YAESU
The radio

C4FM/FM 144/430 MHz
DUAL BAND TRANSCEIVER

FTM-100DR/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
FTM-100DR/DE operating manual.
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Contents

What is the GM Function?

The GM (Group Monitor) function automatically monitors for any other stations with the GM function in operation on the same frequency, or stations operating in DN mode, within communication range. The GM function then displays the acquired information, including the direction and distance, on the screen for each detected call sign.
In addition to notifying you of the GM members within your communication range, the GM function also displays the relative positions of all the members on the transceiver screen.

```
✻    50   GM   B 145.520
⊘ NE   ▶Y▟ JA1ZRL-001
    23.4 km  Yx JA1YOE-GM
              Y▟ JQ1YBG
```

```
GM  MESSAGE
 ▶        ▣NEW
        ✦◦☑JA1ZRL-001    18:00
        ✦◦▣JA1YOE-GM    04/14
    TOP END        DEL PICT
```

Tips
- The GM function does not work while in the analog mode. When the GM function is activated, the operating band automatically switches to DN mode.
- When sending an image with the GM function in operation, the operating band automatically switches to FR mode (Fast Rate (high-speed data communication) mode). Upon completion of the data transmission, the mode automatically reverts to the original V/D mode (simultaneous voice/ data communication mode).
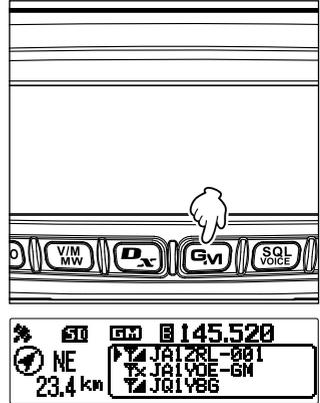
Displaying all the stations using the GM function

1 Press [GM].

The GM function activates and displays up to 24 stations using the GM mode on the same frequency, or stations operating in DN mode, within the communication range.

> **Tips** • Displays 📶 for stations within your communication range.
> • Displays 📵 for stations outside your communication range.

Deleting stations from the list

Delete the stations displayed on the list.
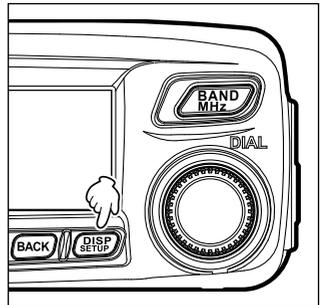
1 Press [BACK].
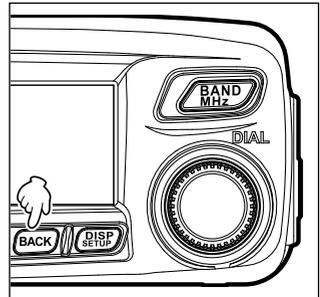
2 Rotate the DIAL to select the station you want to delete, then press [DISP SETUP].

Deletes the selected station from the list.

> **Tip** Pressing [TXPO] deletes all stations displayed on the list.

Inputting Characters

You can input letters and characters to create messages by following the procedure below.

Switching the character type

Press (TXPO) ([A/a] appears on the upper side). Pressing each time changes the character type in the following order.
Uppercase letters → symbols → lowercase letters → numbers

Deleting all input characters

Press (V/M MW) ([CLR] appears on the upper side).

Moving the cursor to the left

Press (D x) ([←] appears on the upper side).

Moving the cursor to the right

Press (G M) ([→] appears on the upper side).

Deleting the most recently input character

Press (SQL VOICE) ([×] appears on the upper side).

Completing input

Press (DISP SETUP) or (BACK).

Checking Received Messages or Images

Check messages or images on the LOG list using the GM function.

Downloading messages or images

When there is a message or image sent in digital mode from a station on the same operating frequency, the content of the message or image is displayed for a certain period of time on the transceiver screen. Message data can be downloaded to the memory of the transceiver and image data can be downloaded to the microSD memory card inserted into the transceiver.

