

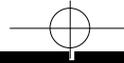
How to Use Your Cobra 148 NW ST

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Features of This Product

- 40 CB Radio Channels
- 80 SSB Channels
- SoundTracker™ System
- Heavy-Duty Dynamic Microphone
- Full 4 Watts AM RF Power Output
- 12 Watts SSB RF Power Output
- Instant Channel 9
- Front Panel 4-Pin Microphone Connector
- Switchable Noise Blanker
- Adjustable Dynamike Boost
- Tactile Controls
- SWR Calibration Meter
- RF Gain
- 9 Ft Mic Cord
- Illuminated Front Panel
- Dimmer Control





Installation

Installation

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

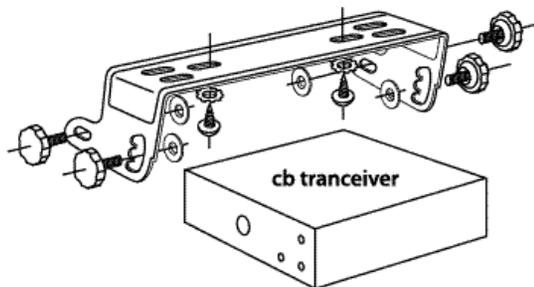
Note

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

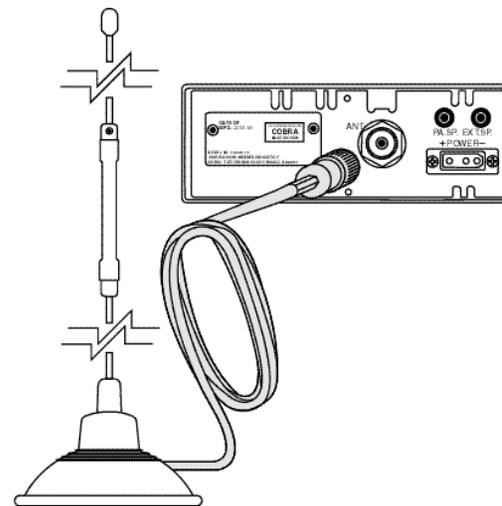
The bracket includes two self-tapping screws and star washers. The mounting must be mechanically strong, conveniently located.

Mounting and Connection

- 1 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.

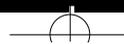


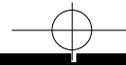
- 2 Drill the holes and secure the bracket.



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

continued





Installation

Installation

Note

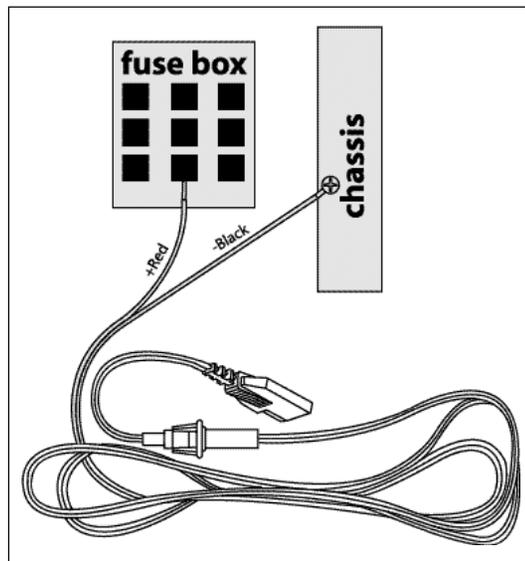
Connecting to an accessory fuse prevents the unit from being left on accidentally, and also permits operating the unit without running the engine.

Note

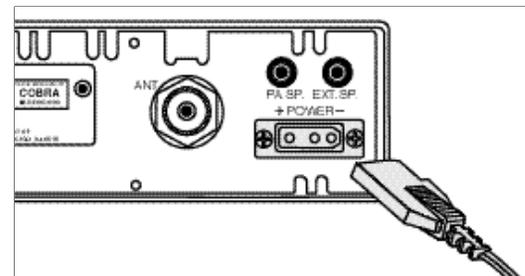
In positive ground vehicles the red wire goes to the chassis and the black wire is connected to the ignition switch.

Note

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.

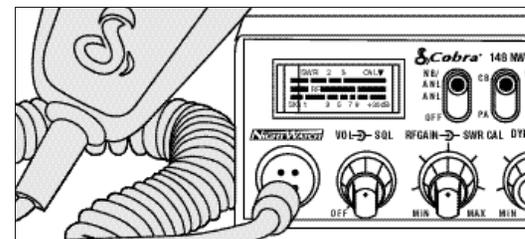
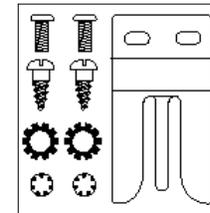


- 4 In a negative grounded vehicle, connect the red lead of the DC power cord to an accessory 12 volt fuse.
- 5 Connect the black lead to the negative side of the vehicle. This is usually the chassis. Any convenient location with a good electrical contact (remove paint) may be used.



- 6 Plug power cable into back of unit marked "Power". Be sure to observe polarity markings.

- 7 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.



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

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

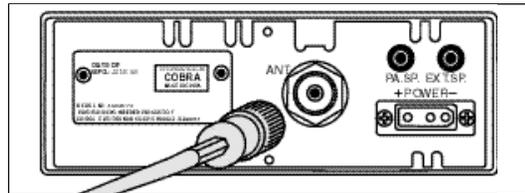
Because many newer trucks feature fiberglass door skins, the outside mirror must be grounded to the chassis via a ground strap if the antenna is mounted on mirror bracket.

