

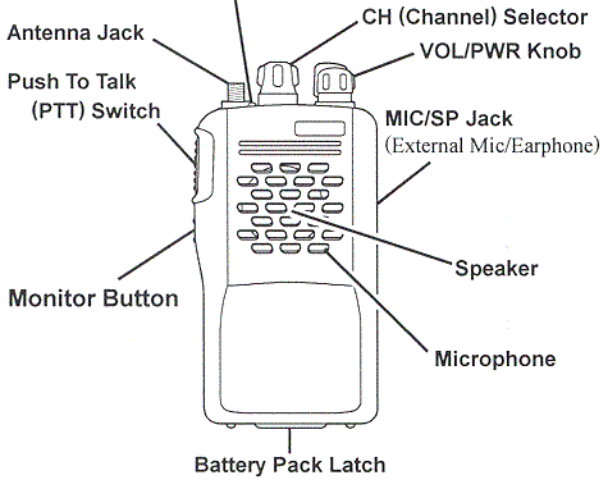


vertex®

VX-210 Operating Manual

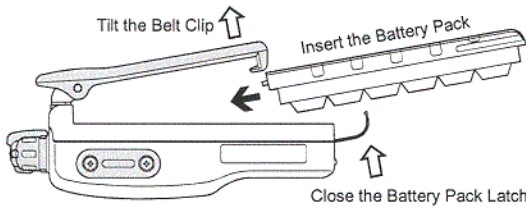
LED Indicator

| | |
|-----------------|----------------------------|
| Glows Green | Monitor on |
| Blinks Green | Busy Channel (or SQL off) |
| Glows Red | Transmit |
| Blinks Red | Battery Voltage is low |
| Blinking Yellow | Receiving a Selective Call |



Battery Pack Installation and Removal

- To install the battery, hold the transceiver with your left hand, so your palm is over the speaker and your thumb is on the top of the belt clip. Insert the battery pack into the battery compartment on the back of the radio while tilting the Belt Clip outward, then close the Battery Pack Latch until it locks in place with a "Click."



- To remove the battery, turn the radio off and remove any protective cases. Open the Battery Pack latch on the bottom of the radio, then slide the battery downward and out from the radio while unfolding the Belt Clip.

Caution!

Do not attempt to open any of the rechargeable Ni-Cd packs, as they could explode if accidentally short-circuited.



E 1 3 8 7 7 5 0 0

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Low Battery Indication

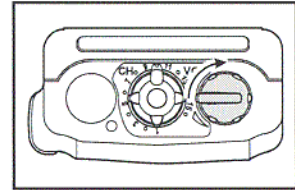
- As the battery discharges during use, the voltage gradually becomes lower. When the battery voltage reaches 6.0 Volts, the TX/BUSY indicator on the top of the radio will blink *red*, indicating that you should substitute a fresh battery pack.
- Avoid recharging Ni-Cd batteries often with little use between charges, as this can degrade the charge capacity. We recommend that you carry an extra, fully-charged pack with you so the operational battery may be used until depletion (this "deep cycling" technique promotes better long-term battery capacity).

Preliminary Steps

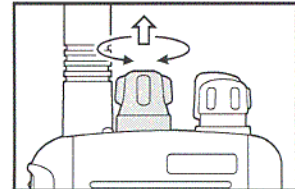
- Install a charged battery pack onto the transceiver, as described previously.
- Screw the supplied antenna onto the Antenna jack. Never attempt to operate this transceiver without an antenna connected.
- If you have a Speaker/Microphone, we recommend that it not be connected until you are familiar with the basic operation of the VX-210.

Operation Quick Start

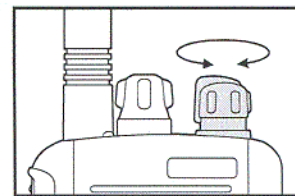
- To turn the top panel's VOL/PWR knob clockwise to turn on the radio on.



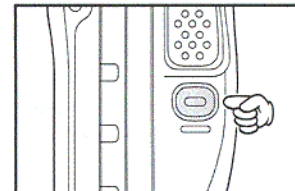
- Pull and turn the top panel's CH selector knob to choose the desired operating channel.



