# **How to Use Your Cobra 29 LX LE**

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#### **Features of This Product**

- Selectable 4-Color LCD Display
- · 10 Weather Channels
- Weather Scan
- · Emergency Weather Alert
- 40 CB Radio Channels
- · 40 Channel Scan
- Memory Channels
- · Channel Frequency Read-Out
- Radio Check Diagnostic
- Heavy-Duty Dynamic Microphone
- Full 4 Watts AM RF Power Output
- SWR Calibration Meter
- Instant Channel 19 and 9
- Front Panel 4-Pin Microphone Connector
- Switchable Automatic Noise Limiter & Noise Blanker
- Adjustable Dynamike Boost
- Tactile Controls
- · 9 Ft Mic Cord
- Programmable Dimmer Control
- RF Gain

#### Location

#### Location

Plan location of transceiver and microphone bracket before starting the installation.

Select a location that is convenient for operation, yet does not interfere with the driver or passenger.

The transceiver is usually mounted to the underside of the dash with the microphone bracket beside it

# Mounting and Connection

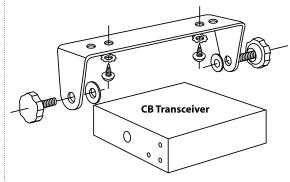
#### Note

The transceiver is held in the universal mounting bracket by two thumbscrews which allow for adjustment at a convenient angle.

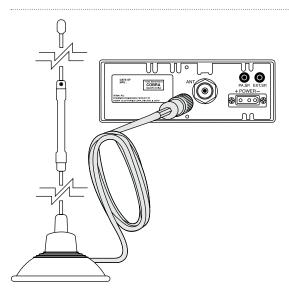
The bracket includes two selftapping screws and star washers. The mounting must be mechanically strong, conveniently located.

#### **Mounting and Connection**

• Hold the radio with the mounting bracket in the exact desired location. If there is no interference, remove the bracket and use it as a template to mark the location for the mounting screws.



2 Drill the holes and secure the bracket.



3 Connect the antenna cable plug to the receptacle marked "ANT" on the back of the unit.

continued

#### Note

Before installing the CB radio, visually check the vehicle's battery connection to determine which terminal, positive or negative, is grounded (positive is the larger of the two) to the engine block (or chassis). A negatively grounded vehicle has its negative lead grounded to the chassis.

#### Note

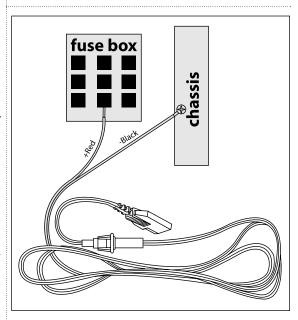
Connecting to an accessory fuse prevents the unit from being left on accidentally, and also permits operating the unit without running the engine.

#### Note

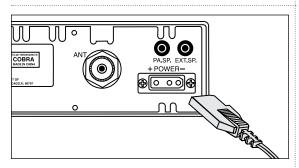
In positive ground vehicles the red wire goes to the chassis and the black wire is connected to the ignition switch.

#### Note

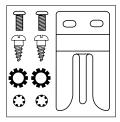
When connected to an accessory fuse, unit will self test the emergency weather alert automatically when ignition is turned on. Turns itself on & off.

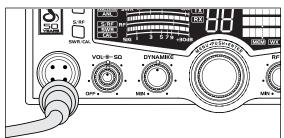


- In a negative grounded vehicle, connect the red lead of the DC power cord to an accessory 12 volt fuse.
- Connect the black lead to the negative side of the vehicle. This is usually the chassis. Any convenient location with a good electrical contact (remove paint) may be used.



- Plug power cable into back of unit marked "Power". Be sure to observe polarity markings.
- Mount the microphone bracket on either side of the unit (driver's left) using two screws supplied. Bracket should be placed under the dash so microphone is readily accessible.





Attach the 4-pin microphone cable to receptacle on front of unit and install unit in bracket securely.

#### Note

If microphone is not connected, audio will not be heard at speaker.

### **Antennas**

#### **CB Antenna**

#### Note

For optimum performance in passenger cars the ideal antenna location is on the center of the roof. Second choice is on the center of the trunk.

#### Note

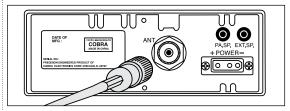
Because many newer trucks feature fiberglass door skins, the outside mirror must be grounded to the chassis via a ground strap, if the antenna is mounted on the mirror bracket.

#### Note

3-way Combination Antennas are also available which allow operation of all three bands (AM-FM & CB), using a single antenna. However, this type of antenna usually results in less than normal transmit and receive range when compared to a standard-type "Single Band" CB antenna. Call 773-889-3087 for further information.

#### **CB** Antenna

Since the maximum allowable power output of the transmitter is limited by the FCC, the antenna is critical in affecting transmission distance. Only a properly matched antenna system will allow maximum power output. Cobra loaded type antenna models are highly recommended for most installations. For models with Weather Feature (WX), a Dual Band (Center Load/Base Load) antenna is recommended. Consult your Cobra dealer for further details, or call 773.889.3087 and speak to a Cobra representative.



 A standard antenna connector is provided on the transceiver for easy connection.

#### Marine Installation

The transceiver will not operate at maximum efficiency in a boat without a ground plate, (unless it has a steel hull). Before attempting installation, consult your dealer for information regarding an adequate grounding system and prevention of electrolysis between fittings in the hull and water.

# **Ignition Noise Interference**

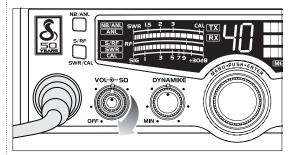
Use of a mobile receiver at low signal levels is normally limited by the presence of electrical noise. The primary source of noise in automobiles is from the alternator and ignition system. Typically, when signal level is adequate, the background noise does not present a serious problem. Also, when extremely low level signals are being received, the transceiver may be operated with the vehicle's engine turned off. The unit requires very little current and therefore will not significantly discharge the vehicle's battery.

Even though the Cobra 29 LX LE has an automatic noise limiter, in some installations ignition interference may be high enough to make good communications impossible. Many possibilities exist and variations between vehicles require different solutions. Consult your Cobra dealer or a 2-way radio technician for help in locating the source of a severe noise.