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. Consult your Cobra dealer for further details, or call 773.889.3087 and speak to a Cobra representative.



- ① 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.

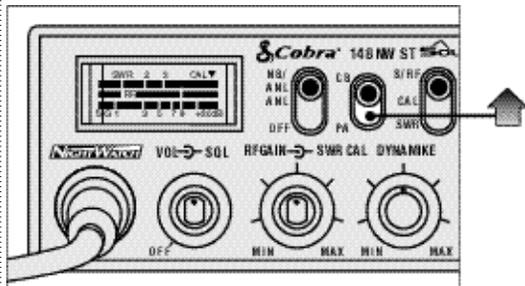
Even though the Cobra 148 NW ST has an automatic noise limiter, in some installations ignition interference may be high enough to make good communications impossible. Many possibilities exist and variations between vehicles require different solutions. Consult your COBRA dealer or a 2-way radio technician for help in locating the source of a severe noise.

Operation

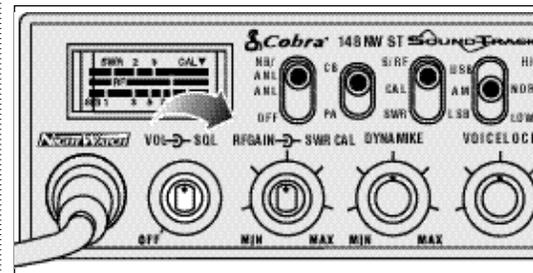
Turning On

Turning On

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



- 1 The CB/PA button should be in the CB position.

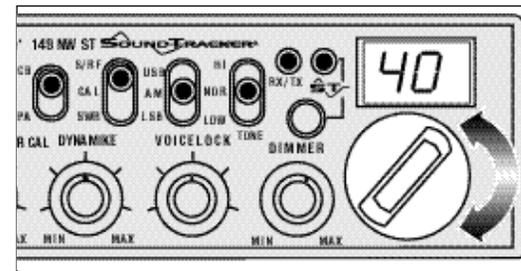


- 2 Rotate the On/Off Volume knob clockwise to a normal listening level.

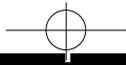
Operation

Setting Channel Selector

Setting Channel Selector



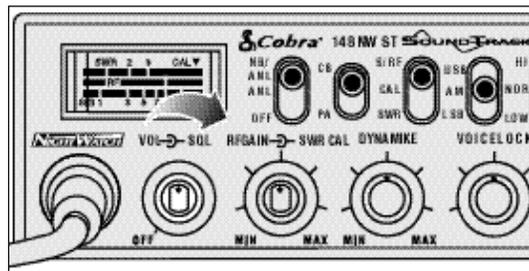
- 1 Select one of forty channels and adjust volume. The selected channel is indicated by the LED readout directly above the channel selector knob



Operation

To Receive

To Receive

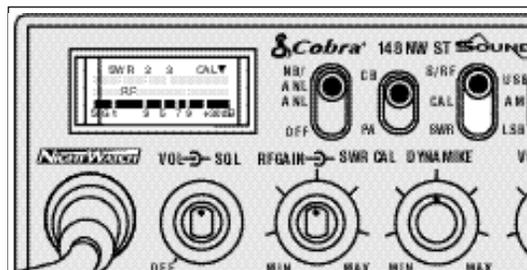


- 1 Rotate the On/Off Volume knob clockwise the green RT/TX LED will be illuminated.

S-Meter

S-Meter

Swings proportionately to strength of incoming signal when receiving.



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

Operation

The SoundTracker™ System

While previous systems only “blanket out” or limit noise in higher sound frequencies, the revolutionary new SoundTracker™ System actually reduces noise while leaving the signal intact in the reception mode. In the transmission mode, it actually strengthens the signal, providing you with a significant reduction in noise on reception and transmission.

Sound clarity is measured by the ratio of the signal level to the noise level. The higher the signal-to-noise ratio, the better the sound.

How SoundTracker™ Works

On Reception - “Cuts noise coming in”

With a normal CB, distant signals fall below the squelch level and are unintelligible. With a SoundTracker™ CB, the noise level is cut up to 90%, which increases the signal-to-noise ratio and dramatically improves signal clarity. This also allows you to significantly reduce the squelch level, which greatly expands your listening range.

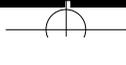
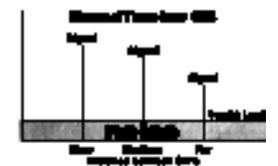
On Transmission - “Strengthens signals going out”

A SoundTracker™ CB strengthens the transmit signal by more effectively using the available RF power output of the CB. The result is improved transmission signal clarity and an expanded transmission range.



Note

SoundTracker™ gives you clearer, cleaner reception to improve CB communications while on the air.

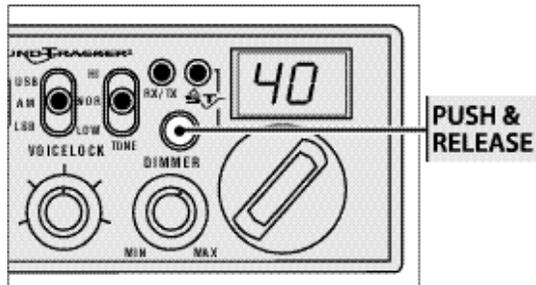




Operation

Activating SoundTracker™

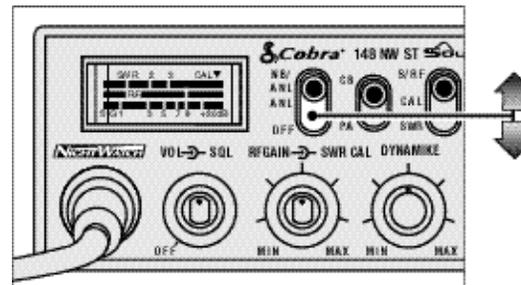
Activating SoundTracker™



- 1 Push and release the ST button. Red LED is illuminated when SoundTracker™ is turned on.