When receiving a message

When receiving an image

Tips

• While receiving an image, sender's call sign and ">>>" appear to indicate the reception progress of the data.
• If the message cannot be downloaded successfully due to unsupported file format or other reasons, "Not Completed" appears.
• If the image data cannot be downloaded to the microSD memory card successfully due to insufficient memory space, "Insufficient SD's Memory" appears.

Viewing the message or image list

You can display the list of transmitted and received data. You can also select the data you want to check from the list.

1 Press and hold $\boxed{\text{GM}}$ for over one second.
Displays the "DG-ID SETUP" screen.
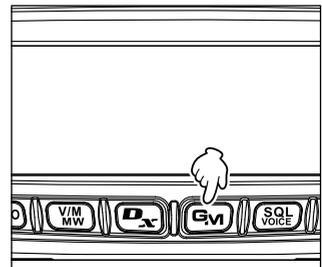
2 Press $\boxed{\text{BAND}\atop\text{MHz}}$, ($\boxed{\text{LOG}}$ appears on the left side)
Displays the "LOG SELECT" screen.

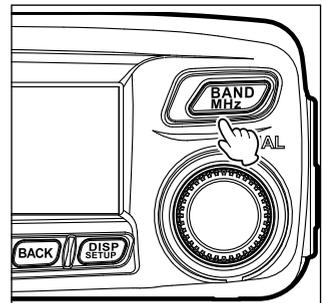**3** Rotate the DIAL to select **[GM ✉ MESSAGE]** or **[GM ■ PICT],** then press $\overset{DISP}{\underset{SETUP}{\square}}$.
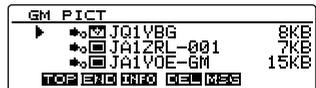
When **[GM ✉ MESSAGE]** is selected, the "GM MESSAGE" screen appears.

When **[GM ■ PICT]** is selected, the "GM PICT" screen appears and the images and time stamps are listed.

Press $\boxed{D_x}$ (**INFO** appears on the upper side) to switch the display to image size display. Pressing $\boxed{D_x}$ each time switches the display.

Tip ▪ displayed on the left side of the icon indicates that the image was successfully received.

Tip Icons on the left side of the LOG list indicate the following.

NEW	Creating and sending a new message
◆o🗹	Message received (unread)
◆o✉	Message received (read)
◆o✉	Message sent
◆x✉	Message failed to send
◆o🗹	Image received (unread)
◆o■	Image received (read)
◆o■	Image sent
◆x■	Image failed to send

Tips • The data most recently received is on the top of the list.
  • Press $\boxed{\overset{V/M}{MW}}$ (**END** appears on the upper side) to jump to the bottom of the list.
  • When there are many files, it may take a while to jump to the bottom of the list. Press [PTT] to cancel the operation halfway.
  • Press $\boxed{TXPO}$ (**TOP** appears on the upper side) to jump to the top of the list.

4 Rotate the DIAL to select the data you want to check, then press $\overset{DISP}{\underset{SETUP}{\square}}$.

Displays the selected data.

5 Press $\boxed{BACK}$ twice.

Returns the screen to the previously viewed screen.

Deleting messages or images

You can delete unnecessary data from the memory channels or the microSD memory card.

Deleting data from the content display screen

1 Display the data you want to delete.

2 Press Ⓖ (**DEL** appears on the upper side).
Displays the confirmation screen.
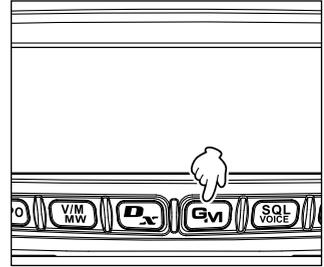
3 Rotate the DIAL to select **[OK?]**, then press (DISP/SETUP).
Starts the deletion process.
After completing deletion, the display returns to the data list screen.
Rows move up by one.

> **Tip** To cancel deletion, select [Cancel], then press (DISP/SETUP).