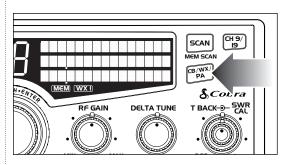
### **Turning On**

#### **Turning On**

Make sure the power cord, antenna and microphone are connected to their proper connectors before starting.

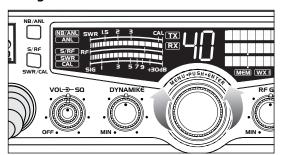


• Rotate the **On/Off Volume** knob *clockwise* to turn unit on and adjust to a normal listening level.



2 Press the CB/PA/WX button to change modes.

#### **Setting Channel Selector**



Select one of forty channels and adjust volume. The selected channel (1 through 40) will be indicated by the readout directly above the channel selector knob

#### **Setting Channel Selector**

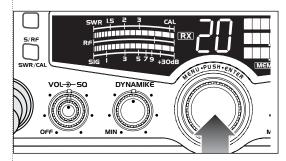
#### Note

Press CB/WX/PA to select CB, weather channels or PA (public address) modes.

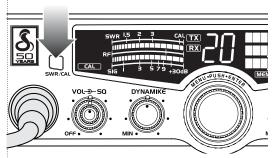
### Calibrate For SWR (Standing Wave Ratio)

#### **Calibrate for SWR (Standing Wave Ratio)**

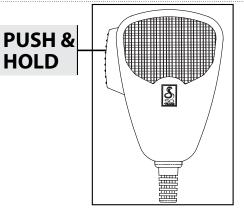
SWR calibration is done to properly adjust the length of the antenna and to monitor the quality of the coaxial cable and all RF connections. This calibration is critical in order to achieve optimum performance.



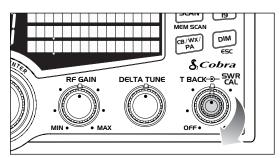
1 Select channel 20.



2 Press SWR/CAL button to select CAL.



3 Push and hold mic button.



While holding mic button adjust the SWR CAL knob so the meter swings to the CAL mark on the meter (located on the right).



#### Note

Calibration must be made in an open area (never in a garage). Vehicle doors must be closed. No one should be standing near the antenna. (See your antenna directions for more complete information).

#### Note

The reading will be slightly higher on Channels 1 and 40 compared to Channel 20.

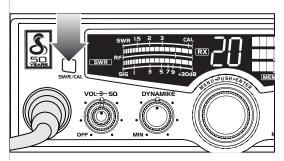
continued

#### Calibrate for SWR continued

#### Note

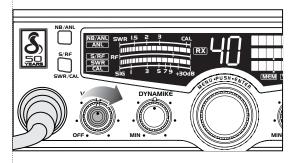
When switched to SWR mode the meter reading should ideally be as far to the left as possible. Anything over 3 is not acceptable. A slight antenna height adjustment (higher or lower) may be required. Repeat recalibration steps.

#### To Receive



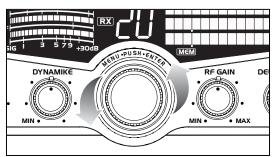
- While still holding down the mic button, press and release the **S/RF SWR CAL** button to the SWR setting, to read the SWR reading.
- 6 Repeat the same steps two through five on Channel 1 and 40. This will check SWR for all channels.

#### To Receive



• Rotate the **On/Off Volume** knob *clockwise*. The RX icon will be displayed.

#### **Selecting A Channel**

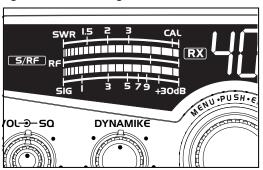


Unit should be in CB mode. Rotate channel

**1 selector** *clockwide* or *counter-clockwise* to select desired channel.

#### S-Meter

Swings proportionately to strength of incoming signal when receiving.



• The S/RF-SWR-CAL switch must be in the S/RF setting to read the meter.

# Selecting A Channel

### **S-Meter**

#### To Transmit

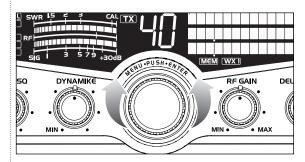


#### Caution!

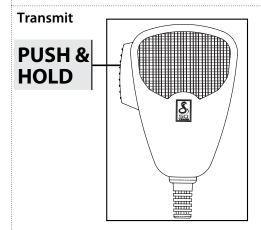
Be sure the antenna is properly connected to the radio before transmitting. Prolonged transmitting without an antenna, or a poorly matched antenna, could cause damage to the transmitter.

Be sure to read the F.C.C. Rules and Regulations included with this unit before transmitting.

#### To Transmit



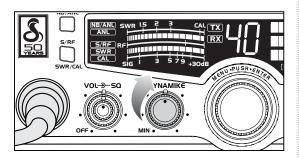
Select desired channel.



Push and hold mic button to transmit. Transmitter is now activated. When transmitting, hold the microphone two inches from your mouth and speak in a clear, normal voice. Release to receive.

#### Setting Dynamike®

This controls the microphone sensitivity (outgoing audio level).



Initially, set fully *clockwise* so that maximum voice volume is available. Dynamike may have to be reduced in some conditions.

# Setting Dynamike®

#### **Menu Mode**

#### Note

Use Dim/Escape button to exit from any routine back to CB standby mode.

#### Menu Mode

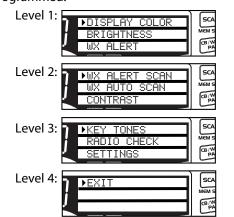
Used to program special features. **Menu/Enter** knob is used to move cursor to desired feature to program.



Rotate **Menu/Enter** knob *clockwise* to navigate menu levels.



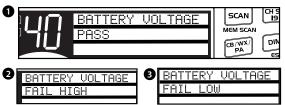
Press **Menu/Enter** knob to select feature to be programmed.



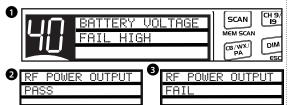
#### Radio Check Mode

Allows testing of important radio functions.

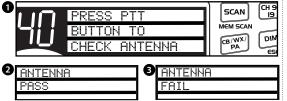
**Test 1- Battery Level**: Confirms that battery voltage level is between 10.8 V to 15.8 V. If in that range, it is "PASS". Outside of that range, either FAIL LOW" or "FAIL HIGH" will be displayed. Press **Menu/Enter** knob to advance to next test.



**Test 2- RF Power Output**: Confirms 3.3 to 4 Watt output level. Once Push-to-Talk button is pressed, Pass or Fail will be displayed if level is outside limits.



