# YAESU
*The radio*

C4FM/FM 144/430 MHz
DUAL BAND TRANSCEIVER

# FTM-400XDR/XDE
# FTM-400DR/DE
## Instruction Manual
## (WIRES-X Edition)

Thank you for purchasing our product.
This instruction manual explains information related to the "WIRES-X Function".
For information on basic operation of the transceiver, refer to the operation manual enclosed in the product package.
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# Contents

## Introduction

### Operating the character input screen

The following screen is displayed when inputting text such as a category name on the FTM-400XDR/XDE and FTM-400DR/DE.

● **Alphabet input screen**

| Key | Description |
|---|---|
| **[Caps]** | The input switches between small and large character input each time this key is touched |
| **[A I U]** | The screen switches to the katakana input screen when touched. |
| **[123#%^]** | The screen switches to the number input screen when touched. |
| **[←][→]** | The cursor in the input field moves left or right when touched. |
| **[ENT]** | The entered characters are confirmed and the screen returns to the previous screen when touched. |
| **[BACK]** | The screen returns to the previous screen when touched. |
| **[⊗]** | The character to the left of the cursor will be deleted when touched. |

● **Numbers and symbols input screen**

| Key | Description |
|---|---|
| **[ABC]** | The screen switches to the alphabet input screen when touched. |
| **[123#%^]** | The screen switches between the number input screen and symbol input screen each time this key is touched |

● **Input field**
Touching the character key when text is already displayed causes the character to the right of the cursor to be overwritten.

## 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 far beyond the normal range of VHF/UHF radio waves.

WIRES uses local nodes (stations connected to the Internet via PCs) as access points which repeat communications of conventional stations. As long as 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 amateur radio stations to local nodes.
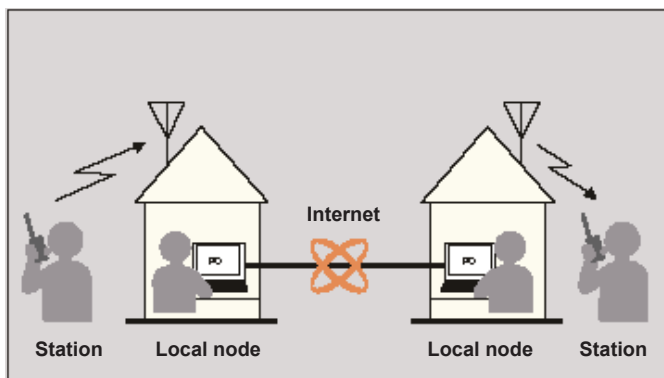


Besides the WIRES features, WIRES-X also supports additional digital communications functions. Using WIRES-X, you can transmit and receive digitized data such as text, images and audio.

The HRI-200 Connection Kit allows you to have analog/digital communications with stations outside the VHF/UHF communication range using WIRES-X. In digital communication mode, you can search for and contact stations by call signs or keywords and exchange data such as messages and location information.

**Cautions**

- You can use the FTM-400XDR/XDE/DR/DE as a WIRES-X local node transceiver; however, you need to register with Yaesu and obtain an ID.
- When using the FTM-400XDR/XDE/DR/DE as a WIRES-X local node transceiver, use the dedicated Internet connectivity kit to connect the transceiver to your PC.
- For details on how to use the FTM-400XDR/XDE/DR/DE as a local node transceiver, and for information on the Internet connectivity kit, refer to the separate WIRES-X instruction manual and the Yaesu website: https://www.yaesu.com/jp/en/wires-x/index.php

## Terminology

### ■ Node

Radio repeater connected to the Internet via a PC, which repeats communications of conventional 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 analog 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 communicate using audio voice, and also text and image data transmissions. You can also repeat DMTF codes and analog audio transmissions.
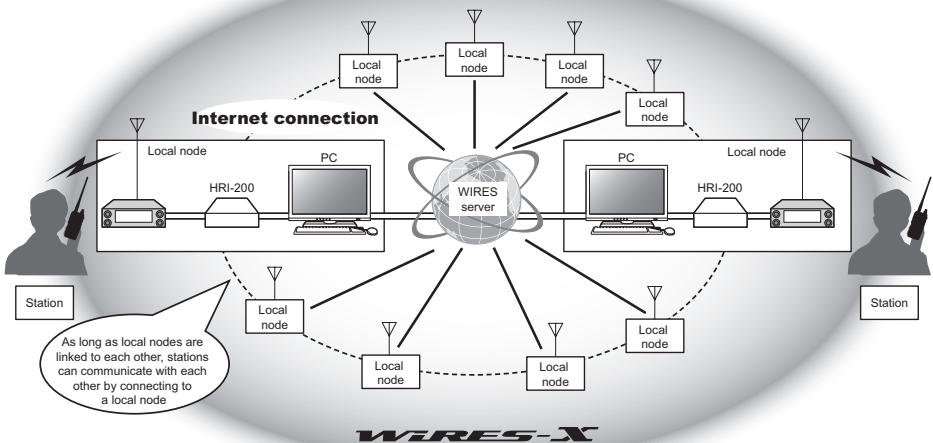
## ■ WIRES-X user ID

Yaesu provides identification names with WIRES-X nodes. For each node, a DTMF ID (5-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 to, you can transmit the DTMF code from the transceiver, and directly specify the node you want to connect to by searching by call sign or keyword. (only for digital nodes).

### ● ID list

Nodes and rooms which are currently operating WIRES-X are listed and published on the Yaesu 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-X system community space to which multiple nodes can connect simultaneously. In addition to voice communications, you can also chat with text messages from the PC thatis used as the node.

### ● Open room

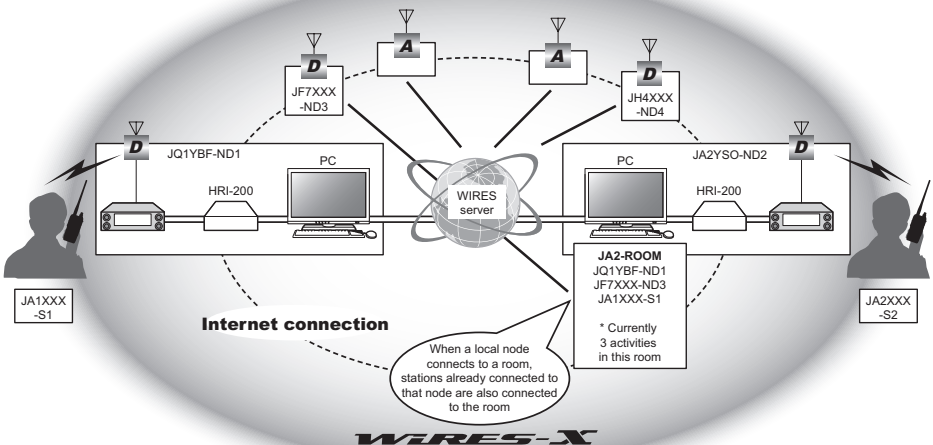Room which allows all nodes to connect

### ● Closed room

Room only registered nodes may connect to

### ● Owner

Node which opens and organizes a room

### ● Activity

Nodes which are currently connected to a specific room

This feature allows you to save digital data such as text, images and audio data on the PC used as the node, and then access the data from the connected digital transceiver.

From the digital station, you can access the local node (local news), the data storage area (news station) in the connected destination node or room to read data (upload data) and write data (download data).

