

INSTRUCTION MANUAL

B Basler Electric
Highland, Illinois

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IT IS LOANED FOR CONFIDENTIAL USE. SUBJECT
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BASLER ELECTRIC COMPANY

EMI FILTER
Models 204, 206, 208 and 209.
Part Numbers 90 38200 101, 102,
104, 105

Publication

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ELECTRO MAGNETIC INTERFERENCE FILTER PACK
FOR SR VOLTAGE REGULATORS

1.1 INTRODUCTION

1.1.1 This manual contains technical information describing the EMI filter pack, part numbers 38200 100, 102, 104 and 105, manufactured by Basler Electric Company, Highland, Illinois. The general data on the units is shown in Table 1-1 below:

TABLE 1-1 - GENERAL DATA

Part No.	Model No.	Applicable Voltage Regulator	POWER INPUT		SENSING	
			Volts	Freq. (Hz)	Volts	Freq. (Hz)
38200 101	EMI 204	SR4	120	50/60	Nema Standard	50/60
38200 102	EMI 206	SR6	120	400	120/208/ 240/416/ 480	400
38200 104	EMI 208	SR8	240	50/60		50/60
38200 105	EMI 209	SR9	240	400		400

2.1 PURPOSE

2.1.1 The purpose of this unit is to provide a voltage regulator with electro magnetic interference suppression. These filter packs are specifically designed for use on Basler Electric voltage regulators SR4, SR6, SR8 and SR9. (See Table 1-1).

3.1 DESCRIPTION

3.1.1 This unit is a static type subassembly consisting of reactors and capacitors. The components are all contained within an EMI shielded enclosure. (See Figure 1).

4.1 PRINCIPLES OF OPERATION

4.1.1 Electro magnetic interference is generated in the SR voltage regulator by the silicon controlled rectifiers and silicon diodes. Filtering components suppress this interference in lines which connect to E1, E2, E3, F+, F-, 3 and 4 (See Figures 2, 3 and 4). The lines which connect to 1, 2 and A- are connected to low impedance devices and are not usually connected to circuit other than the generator system; therefore, these leads are not filtered. Normally the interference level in these lines is quite low and in most applications is well within specifications.

5.1 INSTALLATION

5.1.1 The mounting instructions contained in the SR voltage regulator manual also apply to this unit. This chassis should be mounted in a vertical position to insure optimum cooling. Lines 6 and 7 have conducted EMI on them, but since they lead to an external pot only, they are not filtered. They should, however, be shielded externally with the shield connected to the hole provided on the chassis (See Figure 1).

CAUTION

THE POWER INPUT AND SENSING LEADS HAVE FILTER CAPACITORS CONNECTED FROM THE LINES TO THE CASE. THE CASE SHOULD BE PERMANENTLY CONNECTED TO THE SYSTEM EMI GROUND TO PREVENT A SHOCK HAZARD.

5.1.2 It is imperative that a good low impedance connection be maintained between the EMI filter pack and the system EMI ground. This requires metal-to-metal bonding connections between the metal cabinet of the filter pack and the generator system EMI ground using a ground strap with a length-to-width ratio not exceeding five to one. It is important to mount the filter pack as close to the generator system EMI ground as possible.

NOTE

Connections shown in the SR voltage regulator handbook are now made to TS1 (EMI filter).

6.1 MAINTENANCE

6.1.1 There are no periodic maintenance requirements for the filter pack, other than those required for the voltage regulators.

7.1 REPLACEMENT PARTS LIST

7.1.1 The following replacement parts list covers the individual filter by part number. Only those parts which are maintenance significant are included. (See Figures 2, 3 and 4). When ordering parts from Basler Electric, always specify the Basler part number, the quantity, and description of the item.

