

COMMUNICATIONS RECEIVER

# VR-120D

Wideband Coverage: 0.1~1299.995\* MHz FM/WFM/AM

## Rugged Professional Communications Receiver

- Professional Grade Receiver
- Wide Frequency Coverage
- 640 Memory Channels
- Durable and Reliable for Outdoor Use
- Fully-illuminated Keypad and Display
- Four-Button Simple Operation
- Long Battery Life
- Multiple Power Source Capability

### NEW EXTERNAL DC INPUT

Use either the PA-30B/C/U AC Adapter or E-DC-15 DC Cable to power your VR-120D.



\*B for 120 VAC/ C for 240 VAC/ U for 230 VAC.

### OPTIONAL CHARGING STAND

Use the NC-82\* Charger Stand and CA-34\* Charger Sleeve to charge the optional FNB-79\* Ni-Cd Battery Pack, using the PA-30\* AC Adapter.

\*Optional accessories

Actual Size



\*Cellular / image / restricted frequencies Blocked



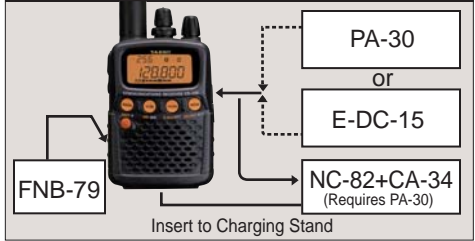
**RUGGED OUTDOOR-READY CASE CONSTRUCTION!**

To survive the rigors of outdoor use, the VR-120D is housed in a durable, high-impact polycarbonate case, and it is protected against water ingress per JIS II specifications.

**ULTRA-LONG BATTERY LIFE AND EXT.DC INPUT**

When you're out in the field, and can't afford to miss out on weather information, long battery life in your receiver is essential. The VR-120D, especially designed for low current consumption, can provide up to 20 hours of operation on a pair of "AA" alkaline cells (at 40 mW audio output), and the Battery Saver feature cuts battery consumption dramatically when no signals are being received. An icon on the LCD indicates when the batteries are getting low, alerting you to the need to replace them.

**New Charging System for Optional Ni-Cd Battery**



**BNC-TYPE ANTENNA CONNECTOR**

For ease of making connections, and for maximum compatibility with after-market antennas, the VR-120D's top panel is equipped with a handy BNC-type antenna connector.



\*Internal "Bar" Antenna for AM BC

**STRAIGHTFORWARD 4-BUTTON OPERATION**

The no-nonsense front panel of the VR-120D contains four large keys which are used for command of the receiver's many operating functions. These keys, the "Function" key on the side, and the Main Tuning Knob are all you need to tune in on the DX action! The display and function keys are fully illuminated, for ease of operation at night.



**WIDEBAND FREQUENCY COVERAGE WITH EASY ACCESS!**

The VR-120D provides continuous coverage of the frequency range 0.1~1299.995 MHz (cellular frequencies are blocked and non-restorable). When you set a frequency, the operating mode (AM/FM/Wide-FM) and channel steps appropriate for that frequency range are automatically selected, for ease in tuning around in search of other stations. Of course, you can manually select the mode and tuning steps, if you have other requirements in that tuning range.

About this brochure: we have made this brochure as comprehensive and factual as possible. We reserve the right, however, to make changes at any time in equipment, optional accessories, specifications, model numbers, and availability. Precise frequency range may be different in some countries. Some accessories shown herein may not be available in some countries. Some information may have been updated since the time of printing; please check with your Authorized Yaesu Dealer for complete details.

**The available tuning ranges are:**

BAND	FREQUENCY RANGE (MHz)	BAND	FREQUENCY RANGE (MHz)
BC	0.100 ~ 7.000	VHF-TV	174.000 ~ 336.000*
SW	7.000 ~ 50.500	ACT-1	336.000 ~ 420.000*
HAM-1	50.500 ~ 54.000	HAM-3	420.000 ~ 470.000
FM	54.000 ~ 108.000	UHF-TV	470.000 ~ 770.000*
AIR	108.000 ~ 142.000	ACT-2	770.000 ~ 1240.000*
HAM-2	142.000 ~ 174.000	HAM-4	1240.000 ~ 1299.995

\*Cellular / image / restricted frequencies Blocked

**SPECIAL "PRESET MODE" AIDS IN QUICK TUNING!**

A special bank of twelve "Preset Mode" memories is provided, giving you a starting point for tuning within the available bands. These frequencies are chosen for maximum convenience in finding the action, so you won't have far to tune when you're searching for excitement!