**Test 3- Antenna Mismatch Warning**: Press **Push-to-Talk** button to check antenna/radio for proper matching.



#### Radio Check Mode

#### Note

Press Dim/Escape button to return to CB standby mode. If 10 seconds pass or if Enter button pressed, unit goes to 2nd test.

#### Note

Press Push-To-Talk within 10 seconds or unit will go to the next test.

#### Note

Press Dim/Escape button to return to CB standby mode. If 10 seconds pass or if Enter button pressed, go to 3rd test.

#### Note

Press Dim/Escape button to return to CB standby mode. If 10 seconds pass or if Enter button pressed, testing is complete. Unit will return to CB Standby mode.

# Setting Display Color Mode

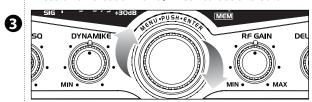
#### **Setting Display Color Mode**



Press Menu/Enter knob to select Display Color.



Press and release **Menu/Enter** to set the color.



Rotating **Menu/Enter** knob *clockwise* changes the display color from green to blue to amber to red then back to green.

#### Note

Select EXIT to return to main menu. Press Dim/Escape button to return to CB mode.



Press **Menu/Enter** knob or escape button again to exit routine.

#### Setting Brightness Mode

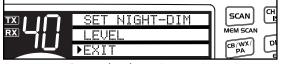
Press Menu/Enter knob to select Set Brightness



Rotate Menu/Enter knob clockwise to Select Brightness. Press Menu/Enter knob to select Day-Bright. Turn Menu/Enter clockwise to increase brightness and turn counter-clockwise to decrease brightness.



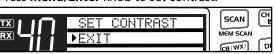
To set the day bright level, turn the **Menu/Enter** knob *clockwise* to a desired setting and then press **Menu/Enter**. To set the **Night-Dim level**, repeat instructions above then select **Night-Dim**.



Press **Menu/Enter** knob again to exit routine.

#### **Setting Contrast Mode**

Press **Menu/Enter** knob and rotate *clockwise* to select **Set Contrast.** Press **Menu/Enter** knob again and rotate *clockwise* to increase contrast, *counter-clockwise* to decrease contrast. Press **Menu/Enter** knob to set contrast.



Press Menu/Enter knob again to exit routine.

#### Setting Brightness Mode

#### Note

If an attempt is made to exceed the highest or lowest brightness levels, 3 error beeps will be heard.

#### Note

Exit will return to menu mode. ESC will exit and return to CB Standby.

#### Note

To select day or night levels, press and release Dim/Escape button once levels are set.

#### Note

To toggle from day to night settings, see page 24.

### Setting Contrast Mode

#### Note

If an attempt is made to exceed the highest or lowest contrast levels, 3 error beeps will be heard.

# Weather Information

#### Note

If you wish to receive a listing of NOAA 'Weather Radio Transmitter locations, contact your nearest National Weather Service Office.

Service Office, or write to: National Weather Service (Attn: W/OM11) NOAA Silver Springs, MD 20910.

For ideal weather reception use a dual band antenna (center load/baseload).

#### **Weather Alert**

#### What You Should Know About Weather

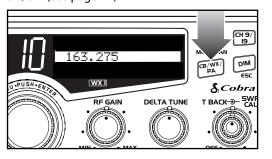
If threatening weather is nearby, the National Weather Service may broadcast a 10 second alert tone. This tone will be heard through the CB, even if the CB/WX Control is in the CB mode or the unit is turned off.

This enables you to monitor CB frequencies and still be warned by the National Weather Service Emergency Alert. When you hear the alert, press the **CB/WX/PA** button in the **WX** mode. You will then be able to hear the Weather Warning Broadcast.

Your 29 LX LE has a special auto squelch circuit for weather transmission which disables your squelch control.

#### Weather Alert Scan

The unit will continually scan all 10 WX channels for 1050 Hz tone. If the tone is detected the unit will activate WX mode on the channel with the tone. Default state is **Off**. Go to Menu mode to choose **On/Off** (see page 22):



#### **Weather Auto Scan**

If active while in CB or PA mode, will determine if the present WX channel is active. If the present WX channel is not active, will search for the strongest WX channel and auto change to that channel. Default is off. Go to Menu mode to choose on/off (see page 22).

# Weather Channels

#### What is Weather Radio?

NOAA Weather Radio (NWR) is a service of the National Oceanic and Atmospheric Administration (NOAA), of the U.S. Department of Commerce, 380 NWR stations are in operation by the U.S. Government in addition to several NWR stations that are maintained by private interest groups. The capability is to supplement warnings by sirens and by commercial radio and television. The 10 National Weather Channels provide full coverage to keep you informed of weather conditions, 24 hours a day, 7 days a week.

# Weather Alert Mode

#### Note

Press Dim/Escape button to return to CB mode.

#### Setting Weather Alert Scan

#### Note

If an alert is detected the unit will activate WX mode on the channel with the alert. Use Menu/Enter knob to select On/Off and press to set.

#### Note

Press Dim/Escape button to return to CB mode.

# Setting Weather Auto Scan

#### Note

Press Dim/Escape button to return to CB mode.

#### **Setting Weather Alert Mode**

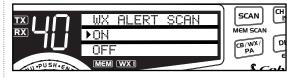
Turns WX Alert On/Off. Default is **Off**. Press **Menu/Enter** knob to select **Set WX Alert**. If Weather is **On**, WX Alert Icon will be displayed.



Press **Menu/Enter** knob to select **On/Off** and exit to main menu.

#### **Setting Weather Alert Scan**

Press Menu/Enter knob and rotate *clockwise* to WX Alert Scan. Press Menu/Enter knob to select On/Off.



Press **Menu/Enter** knob to select **On/Off** and exit to main menu.

#### **Setting Weather Auto Scan**

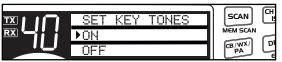
Press Menu/Enter knob and rotate *clockwise* to WX Auto Scan. Press Menu/Enter knob to select On/Off.



Press **Menu/Enter** knob to select **On/Off** and exit to main menu.

#### **Key Tones Mode On and Off**

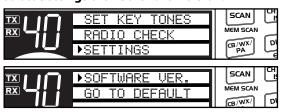
Press **Menu/Enter** knob and rotate *clockwise* to **Set Key Tones**. Press **Menu/Enter** to set Key Tones **On/Off**.



