Vertex Standard

VX-210A
Operating Manual

Controls & Connectors

LED Indicator

Glows Green	ACC on
Blinking Green	Busy Channel (or SQL off)
Glows Red	Transmitting
Blinking Red	Battery Voltage is low
Blinking Yellow	Receiving a Selective Call

Antenna

CH (Channel) Selector

VOL/PWR Knob

**Push To Talk
(PTT) Switch**

MIC/SP Jack
(External Mic/Earphone)

ACC Button

Speaker

Microphone

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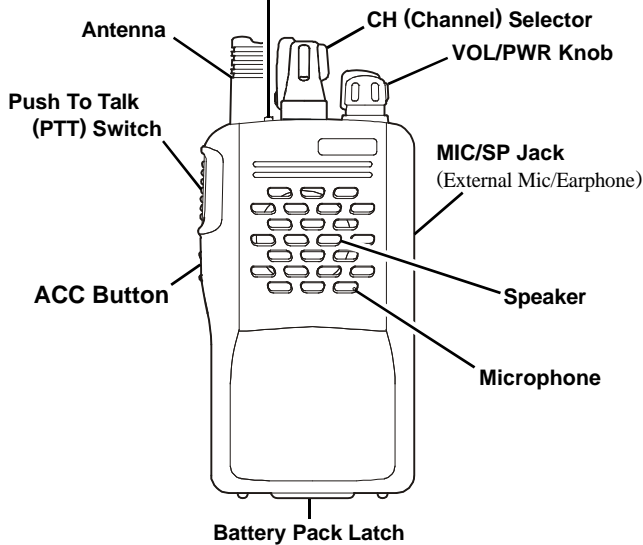
Notice !
There are no owner-serviceable parts inside the transceiver. All service jobs must be referred to an authorized *vertex* Service Representative. Consult your Authorized *vertex* Dealer for installation of optional accessories.

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

0107Q-AE

EC020U750

Before You Begin

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."

Tilt the Belt Clip   Insert the Battery Pack

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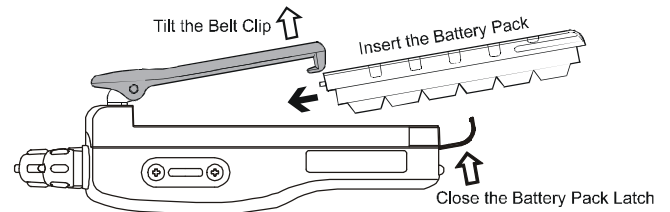
❏ To remove the battery, turn the radio off and remove any protective cases. Open the Battery Pack latch on the bottom of the radio, then slide the battery downward and out from the radio while holding the Belt Clip.

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

Low Battery Indication
❏ As the battery discharges during use, the voltage gradually becomes lower. When the battery voltage reaches 6.3 volts, substitute a freshly charged battery and recharge the depleted pack. The **TX/BUSY** indicator on the top of the radio will blink *red* when the battery voltage is low.
❏ 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).
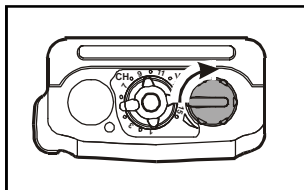
Operation

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-210A**.
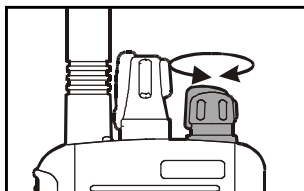
Operation Quick Start
❏ Turn the top panel's **VOL/PWR** knob clockwise to turn on the radio on.