The owner of a node or room can read/write data in its 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.
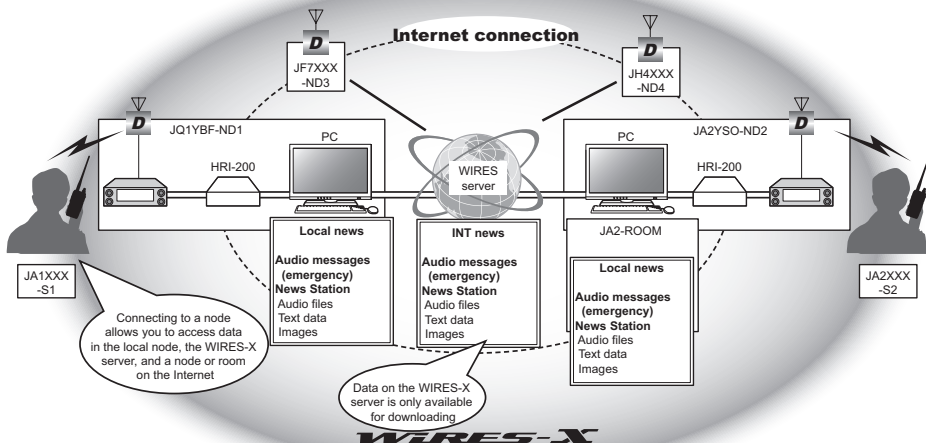


## ■ Preset search function

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

You can utilize this function as follows:

• You can quickly connect to the local node you usually connect to by presetting its frequency in advance.

• By presetting to a shared channel frequency with other nodes, you can quickly connect the device to a local node even while you are out.

You can use 2 transceivers as nodes, one for the preset search channel (reception only channel) and the other for the voice channel (operation channel).

# Connecting to a Faraway Station Using WIRES-X

## Finding a local node

To communicate on the FTM-400XDR/XDE/DR/DE using WIRES-X, a WIRES-X node station (local node) must be established within radio contact range of the transceiver.

WIRES-X nodes are stations users voluntarily register with Yaesu. Their information such as location and operation styles are listed on the Yaesu 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, and 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 device 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 device 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 % to set the communication mode of band A (shown on the top part of the screen) to any mode other than [FM]. For details, refer to "Selecting Communication Mode" in the basic operating manual.
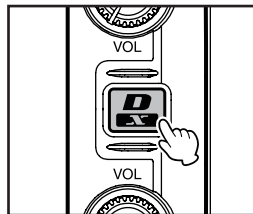
### ▌ Connecting to a local node

**1** Turn 🎛A to match the frequency of the local node that you wish to connect with on Band A.

> **Tip** Press 📷 and touch ▦ in the function menu displayed to designate the frequency by the number.

If the connecting node station has been set to DG-ID, please set the DG-ID of FTM-400XDR/XDE/DR/DE. Refer to "The DG-ID feature to access the WIRES-X node station" (page 51).
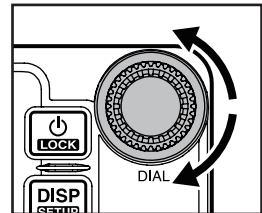
**2** Press and hold 🖳 for 1 second or more

The WIRES icon will appear on the left side of the frequency indication and "***X***" will flash.

When a local node is found, "***X***" will be lit solid, and the node name and city name will appear on the bottom part of the screen.

> Tip    While the [***X***] is flashing, press the 🖳 to re-establish connection to the local node.

> Tip    When a local node cannot be found, the "***X***" will disappear in 20 seconds.

> Tip    When the detected local node is a repeater station, "***[R]***" will appear on the top part of the WIRES icon.

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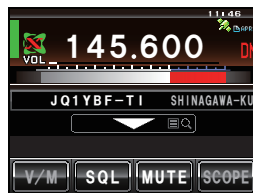
**Caution**

WIRES-X can be used only for the band A.

When using the band B (shown on the bottom part of the screen) as the operation band, press and hold 🖳 for 1 second or more. The band A (shown on the top part of the screen) will be the operation band.

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## Connecting to a node or room on the Internet

You can connect to a desired node or room in one of the following ways:
- Select an accessible node or room from the list.
- Specify the node name or room name.
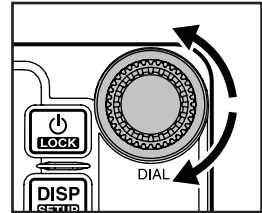- Connect to the most recently connected node or room.

● **Searching from the node & room list**

**1** Touch **[▼]** on the connection destination screen
The menu list of the local node will appear.



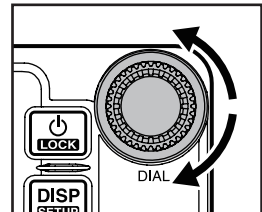**2** Rotate 🎛️ or touch the screen to select **[ALL]**



**3** Touch **[ALL]**

A list of accessible nodes and rooms will appear.

Tip    You can list items in order according to the number of activities or access history from **[WIRES]** → **[2 SEARCH SETUP]** in the setup menu.



**4** Rotate 🎛️ or touch the screen to select the connection destination



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**5** Touch the connection destination you have just selected.

Connection will start and the connected destination name will flash.

When connection is successfully established, the menu list of the destination node will appear on the screen.

Tip If connection cannot be established, "Not Connected" will appear, and the node & room list will remain displayed.
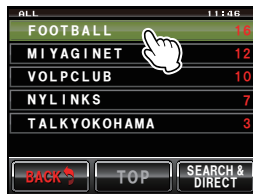
● **Searching by node or room name**

**1** Touch **[▼]** on the connection destination screen
The category list of your own station will appear.

**2** Touch **[SEARCH & DIRECT]**
The character input screen will appear.

**3** Touch character keys to enter the entire or part of the node name or room name.

Characters you have just touched will appear on the top part of the screen.

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**4** Touch **[ENT]**
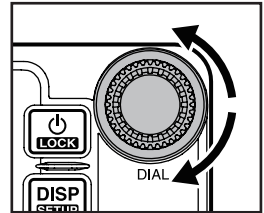
Connection destination search will start.

If connection destinations with a name partially matching the name you entered are found, they will be listed.

Tip    If there is no connection destination matching the entered user ID, "No Matches" will appear, and the character input screen will remain displayed.

   • If the name you entered is found, the device will initiate connection immediately.

   • The screen will display the room list search results.

   • On the room columns in the search results, the number of activities (the number of nodes connecting to each room) appears on the right side.

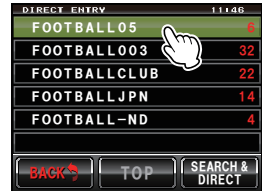**5** Turn 🔘 or touch the screen to select the connection destination.

**6** Touch the selected connection destination.

Connection is started and the connected destination display flashes.

When connected successfully, the menu list of the connected destination node is displayed.

Tip    If not, an error message is displayed and the list of nodes and rooms remains as it was.

**Tip**
You can list items in order according to the number of activities or access history from [WIRES] → [2 SEARCH SETUP] in setting mode.

● **Connecting to the node or room you have most recently connected**

If the node or room on the Internet is one that you have been connected to in the past, the name of the last connected node or room is displayed in grey at the bottom of the screen. At this point, either touch the connection destination or press the microphone [PTT] to start the connection. Upon being connected, the text will light up in white.

