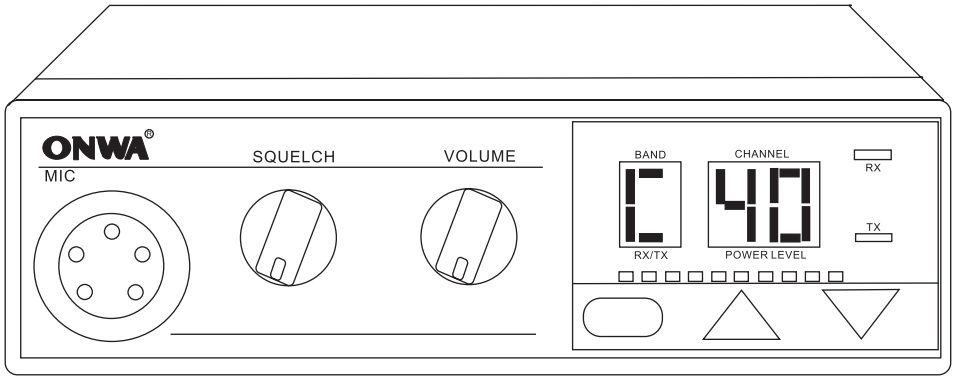
6 BAND 240 CHANNELS

OWNER'S MANUAL

CB MARINE RADIO

MODEL:K-6124L MK2



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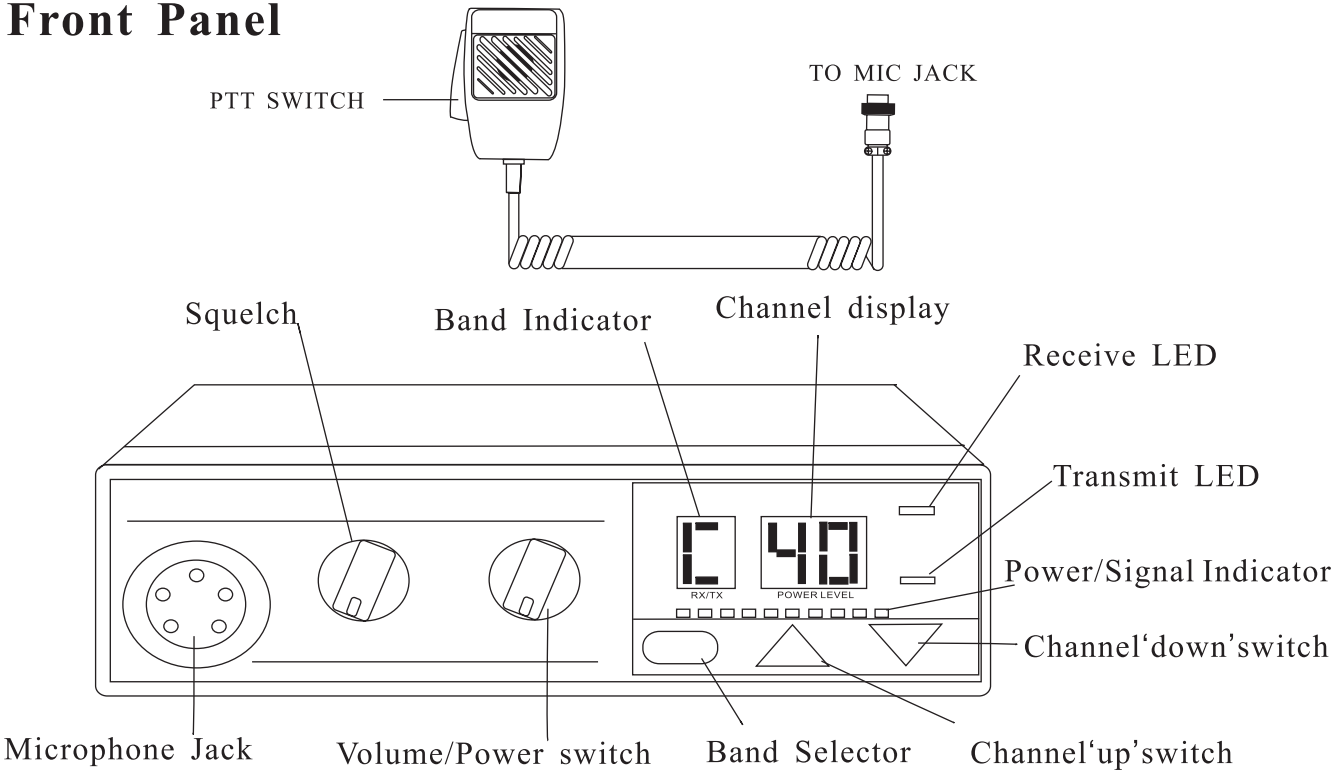
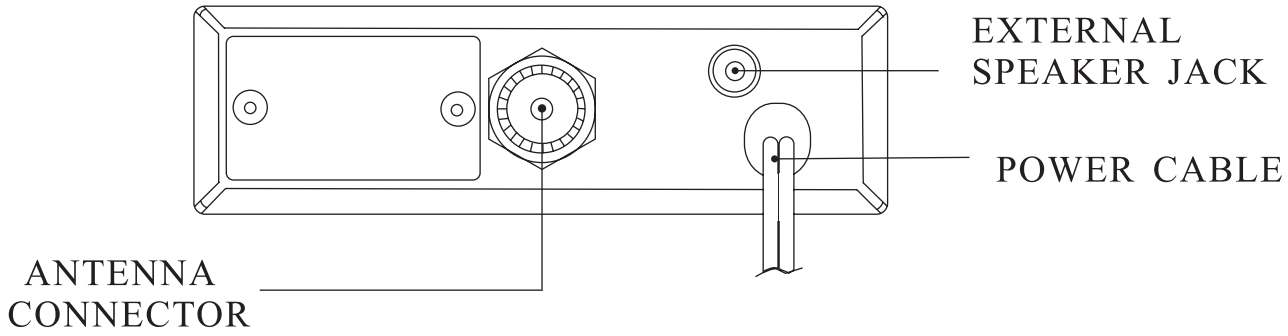
CONTROL LOCATIONS

