



Department of consumer and corporate affairs / Ministère de la consommation et des corporations



STANDARDS BRANCH - DIRECTION DES NORMES

**NOTICE OF APPROVAL
AVIS D'APPROBATION**

E-78-4

OTTAWA November 8, 1974

WESTINGHOUSE TYPES "WR-2C" and "WR-4C" DEMAND RECORDERS

This approval covers the modifications which distinguish 2-wire initiator type recorders from demand recorders approved under E-78, E-78-1, E-78-2, and E-78-3.

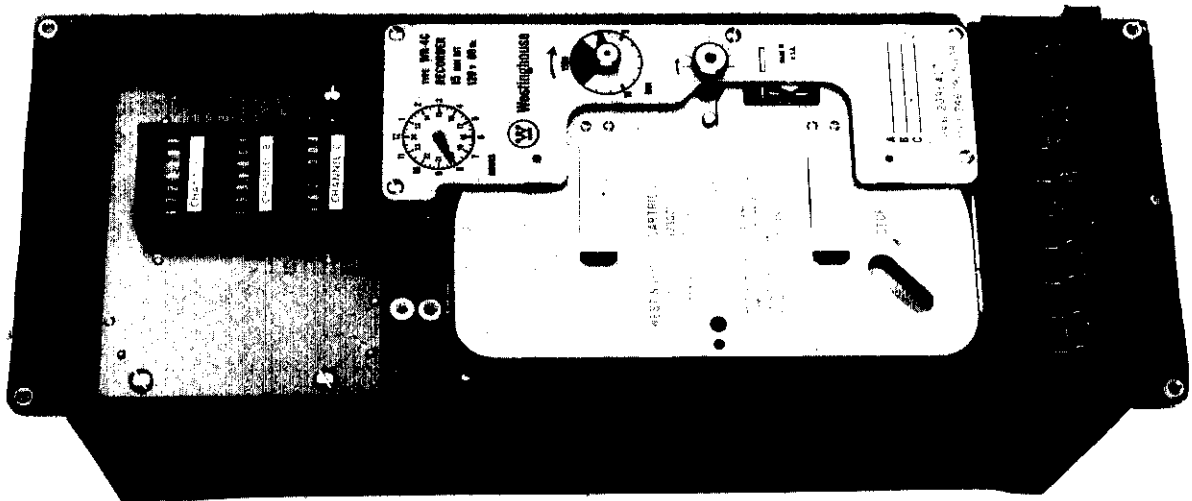
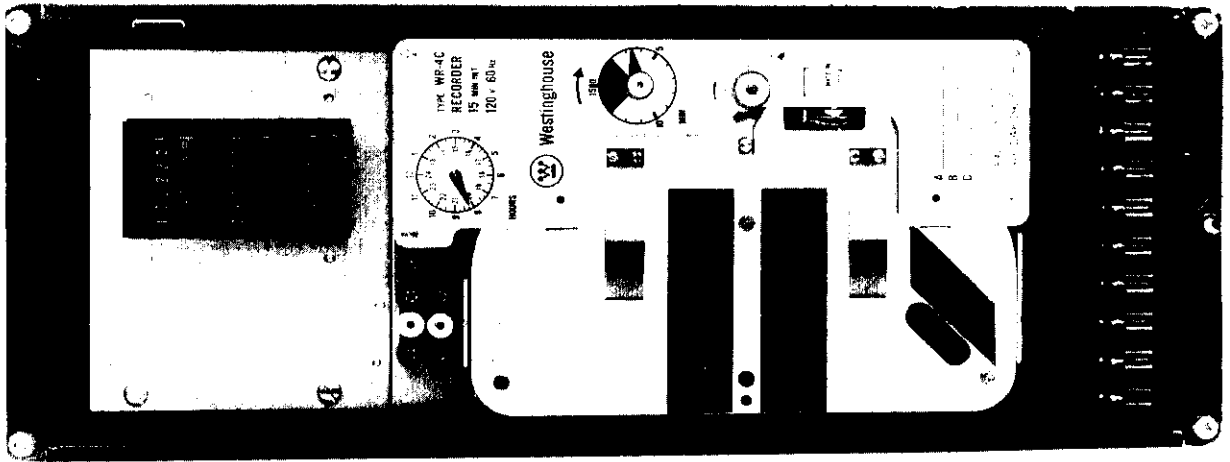
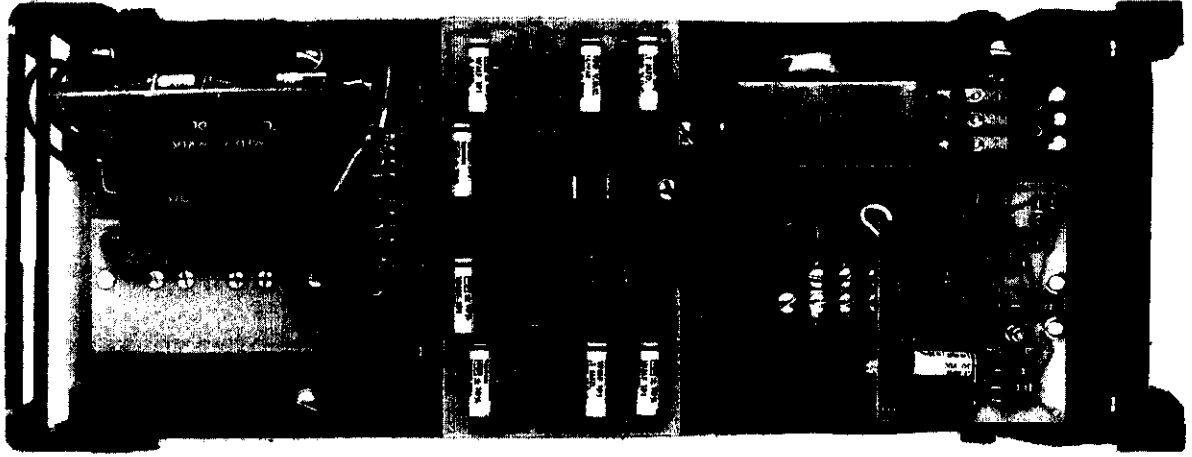
Input	2-wire S.P.S.T. contact device. Form A (normally open). Ratio of closure time to open time 1:1 maximum. One set per channel.
Optional Registers	7-digit cyclometer type counters. One per channel.
Multiplier	1
Demand Intervals	15, 20, 30 and 60 minutes
Operating Temperature Range	-20°F to 150°F
Test Jacks	Two per channel

Description

The electronic circuitry in the 2-wire initiator type differs from the 3-wire demand recorders in that 2-wire pulse initiator contacts provide a discharge path for an internal capacitor, which is charged by the 12.5 volt power supply. The voltage developed across a voltage divider by the capacitor discharge triggers a "flip-flop" multivibrator to achieve the polarity reversal required at the recording head.

A capacitor charge time of 150 milliseconds minimizes the possibility of the multivibrator being triggered by contact bounce.

There is no common connection between test jacks, hence two are required for each channel.



Seven digit electro-mechanical cyclometer type counters have replaced the pulse driven clock type registers.

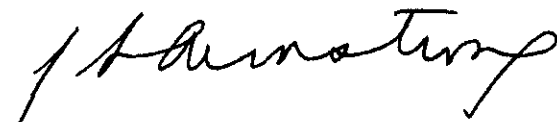
The fitting of these counters is optional.

The maximum demand scale and pointer will not be fitted to 2-wire recorders.

Nameplates of 2-wire recorders shall be marked 2 w input under the type designation.

Approval granted to:

Canadian Westinghouse Company Ltd.,
Hamilton, Ontario.



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



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