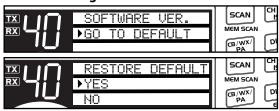
Press **Menu/Enter** knob to select **On/Off** and exit to main menu.

#### **Software Version/Factory Settings**

Displays current software version and returns unit to original factory settings. To view software version, rotate **Menu/Enter** knob *clockwise* to select **Settings** then **Software Version**.



To restore default settings, Press Menu/Enter knob again. Rotate Menu/Enter knob clockwise to select Settings then Go To Default.



Press **Menu/Enter** knob to restore default settings. Choose **NO** to maintain present setting with no change.

#### Key Tones Mode

#### Note

Press Dim/Escape button to return to CB mode.

### Software Version/Factory Settings

#### Note

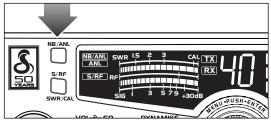
Default display color is green.

### NB-ANL/OFF (Noise Blanker/ Automatic Noise Limiter) Button

#### Note

The RF noise blanker is very effective in reducing repetitive noises such as ignition interference.

# NB-ANL/OFF (Noise Blanker/Automatic Noise Limiter) Button



When switched to ANL the Automatic Noise Limiter is activated. This helps reduce noise created by the vehicle's electronics.

When *switched* to NB/ANL mode the RF Noise Blanker is also activated, providing increased noise filtration.

When *switched* to OFF mode all noise filtration will be turned off.

#### **RF Gain Control**

#### **RF Gain Control**

The RF Gain is used to optimize reception in strong or weak signal areas.



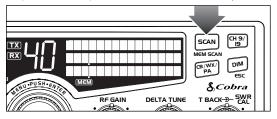
Rotate the RF Gain knob counterclockwise to reduce gain in strong signal areas. In weak signal areas turn clockwise to increase gain.

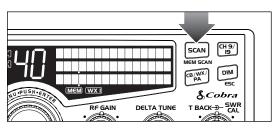
#### Note

The RF Gain is used to optimize reception in weak signal areas.

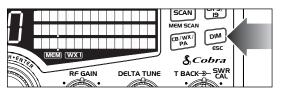
#### **Program Memory Channels**

Set first channel. Press and hold **Scan/MemScan** button. Memory icon will appear. Select second channel, press and hold **Scan/MemScan** button again until Memory icon appears. Repeat above steps to enter up to 10 channels in memory.





Pressing the Scan/Memory Scan button toggles from Off to Scan All Channels to Memory Channel Only Scan and back to Off.



Press Dim/Escape button to end Scan and return to CB mode.

# Program Memory Channels

#### Note

The radio should be squelched before scan features are activated.

#### Note

Keying the microphone will stop the scan feature.

#### Note

If more than 10 channels are attempted to be programmed, 3 error beeps will be heard and "Memory Full" will be displayed for 10 seconds or until any button is pushed.

#### Note

To remove a channel from memory, go to the unwanted memory channel then press and hold the scan button until the MEM icon turns off.

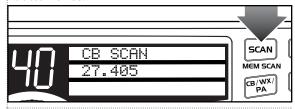
#### Note

If in WX mode the unit will scan Weather channels.

#### Scan CB Channels

#### Scan CB Channels

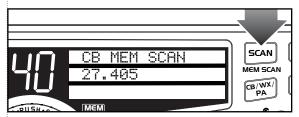
To scan all 40 CB channels, the unit must be squelched. Press and release **Scan/Mem Scan** button once.



# Scan Memory Channels

#### **Scan Memory Channels**

To scan memory channels, press and release **Scan/Mem Scan** button twice.



### **Dimmer Control**

#### **Dimmer Control**

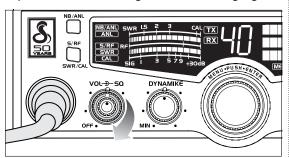


Press Dim/Esc button to toggle between day and night settings.

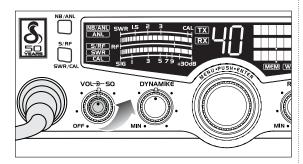
See setting instructions on page 19.

#### **Setting Squelch**

Squelch is the "control gate" for incoming signals.



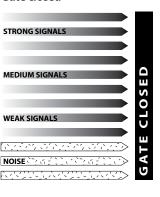
• Full *clockwise* rotation closes the gate allowing only very strong signals to enter.



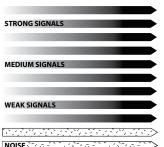
Full counterclockwise rotation opens the "gate" allowing all signals in.

### **Setting Squelch**

Gate closed



#### Gate open

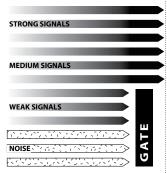


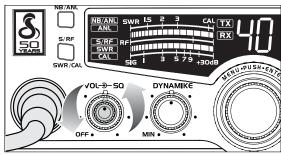
SALE

### **Setting Squelch**

Continued

Gate set to Desired Squelch Setting (DSS)



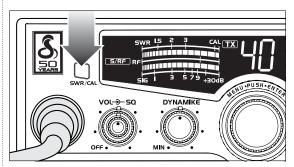


To achieve the Desired Squelch Setting (DSS), turn the Squelch control counterclockwise until you hear noise. Now turn the control clockwise just until the noise stops. This is the DSS setting.

#### S/RF Meter

#### S/RF Meter

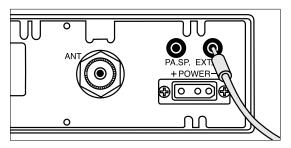
This meter swings proportionately to the RF output (outgoing signal) while transmitting.



The S/RF-SWR-CAL button must be in the S/RF mode.

#### **External Speaker**

The external speaker jack is used for remote receiver monitoring.



• Connect an external speaker to the external speaker jack on the rear panel.

### **External Speaker**

#### Note

The external speaker should have 8-ohm impedance and be rated to handle at least 4.0 watts. When the external speaker is plugged in, the internal speaker is automatically disconnected. See accessory page 41.

#### Note

Cobra external speakers are rated at 10 watts.

# PA (Public Address)

#### Note

Speaker should have 8-ohm impedance and be rated to handle at least 4.0 watts.

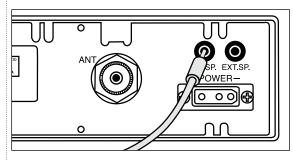
#### Note

The speaker should be directed away from the microphone to prevent acoustic feedback.

