Vertex Standard

FIF-9

Installtion Manual

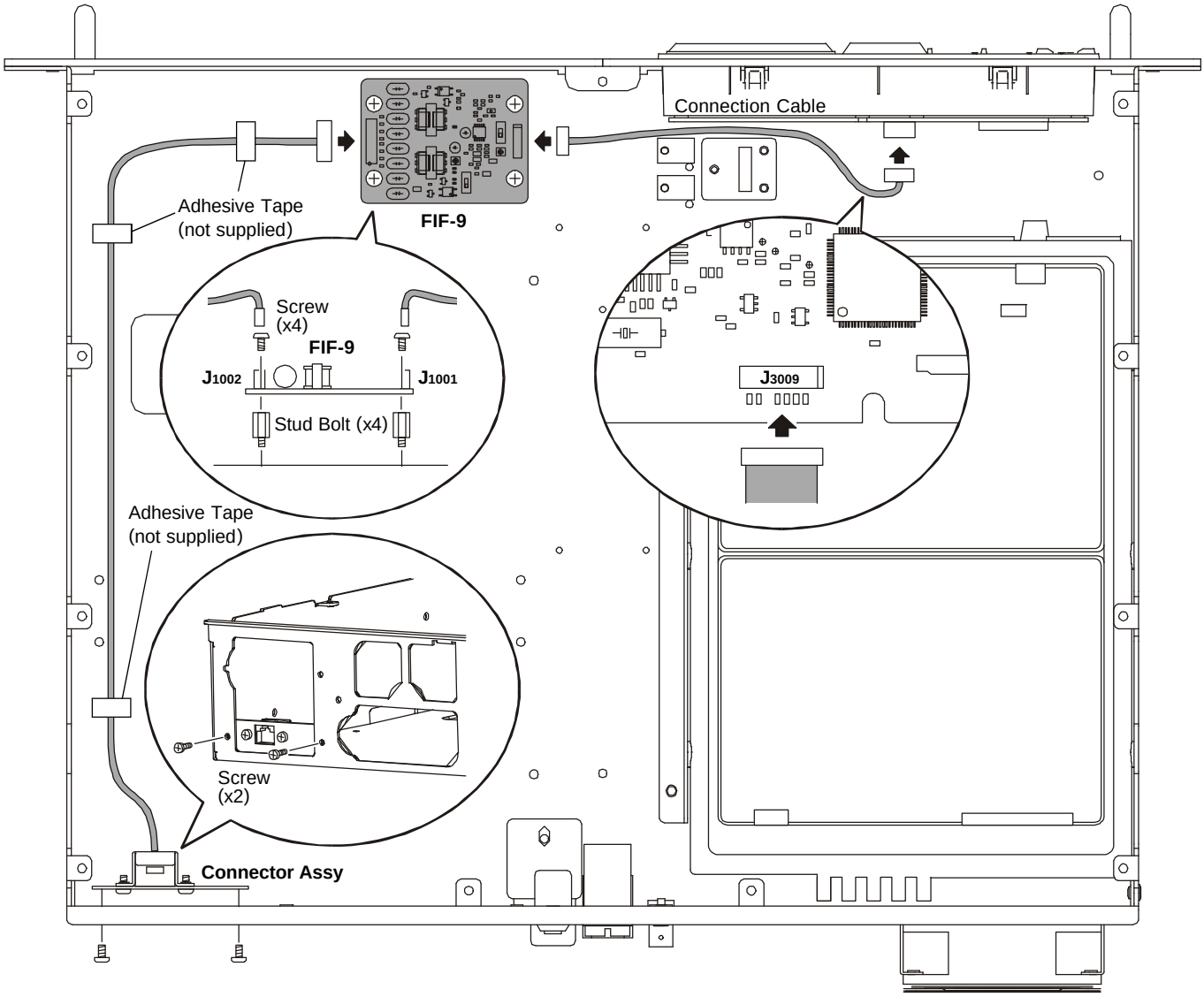
The **FIF-9** is the Interface Unit which allows to remote control the **VXR-9000** Rack Mount Repeater via the 4-line or 8-line wire. The **FIF-9** provides TX and RX audio, TX keying, and squelch status output.

