

**YAESU**  
*The radio*

144/430MHz 50W  
DUAL BAND TRANSCEIVER  
C4FM/FM

***FTM-400XDR/XDE***  
***FTM-400DR/DE***

**Instruction Manual**  
**(GM Edition)**

Thank you for purchasing this Yaeau product.  
This instruction manual explains information related to the “GM Function” .  
For information on basic operation of the transceiver, please refer to the enclosed  
FTM-400XDR/XDE/DR/DE operating manual.

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# Introduction

## Operating the character input screen

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

### ● Alphabet input screen



**[Caps]**

The input switches between small and large character input each time this is touched.

**[123#%^]**

The screen changes to the number input screen when touched.

**[←][→]**

The cursor in the input field moves left and right when these are touched.

**[ENT]**

The entered characters are confirmed and the display returns to the previous screen when this is touched.

**[BACK]**

The display returns to the previous screen when this is touched.

**[X]**

The character to the left of the cursor will be deleted when this is touched.

### ● Numbers and symbols input screen



**[ABC]**

The screen changes to the alphabet input screen when this is touched.

**[123#%^]**

The screen changes to the input screen for numbers and symbols each time this is touched.

### ● Input field

Upon touching a character key when a character is already displayed, the character to the left of the cursor will be overwritten.

## What is the GM Function?

The GM (group monitor) function automatically checks the current operating frequency to find if other stations are operating in the DN mode with the GM function, and are within communication range.

The GM function is a convenient method of exchanging messages, pictures and notifications with members that are within the sphere of communications. The position information reported from the other stations can also be used for location and navigation purposes.

### Cautions

- The GM function works at the Band A frequency (band at the top of the display).
- Only operate the GM function at the same frequency as the other group members.
- When the GM function is activated, Band A will automatically switch to the digital mode.

## Monitoring the Status of the Communication Sphere

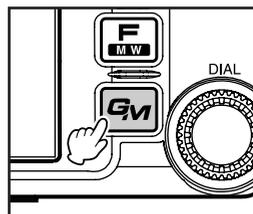
Check the current frequency to find if other stations are operating in the DN mode with the GM function, and are within the sphere of communications.

### 1 Press

The call sign and signal strength of stations operating in the DN mode and those with their GM functions in operation, that are within communications range, will be displayed.

- Tips**
- Stations within the sphere of communication are displayed in green.
  - Stations outside the sphere of communication are displayed in grey.

The “GM” icon and operating frequency will be displayed at the top of the screen.



### 2 Press

The GM function will be turned off and returned to normal operation. The display will return to the frequency display screen.

### Tips

- When  is pressed during GM operation, the GM function will be turned off temporarily and the various operations in Band B will be enabled. Press  to return to GM operation in Band A.
- When [GM] → [1 RANGE RINGER] in the set-up menu is set to ON, a bell notification will be sounded when a group member enters into the sphere of communication.

# Checking Messages and Pictures Received

The messages (text) and pictures received from group members can be viewed.

## 1 Press

The call sign and signal strength of stations operating in the DN mode and those with their GM functions in operation, that are within communications range, will be displayed.

## 2 Touch [LOG]

A list of the messages received and sent will be displayed.

**Tip** • The message list is displayed when shipped from the factory but subsequently, either the message or picture list which was last chosen will be displayed.

• The icon on the left side of the list of messages sent and received refers to the following.

: Messages received during GM operation (read messages)

: Messages received during GM operation (unread messages)

: Messages sent during GM operation

: Messages that failed to be sent during GM operation



## 3 Turn , or touch the screen to select the message that you want to read

## 4 Touch the selected message

The main text of the message will be displayed.

**Tip** Press  when the message list is displayed to display the direction information of the location from where the message was sent, on the compass screen.



## 5 Touch [BACK]

Return to the list of messages.



## 6 Touch [MSG/IMG]

A list of the pictures sent and received will be displayed.

