

န် *Cobra*[®] GR25 LTD ST

Operating Instructions for your Cobra GR 25 LTD ST CB Radio

Bedienungsanleitung für Ihr Modell Cobra GR 25 LTD ST CB-Funkgerät

Instructivo de uso de la radio de banda ciudadana (CB) Cobra GR 25 LTD ST

Instructions d'utilisation du poste de radio CB GR 25 LTD ST de Cobra

Istruzioni per l'uso del modello Cobra GR 25 LTD ST Radio CB

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"Ingenious Products for Easier Communication."

Cobra Electronics Corporation 6500 West Cortland Street Chicago, IL 60707 USA www.cobraelec.com

Cobra Electronics Corp.© 1999

Our Thanks to You

A3

Thank you for purchasing the Cobra GR 25 LTD 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.

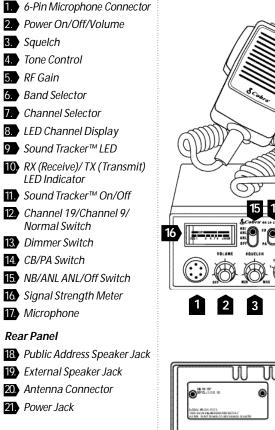
The revolutionary SoundTracker[™]System reconfigures the transmission signal, allowing it to be transferred more efficiently through cluttered airwaves.

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

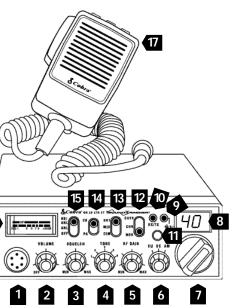
The end result is a cleaner, clearer reception of signals and a more powerful transmission, which dramatically improve CB communications.

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

Controls and Indicators



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Features of This Product

- 40 German FM Channels
 40 European (CEPT) Channels
 12 German AM Channels
- SoundTracker[™]System
- Heavy-Duty Dynamic
 Microphone with Channel Changer
- Full 4 Watts RF Power Output
- Instant Channel 19 and 9
- Front Panel 6-Pin Microphone
 Connector
- Switchable Noise Blanker-Automatic Noise Limiter
- RF Gain

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- PA Function
- 2.75-metre (9-foot) Microphone Cord

Installation

Location

Mounting and Connection

The transceiver is held in the

universal mounting bracket by

two thumbscrews which allow for adjustment at a convenient

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

conveniently located.

Note

angle.

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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.

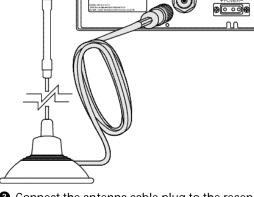
The transceiver is usually mounted to the underside of the dash with the microphone bracket beside it.

Mounting and Connection

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.

cb transceiver

2 Drill the holes and secure the bracket.



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

continued

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Installation

Installation

Note

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

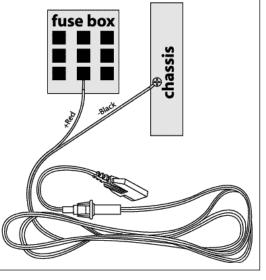
Note

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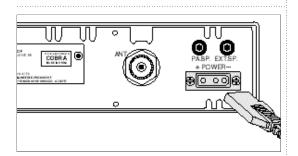
Connecting to a fuse circuit controlled by the ignition switch prevents the unit from being left on accidentally, and also permits operating the unit without running the engine.

Note

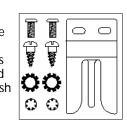
In positive earth vehicles the red wire goes to the chassis and the black wire is connected to the ignition switch.

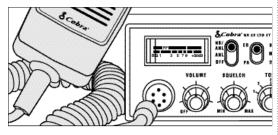


- In a negative earthed vehicle, connect the red lead of the DC power cord to an accessory 12 volt fuse.
- Connect the black lead to the negative side of the vehicle. This is usually the chassis. Any convenient location with a good electrical contact (remove paint) may be used.



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





Attach the 6-pin microphone cable to receptacle on front of unit and Install unit in bracket securely.

Installation

Antennas

CB Antenna

CB Antenna

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.

.....

+

boot.

