



Consumer and
Corporate Affairs

Consommation et
corporations

Standards

Normes

**NOTICE OF APPROVAL
AVIS D'APPROBATION**

E - 141

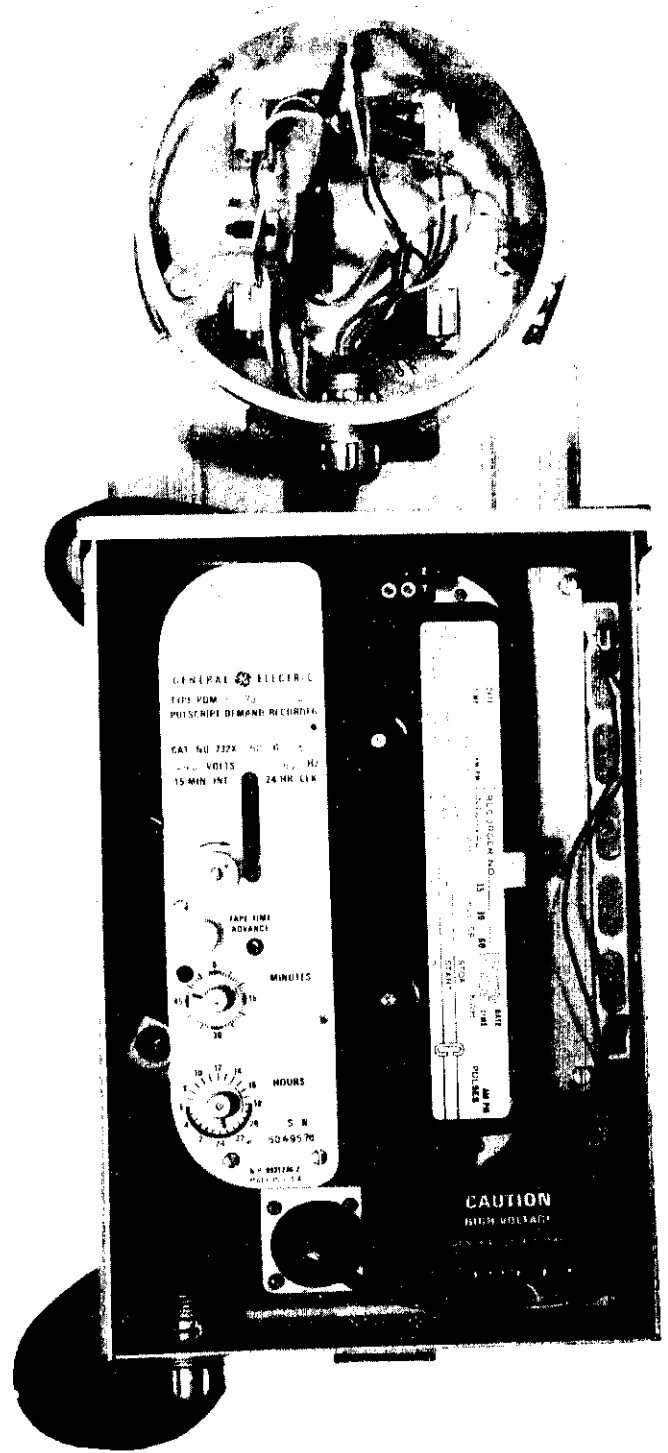
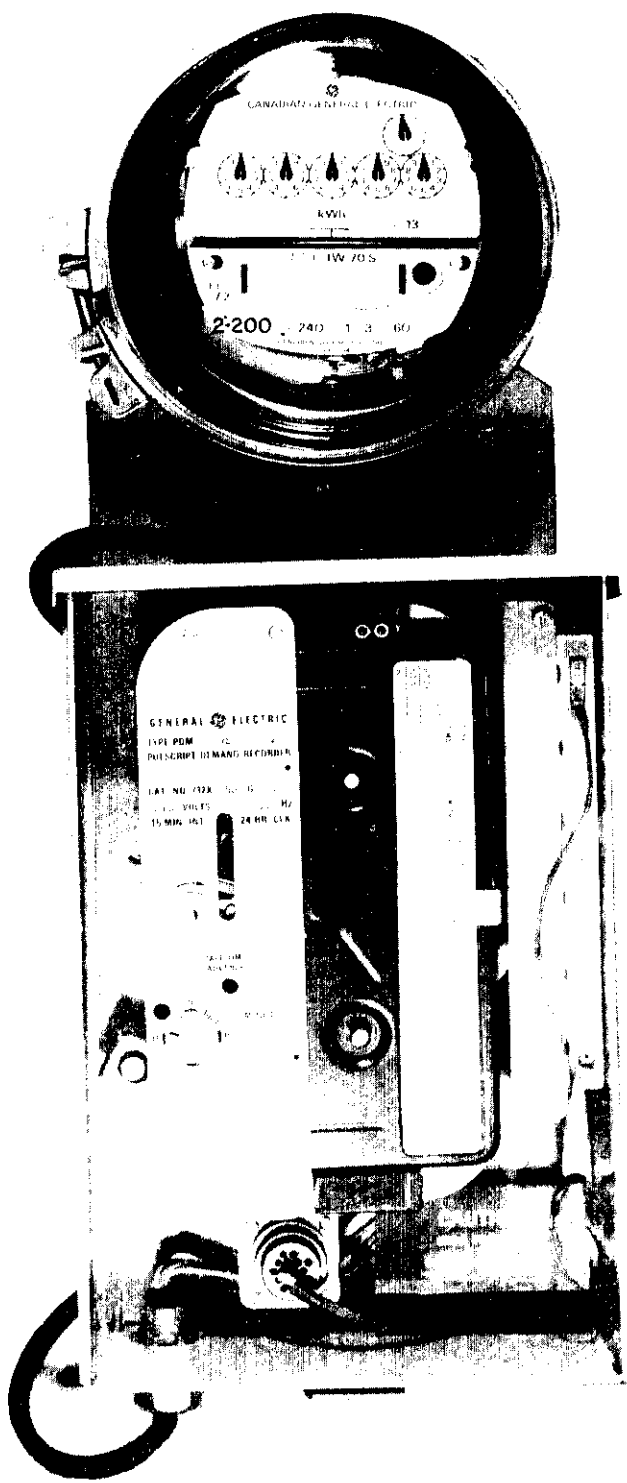
Ottawa, August 3, 1976