**Tip** The icon on the left side of the list of pictures sent and received refers to the following.

- : Pictures stored on the micro-SD card
- : Pictures received during GM operation (viewed pictures)
- : Pictures received during GM operation (unviewed pictures)
- : Pictures sent during GM operation
- : Pictures that failed to be sent during GM operation



## 7 Turn , or touch the screen to select the picture that you want to view

## 8 Touch the selected picture

The picture will be displayed.

**Tip** Press  when the picture is displayed to display the direction information of the location from where the picture was taken on the compass screen.



## 9 Touch [BACK]

The screen will return to the list of pictures.



## 10 Touch [BACK]

Return the screen to the previously viewed screen.

# Sending Messages and Pictures

Messages (text) and pictures can be sent. Messages and pictures can be sent to specific members only, or to all members all at once.

The following are the four types of transmission methods:

- (1) Create and send a new message
- (2) Reply to a read message or viewed picture
- (3) Forward a read message or viewed picture
- (4) Send a picture that has been taken

## Creating and sending a new message

### 1 Press

The call sign and signal strength of stations operating in the DN mode and those with their GM functions in operation, that are within communications range, will be displayed.

### 2 Touch [LOG]

A list of the messages will be displayed.

**Tip** Touch / when the list of pictures is displayed to change to the list of messages.



### 3 Touch [NEW]

The message details screen will be displayed.



### 4 Touch

The character input screen will be displayed.



### 5 Touch the character keys to enter the message

The touched characters will be displayed at the top of the screen.

- Tips**
- Up to 80 characters can be entered.
  - English characters, numbers, symbols and katakana characters can be used.



### 6 Touch [ENT]

The entered text will be confirmed and the display will return to the message details screen.



### 7 Touch [SEND]



### 8 Touch [ALL]

**Tip** Touch [BACK] to cancel the transmission.



The message contents will be displayed, and the message will be sent.

“Completed” will be displayed when the message is sent and the screen will then return to the list of messages. The tag of the sent message will be added to the top of the list.

## Sending Messages and Pictures

### Using standard messages

The following 19 standard messages have been saved in the radio's memory AS default to help save time and effort in text input.

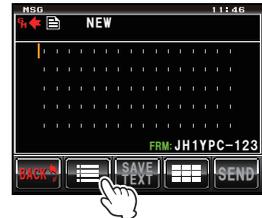
1	QRM	11	Good night
2	QRP	12	Send messages
3	QRT	13	Send pictures
4	QRX	14	on my way
5	QRZ	15	wait for you
6	QSY	16	Pick me up
7	Good morning	17	Thank you
8	Good job	18	OK
9	Good day	19	urgent
10	Good evening		

1 Follow Steps 1 to 3 in “Creating and sending a new message” (P.6) to display the message details screen

2 Touch 

The standard messages will be displayed at the bottom of the message screen.

**Tip** Text containing a maximum of 16 characters can be registered in “01:” - “10:” (P.9).



3 Turn  to select the standard message that you want to use

4 Press 

The standard message will be displayed as the message text.

**Tip** The standard message can also be displayed by touching it.



5 Touch 

The standard message at the bottom of the message will disappear.



6 Follow Steps 4 to 6 in “Creating and sending a new message” (P.6) to enter the new text for the message

## Registering a standard message

Up to 10 texts containing a maximum of 16 characters each can be registered as standard messages.

Registered texts can be selected and used like the 43 standard messages that have been prepared in advance.

1 Follow Steps 1 to 5 in “Creating and sending a new message” (P.6) to enter the text

**Tip** English characters, numbers, symbols and katakana characters can be used.

2 Touch **[SAVE TEXT]**

The standard message field will be displayed at the bottom of the message.



3 Turn **CALL** to display the number to be registered

**Tip** A number between “01” and “10” can be selected.



4 Press **CALL**

The text will be saved in the memory as a standard message and the standard message field will disappear.

- Tips**
- The text can also be registered by touching the registration number displayed.
  - When registering the text in a number that already has a standard message registered, the previous standard message will be overwritten.
  - Touch **[SAVE TEXT]** to cancel the registration.