Operation

NB-ANL/ANL/OFF (Noise Blanker/Automatic Noise Limiter) Switch



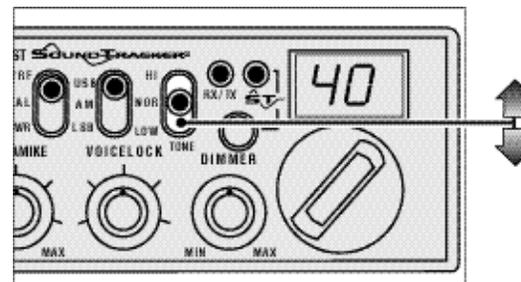
- 1 When switched to ANL the Automatic Noise Limiter is activated. This helps reduce noise created by the vehicle's electronics. When switched to NB/ANL position the RF Noise Blanker is also activated, providing increased noise filtration. When switched to OFF position all noise filtration will be turned off.

NB-ANL/ANL/OFF (Noise Blanker/Automatic Noise Limiter) Switch

Note

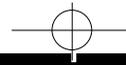
The RF Noise Blanker is very effective in reducing repetitive noises such as ignition interference. The Automatic Noise Limiter helps reduce noise created by the vehicle's electronics.

Hi/Low Tone Control



- 1 When switched, this button is used to shape the audio response to the operator's preference.

Hi/Low/ Tone Control



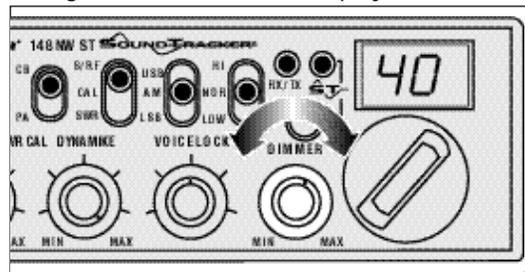
Operation

Operation

Dimmer Control

Dimmer Control

Controls the brightness of the front panel, signal strength meter and channel display

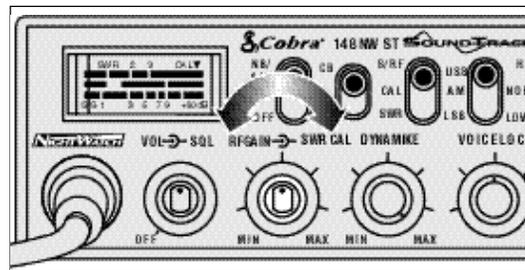


For maximum brightness turn clockwise; counterclockwise for minimum illumination

RF Gain Control

RF Gain Control

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

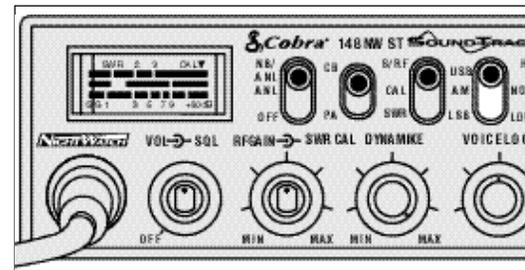


- 1 Rotate the RF Gain knob *counterclockwise* to reduce gain in strong signal areas. In weak signal areas turn *clockwise* to increase gain.

Note

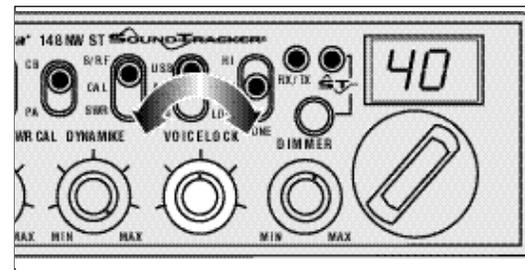
The RF Gain is used to optimize reception in weak signal areas.

USB/AM/LSB Switch

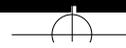


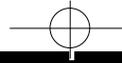
- 1 Select mode of operation from USB to AM to LSB

Voice Lock



- 1 Rotate to clarify receiver's frequencies above and below assigned frequencies. Primarily used to tune SSB signals as well as optimizing AM signals.

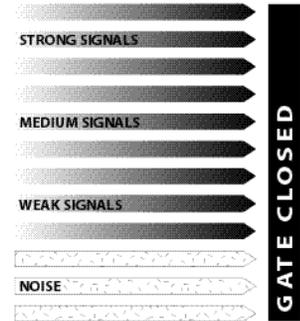




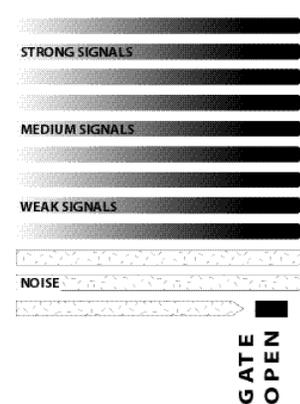
Operation

Setting Squelch

Gate closed

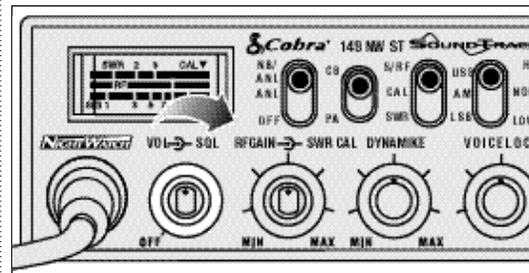


Gate open

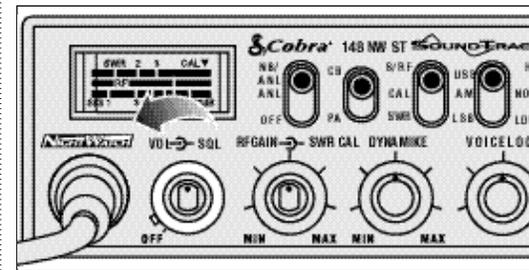


Setting Squelch

Squelch is the "control gate" for incoming signals.