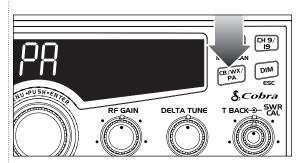
#### Note

Activity on the CB channel will be heard through the PA speaker. Adjust Volume Control to a normal listening level.

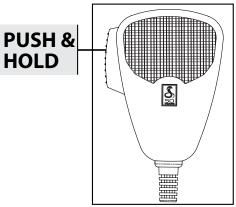
#### PA (Public Address)



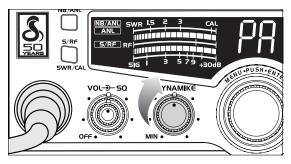
• Connect an external PA speaker to the PA jack on the rear panel.



2 Press CB/WX/PA button to select PA.



**3** Push and hold microphone button and speak in a normal voice. Your voice will now transmit on the PA speaker.



Adjust PA speaker volume with the Dynamike® control.

# **Home And Office Set-Up**

### Base Station Operation (From 120V AC House Current)



#### Warning!

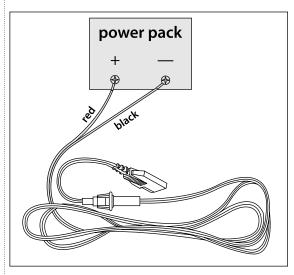
Do not attempt to operate this transceiver by connecting it directly to 120V AC.

#### Note

For further information call Cobra Customer Service 1.773.889.3087.

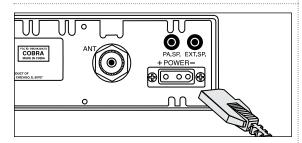
# Base Station Operation (From 120V AC House Current)

To operate your transceiver from home or office you will need a 13.2 volt DC Power Pack rated at a minimum of 2 amps, and a properly installed base station antenna.



• Simply connect the red (+) and black (-) leads of the transceiver to the corresponding terminals of the power pack.

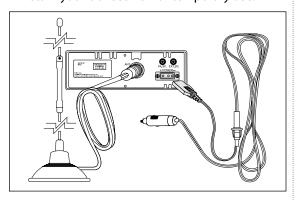
# **Temporary Mobile Set-Up**



- 2 Plug power cable into back of unit marked "Power". Be sure to observe polarity markings.
- Onnect properly installed and matched base station antenna.

#### **Temporary Mobile Operation**

For temporary mobile operation you may want to purchase an optional cigarette lighter adapter from your COBRA dealer. This adapter and a magnetic mount antenna allow you to quickly "install" your transceiver for temporary use.



### Temporary Mobile Set-Up

# **How Your CB Can Serve You**

#### Warn of traffic problems

- · Provide weather and road data
- Provide help in event of an emergency
- Provide direct contact with home or office
- Assist police by reporting erratic drivers
- · Get "local information" to find destination
- · Communicate with family and friends
- · Suggest spots to eat and sleep
- Keep you alert while traveling

#### A Few Rules You Should Know

- A. Conversations cannot last more than 5 minutes with another station. A one minute break is required to let others use the channel.
  - You cannot blast others off the air by use of illegally amplified transmitters or illegally high antennas.
  - C. You cannot use CB to promote illegal activities.
  - D. Profanity is not allowed.
  - E. You may not transmit music with a CB.
- F. Selling of merchandise and/or services is prohibited.

### Channel 9 Emergency Messages

**A Few Rules** 

You Should

Know

#### Note

If no response on channel 9, try channels 19 or 14.

1. Set to channel 9 for emergencies
Be sure antenna is properly connected.

#### 2. CB Distress Data

When transmitting an emergency, you should request a "REACT BASE" and provide the CB distress data (called **CLIP**):

C all Sign Identify yourself.

L ocation Be exact.

I njuries Number. Type. Trapped?

P roblem Give details and help needed.

Transmit CLIP repeatedly so any monitor can assist.

# **How Your CB Can Serve You**

The FCC gives these examples of permitted and prohibited messages for channel 9. These are only guidelines and not all-inclusive:

Permitted	Example Message
Yes	"Tornado sighted six miles north of town."
No	"Post number 10. No tornado sighted."
Yes	"Out of gas on I-95 at mile marker 211."
No	"Out of gas in my driveway."
Yes	"Four car accident on I-94 at Exit 11. Send police and ambulance."
No	"Traffic moving smoothly on I-94."
Yes	"Weather Bureau has issued thunderstorm warning. Bring sailboat into port."
No	"Attention motorists. Weather Bureau advises snow tomorrow will accumulate 4 to 6 inches."
Yes	"Fire in building at 539 Main, Evanston."
No	"Halloween patrol number 3. All quiet."

# **How Your CB Can Serve You**

#### **CB 10-Codes**

Citizen Bands have adopted the "10-CODES" for standard questions and answers. These codes provide quick and easy communication, especially in noisy areas. Following are some of the more common codes and meanings:

Code	Meaning
10-1	Receiving poorly
10-2	Receiving well
10-3	Stop transmitting
10-4	OK, message received
10-5	Relay message
10-6	Busy, stand by
10-7	Out of service, leaving
10-8	In service, subject to call
10-9	Repeat message
10-10	Transmission completed standing by
10-11	Talking too rapidly
10-12	Visitors present
10-13	Advise weather/roads
10-16	Make pick up at
10-17	Urgent business
10-18	Anything for us?
10-19	Return to base
10-20	My location is
10-21	Call by phone
10-22	Report in person to
10-23	Stand by
10-24	Completed last assignment
10-25	Can you contact
10-26	Disregard last info
10-27	Moving to channel

Identify your station

10-28

Code	Meaning
10-29	Time is up for contact
10-30	Does not conform to FCC rules
10-33	Emergency traffic
10-34	Trouble at this station
10-35	Confidential information
10-36	Correct time is
10-37	Wrecker needed at
10-38	Ambulance needed
10-39	Message delivered
10-41	Turn to channel
10-42	Traffic accident at
10-43	Traffic tie up at
10-44	Have a message for
10-45	All units within range please report
10-50	Break channel
10-60	What is next message number?
10-62	Unable to copy. Use phone
10-63	Net directed to
10-64	Net clear
10-65	Awaiting your next message/assignment
10-67	All units comply
10-70	Fire at
10-71	Proceed, transmission in sequence
10-77	Negative contact
10-81	Reserve hotel room for
10-82	Reserve room for
10-85	My address is
10-91	Talk closer to mic
10-93	Check my frequency on this channel
10-94	Give me a long count
10-99	Mission completed, all units secure
10-200	Police needed at

# **Frequency Ranges**

The Cobra 29 LX LE transceiver represents one of the most advanced AM two-way radios used as a Class D station in the Citizens Radio Service. This unit features advanced Phase Lock Loop (PLL) circuitry providing complete coverage of all 40 CB channels.

