

Constant Current Regulator Control System Interface Handbook



airfield engineering
design guides

ADB Safegate

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Document No: 110A0481

Constant Current Regulator

Control System Interface Guide

Manufacturer:

ADB Airfield Solutions

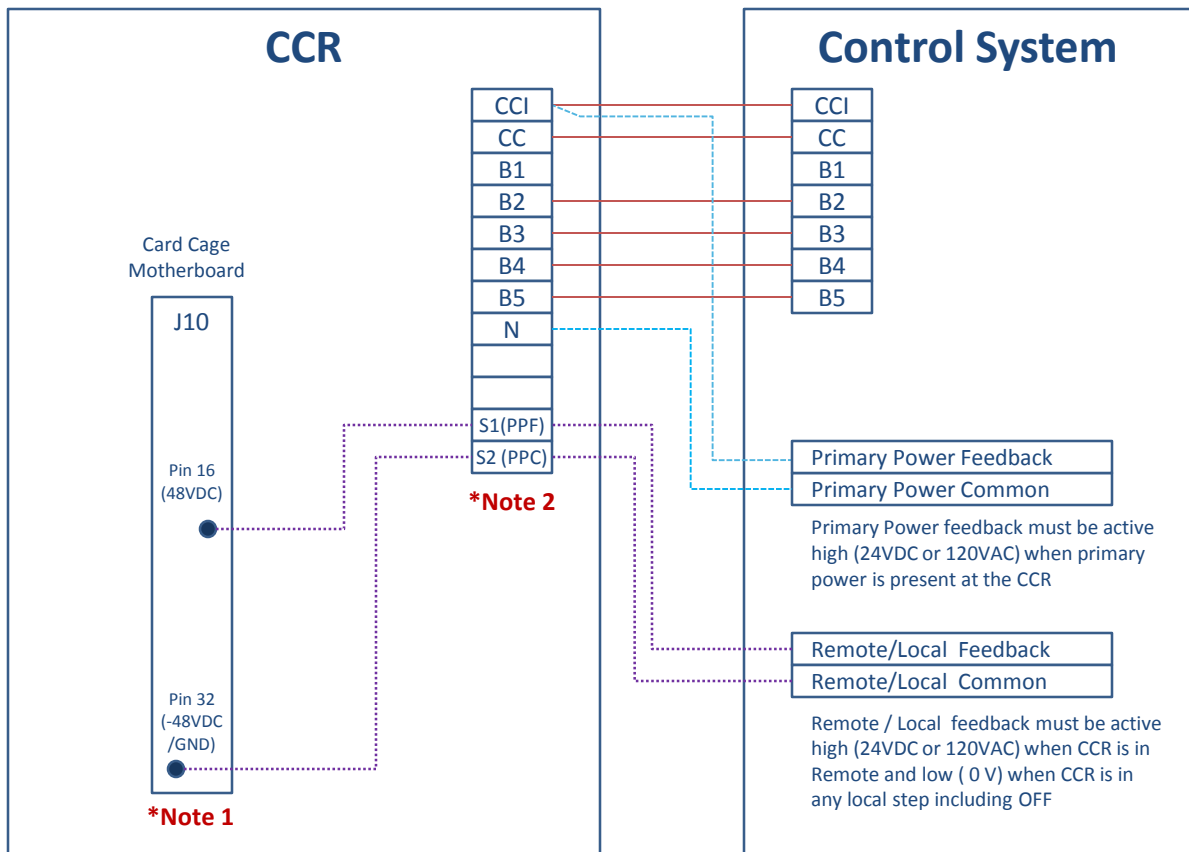
Model:

ADB Ferro (Blue Skins)

4-30kW, 6.6A, Ferro, Air-cooled



Sample Picture



Notes:

1. See drawing 43A2304 for more details of wiring Remote/Local feedback in card cage
2. Internal wiring must be added, wired to spare terminal blocks and should be relabeled

Constant Current Regulator

Control System Interface Guide

Manufacturer:

ADB Airfield Solutions

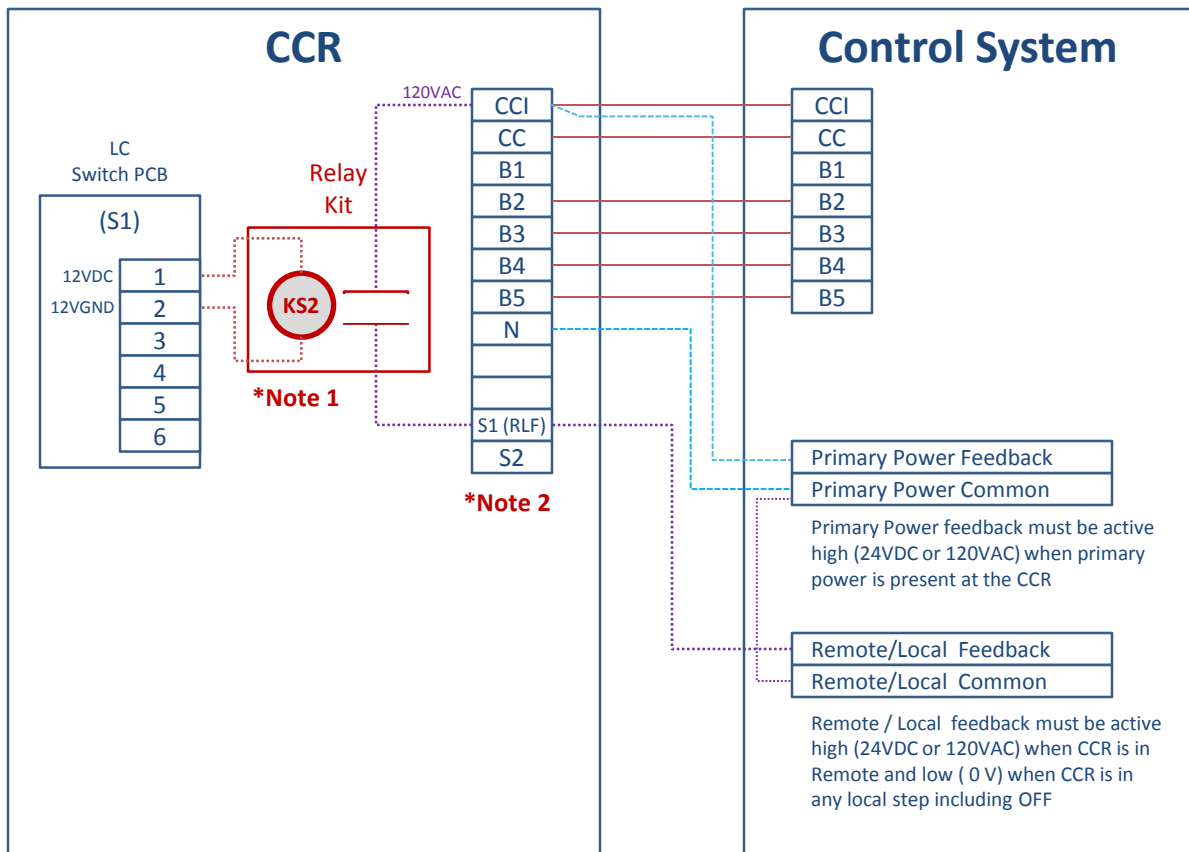
Model:

ADB LC (Blue Skins)

4-30kW, 6.6A, Ferro, Air-cooled



Sample Picture



Notes:

1. A KS2 Relay may exist if CCR was formally monitored by Scanning Monitor. Else a Relay Kit will have to be added. K1 relay must be 12VDC Coil, .5A contact rating.
2. Internal wiring must be added, wired to spare terminal blocks and should be relabeled

Constant Current Regulator

Control System Interface Guide

Manufacturer:

