

## Preparing the Battery Pack/External Power Supply

### Connecting an External Power Supply for Use in Vehicle

The optional external power supply adapter with a cigarette lighter plug (SDD-13) allows the transceiver to be used in a vehicle.

- 1 Turn off the transceiver.
- 2 Insert the plug of the external power supply adapter with a cigarette lighter plug (SDD-13) in the EXT DC IN jack of the transceiver.
- 3 Insert the cigarette lighter plug of the external power supply adapter in the cigarette lighter socket of the vehicle.

T.B.D.

### Cautions

- The SDD-13 is compatible with a 12 V DC cigarette lighter socket. Do not connect the SDD-13 to the 24 V DC cigarette lighter socket.
- Use the transceiver at the minimum required transmission power level to prevent overheating.
- Do not continue transmission for a prolonged period of time. The transceiver may overheat, resulting in malfunction or burns.
- If you operate the transceiver for 7 hours or longer, it is recommended that you remove the battery pack and install the optional battery case (FBA-39).
- Recharging the fully-charged battery pack repeatedly can shorten its service life. Be extremely careful not to do so when you operate the transceiver when using an external power supply.
- While charging the battery pack, protect the transceiver from water.
- Charge the battery pack in a place where the ambient temperature is +5 °C to +35 °C (+41 °F to +95 °F).
- If the terminal or electrode of the battery pack is dirty, the transceiver can malfunction due to poor contact, resulting in overheating or rupture. If the terminal or electrode gets dirty, clean it using a dry cloth or cotton swab.

### Tips

- The battery pack can be charged within approximately 8 hours using the external power supply (approximately 8 hours to charge the optional battery pack FNB-102LI). If the battery pack is charged with the transceiver turned on, the charging time increases slightly.
- When the battery pack has been fully charged, charging stops automatically.
- The external power supply can be used with the battery case installed.
- If you connect the transceiver to the external power supply with the transceiver turned off, "CONNECTED TO EXTERNAL POWER" appears on the LCD, and about 20 seconds later "BATTERY NOT INSTALLED" appears.

## Preparing the Battery Pack/External Power Supply

### Connecting to an External Power Supply Using a Power Cable

The optional power cable (E-DC-6) allows the transceiver to be connected to an external power supply.

- 1 Turn off the transceiver.
- 2 Connect the optional external power supply cable (E-DC-6) to an external power supply.  
**Remarks**
  - Connect the red/black wire or white/red wire to the positive (+) terminal of the external power supply and the black wire to the negative (-) terminal.
  - Set the voltage of the external power supply to 12 to 14 V.
- 3 Insert the plug of the external power supply in the EXT DC IN jack of the transceiver.

T.B.D.

#### Cautions

- When you use the transceiver with the external power supply cable (E-DC-6) connected to an external power supply, pay attention to the following:
  - The power supply voltage must be between 12 V and 14 V.  
If the voltage exceeds 14 V, the high voltage protection function is activated to disable high-power transmission. L3 (2.5 W) is selected automatically to reduce the transmission power. If the voltage exceeds 16 V, malfunctions such as damage to the electric circuits of the transceiver may result. Take extra care.
  - Connect the red/black wire or white/black wire of the external power supply cable (E-DC-6) to the positive (+) terminal of the external power supply and the black wire to the negative (-) terminal.
  - Use an external power supply having sufficient current capacity (3 A or more).
  - If the transceiver is used with supplied antenna connected, the external power supply can malfunction, resulting in a failure. If you use an external power supply, remove the supplied antenna and connect an external antenna. Place the external power supply sufficiently away from the transceiver.
- Use the transceiver at the minimum required transmission power level to prevent overheating.
- Do not continue transmission for a prolonged period. The transceiver may overheat, resulting in malfunction or burn.
- If you operate the transceiver for 7 hours or longer, it is recommended that you remove the battery pack and install the optional battery case (FBA-39).
- Recharging the fully-charged battery pack repeatedly can shorten its service life. Be extremely careful not to do so when you operate the transceiver using an external power supply.
- While charging the battery pack, protect the transceiver from water.
- Charge the battery pack in a place where the ambient temperature is +5 °C to +35 °C (+41 °F to +95 °F).
- If the terminal or electrode of the battery case is dirty, the transceiver may malfunction due to poor contact, resulting in overheating or rupture. If the terminal or electrode gets dirty, clean it using a dry cloth or cotton swab.

## Preparing the Battery Pack/External Power Supply

### Tips

- The battery pack can be charged within approximately 8 hours using the external power supply (approximately 8 hours to charge the optional battery pack FNB-102LI). If the battery pack is charged with the transceiver turned on, the charging time increases slightly.
- The external power supply can be used with the battery case installed.  
If you connect the transceiver to the external power supply with it turned off, "CONNECTED TO EXTERNAL POWER" appears on the LCD, and about 20 seconds later, "BATTERY NOT INSTALLED" appears.

