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Convoy CON-320 Transceiver Test Master Owner's Manual
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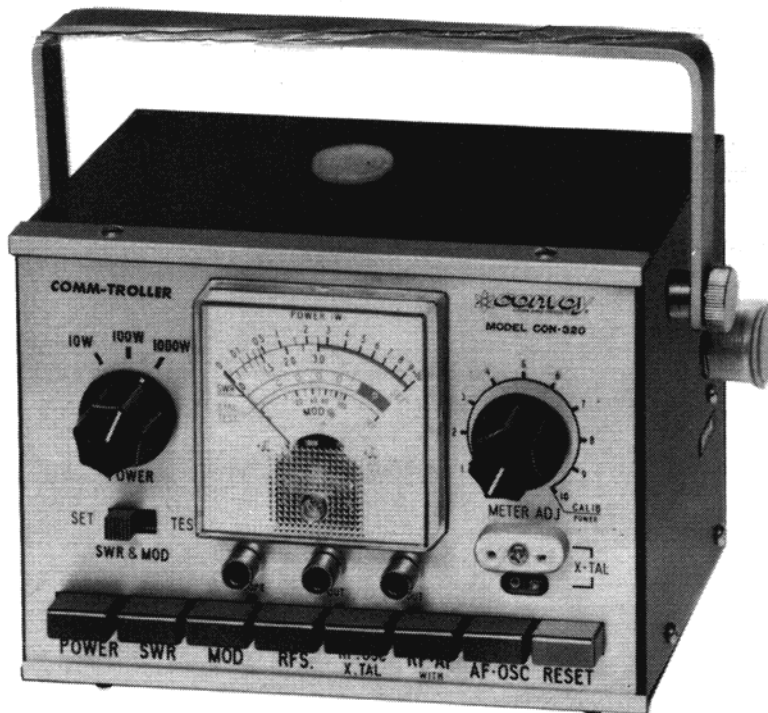


CITIZEN BAND PRODUCTS

by **INTERSTATE
ELECTRONICS**

1330 E. First St. / P.O. Box 2018 / Wichita, Kansas 67201

TRANSCEIVER TEST MASTER CON-320



"Perfectly Matched for Maximum Performance"

The CON-320 is a comprehensive multi-function unit designed to:

- (1) test transmit characteristics of a CB transceiver,
- (2) to trouble shoot AF or RF problems,
- (3) and to check CB crystal activity.

SPECIFICATIONS

1. Frequency	27MHz Citizens Band.
2. Impedance	50-52 Ohms.
3. Meter	100uA Moving Coil
4. Battery	9 Volt
5. Connection	SO-239
6. Size	4½" x 6½" x 3½"
7. Weight	3.3lbs.

Measurement Range

1. Watt Meter	0-10W 0-100W) ±10% at full scale. 0-1000W)
2. Standing Wave Ratio	1:1-1:3 (1W min. measureable power)
3. Modulation	Avg. 0-100% ±10% at scale of 100% MOD.
4. Relative Field Strength	
5. 27MHz RF Oscillator Output	300mV @no load
6. Crystal Activity Test	"Good" or "No Good"
7. 27MHz Oscillator with AF Modulation	RF with AF @1000Hz
8. Audio Frequency Oscillator	@1000Hz, output 4V @no load

Preparation:

- Connect "XMTR" terminal to transceiver.
- Connect "Ant" Terminal to antenna cable.

Power Meter

1. Select power range according to transmitter output.
2. Push "Power" switch.
3. Rotate "Meter Adj" knob fully clockwise until pointer reaches "Calib" mark.
4. Depress mic button to turn on the transmitter. Read watts out on the "Power" scale.

SWR Meter

1. Place slide switch in "Set" position.
2. Select power range according to transmitter output.
3. Push "SWR" switch.
4. Depress mic button to turn on the transmitter.
5. Rotate "Meter Adj" knob so pointer reaches "Set" position.
6. Place slide switch in "Test" position.
7. Read "SWR" on meter.

Modulation %

1. Place slide switch in "Set" position.
2. Select power range according to transmitter output.
3. Push "Mod" button.
4. Switch on the transmitter.

5. Rotate "Meter Adj" knob until pointer is at "Set" position.
Please note that pointer will not reach "Set" position in case of less than 1W power input.
6. Place slide switch in "Test" position.
7. Read "Mod %" on meter scale.

For the following measurement purposes, disconnect "Test-Master" from circuit.

Relative Field Strength

1. Pull up telescopic antenna.
2. Push "RFS" button.
3. Read relative field strength on the meter. Rotate "Meter Adj" knob to adjust meter deflection.

Oscilloscope Monitor

1. Connect lead from "Scope" to oscilloscope probe. (CAUTION: Do not depress button when monitoring.)
2. This will allow you to monitor only relative field strength.

27MHz Oscillator (RF Oscillator)

1. Insert desired frequency crystal into "X-Tal Socket".
2. Push "RF. OSC X-Tal" button.
3. Connect lead to "RF Out" terminal.
4. Connect lead from "RF Out" terminal to transceiver antenna connector.
5. Switch transceiver to channel frequency of crystal in "X-Tal Socket".
6. If the receiver section is OK, S Meter on transceiver will deflect.
(CAUTION: Do Not Transmit While In This Mode.)

27MHz Oscillator With AF Modulation

1. Insert desired frequency crystal into "X-Tal Socket".
2. Push "RF with AF" button.
3. Connect lead to "RF-Out" terminal.
4. Connect lead from "RF-Out" terminal to transceiver antenna connector.
5. Switch transceiver to channel frequency of crystal in "X-tal Socket".
6. If transceiver RF & AF sections are OK, S Meter of transceiver will deflect and speaker will emit 1000Hz tone.
(CAUTION: Do Not Transmit While In This Mode.)

AF Oscillator

1. Push "AF-OSC" button.
2. Connect lead to "AF-Out" terminal.
3. This mode generates 1,000Hz low frequency from "AF-Out" terminal.
4. Connect lead from "AF-Out" terminal to mic. jack of transceiver.
If transceiver is OK, it will emit 1000Hz tone.
(CAUTION: Do Not Transmit While In This Mode.)

Crystal Activity Test

1. Insert crystal into "X-Tal" socket.
 2. Push "RF. OSC. X-Tal" button.
 3. Rotate "Meter-Adj" knob until needle is at full scale.
 4. Remove crystal. If meter needle is within "good" area of the "X-Tal" scale, crystal is OK
- CAUTION: DO NOT PUSH TWO OR MORE FUNCTION SWITCHES SIMULTANEOUSLY.
BE ALWAYS SURE TO RESET SWITCH BUTTON WHEN NOT IN USE. THIS
ELIMINATES UNNECESSARY BATTERY DRAIN.

CIRCUIT DIAGRAM

