

SUPERSTAR

LORD



40 Channel AM/FM Professional CB Mobile Transceiver

USER'S MANUAL

Please Read Before Use This Transceiver

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INTRODUCTION

Thanks for your purchase of a Superstar Lord professional CB radio, your mobile CB designed for operation in 40CH class D Citizens Band, this compact package is big in performance.

It is a quality piece of electronic equipment skillfully constructed from the latest high quality components. The SuperStar Lord has a built-in MCU controlled 40CH Phase-Lock-Loop (PLL) synthesizer circuit.

The PLL circuit achieves a new technique; it has been applied in most of delicate radio equipment of frequency control with superior reliability performance.

FEATURES

- ◆ MCU controlled PLL circuit gives precise frequency control and stability over all 40 Channels.
- ◆ Precision analog meter with 4W typical scale to max. red scale of TX power output level and Rx Signal level from 1 to +30dB.
- ◆ Real 40 steps rotary channel switch to ensure position of channel number correctly for every instant selects.
- ◆ Double Super heterodyne Receiver system with 1st I.F. crystal filter and 2nd I.F. ceramic filters give superior selectivity and avoid from adjacent channel interference.
- ◆ Extremely sensitivity front-end circuit incorporated with (AGC) Automatic Gain Control gives superior reception for weak and strong signals
- ◆ Built-in (ANL) Auto Noise Limiter reduces noise at weak signal reception.
- ◆ Signal to Noise comparison type SQL. Automatically compensates for signal fading to eliminate signal "CHOPPING" during message reception.
- ◆ Red LED channel read-out clearly shows channel number in activating.
- ◆ Dynamic type plug-in microphone provides superior Tx sound quality.
- ◆ External speaker output jack allowed the receiver audio signal output to outdoor speaker while you were out from car compartment.
- ◆ Ember Meter Backlight to show the unit was powered ON and standby for RX, and glows Red on TX.
- ◆ External RX signal output jack allowed connects a proper type of analog or digital signal meter other than the built-in one.

READ ME FIRST

Our repair centers from time to time received products, return for service, but that are perfectly. It seems that more often than not, the owner didn't read the instructions, or overlooked something. Or perhaps the problem was merely a blown fuse that the owner could easily have replaced.

So take an extra few minutes and read this manual carefully, don't rush. And be sure you understand all the basic features of this CB radio as well as the special ones!

And before you assume your transceiver needs repair, refer to the service and maintenance section of this manual to see if the problem is something you can eliminate.



NOTE

PIHERNZ COMUNICACIONES. S.A. IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UN-AUTHORIZED MODIFICATIONS TO THIS EQUIPMENT.

SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

CERTIFICATION & DECLARATION

This transceiver was granted for use and selling locally, with certificate issued by the local Telecommunication Authorization as per attached in next page.

GENERAL INFORMATION

DOCUMENTATION



SPECIFICATIONS**RECEIVER****FREQUENCY COVERAGE:**

Full 40 CB channel (Class D) Citizen Band
Channels 26.965 to 27.405MHz.

SENSITIVITY:

FM = 0.25 μ V for 12dB SINAD

AM = 0.8 μ V for 10dB S/N

ADJACENT CHANNEL REJECTION:

Better than 60dB at 10Khz, greater than
80dB for 20Khz

INTERMEDIATE FREQUENCY:

1st I.F. = 10.695MHz. 2nd I.F. = 455KHz.

CROSS MODULATION:

More than 60dB.

AUDIO RESPONSE:

450Hz to 2500Khz, +1/-8dB from 6dB/Oct.

AUDIO OUTPUT:

Rated Max. power 5W at 8 Ohms load.

THD @10% 4W.

SQUELCH:

Adjustable from 0.3 μ V threshold to 1mV at
full mute.

CURRENT DRAIN:

Standby muted = 150mA.

Full Audio Output = 1.5A.

TRANSMITTER**RF POWER OUTPUT:**

AM/FM 4W rms

TYPE OF MODULATION:

AM = 6A3

FM = F3E

RATED MODULATION:

AM = 90% Depth.

FM = 1.5KHz Deviation Max.

SPURIOUS EMISSION:

Better Than 60dB.

MODULATION RESPONSE:

450Hz to 2500Hz, +1/-3dB from 6dB/Oct.

CURRENT DRAIN:

AM = 2.0A

FM = 1.2A

GENERAL**CHANNEL NUMBER:**

40 Channels

FREQUENCY CONTROL SYSTEM:

MCU Controlled Phase Lock Loop (PLL)
Frequency Synthesizer.