Assembly Part Number 90 38200 101:

<u>Basler Part Number</u>	<u>Description</u>	<u>Number</u>
05056	Capacitor, 2.0 uf, 600 WVDC	1
06721	Diode, 600 PIV, 15 ADC	2
03357	Resistor 50 ohm, +5%, 10 W	1
06047	Resistor 500 ohm, 50 W, WW	1
BE 2355	Transformer, Isolation	1
BE 2628	Filter	1

Assembly Part Number 90 38200 102:

06047	Resistor, 500 ohm, 50 W, WW	1
06721	Diode, 600 PIV, 15 ADC	2
BE 2355	Transformer, Isolation	1
BE 2628	Filter	1

Assembly Part Number 90 38200 104:

05056	Capacitor, 2.0 uf, 600 WVDC	1
06721	Diode, 600 PIV, 15 ADC	2
03357	Resistor, 50 ohm, +5%, 10 W, WW	1
06043	Resistor, 750 ohm, 50 W, WW	1
BE 1539	Transformer, Isolation	1
BE 2628	Filter	1

Assembly Part Number 90 38200 105:

06043	Resistor, 750 ohm, 50 W, WW	1
06721	Diode, 600 PIV, 15 ADC	2
BE 1539	Transformer, Isolation	1
BE 2628	Filter	1

7.1.2. The replacement parts data covering the voltage regulators is contained in the regulator manual.

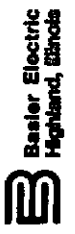
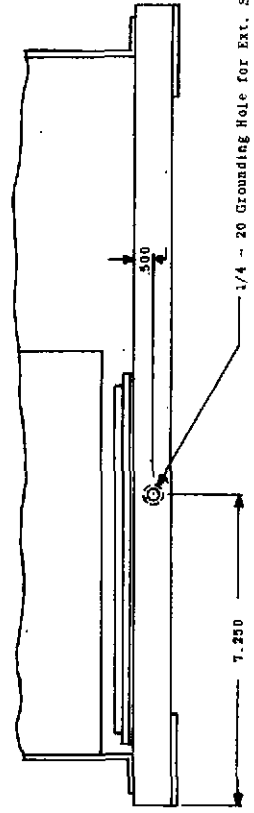
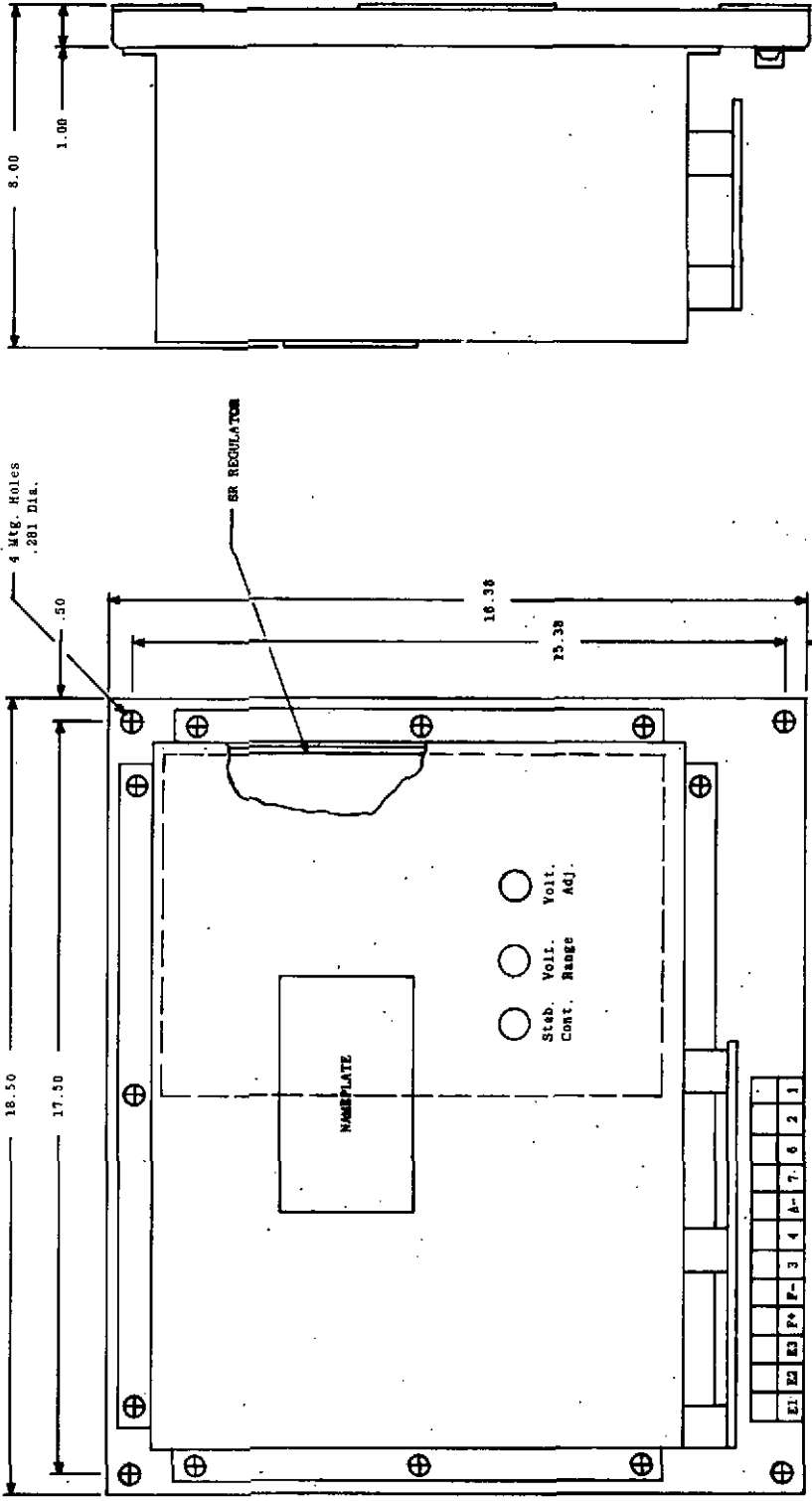
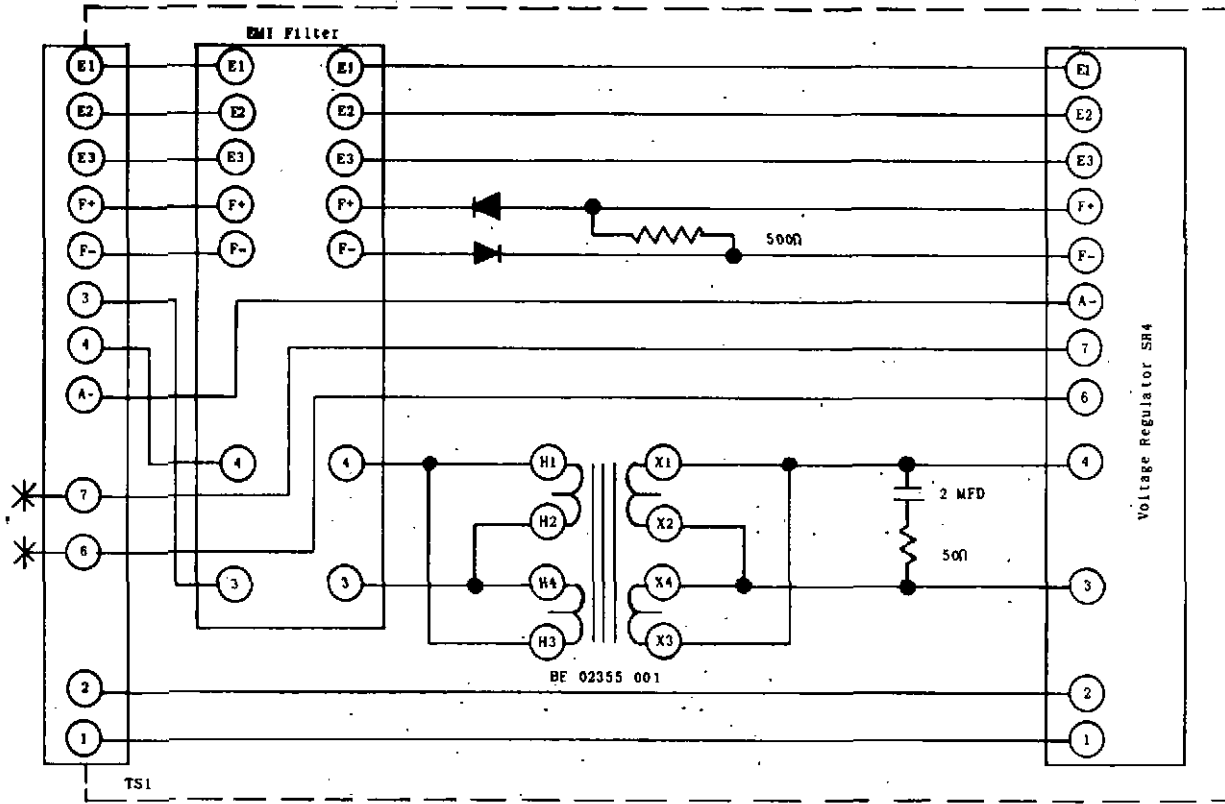
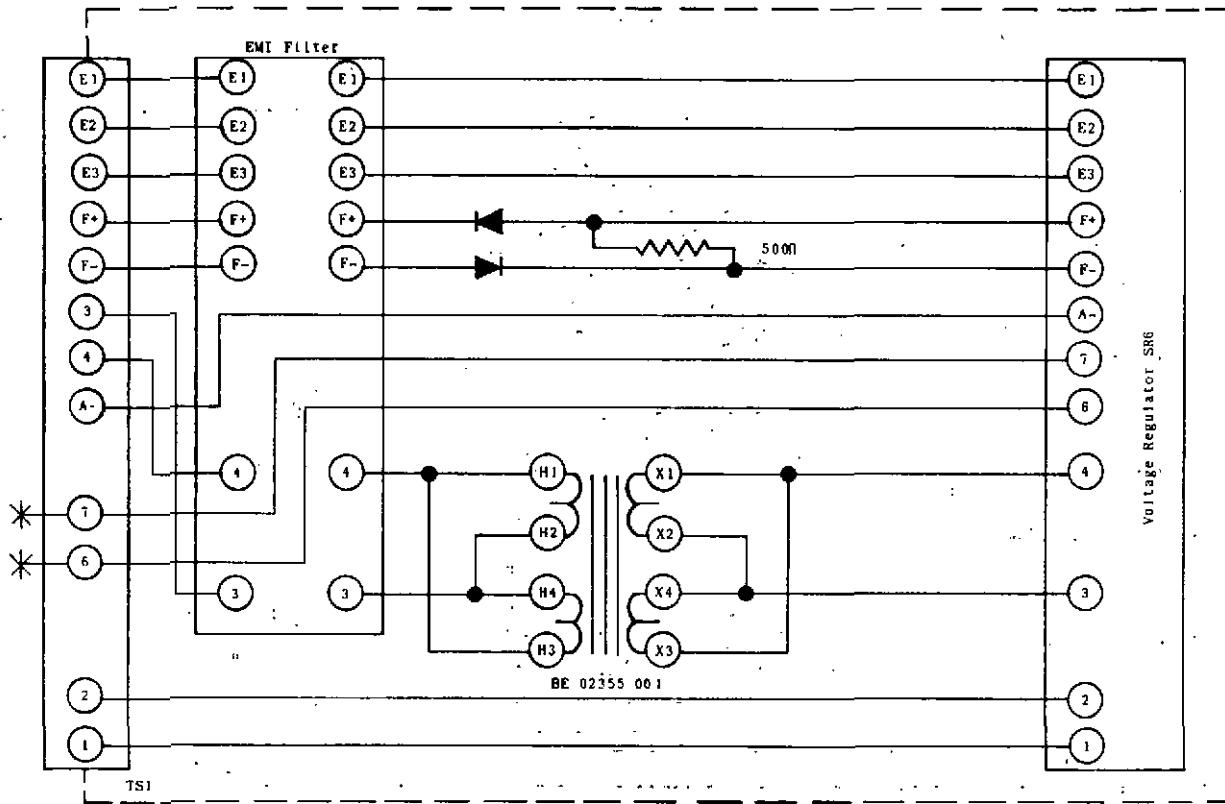