Deleting data from the list

1 From the data list, select the data you want to delete by rotating the DIAL.

2 Press Ⓖ (**DEL** appears on the upper side).
Displays the confirmation screen.

3 Rotate the DIAL to select **[OK?]**, then press (DISP/SETUP).
Starts the deletion process.
After completing deletion, the display returns to the data list screen.
Rows move up by one.

> **Tip** To cancel deletion, select [Cancel], then press (DISP/SETUP).

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Sending MESSAGE (Massages) or Images (PICT)

Send messages or images using the GM function.
There are the following three ways for sending messages or images.

(1) Creating and sending a new message
(2) Replying to the sender of the checked message or image data
(3) Forwarding the checked message or image data

Sending massages or images

You can send messages or images from the transceiver. Sent data can be viewed by all stations operating in digital mode on the same frequency.
There are the following three ways for sending messages or images.
(1) Creating and sending a new message
(2) Replying to the sender of the downloaded message or image data
(3) Forwarding the downloaded message or image data

Creating and sending a new message

Create a new message and send.

1 Press and hold 〔Gᴍ〕 for over one second.
Displays the "DG-ID SETUP" screen.
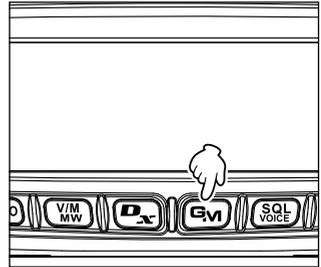
2 Press 〔BAND MHz〕, (**LOG** appears on the left side)
Displays the "LOG SELECT" screen.
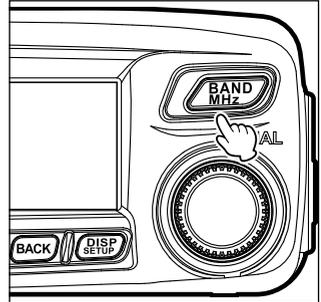
3 Rotate the DIAL to select **[GM ▤ MESSAGE]**, then press 〔DISP SETUP〕.
Displays the "GM MESSAGE" screen.

4 Rotate the DIAL to select **[NEW]**, then press 〔DISP SETUP〕.
5 Press 〔TXPO〕 (**EDIT** appears on the upper side).
Displays the message entry screen.

6 See "Inputting Characters" on page 5 to input a message.

7 Press (BACK).

Displays the entire message.

Tips • To save the created message, press ▣ (▣▤▤ appears on the upper side). For details, see "Registering routine messages" on page 11.

• To continue message entry, press (TXPO) (▣▤▤ appears on the upper side).

8 Press (SQL/VOICE) (▣▤▤ appears on the upper side).

Sends the message.

Tip To cancel transmission, press (BACK).

When message transmission completes, "Completed" appears and then the screen returns to the message list screen. The tag of the transmitted message is added to the top of the list.
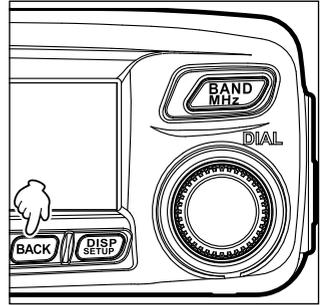
Using routine messages

The following 19 routine messages are stored on the transceiver at the time of factory shipment for quick input.

QRM	Good night
QRP	Send messages
QRT	Send pictures
QRX	on my way
QRZ	wait for you
QSY	Pick me up
Good morning	Thank you
Good job	OK
Good day	urgent
Good evening	

1 Follow steps 1 to 4 in "Creating and sending a new message" on page 9 to display the message details screen.

2 Press (V/M MW) (▣▤▤ appears on the upper side).

Displays the routine messages at the top of the screen.