**GENERAL ELECTRIC TYPES "PDM-75" and "PDM-76"
(PULSE OPERATED) MAGNETIC TAPE DEMAND RECORDERS,
TWO OR FOUR TRACKS**

The recorders come in the following configurations:

- (1) Survey package consisting of a compact case model in combination with an IW-70S (2-200A) watt hour meter equipped with a pulse initiator.
- (2) In compact case remote from pulse initiator.
- (3) Outdoor universal case: Large case which can accommodate such options as counters, heaters and larger capacity batteries for increased battery carry-over capacity.
- (4) Indoor universal case: Similar to (3) but with a bottom-connected, sealable terminal block extending through its base.
- (5) Switchboard Case for panel mounting.

Maximum line resistance to Pulse Initiator	100 ohms
Input: Pulses from approved G.E. Pulse Initiators	
Maximum Input Pulses:	7200/hr (36 day period)
	3600/hr (72 day period)
	2400/hr (108 day period)
Operating Position:	Choice of four 90° quadrant positions
Data and Time Pulse Recording:	Non Return to Zero (NRZ)



Tape Speed: Standard (36 day recording period) 1.75 inches/15 min. interval
3.5 inches/30 min. interval
7.0 inches/60 min. interval

Battery-powered carry-over (Optional) 12 volt dc 1.5 Amp/hr good for up to 6 hours carry-over.

Built-in charger: Solid-state inverter 60 Hz at 12 volts

Charging Rate: 10 ma, Zener regulated, approx. 3 days to charge after full use of 1.5 amp-hr battery.

TAPE CARTRIDGE	PDM-75	PDM-76
TYPE	GE METAL TYPE	WESTINGHOUSE/DUNCAN TYPE
TAPE	3M Co. TYPE 900	3M Co. TYPE 951
LENGTH OF TAPE LEADER	600 FEET, (MIN.) 30 " CLEAR AT EACH END	516 FEET REFLECTIVE MARKERS 6 FEET FROM EACH END
Translation Speed	Up to 60 INCHES PER SECOND	Up to 30 INCHES PER SECOND

Temperature Range: In universal or switchboard cases, (internal heaters and thermostats are standard)
-30°F to +150°F
-34.4°C to +65.6°C

Available Ratings: 120-240-277 Volts, 50 or 60 Hz

Time Setting Accuracy: Within 1 minute

Duration of Time Pulse: PDM-75 2½ minutes before end-of-interval
PDM-76 1½ minutes after end-of-interval

