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

STANDARDS BRANCH - DIRECTION DES NORMES

NOTICE OF APPROVAL

E-99

OTTAWA March 19, 1971

WESTRONICS TYPES "S11E" and "D11E" STRIP CHART POTENTIOMETER RECORDERS

Millivolt Input (1)	0-10 to 0-1000 millivolts
Record	Single - or Double Pen Continuous Line
Standardization	Continuous Automatic (Zener Diode)
Chart and Scale	11 inches calibrated width, 100 ft roll
Pen Speeds	3 seconds standard, 1 second available
Chart Speeds	1 and 2 inches per hour
Power Supply	120 volts 60 hz
Maximum External Resistance	5000 ohms

(1) The kilowatts, megawatts or other power function which the millivolts represent will be marked on the nameplate and scale.
L.H. zero or zero up to half scale is approved.

Type Designation: Made up of the following: S = single pen, D = two pen, "11" = 11 inch chart width, E = model.

These recorders are CSA certified under Guide 320-R-0, File 25344

DESCRIPTION

The Westronics model E strip chart recorder is an automatic null-balancing potentiometer type.

It is very similar in design to the types S11A and D11A receiving approval under S-EA.560 and differs mainly in that the amplifiers are transistorized.

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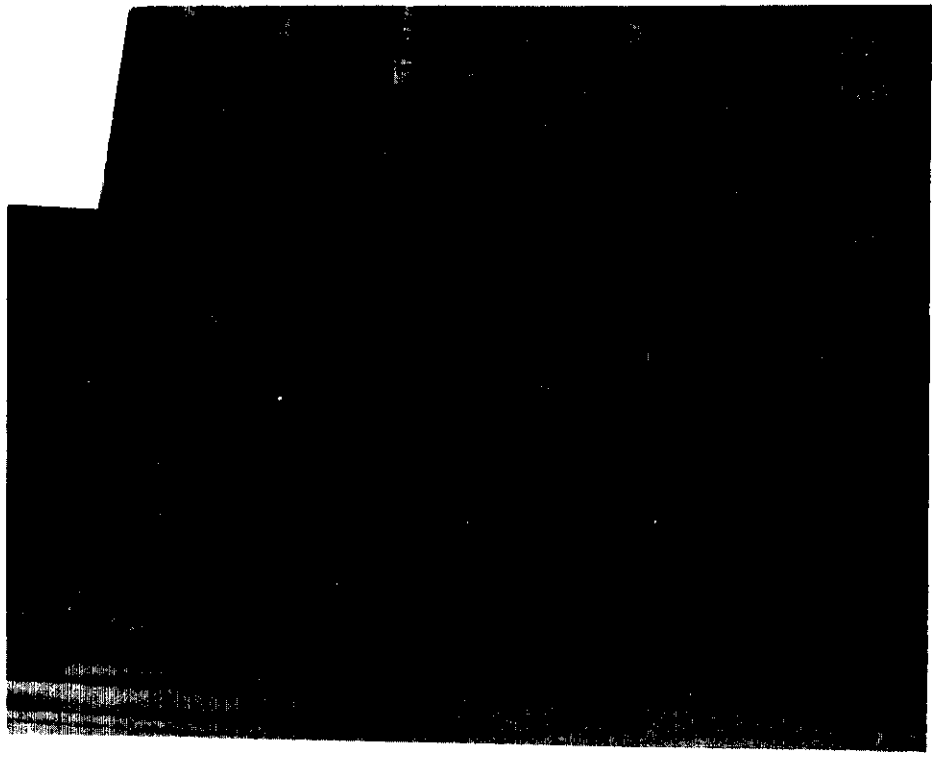

