YAESU
The radio

144/430 MHz
DIGITAL/ANALOG TRANSCEIVER
C4FM/FM

FT1XDR/XDE/DR/DE
Instruction Manual
(GM Edition)

Thank you for purchasing this Yaesu product.
This instruction manual explains information related to the "GM Function".
For information on basic operation of the transceiver, please refer to the
enclosed FT1XDR/XDE/DR/DE instruction manual.
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Table of Contents

1

The Digital GM (Group Monitor) Function automatically checks if there is another transceiver operating on the same frequency with the GM function within transmission range, and displays the direction, distance and other information for each detected callsign on the LCD. This convenient function not only lets you know if a friend is within transmission range, but also enables instant confirmation of position information between group members.

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.

Automatically displaying the position of remote station

The position of a 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 $\boxed{\textit{Gм}}$.

Members available for communication are shown in reverse display, and the distance and direction to the remote station are displayed.
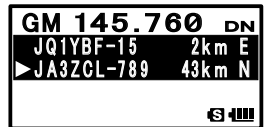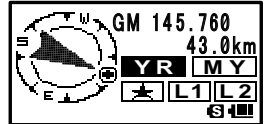
2 Turn $\boxed{\underset{\text{DIAL}}{\text{▥}}}$ to select the desired station

Select the station to display position information.

3 Press $\boxed{\underset{\text{DISP}}{\text{SET}}}$.

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).

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 $\boxed{\underset{\text{DISP}}{\text{SET}}}$ 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 $\boxed{G_M}$.

Members available for communication are shown in reverse display, and the distance and direction to the remote station are displayed.

2 Turn $\boxed{\text{DIAL}}$ to select the desired station

Select the station to display position information.

3 Press $\boxed{\text{DISP}}^{\text{SET}}$.

The position information of the selected station is displayed.

4 Press $\boxed{\text{ENT}}$.

5 Turn $\boxed{\text{DIAL}}$ to select [☆], [L1], or [L2].

6 Press $\boxed{\text{ENT}}$.

The position information of the remote station is saved.

```
GM 145.760  DN
 JQ1YBF-15    2km E
▶JA3ZCL-789  43km N

              S ◄▥
```

```
     N      GM 145.760
 W ◄──┐         43.0km
 S ◄──┘       Y R   M Y
  E          ★   L1  L2
              S ◄▥
```
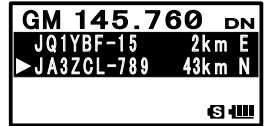
3
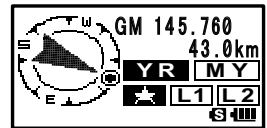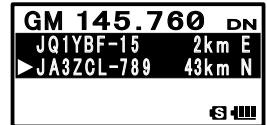
Checking received messages and images.

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

1 Press `GM`.

Members available for communication are shown in reverse display, and the distance and direction to the remote station are displayed.

```
GM 145.760  DN
JQ1YBF-15    2km E
▶JA3ZCL-789   43km N

                 🔇 📶
```

2 Press `MW 🔳` and then `LOG 7㏈`.

3 Turn 🎛 to select [MESSAGE] or [PICT].

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

```
LOG

  📄MESSAGE
  ◻PICT
                 🔇 📶
```
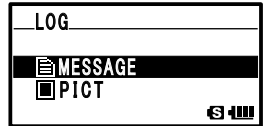
4 Press `ENT`.

> **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

```
NEW
📶▶📄JA1ZRL-000  12:13
📶◀📄JH1YPC-0AB  10:18
📶▶📄JQ1YBG-123   3/10
                 🔇 📶
```

5 Turn 🎛 to select the information you would like to check.

```
NEW
📩◆📄JA1ZRL-000  12:13
📩◆📄JH1YPC-0AB  10:18
📩◆📄JQ1YBG-123   3/10
                    S 📶
```

6 Press [ENT].

The selected information is displayed.

> **Tip** • When [DISP] is pressed, the position where MESSAGE was sent, or PICT was taken, is shown in the compass display.
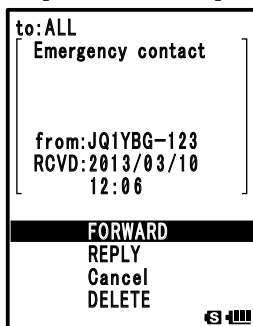>
> • Received information can be forwarded to other members by selecting [FORWARD] with 🎛 (See page 9).
>
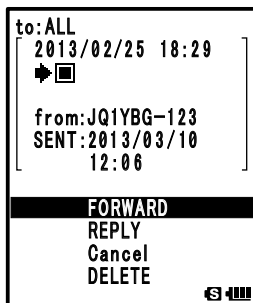> • You can reply to the sender by selecting [REPLY] with 🎛 (See page 8).
>
> • Received information can be deleted by selecting [DELETE] with 🎛.

