YAESU
The radio

**C4FM/FM 144/430 MHz
DUAL BAND TRANSCEIVER**

FTM-100DR

Instruction Manual
(WIRES-X Edition)

Thank you for purchasing this Yaesu product.
This instruction manual explains information related to the "WIRES-X Function".
For information on basic operation of the transceiver, please refer to the enclosed FTM-100DR operating manual.
Company names and products in this manual are trademarks or registered trademarks of the respective company.
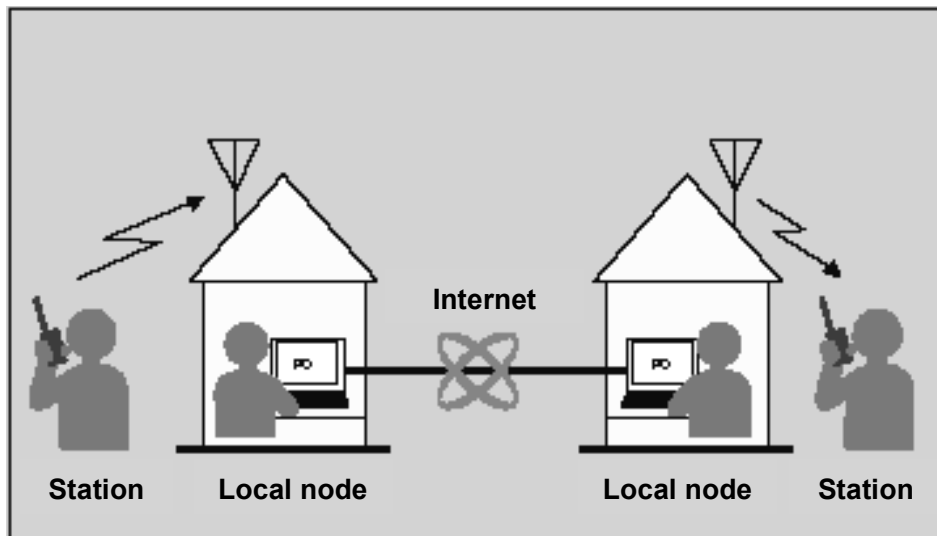
Using the WIRES-X

Contents

What is WIRES-X?

WIRES (Wide-coverage Internet Repeater Enhancement System) is an Internet communication system which expands the range of amateur radio communication. By relaying radio signals via the Internet, stations can be connected where radio waves cannot reach each other.

WIRES uses local nodes (stations connected to the Internet via PCs) as access points which repeat communications of conventional amateur radio stations. When the local nodes are connected to each other via the Internet, amateur stations all over the world can communicate with each other just by connecting conventional stations to the local nodes.

In addition to the WIRES features, WIRES-X also supports digital communications. Using WIRES-X, you can transmit and receive digitalized data such as text, image data and audio.

Using the WIRES-X in conjunction with the transceiver allows you to have analog/digital communications with stations outside the communication range. In digital communication mode, you can search stations by call signs or keywords, and exchange data such as messages and location information.

Since you can also use WIRES-X together with the GM (Group Monitoring) function on a compatible transceiver to create a group including local nodes, you can also establish a network covering a wider range.

Caution

You cannot connect to a currently in service WIRES-II node from a WIRES-X node, or vice versa.

Terminology

■ Node

Radio repeater connected to the Internet via a PC, which repeats communications of conventional amateur radio stations as an access point

● Local node

Node within the radio communication range of a conventional amateur radio station

● Analog node

Node which is a transceiver or repeater using the conventional FM format and can only repeat DTMF (Dual Tone Multi Frequencies) codes and analog audio transmissions/ receptions

● Digital node

Node which is a transceiver or repeater compatible with digital communications in C4FM (Continuous 4 level FM) format. With this type of node, you can transmit/receive audio as well as text and image data. You can also repeat DMTF codes and analog audio transmissions/receptions.

4
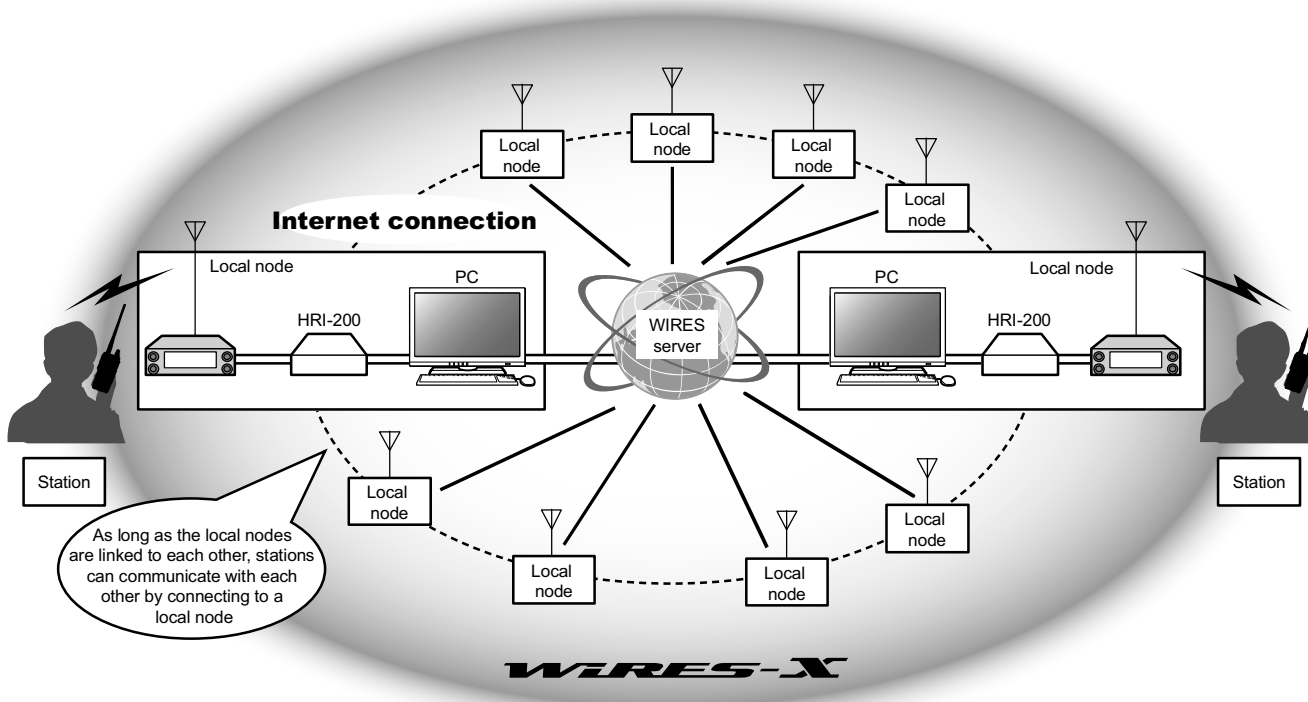
■ WIRES-X user ID

YAESU provides identification names with the WIRES-X nodes. For each node, a DTMF ID (five-digit number) and user ID (alphanumeric characters consisting of up to 10 digits) are provided.

If you know the ID of the node you want to connect with, you can transmit the DTMF code from the transceiver, and directly specify the node to connect to by searching by characters (only for digital nodes).

● ID list

Nodes and rooms which are currently operating WIRES are listed and published on our website. We provide information such as IDs, call signs and operating frequencies (some may not be published due to the wishes of owners).

■ Room (Round QSO Room)

WIRES system community space to which multiple nodes can connect simultaneously. As well as voice communications, you can also chat with text messages on the PC used for the local node.