Front Panel

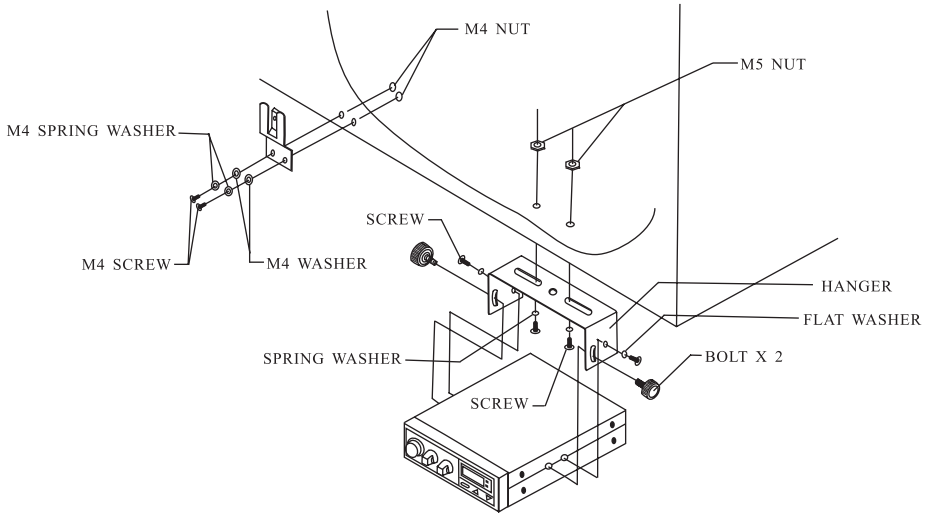


Rear Panel



INSTALLATION

Satety and convenience,are the primary considerations for mounting any piece of mobile equipment. All controls must readily available to the operator without interfering with the movements necessary for safe operation of the boat. Be sure all cables are clear of other equipments.



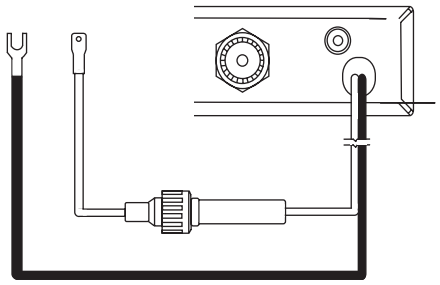
Also,thought must be given to the convenience and comfort of the sailor.Another extremely important requirement is the ease of installation and removal for those occasions when you might want to remove the unit for service and maintenance.Mount the Transceiver so it can be slipped in and out easily.

Do not mount the Transceiver in the path of the heater or air conditioning air stream.

Take your time and plan your installation carefully.When you have determined the best location for mounting, use the mounting bracket as a template to mark mountion holes. Take care when you drill holes that you do not drill into wiring ,trim or other accessories.

Mount in position with bolts, lock washers and nuts or self threading screws.