ADB Airfield Solutions

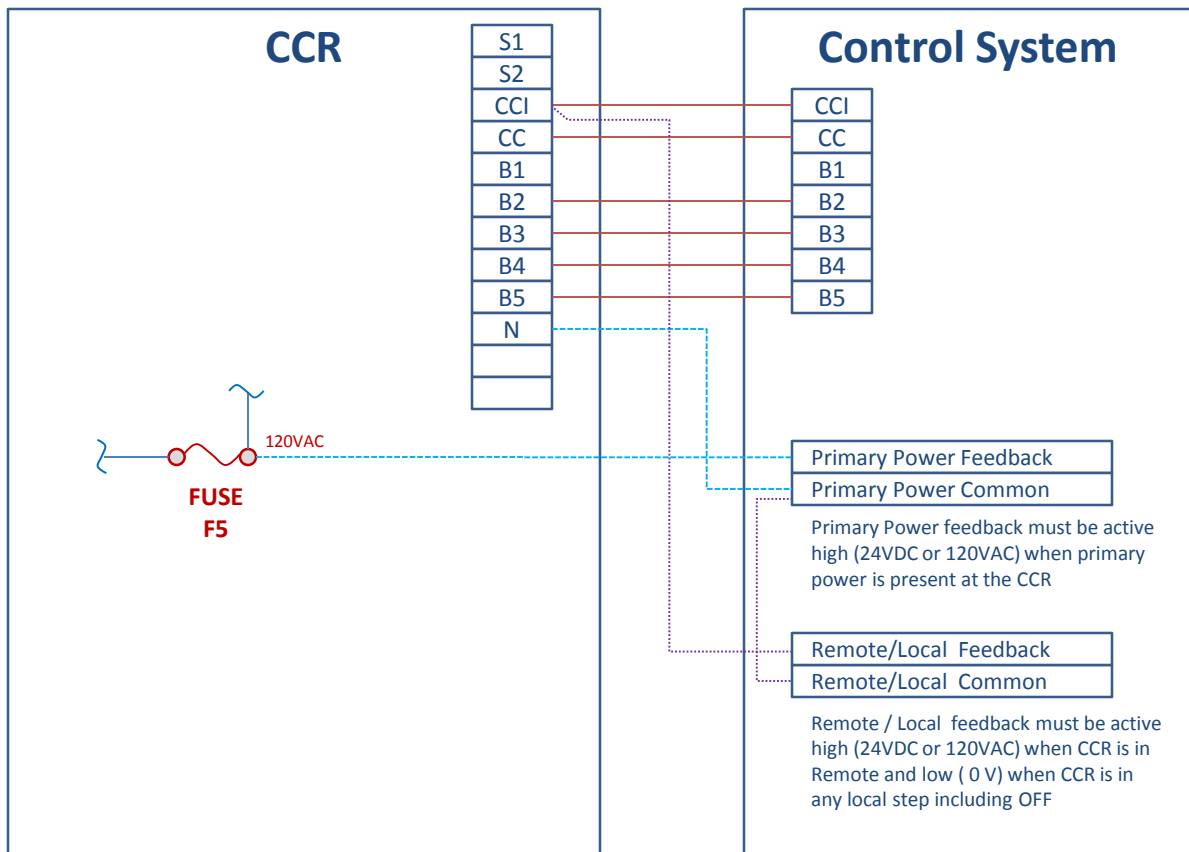
Model:

CCF Signature Series

4-30kW, 6.6A, Ferro, Air-cooled



Sample Picture



Notes:

1. A KS2 Relay may exist if CCR was formally monitored by Scanning Monitor. Else a Relay Kit will have to be added. K1 relay must be 12VDC Coil, .5A contact rating.

Constant Current Regulator

Control System Interface Guide

Manufacturer:

ADB Airfield Solutions

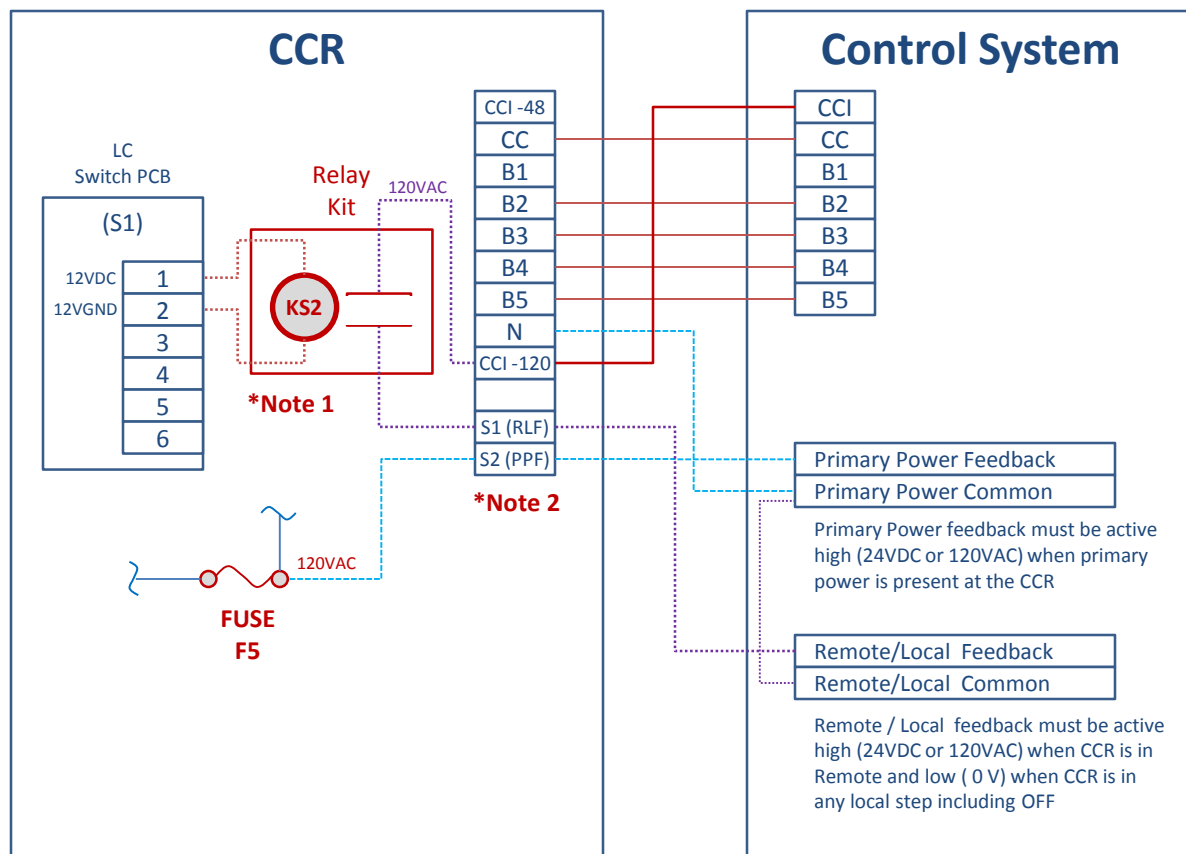
Model:

CCT Signature Series

4-30kW, 6.6A, LC, Air-cooled



Sample Picture



Notes:

1. A KS2 Relay may exist if CCR was formally monitored by Scanning Monitor. Else a Relay Kit will have to be added. K1 relay must be 12VDC Coil, .5A contact rating.
2. Internal wiring must be added, wired to spare terminal blocks and relabeled

Constant Current Regulator

Control System Interface Guide

Manufacturer:

