CANADA

TRADE AND COMMERCE
RDS BRANCH

E-26

E-26

OTTAWA February 9, 1966.

OF APPROVAL

FOR

"WR-4" DEMAND RECORDER

Apparatus

Input
Max. Input Pulses

Min. Time between Pu
Number of Input Chan
Total Pulses on Regi
*Multiplier
Total Pulse Count
Demand Period
Record and Readout
Tape Speed

oTape

Power Supply
Carry-over Battery
Carry-over without r

* Multiplier applie

\# Total tape pulse
recorder energize
to the register o

o Standard 1/4 inch

contact device
er interval per channel (15 min period)
per interval per channel (30 min period)
seconds

,000 x 10 at time of turnover
pplies to register reading only
ite #
d 30 minutes
s
inches per 15 minutes
inches per 30 minutes
eet 1-mil Mylar on 5-inch reel
ay supply)
nd 240 volts 60 cycles
lt 450 m amp-hr nickel-cadmium storage
rs

ing only.

or the time the tape is in place with the
changes, pulses will continue to be added

pe.

The type WR-4 is available with internal wiring to suit the following battery options:-

a. 450 ma/hr internal battery
b. any suitable 12 volt external battery.

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Description

The type "WR-4" demand recorder is similar in operation to the type "WR-2" receiving approval under E-13 but differs in that it has 3 input channels, each with its own register, and does not have a demand register.

It records on a magnetic tape (a) pulses proportional to the loads being metered and (b) time interval pulses. The tape has therefore 4 independent tracks; 3 for load information and 1 for the reference time signal.

The tape is supplied in a magazine which is inserted in the recorder and the tape is threaded over the recording head. At the end of the billing period or 30 days, most of the tape has been transported to the take-up reel. The remainder of the tape is wound manually on the take-up reel and the magazine is removed from the recorder.

The magnetic information contained on the tape is translated into punched IBM cards for computer entry, automatic billing, load survey etc., as there is a record of the kilowatt hours etc., consumed during each 15 minute period during the month.

The signals on the three information tracks can originate from 3 completely independent sources, the only common tie being the time reference signal.

It is not even necessary that the value of each pulse be of the same magnitude, any necessary multipliers are taken care of in setting up the computer which can take the tape signals presented to it and come up with a large variety of information.

The three registers are similar to those normally found on a watthour meter, but their records are in pulses and care should be taken to recognize the distinction.

A small storage battery is trickle charged, and in the case of power failure to the recorder, it takes over the job of maintaining tape movement and the generation of interval pulses. The capacity of this battery is sufficient for 3 hours of operation.

After translation, the magnetic tape can be temporarily stored or may be reused. In the latter case, which will probably be the most common, the tape must be completely demagnetised preferably by the bulk method.

Pin jacks are provided so that by means of earphones it is possible to hear the signal pulses and the timing pulse.

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Description (Cont'd)

Labels placed on the floor of case will identify the sources of the signal pulses.

The photograph on the back of this circular illustrates the demand recorder after the door has been removed.

Approval granted to: The Canadian Westinghouse Company Limited,
Hamilton,
Ontario.

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Ref: SL-100-986A

WESTINGHOUSE TYPE "WR-4" DEMAND RECORDER