VX-160/180 SERIES

VHF/UHF Portable Radios

Rugged, Durable Portables with Unmatched Operating Ease

- **LIGHT WEIGHT AND COMPACT SIZE**
- **16 CHANNEL CAPACITY**
- **5 WATTS POWER OUTPUT** (Selectable to 1 Watt)
- **8-CHARACTER ALPHANUMERIC DISPLAY (VX-180)**
- **3 PROGRAMMABLE FRONT-PANEL FUNCTION KEYS (VX-180)**
- **MIL-STD 810 C/D/E**
- **RUGGED CONSTRUCTION**
- **LOUD, CLEAR AUDIO OUTPUT**
- **WIDE/NARROW BANDWIDTH PROGRAMMABLE BY CHANNEL**
- **CTCSS/DCS ENCODE + DECODE**
- **DTMF ANI**
- **DUAL 2-TONE DECODE**
- **MULTI-MODE SCAN (incl. Dual Watch, Priority, Follow-Me)**
- **ARTS™ (Auto-Range Transpond System)**
- **BCLO, BTLO, AND TOT FUNCTIONS**
- **TX/RX BATTERY SAVER CIRCUIT**
- **PC PROGRAMMING**
- **RADIO-TO-RADIO CLONING**

Vertex Standard

DW
FACTORY 1

A B C

Actual Size
* Simulated LCD display

VX-160

VX-180 (w / LCD + 3 Programmable keys)

Vertex Standard

SUPER RUGGED CONSTRUCTION
Housed inside a high-impact case, the diecast chassis of the VX-160/180 provides a solid, rugged foundation for the VX-160/180's circuitry. Built to survive in the real world of factory, construction site, or fleet use, the VX-160/180 will provide many years of reliable communications.

8-CHARACTER ALPHANUMERIC DISPLAY (VX-180)
Providing indication of either the channel number or an Alphanumeric Channel Label of up to 8 characters, the LCD display also provides convenient operation function icons to provide instant recognition of radio status.

3 PROGRAMMABLE OPERATING FUNCTION KEYS (VX-180)
Customization of feature access is easily accomplished at the time of programming. Flexibility in assignment of features ensures compatibility with existing-system requirements.

CTCSS / DCS ENCODE + DECODE
High-performance Encoder/Decoder circuits for both CTCSS and Digital Code Squelch are provided, for access to tone/code controlled systems. DCS is ideal for crowded RF environments, providing superior immunity from false opening of squelch.

DTMF ANI
The VX-160/180 includes a DTMF Automatic Number Identifier (ANI) circuit, which will respond to an incoming ANI burst for selective paging of an individual portable.
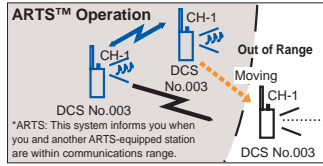
DUAL 2-TONE DECODE
This built in feature allows you to decode up to two, 2-tone pairs per channel. These can be used for two individual pager calls, or one for Individual and one for Group call.

VERSATILE SCANNING FEATURES
The high-speed scanning capability of the VX-160/180 includes "All-Channel" scanning, plus Dual Watch and Priority Channel capability. And with "Follow-Me" scanning, a designated channel may be watched during scanning of other channels.

ARTS™ (Auto Range Transpond System)
Included in the VX-160/180 is Vertex Standard's exclusive ARTS™ feature, which can be critically important in search-and-rescue applications. ARTS™ provides a "hand-shake" with other ARTS™-equipped transceivers, and the display indicates if an "Out of Range" condition exists. The base station can then alert the field unit to move to a better location.

ARTS™ Operation

CH-1 · CH-1 · Out of Range · Moving · CH-1 · DCS No.003 · DCS No.003 · DCS No.003

*ARTS: This system informs you when you and another ARTS-equipped station are within communications range.

BCLO, BTLO, AND TOT
To facilitate efficient channel management, the VX-160/180 provides Busy Channel Lock-Out (BCLO) and Busy Tone Lock-Out (BTLO) features. What's more, the transmitter's Time-Out Timer (TOT) function prevents a "stuck microphone" condition from jamming a channel for an extended period of time.

TX/RX BATTERY SAVER CIRCUIT
To maximize battery life, the VX-160/180 includes both transmit- and receive-mode battery savers. On transmit, the portable will reduce power when the incoming signal is very strong. On receive, the radio will put itself into a pulsing "sleep" mode, periodically checking for channel activity.

PC PROGRAMMING
The channel and feature configurations are easily programmed in minutes by the dealer, using the optional Programming Cable and Programming Software.

RADIO TO RADIO CLONE FEATURE
For quick programming of same two radios for fleet use, the "Clone" feature allows copying of all channel and other configuration data from one radio to another, using the optional CT-27 Cloning Cable.

500 mW AUDIO OUTPUT
Ideal for reception in noisy environments, the VX-160/180's high-powered audio is coupled to a large internal speaker, assuring solid copy throughout difficult construction site or field operations.