You can install this transceiver in any location where 12-13.8V DC power is available.It can be connected to negative or positive ground systems.Just be sure you connect the RED wire to the (+) terminal and the BLACK wire the (-) terminal.



With Negative Ground

Connect the RED wire (with in-line fuse holder)to the ACC essory terminal on the ignition switch of your boat. Make a good mechanical and electrical connection to the frame of the boat for the black (negative) wire.

Before operation, you must install and connect your antenna system. The lead from the antenna you've installed should be connected to the ANT enna coaxial connector. If you are using an external speaker connect it to the EXT SPKR jack.

Replacing Fuse

If you replace the fuse for DC Power Cord,use 2 Ampere type (one supplied as spare).Hold the fuse holder and press on the inside, then rotate the holder.

CONNECTING THE LOCKING MICROPHONE PLUG

Your transceiver features a new locking microphone connector. This ensures that you won't accidentally pull out or loosen the plug connection when moving the microphone cable about.

To connect the microphone plug:

1. Insert plug into jack,taking care to align the plug ano jack properly.(See Figure 1A)
2. TURN the ring of plug connector clockwise to lock microphone plug(See Figure 1B)

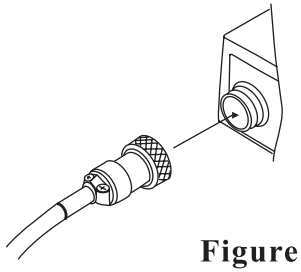


Figure 1A

TO FASTEN

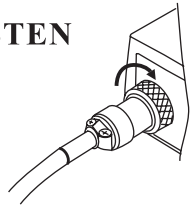


Figure 1B

Note: To receive sound,you must have the microphone connected.

ANTENNA SYSTEM

A mobile antenna system is not limited to just the antenna.The transmission line as well as the boat are 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 of 50 ohms. We suggest type RG-58/U for lengths under 100″ (2.5m),or RG-8/U for longer lengths. Generally speaking, you should keep the length of the transmission line to a minimum.

The above discussion is as important for reception as it is for transmission.If a mismatch exists between the antenna and the receiver,the excellent sensitivity and signal-to-noise ratio of the receiver circuit will be defeated.

Mobile Antennas

A 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 of it as possible above the highest point of the boat.
3.During operation,it must be vertical, and rigid enough to remain vertical when the boat'is in motion.
4.Mount it as far as possible from sources of noise (ignition system, gauges,etc.)and keep the transmission line away from these noise sources.

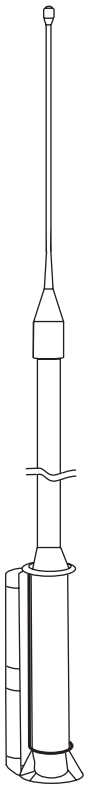
An antenna mounted in a boat requires a good ground connection. This can be either a metal hull or a ground made of tin-foil or copper Sheeting.This ground should cover an area of at least 12 square feet ($1m^2$) or more.Be sure the Transceiver also has an adequate ground.

There are many types of mobile CB antennas:a full quarter-wave length whip,a center-loaded whip,top loaded whip and the base loaded type are typical.

A vertically polarized whip antenna is best suited.It is omni-directional.If it's the loaded type,you will find it a physically shorter antennaBut,for greater efficiency the 102 inch (2.6m) long,full quarter-wave whip is better.
Antenna length is directly related to efficiency.Generally,the longer, the more efficient.
There are many possible antenna locations on a car.For of the most popular are shown and discussed on the following.

Base Station Antenna

While your Transceiver is designed for mobile operation,you might wish to use it as a base station unit, in conjunction with a 12-13.8 volt 2 Amp DC power supply.If you do decide to use your transceiver as a base station,choose an antenna designed to operate most efficiently as a base station antenna.For example the 1/2wave antenna is a high-efficiency radiator with omni-directional characteristics.It performs as well in most applications as does the ground plane.
You can use this type of antenna for medium-long range communications.



WARNING WARNING WARNING

When you install or remove a base station CB antenna,use extreme caution.If the antenna starts to fall,let it go!It could contact overhead power lines.If the antenna touches the power line,contact with the antenna,mast, cable or guy wires can cause electrocution and death!
Call the power company to remove the antenna.Do not attempt to do so by yourself!

USING YOUR TRANSCEIVER

Do not transmit without a suitable antenna or 50 ohm load connected to the ANT enna connector.For installation,refer to that section.