CHAINIC	١٥.				
CB Channel	Channel Freq. In MHz	CB Channel	Channel Freq. In MHz	WX Channel	Freq. In MHz
1 2 3 4 5	26.965 26.975 26.985 27.005 27.015	21 22 23 24 25	27.215 27.225 27.255 27.235 27.245	1 2 3 4 5	162.550 162.400 162.475 162.425 162.450 162.500
6 7 8 9 10	27.025 27.035 27.055 27.065 27.075	26 27 28 29 30	27.265 27.275 27.285 27.295 27.305	7 8 9 10	162.525 161.650 161.775 163.275
11 12 13 14 15	27.085 27.105 27.115 27.125 27.135	31 32 33 34 35	27.315 27.325 27.335 27.345 27.355		
16 17 18 19 20	27.155 27.165 27.175 27.185 27.205	36 37 38 39 40	27.365 27.375 27.385 27.395 27.405		

# 29 LX LE Specifications

GENERAL	
CHANNELS	CB - 40 CH
FREOUENCY RANGE	CB - 26.965 TO 27.405 MHZ
THE CENTER HANGE	WX - 162.400 TO 162.775 MHZ
FREQUENCY TOLERANCE	0.005 %
FREOUENCY CONTROL	PLL (PHASE LOCK LOOP) SYNTHESIZER
OPERATING TEMPERATURE	1 22 (11) 32 23 21 23 31 7 31 111 123 221 1
RANGE	-30° C TO + 50° C
MICROPHONE	Plug-in dynamic
INPUT VOLTAGE	13.2VDC nom. (positive or negative ground)
Current Drain	Transmit: AM full mod., 1.5A (maximum)
	Receive: Squelched, 0.3A;
	full audio output, 1.2A (nominal)
Size	8-5/8" D x 7-9/32" W x 2-13/63" H
Weight	
Antenna Connector	
Meter	
	power output received
	signal strength, and vswr
TDANGAUTTED	
TRANSMITTER Power Output	Awatte
Modulation Frequency Response	
Output Impedance	
Output IIIpedance	
RECEIVER	
RECEIVER	Less than 1 μV for 10 dB (S+N) /N
RECEIVER	Less than 1 μV for 10 dB (S+N) /N
RECEIVER SensitivitySelectivityImage Rejection	Less than 1  µV for 10 dB (S+N) /N 6 dB @ 7 KHz, 60 dB @ 10KHz 80 dB, typical
RECEIVER Sensitivity	Less than 1 μV for 10 dB (S+N) /N 6 dB @ 7 KHz, 60 dB @ 10KHz 80 dB, typical 60 dB, typical
RECEIVER Sensitivity	Less than 1 µV for 10 dB (S+N) /N 6 dB @ 7 KHz, 60 dB @ 10KHz 80 dB, typical 60 dB, typical Double Conversion: 1st: 10.695 MHz
RECEIVER Sensitivity Selectivity Image Rejection Adjacent-Channel Rejection IF Frequencies	Less than 1 µV for 10 dB (S+N) /N 6 dB @ 7 KHz, 60 dB @ 10KHz 80 dB, typical 60 dB, typical Double Conversion: 1st: 10.695 MHz 2nd: 455 KHz
RECEIVER Sensitivity	Less than 1 µV for 10 dB (S+N) /N 6 dB @ 7 KHz, 60 dB @ 10KHz 80 dB, typical 60 dB, typical Double Conversion: 1st: 10.695 MHz 2nd: 455 KHz Less than 10 dB change in audio
RECEIVER Sensitivity Selectivity Image Rejection Adjacent-Channel Rejection IF Frequencies	Less than 1 µV for 10 dB (S+N) /N 6 dB @ 7 KHz, 60 dB @ 10KHz 80 dB, typical 60 dB, typical Double Conversion: 1st: 10.695 MHz 2nd: 455 KHz Less than 10 dB change in audio output for inputs from 10 to 50,000
RECEIVER Sensitivity Selectivity Image Rejection Adjacent-Channel Rejection IF Frequencies Automatic Gain Control (AGC)	Less than 1 µV for 10 dB (S+N) /N6 dB @ 7 KHz, 60 dB @ 10KHz80 dB, typical60 dB, typicalDouble Conversion: 1st: 10.695 MHz 2nd: 455 KHzLess than 10 dB change in audio output for inputs from 10 to 50,000 microvolts
RECEIVER Sensitivity. Selectivity. Image Rejection. Adjacent-Channel Rejection. IF Frequencies. Automatic Gain Control (AGC)	Less than 1 µV for 10 dB (S+N) /N6 dB @ 7 KHz, 60 dB @ 10KHz80 dB, typical50 dB, typical
RECEIVER Sensitivity	Less than 1 µV for 10 dB (S+N) /N6 dB @ 7 KHz, 60 dB @ 10KHz80 dB, typical60 dB, typicalDouble Conversion: 1st: 10.695 MHz 2nd: 455 KHzLess than 10 dB change in audio output for inputs from 10 to 50,000 microvolts40 dbRF type
RECEIVER Sensitivity. Selectivity. Image Rejection. Adjacent-Channel Rejection IF Frequencies. Automatic Gain Control (AGC)  RF Gain range. Noise Blanker Squelch	Less than 1 µV for 10 dB (S+N) /N6 dB @ 7 KHz, 60 dB @ 10KHz80 dB, typical60 dB, typicalDouble Conversion: 1st: 10.695 MHz 2nd: 455 KHzLess than 10 dB change in audio output for inputs from 10 to 50,000 microvolts40 dbRF typeRdjustable; threshold less than 1µV
RECEIVER Sensitivity. Selectivity. Image Rejection. Adjacent-Channel Rejection. IF Frequencies. Automatic Gain Control (AGC)  RF Gain range	Less than 1 µV for 10 dB (S+N) /N6 dB @ 7 KHz, 60 dB @ 10KHz80 dB, typical50 dB, typical
RECEIVER Sensitivity	Less than 1 µV for 10 dB (S+N) /N6 dB @ 7 KHz, 60 dB @ 10KHz80 dB, typical80 dB, typical0 oble Conversion: 1st: 10.695 MHz 2nd: 455 KHzLess than 10 dB change in audio output for inputs from 10 to 50,000 microvolts40 dbRF typeAdjustable; threshold less than 1µV4 watts300 to 3000 Hz
RECEIVER Sensitivity Selectivity Image Rejection Adjacent-Channel Rejection IF Frequencies Automatic Gain Control (AGC)  RF Gain range Noise Blanker Squelch Audio Output Power Frequency Response Distortion	Less than 1 µV for 10 dB (S+N) /N6 dB @ 7 KHz, 60 dB @ 10KHz80 dB, typical60 dB, typicalDouble Conversion: 1st: 10.695 MHz 2nd: 455 KHzLess than 10 dB change in audio output for inputs from 10 to 50,000 microvolts40 dbRF typeAdjustable; threshold less than 1µV4 watts300 to 3000 Hz10 dB @ 3 watts @ 1000 Hz
RECEIVER Sensitivity Selectivity Image Rejection Adjacent-Channel Rejection IF Frequencies Automatic Gain Control (AGC)  RF Gain range Noise Blanker Squelch Audio Output Power Frequency Response Distortion Bellit in Speaker	Less than 1 µV for 10 dB (5+N) /N6 dB @ 7 KHz, 60 dB @ 10KHz80 dB, typical50 dB, typical .
RECEIVER Sensitivity Selectivity Image Rejection Adjacent-Channel Rejection IF Frequencies Automatic Gain Control (AGC)  RF Gain range Noise Blanker Squelch Audio Output Power Frequency Response Distortion	Less than 1 µV for 10 dB (S+N) /N6 dB @ 7 KHz, 60 dB @ 10KHz80 dB, typical
RECEIVER Sensitivity Selectivity Image Rejection Adjacent-Channel Rejection IF Frequencies Automatic Gain Control (AGC)  RF Gain range Noise Blanker Squelch Audio Output Power Frequency Response Distortion Bellit in Speaker	Less than 1 µV for 10 dB (5+N) /N6 dB @ 7 KHz, 60 dB @ 10KHz80 dB, typical50 dB, typical
RECEIVER Sensitivity Selectivity Image Rejection Adjacent-Channel Rejection IF Frequencies Automatic Gain Control (AGC) RF Gain range Noise Blanker Squelch Audio Output Power Frequency Response Distortion Built-in Speaker. External Speaker (Not supplied)	Less than 1 µV for 10 dB (S+N) /N6 dB @ 7 KHz, 60 dB @ 10KHz80 dB, typical50 dB, typical
RECEIVER Sensitivity Sensitivity Image Rejection Adjacent-Channel Rejection IF Frequencies Automatic Gain Control (AGC)  RF Gain range Noise Blanker Squelch Audio Output Power Frequency Response Distortion Built-in Speaker. External Speaker (Not supplied)  PA SYSTEM Power Output	Less than 1 µV for 10 dB (S+N) /N6 dB @ 7 KHz, 60 dB @ 10KHz80 dB, typical60 dB, typical00 dB, typical .
RECEIVER Sensitivity Selectivity Image Rejection Adjacent-Channel Rejection IF Frequencies Automatic Gain Control (AGC)  RF Gain range Noise Blanker Squelch Audio Output Power Frequency Response Distortion Built-in Speaker External Speaker (Not supplied)  PA SYSTEM Power Output External Speaker for PA.	Less than 1 µV for 10 dB (S+N) /N6 dB @ 7 KHz, 60 dB @ 10KHz80 dB, typical50 dB, typical .
RECEIVER Sensitivity Selectivity Image Rejection Adjacent-Channel Rejection IF Frequencies Automatic Gain Control (AGC)  RF Gain range Noise Blanker Squelch Audio Output Power Frequency Response Distortion Built-in Speaker External Speaker (Not supplied)  PA SYSTEM Power Output External Speaker for PA.	Less than 1 µV for 10 dB (S+N) /N6 dB @ 7 KHz, 60 dB @ 10KHz80 dB, typical60 dB, typical00 dB, typical .

(SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE)

# **Limited Two Year Warranty**

COBRA ELECTRONICS CORPORATION warrants that its Cobra CB Radios, and the component parts thereof, will be free of defects in workmanship and materials for period of two (2) years from the date of first consumer purchase. This warranty may be enforced by the first consumer purchaser, provided that the product is utilized within the U.S.A.

Cobra will, without charge, repair or replace, at its option, defective CB radios, products or component parts upon delivery to the Cobra factory Service Department, accompanied by proof of the date of first consumer purchase, such as a duplicated copy of a sales receipt.

You must pay any initial shipping charges required to ship the product for warranty service, but the return charges will be at Cobra's expense, if the product is repaired or replaced under warranty.

Exclusions: This limited warranty does not apply; 1) to any product damaged by accident; 2) in the event of misuse or abuse of the product or as a result of unauthorized alterations or repairs; 3) if the serial number has been altered, defaced or removed; 4) if the owner of the product resides outside the U.S.A.

All implied warranties, including warranties of merchantability and fitness for a particular purpose are limited in duration to the length of this warranty. Cobra shall not be liable for any incidental, consequential or other damages; including, without limitation, damages resulting from loss of use or cost of installation.

Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

#### Cobra Electronics Corporation

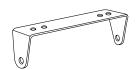
6500 West Cortland Street Chicago, Illinois 60707 www.cobra.com

# **Optional Accessories**

You can find quality Cobra products and accessories at your local Cobra dealer, or in the U.S.A., you can order directly from Cobra. See ordering info on page 38.

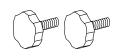


**Replacement DC Power Cord**For in vehicle use

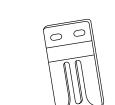


Replacement Mounting Bracket For in vehicle use

251-353-9-001



Replacement Thumb Screws
For in vehicle use
634-081-9-001



426-002-N-001

Replacement Microphone Bracket



21" Base Loaded Magnet Mount Antenna



38" Base Loaded Magnet Mount Antenna

For in vehicle use 741-080-9-001



HG A1500



Dynamic External Speaker





Noise Canceling External Speaker

HG 5300



Noise Canceling With Talk Back External Speaker

HG S500



#### If You Think You Need Service

For technical assistance, please call our Automated Help Desk which can assist you by answering the most frequently asked questions about Cobra products.

