Westinghouse

I. L. 43-350-G

—35 LINE—
MINIATURE PANEL INSTRUMENTS
THREE AND ONE-HALF-INCH CLASSIFICATION
INSTRUCTIONS

Cases—The first letter in type designates the form of case used.

N = Round flush moulded case, 3½" diameter flange mounting.

R = Rectangular Flush Moulded Case, 3" x 3⅛" flange mounting.

S = Round Projection moulded case, 3½" diameter case mounting.

U = Rectangular projection moulded case, 3" x 3⅛" case mounting.

V = Round Flush Moulded Case, 3⅜" diameter flange mounting.

Mechanisms

The second letter in type designates the principle of operation

A—Repulsion Moving Iron.

X—Permanent Magnet Moving Coil

C—Rectifier plus X

T—Thermocouple plus X

Insulation—All Type "35" moulded case instruments are insulated for 750 volt service between terminals and panel, unless otherwise specified.

Dial Notes—Reference to type, style number, use of external components if required, calibration data, etc., are marked on the dial.

Magnetic Panels—Types X-35, A-35, T-35, and C-35 are calibrated for use with non-magnetic panels unless otherwise specified. A-35 instruments read high about 1% when mounted on $\frac{1}{16}$ to $\frac{1}{8}$ inch magnetic panels unless calibrated for such panels. Types X-35, T-35, and C-35 may read low from ½ to 6% if mounted in a panel of magnetic material, unless calibrated for that particular panel.

External Fields—This being an unshielded instrument, the following precautions should be taken to prevent influence greater than ½ of 1% due to external fields.

1. A-35 instruments above 15 amperes should have their leads brought directly down at least 6 inches before turning. Other leads carrying currents of the order of 50 amperes should be spaced at least 6 inches from all A-35 instruments.
2. All instruments should be mounted at least 4 inches between centers. Instruments with very high sensitivity have very strong permanent magnets and should be spaced at least 8 inches from other instruments.

Grounding—When voltmeters are used withan external resistoron voltages higher than the insulation rating, one terminal should be kept at ground potential.

Ammeters with external shunts must use specified leads. If the circuit voltage exceeds the insulation rating, the ammeter or shunt should be connected in the grounded side of the circuit.

Radio frequency ammeters with external thermocouples must use specific leads.

Radio frequency ammeters, particularly those with separate thermocouples, should be arranged with suitable filters or grounding connections to minimize capacity currents.

Repairs and Renewal Parts—Repair work can be done most satisfactorily at the factory. When returning an instrument for repairs, obtain a return material tag from your nearest Westinghouse Sales Office to assure proper identification at the factory.

Orders for renewal parts should include the name of the part, the style number of the instrument and other data marked on the dial.