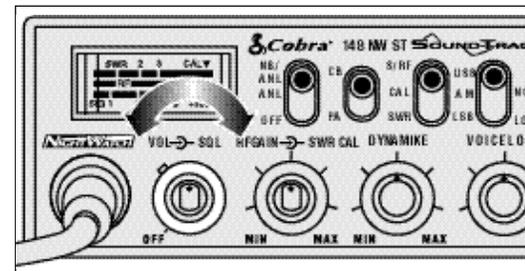
- 1 Full ⌚ clockwise rotation closes the gate allowing only very strong signals to enter.



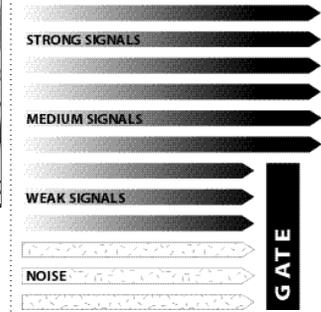
- 2 Full ⌚ counter-clockwise rotation opens the "gate" allowing all signals in.

Operation

Gate set to Desired Squelch Setting (DSS)



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

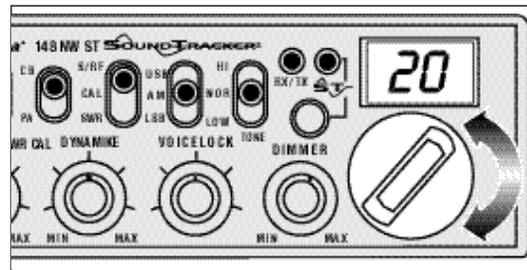


Operation

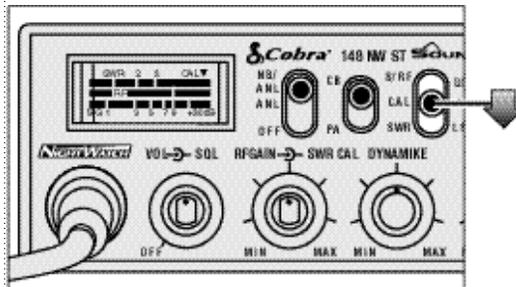
Calibrate For SWR (Standing Wave Ratio)

Note
 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.

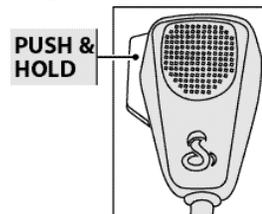
Calibrate for SWR (Standing Wave Ratio)



1 Select channel 20.

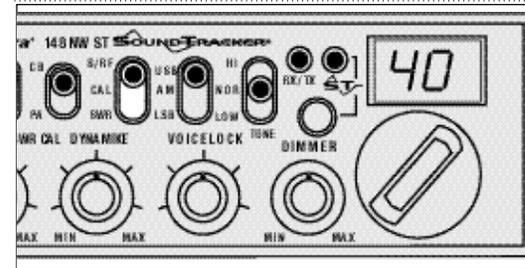


2 Switch to the CAL position.



3 Push and hold mic button.

Operation



4 While holding mic button adjust the SWR CAL knob so the meter needle swings to the CAL mark on the meter (located on the right). If optimum signal is not achieved (less than 3) a slight adjustment to the length of the antenna must be made. Recalibrate.



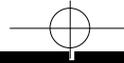
5 Repeat the same steps on Channel 1 and 40.

6 Continue holding the mic button and turn the SWR CAL knob to the SWR position for SWR measurement.

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.

Note
 When switched to SWR position the meter needle 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 step.



Operation

To Transmit

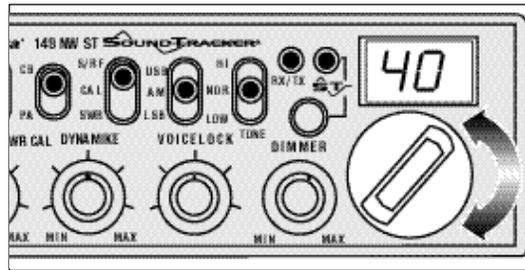


Caution!

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.

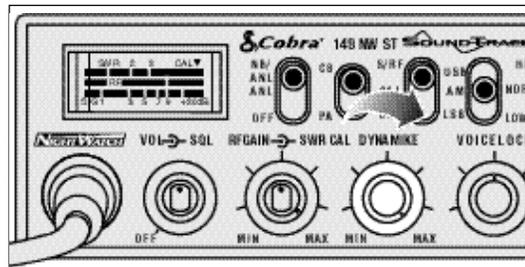
To Transmit



- 1 Select desired channel.

Setting Dynamike

This controls the microphone sensitivity (outgoing audio level).