> Tip If connection cannot be established, "Not Connected" will appear, and characters will be gray again.
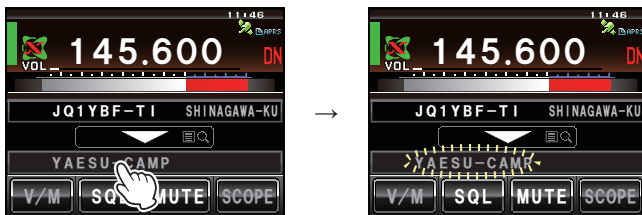
● **Switching the current connected destination and the last connected node and room**

Turn 🔘A when connected to a node or room on the Internet to display the last connected node or room. Continue turning 🔘A to return to the current connection destination display.
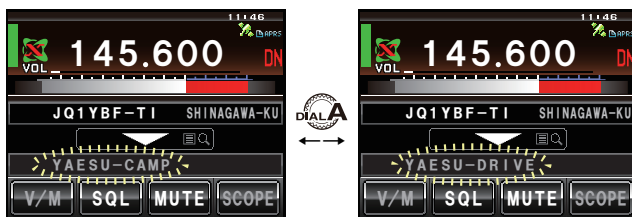
The current connected destination      The last connected node and room

If the current connected destination differs from the last connected node or room, the display switches to the last connected node or room. Upon pressing the microphone [PTT], the connected destination switches to the last connected node or room and communication is enabled. Touch the last connected node or room to display the category list of the last connected node or room.

> Tip If connection is not possible, "Not Connected" will be displayed and the text will turn grey.

● **Specifying the DTMF ID of the desired node or room**

**1** Press and hold "#" on the microphone

  The DTMF input screen will be displayed.

**2** Enter the DTMF ID

**3** Press briefly "#" on the microphone.

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## ▌**Communicating with others**

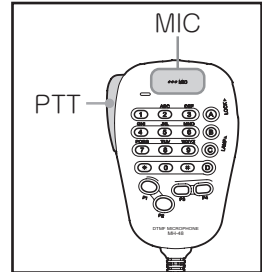**1** Connect to a node or room on the Internet



**2** Press **[PTT]** on the microphone

The device will switch to transmitting mode.

**3** Speak into **[MIC]** on the microphone

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

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



**4** Release **[PTT]**

The device will switch to receiving mode.

**Tip**
Even when browsing data in a node or room on the Internet using the news function (page 24), you can communicate with the connected destination by pressing [PTT] on the microphone.

## Useful functions in digital mode

## ▌**Using a preset channel**

Programming (presetting) channel frequency allows you to easily connect to a local node. By sharing a channel frequency with your friends' nodes, you can connect the device to a local node even when you are out. This is useful for a group to operate a station.
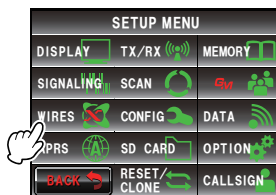
### ● **Presetting a channel**

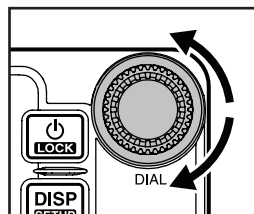**1** Press and hold [DISP SETUP] for 1 second or more

The menu list will appear.
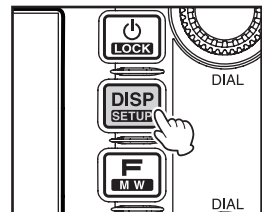
**2** Touch **[WIRES]**

The menu list will appear.

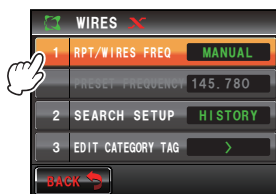**3** Rotate 🎛️ or touch the screen to select **[1 RPT/ WIRES FREQ]**

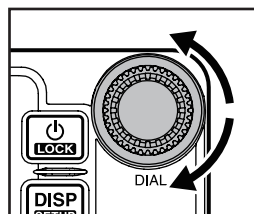**4** Touch **[1 RPT/WIRES FREQ]** to select "PRESET"

Each time you touch the key, the setting switches between "MANUAL" and "PRESET".

Tip    The default setting is "MANUAL".

When "PRESET" is selected, **[PRESET FREQUENCY]** will become available.

**5** Rotate 🎛️ or touch the screen to select **[PRESET FREQUENCY]**
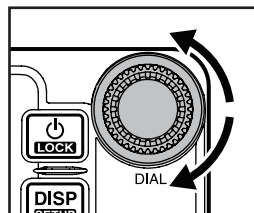
**6** Touch **[PRESET FREQUENCY]**

The frequency number will become orange.

Tip    The default setting is 145.780.

**7** Rotate 🎛️ to select a frequency

Tip    If you press and hold 🎛️ for 2 seconds or more, the kHz indication will disappear and the frequency will change by 5 MHz increments. If you press 🎛️ afterwards, the frequency indication will flash. If you rotate 🎛️ while the frequency indication is flashing, the frequency will change by 1 MHz increments within the frequency range at the time. Press 🎛️ afterwards to display the kHz indication, and the frequency indication will light up.
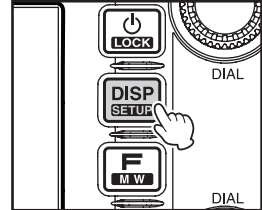
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**8** Touch **[PRESET FREQUENCY]**

The frequency will be set and the frequency number will turn green.
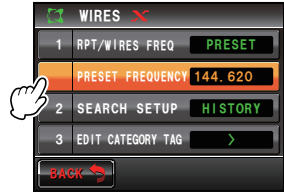
**9** Press and hold 〔DISP〕 for 1 second or more

The screen will return to the frequency display screen.

> **Tip** You can also go back to the frequency display screen by touching **[BACK]** twice.
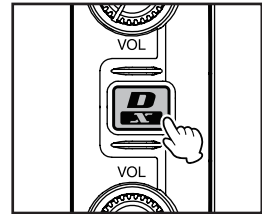
● **Connecting to a preset channel**

**1** Follow steps 1 to 4 in "Presetting a channel" to make the preset channel available in advance

**2** Press and hold 〔DX〕 for 1 second or more

The WIRES icon will appear on the left side of the frequency indication and "*P*" and "*X*" will flash alternately.

When a local node is found, "*X*" will be lit solid, and the node name and city name will appear on the bottom part of the screen.

> **Tip** When any local node cannot be found, the WIRES icon will disappear in 20 seconds.

**Tip**

If the detected local node has a voice channel (operation channel) besides the preset channel, the band A frequency will automatically switch to the frequency of the voice channel.

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● **Quitting searching by a preset channel**

**1** Follow steps 1 to 3 in "Presetting a channel" to display the WIRES-X setup menu

**2** Touch **[1 RPT/WIRES FREQ]** to select "MANUAL"

Each time you touch the key, the setting switches between "MANUAL" and "PRESET".

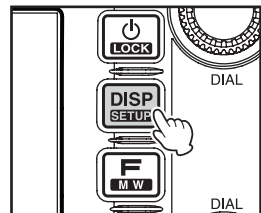When "MANUAL" is selected, **[PRESET FREQUENCY]** will be unavailable.

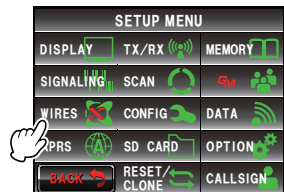## Connecting to a registered node or room

You can register names of nodes and rooms on the Internet and sort them into 5 categories.