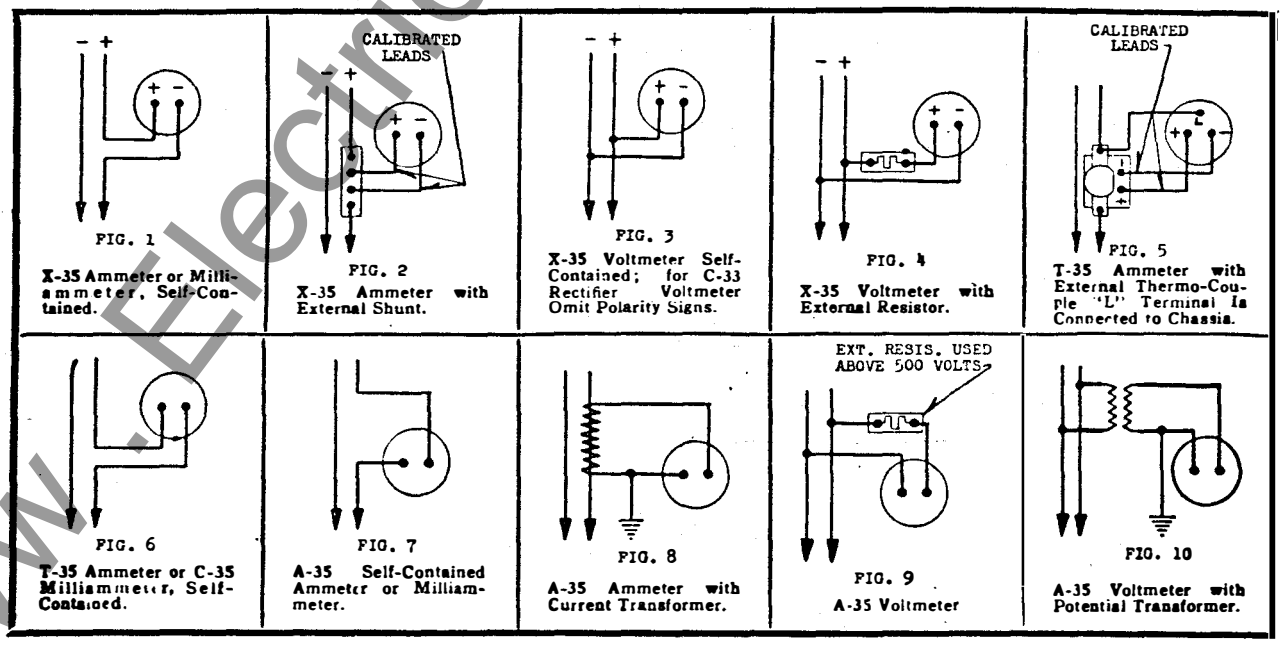

FIG. 1 — X-35 Ammeter or Milliammeter, Self-Contained.

FIG. 2 — X-35 Ammeter with External Shunt.

FIG. 3 — X-35 Voltmeter Self-Contained; for C-33 Rectifier Voltmeter Omit Polarity Signs.

FIG. 4 — X-35 Voltmeter with External Resistor.

FIG. 5 — T-35 Ammeter with External Thermo-Couple "L" Terminal Is Connected to Chassis.

FIG. 6 — T-35 Ammeter or C-35 Milliammeter, Self-Contained.

FIG. 7 — A-35 Self-Contained Ammeter or Milliammeter.

FIG. 8 — A-35 Ammeter with Current Transformer.

FIG. 9 — A-35 Voltmeter

FIG. 10 — A-35 Voltmeter with Potential Transformer.

Note: All connections of instruments proper are rear view with dial upright.

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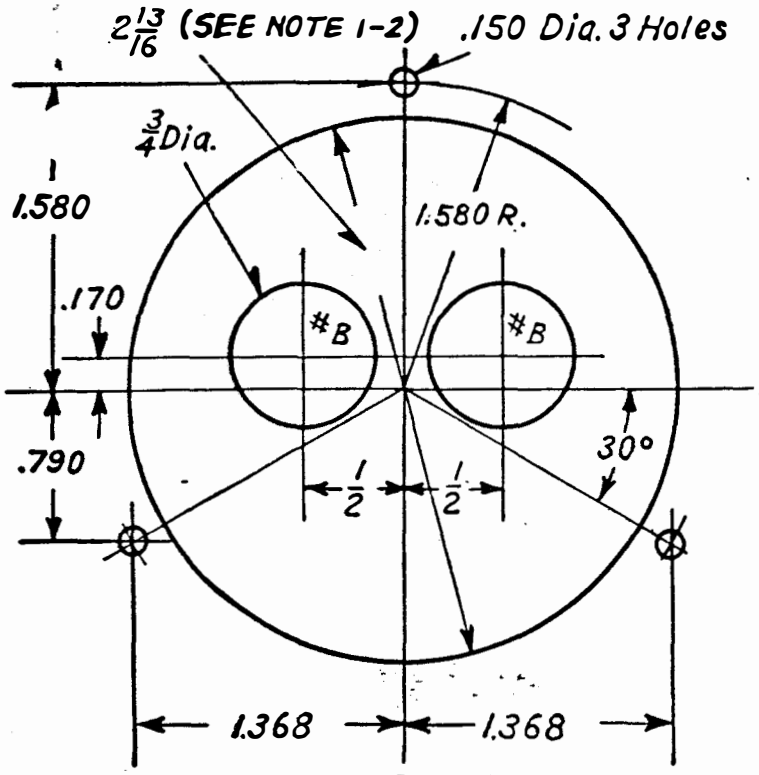
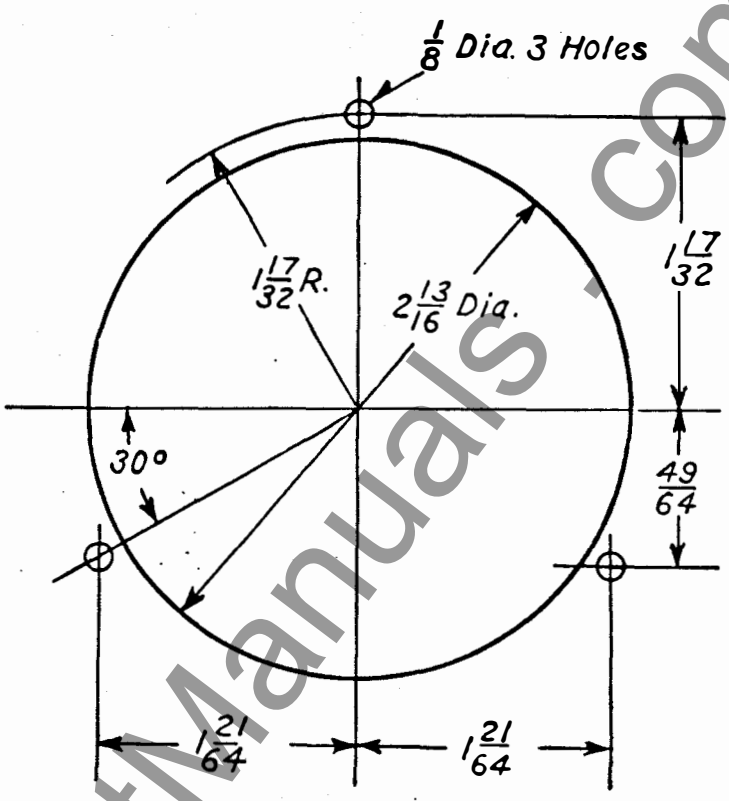