● Open room

Room which allows all nodes to connect to

● Closed room

Room only registered nodes can connect to

● Owner

Node which opens and organizes a room

● Activity

Nodes currently connected to a specific room

JF7XXX -ND3

JH4XXX -ND4

JQ1YBF-ND1   PC   JA2YSO-ND2

HRI-200   WIRES server   PC   HRI-200

JA1XXX -S1

Internet connection

JA2-ROOM
JQ1YBF-ND1
JF7XXX-ND3
JA1XXX-S1

* Currently 3 activities in this room

When a local node connects to a room, stations already connected to that node are also connected to the room

JA2XXX -S2
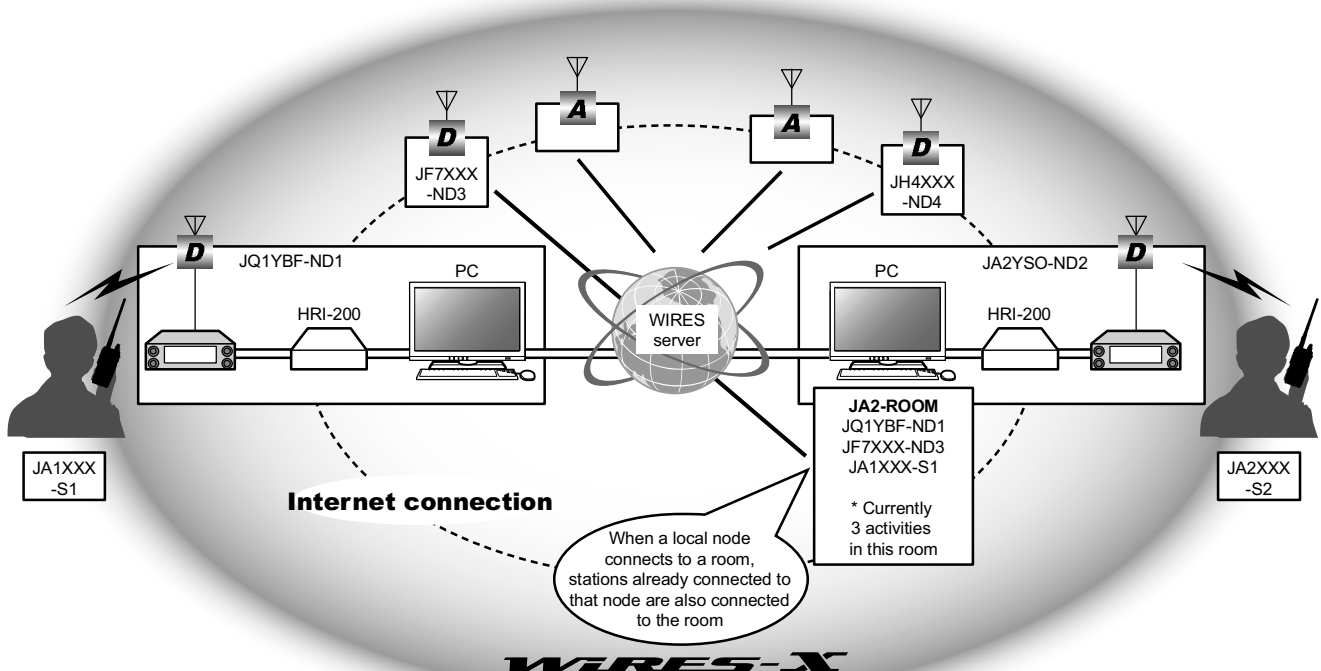
WIRES-X

Tip   In the illustration, **D** refers to digital nodes and **A** refers to analog nodes.

5

News function

This feature allows you to save digital data such as text, image and audio data on the PC used for the local node, and access the data from the connected digital station.

From the digital transceiver, you can access the local node (LOCAL NEWS) and the data storage area (news station) in the node or room you connect to, and import (upload) and export (download) data.

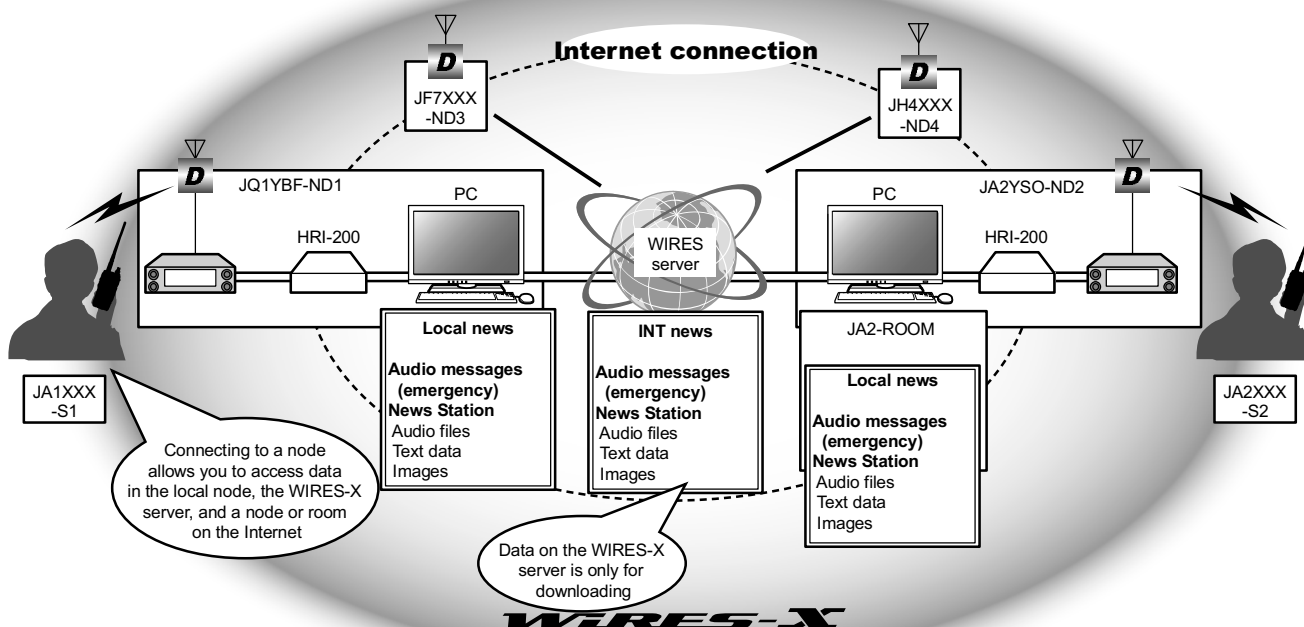The owners of a node or room can import/export data from/to their own station via a PC. The owner can also delete data and change information such as its name and attribution. The WIRES-X server also has its own news station (INT NEWS) where you can read information and data supplied by YAESU.

■ Preset search function

If the preferred channel for connecting to a local node is programmed (preset) in the transceiver, the channel can be scanned automatically when you start up WIRES-X.

Utilize this function as follows:

- Quickly connect to the local node you usually access by presetting its frequency in advance.
- By presetting to a shared channel frequency with your friends nodes, you can quickly connect the transceiver to a local node even while you are traveling in other areas.

You can use two transceivers as nodes, one for the preset search channel (receive only channel) and the other for the voice channel (operation channel).

Inputting Characters

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

Switching the character type

Press (TXPO) (�oA/▢ appears on the upper side). Pressing each time changes the character type in the following order.

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 (GM) (—▶ 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).

Connecting to a Faraway Station Using WIRES-X

Finding a local node

To communicate using WIRES-X, a WIRES-X node station (local node) must be established within radio contact range of the user transceiver.

WIRES-X nodes are stations users voluntarily registered with Yaesu. Their information such as locations and operation styles are listed on our website:
https://www.yaesu.com/jp/en/wires-x/index.php

First use this list to search for a nearby local node, and nodes on the Internet used by people you want to communicate with; write down the node names and frequencies.
Since the connection procedure differs between digital stations and analog stations, confirm whether the node is an analog station or a digital station.

- When the local node is a digital station:
    Connect from your transceiver in digital mode.
    (Nodes on the Internet can connect to both digital and analog stations.)
- When the local node in an analog station:
    Connect from your transceiver in analog mode.
    (Nodes on the Internet can connect to both analog and digital stations.)