**The Preset Mode channel frequencies are:**

CHANNEL NUMBER	PRE-PROGRAMMED FREQUENCY (MODE)	CHANNEL NUMBER	PRE-PROGRAMMED FREQUENCY (MODE)
0	0.520 MHz (AM)	7	88.000 MHz (WFM)
1	1.800 MHz (AM)	8	144.000 MHz (FM)
2	3.600 MHz (AM)	9	430.000 MHz (FM)
3	7.000 MHz (AM)	10	1240.000 MHz (FM)
4	10.500 MHz (AM)	11	Weather Channels (WX-01 ~ WX-10)
5	21.000 MHz (AM)	12	Recalls Memory Group 0
6	50.500 MHz (FM)		

**CATCH ALL THE SHORTWAVE BROADCAST ACTION FROM AROUND THE WORLD!**

You'll never have to wait for "News at Eleven" when you carry the VR-120D with you! Hear exciting shortwave broadcasts from around the world, including Voice of America, BBC, Radio Japan, Deutsche Welle, and countless others, and take advantage of the special Shortwave Broadcast 89-channel Memory Bank for quick checking of 23 popular World Band stations.

**SUPER-SIMPLE ONE-TOUCH MEMORIES FOR HIGH PRIORITY STATIONS!**

You can set up the VR-120D so that four high-priority stations may be recalled from special memory channels, using a single press of one of the front panel keys. The four buttons which may be utilized, and the corresponding memory channels, are:

KEY	MEMORY CHANNEL #	KEY	MEMORY CHANNEL #
BND	060	SCAN	062
V/M	061	MODE	063

**VERSATILE 640-CHANNEL MEMORY SYSTEM!**

The VR-120D includes a versatile 640-channel Memory system, which allows partitioning of the channels into ten "Banks" of 64 channels each. You can group shortwave broadcast, FM broadcast, Public Safety, and Amateur Radio channels separately, for maximum tuning convenience!

**OPTIONAL ACCESSORIES**



**WIDE SELECTION OF SCANNING MODES!**

Efficient scanning is the key to any receiver's performance, and the VR-120D is a champion when it comes to scanning! A special "Search Band Scanning" function assigns seven memory channels as scanning limits, and for skipping particular frequencies a 64-channel "Skip" memory bank lets you tune past stations you don't need to monitor. Among the Memory Scan features are: ●Full Memory Scan ●Memory Bank Scan ●Selected Memory Channel ("Preferential") Scan ●Programmable Band-Limit Memory Scan (PMS) ●Smart Search™ (Automatic Memory Loading) ●Priority Channel Watch ●Dual Watch

**EXPANDED FUN AND GAMES!**

The VR-120D includes a "Channel Counter" feature, which measures the frequency of a very strong signal in your immediate vicinity, allowing you to zero in manually on the other station's frequency. And if you experience a lull in the monitoring action, play the VR-120D Slot Machine Game! A three-column random-number generator lets you match your wits against the VR-120D's microprocessor in an amusing game of chance.

**AND MUCH, MUCH MORE. . .**

- Front panel Key Lock ●Key Beeper On/Off selection
- Battery-Saving Time-Out Timer ●Front-End Attenuator for Strong-Signal Conditions ●Menu Selection of Earpiece Antenna ●S-Meter Buzzer ●Cloning Capability to other VR-120Ds

**Specifications**

Frequency Range: 100 kHz ~ 1299.995 MHz\*  
 Receiving Mode: AM/FM/WFM  
 Circuit Type: Triple Conversion Super-heterodyne  
 Memory Channels: 640 Channels  
 Memory Banks: 10 Banks (@ 64 Channels)  
 Antenna Impedance: 50-Ohm unbalanced, BNC receptacle  
 Intermediate Frequencies: 248.45 MHz, 15 MHz, 450 kHz  
 Sensitivity (Typical): 200 kHz ~ 5 MHz: AM 3.5 dB (1.5 V)  
 5 ~ 160 MHz: AM -4.4 dB (0.6 V)  
 FM -10.4 dB (0.3 V)  
 WFM -1.0 dB (0.9 V)  
 160 ~ 370 MHz: AM -4.4 dB (0.6 V)  
 FM -10.4 dB (0.3 V)  
 WFM -4.4 dB (0.6 V)  
 370 ~ 520 MHz: FM -10.4 dB (0.3 V)  
 WFM 0 dB (1.0 V)  
 520 ~ 1300 MHz: FM -3.0 dB (0.7 V)  
 WFM 9.5 dB (3.0 V)

Selectivity: WFM 200 kHz/-6 dB  
 AM/FM 16 kHz/-6 dB

Conducted Spurious Emission: Less than -54 dBm  
 Supply Voltage: 2.2 ~ 3.5 V DC; Internal Battery (Nominal: 3.0 V DC)  
 5.5 ~ 10.0 V DC (EXT DC)

Current Consumption: Approx. 95 mA (Receive, AF Output 50 mW)  
 Approx. 15 mA (Standby, Saver 1.4 on)  
 Approx. 55 mA (Standby, Saver off)

Operating Temp: +14°F ~ +122°F (0°C ~ +50°C)  
 AF Output: Approx. 80 mW (8% THD)  
 Case Size: 3.3" X 2.3" X 1.0" WHD (85 X 59 X 26 mm) w/o knobs  
 Weight: Approx. 6.9 oz. (195 g) w/battery & antenna

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\*B to 120 VAC / C for 240 VAC / U for 230 VAC.

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