Tip For "01" to "10", you can register a message comprising up to 16 letters. See "Registering routine messages" on page 11.
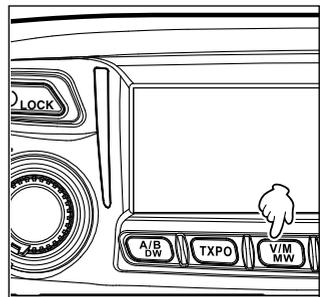
3 Rotate the DIAL to select the desired routine message, then press (DISP SETUP).

```
READ◆  :[ Thank you · · · · · · · ]
       ■· · · · · · · · · · · · · · · · ·
       · · · · · · · · · · · · · · · · · ·
       · · · · · · · · · · · · · · · · · ·
       □≡
```

Displays the selected routine message in the message entry field.

```
READ◆  :[ Thank you · · · · · · · ]
       Thank you■· · · · · · ·
       · · · · · · · · · · · · · · · · · ·
       · · · · · · · · · · · · · · · · · ·
       □≡
```

4 Press (V/M MW) (🔲≡ appears on the upper side).
Hides the routine message display field at the top of the screen.

```
◆ 🗐TO:ALL
       Thank you■· · · · · · ·
       · · · · · · · · · · · · · · · · · ·
       · · · · · · · · · · · · · · · · · ·
🔳🖳 □≡ □≡        SEND
```

5 To add letters to the message, input letters following steps 4 to 5 in "Creating and sending a new message" on page 9.
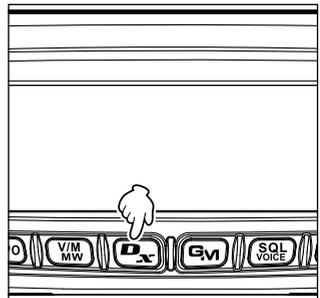
● **Registering routine messages**
You can register up 10 routine messages using a maximum of 80 characters.
Messages you registered can be selected and used in the same way as the 19 prepared routine messages.

1 Follow steps 1 to 6 in "Creating and sending a new message" on page 9 to input a text message.

   Tip   Alphanumeric characters including symbols can be used.

2 Press (BACK).

3 Press (🅳𝕩) (🔲≡ appears on the upper side).
Displays the routine message field at the top of the screen.

4 Rotate the DIAL to select the number where you want to register the message, then press (DISP SETUP).

   Tip   You can select a number from "01" to "10".

```
SAVE◆01:[ · · · · · · · · · · · · · · · · · ]
       Take a break■· · · ·
       · · · · · · · · · · · · · · · · · ·
       □≡
```

Registers the text as a routine message and closes the routine message field.

   Tips   • If you register a new message to a number where a message already have registered, the old message is overwritten.
   • To cancel registration, press (🅳𝕩) again (🔲≡ appears on the upper side).

Replying to the sender of the checked message or image data

Reply to the sender of the checked message or image data.

1 Press and hold $\boxed{\text{Gm}}$ for over one second.

Displays the "DG-ID SETUP" screen.

2 Press $\boxed{\overset{\text{BAND}}{\text{MHz}}}$, (**LOG** appears on the left side)

Displays the "LOG SELECT" screen.

3 Rotate the DIAL to select **[GM ▤ MESSAGE]** or **[GM ▣ PICT],** then press $\boxed{\overset{\text{DISP}}{\text{SETUP}}}$.

When **[GM ▤ MESSAGE]** is selected, the "GM MESSAGE" screen appears.

When **[GM ▣ PICT]** is selected, the "GM PICT" screen appears.

```
SD◉▮▮▮▮▮ LOG SELECT ▮▮▮▮
  ▶G₄ ▤MESSAGE
   G₄ ▣PICT
  APRS STATION LIST
  APRS MESSAGE LIST
```

4 Rotate the DIAL to select the data you want to reply to, then press $\boxed{\overset{\text{DISP}}{\text{SETUP}}}$.

Displays the selected data.

[MESSAGE]	**[PICT]**

```
◆◦▤TO:ALL
  Good!



  FWD RPLY DEL SCR
```

```
◆◦▣TO:ALL
FROM:JA1ZRL-001    10 KB
RCVD:2015/04/15 17:27
SUBJECT:2015/04/06 09:43
  EDIT FWD RPLY DEL SCR
```

5 Press $\boxed{\text{D}_x}$ (**RPLY** appears on the upper side).

Displays the message entry screen.