❏ *Pull and turn* the top panel's **CH** selector knob to choose the desired operating channel.
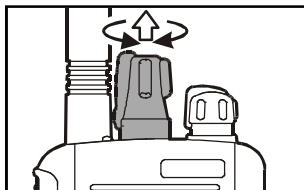
❏ Rotate the **VOL/PWR** knob to set the volume level. If no signal is present, press and hold in the **ACC** button (the lower button on the left side) for more than 1 second (when "MONITOR" is assigned to the **ACC** button); background noise will now be heard, and you may use this to set the **VOL/PWR** knob for the desired audio level.
❏ Press and hold in the **ACC** button (when "MONITOR" is assigned to the **ACC** button) for more than 1 second (or press the **ACC** button twice) to quiet the noise and resume normal (quiet) monitoring.
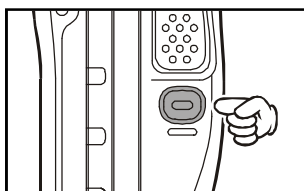
❏ To transmit, press and hold in the **PTT** switch. Speak into the microphone area of the front panel grille (lower left-hand corner) in a normal voice level. To return to the Receive mode, release the **PTT** switch.
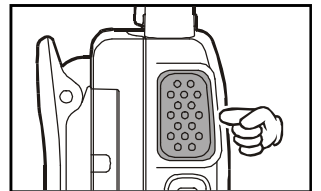
❏ If a Speaker/Microphone is available, remove the plastic cap and its two mounting screws from the right side of the transceiver, then insert the plug from the Speaker/Microphone into the **MIC/SP** jack; secure the plug using the screws supplied with the Speaker/Microphone. Hold the speaker grille 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.

Key Functions
The **VX-210A** provides a programmable "**ACC**" (Accessory) button. The **ACC** button's functions can be customized (set to any of a variety of functions), via programming by your **VERTEX STANDARD** dealer, to meet your communications/network requirements. The particular function to be activated or disabled may require a simple press of the **ACC** button, or it may require that the **ACC** button be pressed and held in for one second (or more). See the discussion below.

Some features may require the purchase and installation of optional internal accessories.

The possible **ACC** button programming features are illustrated below, and their functions are explained in the next chapter. For further details, contact your **VERTEX STANDARD** dealer.

For future reference, check the box next to the function that has been assigned to the **ACC** button on your particular radio, and keep it handy.

Function	ACC button	
	Press	Press and Hold
None		
Monitor		
Squelch OFF		
Low Power		
Scan		
Follow-me Scan		
Dual Watch		
Talk Around		
Call/Reset		
Speed Dial		
TX Save Off		
ACC 1		
ACC 2		

Description of Operating Functions

Monitor

Press the **ACC** button to override (disable) the Tone Squelch.
Background noise or incoming signals will now be heard whether or not a matching tone is present on the signal. Press the **ACC** button once more to resume normal (quiet) Tone Squelch action.

Squelch OFF

Press the **ACC** button to override both the Noise and Tone squelch systems. Again press the **ACC** button to resume normal (quiet) Noise and Tone squelch action.

Low Power

Press the **ACC** button to set the radio's transmitter to the "Low Power" mode, thus extending battery life. Press the **ACC** button again to return to "High Power" operation when in difficult terrain.

Scan

The Scanning feature is used to monitor multiple channels programmed into the transceiver. While scanning, the radio will check each channel for the presence of a signal, and will stop on a channel if a signal is present.

❐ To activate scanning:
  Press the **ACC** button.
  The scanner will search the channels, looking for "active" ones; it will pause each time it finds a channel on which someone is speaking.
❐ To stop scanning:
  Press the **ACC** button.
  Operation will revert to the channel to which the **CH** knob is set.

Follow-Me Scan

"Follow-Me" Scan feature checks a *User-assigned* Priority Channel regularly as you scan the other channels. Thus, if only Channels 1, 3, and 5 (of the 8 available channels) are designated for "Scanning," the user may nonetheless assign Channel as the "User-assigned" Priority Channel via the "Follow-Me" feature. Press the **ACC** button to activate "Follow-Me" scanning, then *pull and turn* the **CH** selector knob to the channel which you want to designate as the "User-Assigned Priority Channel". When the scanner stops on an "active" channel, the User-assigned Priority Channel will automatically be checked every few seconds.

Dual Watch

The Dual Watch feature is similar to the Scan feature, except that only two channels are monitored: the current operating channel, and the "Priority" channel.

❐ To activate Dual Watch:
  Press the **ACC** button.
  The scanner will search the two channels; it will pause each time it finds a channel on which someone is speaking.
❐ To stop Dual Watch:
  Press the **ACC** button.
  Operation will revert to the channel to which the **CH** knob is set.