Note

Note Antenna bracket must be earthed to the chassis of the vehicle.

For optimum performance in

passenger cars the ideal

antenna location is on the

centre of the roof. Second choice is on the centre of the

• 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 an earthing plate, (unless it has a steel hull). Before attempting installation, consult your dealer for information regarding an adequate earthing system and prevention of electrolysis between fittings in the hull and water. Ignition Noise Interference

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Use of a mobile receiver at low signal levels is normally limited by the presence of electrical noise. The primary source of noise in cars is from the alternator and the 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 GR 25 LTD 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.

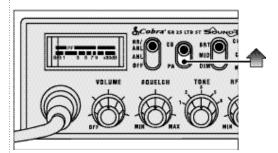
Operation

Turning On

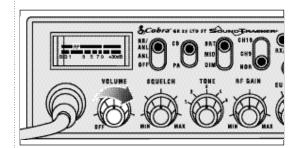
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Turning On

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

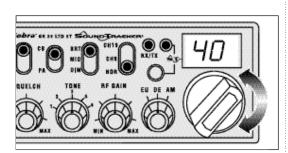


The CB/PA button should be in the CB position.



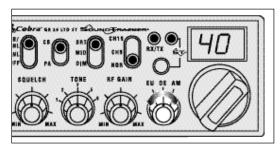
2 Rotate the On/Off Volume knob clockwise to a normal listening level.

Setting Channel Selector



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

Setting Band Mode Selector



To operate in EU band, set control to EU, to operate in DE band, set to DE, and to operate in AM band, select AM.

Setting Channel Selector

Setting Band Mode Selector

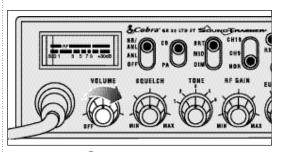
9

Operation

To Receive

To Receive

Selecting A Channel



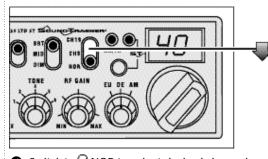
 Rotate the OOn/Off Volume knob *clockwise*. The green RX/TX LED will be illuminated.

Selecting A Channel

Note

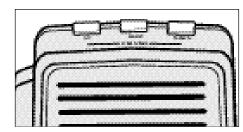
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Switch to 9 or 19 (Information) for instant access to these channels.



• Switch to R NOR to select desired channel.

Selecting A Channel from Microphone



Channels can also be selected by pressing the UP and DOWN buttons on top of the microphone. To lock channel, press and release the LOCK button.

S-Meter

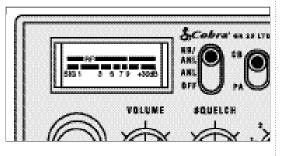
ter

Selecting a Channel from

Microphone

S-Meter

Swings proportionately to strength of incoming signal when receiving.



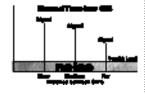
Sound-T-RACKER

Note

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





(12)

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

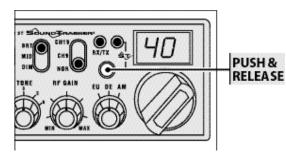
On Reception - "Cuts noise coming in"

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

Activating SoundTracker[™]



• Push and release the O ST button. Red LED is illuminated when SoundTracker[™] is turned on.

Operation

Activating SoundTracker[™]

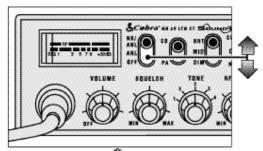
NB/ANL, ANL, OFF (Noise Blanker, Automatic Noise Limiter Switch

Note

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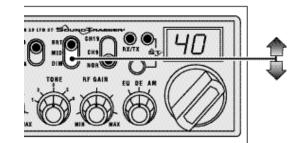
The RF noise blanker is very effective in reducing repetitive noises such as ignition interference.

NB/ANL, ANL, Off Switch



- When switched to NB/ANL position the RF Noise Blanker and Automatic Noise Limiter is activated, providing increased noise filtration.
- When switched to the ANL the Automatic Noise Limiter is activated. This helps reduce noise created by the vehicle's electronics.