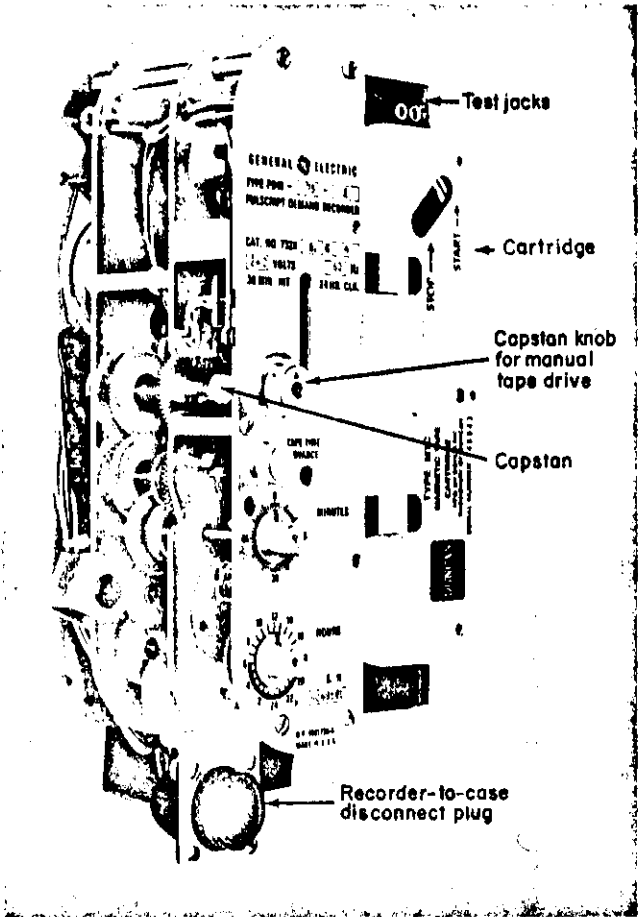
Recording Head	PDM-75	PDM-76
Two Track	1 data/1 time	1 data/1 time
Four Track	3 data/1 time	3 data/1 time

Demand Intervals: PDM-75: 15 minutes PDM-76: 15, 30, 60 minutes

Clock Dial: 12 or 24 hour

DESCRIPTION

The type PDM-75-2 and PDM-76-2 two-track recorders provide a magnetically recorded tape record from which energy use (kilowatt hours) can be determined. Pulses for the time track are internally generated. Pulses representing kilowatt hours are received at the tape recorder from a pulse initiator mounted on a watt hour meter or from an isolation relay.



Magnetic Tape Track Orientation

4-TRACK		2-TRACK	
PDM-75	PDM-76	PDM-75	PDM-76
A	C		
T	T	T	T
B	B	D	
C	A		D

Fig. 4. Type PDM-76 basic recorder mechanism

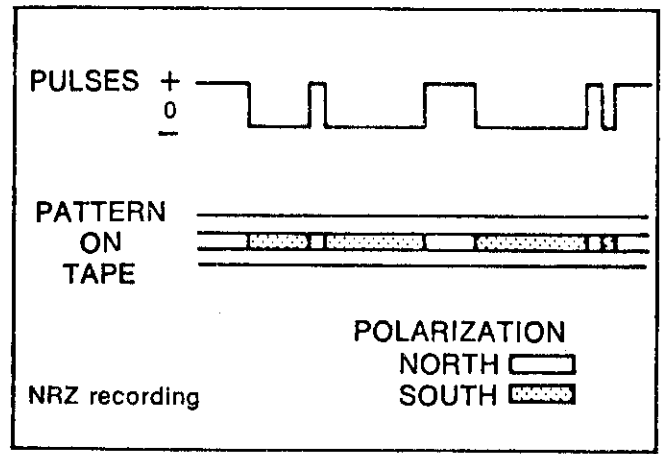


Fig. 11. Graphic illustration of NRZ data-recording mode

The type PDM-75-4 and PDM-76-4 four-track recorders are similar to the two track except that 3 data tracks can receive a simultaneous tape record of the power demand from a maximum of three metered power circuits. Each of the three data channels can receive pulses from an "isolated" three-wire (SPDT) pulse initiator.

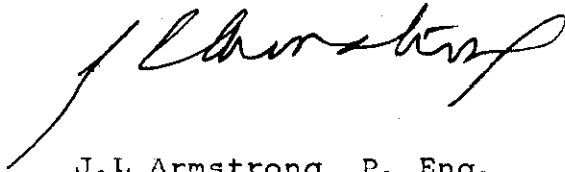
The Type PDM-75 recorder will accept only the G.E. cartridge. This cartridge is capable of translation speeds of up to 60 inches per second. It is of all metal construction and contains the 3M Co. Type 900 specially selected magnetic tape.

The Type PDM-76 recorder will accept only the Westinghouse-Duncan type cartridge. This cartridge is capable of translation speeds of up to 30 inches per second. It contains 3M Co. Type 951 magnetic tape.

Detailed descriptions and the manufacturer's specifications are given in the General Electric Manual GEH-2788.

Approval granted to:

Canadian General Electric Company
Ltd.
Quebec, P.Q.



J.L. Armstrong, P. Eng.,
Chief, Standards Laboratory,
Legal Metrology and Laboratory Services.



D.L. Smith, P. Eng.,
Chief, Electricity & Gas Division,

Ref: G 6565-C2-46