To Receive

1.Check that the unit is properly connected to a source of 12-13.8V through the in-line fuse and red wire.
2.Make sure that an antenna is attached.
3.Connect the mic plug to mic jack.
4.Set the Band switch to 'C' band
5.Set SQUELCH control to maximum counter clockwise position.
6.Turn power on by rotating VOLUME clockwise.
7.Set Channel selector to the desired channel.
8.Adjust VOLUME for a suitable listening level.
9.Adjust SQUELCH to cut out annoying background noise when no signal is being received.To do this set the Channel where no signals are present or wait until signals cease on your channel.Then, rotate the SQUELCH control in a clockwise direction to the point where the background noise just stops.Now, when a signal is present,you will hear it,but will not be disturbed by noise on the channel between signals.

When properly set, the SQUELCH keeps the receiver"dead"until a signal comes in on that channel,However,do not set the SQUELCH too high,or weak signals will not be able to open the squelch circuit.To receive very weak signals,it is best to leave SQUELCH set to the minimum position by rotating the control maximum counter clockwise. The squelch circuit in your Transceiver is an advanced design.It uses an operational amp IC to accomplish a hysteresis action.The result is that when you set the SQUELECH for a precise signal level,if that signal level increases or decreases in strength,the squelch circuit will follow this change. With conventional squelch circuits often a signal which changes strength gets " chopped" by the squelch circuit and you lose portion of the message.With a hysteresis squelch you get it all.

To Transmit

1.Select the channel desired.
2.Press the push-to-talk button on the microphone and hold it at an angle about 2-3" (5-7cm) from your mouth and speak in a normal voice.
3.To receive,release the push-to-talk button.

Be sure the mic plug is firmly connected to the jack,for if the connector becomes loose,you may end with squeal,feedback and many other problems.

Note: Shouting into the mic will not increase you power or signal. An internal circuit automatically sets the mic signal for maximum modulation,so speaking loudly will give no advantage.If fact,shouting may result distorted speech.

Remote Speaker Operation

N 8 ohm speaker,rated at 3-10watts,should be used for this function.Plug the speaker into the EXT SPKR jack at the rear of the transceiver.When the external speaker is plugged in, the internal speaker is disconnected.You can now monitor ll incoming signals through your remote speaker.

Frequency Table (240 channels)

Channel	A band	B band	C band		Channel	A band	B band	C band
1	26.065	26.515	26.965		21	26.315	26.765	27.215
2	26.075	26.525	26.975		22	26.325	26.775	27.225
3	26.085	26.535	26.985		23	26.355	26.805	27.255
4	26.105	26.555	27.005		24	26.335	26.785	27.235
5	26.115	26.565	27.015		25	26.345	26.795	27.245
6	26.125	26.575	27.025		26	26.365	26.815	27.265
7	26.135	26.585	27.035		27	26.375	26.825	27.275
8	26.155	26.605	27.055		28	26.385	26.835	27.285
9	26.165	26.615	27.065		29	26.395	26.845	27.295
10	26.175	26.625	27.075		30	26.405	26.855	27.305
11	26.185	26.635	27.085		31	26.415	26.865	27.315
12	26.205	26.655	27.105		32	26.425	26.875	27.325
13	26.215	26.665	27.115		33	26.435	26.885	27.335
14	26.225	26.675	27.125		34	26.445	26.895	27.345
15	26.235	26.685	27.135		35	26.455	26.905	27.355
16	26.255	26.705	27.155		36	26.465	26.915	27.365
17	26.265	26.715	27.165		37	26.475	26.925	27.375
18	26.275	26.725	27.175		38	26.485	26.935	27.385
19	26.285	26.735	27.185		39	26.495	26.945	27.395
20	26.305	26.755	27.205		40	26.505	26.955	27.405

Frequency Table (240 channels)

Channel	D band	E band	F band		Channel	D band	E band	F band
1	27.415	27.865	28.315		21	27.665	28.115	28.565
2	27.425	27.875	28.325		22	27.675	28.125	28.575
3	27.435	27.885	28.335		23	27.705	28.155	28.605
4	27.455	27.905	28.355		24	27.685	28.135	28.585
5	27.465	27.915	28.365		25	27.695	28.145	28.595
6	27.475	27.925	28.375		26	27.715	28.165	28.615
7	27.485	27.935	28.385		27	27.725	28.175	28.625
8	27.505	27.955	28.405		28	27.735	28.185	28.635
9	27.515	27.965	28.415		29	27.745	28.195	28.645
10	27.525	27.975	28.425		30	27.755	28.205	28.655
11	27.535	27.985	28.435		31	27.765	28.215	28.665
12	27.555	28.005	28.455		32	27.775	28.225	28.675
13	27.565	28.015	28.465		33	27.785	28.235	28.685
14	27.575	28.025	28.475		34	27.795	28.245	28.695
15	27.585	28.035	28.485		35	27.805	28.255	28.705
16	27.605	28.055	28.505		36	27.815	28.265	28.715
17	27.615	28.065	28.515		37	27.825	28.275	28.725
18	27.625	28.075	28.525		38	27.835	28.285	28.735
19	27.635	28.085	28.535		39	27.845	28.295	28.745
20	27.655	28.105	28.555		40	27.855	28.305	28.755