6 Enter the reply message.

See "Creating and sending a new message" on page 9 to enter the reply message.

> **Tips** • When replying, the call sign of the MESSAGE/PICT data sender is automatically specified for "to:".
>
> • In other words, even if you specify the data sender's call sign (name) for "to:" to reply, other stations operating GM on the same frequency can still view the message or image as long as they are within the communication range.

7 Press $\boxed{\text{BACK}}$.

Displays the entire message.

8 Press $\boxed{\overset{\text{SQL}}{\text{VOICE}}}$ (**SEND** appears on the upper side).

Sends the message. When message or image transmission completes, "Completed" appears and then the screen returns to either the message list screen or image list screen.

Forwarding the checked message or image data

You can forward the checked message or image data.

1 Press and hold ⏎ᴳᵛ for over one second.
Displays the "DG-ID SETUP" screen.

2 Press ⏎ᴮᴬᴺᴰ/ₘₕ𝐳, (**LOG** appears on the left side)
Displays the "LOG SELECT" screen.

3 Rotate the DIAL to select **[GM ✉MESSAGE]** or
[GM ▣ PICT], then press ⏎ᴰᴵˢᴾ/ₛₑₜᵤₚ.
When **[GM ✉ MESSAGE]** is selected, the "GM
MESSAGE" screen appears.
When **[GM ▣ PICT]** is selected, the "GM PICT"
screen appears.

```
STO❸    LOG SELECT
▶G₁ ✉MESSAGE
 G₁ ▣PICT
 APRS STATION LIST
 APRS MESSAGE LIST
```

4 Rotate the DIAL to select the data you want to
forward, then press ⏎ᴰᴵˢᴾ/ₛₑₜᵤₚ.
Displays the selected data.

```
GM MESSAGE
        ✉NEW
▶  ⁺ₒ☑JA1ZRL-001   18:00
   ⁺ₒ✉JA1YOE-GM    04/14
 TOP END      DEL PICT
```

[MESSAGE]

```
⁺ₒ✉TO:ALL
  Good!


 FWD RPLY DEL SCR
```

[PICT]

```
⁺ₒ▣TO:ALL
FROM:JA1ZRL-001   10 KB
RCVD:2015/04/15 17:27
SUBJECT:2015/04/06 09:43
 EDIT FWD RPLY DEL SCR
```

5 Press ⏎ⱽᴹ/ₘ𝐰 (**FWD** appears on the upper side).
"SEND "to: ALL"" appears.

6 Rotate the DIAL to select **[OK?],** then press ⏎ᴰᴵˢᴾ/ₛₑₜᵤₚ.
When message or image transmission completes,
"Completed" appears and then the screen returns to
either the message list screen or image list screen.

```
⁺ₒ▣T⁻:ALL
 SEND  " TO:ALL "
     ▶OK?
      Cancel
 FWD RPLY DEL SCR
```

```
⁺ₒ▣TO:ALL
 Good!

     [Completed]
 FWD RPLY DEL SCR
```

GM Setup Menu

Setup mode number/Item	Descriptions	Available settings (Default values shown in BOLD)
1 DP-ID LIST	Displays the DP-ID list screen	—
2 RANGE RINGER	Setting of the alert sound when detecting stations within communication range	**OFF** / ON
3 MESSAGE POPUP	Pop-up message display setting	OFF / **ON**
4 RADIO ID CHECK	Transceiver personal ID (five-digit alphanumeric code) display	— (non-editable)

● 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-100DR/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 MESSAGE POPUP

Description: Activates/deactivates the pop-up message display. Select "ON" to display the pop-up message.

● 4 RADIO ID CHECK

Description: In the GM function, each transceiver transmits its own ID besides the call sign.

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

The RADIO ID cannot be edited.

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The radio

1709-C