MIL-STD 810 C/D/E
Built to meet or exceed the requirements of the U.S. MIL-STD 810 C/D/E standard. the VX-160/180 is designed to survive under difficult operating conditions of shock, vibration, and driving rain. Cost-performance begins with durability, and the Mil-Spec toughness of the VX-160/180 is your guarantee of its design quality. ● **Water Resistant Construction**

APPLICABLE MIL-STD

Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures
Low Pressure		500.2/Procedure 1	500.3/Procedure 1
High Temperature		501.2/Procedure 1, 2	501.3/Procedure 1, 2
Low Temperature		502.2/Procedure 1, 2	502.3/Procedure 1, 2
Temperature Shock		503.2/Procedure 1	503.3/Procedure 1
Solar Radiation		505.2/Procedure 1	505.3/Procedure 1
Rain		506.2/Procedure 2	506.3/Procedure 2
Humidity		507.2/Procedure 2	507.3/Procedure 2
Salt Fog		509.2/Procedure 1	509.3/Procedure 1
Dust		510.2/Procedure 1	510.3/Procedure 1
Vibration	514.2/Procedure 8	514.3/Procedure 1 Cat. 10	514.4/Procedure 1 Cat. 10
Shock	516.2/Procedure 1	516.3/Procedure 1, 4	516.4/Procedure 1, 4

Specifications

	VX-160/180V	VX-160/180U
General Specifications		
Frequency Range	134-160 MHz (A) 148-174 MHz (C)	400-430 MHz (AS1) 450-485 MHz (D) 485-512 MHz (F)
Number of Channels	16 Channels	
Channel Spacing	12.5/15/25/30 kHz	12.5/25 kHz
PLL Steps	2.5/6.25 kHz	5/6.25 kHz
Power Supply Voltage	7.5 VDC ± 20 %	
Battery Life (5-5-90 duty)		
w/FNB-V57(1100 mAh)	8.2 hrs. (9.9 hrs. w/saver) @5 W	7.1 hrs. (8.5 hrs. w/saver) @5 W
w/FNB-83(1400 mAh)	10.4 hrs. (12.5 hrs. w/saver) @5 W	9 hrs. (10.8 hrs. w/saver) @5 W
Operating Temperature Range	−22° F to +140° F (−30° C to +60° C)	
Frequency Stability	±2.5 ppm	
Dimensions	2.3" (W)X4.7" (H)X1.2" (D) (58X120X31 mm)	
Weight (Approx)	0.81 lb. (365 g) w/FNB-83	

	VX-160/180V	VX-160/180U
Receiver Specifications	Measurements made per EIA standard TIA/EIA-603	
Sensitivity		
EIA 12 dB SINAD	0.20 μV	0.25 μV
20 dB Quieting	0.30 μV	0.35 μV
Adjacent Channel Selectivity	65 dB (25 kHz) / 60 dB (12.5 kHz)	
Intermodulation	65 dB	
Spurious and Image Rejection	65 dB	
Hum & Noise	45 dB	
Audio Output	500 mW @4 Ohms, 5 % THD	
Transmitter Specifications	Measurements made per EIA standard TIA/EIA-603	
Power Output	5.0/1.0 W	
Modulation	16K0F3E, 11K0F3E	
Conducted Spurious Emissions	70 dB Below Carrier	
FM Hum & Noise	40 dB	
Audio Distortion (@1 kHz)	<5 %	

Measurements per EIA standards unless noted above. Specifications subject to change without notice or obligation.

Accessories & Options

MH-45B4B Speaker/Microphone (Noise Cancelling)

MH-37A4B Earpiece/Microphone

VH-115S Lightweight headset w/ Boom
VH-215S Lightweight Padded headset, Single Speaker
VH-225S Lightweight Padded Headset, Dual Speaker

VAC-10B/C* Desktop Rapid Charger (for FNB-V57/64/83)

VAC-800B/C* Desktop Rapid Charger (for FNB-V57/64)
VAC-810B/C* Desktop Rapid Charger (for FNB-V67LI)

NC-77B/C* Wall Charger (for FNB-V57/64)

VCM-1 Mobile Mounting Bracket for VAC-800/810

VC-25 VOX Headset

FNB-V67LI 7.4 V 1600 mAh Lithium-Ion Battery

FNB-83 7.2 V 1400 mAh Ni-MH Battery Pack

FNB-V57 7.2 V 1100 mAh Ni-Cd Battery Pack

FNB-64 7.2 V 700 mAh Ni-Cd Battery Pack

FBA-25 Alkaline Battery Case (6 X AA)

VAC-6800 6-unit Multi Charger

LCC-180 / S Leather Case (S for swivel belt clip)

● PC Programming Cable **CT-42A** or **FIF-10/A** (USB Programming Interface) + **CT-106** (Programming Cable)   ● Programming Software **CE44**   ● Radio to Radio Cloning Cable **CT-27**   *B for 120 VAC/ C for 230 VAC

Vertex Standard
We make a difference

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