Connecting in digital mode

Caution

Before using WIRES-X, press [D_x] to set the communication mode of the operating band to any mode other than [FM]. For details, refer to "Selecting communication mode" in the basic operating manual.
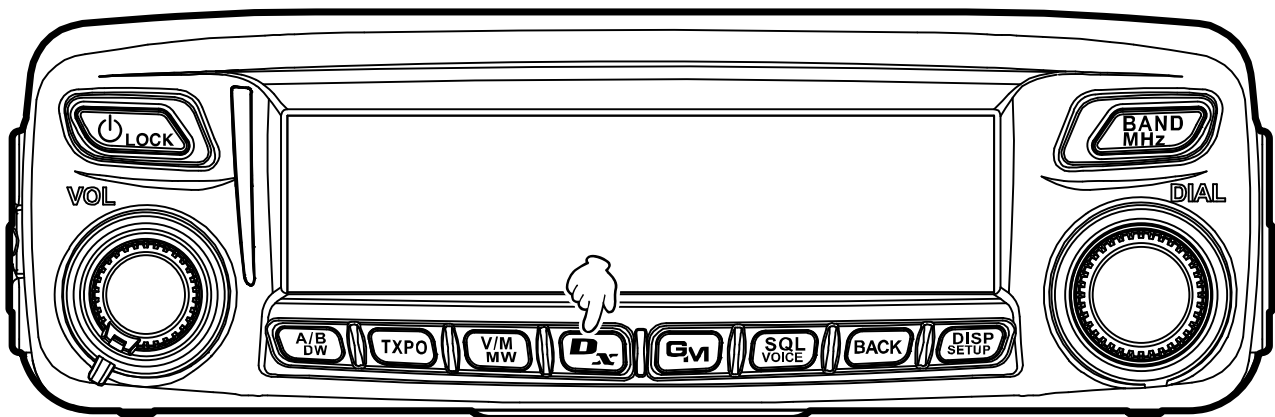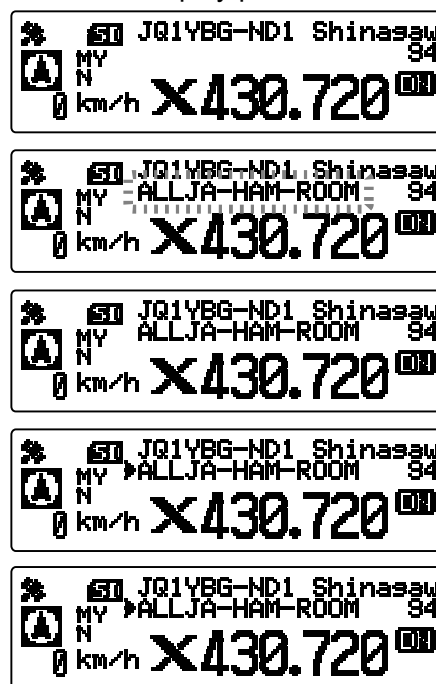
Connecting to local nodes

1 Rotate the DIAL to set the operating band to the frequency of the desired local node.

2 Press and hold ⬛ for over one second.

[ ] flashes on the left side of the frequency display.
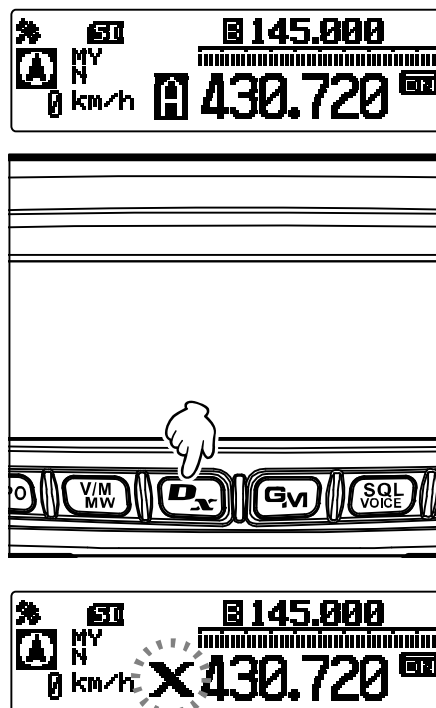
When a local node is found, **[X]** is lit solid, and the node name and city name appear on the upper part of the screen.

Tip Depending on the connection status, the screen will show one of four display patterns.

(1) Connected to the local node, but unable to connect to Internet nodes or rooms (never before established connection to Internet nodes or rooms)

(2) Connected to the local node, but unable to connect to Internet nodes or rooms (previously succeeded in establishing connection to Internet nodes or rooms)

(3) Connected to the local node, successfully connected to an Internet node or room (the Internet node or room is the same as the one used before)

(4) Connected to the local node, successfully connected to an Internet node or room (the Internet node or room is different from the one used before)

When ▶ is displayed, rotate the DIAL. Call signs of nodes and rooms on the Internet you previously connected to flash.

Tip While **[ ]** is flashing, briefly press the ⬛ key to re-establish connection to the local node.

Tip When any local node cannot be found, **[X]** will disappear in five minutes.

Tip When the detected local node is a repeater station, **[[R]]** appears below **[X]**.

9

Caution

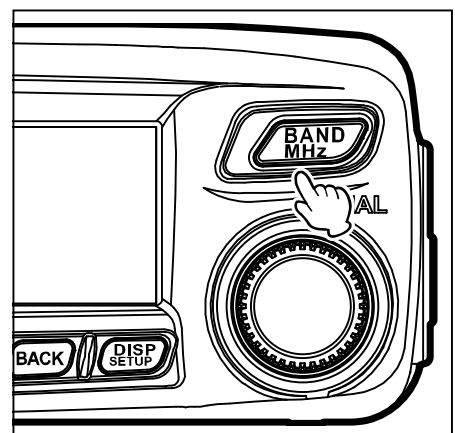WIRES-X can only be used on the operating band.

Connecting to a node or room on the Internet

You can connect to the desired node or room in one of the following ways:
- Selecting an accessible node or room from the list
- Specifying the node name or room name
- Selecting the most recently connected node or room
- Specifying the DTMF ID of the node or room you want to connect to
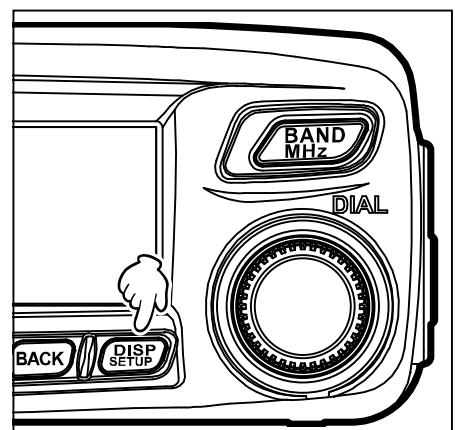
Searching from the node & room lists

1 Press and hold ⟨BAND MHz⟩ for over one second.

Displays the category list.

2 Rotate the DIAL to select **[ALL],** then press ⟨DISP SETUP⟩.

Displays the list of accessible nodes and rooms.

Tips • Connection destinations are displayed from the room list and then node list.

• On the connection destination room columns, the number of activities (the number of nodes connected to each room) appears on the right side.

3 Rotate the DIAL to select the node or room you want to connect to, then press ⟨DISP SETUP⟩.

Starts connection.

Tip By pressing **[PTT],** you can also establish connection while talking.

Once connection is successfully established, the menu list of the node (room) you are connected to will appear.

Searching by node or room name

1 Press and hold ⟨BAND/MHz⟩ for over one second.

Displays the category list.

2 Rotate the DIAL to select **[SEARCH & DIRECT],** then press ⟨DISP/SETUP⟩.

Displays the character input screen.

```
X CATEGORY
   ALL
 ▶ SEARCH & DIRECT
 LN LOCAL NEWS
 N  INT NEWS
```

3 Enter all or part of the user ID or room name.

The characters you have just entered appear on the screen.

```
X    SEARCH & DIRECT
   [ ALL■·············]
   ▣■ ■■ ←■ ■→ ◄■
```

> Tip For details on how to enter letters, refer to "Inputting Characters" on page 7.

4 Press ⟨DISP/SETUP⟩.

Starts searching. If connection destinations with the first part of a name partially matching the name you entered are found, they will be listed.

> Tips • If there is no connection destination matching the entered name, "No Data" appears and then the screen returns to the "SEARCH & DIRECT" screen. Enter characters to search by again.
>
> • If the name you entered is found, the transceiver establishes connection immediately.
>
> • The screen displays the room list search results followed by the node list search results.
>
> • On the room columns in the search results, the number of activities (the number of nodes connected to each room) appears on the right side.

5 Rotate the DIAL to select the node or room you want to connect to, then press ⟨DISP/SETUP⟩.

Starts connection.

```
X "ALL"        2
 ▶ALLJA-HAM-ROOM      94
   ALLJA-DX-ROOM      41
 ▲
```

> Tip By pressing **[PTT],** you can also establish connection while talking.

Once connection is successfully established, the menu list of the node (room) you are connected to will appear.

Connecting to the node or room you have most recently connected

If you have previously connected to a node or room on the Internet, it appears and flashes on the upper part of the screen.

Press ⟨BAND/MHz⟩ to start connection of the transceiver to the flashing node or room, and once connection is established, the menu list of the node (room) you are connected to will appear.

If there is ▶ on the left side of the node name on the upper part of the screen, rotate the DIAL to display the node you have most recently connected to.

```
✱  🔟 JQ1YBG-ND1 Shinagaw
Ⓐ MY ▶ALLJA-HAM-ROOM  94
 N
 0 km/h X430.720 🔟
```

● **Specifying the DTMF ID of the node or room you want to connect to**

1 Press and hold **[#]** on the microphone for over one second.

Displays the DTMF input screen.