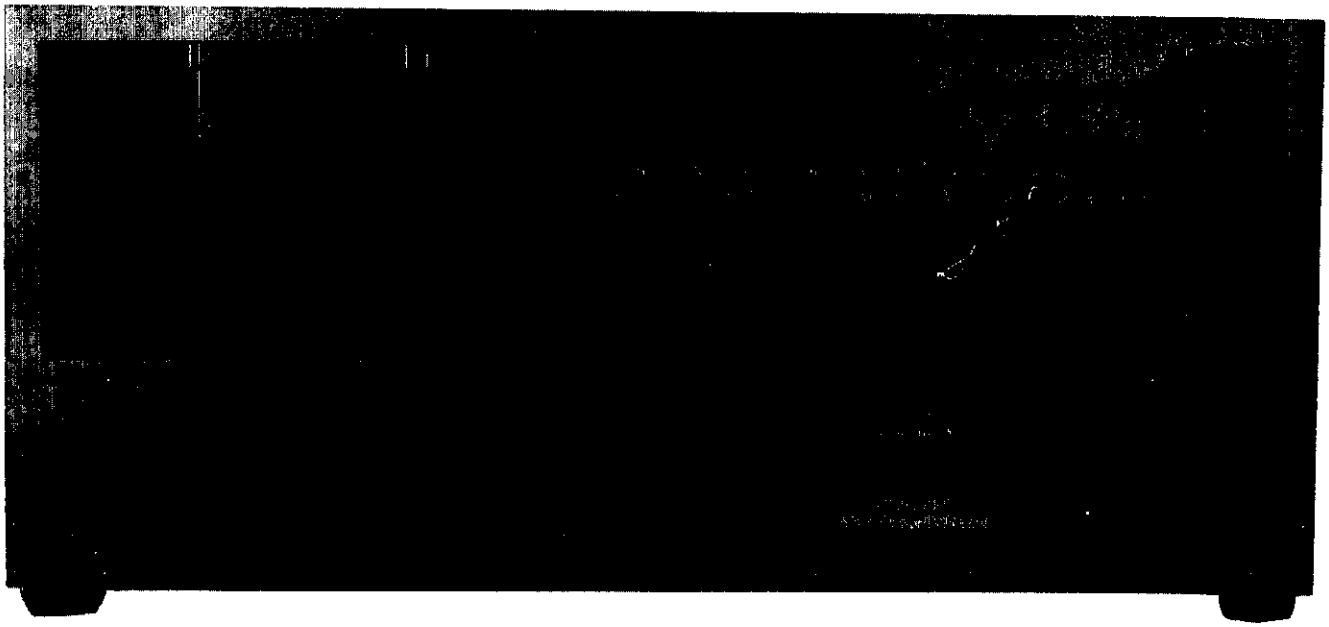

The potentiometer measuring circuit is a controlled dc source, connected to oppose an input signal millivoltage.

The difference between the input signal and the measuring voltage of the potentiometer produces an error signal.

This error signal is converted to a 60 hz signal by means of a mechanical vibrator, it is then amplified and applied to the control winding of the balancing motor which with its mechanical system drives the slide wire contact in a direction to reduce the error signal to zero, and simultaneously moves the pen over the chart and the indicator over the scale.

The two-pen design has two separate inputs, measuring circuits and amplifiers. Each pen can move over the full width of the chart without interference from the other.

The inking system is composed of a writing pen, connecting capillary tubing and an integrally mounted throw-away type reservoir.

The amplifier assembly contains a gain switch and a gain control. The switch and gain control are set in a position that gives minimum dead band and the servo system is stable. They require readjustment if the range modules are changed.

The calibration adjustment is accessible through a cut out in the amplifier chassis diagonally across from the gain adjustment.

This calibration adjustment requires attention if the range modules are changed.

Range changing is accomplished by removing the existing range plug-in and installing the desired one.

The range plug-in is mounted on a banana pin type mount located on the rear terminal panel. A small cover located at the lower portion of the case provides access to the range plug-in modules. Cross drilled fillister head screws provide a means of sealing this cover.

