

WARNING !

Before using, be careful never to transmit without first having connected the antenna (connection "B" situated on the back panel of the equipment) or without having set the SWR (Standing Wave Ratio) ! Failure to do so may result in destruction of the power amplifier, which is not covered by the guarantee.

The guarantee of this transceiver is valid only in the country of purchase.

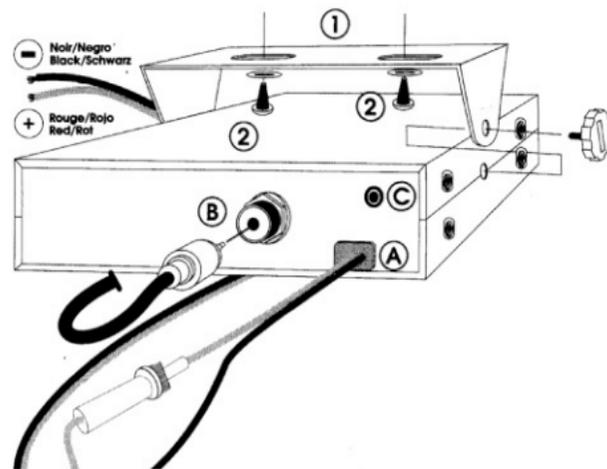
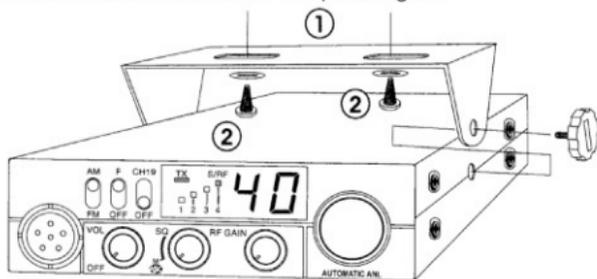
Welcome to the world of the new generation of CB radios. The new range gives you access to top performance CB equipment. With the use of up-to-date technology, which guarantees unprecedented quality, is a new step in personal communication and is the surest choice for the most demanding of professional CB radio users. To ensure that you make the most of all its capacities, we advise you to read carefully this manual before installing and using your

A) INSTALLATION:

1) WHERE AND HOW TO MOUNT YOUR MOBILE CB RADIO:

- You should choose the most appropriate setting from a simple and practical point of view.
- Your CB radio should not interfere with the driver or the passengers.

MOUNTING DIAGRAM



- Remember to provide for the passing and protection of different wires (e.g. power, antenna, accessory cabling) so that they do not in any way interfere with the driving of the vehicle.
 - To install your equipment, use the cradle (1) and the self-tapping screws (2) provided (drilling diameter 3.2 mm). Take care not to damage the vehicle's electrical system while drilling the dash board.
 - Choose where to place the microphone support and remember that the microphone cord must stretch to the driver without interfering with the controls of the vehicle.
- N.B. :** As the transceiver has a frontal microphone socket, it can be set into the dash board. In this case, you will need to add an external loud speaker to improve the sound quality of communications (connector EXT.SP situated on the back panel: C). Ask your dealer for advice on mounting your CB radio.

2) ANTENNA INSTALLATION:

a) Choosing your antenna:

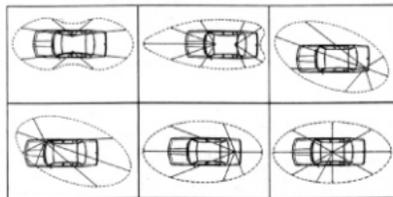
- For CB radios, the longer the antenna, the better its results. Your dealer will be able to help you with your choice of antenna.

b) Mobile antenna:

- Must be fixed to the vehicle where there is a maximum of metallic surface (ground plane), away from windscreen mountings.
- If you already have a radio-telephone antenna installed, the CB antenna should be higher than this.
- There are two types of antenna: *pre-regulated* which should be used on a good ground plane (e.g. car roof or lid of the boot), and *adjustable* which offer a much larger range and can be used on a smaller ground plane (see p 27 § 5, Adjustment of SWR).
- For an antenna which must be fixed by drilling, you will need a good contact between the antenna and the ground plane. To obtain this, you should lightly scratch the surface where the screw and tightening star are to be placed.
- Be careful not to pinch or flatten the coaxial cable (as this runs the risk of break down and/or short circuiting).
- Connect the antenna (B).

c) Fixed antenna:

- A fixed antenna should be installed in a clear space as possible. If it is fixed to a mast, it will perhaps be necessary to stay it, according to the laws in force (you should seek professional advice). All antennas and accessories are designed to give maximum efficiency to each CB radio within the range.



OUTPUT RADIUS PATTERN

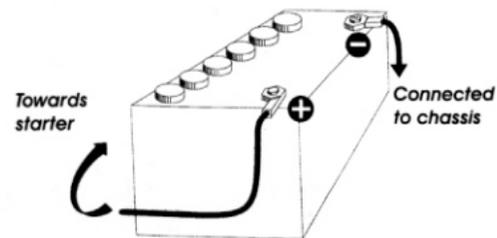
3) POWER CONNECTION:

Your is protected against an inversion of polarities. However, before switching it on, you are advised to check all the connections. Your equipment must be supplied with a continued current of 12 volts (A). Today, most cars and lorries are negative earth. You can check this by making sure that the negative terminal of the battery is connected either to the engine block or to the chassis. If this is not the case, you should consult your dealer.

