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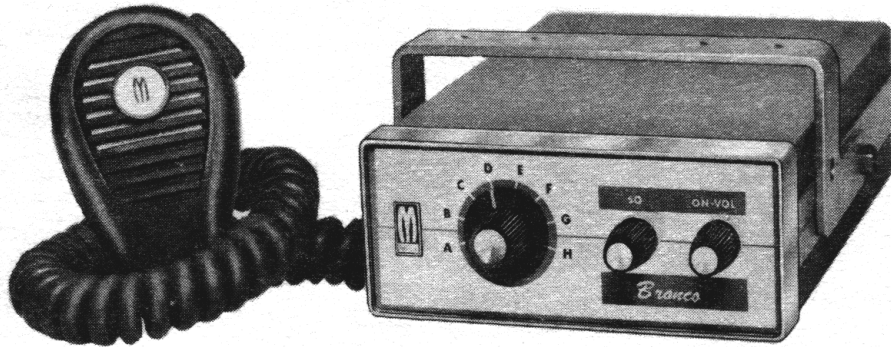
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*Bronco*

## CITIZENS BAND TRANSCEIVER



MODEL CB 280

# INSTRUCTION MANUAL

Metrotek Electronics, Inc.

## NOTICE

Transmitting with this equipment must not be attempted until authorization in the form of a license has been received from the Federal Communications Commission. An FCC License application form (505) is provided for the convenience of the owner.

## UNPACKING

- 1 - Bronco Transceiver Unit
- 1 - Fuse
- 1 - Mobile Mounting Bracket
- 1 - Dial
- 1 - Channel Number Marker Set
- 1 - Instruction Manual
- 1 - Warranty Card

To be filled out and returned to:

Regency Electronics, Inc.

7900 Pendleton Pike

Indianapolis, Indiana 46226

- 1 - FCC License Form 505

## MAINTENANCE

It is recommended that the services of a qualified electronic technician be used for troubleshooting.

DO NOT TAMPER WITH INTERNAL ADJUSTMENTS ----  
DAMAGE TO THE EQUIPMENT AND/OR ILLEGAL OPERATION MAY RESULT.

## DESCRIPTION

The Metrotek Bronco is an all-transistor AM Citizens Band transceiver designed for 12 VDC operation. Silicon transistors are used throughout for dependability.

The Bronco transmits and receives with crystal controlled reliability on any eight CB channels. The eight active channels are selected by inserting the plug-in crystal desired. Some extra features found on the Bronco include: connections for external speaker; and panel squelch control.

## SPECIFICATIONS

### RECEIVER

Frequency Range . . . . .	26.6 MHz to 27.5 MHz
Tuning Range . . . . .	8 channels
Sensitivity . . . . .	Less than $1\mu\text{v}$ for 10 db S+N/N at 400 cycles, 30% modulated. Tangential sensitivity approx. $0.1\mu\text{v}$ .
Selectivity . . . . .	10 KC at 3 DB, 40 DB at $\pm$ 10 KC, 60 DB at $\pm$ 60 KC
Squelch Limits . . . . .	Adjustable from $1/2\mu\text{v}$ to approx. $100\mu\text{v}$ .
Audio Output . . . . .	2 watts

### TRANSMITTER

Carrier Freq. Range . . . . .	26.6 MHz to 27.5 MHz
Carrier Freq. Accuracy Within $\pm$ .005% (max.)	
Mic Input Impedance . . . . .	Carbon
Modulation . . . . .	Class A 95%

## SPECIFICATIONS (Con't.)

### TRANSMITTER (Con't.)

Power Input . . . . .	Total input under full modulation is approx. 20 watts
R. F. Output . . . . .	3 watts (Min.)
Output Impedance . . . . .	50 ohms

### GENERAL

Power Requirement . . . . .	12-14 VDC
Power Consumption . . . . .	20 watts
Accessory Provisions . . . . .	External Speaker

## INSTALLATION

The Bronco transceiver may be installed as a mobile station using the mounting bracket provided. The bracket is designed to allow mounting in a variety of positions in most automobiles. The mounting position of the unit should be selected to allow easy access by the operator. The transceiver should be securely fastened to some solid surface, such as the underside of the dash, using the mounting bracket supplied.

A standard coaxial connector is provided on the rear panel of the transceiver for antenna connection. The antenna selected must be specifically designed for CB equipment and have an impedance of approximately 50 ohms. The coaxial antenna lead-in should be as short as possible and only types RG-58/U or RG-8U are recommended.

Power connections are made by the power cable on the rear of the chassis. The Bronco must be operated from 12 VDC NEGATIVE GROUND electrical systems only.