### Replying to a read message or viewed picture

A reply to a read message or viewed picture can be sent to the station which sent the message or picture.

**1** Press **[QW]**

The call sign and signal strength of stations operating in the DN mode and those with their GM functions in operation, that are within communications range, will be displayed.

**2** Touch **[LOG]**

A list of the messages or pictures sent or received will be displayed.



**3** Turn **[OK]**, or touch the screen to select the message or picture that you want to reply to

**Tip** A list of the messages will be displayed when the touched key is **[LOG]**. This will change to a list of pictures when the screen is touched and changed to **[OK]**.



**4** Touch the selected message or picture

The contents will be displayed.

**5** Touch **[REPLY]**

The message reply screen will be displayed.

The call sign of the calling station will be displayed in the address.

The first 16 characters of the message received will be automatically inserted after "Re:".

**Tip** When replying to a picture, the first 16 characters of the tag (display name) will be inserted after "Re:".



**6** Touch **[GRID]**

The character input screen will be displayed.



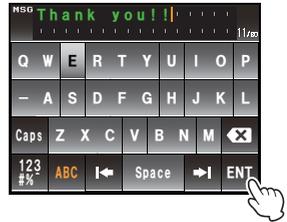
**7** Touch the character keys to enter the reply message

**Tip** The first 16 characters can also be edited.



**8** Touch **[ENT]**

The entered text will be confirmed and the display will return to the message details screen.



**9** Touch **[SEND]**

The reply message will be sent.

**Tip** Touch **[BACK]** to cancel the transmission.

“Completed” will be displayed when the message is sent and the screen will then return to the list of messages. The tag of the sent message will be added to the top of the list.



### Forwarding messages and pictures

Messages and pictures that have been sent or received can be forwarded to group members.

**1** Press **[GM]**

The call sign and signal strength of stations operating in the DN mode and those with their GM functions in operation, that are within communications range, will be displayed.

**2** Touch **[LOG]**

A list of the messages or pictures sent or received will be displayed.



**3** Turn **[ALL]**, or touch the screen to select the message or picture to be forwarded

**Tip** A list of the messages will be displayed when the touched key is **[ALL]**. This will change to a list of pictures when the screen is touched and changed to **[PIC]**.



**4** Touch the selected message or picture

The contents will be displayed.

**5** Touch **[FORWARD]**



**6** Touch **[ALL]**

**Tip** Touch **[BACK]** to cancel the transmission.



The message or picture will be sent.

“Completed” will be displayed when the message or picture is sent and the screen will then return to the list of messages or pictures. The tag of the message or picture sent will be added to the top of the list.

**Tip** When sending a picture, pressing the [PTT] button on the microphone during transmission will cancel the transmission (it may take a while for the transmission to be cancelled).

### Sending a picture that has been taken

Pictures taken using the camera that is attached to the optional speaker microphone “MH-85A11U” can be sent to group members.

#### Tip

Refer to “Taking pictures with the camera attached to the speaker microphone” in the basic operating manual for instruction on taking pictures and using the camera that is attached to the optional speaker microphone “MH-85A11U”.

**1** Set up the micro-SD card in the main device

**2** Take a picture with the MH-85A11U

The picture will be saved in the micro-SD card.

**3** Press **[QW]**

The call sign and signal strength of stations operating in the DN mode and those with their GM functions in operation, that are within communications range, will be displayed.

**4** Touch **[LOG]**

A list of the pictures sent and received will be displayed.

**Tip** Touch **[☰/☒]** when the list of messages is displayed to switch to the list of pictures.



## Sending Messages and Pictures

5 Turn **PTT**, or touch the screen to select the picture to be sent

6 Touch the selected picture

The picture details will be displayed.

**Tip** Pictures with an  icon displayed at the left end of the tag are pictures taken with the camera attached to the speaker microphone.

7 Touch **[FORWARD]**

8 Touch **[ALL]**

**Tip** Touch **[BACK]** to cancel the transmission.



The picture will be sent.

“Completed” will be displayed when the picture is sent and the screen will then return to the list of pictures. The tag of the transmitted picture will be added to the top of the list.