● **Registering category name**

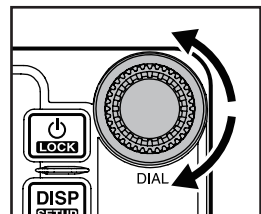**1** Touch [DISP] for 1 second or more
The setup menu will appear.

**2** Touch **[WIRES]**
The menu list will appear.

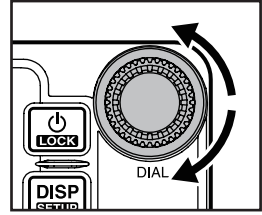**3** Rotate [DIAL] or touch the screen to select **[3 EDIT CATEGORY TAG]**

**4** Touch **[3 EDIT CATEGORY TAG]**
The category name setting screen will appear.

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**5** Rotate  or touch the screen to select one of [C1] to [C5].

**6** Touch one of [C1] to [C5].
The character input screen will appear.
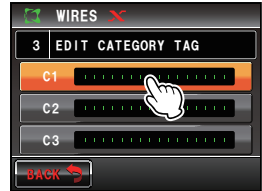
**7** Touch the character keys to enter the category name
The characters you have just touched will appear on the top part of the screen.

   Tip    You can enter up to 16 characters, numerals and symbols

**8** Touch **[ENT]**
The screen will return to the category name setting screen. The entered category name will appear in the setting field.

   Tip    Repeat steps 5 to 8 to set more category names.

**9** Press and hold ▣ for 1 second or more
The category name will be set, and then the screen will return to the previous screen.

   Tip    You can also go back to the previous screen by touching **[BACK]** 3 times.

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● **Registering a node or room**

**1** Connect to the desired node or room

**2** Touch the name of the node or room of the connected destination on the screen displaying the connected destination.

   The menu list of the connected destination will appear.

**3** Touch **[ADD]**

   The category list of your own station will appear.

**4** Rotate A or touch the screen to select a category
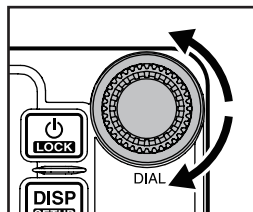
**5** Touch the selected category

   The connection destination list will appear and the name of the currently connected node or room will be added to the list.
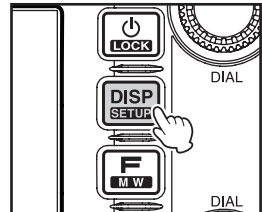
   **[ADD]** will flash.

**6** Touch **[ADD]**

   The screen will return to the menu list of the connected destination.

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● **Connecting to the registered node or room**

**1** Touch **[▼]** on the connected destination screen

The menu list of the local node will appear.

**2** Rotate  or touch the screen to select one of **[C1]** to **[C5]**

**3** Touch one of **[C1]** to **[C5]**

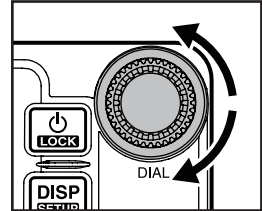A list of accessible nodes and rooms will appear.

> Tips • The search results are displayed in sequence in a list of the nodes or rooms.
>
> • The activity count (number of connected nodes) is displayed on the right end of the room row in the search results.

**4** Rotate  or touch the screen to select the connection destination
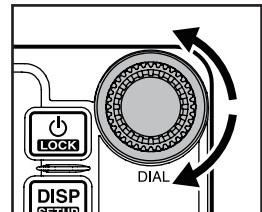
**5** Touch the connection destination you have just selected

Connection will start and the connection destination name will flash.

When connection is successfully established, the menu list of the destination node will appear on the screen.

> Tip If connection cannot be established, "Not Connected" will appear, and the node & room list will remain displayed.

● **Disconnecting from a node or room**

**1** Press and hold " **\*** " on the microphone

If disconnection is successful, [Not Connected] will be displayed.

## Releasing the WIRE-S X connection

Press 🔳 for a second or longer to cancel the WIRES icon on the left side of the frequency display and return to the VFO mode of the frequency display when WIRES-X is in operation.

Tip    The local node and connected destination node will remain connected.

 → 

## Connecting to an analog node

When the desired local node is an analog station, use the DTMF function on the transceiver. For details on how to use the DTMF functions, refer to "Using the DTMF Function" in the basic operating manual.

### Connecting to a node or room on the Internet

**1** Match the frequency of Band A to the frequency of the local node.

**2** Press 🔳 to switch the communication mode of Band A to the analog FM mode.
   Tip   For details, refer to "Switching the communication mode" in the basic operating manual.

**3** Press "#" for a second while pressing [PTT] on the microphone and then press "#" again after pressing the DTMF ID key of the local node you want to connect to.

   The DTMF code will be transmitted.

   Tips • The DTMF ID is a 5-digit number.
        • Press " ＊ " to cancel the DTMF ID input.
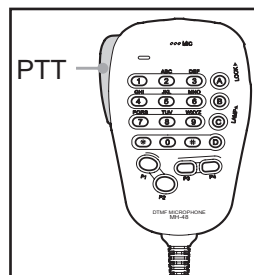


**4** Release [PTT] on the microphone, and keep the transceiver in receiving mode for about 10 seconds

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

   Caution    The connected destination screen will not appear.

**Tip**
You can register up to 9 DTMF codes on the FTM-400XDR/XDE/DR/DE transceiver. If you register the codes of frequently-used connection destinations in advance, you can easily transmit the code by selecting it on the function menu screen and pressing [PTT]. For details, refer to "Using the DTMF Function" in the basic operating manual.

## Communicating with others

**1** Press the microphone [PTT]

The transceiver will go into the transmit mode.

**2** Face the microphone [MIC] and talk

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

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

**3** Release the microphone [PTT]

The device will switch to receiving mode.

## Disconnecting from a node or room

Press "#" for a second while pressing the microphone [PTT] and then press "#" again after pressing the "99999" (DTMF disconnect command) key.

# Various display functions

## Confirming the digital node location

When the signal from the local node you are connected to contains GPS location information, it may be displayed on the FTM-400XDR/XDE/DR/DE screen.

On the connection destination screen, press [DISP] screen which shows the direction of the local node and the distance to the local node from your own station. Press [DISP] again to go back to the connection destination screen.
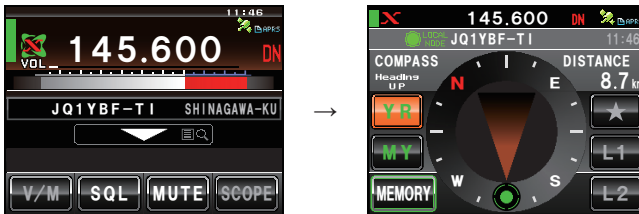


**Tips**

- When "NUMERIC" is selected from **[DISPLAY]** → **[2 TARGET LOCATION]** in the setup menu, the latitude & longitude screen appears instead of the compass screen.
- When a screen such as the altitude indication screen is set to "ON" from **[DISPLAY]** → **[1 DISPLAY SELECT]** in the setup menu, the screen may be switched to other screens by pressing [DISP].

## ▌Switching the dual band screen

On the WIRES-X connection destination screen, touch the frequency indication to display the dual band screen. Touch the frequency indication again to go back the connection destination screen.



→

# Using the News Function of WIRES-X

When using WIRES-X in digital mode, you can transmit and receive data, text messages and images. You may also record and play audio messages.

## Viewing messages and images

You can import data, text messages and images that are transmitted/received by either a local node, or a node or room on the Internet, onto the FTM-400XDR/XDE/DR/DE.