WARNING: Lorries generally have two batteries and an electrical installation of 24 volts, in which case it will be necessary to insert a 24/12 volt converter (type CV 24/12) into the electrical circuit. The following connection steps should be carried out with the power cable disconnected from the set.

- Check that the battery is of 12 volts.
- Locate the positive and negative terminals of the battery (+ is red and - is black). Should it be necessary to lengthen the power cable, you should use the same or a superior type of cable.
- It is necessary to connect your CB to a permanent (+) and (-). We advise you to connect the power cable directly to the battery (as the connection of the CB cable to the wiring of the car-radio or other parts of the electrical circuit may, in some cases, increase the likelihood of interference).
- Connect the red wire (+) to the positive terminal of the battery and the black (-) wire to the negative terminal of the battery.
- Connect the power cable to your CB radio.

WARNING: Never replace the original fuse (2 A) by one of a different value.



4) BASIC OPERATIONS TO BE CARRIED OUT BEFORE USING YOUR SET FOR THE FIRST TIME (without transmitting and without using the «push-to-talk» switch on the microphone):

- a) Connect the microphone
- b) Check the antenna connections
- c) Turn the set on by turning the knob VOLUME clockwise.
- d) Turn the SQUELCH knob to minimum (anti-clockwise). Adjust the volume to a comfortable level.
- e) Go to Channel 20 using the rotary knob on the front panel.

5) ADJUSTMENT OF SWR (Standing wave ratio):

WARNING: This must be carried out when you use your CB radio for the first time (and whenever you re-position your antenna). The adjustment must be carried out in an obstacle-free area.

* Using an external SWR meter (e.g. SWR 1 or SWR 2):

- a) To connect the SWR meter :
 - Connect the SWR meter between the CB radio and the antenna as close as possible to the CB (use a maximum of 40 cm cable, type CA 2C).
- b) To adjust the SWR meter:
 - Set the CB to channel 20.
 - Put the switch on the SWR meter to position CAL ou FWD.
 - Press the «push-to-talk» switch on the microphone to transmit.
 - Bring the index needle to ▼ by using the calibration key.
 - Change the switch to position SWR (reading of the SWR level). The reading on the V.U. meter should be as near as possible to 1. If this is not the case, re-adjust your antenna to obtain a reading as close as possible to 1. (An SWR reading between 1 and 1.8 is acceptable).
 - It will be necessary to re-calibrate the SWR meter after each adjustment of the antenna.

Your CB is now ready for use.

B) HOW TO USE YOUR CB:

1) ON/OFF - VOLUME:

- a) To turn the set on, turn the knob (1) clockwise
- b) To increase the sound level, turn the same knob further clockwise.



2) ASC (Automatic Squelch Control)/SQUELCH :

Suppresses undesirable back-ground noises when there are no communication. Squelch does not effect neither sound nor transmission power, but allows a considerable improvement in listening comfort.

a) ASC: Automatic Squelch Control

Worldwide patent, a exclusivity

No repetitive manual adjustment and a permanent improvement in listening comfort when this function is active. It can be disconnected by turning the switch (2) clockwise, in this case the manual squelch control becomes active again.

b) Manual squelch

Turn the squelch knob clockwise to the exact point where all back-ground noise disappears. This adjustment should be done with precision as, if set to maximum, (i.e. fully clockwise) only the strongest signals will be received.

3) RF GAIN:

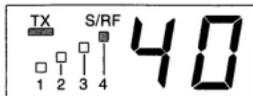
This knob is for adjusting sensitivity during reception. For long distance communications RF GAIN should be set to maximum. RF GAIN can be reduced to avoid distortion, when your correspondent is close by and who does not have the RF POWER function. *The normal setting of this knob is on maximum (fully clockwise).*

4) CHANNEL SELECTOR ROTARY KNOB:

Turning this knob allows you to choose a channel (1-40) for transmitting and receiving.

5) DISPLAY:

The display shows all the different functions. The bargraph shows the level of reception and the level of power emitted. The TX LED lights up when the set goes into transmission mode.



6) FREQUENCY BAND SELECTION

The frequency bands must be chosen according to the country where you are going to operate. Do not use another configuration. Some countries require user's licence.

- Radio set switched OFF.
- Slide the **F/OFF** switch on **F** position.
- Switch ON the radio.
- Choose the request configuration with the channel rotary switch (see the chart p. 48).
- Slide the **F/OFF** switch on **OFF** position.
- And then, for final confirmation of the choice before operating in the configuration, switch OFF then ON the radio set.

7) MODE:

Use this key to select AM or FM. The modulation mode must correspond with that of the person with whom you communicate.

AM/ Amplitude Modulation (AM) is for communications in areas where there are obstacles and over medium distances.

FM/ Frequency Modulation (FM) is for nearby communications in flat, open areas. It gives better quality of communication (squench-adjustment needs more finesse).

