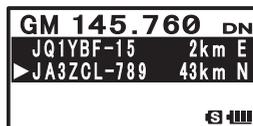
- 4 Turn  to select the desired station

Select the station to display position information.

- 5 Press .

The distance and direction to the selected station is shown on the compass display.

With your direction of movement as up, directions (E, W, S, N) is displayed on the ring of the compass (Heading Up). The position of the remote stations is indicated on the compass (triangular arrow).



Automatically displaying the position of remote station

Tips

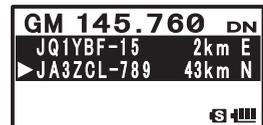
- The display method of position information can be changed in the Set mode option [1 DISPLAY] → [2 TARGET LOCATION].
- Return to the Member List screen by pressing  again.
- In the Set mode option [1 DISPLAY] → [3 COMPASS], you can change the direction [HEADING UP/ NORTH UP] of the compass of your station position. However, if [YR], [☆], [L1], or [L2] is selected, the direction of remote station position can only be displayed in [HEADING UP] and cannot be changed to [North Up].
[Heading Up]: With your direction of movement as up, directions (**E, W, S, N**) is displayed on the ring of the compass (Heading Up). The direction of remote stations is indicated on the compass (triangular arrow).
[North Up]: North is always displayed as up. The moving direction of your station is indicated on the compass (triangular arrow).
- Position information of station out of communication range cannot be updated.
- If the position of your station or the remote station is not obtained with GPS or specified with MANUAL, the compass display cannot be used.

Caution

- If GPS satellite data cannot be obtained, position information of the remote station is not displayed.
- A positioning error by several hundred meters may occur due to the environmental conditions.
- This function is a simple function using the GPS satellite data. Use this as only an estimation of the actual position of remote station.

Saving position information of other stations

- 1 Press .
The group list appears
- 2 Turn  to select a group.
- 3 Press .
- 4 Turn  to select the desired station
Select the station to display position information.
- 5 Press .
The position information of the selected station is displayed.
- 6 Press .
- 7 Turn  to select [☆], [L1], or [L2].
- 8 Press .
The position information of the remote station is saved.



Using the SYNC Function

In this transceiver, member information of your station can be synchronized with that of communicating remote stations operating in the GM mode.

SYNC from your station

1 Press **[GM]**.

The group list appears

2 Turn **[DIAL]** to select a group.

Tip • SYNC can also be done by selecting [ALL]. However, after SYNC, group members must be registered to a group. (See page 2)

3 Press **[ENT]**.

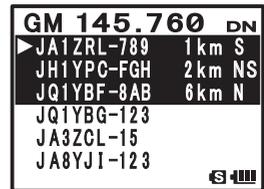
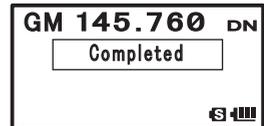
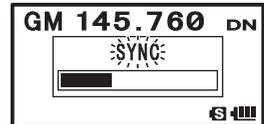
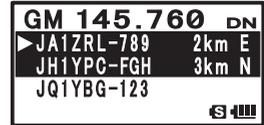
4 Press **[GM]** over 1 second.

SYNC begins and the progress status is displayed on a bar.

5 Members are added

[Completed] appears on the LCD and group members of the remote station are added to the Member List of your station.

- Tip** • The members of your station are also added to the Member List of the remote station you SYNC with.
- If more than 24 stations are attempted for registration to the selected group, [Not Completed] appears on the LCD and SYNC does not operate.
 - If there are no stations that approve SYNC, [Not Completed] appears on the LCD and SYNC does not operate.



Receiving SYNC from remote station

When you receive a SYNC start signal from a remote station, perform the following operation.

1 An approval screen for SYNC operation appears.

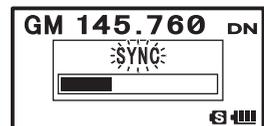
2 Turn **[DIAL]** to select [YES].

Tip • Select [NO] to disapprove SYNC operation.
SYNC will not start if [NO] is selected.

3 Press **[ENT]**.

4 SYNC starts

SYNC begins and the progress status is displayed on a bar.

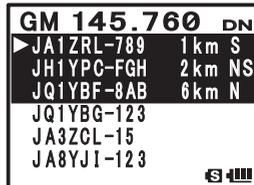
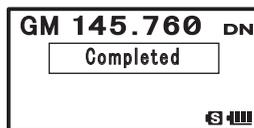


Using the SYNC Function

5 Members are added

[Completed] appears on the LCD and group members of the remote station are added to the Member List of your station.

- Tip**
- If [Your Station] or [Shared Station] is not registered to the Member List from the station requesting SYNC, SYNC does not operate.
 - If more than 24 stations are attempted for registration to SYNC Group, [Not Completed] appears on the LCD and SYNC does not operate.



GM Set mode list

Set mode item No./ Item	Description of function	Options (Bold letters: Default)	Reference page
LANGUAGE	Select the language to use in the GM Function	JAPANESE / ENGLISH	21
DELETE GROUP	Deleting GM Groups	—	8
DELETE MEMBER	Deleting GM Members	—	8
RADIO ID	Fixed ID respective to transceiver	—	21

GM Set mode function list

● 1 LANGUAGE

Select language to use

Setting item: JAPANESE / ENGLISH

Default: ENGLISH

Explanation: Set the language to use in the GM Function

Switch between English and Japanese for Group Name, Member Name, and Message entry.

● 2 DELETE GROUP

Deleting GM Groups

Explanation: Delete a registered GM Group

● 3 DELETE MEMBER

Delete a GM Member

Explanation: Delete a registered GM Member

● 4 RADIO ID

Display of RADIO ID

Explanation: In the GM Function, a fixed ID respective to a transceiver is transmitted separately from CALLSIGN.

RADIO ID is a 5 digit code consisting of alphanumeric characters that is written into the transceiver during factory production.

RADIO ID cannot be edited.

YAESU
The radio