How to Use Your CB 92

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Features of This Product

- *40 CB Radio Channels*
- *Heavy-Duty Dynamic Microphone*
- *Full 4 Watts AM RF Power Output*
- *SWR Calibration Meter*
- *Instant Channel 9*
- *4-Pin Front Mount Microphone Connector*
- *Delta -Tune*
- *Switchable Automatic Noise Limiter & Noise Blanker*
- *Adjustable Dynamike® Boost*
- *9 Ft. Mic Cord*
- *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

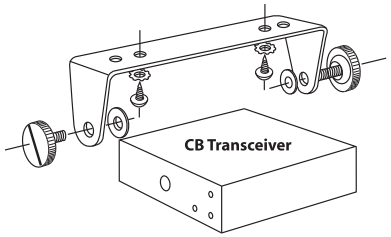
Note

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

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

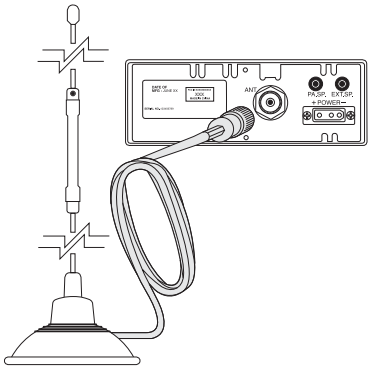
Mounting and Connection

❶ 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.



❷ Drill the holes and secure the bracket.

Installation



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

continued

Installation

Note

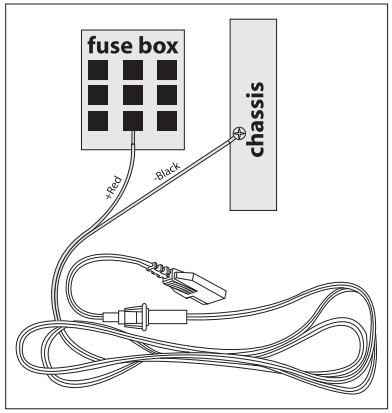
Connecting to an accessory fuse prevents the unit from being left on accidentally, and also permits operating the unit without running the engine.

Note

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

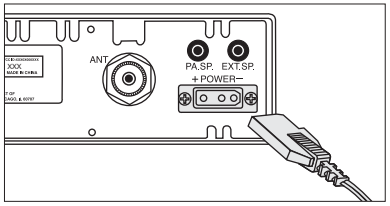
Note

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.



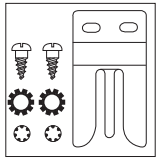
❹ In a negative grounded vehicle, connect the red lead of the DC power cord to an accessory 13.8 volt fuse.

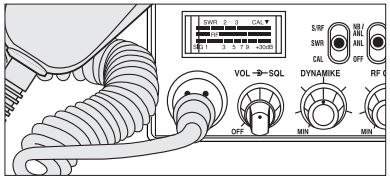
❺ Connect the black lead to the negative side of the vehicle. This is usually the chassis. Any convenient location with a good electrical contact (remove paint) may be used.



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

❼ 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.





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

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.

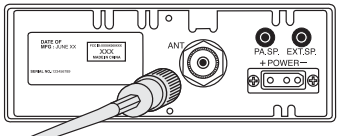
Note

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

Antenna installation should not exceed 6 meters height from ground.

CB Antenna

Since the maximum allowable power output of the transmitter is limited by the FCC, the antenna is critical in affecting transmission distance.



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

Marine Installation

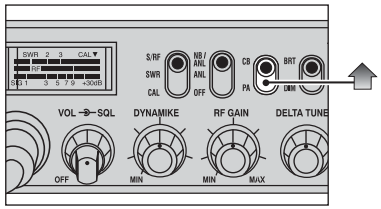
The transceiver will not operate at maximum efficiency in a boat without a ground plate, (unless it has a steel hull). Before attempting installation , consult your dealer for information regarding an adequate grounding system and prevention of electrolysis between fittings in the hull and water.

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.