Drilling Plan

Fig. 11—NA-35, SA-35, NX-35, SX-35 NC-35, SC-35, NT-35 and ST-35

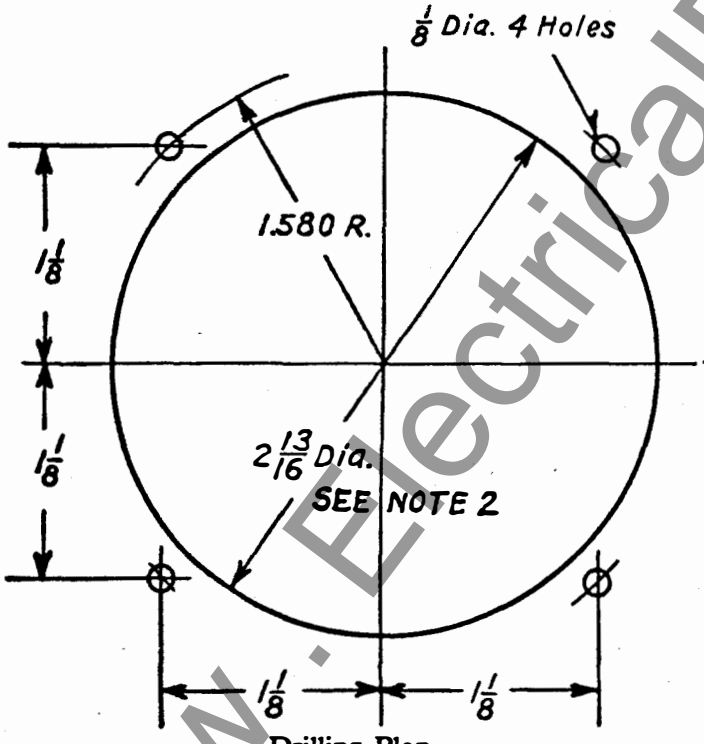
Note 1: The small holes #B may be used instead of the large hole for insulated panel mounting of all S-35 instruments.

Note 2: NS5 & RS5 when ordered shielded require a 2 13/16 Dia. hole.