ANTENNA IMPEDANCE:

50 Ohms

MICROPHONE CONNECTOR:

6 Pin Round.

POWER SOURCE:

13.8V DC \pm 10%, Positive or Negative
Ground.

DIMENSION :

150 x 45 x 150 mm WHD

INSTALLATION

LOCATION

Plan the location of the transceiver and microphone bracket for convenience and safety operation are the first considerations with absolute no interferes to the driver on driving or the passengers in the vehicle before starting installation.

In most automobiles, the transceiver is usually mounted below the dash panel, with microphone bracket beside it.

DO NOT! Mount the transceiver in the path of the heater or air conditioning air stream.

BE SURE! All cables clear of the brake, clutch and accelerator.

When you have determined the best location as a template to mark mounting holes. Take care when you drill holes that you do not drill into wiring.

WIRING FOR POWER SOURCE

1. Connect the supplied DC cord, with the fused red wire to +13.8V DC source, and the black wire to negative -13.8V DC source in respectively, for most type of vehicles with negative ground power system. Thus, back wire may connect to chassis ground of the vehicle directly.

2. The positive wire should connect to the spare fuse box terminal directly. Ensure the spare fuse box has no other applications, and to sure with it's current rating not less than 10 Amp.

3. If your spare fuse box has fully occupied, you may add a new wiring system with fuse holder at the wire end of which is closer directly to the battery positive terminal tag. Other wire end connects to the transceiver should have a terminal block well fixed on the vehicle chassis.

HINTS:

The independent wiring system, direct power sourcing from the battery terminal is the proper way that strongly recommended, this will help to avoid any interferences from existing wiring system of the automobile, and will minimize voltage drop caused by other circuits in the same wiring system, thus to provide optimum performance of your CB radio.

This wiring system is for safety facility to avoid from overloading of original wiring system of the automobile, and to minimize the possibility of interferences to the electronics or electro-mechanical control system of the automobile.

Also this allows you to keep continued operation of your transceiver anytime without starting the engine or to keep turn on the ignition key.

MOBILE ANTENNA

Mobile Antenna System is not limited to just the antenna. The transmission line is the important factors in the total antenna system. Therefore, you must use the correct type of transmission line and mount the antenna securely in a position that will give you optimal results.

Use Coaxial Cable with an impedance 50 ohms. Suggest type RG-58U/A for lengths not exceeds 3 meters or RG-8U for longer length. However, you should keep feeder length as shorter as possible which in-order to devoid high attenuation in RX signal from antenna to the receiver, and TX power lose from the transmitter to antenna.

Few General Rules should help you install any mobile antenna properly.

1. Keep it as far as possible from the main bulk of the vehicle.
2. Keep as much as possible above the highest point of the vehicle.

3. During operation, it must be vertical, and rigid enough to remain vertical when the vehicle or boat is in motion.
4. Mount it as far as possible from sources of noise, such as ignition system, gauges, etc. keep the antenna feeder away from these noise sources.

Antenna Locations On Car there are 4 most popular positions shown bellows;

ROOF MOUNT

In this position the antenna radiates equally in all directions. Since the normal 1/4 wavelength whip antenna is too long 102 inches or 2.6m for roof mounting on a vehicle, the antenna is shortened and loading coil is used to provide the loading coil is used to provide the proper electrical length, it is strongly recommended.

FRONT COWL MOUNT

The radiation pattern is slightly greater in the direction of the fender opposition the side on which the antenna is mounted.

REAR DECK MOUNT

The radiation pattern is strongest in direction of the front fender opposite the side on which the antenna is mounted. In this position you may use a full quarter wave whip or a shorter loaded whip.