7 Press [ENT] over 1 second.

Returns to a list screen of members

[For MESSAGE]

```
to:ALL
  Emergency contact



  from:JQ1YBG-123
  RCVD:2013/03/10
       12:06

       FORWARD
       REPLY
       Cancel
       DELETE
                 S 📶
```

[For PICT]

```
to:ALL
  2013/02/25 18:29
  ◆■

  from:JQ1YBG-123
  SENT:2013/03/10
       12:06

       FORWARD
       REPLY
       Cancel
       DELETE
                 S 📶
```

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 member

1 Press $\boxed{GM}$.

Members available for communication are shown in reverse display, and the distance and direction to the remote station are displayed.

2 Press $\boxed{F}$ and then $\boxed{7_{RS}^{LOG}}$.

3 Turn $\boxed{DIAL}$ to select [MESSAGE].

4 Press $\boxed{ENT}$.

The LOG List appears

5 Turn $\boxed{DIAL}$ to select [NEW].

6 Press $\boxed{ENT}$.

The MESSAGE entry screen appears.

7 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_-%/?!.:#

6

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

• Pressing [ENT] 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		

8 Press [ENT] over 1 second.

The entered character is determined.

9 Turn 🎛 to select [SEND].

Tip • To cancel transmission, select [BACK].

• To save a entered message, select [SAVE].

• To continue entering a message, select [Cancel].

10 Press [ENT].

The List screen appears.

11 Turn 🎛 to select a member in communication range.

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

Tip • 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.

12 Press [ENT].
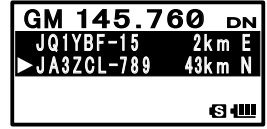
The message is transmitted.

7
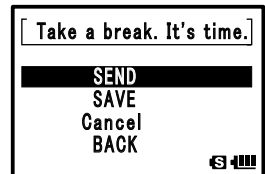
Replying to a checked MESSAGE or PICT (images)

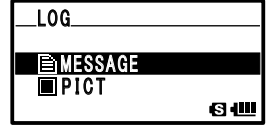Reply to a station that has sent a MESSAGE or PICT.

1 Press `GM`.

Members available for communication are shown in reverse display, and the distance and direction to the remote station are displayed.

```
GM 145.760   DN
JQ1YBF-15    2km E
▶JA3ZCL-789  43km N

              S ▦
```

2 Press `MW F` and then `LOG 7RS`.

3 Turn `DIAL` to select [MESSAGE] or [PICT].

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

```
LOG

  🖹MESSAGE
  ■PICT
              S ▦
```

4 Press `ENT`.

The LOG List appears

```
NEW
🖹◆🖹JA1ZRL-000  12:13
🖹◆🖹JH1YPC-0AB  10:18
🖹◆🖹JQ1YBG-123   3/10
              S ▦
```

5 Turn `DIAL` to select the information you would like to reply to.

```
NEW
🖹◆🖹JA1ZRL-000  12:13
🖹◆🖹JH1YPC-0AB  10:18
🖹◆🖹JQ1YBG-123   3/10
              S ▦
```

6 Press `ENT`.

The selected information is displayed.

[For MESSAGE]

```
to:ALL
┌                    ┐
│ Emergency contact  │
│                    │
│                    │
│                    │
│ from:JQ1YBG-123    │
│ RCVD:2013/03/10    │
└      12:06         ┘

        FORWARD
        REPLY
        Cancel
        DELETE
              S ▦
```

[For PICT]

```
to:ALL
┌                    ┐
│ 2013/02/25 18:29   │
│ ◆■                 │
│                    │
│ from:JQ1YBG-123    │
│ SENT:2013/03/10    │
└      12:06         ┘

        FORWARD
        REPLY
        Cancel
        DELETE
              S ▦
```

8

7 Turn ⊞ to select [REPLY].

8 Press [ENT].

The MESSAGE entry screen appears.