- Rotate the VOL/PWR knob to set the volume level. If no signal is present, press and hold the Monitor button (the lower button on the left side) more than 1 seconds; background noise will now be heard, and you may use this to set the VOL/PWR knob for the desired audio level.



- Press and hold the Monitor button more than 1 seconds (or press the Monitor button twice) to quiet the noise and resume normal (quiet) monitoring.

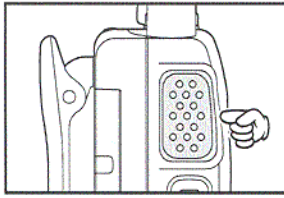


YAESU MUSEN CO., LTD.

FCC ID: K66VX-210U

EXHIBIT #: 10A-10B

- To transmit, press and hold the **PTT** switch. Speak into the microphone area of the front panel grille (lower right-hand corner) in a normal voice level. To return to the Receive mode, release the **PTT** switch.



- If a Speaker/Microphone is available, remove the plastic cap and its two mounting screws from the right side of the transceiver, then insert the plug from the Speaker/Microphone into the **MIC/SP** jack; secure the plug using the screw supplied with the Speaker/Microphone. Hold the speaker grille up next to your ear while receiving. To transmit, press the PTT switch on the Speaker/Microphone, just as you would on the main transceiver's body.

Note:

Save the original plastic cap and its mounting screws. They should be re-installed when not using the Speaker/Microphone.

| | |
|----------------------------|------------------------------------|
| FVP-25 | Encryption/DTMF Pager Unit |
| FNB-V57 | 7.2 V 1100 mAh Ni-Cd Battery |
| FBA-25 | Alkaline Battery Case |
| NC-73 | 13.8 VDC Rapid Desk-Top Charger |
| NC-73B | 120 VAC Rapid Desk-Top Charger |
| NC-73C | 230-240 VAC Rapid Desk-Top Charger |
| NC-73U | 230 VAC Rapid Desk-Top Charger |
| NC-76 | Overnight Desktop Charger |
| VTP-50 | VX-Trunk Unit |
| MH-45^{B4B} | Speaker/Microphone |
| MH-37^{A4B} | Earpiece Microphone |
| VC-25 | VOX Headset |
| CT-42 | PC Programming Cable |
| CT-27 | Radio to Radio Programming Cable |
| FTT-17 | 16 keypad (required w/VTP-50) |

General

| | |
|----------------------------|--|
| Frequency Range: | 450-485 MHz |
| Number of Channels: | 16 channels |
| Channel Spacing: | 12.5/25 kHz |
| Battery Voltage: | 7.2 VDC |
| Temperature Range: | -30 °C to +60 °C |
| Case Size (W×H×D): | 58 × 108 × 26 mm w/FNB-V57 |
| Weight (approx.): | 340 g (with FNB-V57, antenna, belt clip) |

Receiver

| | |
|---------------------------------|------------------------------------|
| Circuit Type: | Double-conversion super-heterodyne |
| IFs: | 43.95 MHz & 450 kHz |
| 12-dB SINAD Sensitivity: | < 0.2 μV |
| Squelch Sensitivity: | < 0.2 μV |
| Selectivity: | > 60 dB |
| Intermodulation: | > 60 dB |
| Spurious Rejection: | > 60 dB |
| Image Rejection: | > 60 dB |
| AF Output: | 0.5 W @ 4 Ω, 10 % THD |

Transmitter

| | |
|--------------------------------|--|
| Power Output: | 5.0/1.0 W (Selectable) |
| Frequency Stability: | better than ±2.5 ppm |
| Modulation System: | Direct FM |
| Maximum Deviation: | ±2.5 kHz (12.5 kHz) ±5 kHz (25 kHz) |
| FM Noise: | > 35 dB (12.5 kHz) > 40 dB (25 kHz) |
| Spurious Emission: | > 60 dB below carrier |
| AF Distortion (@1 kHz): | < 5 % |
| Microphone Type: | 2-kΩ condenser |

Specifications are subject to change without notice or obligation.

Notice !

There are no owner-serviceable parts inside the transceiver. All service jobs must be referred to an authorized **vertex** Service Representative. Consult your Authorized **vertex** Dealer for installation of optional accessories.

This device complies with Part 15 of the FCC rules. Operation is subject to the condition that this device does not cause harmful interference.