Introduction

This manual will guide you through the process of wiring an 808SR Series controller with a previously installed series 7EK controller. Note: the colors depicted in the images have no other meaning than to provide a quick visual reference for transferring wires from one controller to the next in a replacement scenario.

This manual is for the 808SR only. If you are wiring an 808, refer to the guide for that device.
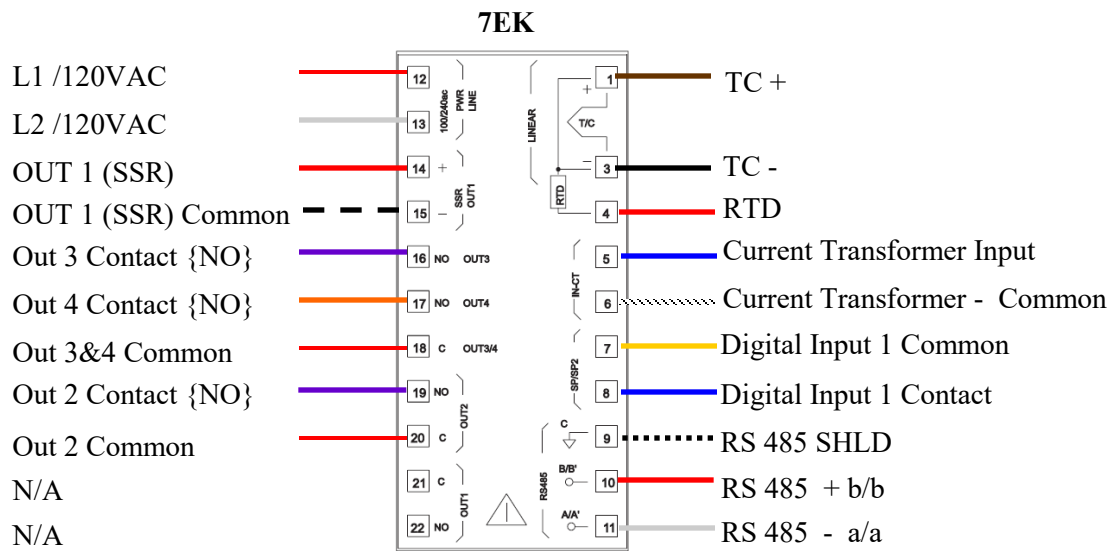
7EK

Left terminal		Right terminal
L1 /120VAC	12	1 — TC +
L2 /120VAC	13	
OUT 1 (SSR)	14	3 — TC -
OUT 1 (SSR) Common	15	4 — RTD
Out 3 Contact {NO}	16	5 — Current Transformer Input
Out 4 Contact {NO}	17	6 — Current Transformer - Common
Out 3&4 Common	18	7 — Digital Input 1 Common
Out 2 Contact {NO}	19	8 — Digital Input 1 Contact
Out 2 Common	20	9 — RS 485 SHLD
N/A	21	10 — RS 485 + b/b
N/A	22	11 — RS 485 - a/a

Image 1.

808 SR

Left terminal			Right terminal
SSR+	1A	4 A	Out 4 Contact {NO}
SSR -	1B	4 B	Out 4 Common
Out 2 Contact {NO}	2A	4 C	Out 4 Contact {NC}
Out 2 Common	2B	HD	RS 485 SHLD
Digital Input 2 Contact	LB	HE	RS 485 - a/a
Digital Input 2 Common	LC	HF	RS 485 + b/b
Out 3 Contact {NO}	3A	CT	Current Transformer Input
Out 3 Common	3B	C	Current Transformer Common
AUX 24V - +	3C	LA	Digital Input 1 Contact
AUX 24V - Common	3D	VI	RTD
L1 /120VAC	L	V+	TC +
L2 /120VAC	N	V-	TC -

Image 2.

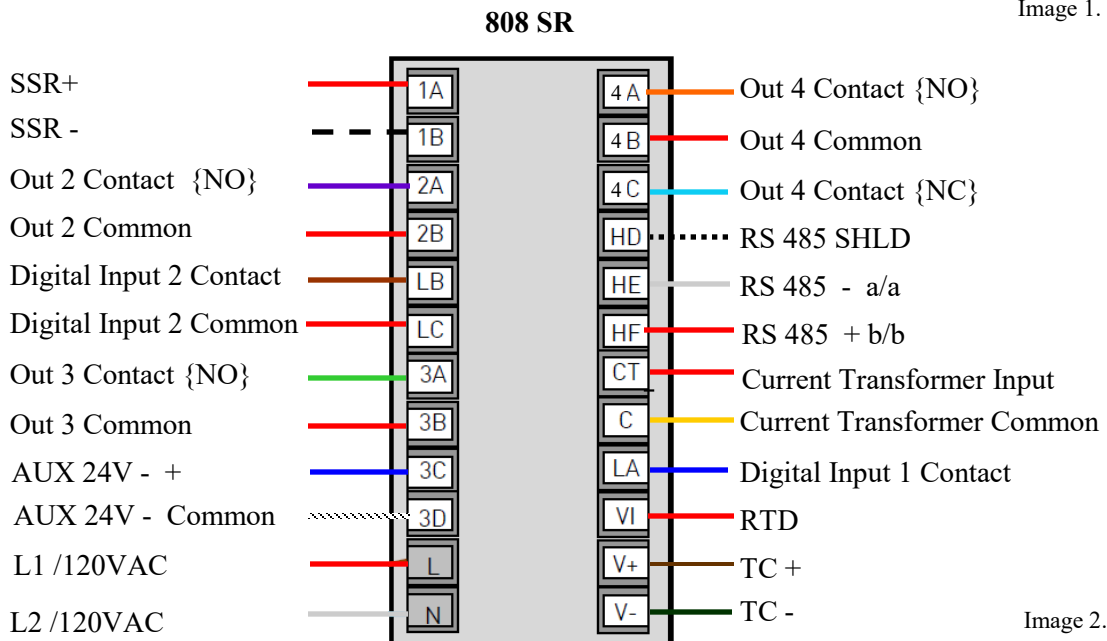Notes: {NO} = Normally Open Contact,.   {NC} = Normally Closed Contact

Procedure

When replacing the 7EK with an 808SR controller its important to note that the terminal layout has changed. Below is the text description of the wiring conversion process.

1. Transfer Analog Input from 7EK to 808SR as follows:
    Terminal 1 to (V+)
    Terminal 3 to (V-)
    Terminal 4 to (VI)
2. Transfer from 7EK to 808SR as follows:
    Terminal 7 to (C)
    Terminal 8 to (LA)
3. Transfer RS-485 communication from 7EK to 808SR as follows:
    Terminal 9 to (HD)
    Terminal 10 to (HF)
    Terminal 11 to (HE)
4. Transfer SSR Output from 7EK to 808SR as follows:
    Terminal 14 to (1A)
    Terminal 15 to (1B)
5. Transfer Relay Outputs from 7EK to 808SR as follows:
    Terminal 17 to (4A)
    Terminal 19 to (2A)
    Terminal 18 to (3B) or (4B) based upon output.
6. Finally, Transfer Line and Relay Commons
    L1 (Terminal 12) to (Terminal L)
    L2 (Terminal 13) to (Terminal N)
    Terminate the relay commons accordingly.
    Terminal 16 to (3A)
    Terminal 20 to (2B)
    (L) can be jumpered to (4B) on the 808SR if used

Rev.	Description	Date	MCO #
-	Initial Release	11/23/2016	2184
A	Various corrections and updates.	4/11/2023	2334