## Using a microSD Memory Card

Using a microSD memory card with the transceiver allows the following functions.

- Backing up information on the transceiver
- Saving memory information
- Saving data other than images
- Saving GPS log data
- Saving image data captured with the optional camera-equipped microphone (MH-85A11U)
- Saving messages downloaded with the GM function or WIRES-X function

### Usable microSD Memory Cards


This transceiver only supports the following capacity of microSD and microSDHD memory cards.

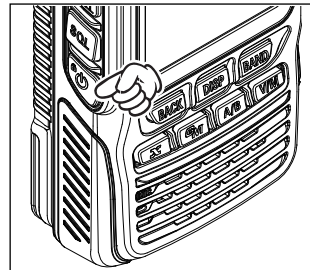
- 2GB • 4GB • 8GB • 16GB • 32GB

### Cautions when Using a microSD Memory Card

- Do not bend or place heavy objects on the microSD memory card.
- microSD memory cards formatted on other devices may not properly save information when used with this transceiver. Format microSD memory cards again with this transceiver when using memory cards formatted with another device.
- When saving data to a microSD memory card, do not remove the microSD memory card or turn off the transceiver.
- Do not insert anything other than microSD memory card into the microSD memory card slot of the transceiver.
- Do not attempt to forcefully remove mounted microSD memory card.

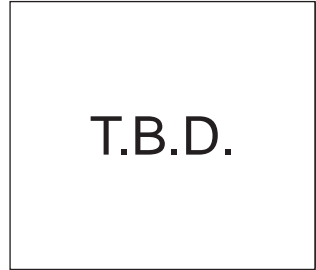
### Mounting and Dismounting microSD Memory Card

- 1 Press and hold  for over 1 second.  
The transceiver will turn off.



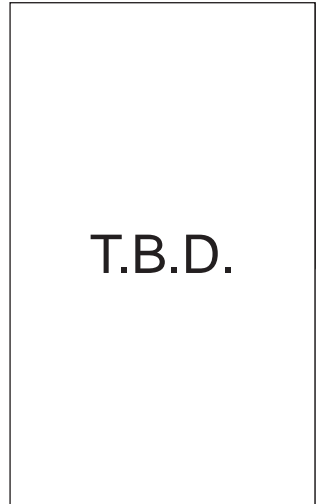
## Using a microSD Memory Card


- 2 Open the microSD cover on the side of the transceiver.




- 3 Insert the microSD memory card into the card slot until you hear a clicking sound (as shown in the figure at the right).

- Cautions**
- Ensure that the microSD memory card is facing the proper direction when inserting it.
  - Do not touch the terminal of the microSD memory card.



- 4 Close the microSD cover.
- 5 Press and hold  for over 1 second.

The transceiver will turn on. When the microSD memory card is properly detected,  lights on the display.

### Tip

#### Removing the microSD memory card

To remove the microSD memory card, as done in step 3 above, push the memory card in until you hear a clicking sound, then remove the memory card.

\* Using the micro SD Card Clip makes it easy to remove the micro SD memory card.

### Caution

Do not turn off the transceiver while the data is being written to the microSD memory card. Doing so may corrupt the data.



## Using a microSD Memory Card

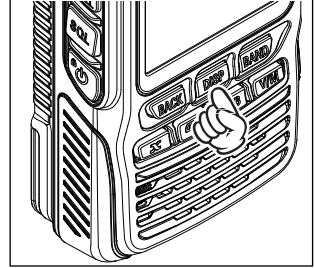
### Formatting a microSD Memory Card

Format a new microSD memory card following the steps below before use.

#### Caution

Formatting a microSD memory card erases all data saved on it. If you are going to format the microSD memory card you are using, be sure to check the data saved on it before formatting.

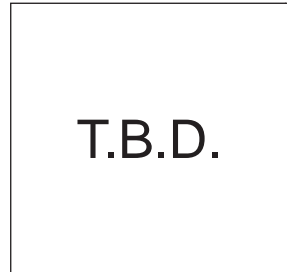
- 1 Press and hold **[DISP]** for over 1 second.  
The “SETUP MENU” screen appears.



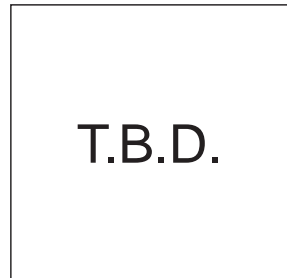
- 2 Touch **[SD CARD]**.



- 3 Touch **[FORMAT]**.  
[OK?] appears on the LCD.