2 Use the numeric keys on the microphone to enter the DTMF ID (five-digit code).

3 Press **[#]** on the microphone.

Tip   Pressing **[*]** on the microphone closes the DTMF input screen.
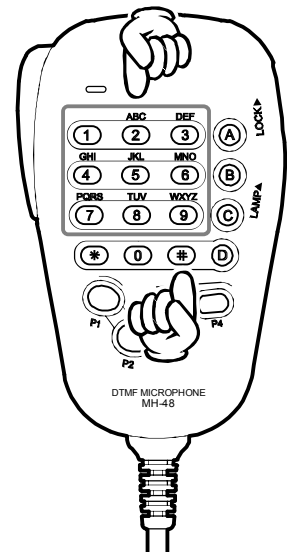
Communicating with others

1 While displaying the station you are currently connected to, press **[PTT]**.

The transceiver switches to transmission mode.

2 Speak into **[MIC]**.

Tip   Place the microphone about 5 cm away from your mouth when you speak.

Caution   Do not continuously transmit over an extended period of time to reduce the risk of overheating, malfunction, and injury.

3 Release **[PTT]**.

The transceiver switches to reception mode.
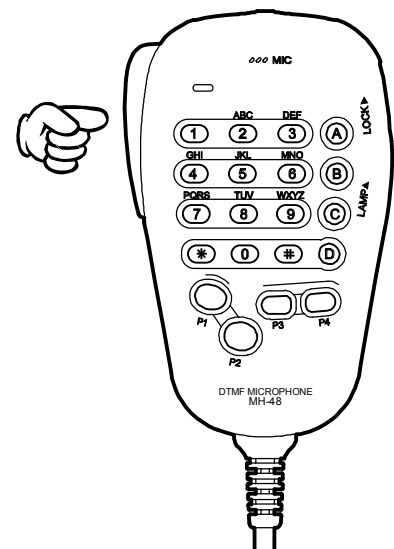
Tip

You can communicate with the node or room you are connected to by pressing **[PTT]** even when viewing data in a node or room on the Internet using the NEWS function in digital mode.

Useful functions in digital mode

▌Using preset channels

Programming (presetting) a channel frequency allows you to easily connect to a local node.

By sharing a channel frequency with other nodes, you can connect the transceiver to a local node even while you are out. This is useful for a group to operate a station.

Presetting a channel

1 Press and hold (DISP SETUP) for over one second.

Displays the Setup menu.

2 Rotate the DIAL to select **[7 WIRES-X]**, then press (DISP SETUP).

Displays the menu list.

3 Check that **[1 RPT/WIRES FREQ]** is displayed, then press (DISP SETUP).

Displays the selection items.

4 Rotate the DIAL to select **[PRESET]**, then press (DISP SETUP).

Displays the frequency setting screen.

> **Tip**   The default setting is MANUAL.

5 Rotate the DIAL to select the frequency.

> **Tips**   • Rotating the DIAL changes the frequency by the increments specified from the Setup menu.
>
> • Pressing and holding (BAND MHz) allows you to set the frequency in 1 MHz units.
>
> • The default settings are 146.550.

6 Press and hold (DISP SETUP) for over one second.

Sets the frequency and returns the screen to the frequency display screen.
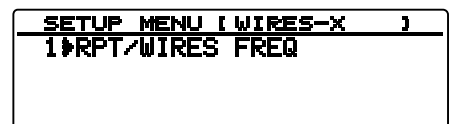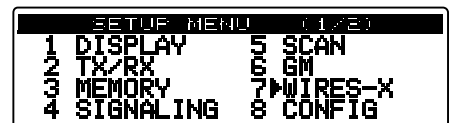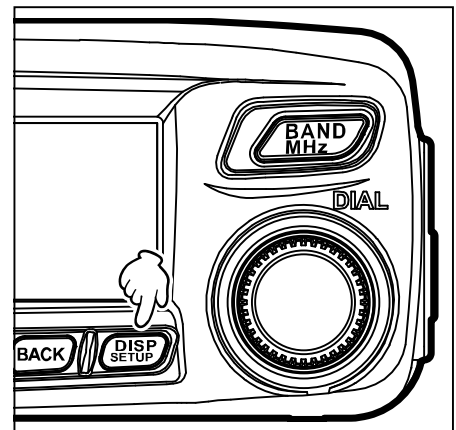
Connecting to a preset channel

1 Follow the procedure in "Presetting a channel" on page 13 to make the preset channel available in advance

2 Press and hold $\boxed{\textbf{D}_x}$ for over one second.

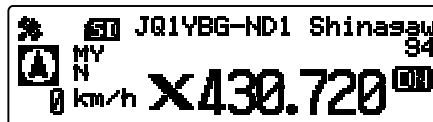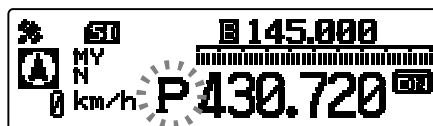On the left side of the frequency display, **[P]** and **[X]** appear alternately.

When a local node is found, **[X]** lights up, and the node name and city name appear on the upper part of the screen.

> **Tip** When any local node cannot be found, **[P]** disappears in five minutes.

Tip

If the frequency of the detected local node is different from that of the preset channel, the frequency automatically switches to the node frequency.

● Ending searching by a preset channel

1 Follow steps 1 to 3 in "Presetting a channel" on page 13 to display the selection items of **[1 RPT/WIRES FREQ]**.

2 Rotate the DIAL to select **[MANUAL]**.

```
RPT/WIRES FREQ

STATUS:[ MANUAL ]
```

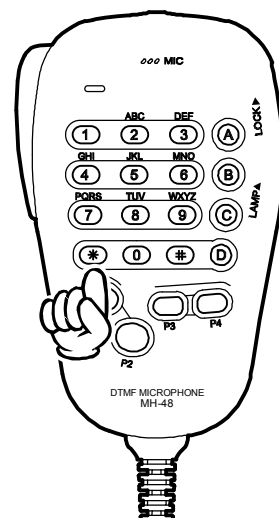**3** Press and hold $\left(\begin{smallmatrix}\text{DISP}\\\text{SETUP}\end{smallmatrix}\right)$ for over one second.

Returns the screen to the frequency display screen.

● Disconnecting from the node or room

**1** Press and hold **[*]** on the microphone for over one second.

If disconnection is successful, the screen returns to the local node connection screen.

Releasing the WIRES-X connection

Pressing and holding $\boxed{D_X}$ for over one second switches the screen to the frequency display screen, and **[X]** displayed on the left side of the frequency display disappears.

Tip The local node and the node or room remain connected.
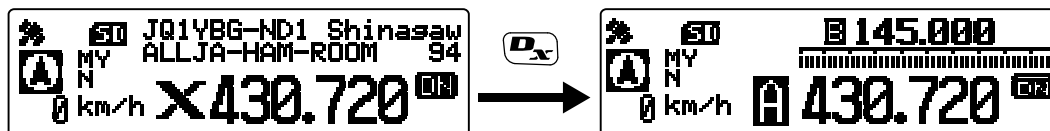
Connecting to analog nodes

When the node you want to connect to is an analog station, use the DTMF function on the transceiver. For details on how to use the DTMF function, refer to "Using the DTMF function" in the basic operating manual.

▌ Connecting to nodes or rooms on the Internet

1 Set the main band frequency to the local node frequency.

2 Press $\boxed{D_X}$ to switch to analog FM mode.

Tip For details, refer to "Selecting communication mode" in the basic operating manual.

3 In the Setup menu from **[4 SIGNALING]** → **[3 AUTO DIALER]**, select "OFF".

Tip For details refer to "Transmitting the DTMF code manually" in the basic operating manual.

4 While pressing **[PTT]** on the microphone, press **[0]** to **[9]**, **[*]**, **[#]**, **[A]** to **[D]**.

Transmits the DTMF code.

5 Release **[PTT]**, and keep the transceiver in reception mode for about 10 seconds.

Once connection is successfully established, you will be able to hear audio.

Caution The connection destination screen does not appear.
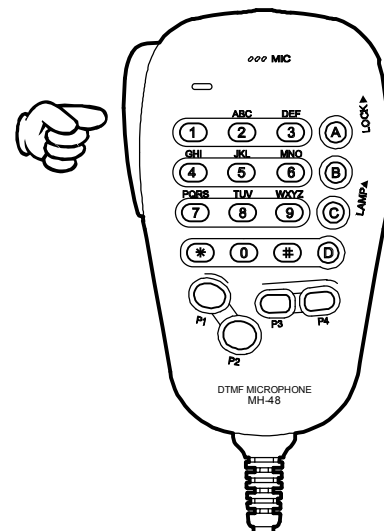
Tip ═

You can store DTMF codes consisting of up to 16 digits for 9 channels on the transceiver. If you register the codes of frequently-used connection destinations in advance, you can easily transmit a code by pressing its abbreviated number while pressing **[PTT]**. For details, refer to "Using the DTMF Function" in the basic operating manual.

