

Owner's Manual  
Mode d'Emploi  
Gebruiksaanwijzing  
CB-747

**MARKO**

## **Installation Instructions**

This transceiver is designed for 12V DC operation with either a negative or positive ground system. In order to install the radio, it is important to know whether your vehicle has a positive or negative ground system. Connecting the radio incorrectly will damage it. All automobiles built after 1966 use a negative ground system. If you have an earlier model automobile, or if you are installing the radio in a truck or foreign-made vehicle, we suggest you check with qualified technician and find out if your make and model vehicle uses a positive ground or negative ground system.

Mount the radio so that all controls are within easy reach of the operator. Avoid mounting it directly in front of air conditioning or heater ducts.

Be sure it does not interfere with the operation of the vehicle or any equipment in the vehicle.

Your transceiver can be installed inside your glove compartment if desired. Most often, your equipment is mounted under the dash.

Take a soft lead pencil and draw an outline of the entire bracket, including the holes for drilling, on the place it is to be mounted. Before you drill, look behind the place that you have chosen to mount your unit to make sure that there are no wires or other items that can be damaged by the drill bit. If the area is clear, take a center punch and make a small indentation in each of the places marked for drilling.

Use a #30 or 3.2 mm drill bit for the self threading screws.

Protect your eyes with goggles.

If you are drilling through heavy upholstery or carpeting, mark an 'X' exactly at the spot for the hole. Cut the upholstery or carpeting material along the lines of the 'X' with a sharp knife. Peel the corners back so that while you are drilling, the drill does not catch on the material and unravel it. Use the hardware to mount the bracket firmly to the mounting location. Install the radio to the bracket. Mount the microphone holder to the radio's mounting bracket or to the dash.

## Operating Instructions

Install the radio as described in the **Installation** instructions. Make sure that the antenna and power wires are properly connected before you attempt to operate the radio.

### To receive

- 1 Plug the microphone into the microphone jack.
- 2 Turn radio on by rotating the **Volume** control clockwise.
- 3 Continue to rotate the knob in the same direction to increase the loudness.
- 4 Set the **Band** switch to desired position.
- 5 Set the channel selector to any of the channels you choose.
- 6 Set the **LSB/USB/AM/FM** selector to desired position.
- 7 Turn the **Squelch** control counterclockwise, then slowly clockwise until the hissing sounds just stop. It is important to set the control carefully. When properly set, annoying static noise (hiss) will be eliminated while allowing reception of weak signals. Turning the **Squelch** control too far clockwise increases the signal required to actuate the receiver and may prevent reception of weaker signals. Turning the control too far counterclockwise will allow the receiver to pick up atmospheric noise and objectionable background hiss.

### Clarifier

Functions as a delta-tune on AM or FM, and permits voice clarification on SSB reception.

### LSB/USB/AM/FM mode selector

Determines the modulation mode. FM, frequency-modulation. AM, amplitude-modulation. LSB, lower side band. USB, upper side band.

### NB switch

Used to reduce the pulse-type noises.

- 1 S/RF-Cal-SWR meter.
- 1 Indicateur des S/RF-Cal-SWR.
- 1 S/RF-Cal-SWR-meter.

- 2 Clarifier.
- 2 Clarifieur.
- 2 Clarifier.

- 3 SWR/Cal control.
- 3 Réglage SWR/Cal.
- 3 SWR/Cal-regelaar.

- 4 Band switch.
- 4 Sélecteur des bandes.
- 4 Bandkiezer.

- 5 Channel indicator.
- 5 Indicateur des canaux.
- 5 Kanaalindikator.

- 6 HI indicator.
- 6 Indicateur HI.
- 6 HI-indikator.

- 7 Channel selector.
- 7 Sélecteur des canaux.
- 7 Kanaalkiezer.

- 8 PA/Squelch control.
- 8 Réglage PA/Squelch.
- 8 PA/Squelch-regelaar.

- 9 Off/Volume control.
- 9 Réglage Off/Volume.
- 9 Off/Volume-regelaar.