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

Operation

To Transmit

To Transmit

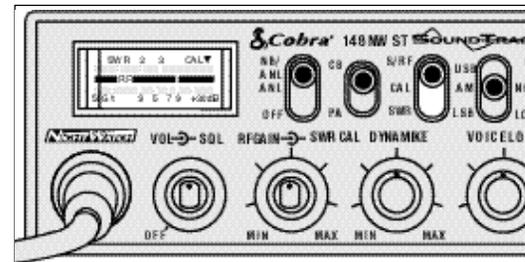
PUSH & HOLD



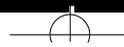
- 1 Press and hold mic button to transmit. Transmitter is now activated. When transmitting, hold the microphone two inches from your mouth and speak in a clear, normal voice. Release to receive.

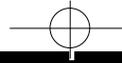
RF Meter

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



- 1 The S/RF-SWR-CAL switch must be in the S/RF position.





Operation

External Speaker

Note

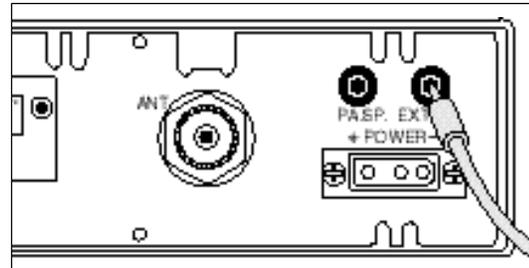
The external speaker should have 8-ohm impedance and be rated to handle at least 4.0 watts. When the external speaker is plugged in, the internal speaker is automatically disconnected.

Note

Cobra external speakers are rated at 10 watts. See Accessories page 39.

External Speaker

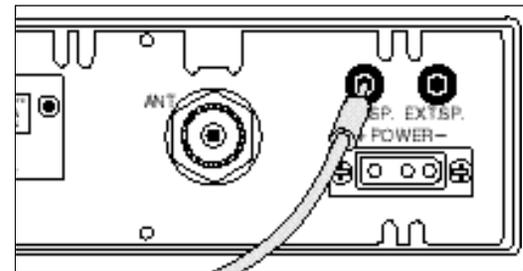
The external speaker jack is used for remote receiver monitoring.



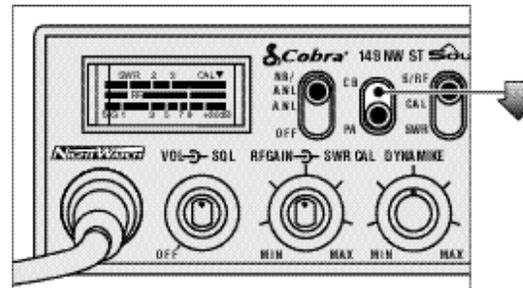
- 1 Connect an external speaker to the external speaker jack on the rear panel.

Operation

PA (Public Address)



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



- 2 Set CB/PA switch to PA position.

PA (Public Address)

Note

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

Note

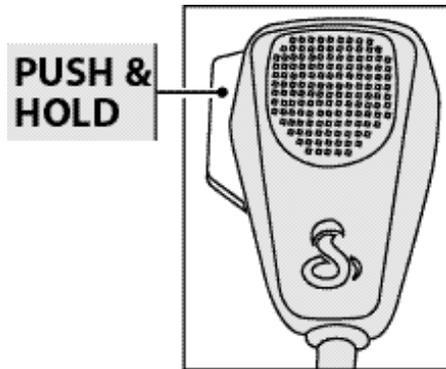
The speaker should be directed away from the microphone to prevent acoustic feedback.

Note

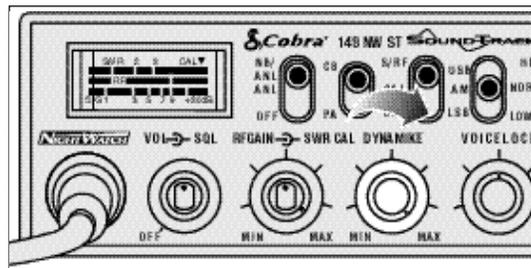
Activity on the CB channel will be heard through the PA speaker. Adjust volume control to a normal listening level.



Operation



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

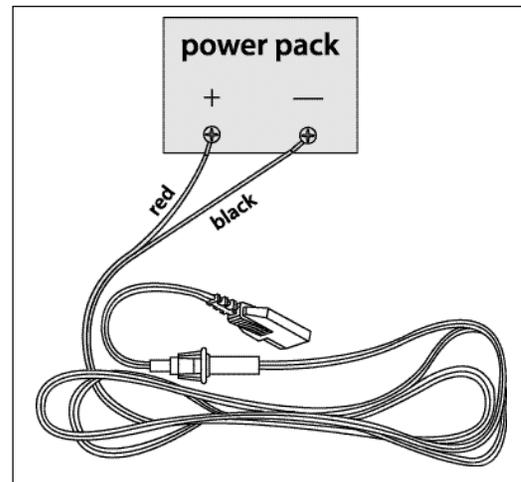


- 4 Adjust PA speaker volume with the Dynamike control.

Operation

Base Station Operation (From 120V AC House Current)

To operate your transceiver from home or office you will need a 13.8 volt DC Power Pack rated at a minimum of 2 amps, and a properly installed base station antenna.



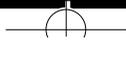
- 1 Simply connect the red (+) and black (-) leads of the transceiver to the corresponding terminals of the power pack.

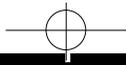
Base Station Operation (From 120V AC House Current)



Warning!
Do not attempt to operate this transceiver by connecting it directly to 120 vac.