Communicating with others

1 Press **[PTT]**.

The transceiver switches to transmission mode.

2 Speak into **[MIC]**.

Tip Place the microphone about 5 cm away from your mouth when you speak.

Caution Do not continuously transmit over an extended period of time to reduce the risk of overheating, malfunction, or injury.

3 Release **[PTT]**.

The transceiver switches to reception mode.

Disconnecting from the node or room

1 While pressing **[PTT]**, press #99999 (DTMF disconnection command).

Disconnects the node or room.

Various display functions

Confirming the location of digital nodes

When the signal from the local node you have connected to contains GPS location information, you can display the location information on the screen.

When the connection destination is displayed, the location information of your station is displayed on the left side of the screen.

Press (DISP/SETUP) once briefly to display the location information of the partner station on the left side of the screen. The screen displays the compass indicating the direction and distance to the local node from your station.

Tip

When the location of the partner station is displayed, press (DISP/SETUP) once briefly to display the satellite acquisition information. Press (DISP/SETUP) again briefly to display the location information of your station again.

Using the News Function of WIRES-X

When using WIRES-X in digital mode, you can transmit/receive messages (text data) and images; you can also record/play audio messages.
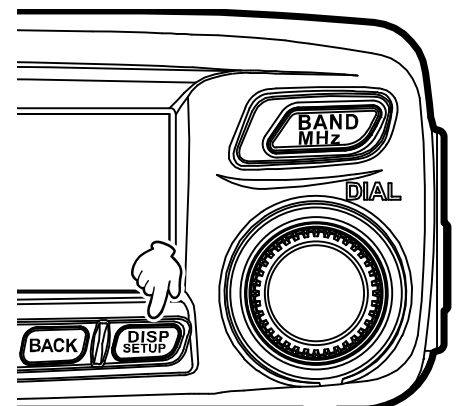
Viewing messages

You can read messages (text data) that are transmitted/received by either a local node, or a node or room on the Internet, from the transceiver.

Caution

To read messages, insert a microSD memory card into the transceiver in advance. For details, refer to "Using a microSD memory card" in the basic operating manual.

Viewing text data in local nodes

1 Follow the procedure in "Connecting to local nodes" on page 9 to connect your transceiver to the desired local node.

2 Press and hold ⌒BAND/MHz⌿ for over one second.
   Displays the "CATEGORY" screen.

3 Rotate the DIAL to select **[LOCAL NEWS]**, then press ⎰DISP/SETUP⎱.
   Displays the "LOCAL NEWS" screen.

4 Rotate the DIAL to select the desired local node, then press ⎰DISP/SETUP⎱.
   If data reception is successful, the menu list of the local node appears.

17

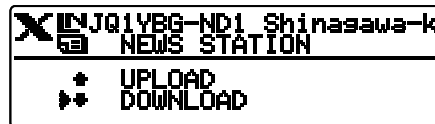**5** Rotate the DIAL to select **[NEWS STATION]**, then press (DISP SETUP).

Displays the upload (transmission)/download (reception) select screen.

6 Rotate the DIAL to select **[DOWNLOAD]**, then press (DISP SETUP).

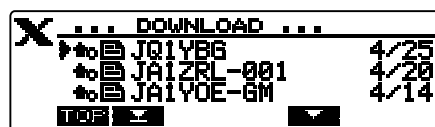Displays the data type select screen.

7 Rotate the DIAL to select **[MSG]**, then press (DISP SETUP).

If data reception is successful, the data list appears.

> **Tip** The list shows the registered data in reverse chronological order.

8 Rotate the DIAL to select the message you want to view, then press (DISP SETUP).

Downloads the data and displays the content of the message.

9 Press (BACK).

Returns the screen to the data list.
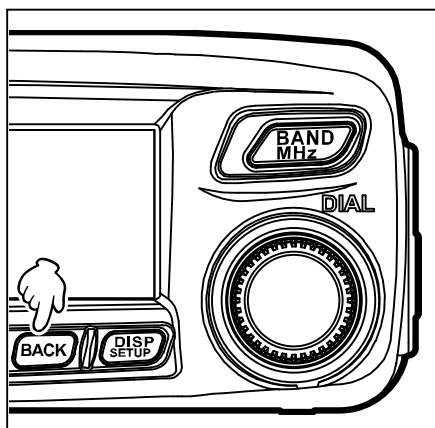
Tips

• On the data content display screen, press (DISP SETUP) to display the sender's location information at the time the data was sent.

• On each screen, pressing (BACK) returns the screen to the previous screen.

Operations on the data list

When there is a large number of data items available, the list will be divided into smaller lists with 3 data items each.

• Rotating the DIAL scrolls the screen.

• Pressing (TXPO) (**TOP** appears on the upper side) jumps to the top of the list.

• Pressing (V/M MW) (**⊻** appears on the upper side) jumps to the end of the list.

▌ Viewing text data on the WIRES-X server (INT NEWS)

You can read text information provided by Yaesu on the WIRES-X server from the transceiver.

1 Follow the procedure in "Connecting to local nodes" on page 9 to connect your transceiver to the desired local node.

2 Press and hold ⌐BAND/MHz⌐ for over one second.
Displays the "CATEGORY" screen.

3 Rotate the DIAL to select **[INT NEWS]**, then press ⌐DISP/SETUP⌐ .

Displays the menu list of the WIRES-X server.

4 Rotate the DIAL to select **[NEWS STATION]**, then press ⌐DISP/SETUP⌐ .

Displays the data type select screen.

5 Rotate the DIAL to select **[MSG]**, then press ⌐DISP/SETUP⌐ .
If data reception is successful, the data list appears.

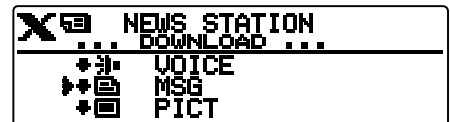> **Tip** The list shows the registered data in reverse chronological order.

6 Rotate the DIAL to select the message you want to view, then press ⌐DISP/SETUP⌐ .

Starts download. "DOWNLOAD" appears and flashes.

Downloads the data and displays the content of the message.

7 Press ⌐BACK⌐ .
Returns the screen to the data list.

▌ Viewing text data in nodes or rooms on the Internet

1 Follow the procedure in "Connecting to nodes or rooms on the Internet" on page 10 to connect the transceiver to the desired node or room on the Internet.

2 Press and hold ⌐BAND/MHz⌐ .
Displays the "CATEGORY" screen.

3 Rotate the DIAL to select **[LOCAL NEWS]**, then press ⌐DISP/SETUP⌐ .
Displays the "LOCAL NEWS" screen.

4 Rotate the DIAL to select the desired node or room on the Internet, then press (DISP SETUP).

If data reception is successful, the menu list of the node or room on the Internet appears.

```
X IN  LOCAL NEWS
 ▶ALLJA-HAM-ROOM
 ↑
```

5 Rotate the DIAL to select **[NEWS STATION]** or **[LOCAL NEWS]**, then press (DISP SETUP).

Displays the upload (transmission)/download (reception) select screen.

```
X  ALLJA-HAM-ROOM     94
    🖳   EMERGENCY
 ▶🖳   NEWS STATION
    IN   LOCAL NEWS
```

6 Rotate the DIAL to select **[DOWNLOAD]**, then press (DISP SETUP).

Displays the data type select screen.

```
X ALLJA-HAM-ROOM      94
  🖳   NEWS STATION
    ↑   UPLOAD
  ▶↓   DOWNLOAD
```

7 Rotate the DIAL to select **[MSG]**, then press (DISP SETUP).

If data reception is successful, the data list   appears.

> Tip   The list shows the registered data in reverse chronological order.

```
X 🖳   NEWS STATION
    ...   DOWNLOAD ...
  ↓🖳  VOICE
  ▶↓🖳  MSG
  ↓🖳  PICT
```

8 Rotate the DIAL to select the message you want to view, then press (DISP SETUP).

Starts downloading. "DOWNLOAD" appears and flashes.