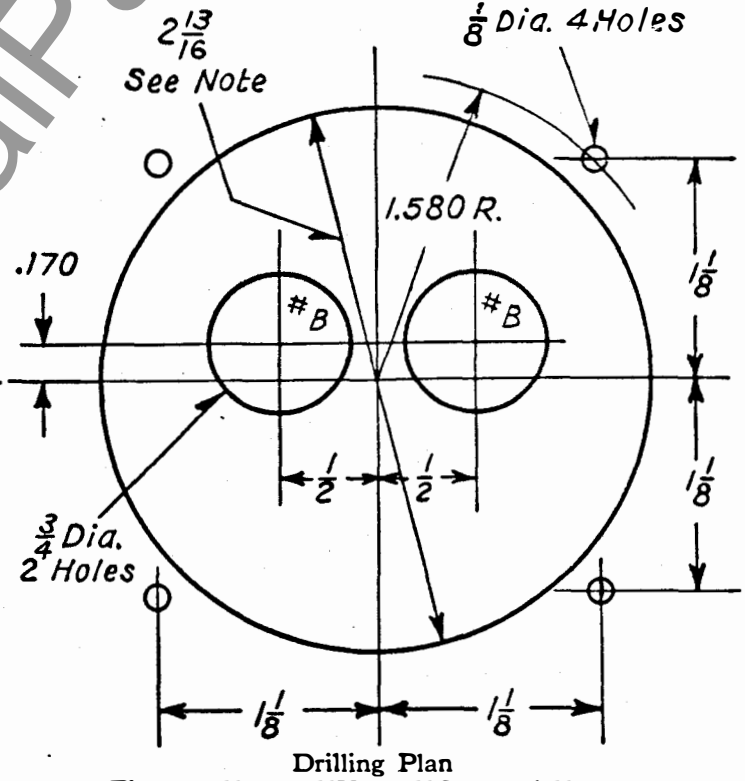
Drilling Plan

Fig. 12—VA-35, VX-35, VC-35 and VT-35



Drilling Plan

Fig. 13—RA-35, RX-35, RC-35 and RT-35



Drilling Plan

Fig. 14—UA-35, UX-35, UC-35 and UT-35

Note: The small holes #B may be used instead of the large hole for insulated panel mounting.

WESTINGHOUSE ELECTRIC CORPORATION

RELAY-INSTRUMENT DIVISION **NEWARK, N. J.**

Printed in U.S.A.

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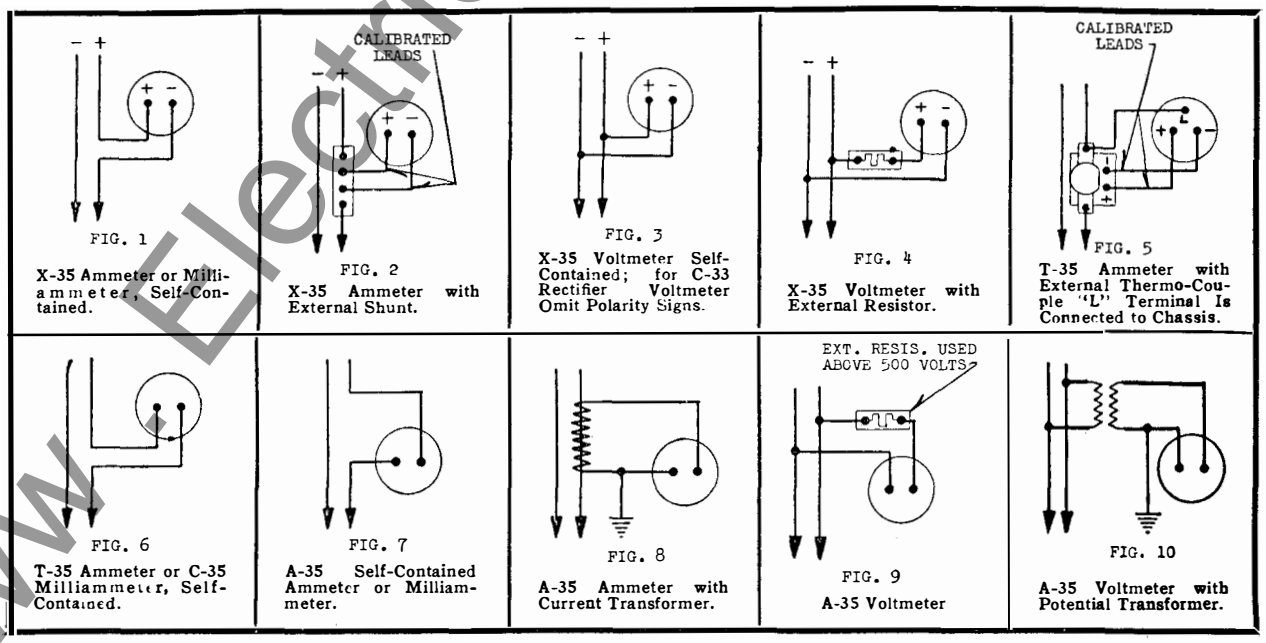

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FIG. 2 — X-35 Ammeter with External Shunt.

