



VM8000 Series
MOBILE RADIO

QUICK REFERENCE GUIDE



Part Number 002-VM8000-200 Rev 00

KENWOOD

INTRODUCTION

The VM8000 supports single-deck configurations (dash mount or remote mount) and multideck configurations with VM7000s. The VM8000 can be in any deck position.

The VM8000 supports single control head and dual control head remote mount configurations, as the following table shows.

Mount Type	KCH-19VM	KCH-20RV	KCH-21RVM
Dash	1		
Single Remote	1		
		1	
			1
Dual Remote	2		
		2	
			2
	1	1	
		1	1
	1		1

This quick reference guide contains instructions for using the VM8000 with the following control heads:

- KCH-19VM
- KCH-20RV
- For KCH-21RVM instructions, refer to the *KCH-21RVM Handheld Control Head Quick Reference Guide*.

RADIO SETUP MODE (BOTH CONTROL HEADS)

To enter radio setup mode, press the Radio Setup Entry button (the [–] button) during power up and hold the button until the radio enters radio setup mode. If there are multiple control heads, only the radio being configured enters radio setup mode. The other control heads display the Viking head screen. Configurable parameters include the following:

- Internal speaker enable/disable
- Ignition sense

KCH-19VM FRONT PANEL CONTROLS



Power Switch

Press to switch the VM8000 on or off.

Illumination Sensor

[Reserved for future use]

TX / RX Indicator

The indicator lights in different colors to indicate the current status of the VM8000:
Lights red while transmitting.
Lights green while receiving.

+ / -
Buttons

Press to activate these buttons' programmed functions. The default functions are Volume Up / Volume Down.

▲ / ▼
Buttons

Press to activate Channel Up/Down or Zone Up/Down.

Speaker

Internal speaker

Microphone Jack

Insert the microphone plug into this jack.

Auxiliary Buttons

Press to activate these buttons' programmed functions.