NOISE

In mobile operation,your boat can be the cause of much noise interference.Since the receive section of your Transceiver is very sensitive,it will pick up even the smallest signals and amplify them. Any noise that you hear in the Transceiver is for the most part form external sources.The receiver itself is exceptionally quiet.If the noise is continuous and fairy loud,it cannot be totally eliminated by the Automatic Noise Limiter(ANL)circuit.You must correct the problem at its source.

To find out if the noise is from your ignition system,try this simple test.Turn off your ignition switch and set it to ACC (accessories).This turns off the ignition, but supplies power to the Transciver.Most of the noise will probably disappear,indicating that the source of noise is other electrical systems.

Ignition System

Ignition noise can be identified by the fact that it varies with the speed of the engine.It consists of a series of popping sounds.There are a number of things that can be done to reduce this type of noise:

1.Use only the " radio suppression type" high-voltage ignitionin wire.

2.Inspect the high voltage ignition wire and all connections made with this wire.Old ignition wire may develop leakage,resulting in harsh,hissing sounde.

3.If the noise still persists,replace, the spark plugs with ones that have suppressor resistors built-in. Be sure to use the correct type.

Other sources of noise are: generator/alternator,regulator, gauges and static discharge.Most of these noises can be effectively reduced or eliminated by using bypass capacitors at the various output voltage points.We suggest you check your supplier for a wide selection lr noise reduction accessories.

SPECIFICATIONS

Receiver

Frequency Coverage:
All 240 CB(Class D)Channels
26.065to 27.855 MHz
(OPTIONAL FOR POLAND:
26.060 to 27.850MHz)

Sensitivity:
1.OuV or better for 10dB S+N/N

Adjacent channel Rejection:
60dB(at 10kHz)greater than 70dB
(for 20kHz)

Intermediate Frequency:
1st IF=10.695MHz
2nd IF =455kHz

Audio Output:
4.5 watts (max)

Frequency Response (-6dB):
450-2500Hz

Cross Modulation:
45dB or better

Squelch:
Adjustable from 1.2μV to 1mV

Transmitter

Frequency Coverage:
All 240 CB(Class D)Channels
26.065 to 27.855 MHz
(OPTIONAL FOR POLAND:
26.060 to 27.850MHz)

Output Power:
4 watts(max 7w)

Type of Modulation:
A3

Modulation Capability:
80-90%

Spurious Radiation:
62dB or better

Frequency Tolerance:
Better than 0.002%

Antenna Impedance:
50 ohm

Current Drain (13.8 volt supply):
1.3 amps (no modulation)
2.0 amps (full modulation)

Public Address

Power Requirements:
12-16 Volts DC,positive or
negative ground

Dimensions(WHD):
$4^{7}/_{8}$″ × $1^{1}/_{2}$″ × $7^{1}/_{2}$ ″(124mm× 38mm
× 190mm)

Weight:
1.2Kg

SERVICE AND MAINTENANCE

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

If you run into problems with the unit,we recommended you check the following:

1.If trouble is experienced with receiving:
- Check the VOLUME On/Off setting.
- Be sure SQUELCH is adjusted properly.Is it oversquelched?
- Check to see if the unit is switched to an active channel.
- Be sure microphone plug is securely in place.
- Check for improper antenna connection.

2.If trouble is experienced with transmitting:
- Check if the transmission line is securely connected to the ANT enna Connector.
- Check if the antenna is correctly installed for proper operation.
- Are all transmission line connections secure and free of corrosion?
- Make sure the push-to-talk button on the microphone is fully depressed.
- Be sure the microphone connector is firmly pressed into its jack.

3.If the Transceiver is completely inoperative:
- Check the power cable and inline fuse.If the fuse is blown replace it only with an identical 2-amp fuse.

If these checks don't solve the trouble, do NOT attempt repairs or adjustment yourself.The unit should be serviced only by a qualified radio technician. Whenever possible,return the unit to the store from which it was purchase.