FIG. 3 — X-35 Voltmeter Self-Contained; for C-33 Rectifier Voltmeter Omit Polarity Signs.

FIG. 4 — X-35 Voltmeter with External Resistor.

FIG. 5 — T-35 Ammeter with External Thermo-Couple "L" Terminal Is Connected to Chassis.

FIG. 6 — T-35 Ammeter or C-35 Milliammeter, Self-Contained.

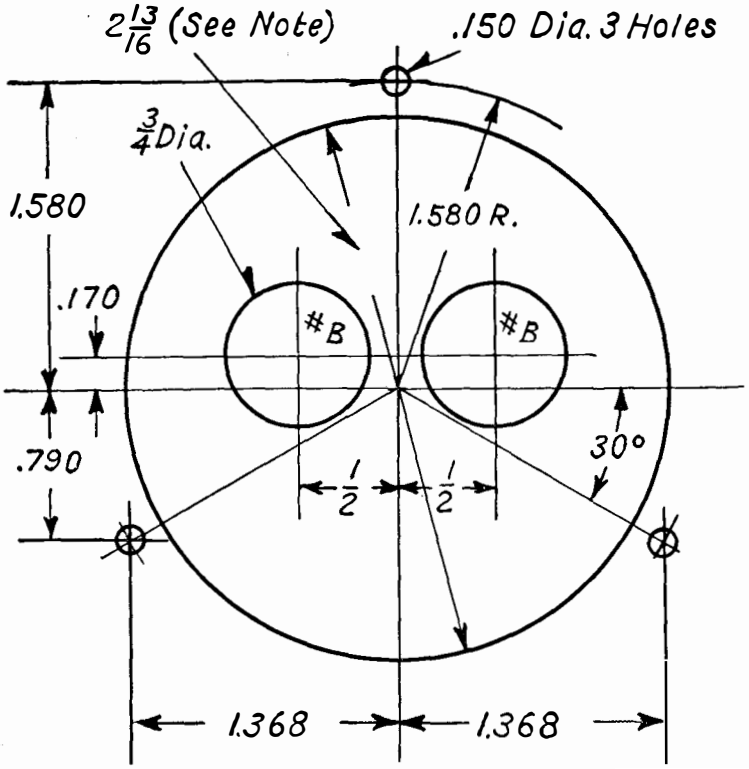
FIG. 7 — A-35 Self-Contained Ammeter or Milliammeter.

FIG. 8 — A-35 Ammeter with Current Transformer.

FIG. 9 — A-35 Voltmeter

FIG. 10 — A-35 Voltmeter with Potential Transformer.

Note: All connections of instruments proper are rear view with dial upright.