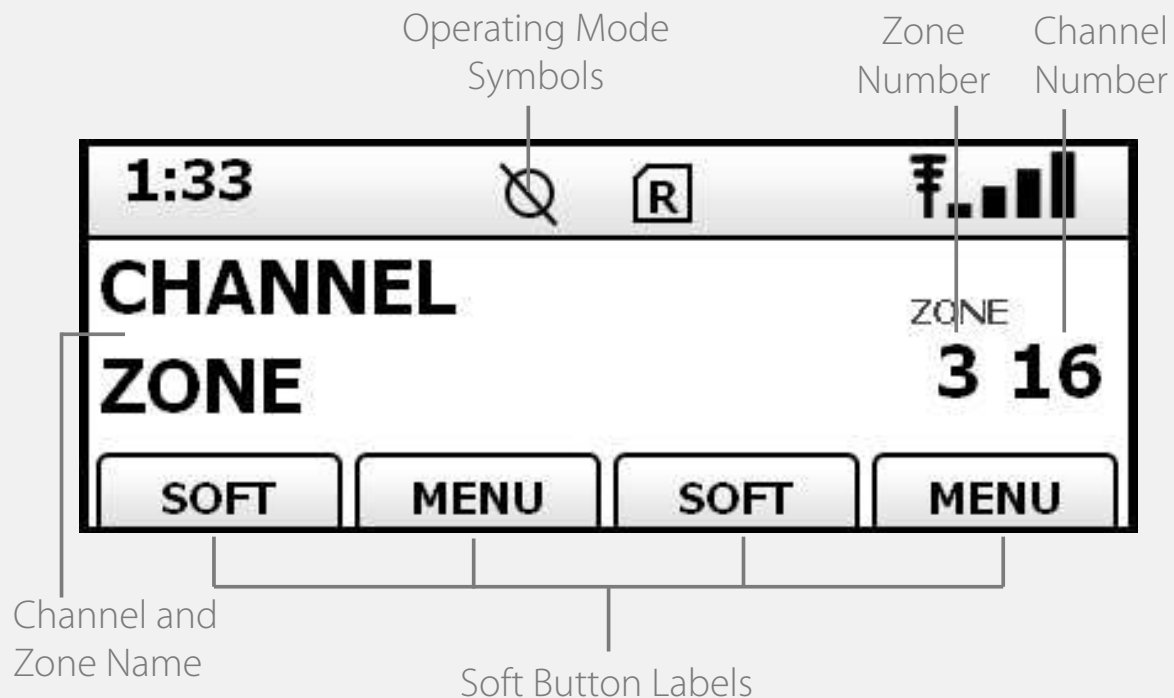
Select Button

Press the button to toggle between Zones and Channels.
For Menu mode, press to select the highlighted item.

KCH-19VM DISPLAY MODES

The KCH-19VM incorporates a highly readable display. The display is an LCD, with 422 x 154 pixels.

The illustration below shows a typical display including channel and zone indicators. This mode presents dual lines of text, consisting of up to sixteen characters. A row of icons is shown above the two lines of text, and a row of menu labels is shown below.



The next illustration shows the channel and zone indicators inhibited. This mode displays up to 16 characters in each line of text.



KCH-19VM ZONE AND CHANNEL SELECT

Use the KCH-19VM front panel controls as follows to select your desired zone and channel:

- Press the **O** button to toggle between the Zone and Channel select modes. The Zone select mode is indicated when the zone label is over the Zone number, and the Channel select mode is indicated when channel label is over the Channel number.
The VM8000 can be programmed so that the selection defaults to either the zone or channel display when power is turned on or after a change is made. The return delay is programmable for 1-255 seconds.
- Press the **▲ / ▼** buttons to change the selected zone or channel. Pressing the **▲** button increases the zone or channel, and pressing the **▼** button decreases the zone or channel. After the highest zone or channel is displayed, continue to press the **▲** button to redisplay the lowest zone or channel. If an unprogrammed channel is selected, "UNPROGRAMD" is displayed and a tone sounds. The VM8000 may be programmed so that only programmed channels are selected.

SETTING KCH-19VM VOLUME LEVEL

The volume setting is indicated by a bar graph and a volume number that appear on the display when you press the **+ / -** buttons. Also, you can enable a reference tone as follows:

- If the key press tones are enabled, a short tone sounds when a programmable option button is pressed or the Select button is pressed.
- If a conventional channel is selected and someone is talking, then voice is heard. If the MON (Monitor) is programmed, pressing it may unsquelch the radio so either voice or background noise is heard.

