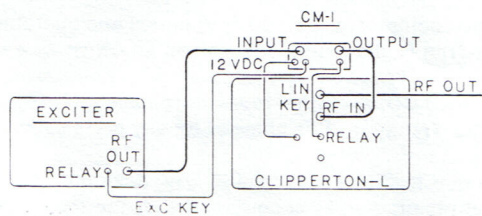


# CM-1 Operating Manual

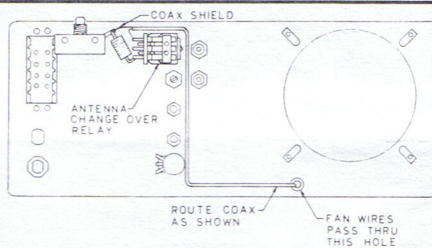
**Dentron**



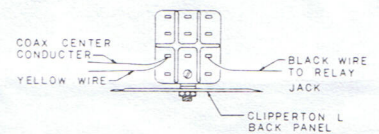


HOOK-UP DIAGRAM

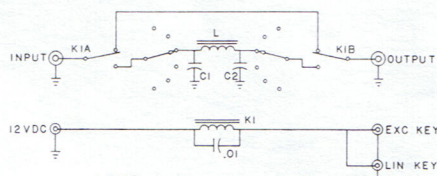
SCALE	APPROVED BY	DRAWN BY
DATE 7-30-80	REVIEWED	
Dentron RADIO CO.		
CM-1	DRAWING NUMBER	28-004



INSIDE VIEW CLIPPERTON-L BACK PANEL



FRONT VIEW ANTENNA CHANGE-OVER RELAY



BAND	C1	L	C2
160M	270PF	5.6UH	750PF
80M	130PF	2.7UH	470PF
40M	36PF	1.5UH	150PF
20M	110PF	.7UH	180PF
15M	68PF	.4UH	92PF
10M	68PF	.2UH	51PF

SCALE	APPROVED BY	DRAWN BY
DATE	REVIEWED	
Dentron RADIO CO.		
CM-1	DRAWING NUMBER	28-005



# Description

The CM-1 is a compact tuned input accessory for the "Clipperton L" amplifier that provides a 50 OHM resistive load on the RF input side to prevent shut-down of some solid state exciters now on the market. It requires no tuning.

# Installation

1. Connect the RF output of the exciter to the input S0-239 of the CM-1 with a length of RG58/U coax or equivalent.
2. Connect the RF input of the "Clipperton L" to the output S0-239 of the CM-1 with a length of RG58/U coax or equivalent.
3. Connect the exciter relay to the CM-1 "Exc. Key" jack.
4. Connect the "Clipperton L" relay jack to the CM-1 "Lin Key" jack using one of the cords supplied.
5. Connect 12 volts DC to the CM-1 12V DC jack using one of the patch cords supplied. This 12 volts DC may come from an external DC power supply, the accessory 12 volt jack of the exciter; or the "Clipperton L" in the following manner:
  - A. Turn off the "Clipperton L". Remove power plug from socket and wait at least 30 minutes for the high voltage power supply to fully discharge.
  - B. Remove the six (6) screws holding the top cover on the "Clipperton L" and set the top cover aside.
  - C. Locate the antenna change-over relay on the back panel of the "Clipperton L" and the two wires attached to the relay coil. One side of the relay coil (black wire) goes to the relay coil jack, and the top of the relay coil (yellow wire) supplies 12 volts DC to the relay.
  - D. 12 volts DC for the CM-1 may be taken from the point where the yellow wire attaches to the relay in the "Clipperton L".
  - E. Route an appropriate length of shielded cable (coax) from the yellow wire, thru the grommet where the fan wires pass, and to the CM-1 "12VDC" jack.
  - F. Replace the cover on the "Clipperton L" amplifier.
6. Operate the exciter and "Clipperton L" amplifier in the normal manner making sure that the CM-1 is in the proper position for the band being operated.

## NOTE:

The settings for your exciter and "Clipperton L" tune and load controls may change slightly with the addition of the CM-1. Be sure to check for proper tuning and make the appropriate changes to your tuning chart if you use one.



## Limited 90 Day Warranty

DenTron Radio is proud of the quality and workmanship of its communication equipment. If properly installed and operated in accordance with our instruction manual, it will give reliable performance. DenTron Radio extends to you as an owner of a new DenTron Radio Product the warranty set forth below:

For ninety (90) days from the date of original retail purchase, **DENTRON RADIO CO.** will either repair or replace, at its option, free of charge, any part or parts found to be defective in material or workmanship. Transportation charges for any parts submitted for replacement under this warranty must be paid by the purchaser.

This warranty will not apply to any part which has become inoperative due to misuse, excessive use, accident, neglect, improper maintenance, alterations, or unless the unit has been operated and maintained in accordance with the instructions furnished.