A bracket located on the right side of the frame permits the movement to be withdrawn from the case only far enough to permit the chart to be changed. Cross drilled fillister head screws hold this bracket in place, so that a sealing wire may be passed through the holes in these screws and effectively prevent access to the adjustments.

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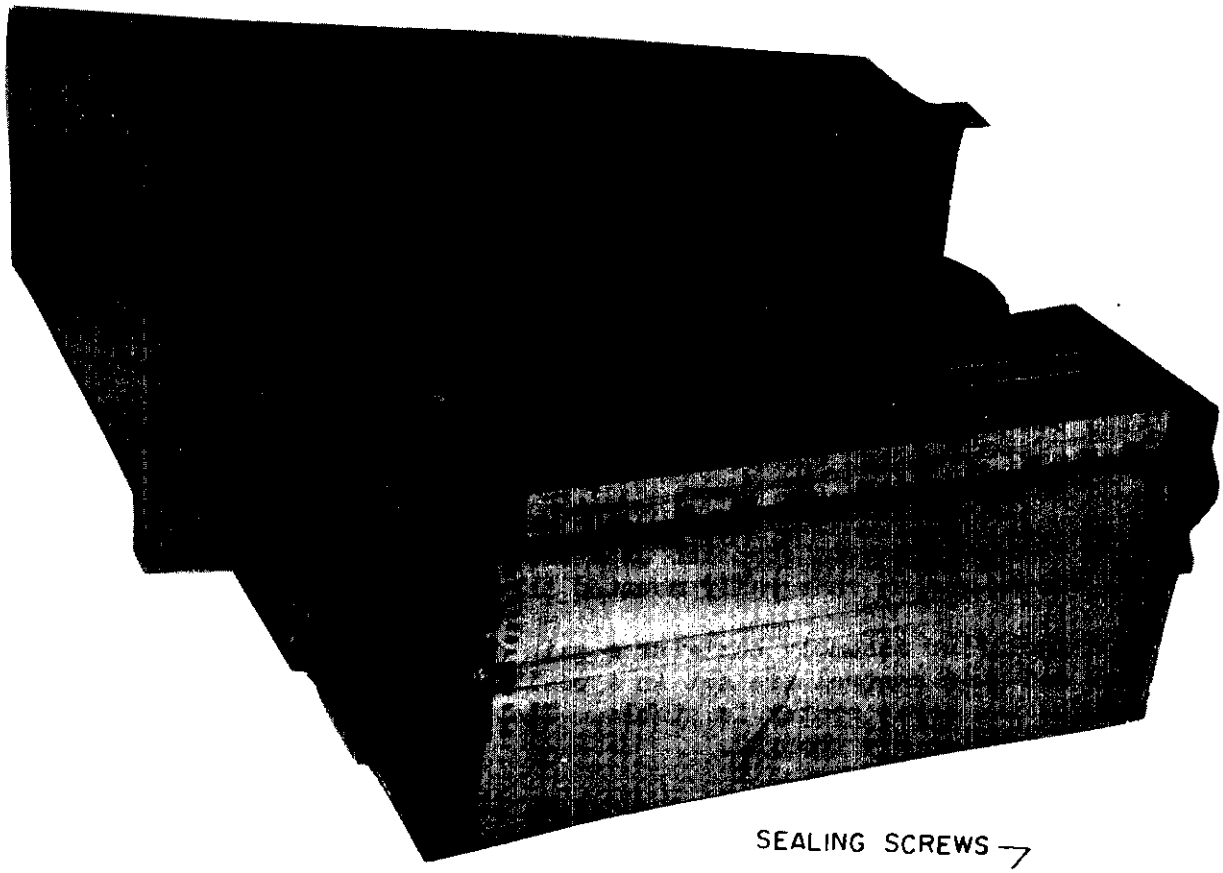
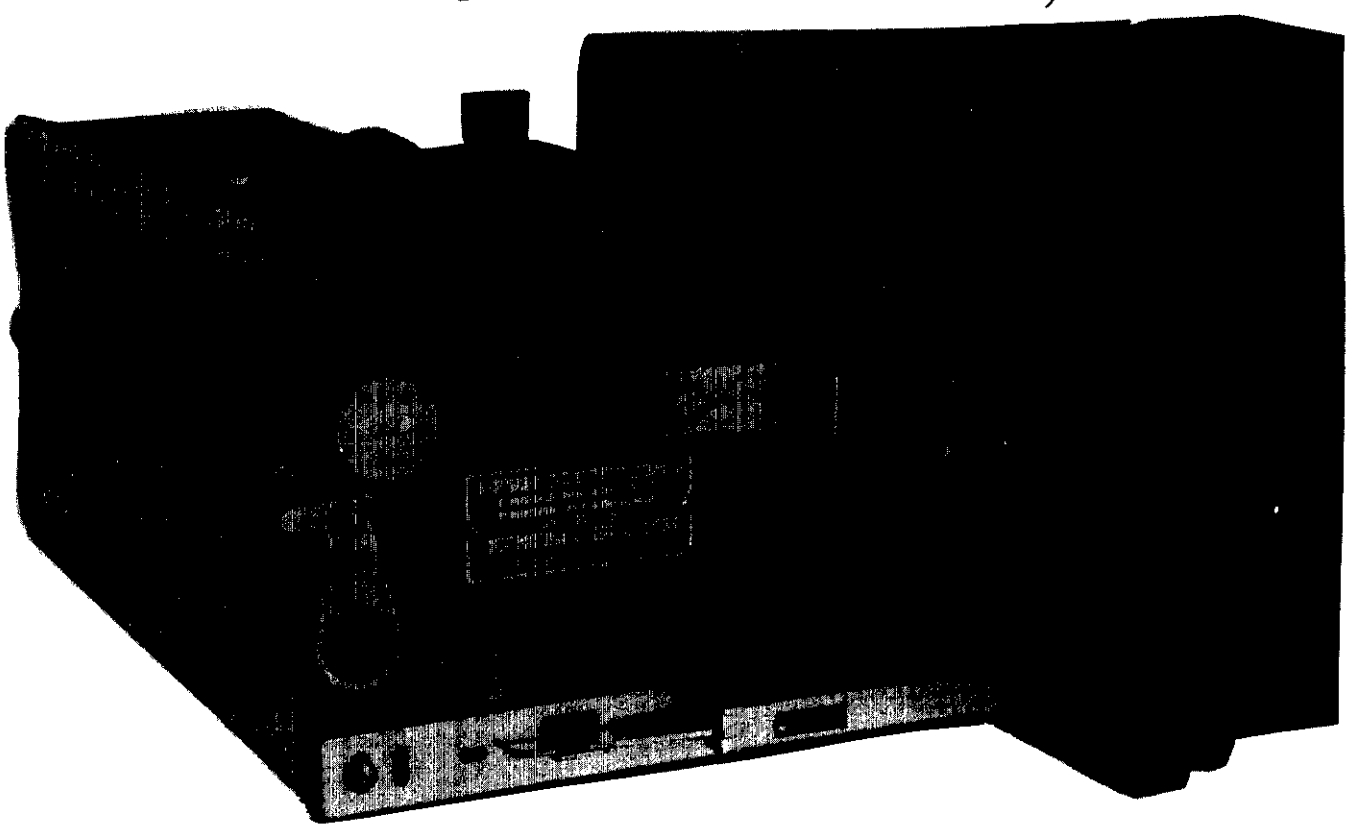


SEALING SCREWS →



Except for seals on this bracket and the cover over the plug-in range modules, this recorder is approved for use unsealed.

The lock on the door is for use by the utility.

These recorders are manufactured by Westronics, Fort Worth, Texas and are distributed in Canada by Canadian Dynamics (Instrument Division) Ltd., Vancouver, B.C..

Approval granted to: Westronics Inc.,
Fort Worth, Texas, U.S.A.

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