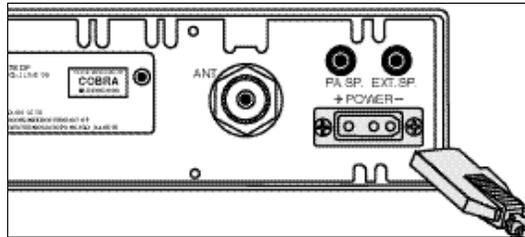
Note
For further information call
Cobra Customer Service
1.773.889.3087.





Temporary Mobile Set-Up

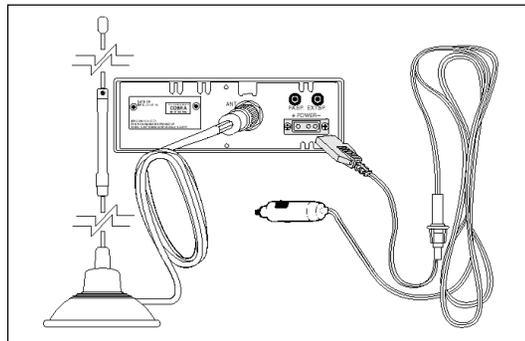
How Your CB Can Serve You



- 2 Plug power cable into back of unit marked "Power". Be sure to observe polarity markings.
- 3 Connect 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.



A Few Rules You Should Know

- 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 driving

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.
- B. 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

Note

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

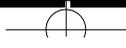
1. **Set to channel 9 for emergencies**
Be sure antenna is properly connected.

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	<i>Identify yourself.</i>
L ocation	<i>Be exact.</i>
I njuries	<i>Number. Type. Trapped?</i>
P roblem	<i>Give details and help needed.</i>

Transmit **CLIP** repeatedly so any monitor can assist.

Temporary Mobile Set-Up





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."

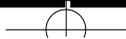
How Your CB Can Serve You

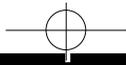
CB 10-Codes

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
10-28	Identify your station

CB 10-Codes





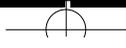
How Your CB Can Serve You

Frequency Ranges

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

The COBRA 148 NW ST 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.

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



148 NW ST Specifications

GENERAL	
CHANNELS.....	40 AM, 40 LSB, 40 USB
FREQUENCY RANGE.....	26.965 TO 27.405 MHZ
FREQUENCY CONTROL.....	PHASE LOCK LOOP (PLL) SYNTHESIZER
FREQUENCY TOLERANCE.....	0.005%
FREQUENCY STABILITY.....	0.001%
OPERATING TEMPERATURE RANGE.....	-30° C TO +50° C
MICROPHONE.....	PLUG-IN DYNAMIC WITH PUSH-TO-TALK SWITCH
INPUT VOLTAGE.....	13.8V DC NOM, 15.9V MAX., 11.7V MIN. (POSITIVE OR NEGATIVE GROUND)
CURRENT DRAIN.....	TRANSMIT: AM FULL MOD, 2.2A, SSB 12 WATTS PEP OUTPUT, 2A RECEIVE: SQUELCHED, 0.25A MAX. AUDIO OUTPUT, 0.6A
SIZE.....	2-3/8" H X 7-7/8" W X 9-1/4" D
WEIGHT.....	5 LBS.
ANTENNA CONNECTOR.....	UHF: SO-239
METER.....	COLOR LIGHT EMITTING DIODE ILLUMINATED; INDICATES RELATIVE POWER OUTPUT, RECEIVED SIGNAL STRENGTH AND VSWR
TRANSMITTER	
POWER OUTPUT.....	AM 4 WATTS, SSB 12 WATTS PEP
MODULATION.....	HIGH- AND LOW-LEVEL CLASS B, AMPLITUDE MODULATION
INTERMODULATION DISTORTION.....	SSB: 3RD ORDER, MORE THAN -25dB 5TH ORDER, MORE THAN -35dB
SSB CARRIER SUPPRESSION.....	55 dB
UNWANTED SIDEBAND.....	50 dB
FREQUENCY RESPONSE.....	AM AND SSB: 300 TO 2500 HZ
OUTPUT IMPEDANCE.....	50 OHMS, UNBALANCED
OUTPUT INDICATORS.....	METER SHOWS RELATIVE RF OUTPUT POWER AND SWR. TRANSMIT LED GLOWS RED WHEN TRANSMITTER IS IN OPERATION.
RECEIVER	
SENSITIVITY.....	SSB: 0.25 μ V FOR 10 dB (S+N) /N AT GREATER THAN 1/2-WATT OF AUDIO OUTPUT AM: 0.5 μ V FOR 10 dB (S+N) /N AT GREATER THAN 1/2-WATT OF AUDIO OUTPUT
SELECTIVITY.....	AM: 7.8 KHZ, 50 dB @ 9KHZ SSB: 6 dB @ 1.1 KHZ, 60 dB @ 2.3 KHZ
IMAGE REJECTION.....	MORE THAN 65 dB
ADJACENT-CHANNEL REJECTION.....	60 dB AM & 70 dB SSB
IF FREQUENCIES.....	AM: 7.8MHZ 1ST IF, 455 KHZ 2 ND IF SSB: 8.7 MHZ
AM & SSB RF GAIN CONTROL.....	40 dBADJUSTABLE FOR OPTIMUM SIGNAL RECEPTION
AUTOMATIC GAIN CONTROL (AGC).....	LESS THAN 10 dB CHANGE IN AUDIO OUTPUT FOR INPUTS FROM 10 TO 100,000 MICROVOLTS
NOISE BLANKER.....	RF TYPE, EFFECTIVE ON AM AND SSB
ANL.....	SWITCHABLE
SQUELCH.....	ADJUSTABLE; THRESHOLD LESS THAN 0.25 μ V
VOICE LOCK RANGE.....	+/- 1.5 KHZ
AUDIO OUTPUT POWER.....	4 WATTS INTO 8 OHMS
FREQUENCY RESPONSE.....	300 TO 2500 HZ
DISTORTION.....	LESS THAN 0 % @ 0 WATTS @ 0000 HZ??
BUILT-IN SPEAKER.....	8 OHMS, 5 WATTS
EXTERNAL SPEAKER (NOT SUPPLIED).....	8 OHMS; DISABLES INTERNAL SPEAKER WHEN CONNECTED
PA SYSTEM	
POWER OUTPUT.....	4 WATTS INTO EXTERNAL SPEAKER
EXTERNAL SPEAKER FOR PA.....	8 OHM, 4 WATTS MIN. (NOT SUPPLIED)
(SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE)	

