# TWIN BANDER C528 Series VHF/UHF FM HANDY TWIN BANDER





# Model C5 Series U

# Twin bander can optimum work to enjoy two bands with high performance.

er that is equipped with two bands in

The C5 designed on the basis of at is easier to operate when art and indication part are simple c both op indepen band. The C528 series equippe respective frequency indication, S-r ume, squelch per band, furing, convenient simultane-eive, paging and more. The thermor ous trai twin handy transceiver for those wh enjoy the two bands fully.

#### FIRST TWIN BANDER IN HANDY

Despite that lots of functions are incorporated independently per band, the size of the C528 series body itself compact;  $157 \text{mm}(\text{H}) \times 55 \text{mm}$  (w)  $\times 31 \text{mm}(\text{D})$ ; smooth and beautiful body. You can freely carry the popular two bands with the with you

STANDARD

43300

WIN VHEZUHE EM TWIN BANDER

#### TWIN RECEIVE OF VHF & UHF

STANDARD realized in handy, the simultaneous reception of 2 bands with a good reputation for mobile twin bander. Furreputation for mobile twin bander. thermore, during communicating on the VHF, you can notice at once ever though someone is calling you on the UHF. In this manner, you can enjoy both bands conveniently.

#### **SIMULTANEOUS** TRANSMIT/RECEIVE

The C528 series enable you to make a full duplex communications with the VHF for transmit and the UHF for receive (vice-versa). You can speak while hearing voices from other stations, with a feeling like a cordless tele-

# TWIN INDICATION NOTICEABLE AT A GLANCE



As for the frequency indication, there always appear the VHF frequency in the left of the LCD display and the UHF in the right. And as there is no exchang-

ing of these frequency indications, there is no puzzling.

Signal strength is also indicated per band. So, you can see each signal strength at a glance without changing the band at each time.

Moreover, functions such as the tone squelch, busy scan and so on set up per band can be indicated per band. Also, the band not in use can be erased from the LCD display for convenience of the mono band operation.

#### INDEPENDENT VOLUME AND SQUELCH FOR VHF & UHF

The volume knob, squelch knob, main band key are independent per VHF and UHF. For example, to make the volume of only VHF bigger or to control the squelch of only UHF, the directly-controllable twin installation is absolutely convenient. Operational feeling is very natural and smooth.

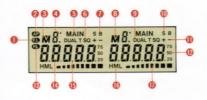


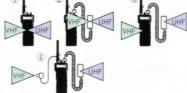
# INDEPENDENT AUDIO OUTPUT FOR VHF & UHF

The external speaker terminals are available per band. You can know which band you are receiving by connecting the external speakers per band.

- ① Built-in speaker Both bands can be heard out of the built-in speaker.
- External speaker connection for VHF Both bands can be heard out of the external speaker, while the built-in speaker is off. External speaker connection for UHF
- UHF band can be heard out of the external speaker and VHF band out of the built-in speaker.
- External speaker connection for both VHF and UHF

Each external speaker works for each band, while the built-in speaker is off.





#### Names of parts with reference numbers:

- Automatic power-off Memory indicator Memory address Main band indicator
- Tone squelch
- Busy scan
- Ms. M Dual
- Battery save +/- shift
- PTT lock
- Frequency
- MHz/Scar
- TX power S-meter/Power meter
- Rotary channel selector

- Power switch/UHF band
- volume control UHF band squelch
- VHF band volume control VHF band squelch UHF band selector
- 3/TX output power switching
- 6/Channel step 9/Reverse
- Up-key/Memory shift
- 2/Dual watch
- 5/Battery save 8/Repeater 0/Set mode/Busy scan
- VHF band selector 1/PTT lock
- 4/Frequency lock
- 7/Tone squelch Down-key/Scan

- Memory scan/Ms. M set up of memory channel Call switch for 1,750 Hz tone
- burst Pager/Code squelch VFO/Memory

- Lamp switch
   Squelch-off switch
   External DC power input
- connector
- connector
  Battery pack
  TX lamp/Battery checker
  UHF band external speaker jack
  External microphone jack
  VHF band external speaker jack
- Function switch
- PTT switch Battery pack lock