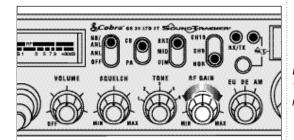
When switched to OFF position Noise Blanking and Automatic Noise Limiting Filtration will be turned off. Bright/Mid/Dim Switch



Switch to BRT, MID or DIM to control brightness of the channel indicator and multi-function meter for day or nighttime driving.

RF Gain Control

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



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

Operation

Bright/Mid/Dim Switch

RF Gain Control

Note

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

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Setting Squelch

Squelch is the "control gate" for incoming signals.

VOLUME

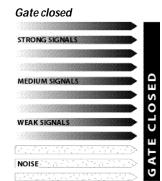
Cobra' en 15 ITA ST

SQUELCH

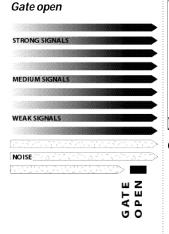
• Full clockwise rotation closes the "gate"

allowing only very strong signals to enter.

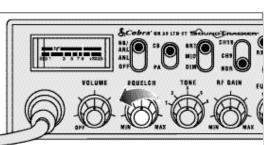
Setting Squelch



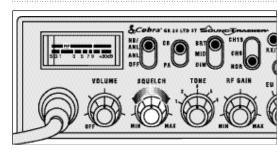
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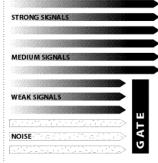
Full anticlockwise rotation opens the "gate" allowing all signals in.



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

Gate set to Desired Squelch Setting (DSS)

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Operation

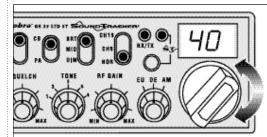
18

Operation

To Transmit

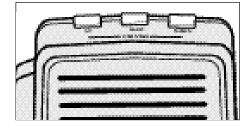


Be sure the antenna is properly connected to the radio before transmitting. Prolonged transmitting without an antenna,or with a poorly matched antenna, can cause damage to the transmitter. To Transmit



• Select desired Channel.

Selecting A Channel from Microphone



Channels can also be selected by pressing the UP and DOWN buttons on top of the microphone. To lock channel, press and release the LOCK button.

Setting Tone Control



• Tone Control () is used to set the desirable tone level of received audio signals.

Operation

Setting Tone Control

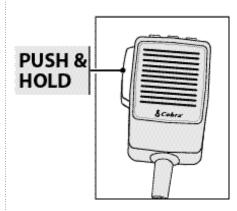
19

Selecting a Channel from Microphone

Transmit

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Transmit

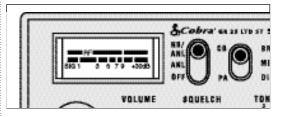


• Push and hold microphone button to transmit. Transmitter is now activated. When transmitting, hold the microphone two inches from your mouth and speak in a clear, normal voice. *Release* to receive.

RF Meter

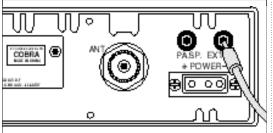
This meter swings proportionately to the RF output (outgoing signal) while transmitting.

RF Meter



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.

Operation

External Speaker

Note

The external speaker should have 8-ohm impedance and be rated to handle at least 4 watts. When the external speaker is plugged in,the internal speaker is automatically disconnected.

Note

Cobra external speakers are rated at 10 watts.

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PA (Public Address)

Note

Speaker should have 8-ohm impedance and be rated to handle at least 4 watts.

Note

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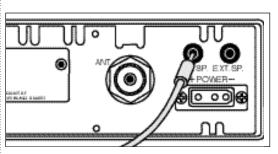
The speaker should be directed away from the microphone to prevent acoustic feedback.

Note

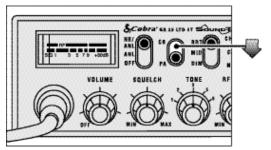
Adjust volume control to normal listening level. Activity on the CB channel will be heard through the PA speaker.