**Caution**

To import images, insert a microSD card into the device. For details, refer to "Setting Up the micro-SD Card" in the basic operating manual.

### Viewing text data and images of the local node

**1** On the connected destination screen, touch the local node name

The menu list of the local node will appear.

**2** Touch **[NEWS STATION]**

The upload/download select screen will appear.

**3** Rotate 🎛 or touch the screen to select **[DOWNLOAD]**
**4** Touch **[DOWNLOAD]**

The data type select screen will appear.

**5** Rotate 🎛 or touch the screen to select **[MSG]** or **[PICT]**
**6** Touch **[MSG]** or **[PICT]**

The data list will appear.

> Tip   The display will change between displaying the access date and time, and displaying the file size, each time 🎛 is pressed in the PICT list display.

**7** Rotate 🎛 or touch the screen to select a message or an image

**8** Touch the selected message or image

Data import will start and the icon on the left side of the tag will flash.

After data import completes, the data content will appear.

Tips • Data in unsupported formats cannot be imported. In such a case, "Not Completed" will appear, and then the screen will return to the data type select screen.
• When the microSD card does not have enough free space, data cannot be imported. In such a case, "Insufficient SD Memory" will appear, and then the screen will return to the data type select screen.

**Tips**
• On the data content screen, the following operations are available by using the touch keys:
  • Touch **[DEL]** to delete the imported data.
  • Touch **[FORWARD]** to forward the imported data to other stations.
  • Touch **[REPLY]** to reply to the station which exported the data.
• On the image display screen, touch **[EDIT]** to change the tag of the imported data.
• When the data content screen is displayed, press 🔲 to display the sender's location information at the time the data was imported.
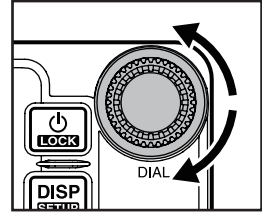
● **Operations on the data list**

If there are several messages, the list is divided like pages of a book. The symbols below will be displayed at the end of each page to aid in jumping to the previous or next page. Touch the symbol to switch the display.

🔘Ⓐ     The list will scroll by one item each time the dial is turned.

**[TOP]**   Displays the beginning of the first page.

**[⌃]**    Displays the previous page.

Not available on the first page.

**[⌄]**    Displays the next page.

Not available on the last page.

## Viewing text data and images of the WIRES-X server (INT NEWS)

You can import text information and images provided by Yaesu on the WIRES-X server onto the FTM-400XDR/XDE/DR/DE transceiver.

**1** On the connected destination screen, touch the local node name

The menu list of the local node will appear.

**2** Rotate 🔘Ⓐ or touch the screen to select **[INT NEWS]**

**3** Touch **[INT NEWS]**

The menu list of the WIRES-X server will appear.

**4** Rotate 🔘Ⓐ or touch the screen to select **[NEWS STATION]**

**5** Touch **[NEWS STATION]**

The data type select screen will appear.

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**6** Rotate ⊙A or touch the screen to select **[MSG]** or **[PICT]**

**7** Touch **[MSG]** or **[PICT]**

The data list will appear.

> Tip The display will switch between showing the access date and time, and showing the file size, each time ⊙B is pressed in the PICT list display.

**8** Rotate ⊙A or touch the screen to select a message or an image

**9** Touch the selected message or image

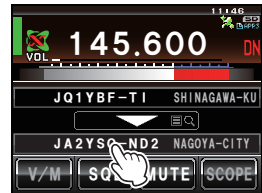Data import will start and the icon on the left side of the tag will flash.

After data import completes, the data content will appear.

> Tips • Data in unsupported formats cannot be imported. In such a case, "Not Completed" will appear, and then the screen will return to the data type select screen.
>
> • When the microSD card does not have enough free space, data cannot be imported. In such a case, "Insufficient SD Memory" will appear, and then the screen will return to the data type select screen.

## Viewing information of a node or room on the Internet

**1** On the connected destination screen, touch the name of a node or room on the Internet

The menu list of the node or room on the Internet will appear.

**2** Rotate 🎛️A or touch the screen to select **[NEWS STATION]**

**3** Touch **[NEWS STATION]**

The upload/download select screen will appear.

**4** Rotate 🎛️A or touch the screen to select **[DOWNLOAD]**

**5** Touch **[DOWNLOAD]**

The data type select screen will appear.

**6** Rotate 🎛️A or touch the screen to select **[MSG]** or **[PICT]**

**7** Touch **[MSG]** or **[PICT]**

The data list will appear.

> **Tip** The display will switch between showing the access date and time, and showing the file size each time 🎛️B is pressed in the PICT list display.

**8** Rotate 🎛️A or touch the screen to select a message or an image

**9** Touch the selected message or image

Data import will start and the icon on the left side of the tag will flash.

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After data import completes, the data content will be displayed.

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

• When the microSD card does not have enough free space, data cannot be imported. In such a case, "Insufficient SD Memory" will appear, and then the screen will return to the data type select screen.

**Tips**

• On the data content screen, the following operations are available by using the touch keys:
  • Touch **[DEL]** to delete the imported data.
  • Touch **[FORWARD]** to forward the imported data to other stations.
  • Touch **[REPLY]** to reply to the station which exported the data.
• On the image display screen, touch **[EDIT]** to change the tag of the imported data.
• When the data content screen is displayed, press 🔲 to display the sender's location information at the time the data was imported.

**Cautions**

● When the category list or data list appears, if connection to the node or room on the Internet is released, the screen will switch to the connected destination screen, and the name of the connected node or room will be grayed out.

● When the category list or data list appears, press **[PTT]** on the microphone to be ready to transmit audio to the connected node or room on the Internet.

## Viewing imported data from memory

Downloaded data can also be reviewed later.

**1** Press 🔲

The function menu will be displayed.

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

Tip When [LOG] is not displayed in the function menu, touch [BACK] and [FWD] to switch the menu.

A list of data will be displayed.

**3** Turn 🔘 or touch the screen to select the data that you want to review

Tips • If the touched key is [📄], a list of messages is displayed. This will change to a list of pictures when the screen is touched and changed to [■].

• Newly imported data is displayed at the top of the list.

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**4** Touch the selected data
The data will be displayed

**5** Touch **[BACK]** twice
Return to the function menu.

## Sorting imported data

### ● **Deleting data in the data display screen**

**1** Display the data that you want to delete

**2** Touch **[DEL]**
A screen to confirm whether or not to delete the data
will be displayed.

**3** Touch **[OK?]**
The deletion will start.
When the deletion is completed, the screen will return
to the list of data.
The list of data will move up one by one.

Tip    Touch [CANCEL] to stop the deletion.

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● **Erasing from the list**

**1**  Turn 🎛 or touch the screen to select the data that you want to delete in the list of data

**2**  Touch **[DEL]**

A screen to confirm whether or not to delete the data will be displayed.

**3**  Touch **[OK?]**.

The deletion will start.

When the deletion is completed, the screen will return to the list of data.

The list of data will move up one by one.

Tip   Touch [CANCEL] to stop the deletion.

## Listening to audio messages

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

Audio data is categorized into the following 2 types.

EMERGENCY:      Emergency information. Depending on the setting on the node or room, the information is automatically delivered periodically for a certain period after the data is registered, and 2 hours later, the message will be deleted automatically.

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

**Caution**
You can play and listen to audio data on the FTM-400XDR/XDE/DR/DE but you cannot save audio data to the transceiver.