BUMPER MOUNT

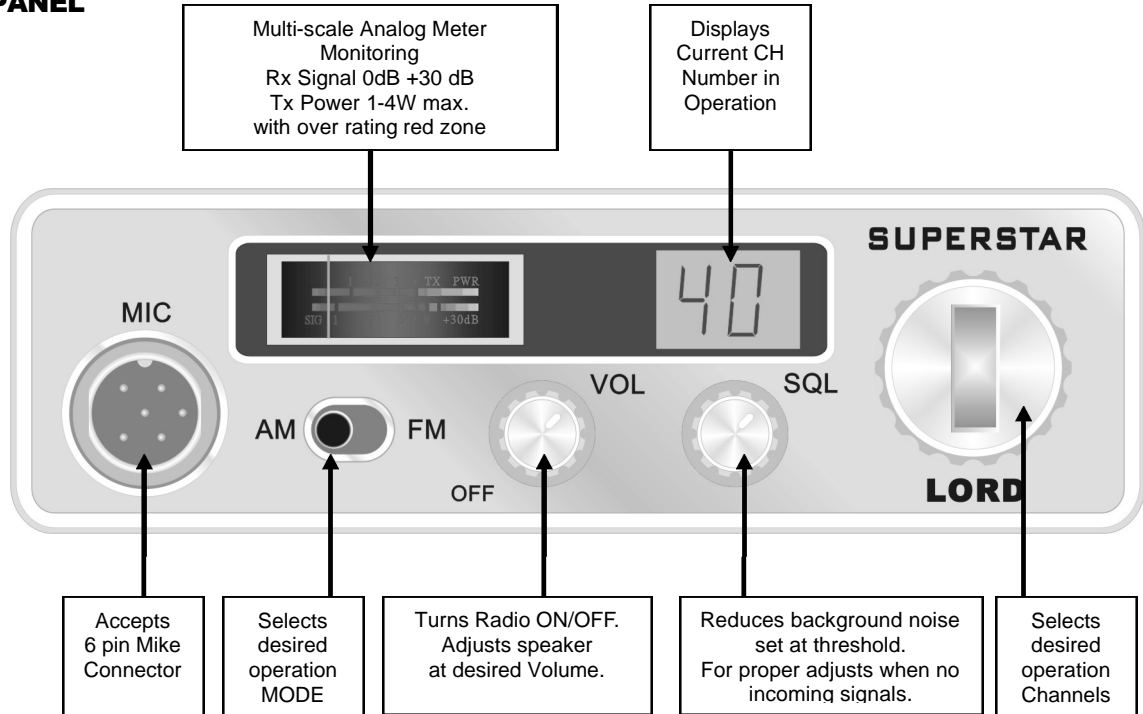
The antenna radiates in a pattern directly in front of and to the rear of the vehicle, with maximum radiation directly away from the vehicle in a horizontal plane, despite its fairly irregular pattern, a bumper mounted full-length results. Removing the antenna is simple and will leave no holes in the car.

BASE STATION ANTENNA

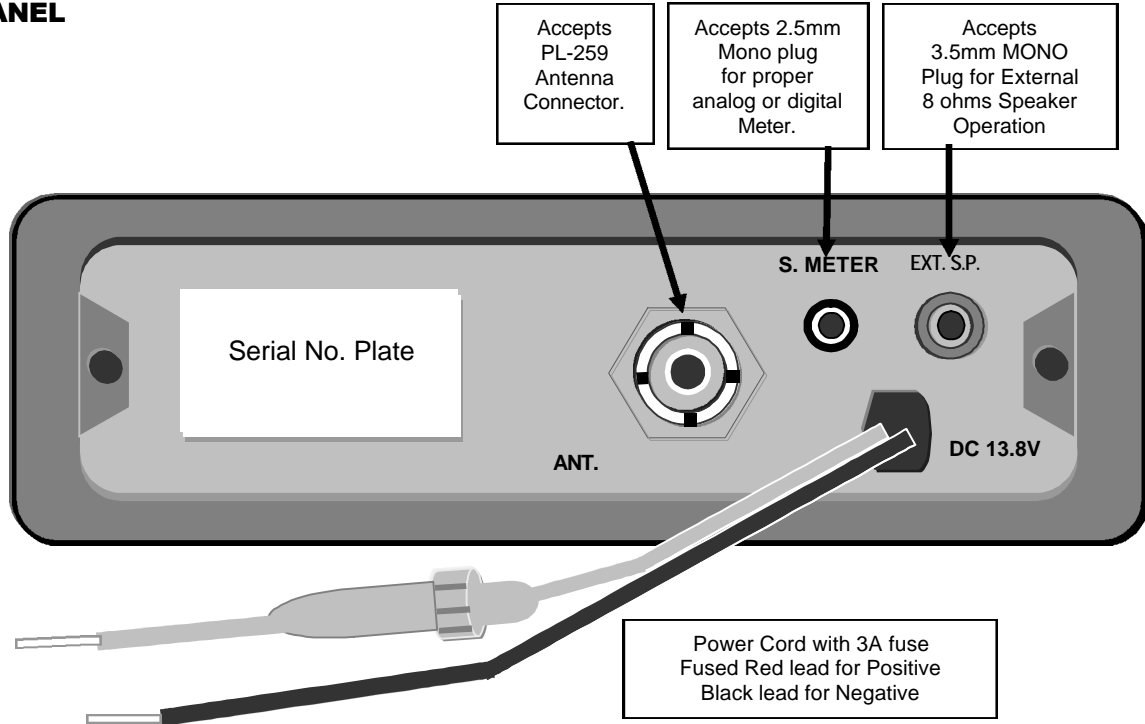
If you do decide to use your CB radio as a base station, choose an antenna designed to operate most efficiently as a base station antenna. Use the 1/2 wave antenna or full wave antenna is a high-efficiency radiator with omni-directional characteristics. It delivers stronger TX signal on air by excellent matching, and with minimum lost for RX weak signal due to right resonance produce high Q effect.

