



DEPARTMENT OF TRADE AND COMMERCE
STANDARDS BRANCH

OTTAWA, January 7, 1965.

TYPE APPROVAL

LEEDS & NORTHRUP "SPEEDOMAX" TYPE W MODEL S SINGLE PEN CURVE
DRAWING RECORDER WITH TUBE TYPE OR TRANSISTORIZED AMPLIFIER*

The apparatus specified and illustrated herein has been duly approved by the Standards Branch under the provisions of the Electricity Inspection Act, Chapter 94, R.S. 1952, and may be admitted to verification in Canada.

Rating of Apparatus:

- # ° Millivolt Input 0-10 to 0-1000 millivolts
- Record Single Pen continuous line
- Standardization Continuous automatic (Zener Diode)
- Chart 9-7/8 inches calibrated width
- ✕ Pen Speed 1 second to 5 seconds
- Chart Speed 1 inch to 30 inches per hour
- Power Supply 120 volts 60 cycles
- Maximum External Resistance 2000 ohms

* The transistorized amplifier part number 101108 is directly interchangeable with the tube type, and this approval covers its use in addition to the Type "W" Model S above, the Type "G" Model S previously approved under circulars S-EA.592 and S-EA.633 and the Type "H" Model S under circulars SD-EA.354 and S-EA.446.

The kilowatts, megawatts or other power function which the millivolts represent will be shown on the nameplate and scale and also on the range card.

° L. H. zero and elevated or suppressed zero up to 2% of full scale is approved.

✕ Pen speed is the time taken for the pen to travel the full length of the scale with a step load change equal to full scale.

Type Designation: Made up of the following groups of numbers, all of which are covered by this approval:

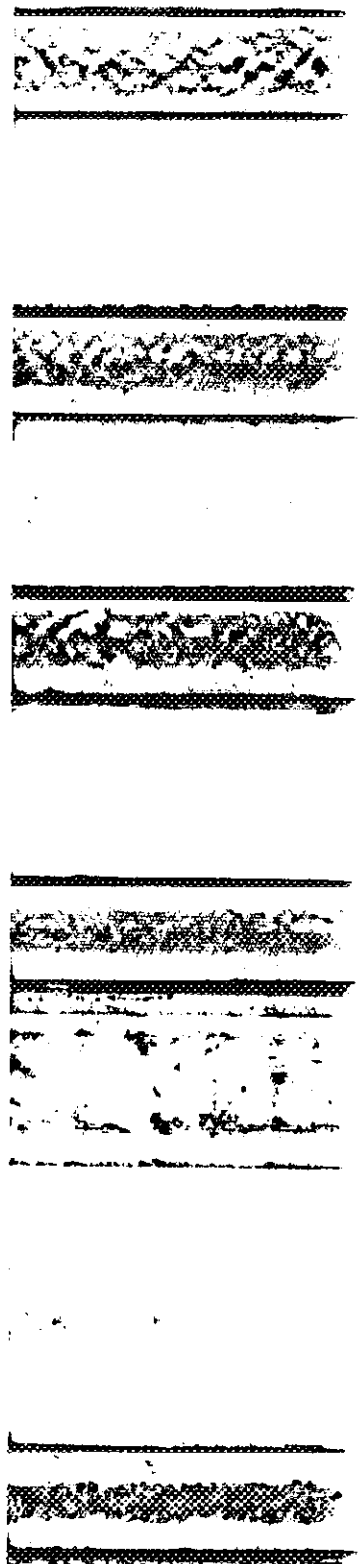
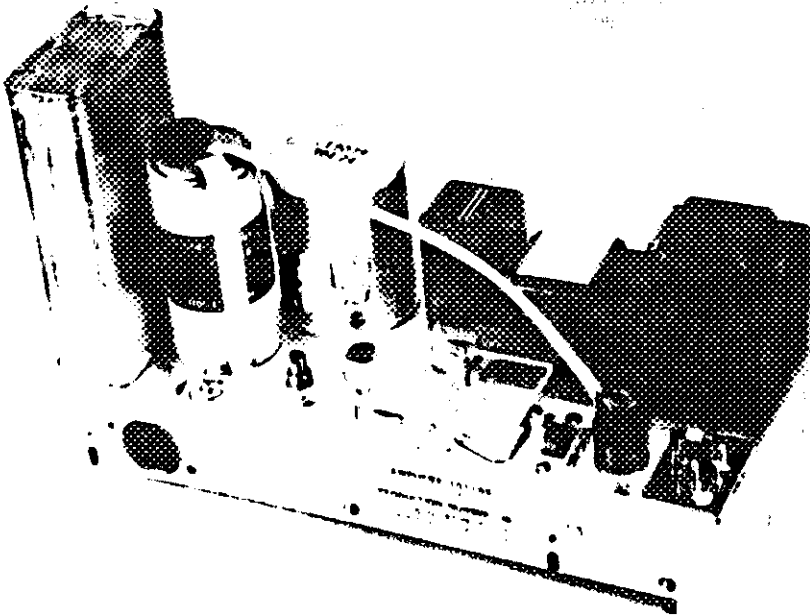
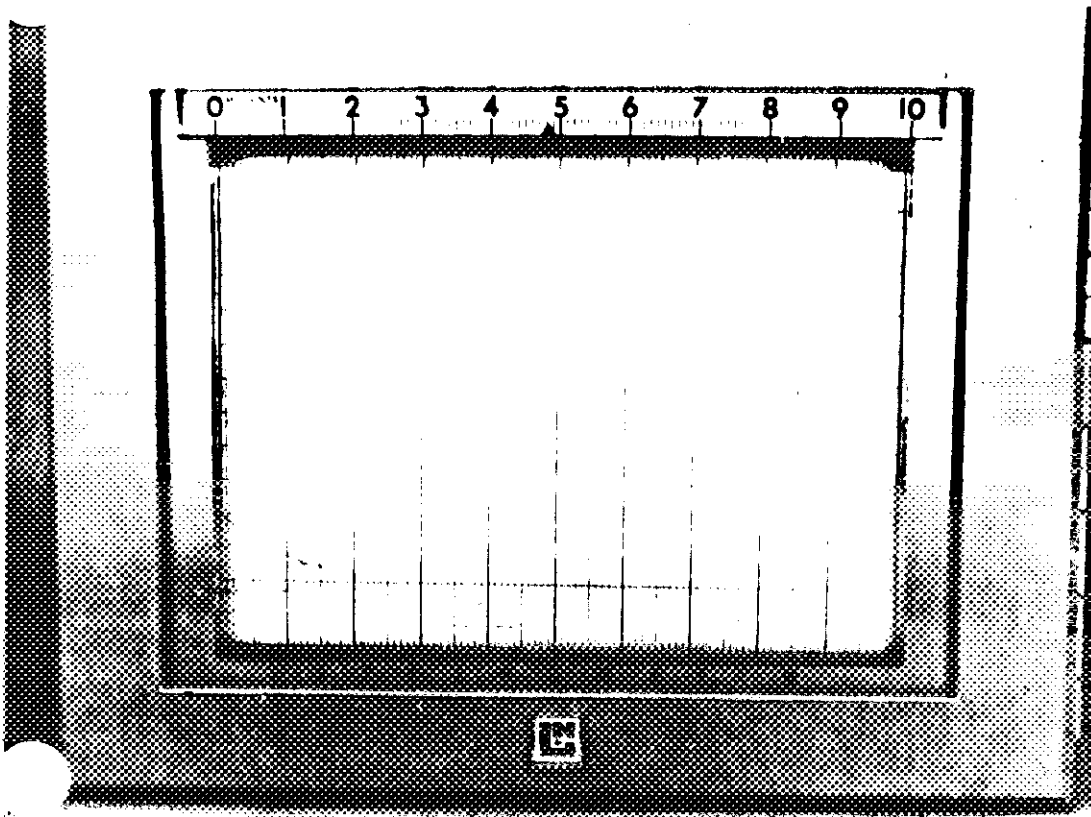
500	985	XXX	YYY	60	222	BBB
(a)	(b)	(c)	(d)	(e)	(f)	(g)

