



**NOTICE OF APPROVAL
AVIS D'APPROBATION**

E-145

Ottawa, November 8, 1976

WESTINGHOUSE TYPES WR32 AND WR34
MAGNETIC TAPE RECORDERS

Input	3-wire SPDT contact of the Form C (break before make) positive transfer type
Maximum Input Pulses:	6000 per hour (36 day record) 3000 per hour (72 day record) 2000 per hour (108 day record)
Minimum Time Between Pulses:	0.6 seconds (36 day record) 1.2 seconds (72 day record) 1.8 seconds (108 day record)
Data Pulse Recording:	Non-Return-To-Zero
Time Pulse Recording:	Extended Return-To-Bias
Tape Speed:	7.00 inches per hour (36 day record) 3.50 inches per hour (72 day record) 2.33 inches per hour (108 day record)
Tape:	504 feet, 1 Mil Mylar, $\frac{1}{4}$ inch
Power Supply:	120V, 240V or multiple voltage input
Carry-Over Battery:	12 volts nominal
Burden on Contact Device:	1.5 VA, 1.0 P.F. (70 volts peak half-wave)
Operating Temperature Range:	-30°C to 65°C
Non Tape Change Band:	-2 minutes to +2 minutes of interval start (black band on interval dial)
Maximum External Resistance:	100 ohms
Number of Input Channels:	1 for WR32, 3 for WR34

Description

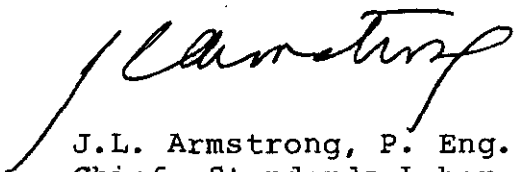
These recorders are updated units incorporating features of the WR2C and WR4C recorders approved under E-78, E-78-1, E-78-2, E-78-3, E-139 and the WR31 recorders approved under E-132 and E-139. They can be considered an extension of the WR31 line with the difference being the WR31 recorder package includes a pulse initiator

equipped meter whereas the WR32 and WR34 will be recorders only replacing the WR2C and WR4C respectively. The 2-wire initiator type recorders approved under E-78-4 are not included in this approval. The basic changes in the WR32 and WR34 are as follows:

- 1) Change in mounting of some components.
- 2) The demand electronics (WR32 only) and the solid state battery carry-over are on one circuit board.
- 3) The method of generating the time pulse is identical to the circuit used in the WR31 Recorder.
- 4) The options available will be as follows:
 - a) Flexitest or surface mounted case.
 - b) Demand register WR32 only (same as unit on WR2C).
 - c) With or without clock (same as WR2C and WR4C) or cyclometer registers.
 - d) 120V, 240V or multiple voltage input.
 - e) Option 1 - Latching relay, for use when pulse initiators are mechanical.
Option 2 - With or without pulse counters.
Option 3 - Light-emitting diode visual pulse indication.
Option 4 - Loss of potential indication for time channel.
Option 5 - Master/slave time pulse circuitry which allows one master WR32 or WR34 to control up to 12 WR32 or WR34 Slave Recorders.
Option 6 - Synchronizing switch which gives an isolated time pulse circuit for operation of remote devices such as load controllers or to act as master for one of WR2C, WR32, WR4C, or WR34.
Option 7 - 1, 5, 15, 30 and 60 minute time intervals.

Approval granted to:

Westinghouse Canada Ltd.,
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