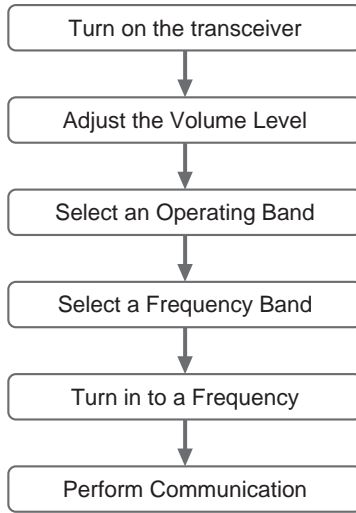


- 4 Touch **[OK]**.  
**Tip** To cancel formatting, select [Cancel].  
**[SD]** on the LCD blinks and formatting starts.  
When formatting is completed, a beep sounds and [Completed] appears on the LCD.



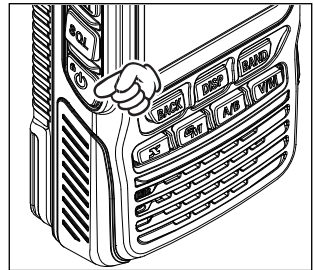
## Performing Communication

Try communication using the transceiver in the analog communication mode. Follow the procedure below:



### Turning on the Transceiver

- 1 Press and hold  for over 1 second.



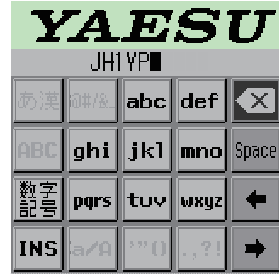
When the transceiver is turned on for the first time after purchase, the call sign input screen appears for 2 seconds. Then, the alphabet input screen appears. From the second time, the opening screen appears followed by the frequency screen.



## Performing Communication

- 2 Input the call sign toggling the alphabet input screen and number input screen.

**Supplement** The alphabet input screen can be switched to the number input screen by touching [数字記号]. The number input screen can be switched to the alphabet input screen by touching [ABC].



- 3 Press .


The call sign is set and the frequencies of both A-band and B-band is displayed simultaneously. (see page xx)

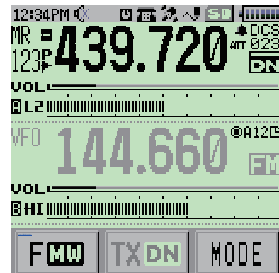
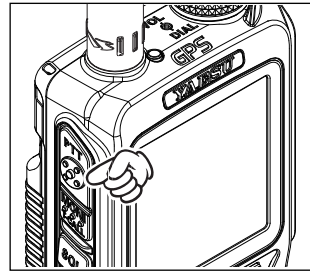
**Supplement** Factory settings are:  
 A-band (upper): 145.000 MHz  
 B-band (lower): 433.000 MHz

**Tip** You can change the information such as the power supply voltage and the opening message displayed at power-on. For example, press and hold [DISP] for over 1 second to enter Set mode and then select [DISPLAY] → [9 OPENING MESSAGE] to change the setting.

In addition, you can also set the transceiver to display the reception frequency immediately without displaying the opening message (see page xx).

### • Turning off the Transceiver

To turn off the transceiver, press and hold  for over 1 second.





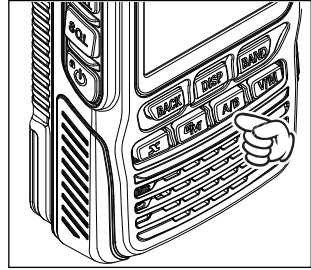
## Performing Communication

### Adjusting the Volume Level

You can adjust the transceiver volume level for the A-band and B-band separately.

- 1 Press **[A/B]** to select the band for which you want to adjust the volume level.

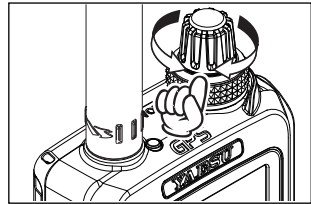
Pressing **[A/B]** each time toggles between the A-band and B-band.



- 2 Rotate the VOL knob clockwise/counterclockwise to adjust the volume level.

The [VOL] gauge moves right/left.

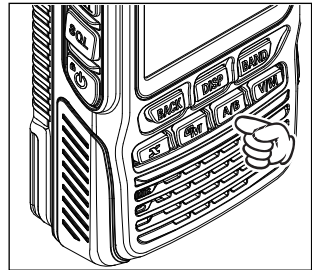
**Supplement** If no sound is heard from the speaker, press **[MUTE]** and then adjust the volume level while listening to white noise.



### Toggling the Operating Band

Normally, 2 operating bands are displayed on the top half and bottom half of the transceiver touch screen. This is called Dual band.

With one of the bands selected, change the frequency and radio wave form. The selected band is called Operating band. The other band is called Sub-band. Each time pressing **[A/B]** toggles the operating band. Pressing and holding **[A/B]** for over 1 second displays only the operating band which is called Mono-band. On how to toggle operating bands, see the following illustrations.



## Performing Communication