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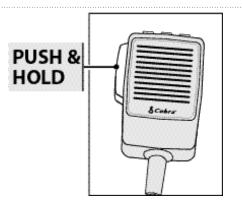
PA (Public Address)



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



2 Set CB/PA switch to PA position.



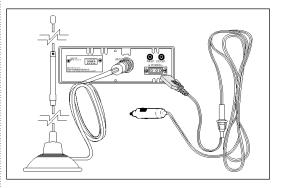
Push and hold microphone button and speak in a normal voice. Your voice will sound on the PA speaker.

Temporary Mobile Set-Up

Temporary Mobile Set-Up

Temporary Mobile Operation

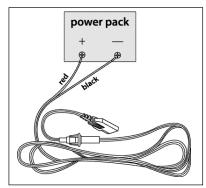
For temporary mobile operation you may want to purchase an optional cigarette lighter adapter from your COBRA dealer. This adapter and a magnetic mount antenna allow you to "install" your transceiver guickly for temporary use.



Home And Office Set-Up

Base Station Operation (From 220/240V AC Domestic 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.



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

COURTA O ANTON OF OR ANTON OF A COURTA O ANTON

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

Base Station Operation (From 220/240V AC Domestic Current)



Do not attempt to operate this transceiver by connecting it directly to 220/240 V AC.

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How Your CB Can Serve You

How Your CB Can Serve You

Local Laws or Regulations · Warn of traffic delays ahead Local Laws or Regulations · Provide weather and road information Provide help in an emergency The use of this CB product involves the pub-· Provide direct contact (subject to lic airways and its use may be subject to conditions) with home or office local laws or regulations. Before using the · Get local information to find destination product you should check to see that the contemplated use does not violate any · Let you communicate with family and friends applicable local law or regulation. Suggest spots to eat and sleep Keep you alert while travelling A Few Rules You Should Know A. Conversations should not last more than 5 minutes with another station. A one minute break should be taken to let others use the channel. B. You should not blast others off the air by use of illegally amplified transmitters or illegally high antennas. C. You should not use the CB to promote illegal activities. D. Bad language should not be used. E. You should not transmit music with a CB. F. You should not use your CB to sell merchandise or professional services.

A Few Rules You Should Know

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How Your CB Can Serve You

CB 10-Codes

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 Meanir

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 air
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/road conditions
10-16	Make pick-up at
10-17	- 3
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	5
10-27	Moving to channel
10-28	Identify your station

How Your CB Can Serve You

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CodeMeaning10-29Time is up for contact10-30Does not conform

- 10-33 Emergency traffic
- 10-34 Trouble at this station
- 10-35 Confidential information
- 10-36 Correct time is
- 10-37 Breakdown truck needed at
- 10-38 Ambulance needed
- 10-39 Message delivered
- 10-41 Turn to channel
- 10-42 Traffic accident at
- 10-43 Traffic delay 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 GR 25 LTD ST transceiver represents one of the most advanced FM two-way radios. This unit features advanced Phase Lock Loop (PLL) circuitry providing complete coverage of all 40 CEPT FM, 40 German FM and 12 AM CB channels.

CEPT Frequencies (EU)					German Frequencies (DE)			
CB Channel	Channe Freq. In MHz	l CB Chan	Char Freq nel In M		CB Chann	Channel Freq. Iel In MHz	CB Channel	Channel Freq. In MHz
1 2 3 4 5	26.965 26.975 26.985 27.005 27.015	22 23 24	27.2 27.2 27.2 27.2 27.2 27.2	225 255 235	41 42 43 44 45	26.565 26.575 26.585 26.595 26.605	61 62 63 64 65	26.765 26.775 26.785 26.795 26.805
6 7 8 9 10	27.025 27.035 27.055 27.065 27.075	27 28 29	27.2 27.2 27.2 27.2 27.3	275 285 295	46 47 48 49 50	26.615 26.625 26.635 26.645 26.655	66 67 68 69 70	26.815 26.825 26.835 26.845 26.855
11 12 13 14 15	27.085 27.105 27.115 27.125 27.135	32 33 34	27.3 27.3 27.3 27.3 27.3	825 835 845	51 52 53 54 55	26.665 26.675 26.685 26.695 26.705	71 72 73 74 75	26.865 26.875 26.885 26.895 26.905
16 17 18 19 20	27.155 27.165 27.175 27.185 27.205	37 38 39	27.3 27.3 27.3 27.3 27.3 27.4	375 385 395	56 57 58 59 60	26.715 26.725 26.735 26.745 26.755	76 77 78 79 80	26.915 26.925 26.935 26.945 26.955
AM Frequenc	CI Sies Ch	8 Iannel	Channel Freq. In MHz	CB Chai		Channel Freq. In MHz	CB Channel	Channel Freq. In MHz
		4 5 6 7	27.005 27.015 27.025 27.035	8 9 10 11		27.055 27.065 27.075 27.085	12 13 14 15	27.105 27.115 27.125 27.135