Downloads the data and displays the content of the message.

```
X   ...   DOWNLOAD ...
 ▶↓🖳 JQ1YBG        4/25
  ↓🖳 JA1ZRL-001    4/20
  ↓🖳 JA1YOE-GM     4/14
 TOP ▲            ▼
```

```
X ↓🖳 TO:JQ1YBG-ND1
 FROM:JA1ZRL-001
 RCVD:2015/04/15 17:27
 ( Thank you         )
          FWD RPLY DEL LIST
```

9 Press (BACK).

Returns the screen to the data list.

Tip

On the data content display screen, press (DISP SETUP) to display the sender's location information at the time the data was sent.

Caution

When the category list or data list is displayed, pressing **[PTT]** readies the transceiver to transmit audio to the node or room on the Internet you are currently connected to.

Importing images

You can import images transmitted/received by either a local node, or a node or room on the Internet onto the transceiver.

Cautions
- To import images, insert a microSD memory card into the transceiver in advance. For details, refer to "Using a microSD memory card" in the basic operating manual.
- Imported images cannot be viewed on the transceiver. To view images after importing, remove the microSD memory card from the transceiver, and then copy the data to your PC, etc.

Importing images from local nodes

1 Follow steps 1 to 6 in "Viewing text data in local nodes" on page 17 to display the data type select screen.

2 Rotate the DIAL to select **[PICT]**, then press (DISP SETUP).

Displays the data list.

> Tip   The list shows the registered data in reverse chronological order.

```
X 🔲   NEWS STATION
...   DOWNLOAD ...
   VOICE
   MSG
   PICT
```

3 Rotate the DIAL to select the image you want to download, then press (DISP SETUP).

Starts downloading. "DOWNLOAD" appears and flashes.

```
X   ... DOWNLOAD ...
   JQ1YBG        4/25
   JA1ZRL-001    4/20
   JA1YOE-GM     4/14
TOP        INFO        ▼
```
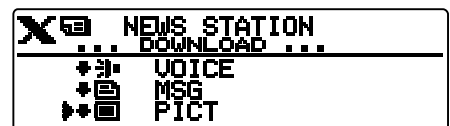
After data import completes, the image appears.

> Tips   • Data in unsupported formats cannot be imported. In such a case, "Not Completed" appears, and then the screen returns to the data type select screen.
>
> • When the microSD memory card does not have enough free space, data cannot be imported. In such a case, "Memory is full" appears, and then the screen returns to the data list.

4 Press (BACK).

Returns the screen to the data list.

## Importing images from the WIRES-X server (INT NEWS)

You can import images provided by Yaesu on the WIRES-X server onto the transceiver.

1 Follow steps 1 to 4 in "Viewing text data on the WIRES-X server (INT NEWS)" on page 19 to display the data type select screen.

2 Rotate the DIAL to select **[PICT]**, then press (DISP SETUP).

Displays the data list.

> Tip   The list shows the registered data in reverse chronological orde

```
X 🔲   NEWS STATION
...   DOWNLOAD ...
   VOICE
   MSG
   PICT
```
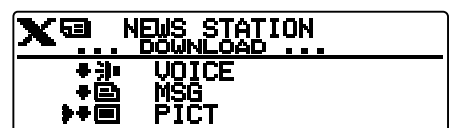
3 Follow step 3 in "Importing images from local nodes" on page 21 to download data.

4 Press BACK.

Returns the screen to the data list.

Tips • Data in unsupported formats cannot be imported. In such a case, "Not Completed" appears, and then the screen returns to the data type select screen.

• When the microSD memory card does not have enough free space, data cannot be imported. In such a case, "Memory is full" appears, and then the screen returns to the data list.
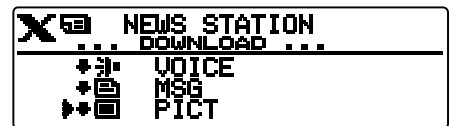
Importing data from nodes or rooms on the Internet

1 Follow steps 1 to 4 in "Viewing text data in nodes or rooms on the Internet" on page 19 to display the data type select screen.

2 Rotate the DIAL to select **[PICT]**, then press DISP SETUP.

Displays the data list.

Tip The list shows the registered data in reverse chronological order.

```
X    NEWS STATION
...  DOWNLOAD ...
    VOICE
    MSG
    PICT
```

3 Follow step 3 in "Importing images from local nodes" on page 21 to import data.

4 Press BACK.

Returns the screen to the data list.

Caution

When the category list or data list is displayed, pressing **[PTT]** readies the transceiver to transmit audio to node or room on the Internet you are currently connected to.

Viewing imported data later

You can also view the imported data later.

1 Press and hold GM for over one second.

Displays the "GM MESSAGE" screen or "GM PICT" screen. Pressing SQL VOICE each time switches the screen.
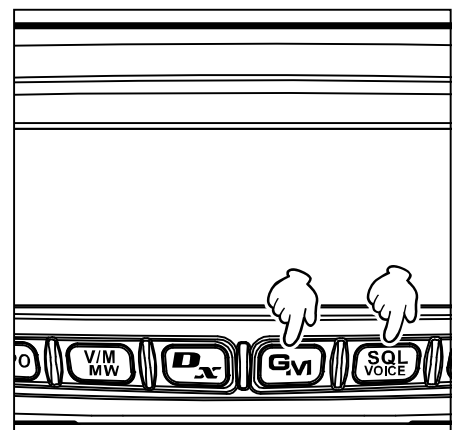
2 Rotate the DIAL to select the data you want to view, then press (DISP/SETUP).
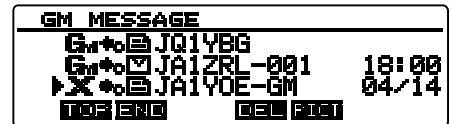
> **Tip** *[X]* appears on the left side of WIRES-X data.

Pressing (TXPO) (**TOP** appears on the upper side) jumps to the top of the list.

Pressing (V/M MW) (**END** appears on the upper side) jumps to the end of the list.

For PICT data, pressing (Dx) (**INFO** appears on the upper side) displays the data size.
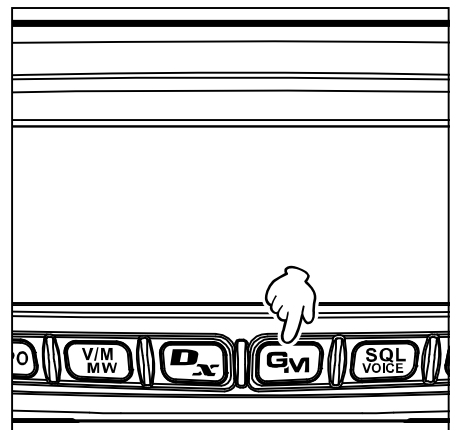
Displays the content of the message or image information.

3 Press (BACK).

Returns the screen to the previously viewed screen.

Deleting imported data

Deleting a file

1 Follow steps 1 to 6 "Viewing imported data later" on page 22 to display the content of the message or image data.

2 Press (GM) (**DEL** appears on the upper side).
The confirmation message appears.

3 Rotate the DIAL to select **[OK?]**, then press (DISP/SETUP).
Deletes the data and returns the screen to the data list.

Listening to audio messages

You can play and listen to audio files transmitted/received by a local node, or node or room on the Internet.

Audio files are categorized into the following two types:

EMERGENCY: Emergency information. Depending on the node or room settings, mandatory updates are supplied to connected nodes and rooms in five-minute intervals for two hours starting from the initial dissemination of the news.

NEWS STATION: Normal message. You can listen to the message anytime you
(LOCAL NEWS) want as long as the message is not deleted from the node or room.

Caution

You can play and listen to audio files using the transceiver but you cannot save audio files onto the transceiver.

Listening to emergency information in the local node

1 Follow steps 1 to 4 in "Viewing text data in local nodes" on page 17 to display the menu list of the local node.

2 Rotate the DIAL to select **[EMERGENCY]**, then press (DISP SETUP).

Displays the data list.

Tips • The list shows the registered data in reverse chronological order.

• Data registered within the past two hours flashes.