Crouse-Hinds

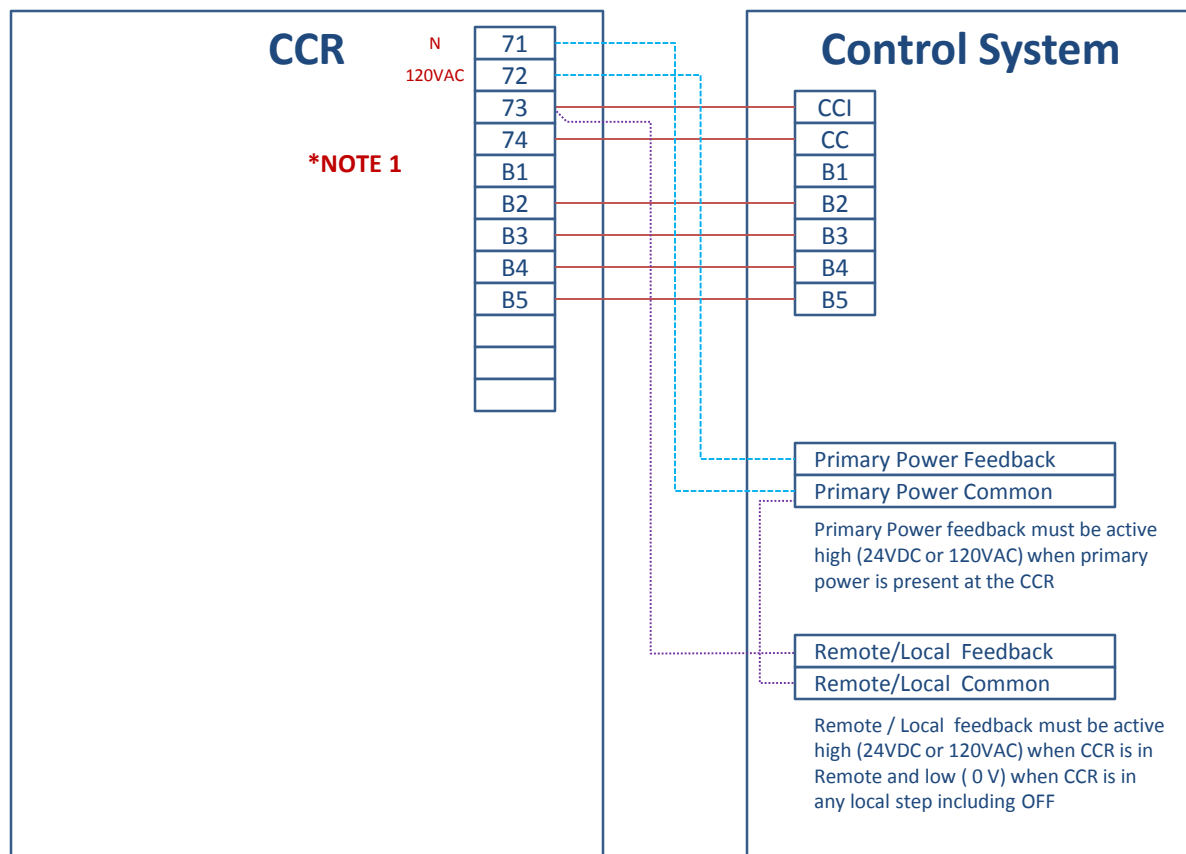
Model:

30000 Series [SEPCO]

10-70kW, 6.6A/20A, Ferro, Oil-cooled



Sample Picture



Notes:

- Older Crouse-Hinds and SEPCO Series should always be field verified for interface accuracy. If new variations of CCR's are determined, information should be forwarded to Project Engineering Group for addition to CCR Interface Handbook

Constant Current Regulator

Control System Interface Guide

Manufacturer:

Crouse-Hinds

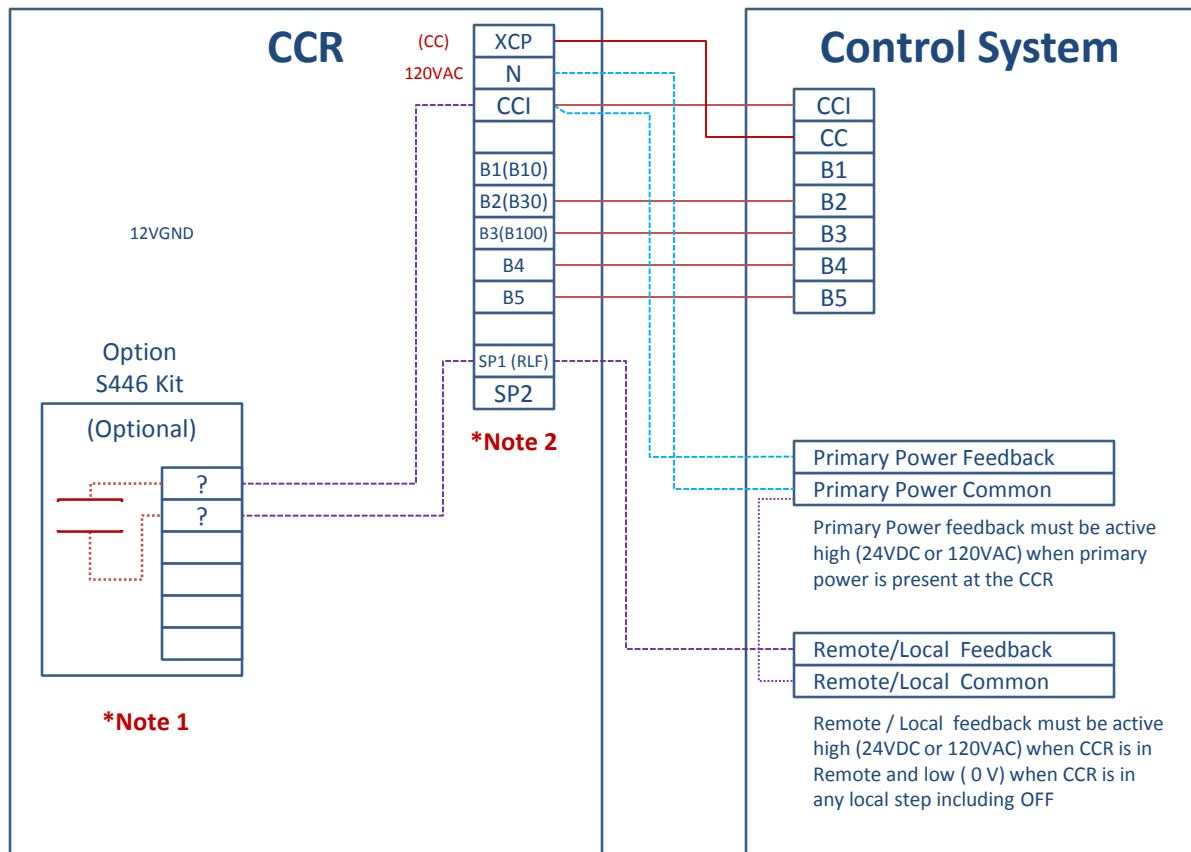
Model:

31000 Series

4-30kW, 6.6A, Ferro, Air-cooled



Sample Picture



Notes:

1. Limited information is available regarding the S446 Kit required to create the Remote/Local feedback signal. This information should always be field verified for interface accuracy. If interface information becomes available, this data should be forwarded to Project Engineering Group for addition to CCR Interface Handbook
2. Internal wiring must be added, wired to spare terminal blocks and should be relabeled

Constant Current Regulator

Control System Interface Guide

Manufacturer:

Crouse-Hinds

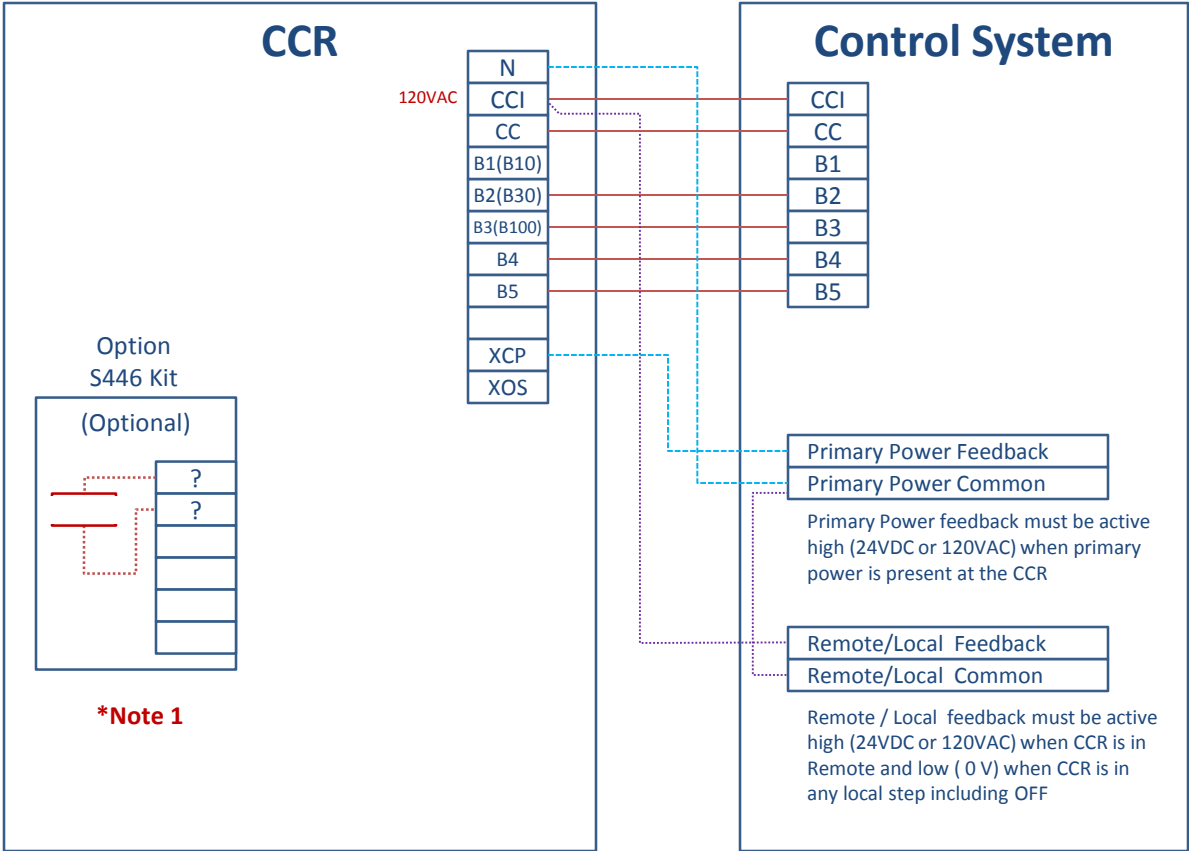
Model:

31060 Series

10-70kW, 6.6A/20A, Ferro, Oil-cooled



Sample Picture



Notes:

1. Some older models may require the S446 Kit. Limited information is available regarding the S446 Kit required to create the Remote/Local feedback signal. This information should always be field verified for interface accuracy. If interface information becomes available, this data should be forwarded to Project Engineering Group for addition to CCR Interface Handbook

Constant Current Regulator

Control System Interface Guide

Manufacturer:

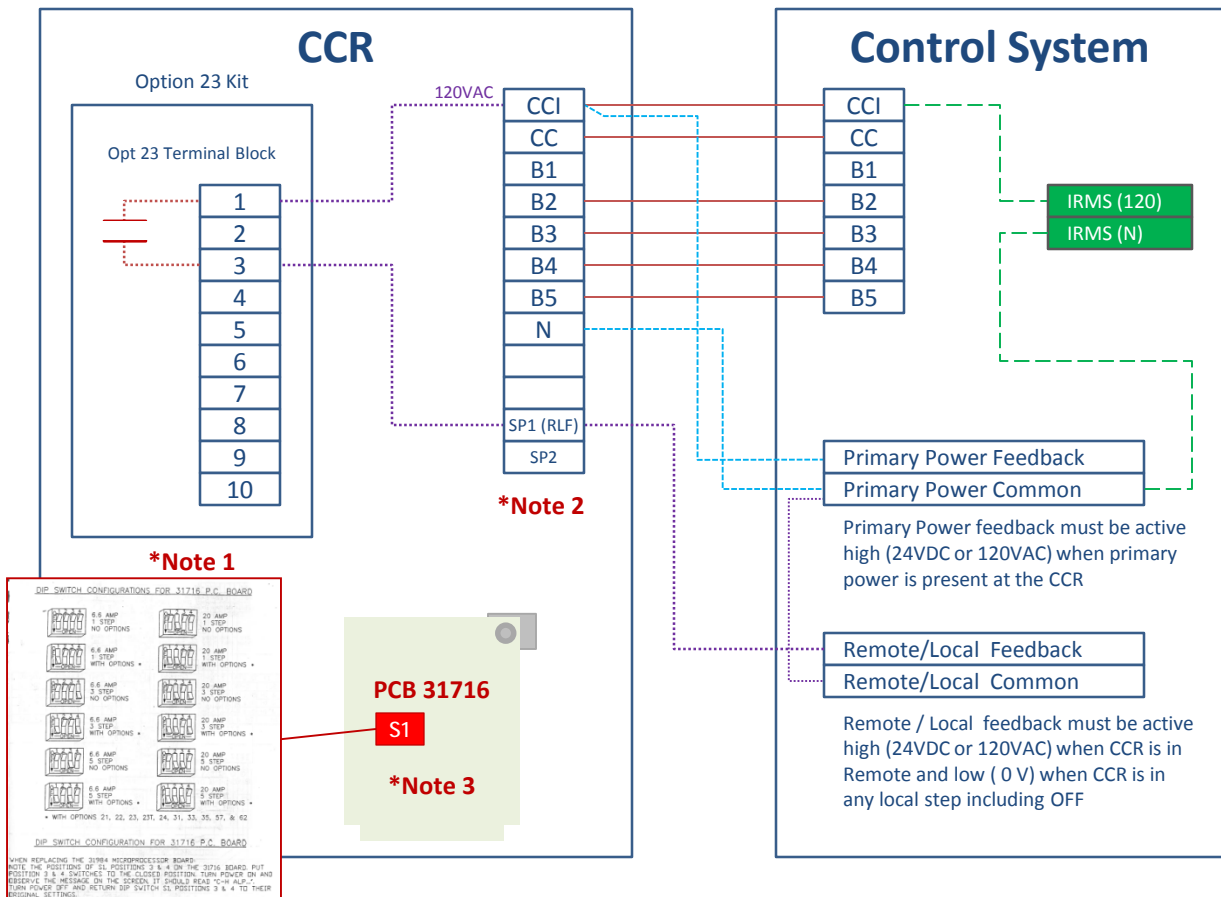
Crouse-Hinds

Model:

82860 Series, Small & Large
4-30kW, 6.6A, Ferro, Air-cooled
20-70kW, 20A, Ferro, Oil-cooled



Sample Picture



Notes:

1. An Option 23 Kit may exist if CCR was formally monitored by Crouse-Hinds system. Else, the Contractor must include in their pricing the purchase and installation of these kits. Card must be added and configured in the CCR card cage
2. Internal wiring must be added, wired to spare terminal blocks and should be relabeled
3. Refer to manual to adjust S1 switch settings to assure proper configuration and enable OPT23 options

Constant Current Regulator

Control System Interface Guide

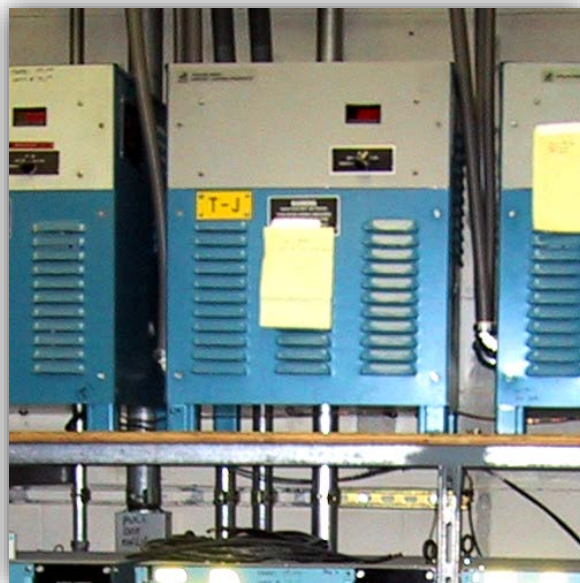
Manufacturer:

Crouse-Hinds

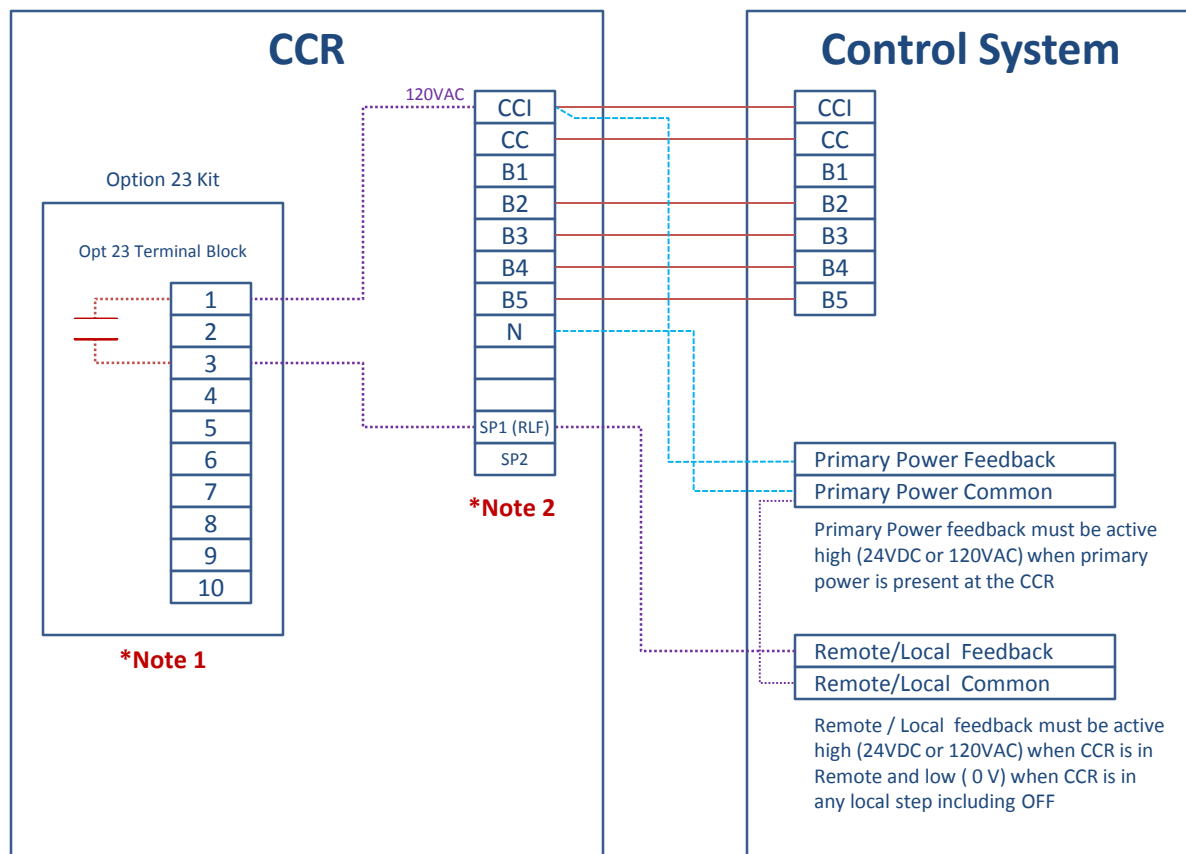
Model:

31360 Series, Small

4-10kW, 6.6A, Ferro, Air-cooled



Sample Picture



Notes:

1. An Option 23 Kit may exist if CCR was formally monitored by Crouse-Hinds system. Else, the Contractor must include in their pricing the purchase and installation of these kits. Card must be added and configured in the CCR card cage
2. Internal wiring must be added, wired to spare terminal blocks and should be relabeled

Constant Current Regulator

Control System Interface Guide

Manufacturer:

Hevi-Duty Electric

Model:

644 Series

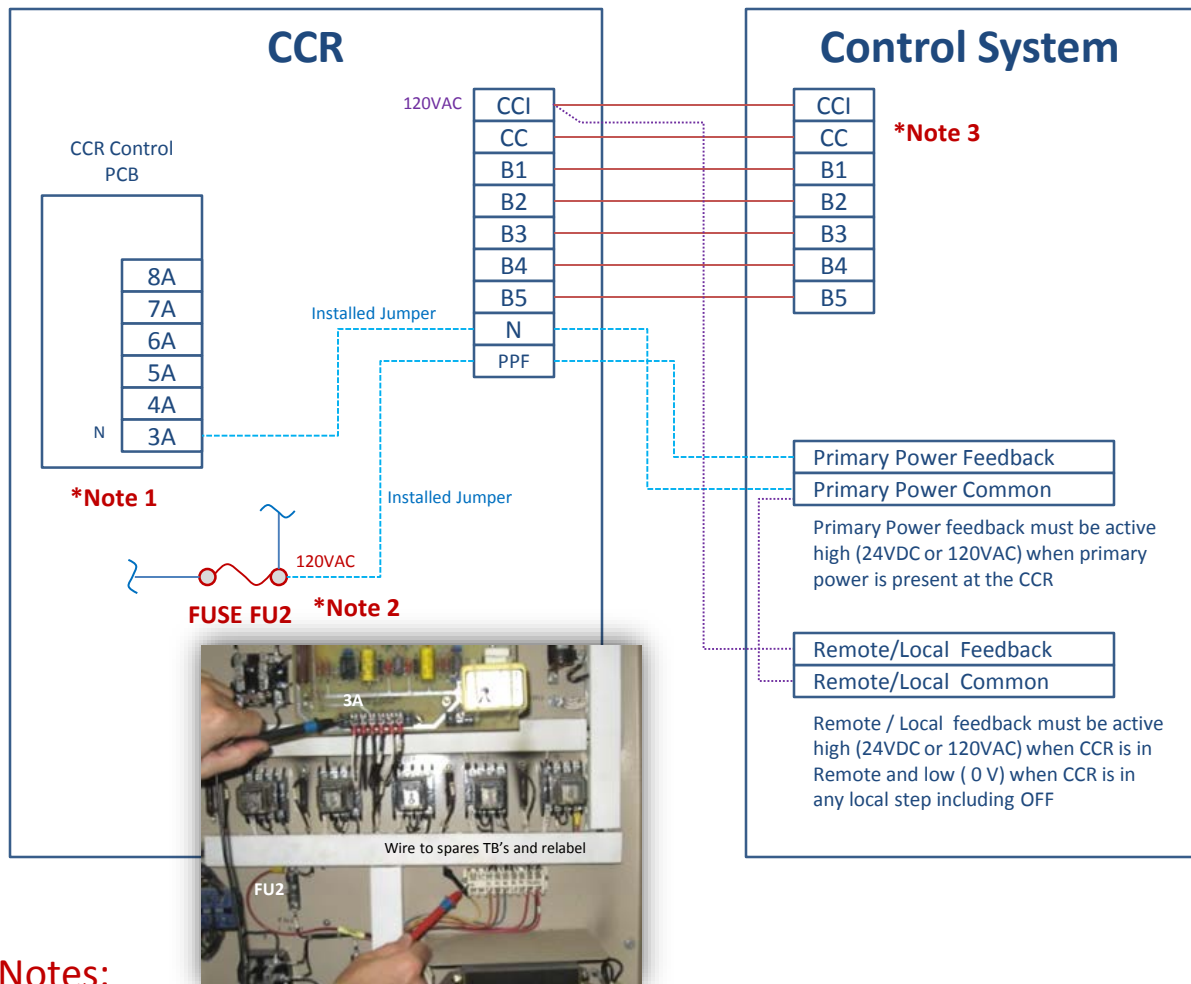
10-70kW, 6.6A/20A, SCR Saturable Reactor

Ferro, Oil-cooled



Sample Picture

Hevi-Duty : 644 Series, 10-70kW, 6.6A/20A, SCR, Air & Oil-cooled



Notes:

1. Jumper needs wired from 3A on CCR Control PCB to spare terminal block and relabeled (N).
2. Jumper needs wired from FU2 to spare terminal and relabeled PPF (Primary Power feedback)
3. CCR may require both CC and B1 signals to turn on to Brightness step 1. Field verify by applying jumper from CCI to CC and see if CCR turns on to Step 1. If so, B1 signal not required for control.