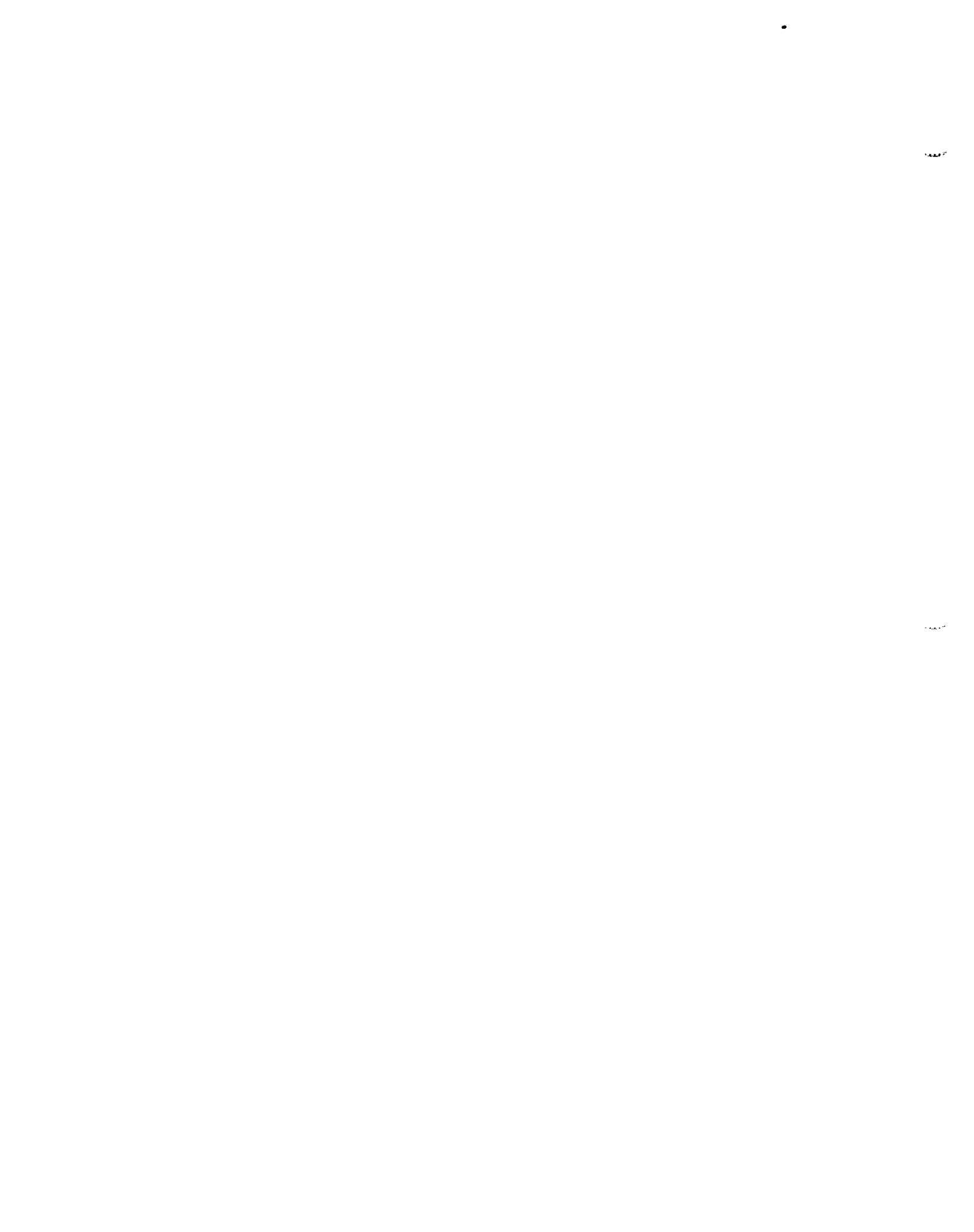
- (a) The "500" stands for Speedomax W Model S
- (b) The "985" stands for Thermal Converter application
- (c) The "XXX" represents control elements i.e., AC or DC transmitting slide wire, or alarm switches. These are not used in billing
- (d) The "YYY" represents the millivolt range

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/pe Designation (Con'd)

- (e) The input power frequency
- (f) The "222" represents the chart speed
- (g) The "036" represents the optional extras, i.e., door lock, carrying handle, etc.

NOTE: "036" representing the door lock must appear on every instrument presented for verification, and only instruments so marked may be verified.

Description:

The Type W Model S is a single pen continuous balance potentiometer type strip chart recorder. It differs from the Type G mainly in that the chart drive, balancing motor and slide wire are mounted on one swing-out unit.

The ink reservoir slides along the pen carriage shaft and the capillary pen pivots above the reservoir, one end dipping into the ink and the other resting on the chart.

The various millivolt ranges are obtained by the use of plug-in range cards, similar to those illustrated on the back of circular S-EA.592, and these range cards hold the measuring circuit resistors.

The range card can be provided upon customer's request with a fail-safe resistor whose function is to drive the pen to the top of the scale in the event of a break in the primary circuit.

This recorder is approved for use unsealed.

W. J. S. Fraser

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Ref: A660B