3 Rotate the DIAL to select the audio file you want to play, then press (DISP SETUP).

Starts audio playback. "DOWNLOAD" appears and flashes.
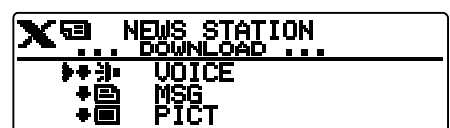
After playback ends, the screen returns to the data list.
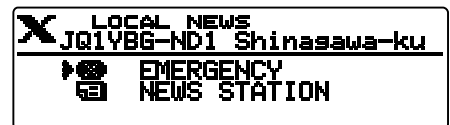
Listening to routine messages in local nodes

1 Follow steps 1 to 6 in "Viewing text data in local nodes" on page 17 to display the data type select screen.

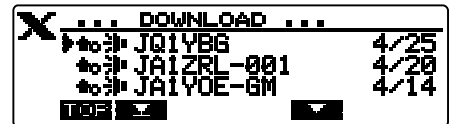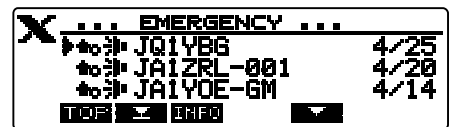**2** Rotate the DIAL to select **[VOICE]**, then press (DISP SETUP).

Displays the data list.
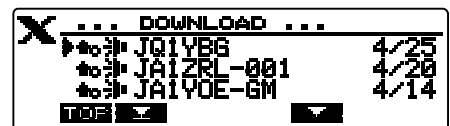
Tip The list shows the registered data in reverse chronological order

3   Rotate the DIAL to select the audio file you want to play, then press $\boxed{\text{DISP SETUP}}$.

Starts audio playback. "DOWNLOAD" appears and flashes.

After playback ends, the screen returns to the data list.

Listening to emergency information on the WIRES-X server (INT NEWS)

You can play and listen to the audio data provided by Yaesu on the WIRES-X server.

1   Follow steps 1 to 3 in "Viewing text data on the WIRES-X server (INT NEWS)" on page 19 to display the menu list of the WIRES-X server.

2   Rotate the DIAL to select **[EMERGENCY]**, then press $\boxed{\text{DISP SETUP}}$.

Displays the data list.

Tips   • The list shows the registered data in reverse chronological order.

• Data registered within the past two hours flashes.

3   Rotate the DIAL to select the audio file you want to play, then press $\boxed{\text{DISP SETUP}}$.

Starts audio playback. "DOWNLOAD" appears and flashes.

After playback ends, the screen returns to the data list.

Listening to routine messages on the WIRES-X server (INT NEWS)

1   Follow steps 1 to 4 in "Viewing text data on the WIRES-X server (INT NEWS)" on page 19 to display the data type select screen.

2   Rotate the DIAL to select **[VOICE]**, then press $\boxed{\text{DISP SETUP}}$.

Displays the data list.

Tip   The list shows the registered data in reverse chronological order.

3   Rotate the DIAL to select the audio file you want to play, then press $\boxed{\text{DISP SETUP}}$.

Starts audio playback. "DOWNLOAD" appears and flashes.

After playback ends, the screen returns to the data list.
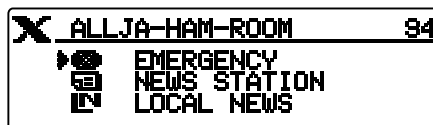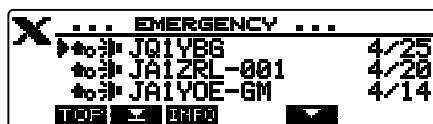
▌ Listening to emergency information in nodes or rooms on the Internet

1 Follow steps 1 to 4 in "Viewing text data in nodes or rooms on the Internet" on page 19 to display the menu list of the node or room you want to connect to.

2 Rotate the DIAL to select **[EMERGENCY]**, then press (DISP SETUP).

Displays the data list.

> Tips • The list shows the registered data in reverse chronological order.
>
> • Data registered within the past two hours flashes.

3 Rotate the DIAL to select the audio file you want to play, then press (DISP SETUP).

Starts audio playback. "DOWNLOAD" appears and flashes.

After playback ends, the screen returns to the data list.

▌ Listening to routine messages in nodes or rooms on the Internet

1 Follow steps 1 to 6 in "Viewing text data in nodes or rooms on the Internet" on page 19 to display the data type select screen.

2 Rotate the DIAL to select **[VOICE]**, then press (DISP SETUP).

Displays the data list.

> Tip The list shows the registered data in reverse chronological order.
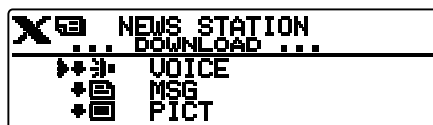
3 Rotate the DIAL to select the audio file you want to play, then press (DISP SETUP).

Starts audio playback. "DOWNLOAD" appears and flashes.
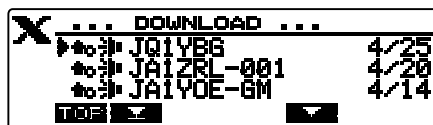
After playback ends, the screen returns to the data list.

Transmitting messages and images

You can transmit data such as messages (text data) and images saved on the microSD memory card inserted into the transceiver, to a local node, or a node or room on the Internet. You can also create a new message and transmit it.

Tip

For details on microSD memory cards, refer to "Inserting a microSD memory card" in the basic operating manual.
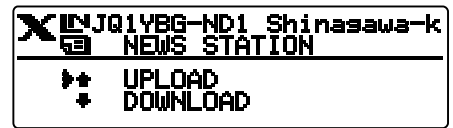

Creating and transmitting messages to local nodes

1 Follow steps 1 to 5 in "Viewing text data in local nodes" on page 17 to display the upload (transmission)/download (reception) select screen.

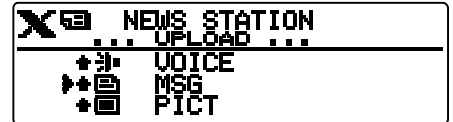**2** Rotate the DIAL to select **[UPLOAD]**, then press (DISP/SETUP).

Displays the data type select screen.

3 Rotate the DIAL to select **[MSG]**, then press (DISP/SETUP).

Displays the data list.

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 "Input Characters" on page 7 to input a message.

7 Press (BACK).

Displays the entire message.

Tips • To save the created message press (Dx) (appears on the upper side). For details, see "Registering routine messages" in the basic operating manual.

• To continue message entry, press (TXPO) (EDIT appears on the upper side).
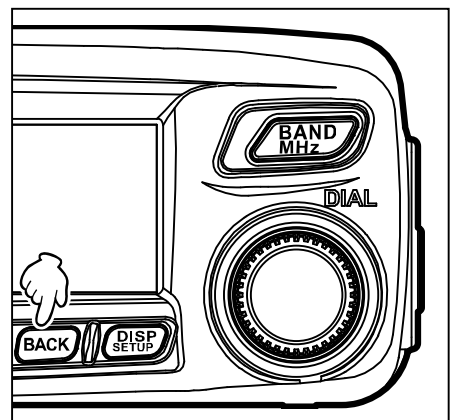
8 Press (SQL/VOICE) (UPLD appears on the upper side).

Starts message transmission.

After message transmission completes, "Completed" appears and then the screen returns to the data list.
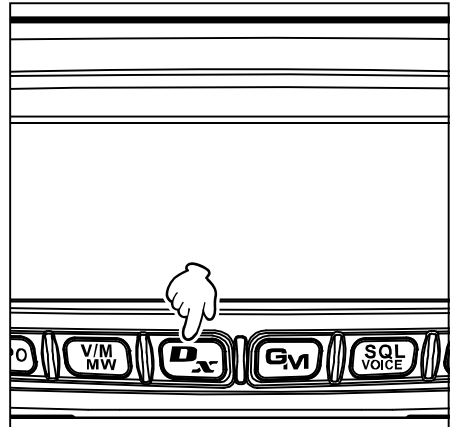
27

Tip
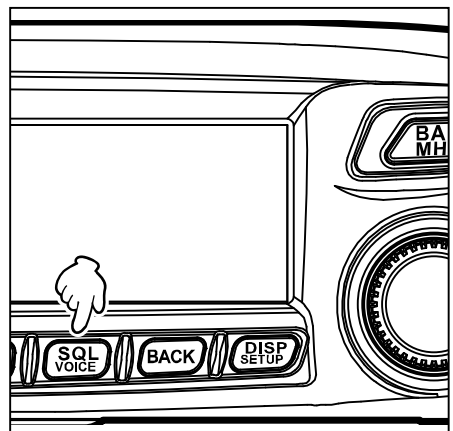
Press (V/M MW) ([icon] appears on the upper side) to select one of the 19 routine messages.

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

Transmitting saved messages or images to local nodes

1 Follow steps 1 to 2 in "Creating and transmitting messages to local nodes" on page 26 to display the data type select screen.

2 Rotate the DIAL to select **[MESSAGE]** or **[PICT]**, then press (DISP SETUP).

Displays the data list.