Limited One 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) year from 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 Cobras 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.

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.

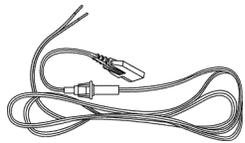
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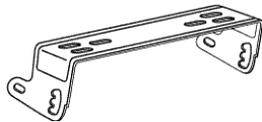
**Cobra Electronics
Corporation**

6500 West Cortland Street
Chicago, Illinois 60707

Optional Accessories



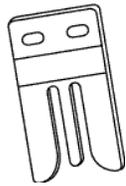
Replacement DC Power Cord
For in vehicle use
420-071-9-001 \$7.50



Replacement Mounting Bracket
For in vehicle use
250-044-N-001 \$4.50



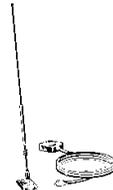
Replacement Thumb Screws
For in vehicle use
634-088-9-001 \$0.60



Replacement Microphone Bracket
For in vehicle use
741-080-9-001 \$0.45



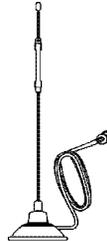
28" Full Range Center Load, Magnetic Mount Antenna
For in vehicle use
AT 35 \$19.95



25" Glass Mount Antenna
For in vehicle use
AT 55 \$27.95



39" Full Range Base Load, Magnetic Mount Antenna
For in vehicle use
AT 70 \$24.95



44" Full Range, Center Load, Dual Band CB/WX Antenna
Allows greater transmission range while in a moving vehicle.
ATW-400 \$27.95



Replacement Dynamic Microphone
For in vehicle use
CA 73 \$12.95



Power Microphone
For in vehicle use
CA 75 \$21.95



Noise Canceling/Power Microphone
For in vehicle use
CA 77 \$24.95



Echo/Noise Canceling Microphone
For in vehicle use
CA 79 \$59.95



Dynamic External Speaker
For in vehicle use
CS 100 \$14.95



Noise Canceling External Speaker
For in vehicle use
CS 300 \$19.95



Dynamic Noise Canceling With Talk Back External Speaker
For in vehicle use
CS 500 \$24.95

You Can Find These Fine Accessories At Your Local Cobra CB Dealer

If you wish, you can order directly from Cobra.

Order by phone

Call 1.773.889.3087

(Press 1 from the main menu) 8 a.m.-8 p.m. M-F CST.

Order by mail or fax

Please fill out order form on next page, and mail/fax directly to Cobra.

Accessory Order Form

Item #	Description	Cost Ea.	Qty.	Amount
420-071-9-001	Replacement DC Power Cord	\$7.50		
250-044-N-001	Replacement Mounting Bracket	\$4.50		
634-088-9-001	Replacement Thumb Screws	\$0.60		
741-080-9-001	Replacement Microphone Bracket	\$0.45		
AT 35	28" Full Range Center Load, Magnetic Mount Antenna	\$19.95		
AT 55	25" Glass Mount Antenna	\$27.95		
AT 70	39" Full Range Base Load, Magnetic Mount Antenna	\$24.95		
ATW 400	44" Full Range, Center Load, Dual Band CB/WX Antenna	\$27.95		
CA 73	Replacement Dynamic Microphone	\$12.95		
CA 75	Power Microphone	\$21.95		
CA 77	Noise Canceling/Power Microphone	\$24.95		
CA79	Echo/Noise Canceling Microphone	\$59.95		
CS 100	Dynamic External Speaker	\$14.95		
CS 300	Noise Canceling External Speaker	\$19.95		
CS 500	Dynamic Noise Canceling With Talk Back External Speaker	\$24.95		

Shipping & Handling

Amount of Order	Shipping/Handling
\$25.00 and under	\$4.75 minimum
\$25.01-\$40.00	\$6.95
\$40.01-\$80.00	\$9.00
\$80.01-\$120.00	\$10.00
\$120.01-\$160.00	\$11.50
\$160.01 and up	\$14.25

For AK, HI and PR please add an additional \$15.00 for UPS shipments.

Prices subject to change without notice.	Subtotal _____
Tax Table	(Tax if applicable) _____
Illinois residents add 7%	Michigan residents add 4%
Cook Co. residents add .75% (7.75% total)	Ohio residents add 6%
Chicago residents add 1% (8.75% total)	Wisconsin residents add 5%
Indiana residents add 5%	Shipping/handling _____
	Total _____

For credit card orders fill out order form and fax to: 1.773.622.2269 or call 1.773.889.3087 (Press 1 from the main menu)

8:00 am - 8:00 pm, M-F, CST.
Make check or money order (no stamps) payable to:
Cobra Accessories Dept.
6500 West Cortland St. Chicago, IL 60707

Please print clearly
Name _____
Address (No P.O. Box) _____
City _____ State _____
Zip _____
Telephone (____) _____
Credit Card No. _____ Exp. Date _____
Customer Signature _____

Circle One: Visa MasterCard Discover
Allow 4 to 6 weeks for delivery. Offer valid in Continental U.S. only.