**Tip** When sending a picture, pressing the [PTT] button on the microphone will cancel the transmission (it may take a while for the transmission to be cancelled).

## Using Position Information

Using the internal GPS unit or an externally connected GPS device, the positions of group members within the sphere of communication can be shown in the compass display. The position information of group members at the current point in time can be saved in the memory for subsequent use in navigation.

### Cautions

- When the data of the GPS satellites cannot be acquired, the position information cannot be displayed.
- Depending on the surrounding environment, a positioning error of several hundred meters may occur.
- This function is a simplified function that uses the data of the GPS satellites. Please use the positions of other stations as a guide.

### Tip

Refer to "Using the GPS function" in the basic operating manual for the details on using the GPS function.

## Checking the position of a member

### 1 Press **[GM]**

The call sign and signal strength of stations operating in the DN mode and those with their GM functions in operation, that are within communications range, will be displayed..

### 2 Touch the member that you want to display the position information

The touched member will be enclosed in a red box.

**Caution** Members outside the sphere of communication cannot be selected.



## Using Position Information

### 3 Press

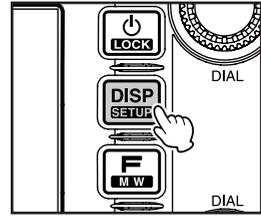
The direction of the selected member will be displayed in the compass.

The compass panel will show the direction with the direction of advance of your own station on top (Heading Up), and the compass needle will point in the direction of the partner station.

The distance to the partner station is also displayed at the top right of the compass.

**Tip** The “●” on the left hand side of the call sign of the partner station will blink.

When “●” is blinking, the compass display will not be updated even when signals containing position information from stations other than that displayed are received. When [YR] is pressed, “●” will light up and the compass display will be updated when signals containing position information from stations other than that displayed are received.



### 4 Press

Return to the list of group members.

**Tip** When configuring the screen display to show the altitude display screen and the timer / clock display screen using [DISPLAY] → [1 DISPLAY SELECT] in the set-up menu, the screen will switch in the following order each time  is pressed.

Compass / Latitude-longitude display screen → Altitude display screen → Timer / Clock screen → GPS screen → Original screen

## Tips

- The position information can also be displayed using lat-long coordinates. The display can be changed using [DISPLAY] → [2 TARGET LOCATION] in the set-up menu.
- When the GPS satellites are not acquired by your own station or the partner station, the position information cannot be displayed in the compass unless it has been set up manually.

## Saving the position information of a member in the memory

### 1 Display the position information of the member that you would like to save in the memory



- 2 Touch [MEMORY]  
[★], [L1] and [L2] will blink.



- 3 Touch [★], [L1] or [L2]  
The position information will be saved in the memory and the touched location will turn orange in color.  
**Tip** When a tag in which position information is already saved in the memory is selected, the previous position information will be overwritten.



## Displaying position information saved in the memory

- 1 Press **DISP**  
Your own station position will be displayed in the compass.
- 2 Touch [★], [L1] or [L2]  
**Tip** Position information that has not been saved in the memory cannot be selected.

The direction of the compass needle will change and point to the position that has been saved in the memory. A green circle will be displayed at the tip to show the direction of the destination.

The distance to the destination will also be displayed.



## GM Set-up Menu List

Menu / Item	Explanation of function	Available settings (Default values shown in BOLD)
1 DP-ID LIST	Displays the DP-ID list screen	- (non-editable)
2 RANGE RINGER	Bell sound setting when checking for stations within sphere of communications	<b>ON</b> / OFF
3 RADIO ID CHECK	Specific ID display by transceiver	- (non-editable)

## GM Set mode function list

### ● 1 DP-ID LIST

**Description:** 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 FTM-400XDR/XDE/DR/DE operating Manual.

### ● 2 RANGE RINGER

**Description:** Activates/deactivates the alert sound when detecting stations within communication range. Select "ON" to activate the alert sound when detecting any stations within communication range.

### ● 3 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.



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