CONTROLS AND OPERATIONS

FRONT PANEL

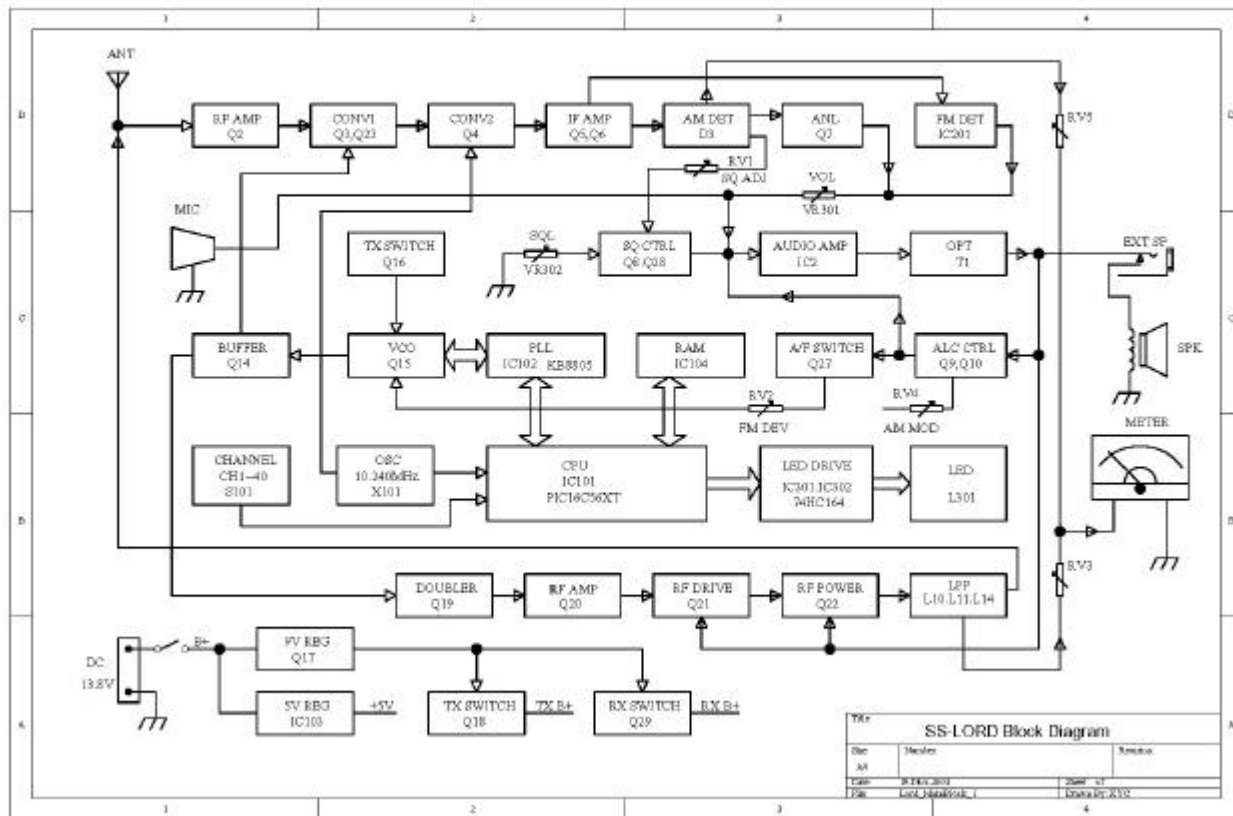


REAR PANEL



TECHNICAL INFORMATION

BLOCK DIAGRAM



40 CH CITIZENS BAND FREQUENCY TABLE

CH	FREQUENCY	Mhz
01	26.965	
02	26.975	
03	26.985	
04	27.005	
05	27.015	
06	27.025	
07	27.035	
08	27.055	
09	27.065	
10	27.075	
11	27.085	
12	27.105	
13	27.115	
14	27.125	
15	27.135	
16	27.155	
17	27.165	
18	27.175	
19	27.185	
20	27.205	