Cobra Electronics Corporation
 6500 West Cortland Street
 Chicago, IL60707

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 - 8:00 pm, Monday through Friday, CST.
Technical assistance is also available on-line in the Frequently Asked Questions (FAQ) section at www.cobraelec.com or by e-mail to productinfo@cobraelec.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.
5. 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.

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 Printed in China

Part No. 480-301-P-001

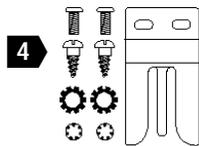
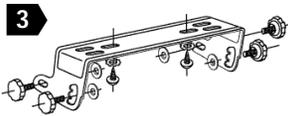
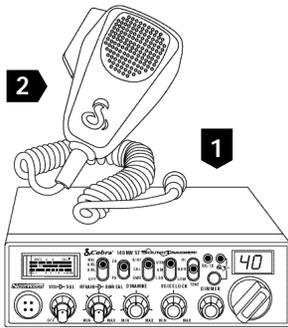
**Operating Instructions
 for your Cobra 148 NW ST**

CB Radio



"Ingenious Products for Easier Communication."

The CB Story



The Citizens Band lies between the shortwave broadcast and 10-meter Amateur radio bands, and was established by law in 1949. The Class D two-way communications service was opened in 1959. (CB also includes a Class A citizens band and Class C remote control frequencies.)

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."

FCC Warnings

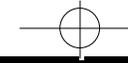
All transmitter adjustments other than those supplied by the manufacturer as front panel operating controls, must be made by, or under the supervision of, the holder of an FCC-issued General Radio-Telephone Operator's License.

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 148 NW ST

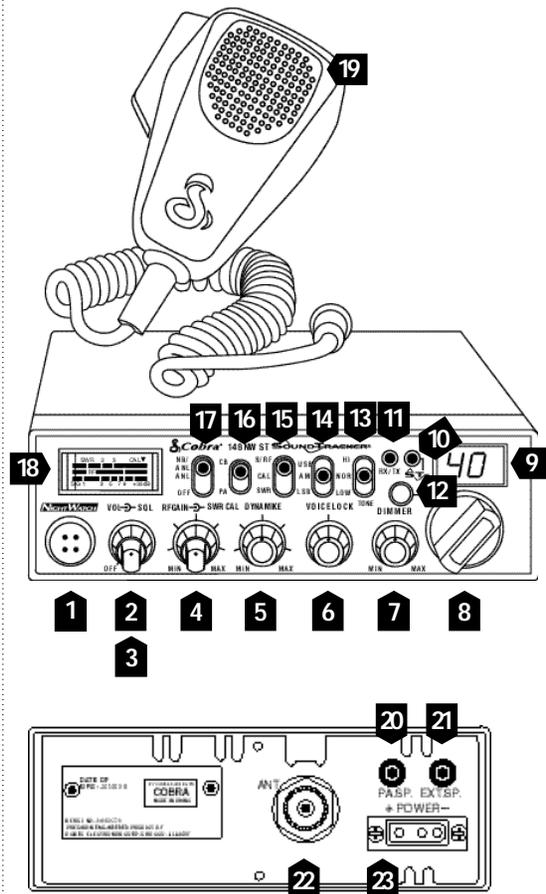
- 1. CB transceiver
- 2. Microphone
- 3. Transceiver bracket
- 4. Microphone bracket
- 5. Operating Manual
- 6. DC power cord
- 7. FCC rules (not shown)



Controls and Indicators

Our Thanks to You

- 1. 4-Pin Microphone Connector
 - 2. Power On/Off, Volume
 - 3. Squelch
 - 4. RFGain/SWRCal
 - 5. Dynamike
 - 6. Voicelock
 - 7. Dimmer Control
 - 8. Channel Selector
 - 9. LED Channel Display
 - 10. SoundTracker™ LED
 - 11. RX(Receive)/TX(Transmit) LED Indicator
 - 12. SoundTracker™ On/Off
 - 13. Hi/Lo Tone Switch
 - 14. USB/AM / LSB Switch
 - 15. S/RF/CAL/SWR Switch
 - 16. CB/PA Switch
 - 17. NB/ANL/ANL/Off Switch
 - 18. Signal Strength Meter
 - 19. Microphone
- Back Side**
- 20. Public Address Speaker Jack
 - 21. External Speaker Jack
 - 22. Antenna Connector
 - 23. Power Jack



Thank you for purchasing the Cobra 148 NW ST CB Radio. Properly used, this Cobra product will give you many years of reliable service.

SoundTracker™

“Cuts noise coming in...strengthens signals going out.”

This Patent pending technology dramatically improves transmission and reception of CB signals.

The revolutionary SoundTracker™ System reconfigures the transmission signal which allows it to be transferred more efficiently through cluttered airwaves.

At the same time, it significantly reduces the amount of static on all incoming CB signals.

The end result is a cleaner, clearer sounding reception of signals and a more powerful transmission which dramatically improves CB communications.

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.

Cobra Customer Service

Live operators are available
M-F 8:00 am - 8:00 pm CST at:
773.889.3087

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

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