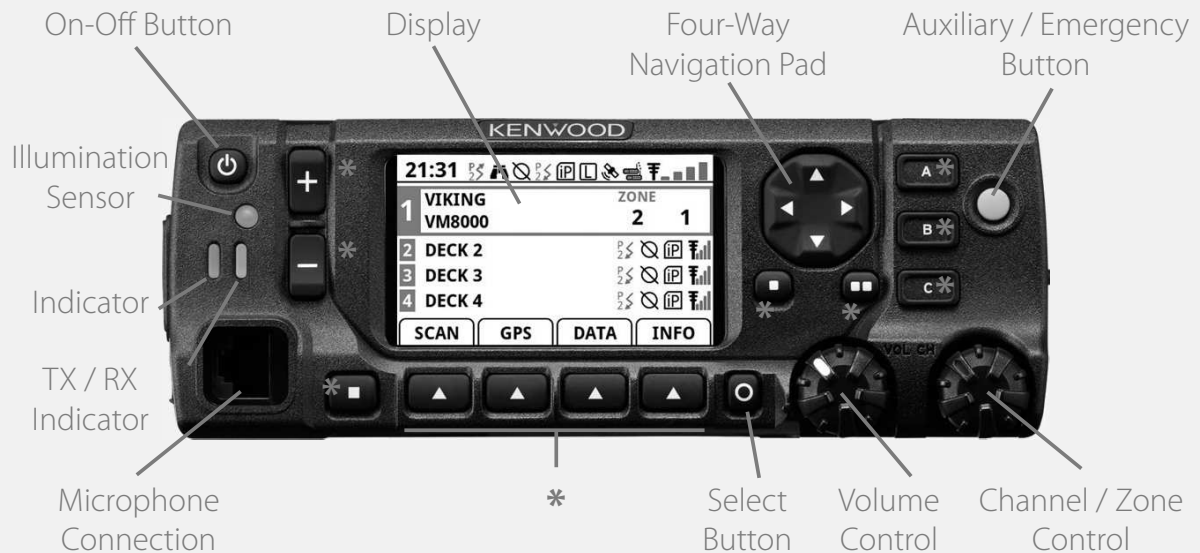
KCH-19VM POWER-ON PASSWORD

The power-up password feature prevents unauthorized use of the radio by requiring a password of up to eight-digits be entered to make it operational. If this feature has been enabled, ENTER PSWD is briefly displayed when power is turned on. You are then prompted to enter your password. Press the **▲ / ▼** buttons to enter the desired digit, then press the **O** button to save that digit and move to the next digit. After you enter the last digit, the radio will operate.

KCH-19VM BACKLIGHT

If the BKLHT option button is programmed, it can be used to select one of three backlight operating modes: Bright, Dim, or Off. Otherwise the backlight is fixed in one of the three modes by programming.

KCH-20RV FRONT PANEL CONTROLS



On-Off Button

Press the button to turn radio power ON/OFF.

Programmable Buttons

(Indicated by *) Press to activate programmable functions. Default settings are the following:

[+ / -] – By default, these buttons are not assigned functions. They must be programmed.

[■ / ■■] – By default, these buttons are not assigned functions. They must be programmed.

[■] – This button can be assigned any setting, but it is typically reserved for Clear functionality. By default, the button is not assigned a function. It must be programmed.

[▲] – Press to activate programmable functions. Options are shown in the display.

Display

Shows all primary operating information such as active channel, zone (along with channel/zone alias), status symbols, and labels for the soft buttons under the display.

Four-Way Navigation Pad

Navigates through various radio functions and menus. The left and right buttons can also be programmed for particular radio functions.

Auxiliary / Emergency Button

Can be assigned any setting, but is typically reserved for Emergency functionality. By default, the button is not assigned a function. It must be programmed.

Channel / Zone Control

Rotate to set the channel or the zone.

Volume Control

Rotate to increase/decrease the volume.

Select Button [O]

Can be assigned any setting, but is typically reserved for Select functionality. By default, the button acts as an "Accept" button for selecting menu items. Press and hold to enter Menu list showing user-programmed functions.