Constant Current Regulator

Control System Interface Guide

Manufacturer:

Hevi-Duty Electric

Model:

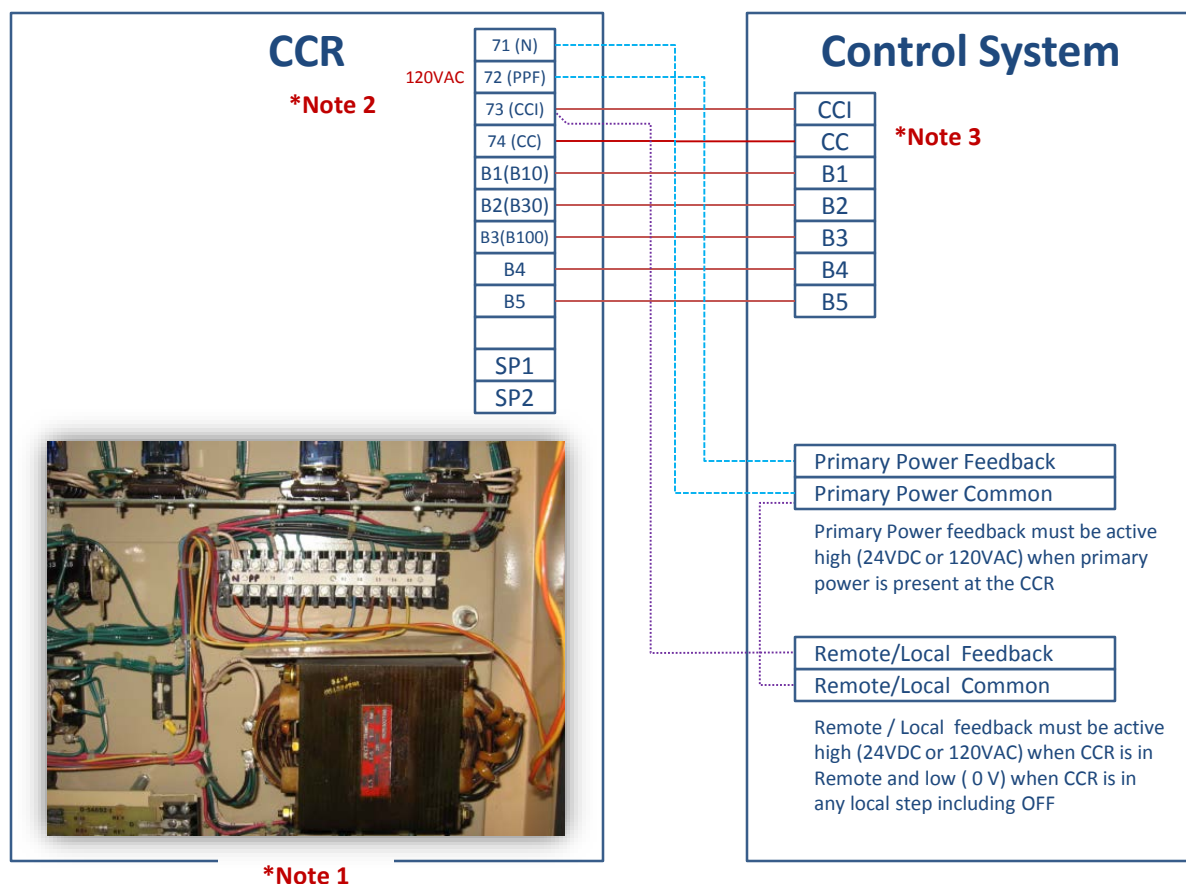
57990 Series

10-70kW, 6.6A/20A, SCR Saturable Reactor

Oil-cooled



Sample Picture



Notes:

1. The Neutral and the Primary Power terminal blocks may not be pre-wired and require field modifications to the internal wiring to wire these signals.
2. Some older series of Hevi-Duty CCR's have different terminal block labels. Always field verify the interface connections during site visit
3. CCR may require both CC and B1 signals to turn on to Brightness step 1. Field verify by applying jumper from CCI to CC and see if CCR turns on to Step 1. If so, B1 signal not required for control.

Constant Current Regulator

Control System Interface Guide

Manufacturer:

Manairo

Model:

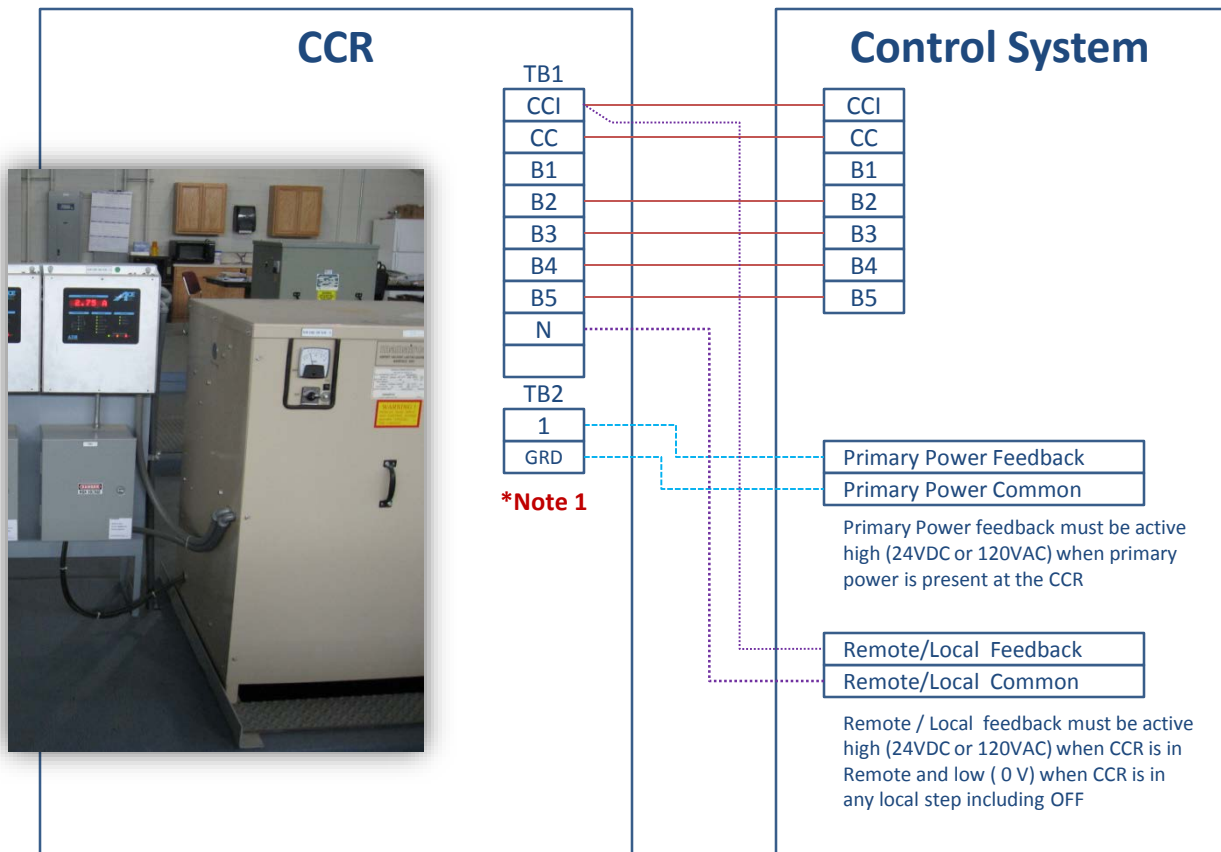
MR & MSR Series

2-50kW, 6.6A/20A, Ferromagnetic

Air-cooled



Sample Picture



Notes:

- Depending on Manairco model, Spare terminal block may not exist and require field modifications of internal wiring to locate Primary Power feedback signal (120VAC). If TB2 does not exist, PPF should be field verified and documented and forwarded to Project Engineering to create new interface diagram

Constant Current Regulator

Control System Interface Guide

Manufacturer:

Flight Light (Formerly Hevi-Duty)

Model:

4-10kW, 6.6A, SCR Saturable Reactor

Air-cooled



Sample Picture

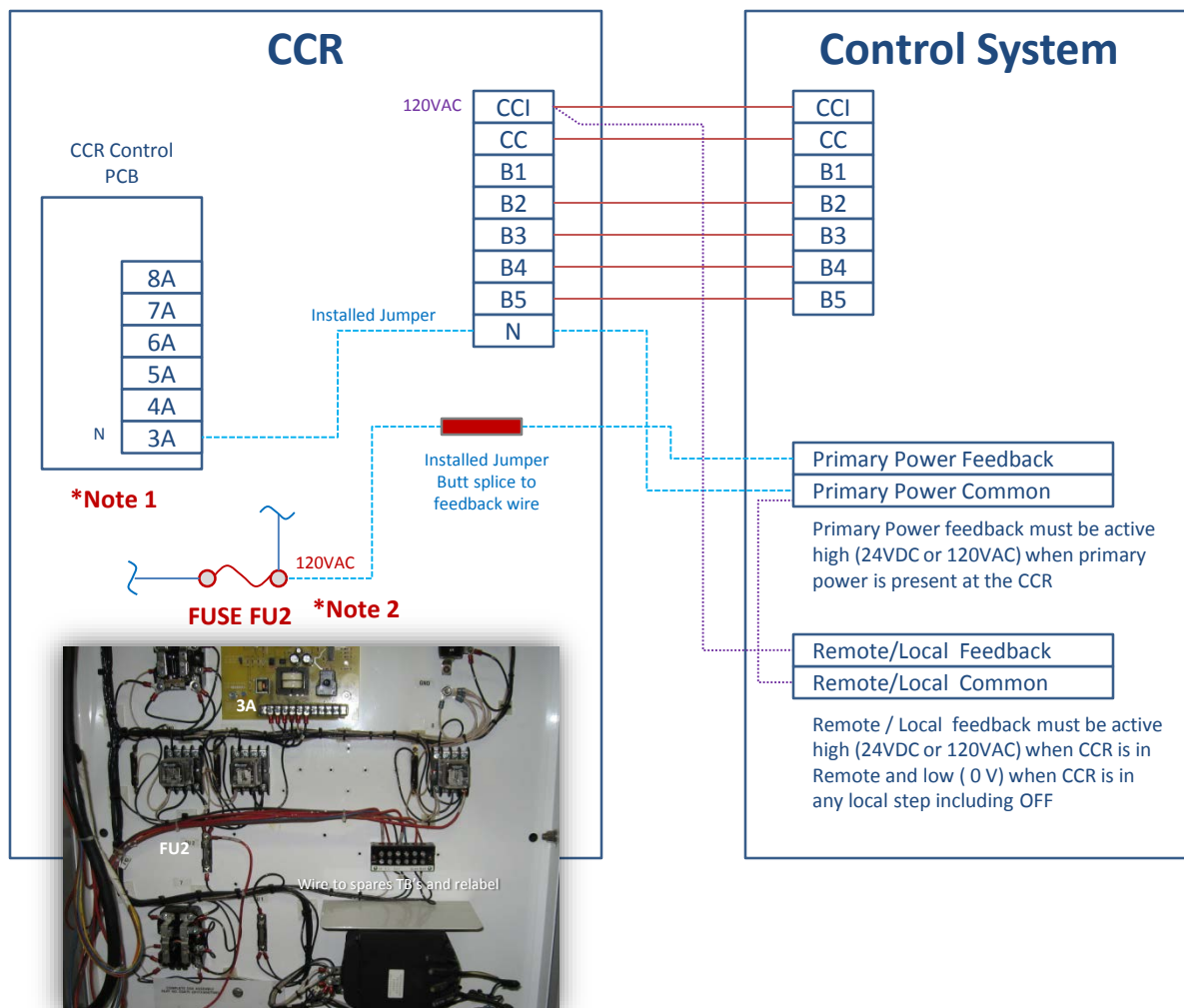
Ordering Code

Qty.	KW Size	FAA #	Code: Volts/Steps/Amps		Control Power	Type	Hertz	Accessory Codes	
	4KW = 4 7.5KW = 7.5 10KW = 10	Sld. Reg. = LK28 Unit W/Monitor = LK29	V/S/A	Code	48V Grounded DC Internal	3	Dry = D 60 Hertz = 6	Elapsed Time Meter*	ETM
			208/5/6.6	Z	48V Ungrounded DC	4		Input Ammeters	IA
			208/5/6.6	ZA	External	5		Output Volt Meter*	OVM
			220/5/6.6	N	120VAC Int./Ext.	5		Input Volt Meter*	IVM
			220/5/6.6	O	48V Grounded DC	6		Input Amp Meter*	IAM
			230/5/6.6	Q	48V Grounded DC	6		Extra Contacts**	EC
			230/5/6.6	R	Int./Ext.	7		Outdoor Enclosure	3R
			240/5/6.6	A	24V Grounded DC	7		Fixed One Step	FOS
			240/5/6.6	C	Internal	7		Cold Circuit Selector Switch	A
			277/5/6.6	BA	24V Ungrounded DC	8			
			277/5/6.6	BB	External	8			
			380/5/6.6	T	24V Grounded DC	9			
			380/5/6.6	U	Int./Ext.	9			
			415/5/6.6	W					
			415/5/6.6	X					
			480/5/6.6	H					
			480/5/6.6	I					

* All meters are analog only!

** Specify the contact's function (i.e., output current monitoring).

* All meters are analog only!
** Specify the contact's function (i.e., output current monitoring).



Notes:

1. Jumper needs wired from 3A on CCR Control PCB to spare terminal block and relabeled (N).
2. Jumper needs wired from FU2 and butt spliced /labeled to PPF wire (Primary Power feedback)

Constant Current Regulator

Control System Interface Guide

Manufacturer:

Honeywell

Model:

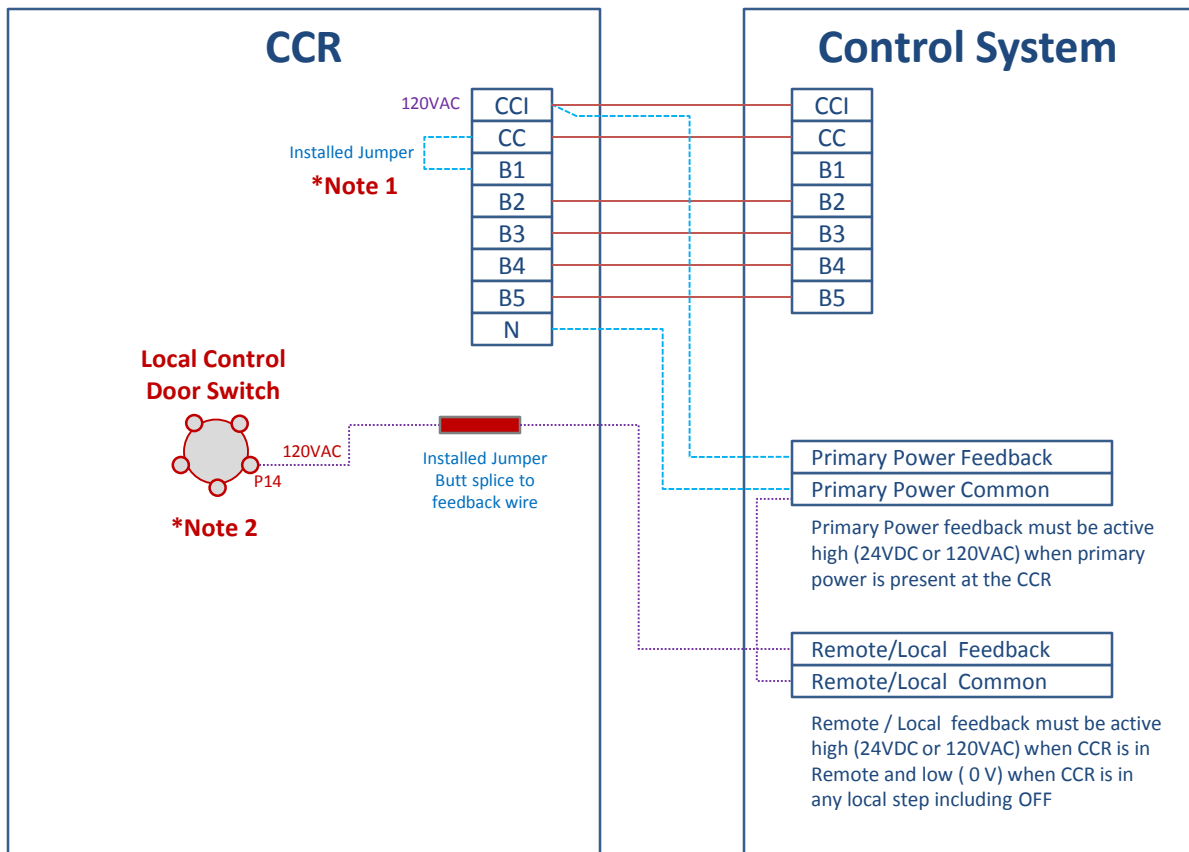
Stackable CCR (Old Style)

