

INSTRUCTION MANUAL

THANK YOU!

We are grateful you purchased this BFDX repeater. We believe this easy-to-program repeater will be highly effective in your communications system, and will keep personnel operating at peak efficiency.

BFDX incorporates the latest in advanced technology into all of our products. As a result, we feel strongly that you will be pleased with the quality and features of this product.

FEATURES

- You can easily program channel data using the BFR-5000 software on a PC.
- You can recall 1 of 8 preset channels using either a PF key or the external control line.
- The firmware can be written to the Flash memory through an external source.
- QT/DQT signalling can be programmed on each channel. It simultaneously decodes up to 16 different QT/DQT tones.
- The interface port can be used with external equipment, such as a repeater controller.
- The repeater has multi-mode capability.
Wide:25 KHz/Narrow:12.5 KHz
- You can adjust the following functions from a PC:
 - Squelch
 - RX audio signal output (RA)
 - RX detector signal output (RD)
 - RX frequency
 - RF output power
 - Maximum deviation
 - TX audio input (TA)
 - Signalling deviation (TD)
 - DQT balance
 - QT deviation
 - DQT deviation
 - Test tone deviation
 - CW ID deviation
 - Repeat gain
 - TX frequency

PRECAUTIONS

- Do not expose the unit to rain or moisture; to prevent fire or electric shock.
- Do not open the unit under any circumstances; to avoid risk of electric shock.
- Do not expose the unit to long periods of direct sunlight, nor place it close to heating appliances.
- Do not place the unit in excessively dusty and/or humid areas, nor on unstable surfaces.
- If you detect an abnormal odor or smoke coming from the unit, disconnect the power from the unit immediately. Contact your BFDX service center or dealer.

NOTICES TO THE USER

FCC WARNING

This equipment generates or uses radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

- ◆ *GOVERNMENT LAW PROHIBITS THE OPERATION OF UNLICENSED RADIO TRANSMITTERS WITHIN THE TERRITORIES UNDER GOVERNMENT CONTROL.*
- ◆ *ILLEGAL OPERATION IS PUNISHABLE BY FINE OR IMPRISONMENT OR BOTH.*
- ◆ *REFER SERVICE TO QUALIFIED TECHNICIANS ONLY.*

UNPACKING AND CHECKING EQUIPMENT

Note: *The following unpacking information is for use by your BFDX dealer, an authorized BFDX service facility, or the factory.*

Carefully unpack the repeater. We recommend that you identify the items listed in the following table before discarding the packing material. If any items are missing or have been damaged during shipment, file a claim with the carrier immediately.

Item	Part Number	Quantity
Hardware fixture	J21-8402-X4	1
Front glass	B10-2635-X4	1
Filter	B11-1259-X4	1
Cushion	G13-1801-X4	4
Cushion	G13-1802-X4	4
Foot	J02-0475-X5	2
Foot	J02-0492-X4	2
Grommet	J59-0302-X5	2
Handle	K01-0418-X5	1
Screws	N35-3006-45	5
DC cord	E30-3427-X5	1
Connector cable	E31-3228-X5	1
Fuse	F05-1537-X5	1
Warranty card (K type only)	—	1
Instruction manual	B62-1327-XX	1

INSTALLATION

To install the handles onto the front panel of the repeater, align the handles with the holes on the front panel, then secure the handles using the supplied screws.

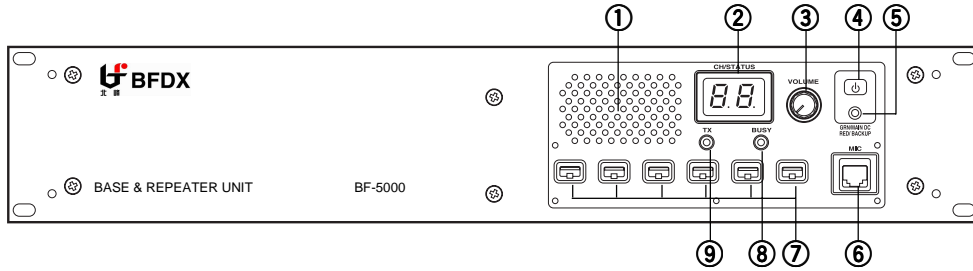
Please consult your dealer for installing the repeater and antenna.

MICROPHONE

Connect an optional BFDX microphone to the **MIC** jack on the front panel.

CONTROLS AND FUNCTIONS

■ Front Panel



① Speaker

② CH/STATUS Display

Two, 7-segment digits display the channel number or status.

③ VOLUME control

Rotate to adjust the volume.

④ DC SOURCE switch

⑤ Power indicator

Lights green when power is applied from the **DC 13.6V** jack (**DC 13.2V** jack on E type versions).
Lights red when power is applied from the **BACK UP** battery terminal.

⑥ MIC jack

Connect a microphone to this 8-pin modular jack.

⑦ Programmable Function keys

Press these keys to activate their programmable functions.

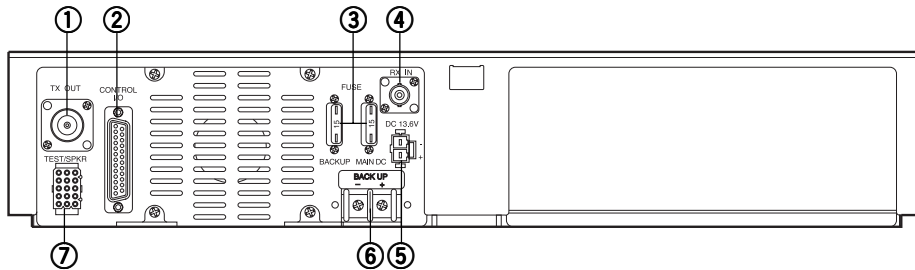
⑧ BUSY indicator

Lights green while a signal is being received.

⑨ TX indicator

Lights red while transmitting.

■ Rear Panel



① TX OUT jack

Connect a TX antenna or a duplexer to this receptacle.

② CONTROL I/O jack

Connect an external programming device or repeater controller to this DB-25 interface.

③ FUSE

Insert 15 A blade fuses into these fuse holders.

④ RX IN jack

Connect a RX antenna or a duplexer to this BNC receptacle.

⑤ DC 13.6V (K type) / DC 13.2V (E type) jack

Connect a 13.6 V (K type) or 13.2 V (E type) DC power supply to this jack.

⑥ BACKUP battery terminal

⑦ TEST/SPKR jack

Test input/output jack. Connect an external speaker to this jack.

** The K type model is shown in this diagram.*

REPEATER OPERATION

Note: Please consult your dealer for programming the repeater.

When power is applied to the unit, the **Power** indicator lights:

- Green when using the main DC jack.
- Red when using the Backup terminal.

Rotate the **VOLUME** control to adjust the volume.

The **BUSY** indicator lights green while receiving a signal and the **TX** indicator lights red while transmitting.

TRANSCIVER OPERATION

■ Receive

Adjust the volume to your desired level. You may need to readjust the volume when you receive a message from your dispatcher or another member in your fleet.

- The **BUSY** indicator lights green while a signal is being received.

■ Transmit

- 1 Listen to the channel before transmitting, to make sure it is not being used.
- 2 Press the microphone **PTT** switch, then speak in your normal speaking voice.
 - FCC regulations require that you identify the station you are calling as well as your own station (your assigned call sign).
 - The **TX** indicator lights red while transmitting.
- 3 When you finish speaking, release the **PTT** switch.