(773)889-3087

24 hours a day, 7 days a week.

A Consumer Service Representative can be reached through this same number 8:00 am - 5:30 pm, Monday through Friday, Central Time. Technical assistance is also available on-line in the Frequently Asked Questions (FAQ) section at www.cobraelec.com or by e-mail to productinfo@cobra.com

#### If you think you need service call 1.773.889.3087

"If your product should require factory service please call Cobra first before sending your unit in. This will ensure the fastest turn-around time on your repair."

You may be asked to send your unit to the Cobra factory. It will be necessary to furnish the following in order to have the product serviced and returned.

- 1. For Warranty Repair include some form of proof-of-purchase, such as a mechanical reproduction or carbon or a sales receipt. If you send the original receipt it cannot be returned.
- 2. Send the entire product.
- 3. Enclose a description of what is happening with the unit. Include a typed or clearly print name and address of where the unit is to be returned.
- 4. Pack unit securely to prevent damage in transit. If possible, use the original packing material.
- Ship prepaid and insured by way of a traceable carrier such as United Parcel Service (UPS) or First Class Mail: to avoid loss in transit to: Cobra Factory Service, Cobra Electronics Corporation, 6500 W. Cortland St., Chicago, IL 60707.
- 6. If the unit is in warranty, upon receipt of your unit it will either be repaired or exchanged depending on the model. Please allow approximately 3 to 4 weeks before contacting us for status. If the unit is out of warranty a letter will automatically be sent informing you of the repair charge or replacement charge. If you have any questions, please call 1.773.889.3087 for assistance.

#### **Trademark Info**

Cobra®, Dynamike®, Nothing Comes Close to a Cobra® and the snake design are registered trademarks of Cobra Electronics Corporation, USA.

Cobra Electronics Corporation™ is a trademark of Cobra Electronics Corporation, USA.

# S<sub>O</sub>Cobra® 29 LX LE

# Operating Instructions for your **Cobra 29 LX LE**50th Anniversary CB Radio

Limited Edition

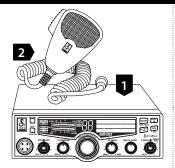


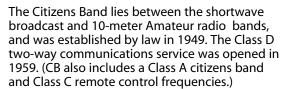
©2010 Cobra Electronics Corporation Printed in China

Part No. 480-647-P-001 Version B



# The CB Story





#### **FCC Regulations**

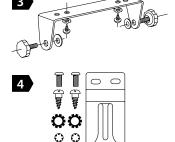
FCC regulations permit only "transmissions" (one party to another) rather than "broadcasts" (to a wide audience). Thus, advertising is not allowed on CB Channels because that is "broadcasting."



All transmitter adjustments other than those supplied by the manufacturer as front panel operating controls, must be made by, or under the supervision of, the holder of an FCC-issued General Radio-Telephone Operator's License.

Replacement or substitution of transistors, regular diodes or other parts of a unique nature, with parts other than those recommended by Cobra, may cause violation of the technical regulations of Part 95 of the FCC Rules, or violation of Type Acceptance requirements of Part 2 of the Rules.

You should read and understand Part 95 (included with this unit) of the FCC Rules and Regulations, before operating your Cobra radio, even though the FCC no longer requires you to obtain an operator's license.







#### What's Included with Your 29 LX LE

CB transceiver
 Microphone

3 Transceiver bracket

4. Microphone bracket

5. Operating Manual

6. DC power cord

7. FCC rules (not shown)

8. Certificate of Authenticity (not shown)

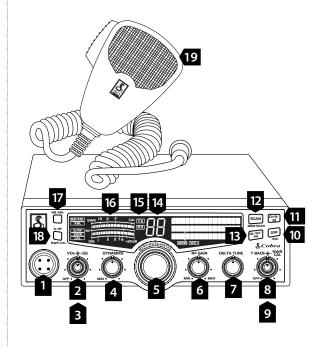
### **Controls and Indicators**

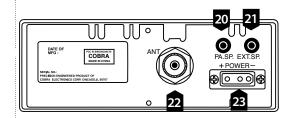
#### Front Side

- 1. 4-Pin Microphone Connector
- 2. Power On/Off, Volume
- 3. Squelch
- 4. Dynamike
- Menu/Enter/Channel Selector
- 6. RF Gain
- 7. Delta Tune
- 8. Talk Back Control
- 9. SWR Calibration
- 10. Dim/Escape Button
- 11. Channel 9/Channel 19
  Button
- 12 Scan/Memory Scan
- 13. CB/WX Weather/PA Button
- 14. LCD Display
- IS RX (Receive)/TX (Transmit), Indicators
- 16. Signal Strength Meter
- 17. NB/ANL Button
- 18. S/RF SWR CAL Button
- 19. Microphone

#### **Back Side**

- 20. Public Address Speaker Jack
- 21. External Speaker Jack
- 22 Antenna Connector
- 23. Power Jack





## **Our Thanks to You**

Thank you for purchasing the Cobra 29 LX LE 50th Anniversary Limited Edition CB Radio. Properly used, this Cobra product will give you many years of reliable service.

#### **Customer Support**

Should you encounter any problems with the product or not understand its many features, please refer to this owner's manual. If, after referring to the manual, you still need help, call Cobra Customer Service at 773.889.3087.



#### NOTE

This device complies with part 15 of the FCC Rules. Operation is subject to the following two (2) conditions:

- 1. This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

The manufacturer is not responsible for any radio or tv interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

#### **Cobra Customer Service**

Live operators are available M-F 8:00 am - 5:30 pm Central Time at: 773-889-3087

Automated Technical Assistance available 24 hours a day, seven days a week. E-mail questions to: productinfo@ cobra.com

Cobra on the World Wide Web: Frequently Asked Questions (FAQ) can be found on-line at: www.cobra.com

# **Optional Accessories**

#### Ordering From U.S.A.

Call 773-889-3087 for pricing or visit www.cobra.com.

#### **For Credit Card Orders**

Call 773-889-3087 [Press one from the main menu] 8:00 a.m. to 5:30 p.m. Central Time, Monday through Friday.

#### Make Check or Money Order Payable To

Cobra Electronics, Attn: Accessories Dept., 6500 West Cortland Street, Chicago, IL 60707 U.S.A.

#### To Order Online

Please visit our website: www.cobra.com