4-30kW, 6.6A, Thyristor Controlled
Air-cooled



Sample Picture

Honeywell: Stackable CCR (Old Style), 4-30kW, 6.6A, Thyristor Controlled, Air-cooled



Notes:

1. Jumper needs wired from CC to B1 for CCR to turn on at Step 1 by only energizing CC
2. Jumper needs wired from Door switch P14 (position 14) and butt spliced /labeled to RLF wire (Remote / Local feedback)

Constant Current Regulator

Control System Interface Guide

Manufacturer:

Honeywell

Model:

Stackable CCR (New Style)

Integrated Computer Control Module

4-30kW, 6.6A, Thyristor Controlled

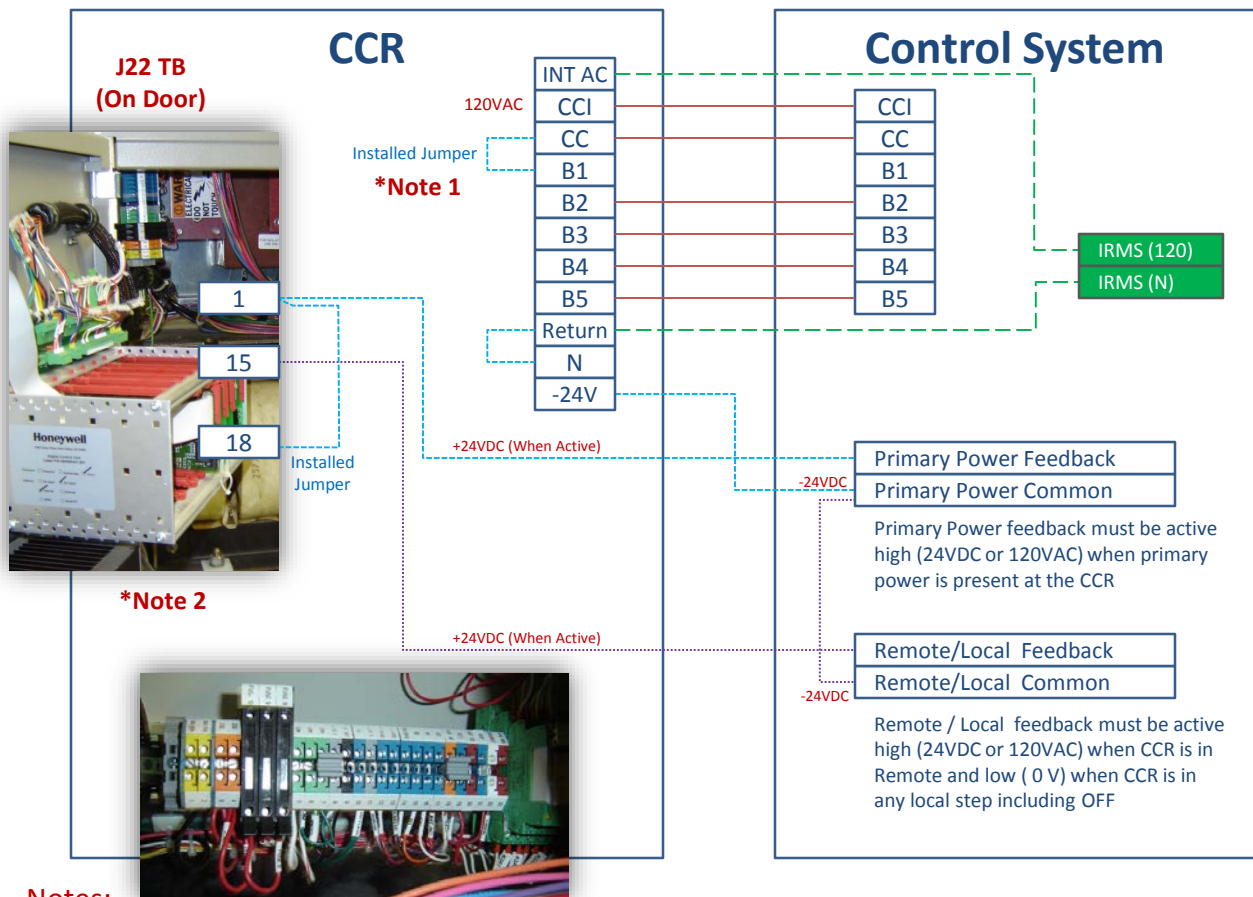
Air-cooled

Part# example: W30A6B480BB



Sample Picture

Honeywell: Stackable CCR (New Style), 4-30kW, 6.6A, Thyristor Controlled, Air-cooled



Notes:

1. Jumper needs wired from CC to B1 for CCR to turn on at Step 1 by only energizing CC
2. Jumper needs wired from J22 terminal 1 to terminal 18. Primary Power feedback (PPF=24VDC when active) is wired to terminal 1, Remote/Local feedback (RLF=24VDC when active) is wired to terminal 15

Programming Distributed Control Device to provide feedback signals:

1. Program password: 0000
2. Remote reset: Yes
3. Option 1=0
4. Indication of faults: contact closed
5. Single lamp ctrl/mtrng: No
6. Serial Interface: Not used
7. PIO command: ON-input
8. Strobe: Not used

Constant Current Regulator

Control System Interface Guide

Manufacturer:

Liberty

Model:

Stackable CCR

Freedom Series

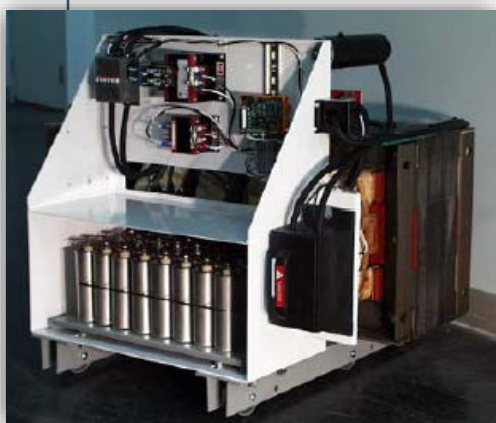
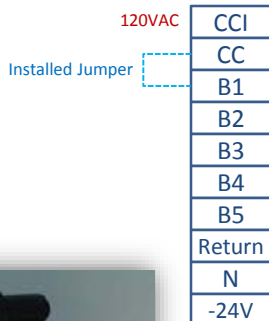
Integrated Computer Control Module

4-30kW, 6.6A, Ferro, Air-cooled



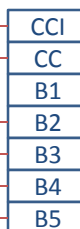
Sample Picture

CCR



***Note 1**

Control System



Primary Power Feedback

Primary Power Common

Primary Power feedback must be active high (24VDC or 120VAC) when primary power is present at the CCR

Remote/Local Feedback

Remote/Local Common

Remote / Local feedback must be active high (24VDC or 120VAC) when CCR is in Remote and low (0 V) when CCR is in any local step including OFF

Notes:

1. No details for Primary Power and Remote/Local Feedback available at this time

Programming Distributed Control Device to provide feedback signals:

1. Not available at this time