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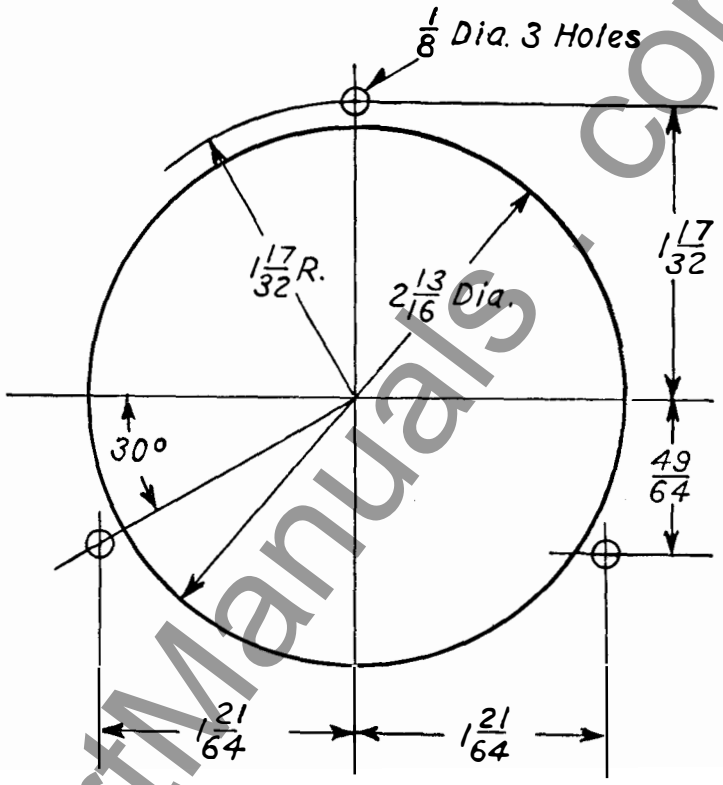
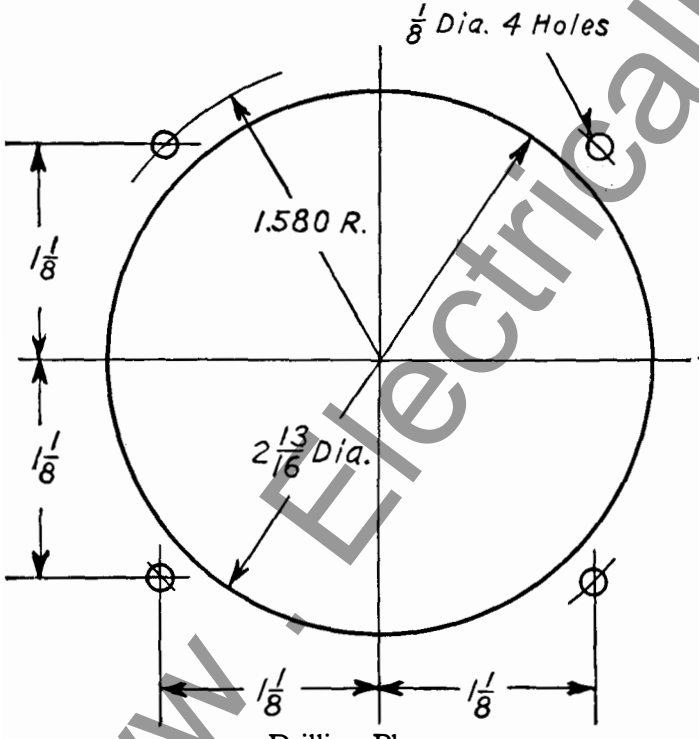


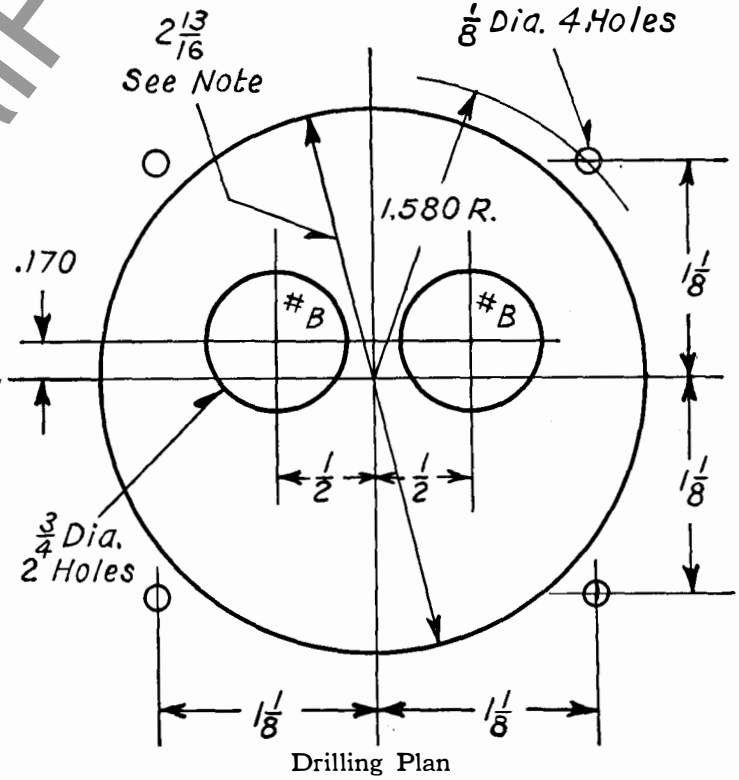
Drilling Plan

Fig. 12—VA-35, VX-35, VC-35 and VT-35



Drilling Plan

Fig. 13—RA-35, RX-35, RC-35 and RT-35



Drilling Plan

Fig. 14—UA-35, UX-35, UC-35 and UT-35

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