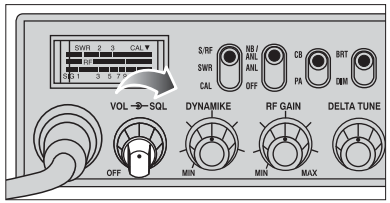
Turning On

Turning On

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

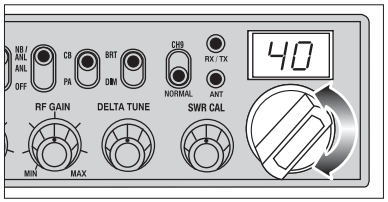


❶ The CB/PA button should be in the CB position.



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

Setting Channel Selector



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

Operation

Setting Channel Selector

Operation

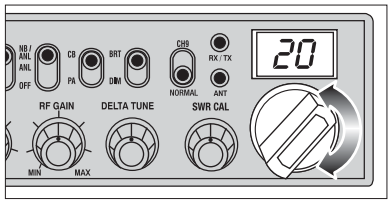
Calibrate For SWR (Standing Wave Ratio)

Note

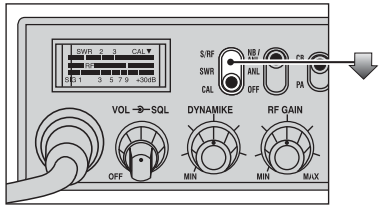
Antenna Indicator LED will illuminate when TX if SWR is high.

Calibrate for SWR (Standing Wave Ratio)

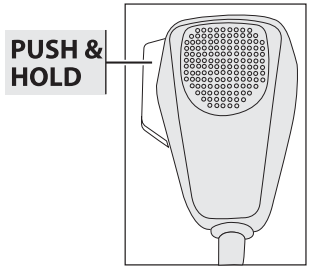
SWR calibration is done to properly adjust the length of the antenna and to monitor the quality of the coaxial cable and all RF connections. This calibration is critical in order to achieve optimum performance.



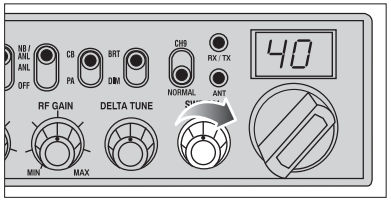
❶ *Select* channel 20.



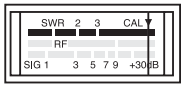
❷ *Switch* to the CAL position.



❸ *Push and hold* mic button.



❹ 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).



Note

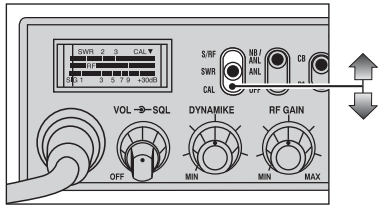
Calibration must be made in an open area (never in a garage). Vehicle doors must be closed. No one should be standing near the antenna. (See your antenna directions for more complete information).

continued

Operation

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

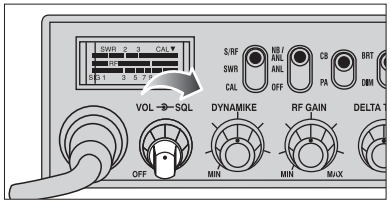
Note
When switched to SWR position the meter needle should ideally be as far to the left as possible. Anything over 3 is not acceptable. The antenna indicator will light. A slight antenna height adjustment (higher or lower) may be required. Repeat recalibration steps.



❺ While still holding down the mic button, set the S/RF SWR CAL switch to the SWR position, to read the SWR reading.

❻ Repeat the same steps two through five on Channel 1 and 40. This will check SWR for all channels.

To Receive



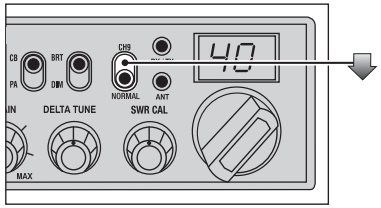
❶ Rotate the On/Off Volume knob *clockwise* the green RX/TX LED will be illuminated.

To Receive

Operation

Selecting A Channel

Selecting A Channel

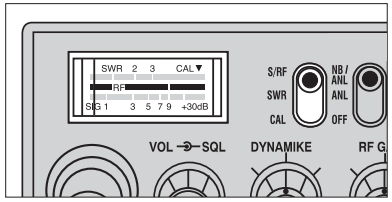


❶ *Switch* to NORMAL to select desired channel.