## Listening to the information of the local node

### ● Listening to emergency information

**1** On the connected destination screen, touch the name of the local node

The menu list of the local node will appear.

**2** Rotate 🎛A or touch the screen to select **[EMERGENCY]**

**3** Touch **[EMERGENCY]**

The data list will appear.

Tip    The list will show data in reverse chronological order.

**4** Rotate 🎛A or touch the screen to select desired audio data

**5** Touch the selected audio data

Audio playback will start and the icon on the left corner of the tag will flash.

Tip    During audio playback, press 🔲 to switch the screen to the compass screen, and the sender's location information at the time the audio data was recorded will appear.

When playback finishes, the category list of the local node will appear on the screen again.

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● **Listening to a normal message**

**1** On the connected destination screen, touch the name of the local node

The category list of the local node will appear.

**2** Touch **[NEWS STATION]**

The upload/download select screen will appear.

**3** Rotate 🎛️A or touch the screen to select **[DOWNLOAD]**
**4** Touch **[DOWNLOAD]**

The data type select screen will appear.

**5** Rotate 🎛️A or touch the screen to select **[VOICE]**
**6** Touch **[VOICE]**

The data list will appear.

**7** Rotate 🎛️A or touch the screen to select desired audio data
**8** Touch the selected audio data

Audio playback will start and the icon on the left corner of the tag will flash.

> **Tip** During audio playback, press 📟 to switch the screen to the compass screen, and the sender's location information at the time the audio data was recorded will appear.

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When playback finishes, the screen will return to the data type select screen.

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

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

### ● Listening to emergency information

**1** On the connected destination screen, touch the name of the local node

The menu list of the local node will appear.

**2** Rotate 🎛️A or touch the screen to select **[INT NEWS]**

**3** Touch **[INT NEWS]**

The category list of the WIRES-X server will appear.

**4** Rotate 🎛️A or touch the screen to select **[EMERGENCY]**

**5** Touch **[EMERGENCY]**

The data list will appear.

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**6** Rotate 🔘A or touch the screen to select the desired audio data

**7** Touch the selected audio data
Audio playback will start and the icon on the left corner of the tag will flash.

When playback finishes, the category list of the WIRES-X server will appear on the screen again.

● **Listening to a normal message**

**1** On the connected destination screen, touch the name of the local node
The category list of the local node will appear.

**2** Rotate 🔘A or touch the screen to select **[INT NEWS]**

**3** Touch **[INT NEWS]**
The category list of the WIRES-X server will appear.

**4** Rotate 🔘A or touch the screen to select **[NEWS STATION]**

**5** Touch **[NEWS STATION]**
The data type select screen will appear.

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**6** Rotate ⊙ or touch the screen to select **[VOICE]**

**7** Touch **[VOICE]**

   The data list will appear.

**8** Rotate ⊙ or touch the screen to select the desired audio data

**9** Touch the selected audio data

   Audio playback starts and the icon on the left corner of the tag will flash.

When playback finishes, the screen will return to the data type select screen.

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## Listening to information on a node or room on the Internet

● **Listening to emergency information**

**1** On the connected destination screen, touch the name of a node or room on the Internet

The menu list of the node or room on the Internet will appear.

**2** Rotate 🎛️A or touch the screen to select **[EMERGENCY]**

**3** Touch **[EMERGENCY]**

The data list will appear.

**4** Rotate 🎛️A or touch the screen to select the desired audio data

**5** Touch the selected audio data

Audio playback will begin and the icon on the left corner of the tag will flash.

Tip During audio playback, press 🔲 to switch the screen to the compass screen, and the sender's location information at the time the audio data was recorded will appear.

When playback finishes, the menu list of the connected destination will appear on the screen again.

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● **Listening to a routine message**

**1** On the connected destination screen, touch the name of a node or room on the Internet

The menu list of the node or room on the Internet will appear.

**2** Rotate 🔘A or touch the screen to select **[NEWS STATION]**

**3** Touch **[NEWS STATION]**

The upload/download select screen will appear.

**4** Rotate 🔘A or touch the screen to select **[DOWNLOAD]**

**5** Touch **[DOWNLOAD]**

The data type select screen will appear.

**6** Rotate 🔘A or touch the screen to select **[VOICE]**

**7** Touch **[VOICE]**

The data list will appear.

**8** Rotate 🔘A or touch the screen to select desired audio data

**9** Touch the selected audio data

Audio playback will start and the icon on the left corner of the tag will flash.

> **Tip** During audio playback, press 📟 to switch the screen to the compass screen, and the sender's location information at the time the audio data was recorded will appear.

When playback finishes, the screen will return to the data type select screen.

## Transmitting messages and images

You can transmit data such as messages (text data) and images saved on the FTM-400XDR/XDE/DR/DE or microSD card inserted into the transceiver, to a local node, or a node or room on the Internet. You can also transmit a new message.

**Tips**
- For details on microSD cards, refer to "Setting Up the micro-SD Card" in the basic operating manual.
- You can also transmit photos taken with the camera that is built into the optical speaker microphone "MH-85A11U". For details on how to take photos, refer to "Taking Pictures with the Optical Camera" in the basic operating manual.

### Transmitting data to a local node

● **Creating and transmitting a message**

**1** Display the menu list of the local node

**2** Rotate <img> or touch the screen to select **[NEWS STATION]**

**3** Touch **[NEWS STATION]**

The upload/download select screen will appear.

**4** Rotate <img> or touch the screen to select **[UPLOAD]**

**5** Touch **[UPLOAD]**

The data type select screen will appear.

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**6** Rotate 🎛A or touch the screen to select **[MSG]**

**7** Touch **[MSG]**

The data list will appear.

**8** Rotate 🎛A or touch the screen to select **[NEW]**

**9** Touch **[NEW]**

The message confirmation screen will appear.

**10** Touch **[▦]**

The character input screen will appear.
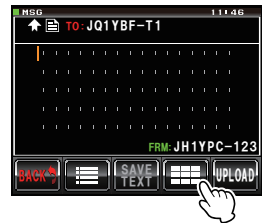
**11** Touch the character keys to enter a message

The character you have just touched will appear on the top part of the screen.

Tips • Up to 80 characters can be entered.

• Alphanumeric characters and symbols can be used.

**12** Touch **[ENT]**

The entered characters will be confirmed, and then the screen will return to the message confirmation screen.

**13** Touch **[UPLOAD]**

Message transmission will start and the icon on the top left of the screen will flash.
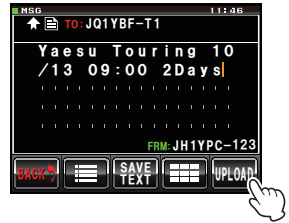
When the message has been transmitted, "Completed" will appear, and then the screen will return to the data type select screen.

● **Transmitting a saved message or image**

**1** Follow steps 1 to 5 in "Creating and transmitting a message" to display the data type select screen

**2** Rotate ⊙A or touch the screen to select **[MSG]** or **[PICT]**

**3** Touch **[MSG]** or **[PICT]**

The data list will appear.

Tip    The display will switch between showing the access date and time, and showing the file size, each time ⊙B is pressed in the PICT list display.

**4** Rotate ⊙A or touch the screen to select a message or image

**5** Touch the selected message or image

The data content will appear.

Tip    When the image appears on the screen, you can change the tag by touching **[EDIT]**.