#### **SPECIFICATIONS**

GENERAL		VHF .	UHF		
Frequency Range Availability					
(Specification guarantee range)		144-147.995 MHz	430-439.995 MHz		
Circuitry		Synthesized			
Type of Emission		F3			
Microphone Inpi	Microphone Input Impedance		600Ω		
Operating Voltage Range		6.0-16.0 V DC			
Nominal Voltage		DC 7.2 V			
Current Drain (nominal)		VHF	UHF		
*TX: 13.8 V	Hi (5 W)	1,100 mA	1,300 mA		
	Mid (2.5 W)	900 mA	1,000 mA		
*TX: 7.2 V	Hi (2 W)	850 mA	1,000 mA		
	Mid (2 W)	850 mA	1,000 mA		
TX: 13.8/7.2 V	Lo (350 mW)	480 mA	480 mA		
*Standby	Twin mode	70 mA			
	Mono mode	36 mA	45 mA		
*Battery save	Twin mode	32 mA			
	Mono mode	17 mA	18 mA		
*Auto-power off		1 mA			
Channel Spacing		20 or 25 kHz			
Frequency Step		5, 10, 12.5, 20, 25, 50 kHz			
Speaker Impedance		8 Ω			
Dimensions $(H \times W \times D)$		157 × 55 × 31 (mm)			
Weight		450 g (Including antenna & batteries)			

#### TRANSMITTER

RF Power Output (nominal)		VHF	UHF
with CBT151	Hi	2.4 W	2.0 W
	Mid	2.3 W	1.8 W
with CNB152	Hi	5.0 W	5.0 W
	Mid	2.5 W	2.5 W
with	Hi	2.8 W	2.5 W
150/151/153	Mid	2.5 W	2.5 W
	Lo	0.35 W	0.35 W
Modulation Method		Reactance Modulation	
Spurious Emissions		More than -60 dB	
Maximum Deviation		±5.0 kHz	
Harmonic Distortion		Less than 5%	
Frequency Setting Accuracy		Less than ±1.0 kHz	

Circuitry		VHF	UHF	
		Double Conversion Superheterodyne		
Intermediate	1st IF	21.8 MHz (Lower)	23.05 MHz (Lower)	
Frequency	2nd IF	455 kHz (Lower)	455 kHz (Upper)	
Sensitivity (12 dB SINAD)		Less than 0.16 µV		
Threshold Squelch Sensitivity		Less than 0.1 μV		
Selectivity (2-signal method)		More than 50 dB		
Audio Power Output		200 mW (10% distrorion, 8Ω)		
S/N ratio at 0.5 µV input		More than 30 dB		

Performance specifications are subject to change without prior notice.

• For further information, see your dealer or contact.



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# WINBAND HANDY TRANSCEIVER

# INDEPENDENT SCAN FUNCTIONS FOR VHF & UHF

5 scan modes can be set up per band. At the simultaneous scanning of both bands, scanning on another band continues, while that of the one band stops.

- A certain 1MHz scan
- 2) Programmable scan within a specified
- range Memory channel scan
- Scan of the specified memory channels only
- 5) Tone frequency scan

And both Pause scan and Busy scan are available per band

#### CONVENIENT SUB BAND **FUNCTION**

Even when you are receiving signals on the main band, you can change the sub band channel by the rotary channel selector. At the transmit mode, the squelch off switch works for the sub band.

#### 3 KINDS OF DUAL WATCH

The C528 series is equipped with the dual watch function. With this function, if you wish to watch 2 channels on the same band, you can receive either dial frequency or another channel by automatically alternative change. Another channel can be chosen from the following;

- One out of memory channels Specified memory channels in turn
- 3) All memory channels in turn

#### SIMPLE REPEATER OPERATION

The C528 series is equipped with various functions ranging from basic to conventional ones for the repeater use. With these, casual communications by way of the repeater can be enjoyed including unexpected communications with distant stations. 1,750Hz is available as the tone burst signal for the repeater sign-on, with the desired field programmable offset

#### 20 CHANNEL MEMORY

The C528 series has a capability of 10 memory channels per band, totalling 20 memory channels. One memory channel accommodates frequency, shift frequency for repeater operation and tone frequency. You can recall the memory channels by the rotary channel selector, 10 keys or up/down key. As the C528 series is the twin bander, the memory channel numbers are indicated independently per band.

