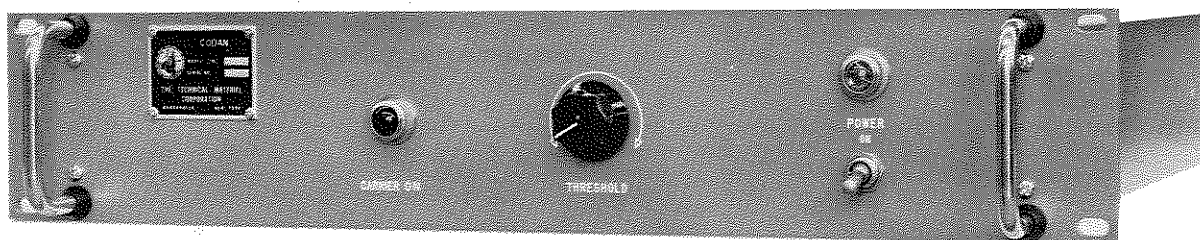


TECHNICAL BULLETIN NUMBER 4013A

Anti-noise Device, Carrier-Operated
TMC Model CDN-3



- Solid State
- Activates receiver only when received signal is of telephone quality
- Positive receiver muting
- Alerts operator in case of trouble

The Technical Materiel Corporation's Model CDN-3 is a compact, solid-state receiver-control unit that electronically determines the optimum signal-to-noise ratio of AM voice signals, and activates the receiver only when the received signal is suitable for high-quality telephone conversation.

Signal-to-noise ratio at which receiver muting takes place is adjustable, for optimum receiver operation, from the front panel of the CDN-3. The operator is alerted, by visual indication, when improper conditions for signal reception exist. Complete muting of the receiver under adverse reception conditions assures quiet operation and a low level of background noise at the receiver site.

The CDN-3 requires only a sample of the receiver IF frequency for operation. This feature allows signal flow to continue through the receiver undisturbed and with no loss of quality.

The application of this unit to an existing receiver only requires standard IF outputs normally available in any communication receiver. Details on IF impedance and voltage are listed in the technical specifications below.

Anti-noise Device, Carrier-Operated

TECHNICAL SPECIFICATIONS, TMC MODEL CDN-3

IF INPUT:	1. AM or AME 2. 455 kc is standard. See OPTIONS/ACCESSORIES for other IF input frequencies.
IF INPUT LEVEL AND IMPEDANCE:	1. 5000 ohms, 100 millivolts to 1 volt. 2. 50 ohms, 1 millivolt to 1 volt.
OPERATING BANDWIDTH:	1. 3 db point; ± 2 kc. 2. 20 db point; ± 8 kc.
THRESHOLD:	This is signal-to-noise ratio at which muting takes place. Adjustable by front panel control.
INDICATORS:	
1. CARRIER ON Lamp:	When ON indicates reception of carrier. When OFF indicates absence of carrier, or noise level of such magnitude that no intelligence can be received.
2. AC Lamp:	Indicates when CDN-3 is operating on AC line voltage.
SPECIAL FEATURES:	
1. Battery Operation.	Battery supply is automatically recharged when battery supply is connected, and CDN-3 is operating on AC line voltage. If AC line voltage fails, CDN-3 remains operative on floating battery supply.
2. Remote Indicator:	Barrier strip connections allow remote CARRIER ON/OFF indication and AC power failure.
PRIMARY POWER:	1. 115/230 vac, 50/60 cycle, single phase, 4.5 watts. (400 cycle power supply available on special order). 2. ± 12 vdc, approximately 4 watts.
INSTALLATION DATA:	Weight: approximately 10 lbs. Size: $3\frac{1}{2}$ " h x 19" w x 15" d.
INSTRUCTION BOOKS:	IN 4013
LOOSE ITEMS:	Mating RF connectors and two instruction books.
COMPONENTS AND CONSTRUCTION:	All equipment manufactured in accordance with JAN/MIL specifications wherever practicable.
OPTIONS/ACCESSORIES:	
Optional IF frequencies:	100 kc. 200 kc. 250 kc. 500 kc. 1750 kc.

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