Talk Around

Press the **ACC** button to activate the Talk Around feature when you are operating on duplex channel systems (separate receive and transmit frequencies, utilizing a "repeater" station). The Talk Around feature allows you to bypass the repeater station and talk directly to a station that is nearby. This feature has no effect when you are operating on "Simplex" channels, where the receive and transmit frequencies are already the same.
Note that your dealer may have made provision for "Talk Around" channels by programming "repeater" and "Talk Around" frequencies on two adjacent channels. If so, the **ACC** key may be used for one of the other Pre-Programmed Functions.

Call/Reset

When the 2-tone selective calling unit is installed, press the **ACC** button to silence the receiver and reset for another call, when a communication is finished.

Speed Dial

Your Dealer may have pre-programmed Auto-Dial telephone number memories into your radio.
To dial a number, just press the Dealer-assigned **ACC** button for Speed Dialing. The DTMF tones sent during the dialing sequence will be heard in the speaker.

TX Save Off

Press the **ACC** button to disable the Transmit Battery Saver, if you are operating in a location where high power is almost always needed.
The Transmit Battery Saver helps extend battery life by reducing transmit power when a very strong signal from an apparently nearby station is being received. Under some circumstances, though, your hand-held radio may not be heard well at the other end of the communication path, and high power may be necessary at all times.

ACC 1

Activates an optional Unit (module) while the **ACC** button is held depressed. When you release the **ACC** button, the optional Unit will be disabled.
For further details, contact your **VERTEX STANDARD** dealer.

ACC 2

Toggles the optional Unit "on" or "off" whenever you press the **ACC** button. For example, when the optional "FVP-25" voice encryption unit is installed, press the **ACC** button momentarily to disable the voice encryption feature temporarily.
Press the **ACC** button again to re-enable the voice encryption feature.

Important Notice!

FCC RF Exposure Compliance Requirements for Occupational Use Only:

This Radio has been tested and complies with the Federal Communications Commission (FCC) RF exposure limits for Occupational Use/Controlled exposure environment. In addition, it complies with the following Standards and Guidelines:

❐ FCC 96-326, Guidelines for Evaluating the Environmental Effects of Radio-Frequency Radiation.
❐ FCC OET Bulletin 65 Edition 97-01 (1997) Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
❐ ANSI/IEEE C95.1-1992, IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.
❐ ANSI/IEEE C95.3-1992, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave.

❍ **This radio is NOT approved for use by the general population in an uncontrolled environment. This radio is restricted to occupational use, work related operations only where the radio operator must have the knowledge to control its RF exposure conditions.**
❍ **When transmitting, hold the radio in a vertical position with its microphone 1 to 2 inches (2.5 to 5 cm) away from your mouth and keep the antenna at least 1 inch (2.5 cm) away from your head and body.**
❍ **The radio must be used with a maximum operating duty cycle not exceeding 50%, in typical Push-to-Talk (PTT) configurations. DO NOT transmit for more than 50% of total radio use time (50% duty cycle). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded. The radio is transmitting when the red LED on the top of the radio is illuminated. You can cause the radio to transmit by pressing the PTT button.**
❍ **DO NOT transmit when the radio is used in Body Worn configuration with the following accessory: belt-clip (Parts # CP7131001). It must be used ONLY for (1) there is a 4 cm distance from the body during transmitting, (2) monitoring purposes, using the speaker only and (3) for carrying purposes.**
❍ **Always use Vertex Standard authorized accessories.**

Accessories & Options

FNB-V57	7.2 V 1100 mAh Ni-Cd Battery Pack
FNB-V57IS	7.2 V 1100 mAh Ni-Cd Intrinsically safe Battery
FBA-25	Alkaline Battery Case (6 × AA)
NC-76B	120 VAC Wall Charger
NC-76C	230-240 VAC Wall Charger
VAC-6400	6-Unit Multi Charger
VAC-400B	120 VAC Desktop Rapid Charger
VAC-400C	230-240 VAC Desktop Rapid Charger
VCM-1	Mobile Mounting Bracket for VAC-400
MH-45B4B	Speaker/Microphone
MH-37A4B	Earpiece/Microphone
VC-25	VOX Headset
FVP-25	Encryption /DTMF Page Unit
VTP-50	VX-Trunk Unit
CT-42	PC-Programming Cable (CT-28 + CT-29)
CT-27	Cloning Cable (Set-to-Set Cloning)
FTT-17	16 keypad for VX-Trunk (VTP-50 required)
LCC-210	Leather Case