FIGURE 1 - OUTLINE EMI FILTER PACK ASSEMBLY
(SR REGULATOR INCLUDED IN ASSEMBLY)



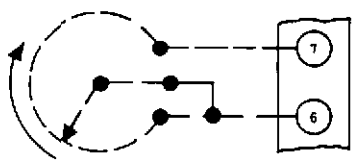
Voltage Regulator SR4

TS1



Voltage Regulator SR6

TS1



*Connections for external voltage adjust rheostat

FIGURE 2 - INTERCONNECTION DIAGRAM
SR4 and SR6

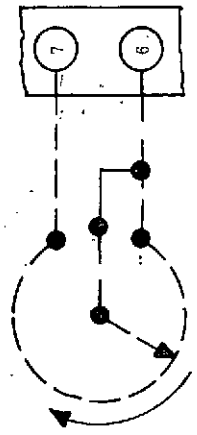
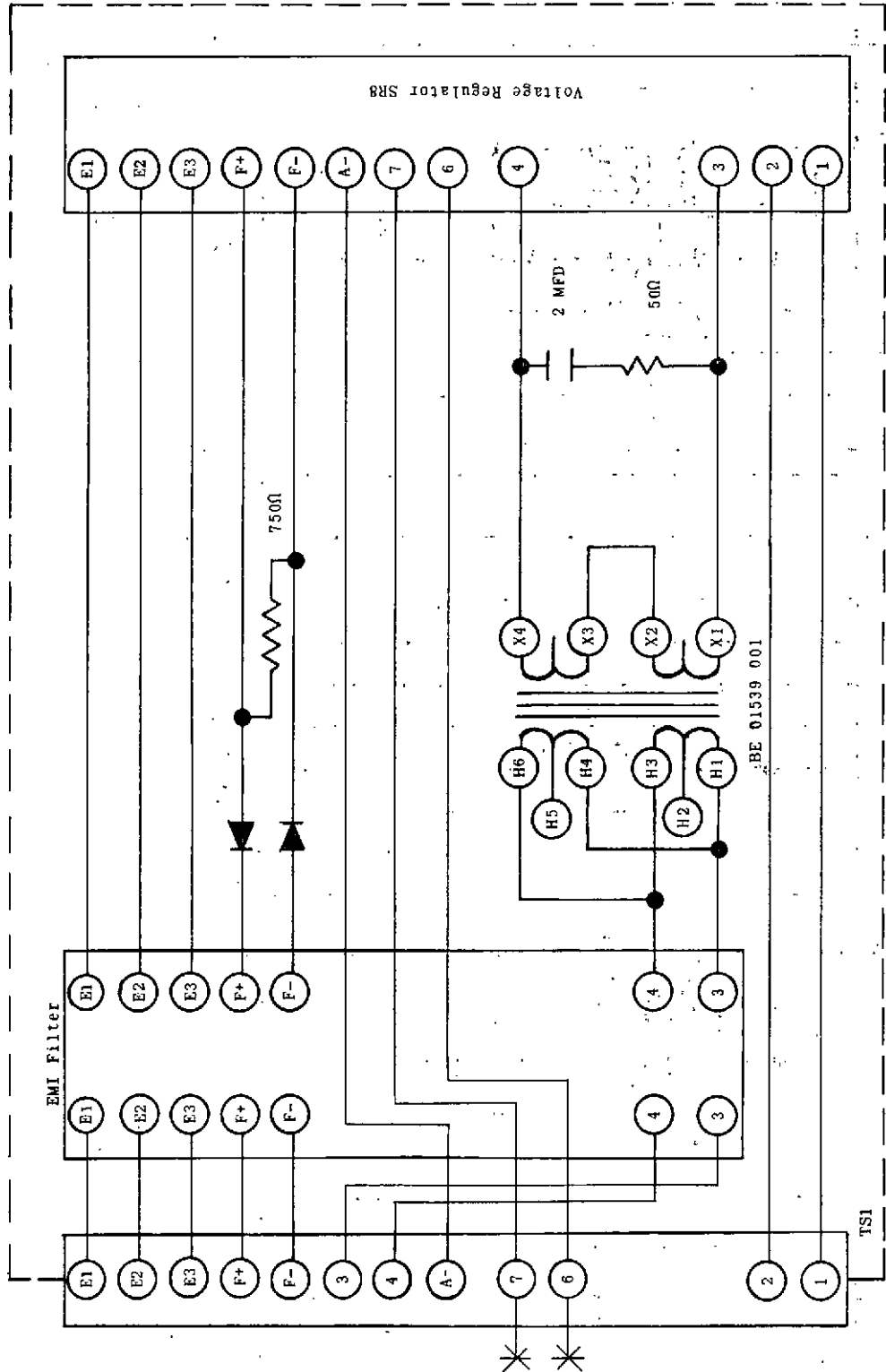