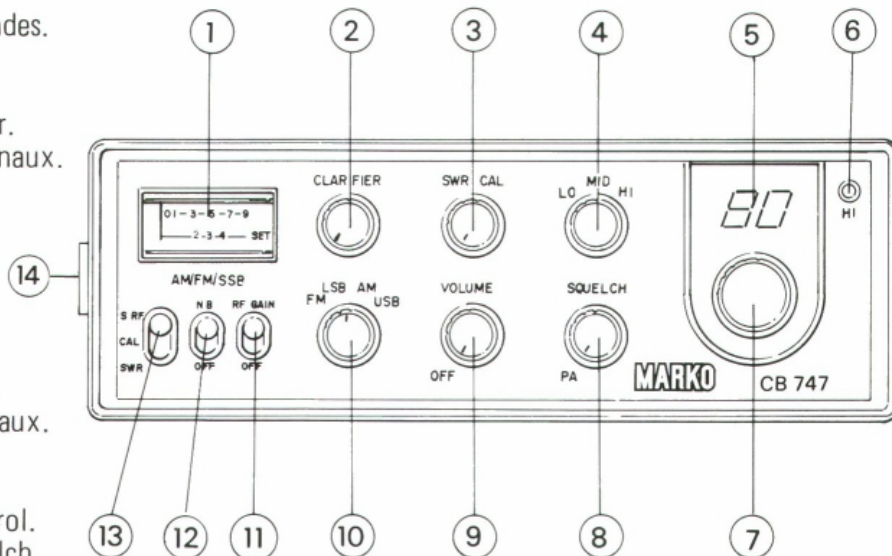
- 10 Mode selector.
- 10 Sélecteur des modes.
- 10 Mode-kiezer.

- 11 RF-Gain switch.
- 11 Interrupteur RF-Gain.
- 11 RF-Gain-schakelaar.

- 12 NB switch.
- 12 Interrupteur NB.
- 12 NB-schakelaar.

- 13 S/RF-Cal-SWR switch.
- 13 Interrupteur NB.
- 13 S/RF-Cal-SWR-schakelaar.

- 14 Microphone jack.
- 14 Prise microphone.
- 14 Mikrofoonaansluiting.



**RF Gain switch**

Normally set this switch to Off position. If the signal is too strong, distortion may result, in which case set this switch to RF Gain position.

**HI indicator**

Lights up to indicate that you are on high 40 channels.

**Electrical Connections**

Before you attempt to transmit on radio, make sure you have connected the antenna and power source to the unit. If you have not already done so, proceed as follows. Transmitting on radio without antenna will make you risk burning out the final power transistors.

**a) Negative ground system.**

Connect the negative (black) wire to a screw or bolt on the metal frame. Connect the positive (red) wire to the Radio terminal on the vehicle's fuse panel (or directly to the + terminal on the battery).

**b) Positive ground system.**

Using the same connecting method as above, connect the red wire to the vehicle's metal frame and the black wire to the Radio terminal on the fuse panel.

**Antenna**

The antenna's mounted location on the vehicle affects the operation of the transceiver.

Ideally, the transmitted power and receiving sensitivity should be uniform in all directions, regardless of which direction the vehicle faces. An antenna located near the center of the vehicle's roof will provide performance closest to ideal. A compromise between such factors as the cost of the antenna, the ease and personal preference of installation, and uniformity of the desired transmission-reception characteristics will determine the best mounting location.

## **Noise**

Some noise is to be expected and is normal. The noises may originate from many places in the vehicle's ignition-electrical system. The efficient installation of noise suppression devices depends upon the make and age of the vehicle. Noise suppression devices are available at auto service stores.

## **External Speaker Connection**

A remote 8 ohms speaker may be connected to the unit in order to overcome muffled sounds caused by a carpet or other obstructions in the vehicle. With the remote speaker plugged into the jack, the internal speaker is automatically disconnected.

## **Public Address Operation**

Your transceiver can function as a public address amplifier. To use this feature, you must connect a speaker of 8 ohm designed specially for the purpose, to the public address speaker jack (PA SP) on the unit's rear panel.