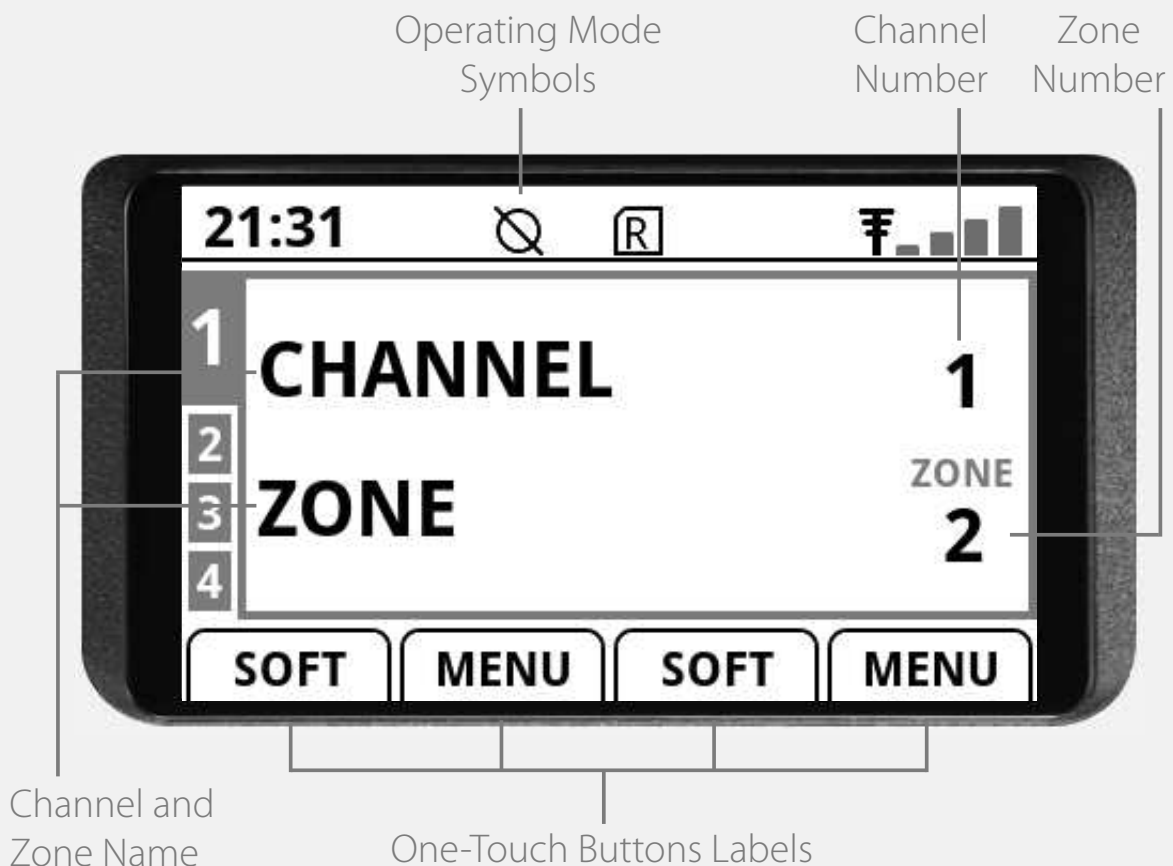
KCH-20RV FRONT PANEL CONTROLS (Continued)

Microphone Connection	Insert the microphone plug into this jack.
TX / RX Indicator	Steady Red: Transmitting in unsecure mode. Steady Orange: Transmitting in secure mode. Steady Green: Receiving in unsecure mode. Double-Blink Red: Receiving in secure mode.
Indicator	(Not used)
Illumination Sensor	(Not used)

KCH-20RV DISPLAY MODES

The KCH-20RV incorporates a highly readable display. The display is a 400 x 240-pixel LCD.

The illustration below shows a typical display including channel and zone indicators. This mode presents dual lines of text, consisting of up to 16 characters. A row of icons is shown above the two lines of text, and a row of menu labels is shown below.



KCH-20RV DISPLAY MODES (Continued)

The next illustration shows the channel and zone indicators inhibited. This mode displays up to 16 characters in each line of text.)



KCH-20RV ZONE AND CHANNEL SELECT

The selected zone and channel is changed by the front panel Select control as follows:

- Press the Select control to toggle between the Zone and Channel select modes. The Zone select mode is indicated when the zone label is over the Zone number, and the Channel select mode is indicated when channel label is over the Channel number.
The transceiver can be programmed so that the selection defaults to either the zone or channel display when power is turned on or after a change is made. The return delay is programmable for 1-255 seconds.
- Rotate the Select control to change the selected zone or channel. Rotating it clockwise increases the zone or channel, and rotating it counterclockwise decreases the zone or channel. After the highest zone or channel is displayed, continue to rotate the control to redisplay the lowest zone or channel. If an unprogrammed channel is selected, "Unprogrammed" is displayed and a tone sounds. The transceiver may be programmed so that only programmed channels are selected.

SETTING KCH-20RV VOLUME LEVEL

The volume setting is indicated by a bar graph that is displayed when the On/Off Volume control is rotated. Also, a reference tone can be enabled as follows:

- If the key press tones are enabled, a short tone sounds when a programmable option button is pressed or the Select control is pressed or rotated.
- If a conventional channel is selected and someone is talking, then voice is heard. If the MON (Monitor) is programmed, pressing it may unsquelch the radio so either voice or background noise is heard.