[For MESSAGE]

```
to:ALL
 ┌─────────────────┐
 │ Emergency contact│
 │                  │
 │                  │
 │ from:JQ1YBG-123  │
 │ RCVD:2013/03/10  │
 │      12:06       │
 └─────────────────┘
        FORWARD
        REPLY
        Cancel
        DELETE
                 ⑧◂Ⅲ
```

[For PICT]

```
to:ALL
 ┌─────────────────┐
 │ 2013/02/25 18:29 │
 │ ➡■               │
 │                  │
 │ from:JQ1YBG-123  │
 │ SENT:2013/03/10  │
 │      12:06       │
 └─────────────────┘
        FORWARD
        REPLY
        Cancel
        DELETE
                 ⑧◂Ⅲ
```
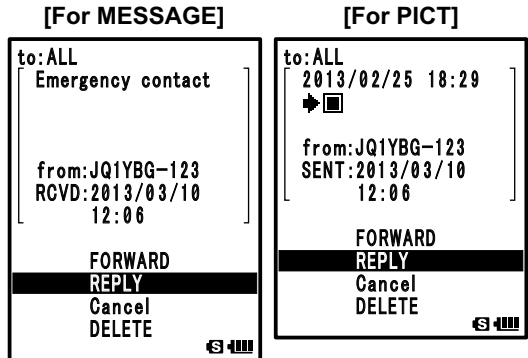
9 Enter a reply message.

Enter a reply message by following steps in [Creating and transmitting new MESSAGE (See page 6)].

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

```
┌─────────────────┐
│Take a break. It's time.│
│■                │
│                 │
│        SEND     │
│        SAVE     │
│        Cancel   │
│        BACK     │
│              ⑧◂Ⅲ│
└─────────────────┘
```

10 Press [ENT] over 1 second.

The entered character is determined.

11 Turn ⊞ to select [SEND].

12 Press [ENT].

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

Tip • 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.

```
┌─────────────────┐
│Take a break. It's time.│
│■                │
│                 │
│        SEND     │
│        SAVE     │
│        Cancel   │
│        BACK     │
│              ⑧◂Ⅲ│
└─────────────────┘
```

Forwarding checked MESSAGE or PICT (images)

Forward a checked MESSAGE or PICT to members.

1 Press [GM].

Members available for communication are shown in reverse display, and the distance and direction to the remote station are displayed.

2 Press [MW/F], and then press [7PO/RS].

3 Turn ⊞ to select [MESSAGE] or [PICT].

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

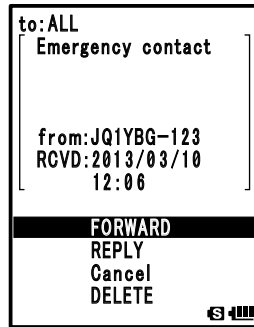**4** Press [ENT].

The LOG List appears

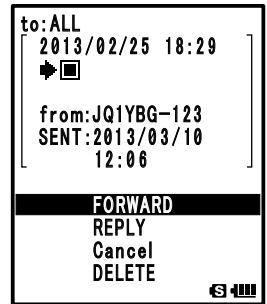**5** Turn ⊞ to select the information you would like to forward.

6 Press ENT.

The selected information is displayed.

7 Turn DIAL to select [FORWARD].
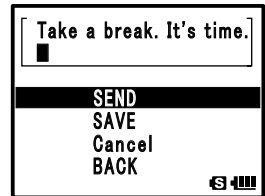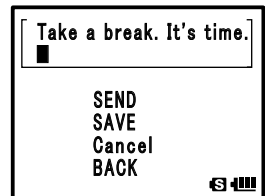
8 Press ENT.

[For MESSAGE]

```
to:ALL
   Emergency contact



   from:JQ1YBG-123
   RCVD:2013/03/10
        12:06

        FORWARD
        REPLY
        Cancel
        DELETE       ⑤◀▥
```

[For PICT]

```
to:ALL
   2013/02/25 18:29
   ➡■

   from:JQ1YBG-123
   SENT:2013/03/10
        12:06

        FORWARD
        REPLY
        Cancel
        DELETE       ⑤◀▥
```
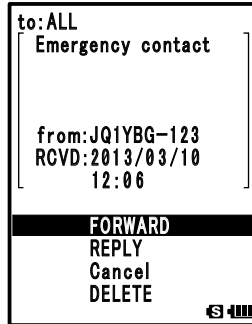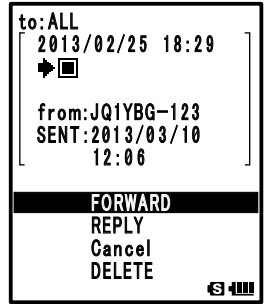
9 Turn DIAL to select a member in communication range.