PACKING LIST

FIF-9 Interface Unit 1
Connector Assy 1
Connection Cable 1
Stud Bolt 4
Screw (M3x5NI) 6
Installation Manual 1

INSTALLATION

- ❒ Mount the **FIF-9** Interface Unit onto the bottom chassis of the **VXR-9000**, using the supplied four Stud Bolts and four Screws.
- ❒ Install the Connector Assy on the rear panel of the **VXR-9000**, using the supplied two Screws.
- ❒ Connect the 8-pin connector from the Connector Assy to the **FIF-9** Interface Unit (**J1002**), then fix the Connection Cable at the few points by the adhesive tapes (not supplied).
- ❒ Connect the Supplied Connection Cable between the **FIF-9** Interface Unit (**J1001**) and the CNTL Unit (**J3009**) of the **VXR-9000**.
- ❒ Installation is now complete.



VXR-9000 Bottom View

PIN ASSIGNMET

A Western Electric® modular-type **RJ45** plug should be used to connect to **FIF-9**. The **FIF-9** pin-out is shown below.

Note that there are both 4-line and 8-line types of modular plugs. If a 4-line modular plug is used, only the **LINE IN** and **LINE OUT** connections will be made. An 8-line plug is required to access all lines. In accordance with standard telecommunications interface, the line connections on the **FIF-9** are impedance balanced, and are described as follows.

Pins 1 & 2: [**RX SQ**(**+**), **RX SQ**(**–**)]

An opto-isolator is provided to facilitate E (EAR) signaling. The opto-isolator comes on when a signal exceeding the receiver squelch appears on the receiver channel (with correct CTCSS tone or DCS code, if enabled). The RX SQ(–) pin is the emitter, and RX SQ(+) is the collector.

Pins 3 & 4: [**LINE IN** (*Tx Line Audio*)]

Analog signals between 300 and 3000 Hz supplied to this pair are fed to the transmitter when the repeater is set to the BASE mode and keyed either by the TX KEY input signal (see at the right column), or by the EXT PTT signal on pin 12 of the **ACC** jack of the **VXR-9000**. Standard deviation is obtained with a line level of –10 dBm.

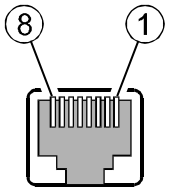
Pins 5 & 6: [**LINE OUT** (*Rx Line Audio*)]

Receiver audio is available from this pair, subject to internal CTCSS or DCS decode if the received signal strength is above the squelch threshold.
As shipped from the factory, a 1-kHz receiver signal with standard deviation gives –10 dBm on the line.

Pins 7 & 8: [**TX KEY**(**+**), **TX KEY**(**–**)]

An opto-isolator is provided to facilitate (MIC) signaling. That is, a voltage presented to these pins turns on the opto-isolator and keys the transmitter. The TX KEY(+) pin is the anode of the opto-isolator, and RX SQ(–) is the cathode of the opto-isolator.

Never connect the plug from the telephone line to this jack. Serious damage may result if this precaution is not observed.



FIF-9 PIN NUMBERING

VERTEX STANDARD CO., LTD.
4-8-8 Nakameguro, Meguro-Ku, Tokyo 153-8644, Japan

VERTEX STANDARD
US Headquarters
10900 Walker Street, Cypress, CA 90630, U.S.A.

YAESU EUROPE B.V.
P.O. Box 75525, 1118 ZN Schiphol, The Netherlands

YAESU UK LTD.
Unit 12, Sun Valley Business Park, Winnall Close
Winchester, Hampshire, SO23 0LB, U.K.

VERTEX STANDARD HK LTD.
Unit 5, 20/F., Seaview Centre, 139-141 Hoi Bun Road,
Kwun Tong, Kowloon, Hong Kong

E A C 9 5 X 1 0 0