FIGURE 3 -- INTERCONNECTION DIAGRAM
SR8

*Connections for external voltage adjust rheostat

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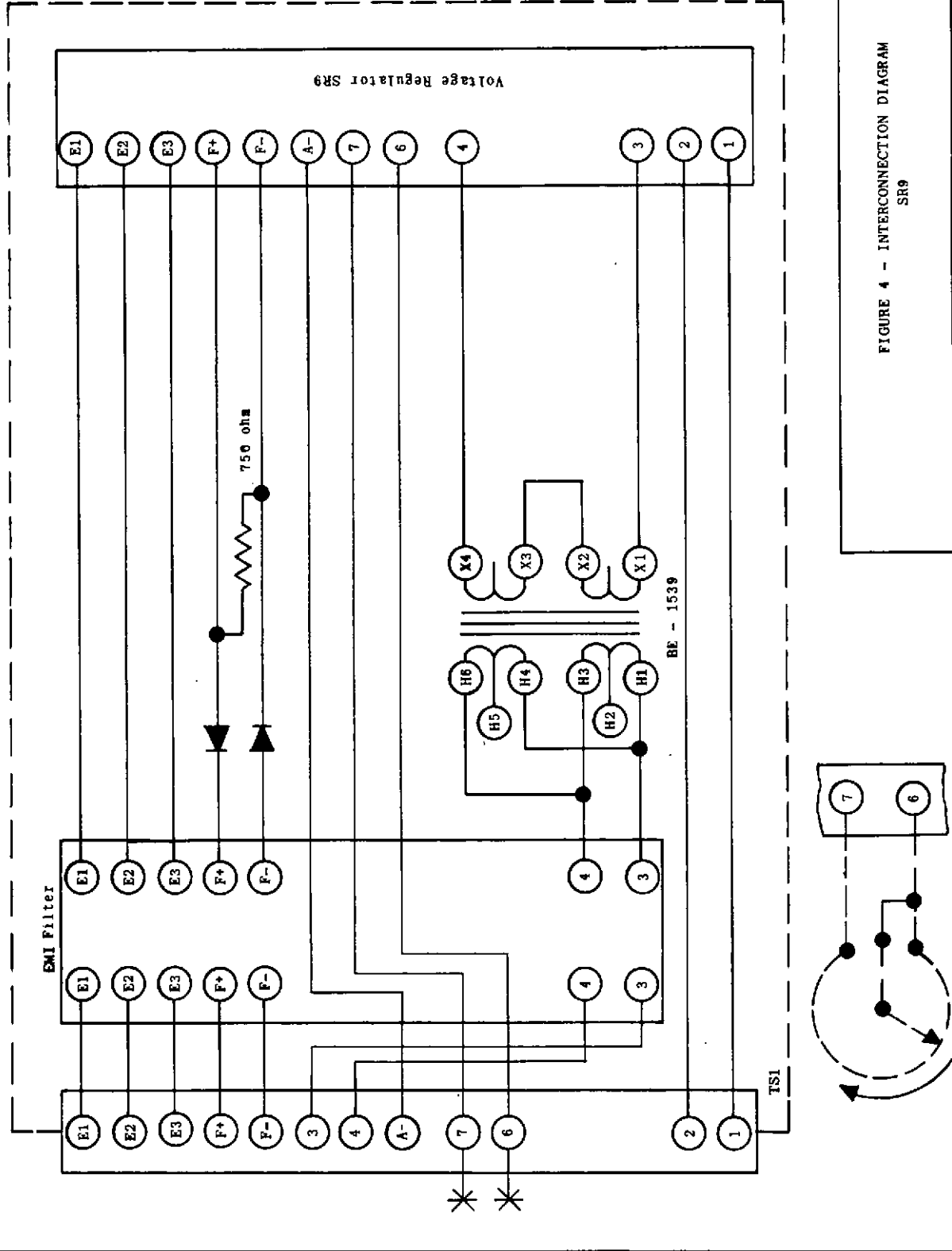


FIGURE 4 - INTERCONNECTION DIAGRAM SR9

*Connections for external voltage adjust rheostat.

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