This warranty will not apply where the unit has been used commercially or when the unit has been used in conjunction with accessories not manufactured by **DENTRON RADIO CO.**

All implied warranties are limited in duration to ninety (90) days from the date of original retail purchase.

The provisions of this warranty specifically exclude any warranty or remedies for incidental or consequential damages.

**SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.**

In order to obtain warranty service, send written notification to the following address: **DENTRON RADIO CO.**, Attn: Service Dept., 1605 Commerce Drive, Stow, Ohio 44224.

Any written notification should include the model number of the unit, date and place of purchase, and a description of the defective part or condition. Do not return the unit or any parts unless requested to do so by **DENTRON RADIO CO.**

Although the return of the **DENTRON** Warranty Registration Card is not a condition precedent to warranty coverage and performance, the purchaser is encouraged to promptly return the Warranty Registration Card upon purchase in order to more easily facilitate the handling of any future service under these warranty provisions.

**THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.**

**DenTron**®

Radio Co., Inc.  
1605 Commerce Drive  
Stow, Ohio 44224



## ADDENDUM TO CM-1 MANUAL

\*\*\*\*\*  
NOTE: If a separate 12 VDC supply is used for the CM-1, other than the 12 VDC line in the Clipperton-L, provisions must be made to remove the 12 VDC when the Clipperton-L is in standby or turned off (such as a switch in the 12 VDC line) or the CM-1 will be activated when running the exciter alone, and erroneous SWR readings will result.  
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IF YOUR CLIPPERTON-L IS NOT MODIFIED FOR 10 METER OPERATION, FOLLOW STEPS 1 THROUGH 6 BELOW THEN PROCEED TO THE CM-1 MANUAL.

IF YOUR CLIPPERTON-L IS MODIFIED FOR 10 METER OPERATION, DISREGARD THE FOLLOWING.

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### "CLIPPERTON-L" MODIFICATION FOR CM-1

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#### "WARNING!"

REMOVE ALL POWER FROM THE "CLIPPERTON-L" AND WAIT AT LEAST 30 MINUTES FOR THE POWER SUPPLY TO COMPLETELY DISCHARGE BEFORE PROCEEDING.

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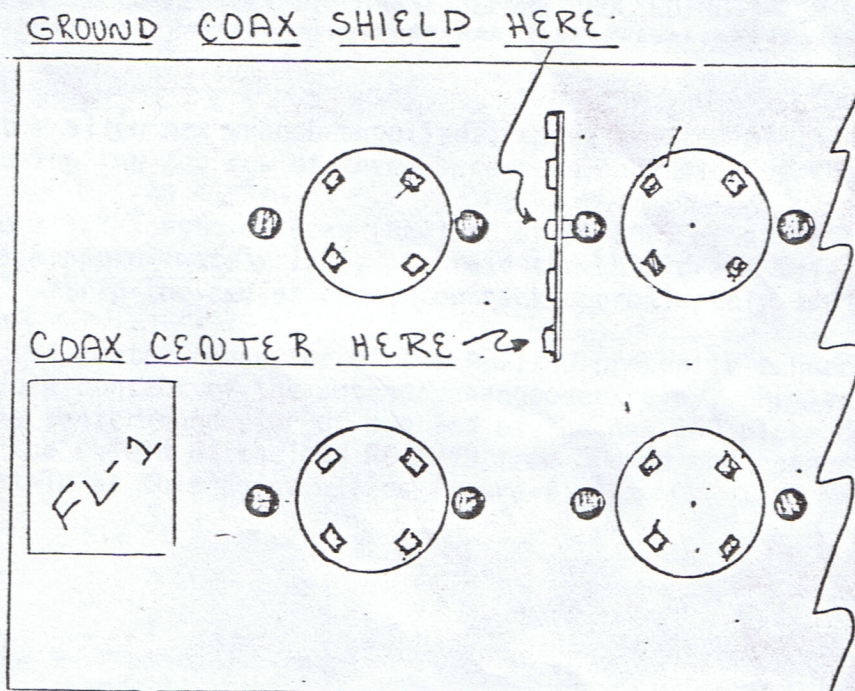
1. Using the allen hex wrench supplied, remove the top of the cabinet by removing the top row of three screws on each side of the cabinet.
2. Prepare a 10" length of coax (RG-174U or RG-58U) by stripping both ends back approximately 1/2". Unbraid the shield and twist it into a wire. Strip the center conductor back approximately 1/8".
3. Remove the center conductor of the RG-174U presently connected to the middle contact of the antenna changeover relay. Replace this with the center conductor of one end of the new 10" piece of coax. Remove the shield of the old RG-174U from ground and connect the new coax shield at this point. (See figure #1.).