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**6** Touch **[UPLOAD]**

Data transmission will start and the icon on the top left of the screen will flash.

When the data has been transmitted, "Completed" will appear, and then the screen will return to the data type select screen.

## Transmitting data to a node or room on the Internet

● **Creating and transmitting a message**

**1** Display the menu list of the node or room on the Internet
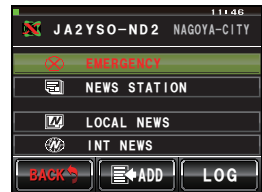
**2** Rotate 🎛 or touch the screen to select **[NEWS STATION]**

**3** Touch **[NEWS STATION]**

The upload/download select screen will appear.

**4** Rotate 🎛️ or touch the screen to select **[UPLOAD]**

**5** Touch **[UPLOAD]**

The data type select screen will appear.

**6** Follow steps 6 to 13 in "Creating and transmitting a message" under "Transmitting data to a local node" to create and transmit a message

● **Transmitting a saved message or image**

**1** Display the menu list of the node or room on the Internet

**2** Rotate 🎛️ or touch the screen to select **[NEWS STATION]**

**3** Touch **[NEWS STATION]**

The upload/download select screen will appear.

**4** Rotate 🎛️ or touch the screen to select **[UPLOAD]**

**5** Touch **[UPLOAD]**

The data type select screen will appear.

**6** Follow steps 2 to 6 "Transmitting a saved message or image" under "Transmitting data to a local node" to select and transmit data

## Transmitting an audio message

You can transmit audio messages spoken into the microphone as data to a local node, or node or room on the Internet.

Audio data is categorized into the following 2 types:

EMERGENCY: Emergency information. Depending on the setting on the node or room, the information is automatically delivered periodically for a certain period after the data is registered, and 2 hours later, the message will be deleted automatically.

NEWS STATION: 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 data to a local node

● **Transmitting emergency information**

**1**  Display the category list of the local node

**2**  Rotate 🎛️**A** or touch the screen to select **[EMERGENCY]**

**3**  Speak into **[MIC]** while pressing **[PTT]** on the microphone

Message transmission will start and "UPLOAD" will flash on the screen.

> Tip  Even after displaying the data list by touching **[EMERGENCY]**, you can transmit the message by pressing **[PTT]**.
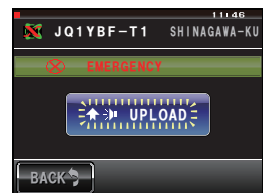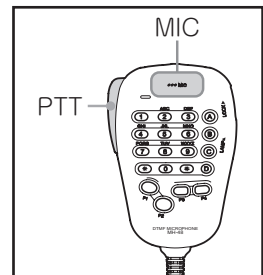
The maximum storage time for audio is one minute.
The countdown timer is displayed when a message is
being transmitted.
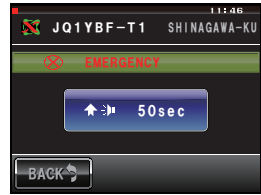
When the message has been transmitted, "Completed"
will appear, and then the menu list of the local node
will appear again.
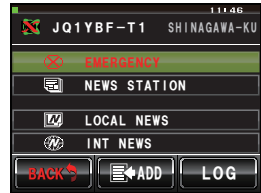
● **Transmitting a routine message**

**1** Display the menu list of the local node

**2** Rotate A or touch the screen to select **[NEWS STATION]**

**3** Touch **[NEWS STATION]**
The upload/download select screen will appear.

**4** Rotate A or touch the screen to select **[UPLOAD]**

**5** Touch **[UPLOAD]**
The data type select screen will appear.

**6** Rotate A or touch the screen to select **[VOICE]**

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**7** Speak into **[MIC]** while pressing **[PTT]** on the microphone

Message transmission will start and "UPLOAD" will flash on the screen.

Tip Even after displaying the data list by touching **[VOICE]**, you can transmit the message by pressing **[PTT]**.
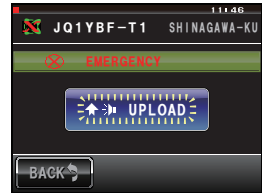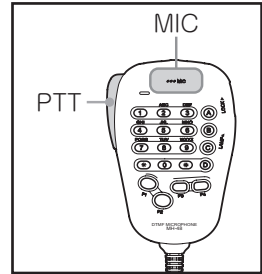
The maximum storage time for audio is one minute.

The countdown timer is displayed when a message is being transmitted.

When the message has been transmitted, "Completed" will appear, and then the screen will return to the data type select screen.

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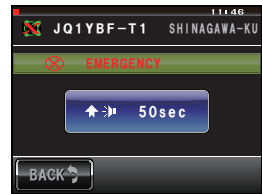
## Transmitting data to a node or room on the Internet

### ● Transmitting emergency information

**1** Display the menu list of the node or room on the Internet

### ● Transmitting a routine message
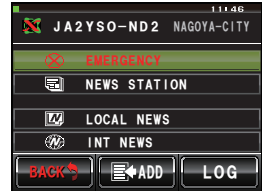
**2** Follow steps 6 to 7 in "Transmitting emergency information" under "Transmitting data to a local node" to transmit a message

**1** Display the menu list of the node or room on the Internet

**2** Follow steps 2 to 7 in "Transmitting a routine message" under "Transmitting data to a local node" to transmit a message

## Returning to the connection status display temporarily

Press 🅖🅜 in the screen at the bottom of each menu layer - [EMERGENCY], [NEWS STATION], [LOCAL NEWS] and [INT NEWS] - to return to the connection status display temporarily. In the connection status display, the decimal point of the frequency is shown flashing.

> **Tip** The screen will not return to the connection status display even if 🅖🅜 is pressed in the new message creation screen or PICT details display screen.
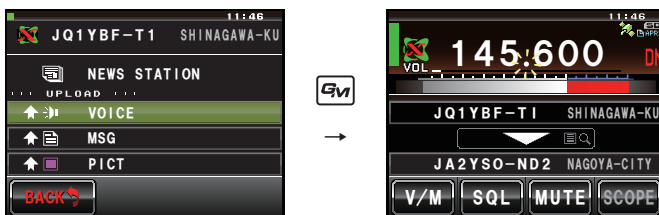
In the connection status display, communication can be switched between Band A or Band B by pressing [V/M].
Press 🅖🅜 to return to the previous screen from the connection display.

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# WIRES-X Setup Menus

| Menu/Item | Functions | Setting items (Bold items are default settings.) |
|---|---|---|
| 1 RPT/WIRES FREQ | Setting the transmission frequencies for repeaters/ WIRES-X | **MANUAL**/PRESET |
|   PRESET FREQUENCY | Setting preset frequencies | 144.000 to 146.000, **145.780** |
| 2 SEARCH SETUP | Setting the item order on the node & room list | **HISTORY**/ACTIVITY |
| 3 EDIT CATEGORY TAG | Editing category names | C1 to C5 |
| 4 REMOVE ROOM/NODE | Deleting registered nodes/rooms | C1 to C5<br>  1 to 20 in total in each category |
| 5 DG-ID | Setting the DG-ID | **AUTO** / 01 to 99 |

# Using a WIRES-X Setup Menu

## Setting the transmit frequencies for repeaters/WIRES-X

You can select how to set the transmit frequency used for connecting to a local node.

**1** Press and hold 🔲 for 1 second or more

The setup menu will appear.