- 1** Connect a PA speaker to the PA speaker jack on the unit.
- 2** Rotate the Squelch control fully counterclockwise to PA.
- 3** Rotate the Volume control clockwise to apply power to the unit.
- 4** Depress the microphone pushswitch and speak in a normal voice.
- 5** Adjust the Volume control as suit.
- 6** To revert the unit to normal CB function, rotate the Squelch control clockwise to other than PA.

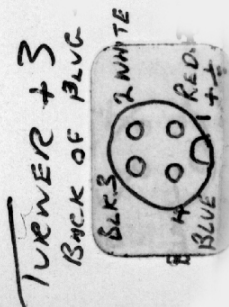
## **SWR of the Antenna**

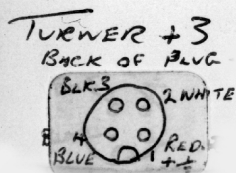
- 1** Place the S/RF-Cal-SWR switch on Cal.
- 2** Depress the pushswitch on the microphone.
- 3** Adjust the SWR/Cal control so that the meter (SWR) pointer coincides with the 'Set' mark on the scale.
- 4** Place the S/RF-Cal-SWR switch in SWR.
- 5** Depress the pushswitch again and read SWR.

## Trouble-Shooting Guide

If you encounter difficulty in operating your unit, check the following.

| Symptom                                                            | Possible Causes (and Remedy)                                                                        |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Radio dead, no indicator lights.                                   | Blown fuse.<br>Power wires disconnected.                                                            |
| Unit will not send or receive — indicator lamps on.                | Unit's Squelch control set to PA.                                                                   |
| Unit will not receive, no noises.                                  | Squelch control set too high.                                                                       |
| Unit will receive but not transmit.                                | Loose microphone connection.<br>Microphone cord shorted or cut.                                     |
| Noisy reception<br>(Symptom comes and goes, or persists for days). | Antenna problem.<br>Atmospheric noises.<br>Sunspot activity.<br>Try to receive other transmissions. |





| Channel Divisor<br>Division des Canaux<br>Kanaalindeling | Low<br>Channel | Channel<br>Frequency<br>in MHz | Mid.<br>Channel | Channel<br>Frequency<br>in MHz | High<br>Channel | Channel<br>Frequency<br>in MHz |
|----------------------------------------------------------|----------------|--------------------------------|-----------------|--------------------------------|-----------------|--------------------------------|
|                                                          | 1              | 26.965                         | 41              | 27.415                         | 1               | 27.865                         |
|                                                          | 2              | 26.975                         | 42              | 27.425                         | 2               | 27.875                         |
|                                                          | 3              | 26.985                         | 43              | 27.435                         | 3               | 27.885                         |
|                                                          | 4              | 27.005                         | 44              | 27.455                         | 4               | 27.905                         |
|                                                          | 5              | 27.015                         | 45              | 27.465                         | 5               | 27.915                         |
|                                                          | 6              | 27.025                         | 46              | 27.475                         | 6               | 27.925                         |
|                                                          | 7              | 27.035                         | 47              | 27.485                         | 7               | 27.935                         |
|                                                          | 8              | 27.055                         | 48              | 27.505                         | 8               | 27.955                         |
|                                                          | 9              | 27.065                         | 49              | 27.515                         | 9               | 27.965                         |
|                                                          | 10             | 27.075                         | 50              | 27.525                         | 10              | 27.975                         |
|                                                          | 11             | 27.085                         | 51              | 27.535                         | 11              | 27.985                         |
|                                                          | 12             | 27.105                         | 52              | 27.555                         | 12              | 28.005                         |
|                                                          | 13             | 27.115                         | 53              | 27.565                         | 13              | 28.015                         |
|                                                          | 14             | 27.125                         | 54              | 27.575                         | 14              | 28.025                         |
|                                                          | 15             | 27.135                         | 55              | 27.585                         | 15              | 28.035                         |
|                                                          | 16             | 27.155                         | 56              | 27.605                         | 16              | 28.055                         |
|                                                          | 17             | 27.165                         | 57              | 27.615                         | 17              | 28.065                         |
|                                                          | 18             | 27.175                         | 58              | 27.625                         | 18              | 28.075                         |
|                                                          | 19             | 27.185                         | 59              | 27.635                         | 19              | 28.085                         |
|                                                          | 20             | 27.205                         | 60              | 27.655                         | 20              | 28.105                         |
|                                                          | 21             | 27.215                         | 61              | 27.665                         | 21              | 28.115                         |
|                                                          | 22             | 27.225                         | 62              | 27.675                         | 22              | 28.125                         |
|                                                          | 23             | 27.255                         | 63              | 27.705                         | 23              | 28.155                         |
|                                                          | 24             | 27.235                         | 64              | 27.685                         | 24              | 28.135                         |
|                                                          | 25             | 27.245                         | 65              | 27.695                         | 25              | 28.145                         |
|                                                          | 26             | 27.265                         | 66              | 27.715                         | 26              | 28.165                         |
|                                                          | 27             | 27.275                         | 67              | 27.725                         | 27              | 28.175                         |
|                                                          | 28             | 27.285                         | 68              | 27.735                         | 28              | 28.185                         |
|                                                          | 29             | 27.295                         | 69              | 27.745                         | 29              | 28.195                         |
|                                                          | 30             | 27.305                         | 70              | 27.755                         | 30              | 28.205                         |
|                                                          | 31             | 27.315                         | 71              | 27.765                         | 31              | 28.215                         |
|                                                          | 32             | 27.325                         | 72              | 27.775                         | 32              | 28.225                         |
|                                                          | 33             | 27.335                         | 73              | 27.785                         | 33              | 28.235                         |
|                                                          | 34             | 27.345                         | 74              | 27.795                         | 34              | 28.245                         |
|                                                          | 35             | 27.355                         | 75              | 27.805                         | 35              | 28.255                         |
|                                                          | 36             | 27.365                         | 76              | 27.815                         | 36              | 28.265                         |
|                                                          | 37             | 27.375                         | 77              | 27.825                         | 37              | 28.275                         |
|                                                          | 38             | 27.385                         | 78              | 27.835                         | 38              | 28.285                         |
|                                                          | 39             | 27.395                         | 79              | 27.845                         | 39              | 28.295                         |
|                                                          | 40             | 27.405                         | 80              | 27.855                         | 40              | 28.305                         |

