

Application Note

Prepare and install EN7000V2 Cascade Retrofit Flat plate assembly

July 25 Document no. 700271

Document Revisions

Date	Document Number	Approved By	Document Changes
07/9/2025	ORG	ZJC	Initial release

Languages

This document is only published in the English language.

1 Introduction

1.1 Scope

The EN7000v2 Flat-Plate Retrofit has been designed to replace **EN1000 Cascade-multivalve and EN1001 Cascade multivalve controls.** This document serves as an overall guide to remove components to be replaced and make space for the EN7000 Flat Plate assembly components. Generally, the EN7000v2 retrofit re-use existing SCR assemblies within the weld control cabinet.

1.2 Hardware Installation Instructions

Step	Description	Screen / Parameters
1	Disconnect power from control to be updated	
1	Remove original control components	Display/Program Assembly Transformers control board Firing boards



Step	Description	Screen / Parameters
2	Check and Identify Flat Plate assemblies. Timer Main Power card Options AC valves Decoder required if 5 or more SCRs Interlocking Firing Card Assemblies	Master Power Assembly Firing board Assemblies Timer Decoder
2	Review Assembly Drawings Refer to Assembly drawing: 700258 for Dimensions of the Master Power card assembly.	25 9.65 9.65 38 7

Step	Description	Screen / Parameters
	Review Assembly Drawing Refer to Assembly drawing: 700258 for Dimensions and din-rail Mounting Information of the AC 120V Valve option if required.	
3	Review Assembly Drawing 700258 Dimensions and Mounting Information. Slave Firing Cards and Interlocking assembly details.	4.75 2.5 3.95

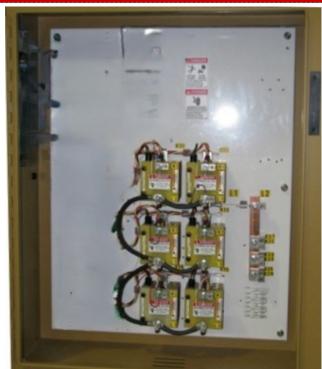
Step Description Screen / Parameters

Locate placement for each of the backplane components.

- Master Power Assembly
- AC Valve option if required
- Decoder card if more than 4 SCRs
- Firing Card Assemblies

NOTE:

When drilling and tapping mounting holes for assemblies, protect all components from metal shavings.



4

General placement of Power Components.

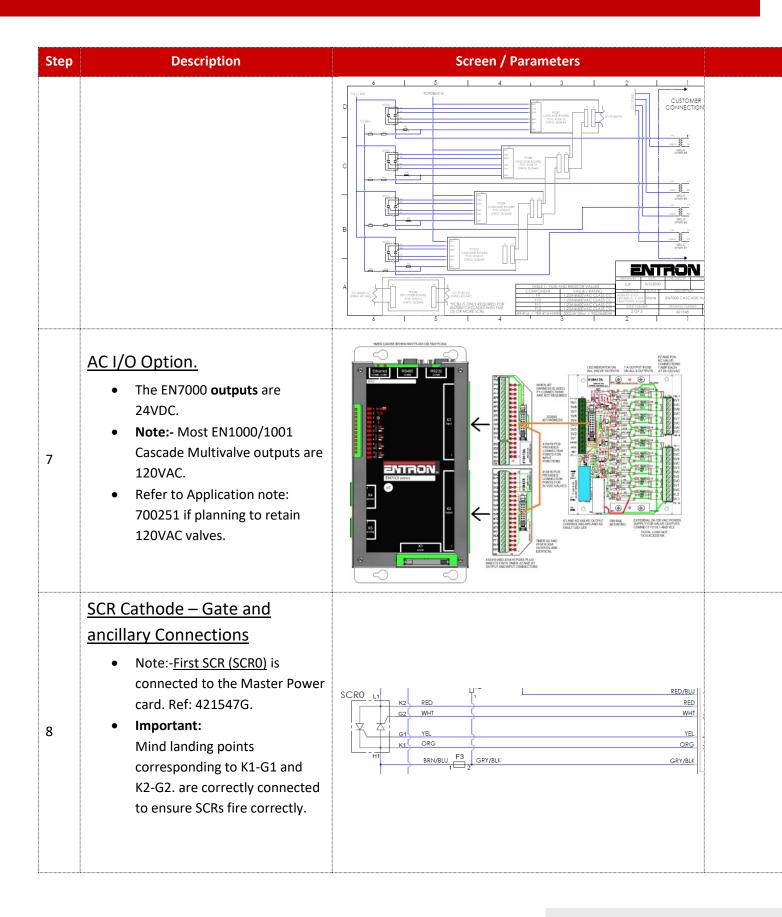
- Master Power board
- AC Valve Option if required.
- Decoder is required if 5 or more SCRs
- Slave firing board interlocking assemblies.



Step	Description	Screen / Parameters
5	 General caution Locate Timer (Either Gear-Plate Mounted timer or Touch-Screen timer) No more than 3 ft from the main power assembly. NOTE: Unlike the EN1000/1001 Cascade, the first SCR is driven by the Master Power Card. Therefore, there is one Less firing card adjacent to the SCRs NOTE:- Avoid draping connecting ribbons or I/O wiring over/near firing circuits. 	Gear Plate Timer Touch Screen Timer Touch Screen Timer
6	Review Wiring Diagrams 421547 and 421548 Refer to Wiring Diagrams: for power connections and I/O. 421547: EN7000v2 Wiring Diagram – USA 421548: EN7000v2 Cascade Wiring Diagram	CUSTOMER CONNECTION AC VANY OPTION AC VANY O

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Step	Description	Screen / Parameters
	 SCR Cathode – Gate and ancillary Connections Note:-Wire Colors may not match. Many SCRs and K/G wires replaced may not have retained the same colors. Note:-The drawing is meant to show "Point to Point" landing. The order on the terminals is marked on the board. Make sure the K2-G2 and K1-G1 end at the proper SCR points. Note L1-(K2) and H1-(K1) correspondence as well, for each SCR. 	RED WHIT ORG YEL K2 G2 K1 G1
9	 SCR Cathode – Gate and ancillary Connections NOTE:-SCR1 up to SCR7, connect directly to firing assemblies in line. Ref: 421548B Important: Mind landing points corresponding to K1-G1 and K2-G2 are correctly connected to ensure SCRs fire correctly. 	SCR1 (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2

EN7000 CASCADE FLAT PLATE RETROFIT

Step	Description	Screen / Parameters	
10	Power Up Upon Power-Up, please refer to the EN7000 Technical User Manual. Doc. No. 700257 for configuration and programming. EN7000 Constant Current AC Controls with Advanced Features - Entron Controls All documents referenced available at www.entroncontrols.com	User Manual EN7000v2 Firmware Version 2.27	

2 Technical Support

2.1.1 Internet

The latest version of the documentation and other helpful resources in the ENTRON Document Library page found in the Resource section of the ENTRON website: https://www.entroncontrols.com

2.1.2 Documentation Request

Documentation, user instructions and technical information can be requested by emailing ENTRON Controls at customerservice@entroncontrols.com or support@entroncontrols.com

Please include your name and email

2.1.3 Service and Technical Support

For service and technical support, we request that customers fill out the Technical Support Form found on our website at link below:



TECHNICAL SUPPORT FORM LINK

https://www.entroncontrols.com/resources/technical-support.html

After the web form has been completed, your case will be assigned to one of our technical specialists who will contact you directly.

ENTRON Controls can also be contacted by phone or email:

Phone: +1-864-416-0190

Email: tech.support@entroncontrols.com



Product Model: EN7000v2 Cascade