KCH-20RV POWER-ON PASSWORD

The power-up password feature prevents unauthorized use of the radio by requiring a password of up to twelve digits be entered to make it operational. If this feature has been enabled, "Enter Password" is briefly displayed when power is turned on. You are then prompted to enter your password. Rotate the Select control to enter the desired number and then use the navigation to move to the next digit. After the last digit is entered, press the Select button. Then the radio will operate.

KCH-20RV BACKLIGHT

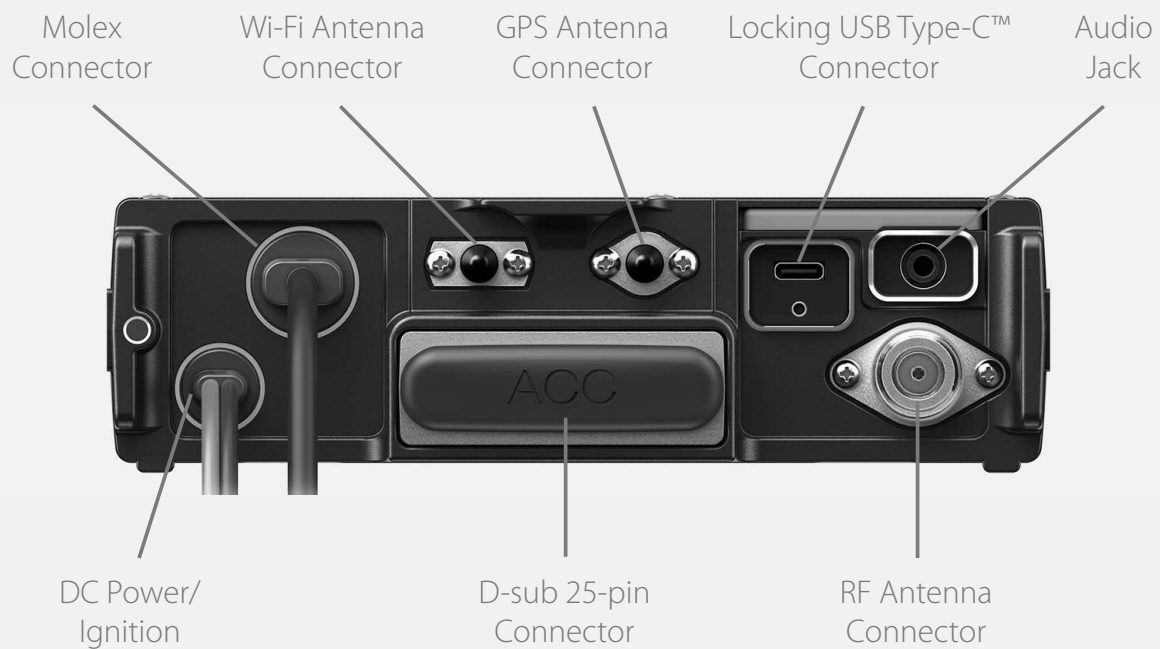
If the BKLHT option button is programmed, it can be used to select one of four backlight operating modes: Bright, Medium, Dim, or Off. Otherwise the backlight is fixed in one of the three modes by programming..

DISPLAY ICONS (BOTH CONTROL HEADS)

The display uses a set of symbols, or icons, to present the operator with information about radio status and operator mode.

Refer to the VM8000 Operating Manual for more information on display icons.

REAR PANEL CONNECTIONS



Molex Connector	9-pin. Pigtail type.
Wi-Fi Connector	RP-SMA type
GPS Connector	SMA type
USB Connector	Locking connector. USB Type C.
Audio Jack	3.5 mm. Connector for optional KES-8K external speaker.
DC Power/ Ignition	Pigtail type
D-sub 25-pin connector	Connector for optional accessories. Refer to the operating manual for additional information on accessories.
RF Antenna Connector	N type



To avoid damaging the radio, be sure to properly align and orient the keyed plug before inserting it into the Accessory Connector.

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