# **Technical Specifications** **Specifications Technique** **Technische Gegevens**

## **General**

Frequency composition  
Channels  
Modes  
Power source  
Antenna input impedance

## **Généralités**

Composition fréquentielle  
Canaux  
Mode  
Alimentation  
Impédance de l'antenne

## **Algemeen**

Frequentiesamenstelling  
Kanalen  
Werkwijze  
Stroombron  
Antenne-impedantie  
PLL synthesizer  
120  
AM/FM/LSB/USB  
13.8V DC  
50 Ohm

## **Receiver**

Composition  
Sensitivity **AM**  
**FM**  
**SSB**  
Selectivity **AM**  
**FM**  
**SSB**

Clafifier range  
Audio output  
Squelch range  
AM modulation  
FM deviation  
RF power output **AM**  
**FM**  
**SSB**

SSB generation

## **Récepteur**

Composition  
Sensibilité **AM**  
**FM**  
**SSB**  
Sélectivité **AM**  
**FM**  
**SSB**

Gamme du clarifier  
Puissance audio  
Gamme du silencieux  
Modulation AM  
Déviation FM  
Puissance HF **AM**  
**FM**  
**SSB**

Génération SSB

## **Ontvanger**

Systeem  
Gevoeligheid **AM**  
**FM**  
**SSB**  
Selektiviteit **AM**  
**FM**  
**SSB**

Bereik clarifier  
Audio vermogen  
Squelch bereik  
AM modulatie  
FM zwaai  
Zendervermogen **AM**  
**FM**  
**SSB**

SSB-samenstelling

Double conversion superheterodyne  
1 micro-V/10 dB S+N/N  
1 micro-V/20 dB S+N/N  
0.5 micro-V/10 dB S+N/N  
5 kHz/6 dB  
5 kHz/6 dB  
2.2 kHz/6 dB  
800 Hz  
2W/10% THD/8 Ohm  
0.5 – 500 micro-V  
100% maximum  
±1.5 kHz/1250 Hz/20 mV  
7.5W  
7.5W  
12W  
Double-balanced/crystal lattice filter



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