The Microphone Hanger - This bracket should be installed for the convenience of the operator .

### IGNITION NOISE INTERFERENCE

This type of interference can generally be reduced by the use of one or more of the following corrective measures:

1. A resistive suppressor in the high tension lead from the coil to the distributor .
2. Individual suppressors at each spark plug or by the use of "resistor " spark plugs .
3. Coaxial bypass capacitors in the primary, or low voltage, leads to the ignition coil .
4. A coaxial capacitor in the lead to the armature connection of the generator .
5. Appropriate bypass components on the voltage regulator .
6. Electrically ground the tail pipe or tail pipes to the vehicle frame at several points .

Ignition noise comes from many causes and these are but a few. Many other possibilities exist, but variations between vehicles make it impractical to go into greater detail.

Before attempting any of the above remedies, a qualified person experienced in two-way radio service should be consulted.

### OPERATING INSTRUCTIONS

#### NOTE

There are three cautions to be observed in the operation of this transceiver:

DO NOT OPERATE without an antenna or with an excessively mismatched antenna.

DO NOT OPERATE with channel selector switch in a position which is not equipped with a transmit crystal.

DO NOT ATTEMPT TO OPERATE until negative ground power supply is insured.

#### VOLUME CONTROL - OFF-ON SWITCH

This control varies the audio output level for the internal speaker. It also varies the level of audio present at the external speaker connection. Clockwise rotation of this control turns the Bronco on and increases the volume.

#### SQUELCH CONTROL

This control eliminates background noise in the absence of a signal. Clockwise rotation reduces the squelch action to a minimum.

#### CHANNEL SELECTOR

This is an eight-position switch which enables the operator to select any one of the eight crystal-controlled channels for both receiving and transmitting.

#### ADDITIONAL CRYSTALS

Plug-in crystals for CB channel 11 are supplied with each Bronco transceiver. These crystals are installed at the factory.

To install additional crystals on top of the board, remove the mounting bracket screws, slide the wrap to the rear, remove the speaker mounting screws on the side of the unit, and insert the crystals into the desired sockets.

Receive crystals are located in front of the channel selector switch and the Transmit crystals in back.

Additional or replacement crystals may be purchased from:

SHEPHERD INDUSTRIES, INC.  
8106 Santa Fe Drive  
Overland Park, Kansas 66202

a subsidiary of Regency Electronics, Inc.

CHANNEL	REC. CRYSTAL PART NO.	TRANS. CRYSTAL PART NO.
1	RMI17-1	TMA00-1
2	RMI17-2	TMA00-2
3	RMI17-3	TMA00-3
4	RMI17-4	TMA00-4
5	RMI17-5	TMA00-5
6	RMI17-6	TMA00-6
7	RMI17-7	TMA00-7
8	RMI17-8	TMA00-8
9	RMI17-9	TMA00-9
10	RMI17-10	TMA00-10
11	RMI17-11	TMA00-11
12	RMI17-12	TMA00-12
13	RMI17-13	TMA00-13
14	RMI17-14	TMA00-14
15	RMI17-15	TMA00-15
16	RMI17-16	TMA00-16
17	RMI17-17	TMA00-17
18	RMI17-18	TMA00-18
19	RMI17-19	TMA00-19
20	RMI17-20	TMA00-20
21	RMI17-21	TMA00-21
22	RMI17-22	TMA00-22
23	RMI17-23	TMA00-23



## WARRANTY

The transceiver is sold under an exclusive 1-year warranty, which warrants it to be free from defects in material and workmanship. We agree to repair or replace, at the point of manufacture, without charge, all parts showing such defects, provided the unit is delivered to us, intact, for our examination, with all transportation charges prepaid to our factory, within one year from the date of sale to the original purchaser, and provided such examination discloses in our final judgment that it is thus defective. Pilot lights, transistors, fuses and diodes shall be covered by the manufacturer's standard EIA warranty and such items shall be excluded from the provisions of this warranty. This warranty does not apply if the transceiver has been subjected to misuse, neglect, accidents, incorrect wiring, not our own, improper installation, or put to use in violation of instructions furnished by us; nor to transceivers that have been damaged by lightning, excess current, repaired or altered outside our factory; nor to the transceiver that has had its serial number altered or removed.

## CHANGES

The Company reserves the right to modify or change the equipment, in whole or in part, at any time prior to delivery in order to include refinements deemed appropriate by the Company, but without incurring any liability to modify or change any equipment previously delivered, or to supply new equipment in accordance with earlier specifications.