## ADDENDUM TO CM-1 MANUAL CONTINUED.....

4. Remove the center conductor of the present RG-174U from the lower terminal of the five lug terminal strip located between the top two tubes on the divider shield. Replace this with the center conductor of the other end of the new 10" piece of coax. Remove the shield of the old RG-174U from the ground terminal and connect the new coax shield at this point. (See figure #2).
5. Remove the two (2) upper 572B tubes.
6. Remove the screw located on the tube compartment side holding the FL-1 P.C. Board and doorknob capacitor to the center divider. Cut the ground wire leading from the P.C. Board and remove the FL-1 from the Clipperton-L.
7. Replace the two (2) 572B tubes.

THIS COMPLETES THE MODIFICATION TO YOUR CLIPPERTON-L. GO TO THE CM-1 MANUAL.





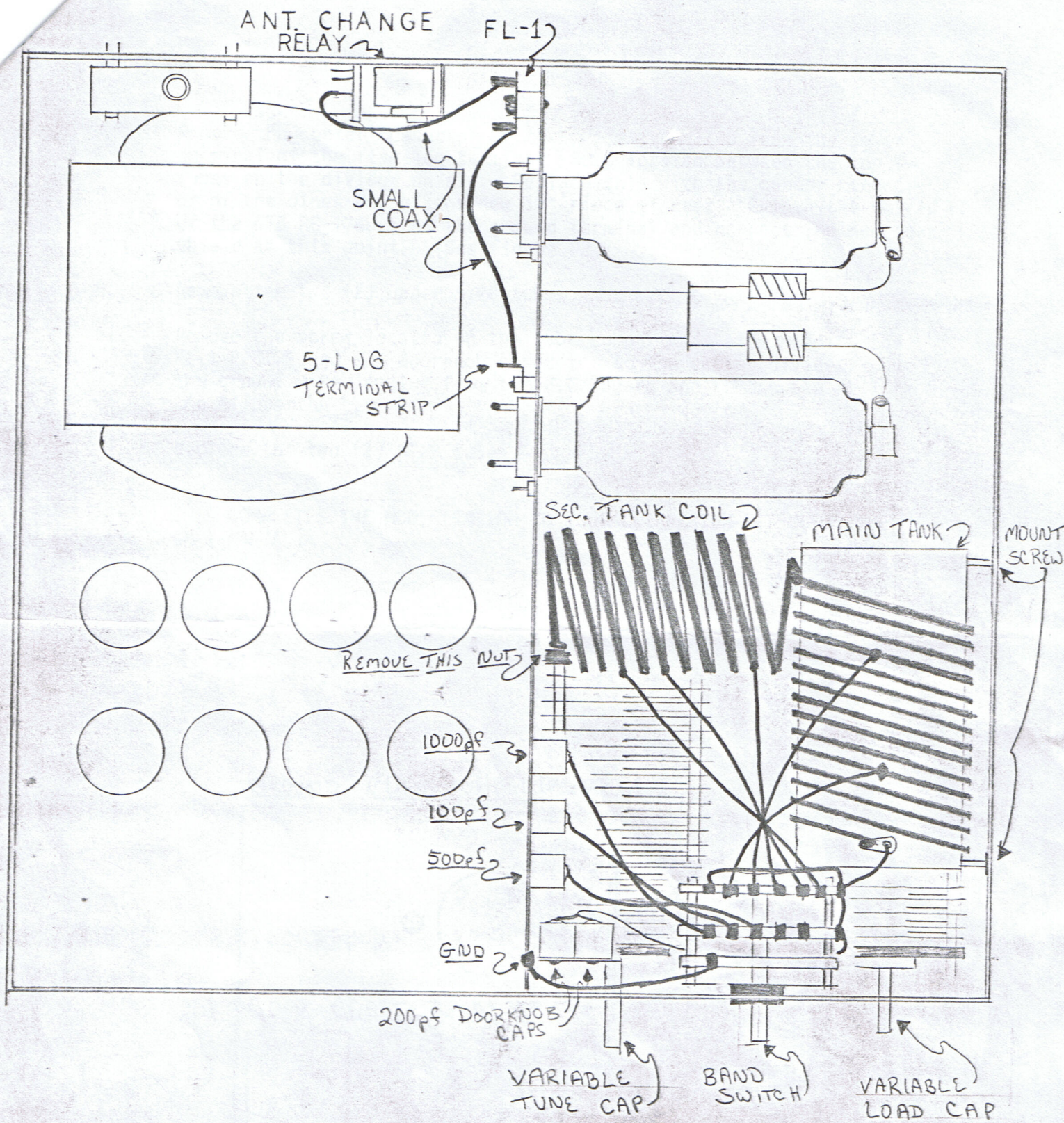


FIGURE - 1