**2** Touch **[WIRES]**

The menu list will appear.
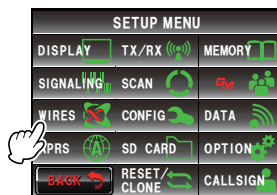


**3** Rotate 🔘 or touch the screen to select **[1 RPT/ WIRES FREQ]**

**4** Touch **[1 RPT/WIRES FREQ]** to select "MANUAL" or "PRESET"



Each time you touch, the setting switches between "MANUAL" and "PRESET".

MANUAL: Set the frequency every time when you look for a local node.

PRESET: Use the preset frequency every time you look for a local node by setting the frequency in advance as follows:

Tip  The default setting is "MANUAL"

When "PRESET" is selected, **[PRESET FREQUENCY]** will become available.

**5** Rotate 🎛️A or touch the screen to select **[PRESET FREQUENCY]**

**6** Touch **[PRESET FREQUENCY]**

The frequency number will become orange.

Tip The default setting is 145.780.

**7** Rotate 🎛️A to select a frequency

Tip If you press and hold 🎛️A for 2 seconds or more, the kHz indication will disappear and the frequency will change by 5 MHz increments. If you press 🎛️A again, the frequency indication will flash. If you rotate 🎛️A while the frequency indication is flashing, the frequency will change by 1 MHz increments within the currently displayed frequency range. Press 🎛️A once again to display the kHz indication, and the frequency indication will light up.

**8** Touch **[PRESET FREQUENCY]**

The frequency will be set and the frequency number will become green.

**9** Press and hold ⌨️ for 1 second or more

The screen will return to the previous screen.

Tip You can also go back to the previous screen by touching **[BACK]** twice.

## Setting the item order on the node & room list

You can select the criteria to sort the list of connection destinations on the Internet.

**1** Press and hold ⌨️ for 1 second or more

The setup menu will appear.

**2** Touch **[WIRES]**

The menu list will appear.

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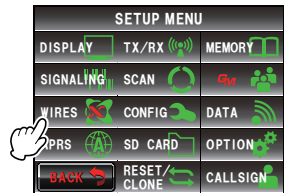
**3** Rotate 🎛️A or touch the screen to select **[2 SEARCH SETUP]**

**4** Touch **[2 SEARCH SETUP]** to select "HISTORY" or "ACTIVITY"

Each time you touch the Search Setup item, the setting switches between "HISTORY" and "ACTIVITY".

HISTORY: Displays the list sorted in order of the connected destination that your station most recently connected to.

ACTIVITY: Displays the list sorted in order of the room with the most nodes connected. Nodes come after rooms.

Tip The default setting is "HISTORY".

**5** Press and hold 🔲 for 1 second or more.

The screen will return to the previous screen.

Tip You can also go back to the previous screen by touching **[BACK]** twice.

### Editing a category name

You can enter names for 5 categories where nodes and rooms can be registered. Up to 16 character may be used for each category name.

For details, refer to "Registering category name" (page 17).

### Deleting the registered nodes and rooms

You can delete nodes and rooms registered in the 5 categories.

**1** Press and hold 🔲 for 1 second or more

The setup menu will appear.

**2** Touch **[WIRES]**

The menu list will appear.
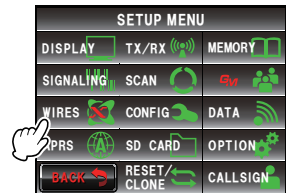
**3** Rotate 🎛️A or touch the screen to select **[4 REMOVE ROOM/NODE]**

**4** Touch **[4 REMOVE ROOM/NODE]**

The category list will appear.

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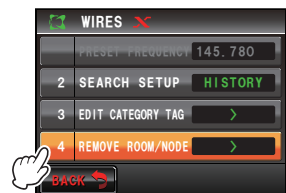
**5** Rotate 🎛️A or touch the screen to select a category
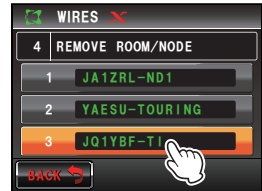
**6** Touch the selected category

The connection destination list will appear.
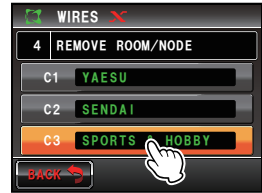
**7** Rotate 🎛️A or touch the screen to select a connection destination

**8** Touch the selected connection destination

The delete confirmation screen will appear.

**9** Touch **[OK?]**

The connection destination will be deleted, and then the connection destination list will appear on the screen again. Destinations shown under the deleted connection destination will move up by one.
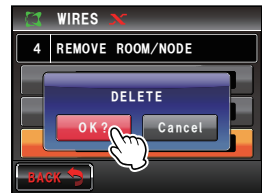
**10** Press and hold 🔲 for 1 second or more

The screen will return to the previous screen.

Tip    You can also go back to the previous screen by touching **[BACK]** twice.

## ▍ **The DG-ID feature to access the WIRES-X node station**

When accessing to the WIRES-X node station, the connecting node station may be selected in accordance with the DG-ID setting of the node stations.

**1** Press and hold the 🔲 key for over one second.

The setup menu will appear.

**2** Touch **[WIRES-X]**

The menu list will appear.

**3** Rotate 🎛️A or touch the screen to select **[5 DG-ID]**

"5 DG-ID" will turn orange.

**4** Touch **[5 DG-ID]**

The characters of the set value will turn orange in color.

**5** Rotate 🎛️A to select the DG-ID setting for WIRES-X

AUTO: All node stations are searched regardless of the DG-ID setting of the WIRES-X local node; The FTM-400XDR/XDE/DR/DE is adjusted automatically to the DG-ID setting of the found node station.

01 to 99: Only local node stations corresponding to the set DG-ID setting are searched.

Tips  • The default setting is "AUTO".
        • It is recommended that the [5  DG-ID] is set to "AUTO" for normal operation.

**6** Press and hold 🖹 for 1 second or more

The DG-ID will be set and the display will return to the previous screen.

## Using the FTM-400XDR/XDE/DR/DE transceiver as a node station

### Set the FTM-400XDR/XDE/DR/DE to node station mode

Follow the procedure below to use the FTM-400XDR/XDE/DR/DE transceiver as a node station.

**1** Connect the FTM-400XDR/XDE/DR/DE to the HRI-200, then start the WIRES-X software on the PC.
   Tip  Refer to the HRI-200 Instruction Manual.

**2** While pressing 🔲 and 🔲 simultaneously, press and hold 🔒 for over two seconds to turn the power ON.
   The FTM-400XDR/XDE/DR/DE will be set to node station mode; "HRI-200" will appear on the display.
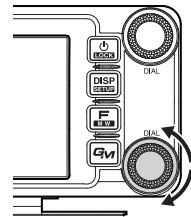   Tip  Follow step 2 again to cancel node station mode.

● **Adjusting the display brightness**

Turn 🎛 to select one of the seven brightness levels.
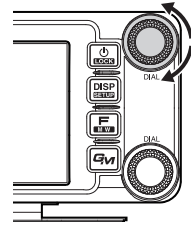
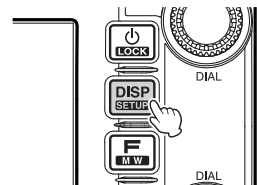● **Adjusting the display contrast**

Turn the 🎛 to select one of the seven contrast levels.

● **Turning the display ON and OFF**

Press and hold 🖹 for over one second to hide all displays on the screen (the key illumination also turns off).

Tip  Press 🖹 again to show the hidden displays.

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