S-Meter

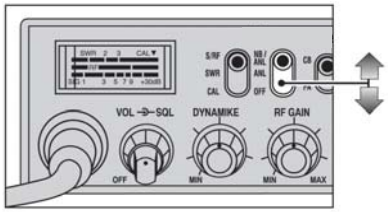
S-Meter

Swings proportionately to strength of incoming signal when receiving.



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

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



❶ 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.

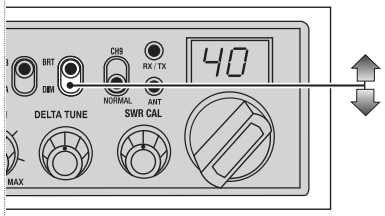
NB-ANL/ANL/OFF (Noise Blanker/ Automatic Noise Limiter) Switch

Note

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

Bright/Dim Switch

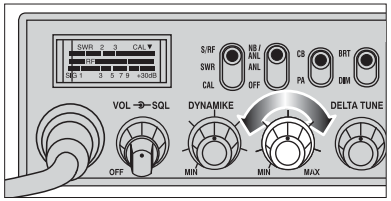
Bright/Dim Switch



❶ *Switch* to BRT 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.



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

RF Gain Control

Note

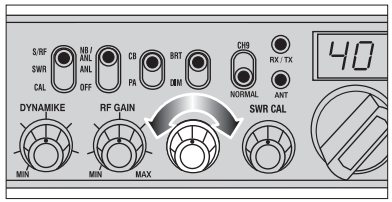
The RF Gain is used to optimize reception in weak signal areas.

Operation

Setting Delta-Tune

Setting Delta-Tune

Delta-Tune functions as a "fine tune" control enabling you to capture a more readable signal, as well as eliminate adjacent channel interference.



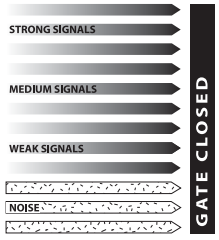
❶ *Rotate* ◎ Delta-Tune knob to the center position for optimum tuning.

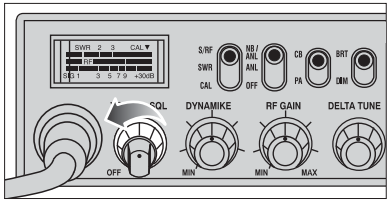
Setting Squelch

Setting Squelch

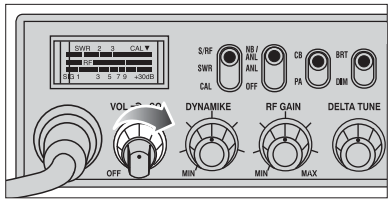
Squelch is the "control gate" for incoming signals.

Gate closed

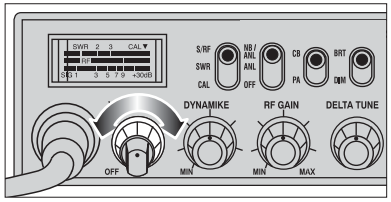




❶ Full ◎ *clockwise* rotation closes the gate allowing only very strong signals to enter.

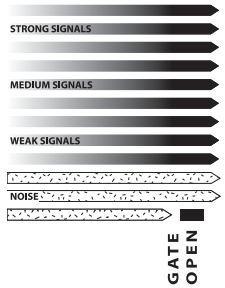


❷ Full ◎ *counterclockwise* rotation opens the "gate" allowing all signals in.

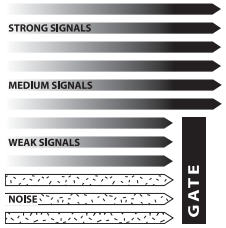


❸ To achieve the Desired Squelch Setting (DSS), turn the Squelch control ◎ *counterclockwise* until you hear noise. Now turn the control *clockwise* just until the noise stops. This is the DSS setting.