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GR 25 LTD ST Specifications

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GENERAL	
CHANNELS	40 CH CEDT EM
CHANNELS	40 CH GR FM
	12 CH GR AM
FREQUENCY RANGE (CEPT FM)	
FREQUENCY RANGE (German)	
FREQUENCY RANGE (German AM)	
FREQUENCY TOLERANCE.	
FREQUENCY CONTROL	PLL (PHASE LOCK LOOP) SYNTHESIZER
OPERATING TEMPERATURE	
RANGE	-20° C TO + 55° C
MICROPHONE	PLUG-IN DYNAMIC
	. 13.2VDC nom.(positive or negative earth)
	TRANSMIT: AM FULL MOD., 1.5A (MAXIMUM)
	RECEIVE:SQUELCHED, 0.3A;FULL AUDIO
	OUTPUT, 1.2A (NOMINAL)
SIZE	219 mm x 162 mm x 56 mm
SIZE	
WEIGHT.	(8-5/8"D X 6-3/8"W X 2-13/64"H)
WEIGHT	
ANTENNA CONNECTOR	
METER	
	POWER OUTPUT, RECEIVED
	SIGNAL STRENGTH
TRANSMITTER	
POWER OUTPUT	
MODULATION	
FREQUENCY RESPONSE	
OUTPUT IMPEDANCE	
	.50 ORIVIS, UNBALANCED
RECEIVER	
SENSITIVITY	
SELECTIVITY	
ADJACENT-CHANNEL REJECTION	
IF FREQUENCIES	.DOUBLE CONVERSION:1ST: 10.695 MHz
	2ND:455 kHz
	LESS THAN 10 dB CHANGE IN AUDIO
	OUTPUT FOR INPUTS FROM 10 TO 50,000 µV
RF GAIN RANGE	
NOISE BLANKER	
SQUELCH	.ADJUSTABLE; THRESHOLD LESS THAN 1 µV
AUDIO OUTPUT POWER	.4 WATTS
FREQUENCY RESPONSE	.300 TO 3000 Hz
DISTORTION	LESS THAN 7% @3 WATTS @ 1000 Hz
BUILT-IN SPEAKER	
	8 OHMS; DISABLES INTERNAL SPEAKER
	WHEN CONNECTED
PA SYSTEM	

PA SYSTEM

POWER OUTPUT	.4 WATTS INTO EXTERNAL SPEAKER
EXTERNAL SPEAKER FOR PA	8 OHMS, 4 WATTS MINIMUM,
(NOT SUPPLIED)	

(SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE)

Optional Accessories

Optional Accessories



Replacement DC Power Cord For in-vehicle use



Replacement Mounting Bracket For in-vehicle use



Replacement Thumb Screws For in-vehicle use



Dynamic External Speaker For in-vehicle use CS 100



Noise Cancelling External Speaker For in-vehicle use CS 300



Dynamic Noise Cancelling With Talk Back External Speaker For in-vehicle use



You Can Find These High-quality Accessories At Your Local Cobra CB Dealer



Replacement Microphone Bracket For in-vehicle use

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71 cm (28") Full Range Centre Load, Magnetic Mount Antenna For in-vehicle use AT 35



63.5 cm (25") Glass Mount

Antenna For in-vehicle use AT 55



99 cm (39") Full Range Base Load, Magnetic Mount Antenna For in-vehicle use AT 70

112 cm (44") Full Range, Centre Load, Dual Band CB/WX Antenna Allows greater transmission range while in a moving vehicle.

while in a moving vehicle. ATW-400





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