CH	FREQUENCY	Mhz
21	26.215	
22	26.225	
23	26.255	
24	27.235	
25	27.245	
26	27.265	
27	27.275	
28	27.285	
29	27.295	
30	27.305	
31	27.315	
32	27.325	
33	27.335	
34	27.345	
35	27.355	
36	27.365	
37	27.375	
38	27.385	
39	27.395	
40	27.405	

SOME HINTS TO HELP YOU ENJOY YOUR CB

- Wait for a pause in transmission before asking for a break.
- If you don't receive an answer after a second call to another station, sign off and allowed others to use the channel – wait a while ask for a break and try again.
- Do assist callers with directions, road conditions or other requested information.
- Keep harassment off the air. This is unnecessary and causes problems for everyone – including you.
- Be courteous – tread others the way you wish to be treated.
- Use the 10-Codes for standard questions and answers. This use permits faster communication and better intelligibility in noise.

THE FOLLOWING TABLE LISTS SOME OF THE MORE COMMON CODES AND THEIR MEANINGS.

CODE	MEANING
10 -1	Receiving Poorly
10 -2	Receiving well
10 -3	Stop Transmitting
10 -4	OK - Understood
10 -7	Out of Service
10 -8	In Service
10 -9	Repeat
10 -10	Standing By
10 -13	Advice road / Weather Conditions
10 -20	What is your location?
10 -33	Emergency Traffic
10 -36	Correct Time
10 -41	Switch to Channel
10 -62	Cannot Copy You

SERVICE & MAINTENANCE

Your Transceiver has been built in accordance with factory's exacting quality control standard. However, it should be treated with reasonable care accorded any electronic equipment. Avoid exposing it to severe shock, dirt or moisture.

If you run into problems with the unit, we recommend you check the following;

IF RECEIVING TROUBLE IS EXPERIENCED

- Check the volume ON/OFF setting.
- Be sure the SQL control is adjusted properly. Is it set at deep squelch status?
- Check to see if the unit is switched to an active channel.
- Be sure the microphone plug is securely in place.
- Check for improper antenna connection.
- Check setting of mode switch in proper operating mode.

IF TRANSMITTING TROUBLE IS EXPERIENCED

- Check if the transmission line is securely connected to the antenna connector.
- Check if the transmission line is correctly installed for proper operation.
- Are all transmission line connections secure and free of corrosion?
- Make sure the PTT switch on the microphone is fully depressed.
- Check abnormal power line source, should there be voltage drop to cause abnormal TX output during PTT switch was on, by observing dimmed illumination system may occur.

IF THE TRANSCEIVER IS COMPLETELY INOPERATIVE

Check the power cable and inline fuse. If the fuse is blown replace it only with an identical rating 2A fuse.

If above checks don't solve the trouble, DO NOT attempt repairs or adjustments yourself. The unit should be service only by a qualified radio technician, or return the radio to its services center.

WARNING!

DO NOT OPEN THE TRANSCEIVER TO MAKE ANY INTERNAL ADJUSTMENTS. ANY INTERNAL ADJUSTMENTS CAN BE MADE ONLY BY, OR UNDER THE DIRECT SUPERVISION OF A PERSON WITH A RECOGNIZED QUALIFICATION.

INTERNAL ADJUSTMENTS OR MODIFICATIONS CAN LEAD TO ILLEGAL OPERATION AS UN-KNOWN INTERFERENCE SIGNALS MAY DISTURB OTHER COMMUNICATIONS.

TO BE SAFE AND SURE

- You should never open the case of your transceiver.
- Never change or replace anything in your transceiver.

Thank You For Purchasing
SS-LORD Professional CB Mobile Transceiver

PIHERNZ

COMUNICACIONES. S.A.

Elpse,32

Tels. 93 334 88 00 – 449 10 95

Fax. 93 440 74 63 – 334 04 09

08905 L' HOSPITALET de LLOBREGAT

BARCELONA – ESPANA