3 Rotate the DIAL to select the message or image you want to send, then press (DISP SETUP).

Displays the content of the message or image.

4 Press (Dx) ([UPLD] appears on the upper side).

Starts data transmission.

After data transmission completes, "Completed" appears and then the screen returns to the data type select screen.

Creating and transmitting messages to nodes or rooms on the Internet

1 Follow steps 1 to 4 in "Viewing text data in nodes or rooms on the Internet" on page 19 to display the menu list of the node or room you want to connect to.

2 Rotate the DIAL to select **[NEWS STATION]**, then press (DISP SETUP).

Displays the upload (transmission)/download (reception) select screen.

3 Follow steps 3 to 7 in "Creating and transmitting messages to local nodes" on page 26 to create and transmit a message.
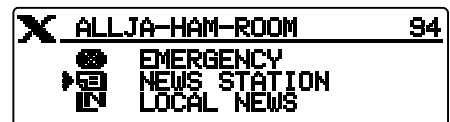
▌**Transmitting saved messages or images to nodes or rooms on the Internet**

1 Follow steps 1 to 3 in "Creating and transmitting messages to nodes or rooms on the Internet" on page 28 to display the data type select screen.

2 Follow steps 3 to 7 in "Creating and transmitting messages to local nodes" on page 26 to select and transmit data.

Transmitting audio messages

You can transmit audio messages spoken into the microphone as data to a local node, or node or room on the Internet.
Audio files are categorized into the following two types:

|	
EMERGENCY:	Emergency information. Depending on the node or room settings, mandatory updates are supplied to connected nodes and rooms in five-minute intervals for two hours starting from the initial dissemination of the news.
NEWS STATION: (LOCAL NEWS)	Routine message. You can listen to the message anytime you want as long as the message is not deleted from the node or room.

▌**Transmitting emergency audio information to local nodes**

1 Follow steps 1 to 4 in "Viewing text data in local nodes" on page 17 to display the menu list of the local node.

2 Rotate the DIAL to select **[EMERGENCY]**.
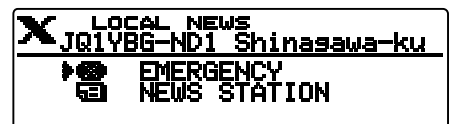
3 Press and hold **[PTT]**.
"EMERGENCY Upload?" appears and beep sounds for three seconds.

> Tip   Releasing **[PTT]** cancels the upload of emergency information.
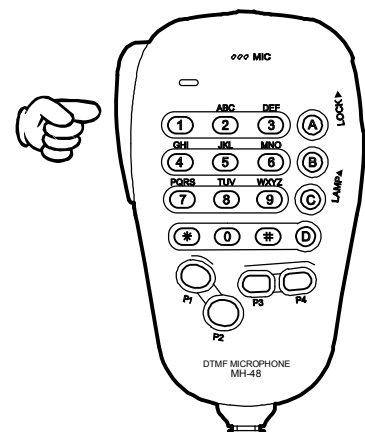
4 While pressing **[PTT]**, speak into **[MIC]**.

Tip   The maximum recording time is one minute.

Starts message transmission, and flashes `↑⚡ UPLOAD` and the countdown display on the screen.

After message transmission completes, "Completed" appears and then the screen returns to the menu list of the local node.

Transmitting routine audio messages to local nodes

1 Follow steps 1 to 5 in "Viewing text data in local nodes" on page 17 to display the upload (transmission)/download (reception) select screen.
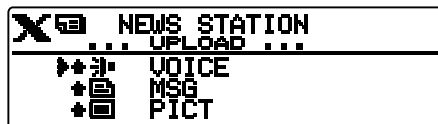
2 Rotate the DIAL to select **[UPLOAD]**, then press (DISP SETUP).

Displays the data type select screen.

```
X N JQ1YBG-ND1 Shinagawa-k
     NEWS STATION
  ↑↕  UPLOAD
   ↕  DOWNLOAD
```

3 Rotate the DIAL to select **[VOICE]**, then press (DISP SETUP).

```
X     NEWS STATION
  ... UPLOAD ...
 ↑↕⚡ VOICE
  ↕   MSG
  ↕   PICT
```

4 While pressing **[PTT]**, speak into **[MIC]**.

Tip   The maximum recording time is one minute.

Starts message transmission, and flashes `↑⚡ UPLOAD` and the countdown display on the screen.

After message transmission completes, "Completed" appears and then the screen returns to the data type select screen.

Transmitting emergency audio information to nodes or rooms on the Internet

1 Follow steps 1 to 4 in "Viewing text data in nodes or rooms on the Internet" on page 19 to display the menu list of the node or room you want to connect to.
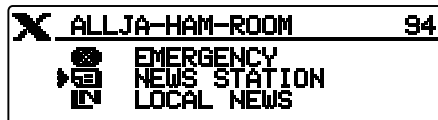
2 Follow steps 2 to 4 in "Transmitting emergency audio information to local nodes" on page 29 to send a message.

Transmitting routine audio messages to nodes or rooms on the Internet

1 Follow steps 1 to 4 in "Viewing text data in nodes or rooms on the Internet" on page 19 to display the menu list of the node or room you want to connect to.

**2** Rotate the DIAL to select **[NEWS STATION]**, then press (DISP SETUP).

Displays the upload (transmission)/download (reception) select screen.

```
X  ALLJA-HAM-ROOM        94
  ⬤   EMERGENCY
 ↕    NEWS STATION
 N    LOCAL NEWS
```
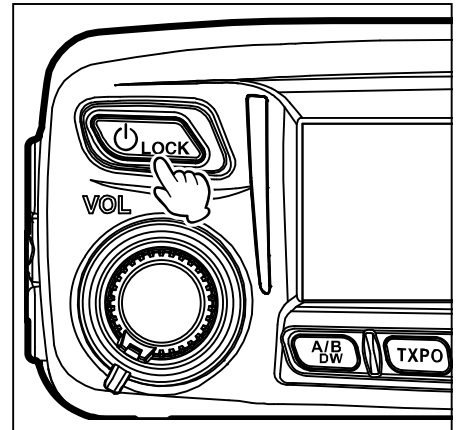
**3** Follow steps 2 to 4 in "Transmitting routine audio messages to local nodes" on page 30 to transmit a message.

Using the FTM-100DR transceiver as a node station

Follow the procedure below to use the FTM-100DR transceiver as a node station.

1 Press and hold ⏻Lock for over one second to turn OFF the transceiver.

2 While pressing Dx and GM simultaneously, press and hold ⏻Lock for over one second to turn ON the power.

Sets the FTM-100DR transceiver to node station mode. Follow steps 1 to 2 again to cancel node station mode.
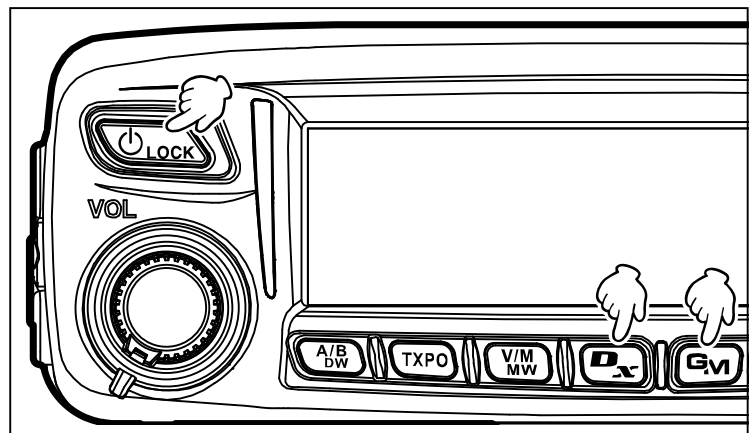
Tips • Press and hold (DISP SETUP) for over one second to hide all displays on the screen (the mode display and status indicator also turn off). Press (DISP SETUP) again to display the hidden displays.

• Pressing (DISP SETUP) each time switches the sub-band display: clock→power supply voltage→frequency.

• Rotating the DIAL adjusts the contrast.

WIRES-X Setup Menu

WIRES-X setup menu list

Menu/Item	Functions	Setting items (Bold items are default settings.)
1 RPT/WIRES FREQ	Setting the operating frequencies for repeaters/WIRES-X	**MANUAL**/PRESET
	Setting preset frequencies	**146.550**

Using the WIRES-X setup menu

Setting the operating frequencies for repeaters/WIRES-X

Select whether to set the frequency manually or use the preset (registered in advance) frequency when connecting to a local node.

For details, refer to "Presetting a channel" on page 13.

YAESU
The radio

1506-A0