8) CH 19:

Channel 19 is automatically selected when you activate this switch. To activate this function, move the switch to **CH19** position, and to return to the previous channel move the same switch to **OFF** position.

9) 6-PIN MICROPHONE PLUG:

This plug is situated on the front panel, thereby making it easier to set the equipment into the dashboard. See the cabling diagram on page 47.

10) PTT (push to talk):

Depress this knob to transmit a message and release to listen to an incoming communication.

A) DC-POWER TERMINAL (13,2 V)

B) ANTENNA CONNECTOR (SO-239)

C) EXTERNAL SPEAKER JACK (8 Ω , \varnothing 3,5 mm)

C) TECHNICAL CHARACTERISTICS:

1) GENERAL:

- Channels : 40
- Modulation modes : AM/FM
- Frequency ranges : from 26.965 MHz to 27.405 MHz
- Antenna impedance : 50 ohms
- Power supply : 13.2 V
- Dimensions (in mm) : 115 (L) x 180 (H) x 35 (D)
- Weight : 0,8 kg
- Accessories supplied : Electret microphone with support, mounting cradle, screws.
- Filter : ANL (Automatic Noise Limiter) built-in

2) TRANSMISSION:

- Frequency allowance : +/- 300 Hz
- Carrier power : 1 W AM / 4 W FM
- Transmission interference : inferior to 4 nW (- 54 dBm)
- Audio response : 300 Hz à 3 KHz in AM/FM
- Emitted power in the adj. channel : inferior to 20 μ W
- Microphone sensitivity : 10 mV
- Drain : 1,7 A (with modulation)
- Modulated signal distortion : 1,8 %

3) RECEPTION:

- Maxi. sensitivity at 20 dB sinad : 0,5 μ V - 113 dBm (AM/FM)
- Frequency response : 300 Hz à 3 kHz in AM/FM
- Adjacent channel selectivity : 60 dB
- Maximum audio power : 5 W
- Squelch sensitivity : minimum 0.2 μ V - 120 dBm
maximum 1 mV - 47 dBm
- Frequency image rejection rate : 60 dB
- Intermediate frequency rej. rate : 70 dB
- Drain : 500 mA nominal / 800 mA maximum

D) TROUBLE SHOOTING:

1) YOUR CB RADIO WILL NOT TRANSMIT OR YOUR TRANSMISSION IS OF POOR QUALITY:

- Check that the antenna is correctly connected and that the SWR is properly adjusted.
- Check that the microphone is properly plugged in.
- With the «push-to-talk» switch activated, the display flashes. Release the «push-to-talk» switch, then re-press it to go into transmission.

2) YOUR CB RADIO WILL NOT RECEIVE OR RECEPTION IS POOR:

- Check that the squelch level is properly adjusted.
- Check that the volume is set to a comfortable listening level.
- Check that the microphone is properly plugged in.
- Check that the antenna is correctly connected and that the SWR is properly adjusted.
- Check that you are using the same modulation mode as your correspondent.

3) YOUR CB WILL NOT LIGHT UP:

- Check the power supply.
- Check the connection wiring.
- Check the fuse.

E) HOW TO TRANSMIT OR RECEIVE A MESSAGE:

Now that you have read the manual, make sure that your CB Radio is ready for use (i.e. check that your antenna is connected).

Choose your channel (19, 27).

Choose your mode (AM/FM) which must be the same as that of your correspondent. Press the «push-to-talk» switch and announce your message «Attention stations, transmission testing» which will allow you to check the clearness and the power of your signal. Release the switch and wait for a reply. You should receive a reply like, «Strong and clear».

If you use a calling channel (19, 27) and you have established communication with someone, it is common practice to choose another available channel so as not to block the calling channel.

F) GLOSSARY:

Below you will find some of the most frequently used CB radio expressions. Remember this is meant for fun and that you are by no means obliged to use them. In an emergency, you should be as clear as possible.

INTERNATIONAL PHONETIC ALPHABET:

A Alpha	H Hotel	P Papa	W Whiskey
B Bravo	I India	Q Quebec	Y Yankee
C Charlie	J Juliett	R Romeo	Z Zulu
D Delta	L Lima	S Sierra	
E Echo	M Mike	T Tango	
F Foxtrott	N November	U Uniform	
G Golf	O Oscar	V Victor	

TECHNICAL VOCABULARY:

AM	: Amplitude Modulation
CB	: Citizen's Band
CH	: Channel
CW	: Continuous Wave
DX	: Long Distance Liaison
DW	: Dual Watch
FM	: Frequency Modulation
GMT	: Greenwich Meantime
HF	: High Frequency
LF	: Low Frequency
LSB	: Lower Side Band
RX	: Receiver
SSB	: Single Side Band
SWR	: Standing Wave Ratio
SWL	: Short Wave Listening
SW	: Short Wave
TX	: CB Transceiver
UHF	: Ultra High Frequency
USB	: Upper Side Band
VHF	: Very High Frequency

CB LANGUAGE:

Advertising	: Flashing lights of police car
Back off	: Slow down
Basement	: Channel 1