#### 3 WAY CHANNEL SELECTION

The C528 series is equipped with rotary channel selector that can be fastly selected by using the 100kHz step, direct frequency selection by the 10 keys and the up/down key enabling you to QSY by a hand. You can use the C528 series in your own optimum way according to situa-



# BUILT-IN PAGING/CODE SQUELCH FUNCTIONS

DTMF tone encoder/decoder is built in the C528 series. You can enjoy at once the paging function and the code squelch function, both with a good reputation. By preset individual code and group code, you can call a specific station or call entire members of the group. This is very convenient for mutual communica-

tions of your group. Even though the same channel as your own is used by other stations, voices from other stations are cut off. When you are called by a station having the same code number, an electronic tone and turnon/turnoff of the LCD notify you of it. And the code number of the opposite station is indicated to the code number of the opposite station is indicated to the code number of the opposite station is indicated to the code number of the opposite station is indicated to the code number of the opposite station is indicated to the code number of the opposite station is indicated to the code number of the code number, and the code number, and the code number of the LCD notification and the code number of the LCD notification and turnon/turnoff of the LCD notification and turnon-turnoff of the LCD notif opposite station is indicated, too. Even when you are away from your radio, you can know who has called you. The C528 series are can respond to calls from two groups or more. In the case of code squelch function, you are called by voices, not by the electronic tone.







GROUP CALL

INDIVIDUAL CALL

#### TONE SQUELCH UNIT CAPABILITY (OPTION)

You can hear voices with the squelch being released, only when you receive a signal having the same tone frequency as your own. As voices from other stations are shut out, you can watch your desired stations quietly, Guard becomes stronger by adopting the code squelch function (option)

#### HIGH POWER/HIGH **SENSITIVITY**

RF power output of the C528 series is more than 5W maximum on both VHF and UHF by connecting the radio to the external power source of DC 13.8V or by using the high power rechargeable battery pack. As the C528 series is designed with extra capability, you can enjoy the high power operation with safe. For proper power output, you can choose high, mid or low stage. The C528 series achieves the high sensitivity of  $0.16\mu V$  (at 12dB SINAD) that is pride-

#### **AUTOMATIC POWER OFF & BATTERY SAVING**

When the power switch is left "ON", an electronic tone is uttered, while the APO (automatic power off) function automatically works, which makes the current drain down to about 1mA. The battery saving function reduces the current at RX standby to about one third.

### WIDE OPERATING VOLTAGE

The power source range is wide 6~16V. The C528 series can fully respond to change in voltage of the battery. Of course, you can use the AC power supply for the base stations.

#### ONE TOUCH SQUELCH OFF

Squelch becomes off during pressing the squelch off switch, and squelch returns to the original condition upon depressing the switch. This squelch off function is very convenient when it become hard for you to hear voices from other stations. In addition to the noise squelch, this squelch off function is feasible in both tone squelch and code squelch.

# CLASSIFICATION BY COLORS & BY 6 TYPES OF ELECTRONIC TONES

Function indicating letters of the operational block are classified by colors for easy use. In using the functions with ivory letters, press the keys only. In case of the functions with blue gray letters, press the keys together with the FUNC key. As for the red, use the red keys in combination with the numbers keys at the time of the DTMF encoder operation. 6 kinds of electronic tones enable you to check the working status of the C528 series by ears.

#### IN ADDITION.

- When the CALL (burst) button is pressed with the PTT switch, 1,750Hz tone burst signal is transmitted. Frequency step: 5/10/12.5/20/25/50 (6
- Rain-drop-proof, safe in fields
- Frequency lock to prevent either frequency of mode from being changed carelessly. You
- can use only the rotary channel selector during scanning and dual watch.

  PTT lock to prevent mistaken transmit from happening during carrying the C528 series with your waist belt.
- C150/C450 E/K series have interchangeability with the C528 series. So, it is very convenient to enjoy the C528 series. A lithium battery backs up the memory for
- about 5 years.

#### STANDARD ACCESSORY:

- (1) Whip antenna
- Battery case for 6 pcs. of the UM-3
- Belt clip
- Hand strap (5) Water proof cap

#### Specifications of the rechargeable battery packs

			Percent
	TX output power (Hi)	Voltage-Current capacity	Usable time duration
CNB150	2W	7.2V · 400mAH	2.5 hours
CNB151	2W	7.2V · 700mAH	4.5 hours
CNB152	5W	7.2V · 600mAH	3 hours
CNB153	2W	7.2V · 1,000mAH	5 hours

## Rechargeable battery pack vs.

charger corresponding chare				
	CWC150	CWC151	CSA150	CMC150
CNB150	0	11.77	0	0
CNB151	0		0	0
CNB152		0	0	
CNB153	0		0	0