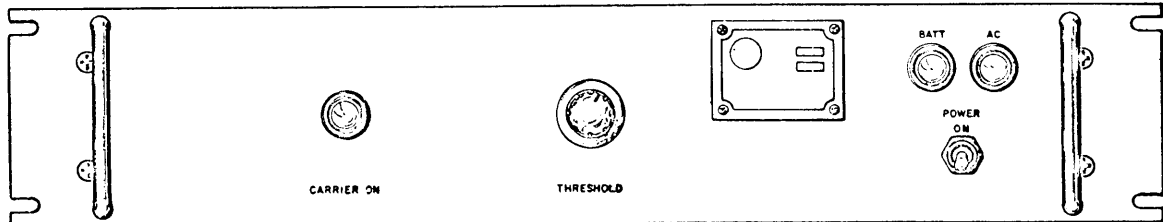


TECHNICAL BULLETIN NUMBER 4013
Carrier Operated Device, Anti-noise
TMC Model CDN-1



The Technical Materiel Corporation's Model CDN-1 (Carrier Operated Device, Anti-noise) provides positive muting of an associated receiver for AM and AM Equivalent reception in the absence of intelligence. The Model CDN-1 has a unique carrier controlled receiver gating and muting circuit with automatic protection against false gating caused by noise bursts or interference.

A selection of many intermediate frequencies makes this unit readily adaptable to almost any communication receiver that has either a high or low impedance IF output facility.

This completely solid state unit mutes the receiver in the absence of a carrier, thus eliminating receiver and atmospheric noise. When the intelligence is received by the receiver, the "carrier-to-noise" ratio is compared in the Codan unit and, if this ratio is suitable for communications, an output relay closes contacts to light an external alert light and activates receiver audio output. Should the "carrier-to-noise" ratio be out of proportion, the operator will be alerted that the communication circuit is not of telephone quality. A front panel threshold control allows the operator to adjust the level at which muting of the receiver takes effect.

This device is particularly useful in any receiver installation by decreasing background noise which might interfere with operating personnel's efficiency. A built-in drift cancelling loop compensates for receiver instability, thus eliminating constant operator attention.

TECHNICAL SPECIFICATIONS, TMC MODEL CDN-1

IF Inputs: 455 kc offered as standard equipment.
The following IF frequencies can be provided at a slight increase in cost:

100 kc
200 kc
250 kc
500 kc
1750 kc

- IF Input Impedance and Levels: 1. High impedance, 50,000 ohms,
10 millivolts to 10 volts.
2. Low impedance, 50 ohms, 1 millivolt
to 1 volt.
- Operating Bandwidth: 2 kc.
- Front Panel Controls
and Indicators: a. Power ON/OFF switch.
b. Power ON indicator.
c. AC fuse - indicating.
d. B+ fuse - indicating.
e. CARRIER/ON indicator.
f. Threshold.
- Power Input: a. 115/230v, 40-400 cps, approximately
10 watts.
- b. 24 volts dc, approximately 8.5 watts.
- Size: 3 1/2" high x 19" wide x 17" deep (standard)
relay rack mounting).
- Weight: Approximately 20 lbs.
- Rear Apron Facilities: a. Low Z IF input (BNC).
b. High Z IF input (BNC).
c. IF input level adjust.
d. AC line input.
e. Connector for remote receiver
activity indicator.
f. Audio line input.
g. Audio line output.
- Loose Items: Mating RF connectors and two instruction
manuals provided.
- Components & Construction: All equipment manufactured in accordance
with JAN/MIL specifications wherever
practicable.



THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, N. Y.

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