Gate open



Gate set to Desired Squelch Setting (DSS)



Operation

To Transmit

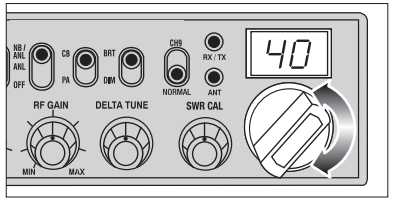
Caution!

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.

Setting Dynamike®

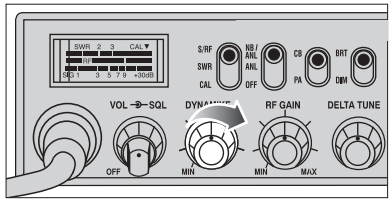
To Transmit



❶ *Select* desired channel.

Setting Dynamike®

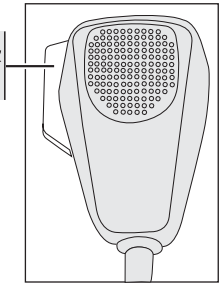
This controls the microphone sensitivity (outgoing audio level).



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

Transmit

PUSH & HOLD



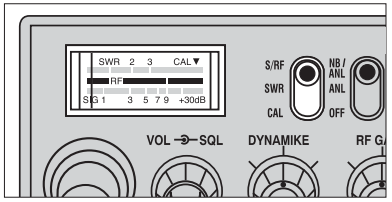
❶ *Push and hold* mic button to transmit. Transmitter is now activated. When transmitting, hold the microphone two inches from your mouth and speak in a clear, normal voice. *Release* to receive.

Transmit

RF Meter

RF Meter

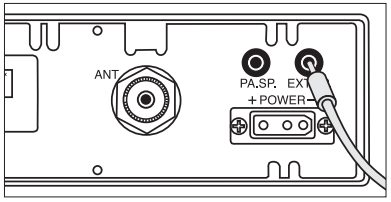
This meter swings proportionately to the RF output (outgoing signal) while transmitting.



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

External Speaker

The external speaker jack is used for remote receiver monitoring.



❶ 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.

Operation

PA (Public Address)

Note

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

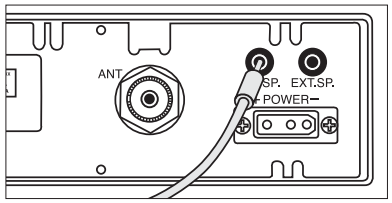
Note

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

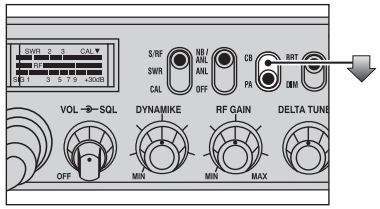
Note

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

PA (Public Address)

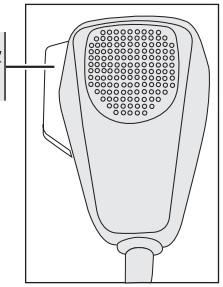


❶ Connect an external PA speaker to the PA jack on the rear panel.

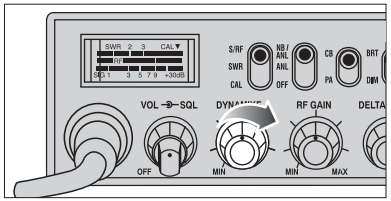


❷ *Set* CB/PA switch to PA position.

PUSH & HOLD



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



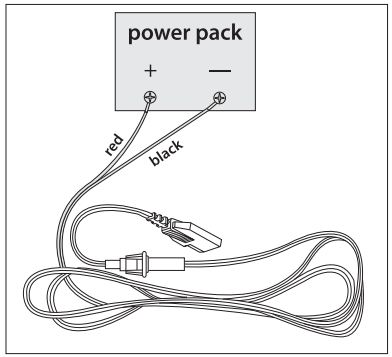
❹ *Adjust* PA speaker volume with the Dynamike® control.

Base Station Operation (From 120V AC House Current)

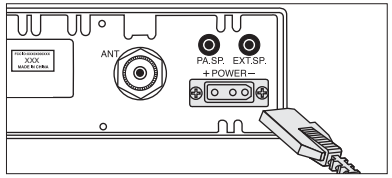
Warning!
Do not attempt to operate this transceiver by connecting it directly to 120v ac.