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

```
01:Camp 2013-2
▶to:ALL
JQ1YBF-15    2km E
JA3ZCL-789  43km N
             ⑤◀▥
```

Tip • 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.

10 Press ENT.

MESSAGE or PICT (image) is forwarded to members.
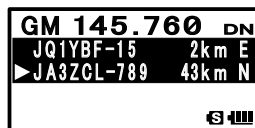
10

Transmitting captured PICT (images)

Transmit a picture captured with the optional camera equipped speaker microphone (MH-85A11U) to other members.
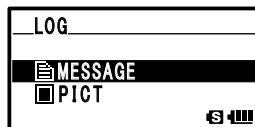
Tip
• For instructions on how to capture pictures using the optional camera equipped speaker microphone (MH-85A11U), refer to [Taking picture with the optional camera mounted on speaker microphone Snapshot Function (See page 86)] in Basic Operation.
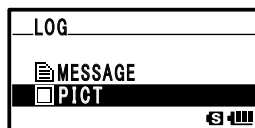
1 Press ⒼⓂ.

Members available for communication are shown in reverse display, and the distance and direction of the other station are displayed.

```
GM 145.760  DN
JQ1YBF-15    2km E
▶JA3ZCL-789   43km N

                  🆂◫
```
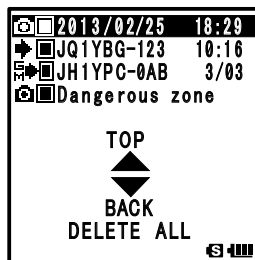
2 Press 🔘 and then ⑺.

```
 LOG

 📄MESSAGE
 ◼PICT
                  🆂◫
```

3 Turn 🎛 to select [PICT]

```
 LOG

 📄MESSAGE
 ◼PICT
                  🆂◫
```

4 Press ⒺⓃⓉ.

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

```
🔳2013/02/25   18:29
➡◼JQ1YBG-123   10:16
📷➡◼JH1YPC-0AB   3/03
📷◼Dangerous zone

       TOP
        ▲
        ▼
      BACK
   DELETE ALL
                  🆂◫
```

5 Turn 🎛 to select the image you would like to transmit.

6 Press ⒺⓃⓉ.

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.

(1) Turn 🎛 to specify the time.

(2) Press ⒺⓃⓉ.

(3) Enter the characters using keypad keys.

(4) Press ⒺⓃⓉ over 1 second when entry is finished.

11

7 Turn 🎛 to select [SEND].

The selected image is transmitted to members.

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

```
┌ 2013/02/25    18:29 ┐
│ �📷■                 │

        SEND
        Cancel
        DELETE
                    🆂📶
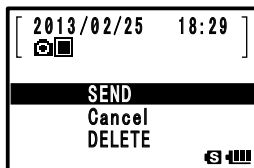```

**8** Press [ENT].

**9** Turn 🎛 to select a member in communication range.

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

**Tip** • 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).

```
┌ 01:Camp 2013-2      ┐
│ ▶to:ALL             │
│ JQ1YBF-15     2km E │
│ JA3ZCL-789   43km N │
                    🆂📶
```

10 Press [ENT].

The image is transmitted.

12

GM Set mode list

Set mode item No./Item	Description of function	Options (Bold letters: Default)
LANGUAGE	Select the language to use in the GM Function	JAPANESE / **ENGLISH**
DP-ID LIST	Registering the DP-ID to the transceivers.	—
RADIO ID CHECK	Transceiver specific number(ID) appears. (This cannot be edited)	—

● **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 Member Name, and Message entry.

● **2 DP-ID LIST**
Display of the DP-ID list screen
Explanation: Every C4FM digital transmit communication contains the individual ID information (Radio ID) of each transceiver. The DP-ID function uses this individual ID information.
When communicating with another transceiver, if the DP-ID of the stations are registered in each other's transceivers, they can communicate even if the DG-ID numbers are different.
For details, refer to the FT1XDR/XDE/DR/DE operating Manual.

● **3 RADIO ID CHECK**
Display of RADIO ID CHECK
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

1709-B