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.



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



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

❸ Connect properly installed and matched base station antenna.

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 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	*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.

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."

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	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
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

How Your CB Can Serve You

Frequency Ranges

The CB 92 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

Specifications

GENERAL

Channels	CB - 40 CH
Frequency Range	CB - 26.965 to 27.405 MHz
Frequency Tolerance	0.005 %
Frequency Control	PLL (phase lock loop) Synthesizer
Operating Temperature Range	-30° C to + 50° C
Microphone	Plug-in dynamic
Input Voltage	13.8VDC 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 2-13/64" H
Weight	4 lbs.
Antenna Connector	UHF; SO-239
Meter	Illuminated; indicates relative power output, received signal strength and VSWR

TRANSMITTER

Power Output	4 watts
Modulation	AM (Amplitude Modulation)
Frequency Response	300 to 3000 Hz
Output Impedance	50 ohms, unbalanced

RECEIVER

Sensitivity	Less than 1 µV for 10 dB (S+N) /N
Selectivity	6 dB @ 7 kHz, 60 dB @ 10 kHz
Image Rejection	80 dB, typical
Adjacent-Channel Rejection	60 dB, typical
IF Frequencies	Double Conversion: 1st: 10.695 MHz 2nd: 455 kHz
Automatic Gain Control (AGC)	Less than 10 dB change in audio output for inputs from 10 to 50,000 microvolts
RF Gain Control	Adjustable for optimum signal reception
Noise Blanker	RF type
Squelch	Adjustable; threshold less than 1µV
Audio Output Power	4 watts
Frequency Response	300 to 3000 Hz
Distortion	Less than 5% @3 watts @ 1000 Hz
Built-in Speaker	8 ohms, 5w
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 ohms, when PA-CB switch is in PA,
(Not Supplied)	The PA speaker also monitors the receiver; separate jack provided

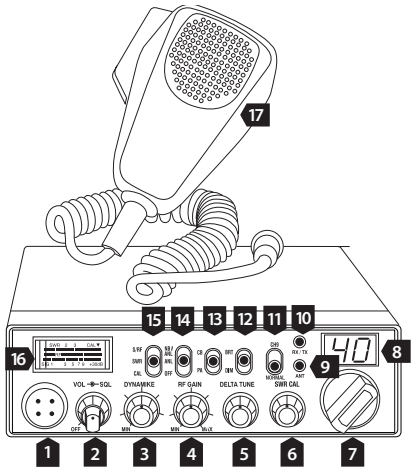
(SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE)

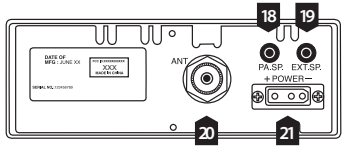
Controls and Indicators

1. *4-Pin Microphone Connector*
2. *Power On/Off/Volume/ Squelch Control*
3. *Dynamike®*
4. *RF Gain*
5. *Delta-Tune*
6. *SWR CAL*
7. *Channel Selector*
8. *LED Channel Display*
9. *ANT Indicator*
10. *RX (Receive)/ TX (Transmit) LED Indicator*
11. *Channel 9/ Normal Switch*
12. *Dimmer Switch*
13. *CB/PA Switch*
14. *NB/ANL ANL Off Switch*
15. *S/RF SWR CAL Switch*
16. *Signal Strength Meter*
17. *Microphone*

Back Side

18. *Public Address Speaker Jack*
19. *External Speaker Jack*
20. *Antenna Connector*
21. *Power Jack*





FCC Warning:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference:and (2) this device must accept any interference received: including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device: pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates: uses and can radiate radio frequency energy and: if not installed and used in accordance with the instructions: may cause harmful interference to radio communications. However: there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception: which can be determined by turning the equipment off and on: the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment . This transmitter must not be co located or operating in conjunction with any other antenna or transmitter.

This equipment should be installed and operated with minimum distance 40cm between the radiator &you body.