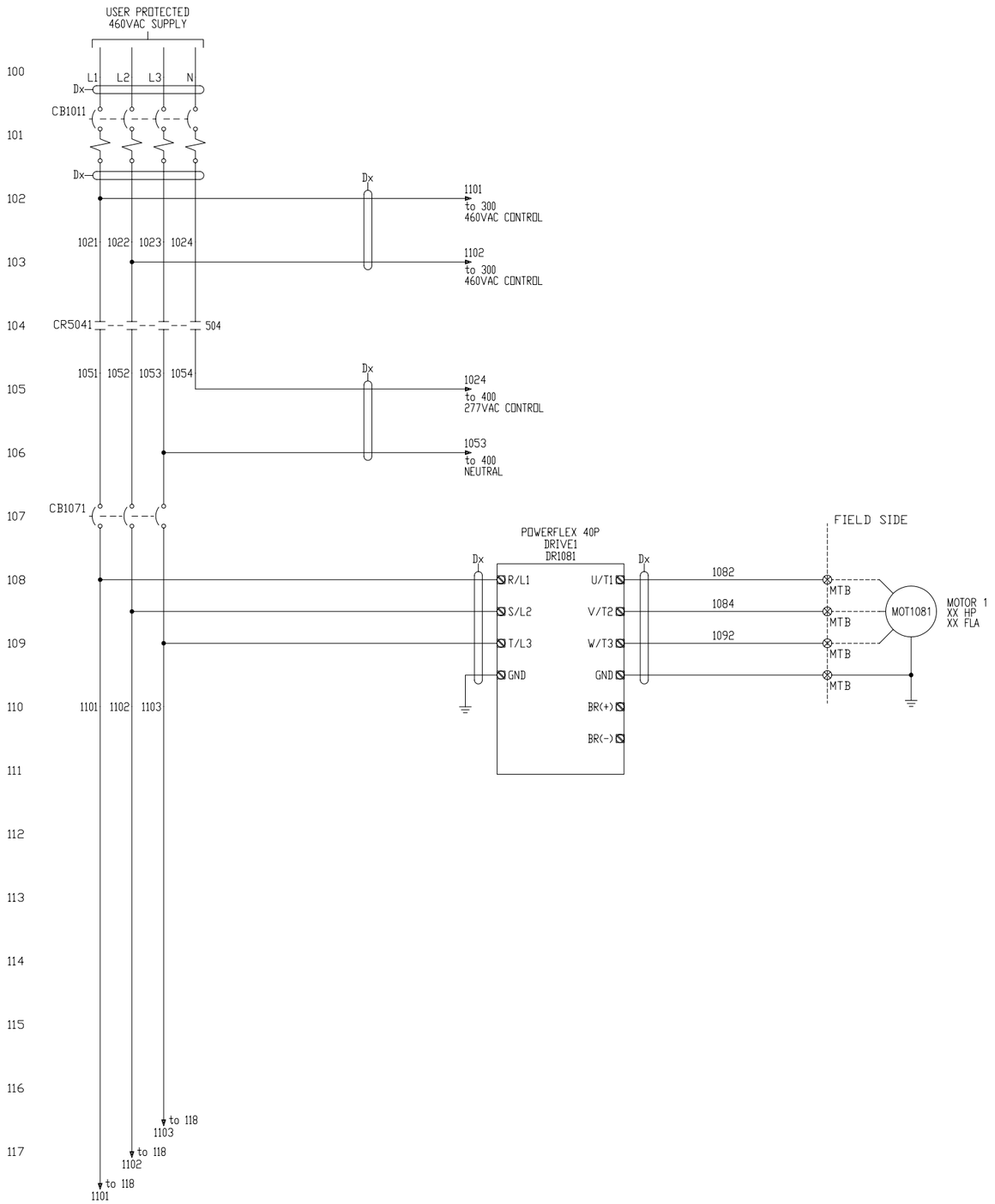

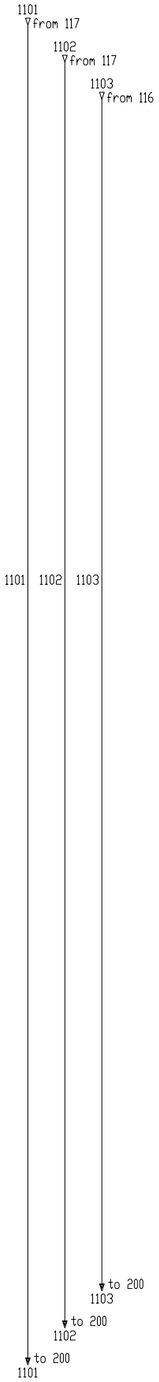

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NOTES:
1. ALL WIRES TO BE xxxV, xx°, xxx.
2. OBSERVE DIRTY/CLEAN WIRING PRACTICES.
3. Dx/Cx MARKERS INDICATE WIRE WAY ROUTING FOR THE SELECTED WIRES (Dx = DIRTY, Cx = CLEAN)
4. ALL WIRES ARE #xx AWG, UNLESS OTHERWISE NOTED.
5. ALL WIRES ARE xxx, UNLESS OTHERWISE NOTED.
6. ALL GROUND WIRES ARE #xx AWG xxxxxx, UNLESS OTHERWISE NOTED.

xxxx xxxxxxx xx xxx xxxxxxxxx xx xxxxxxxx xxxxxxxxx xx xxx xxxxxxxxxxx xxxxxxxx xxxxx xx xxxxxxxxxxxx xxx xxx xxxxxx xxxxxx xx xxxxxxxxxx	***XXXXXX_XXXX*** ***XXXXXX***	CONNECTED COMPONENTS BUILDING BLOCKS DRIVE POWER DISTRIBUTION	DWN xx DATE 10-17-08 DWG NO EXAMPLE DWG REV XX CUST SHEET 1 OF XX

1101 from 135
1102 from 135
1103 from 134

200
201
202
203
204
205
206
207
208

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1101 1102 1103

209
210
211
212
213
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215
216
217

to 218 1103
to 218 1102
to 218 1101

1101 from 217
1102 from 217
1103 from 216

218
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221
222
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225
226

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1101 1102 1103

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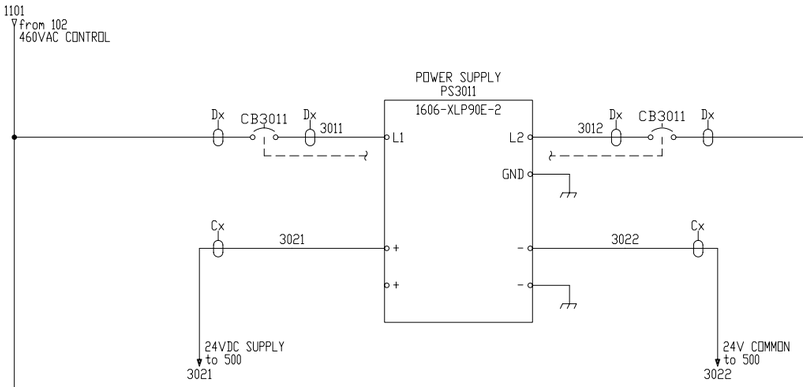
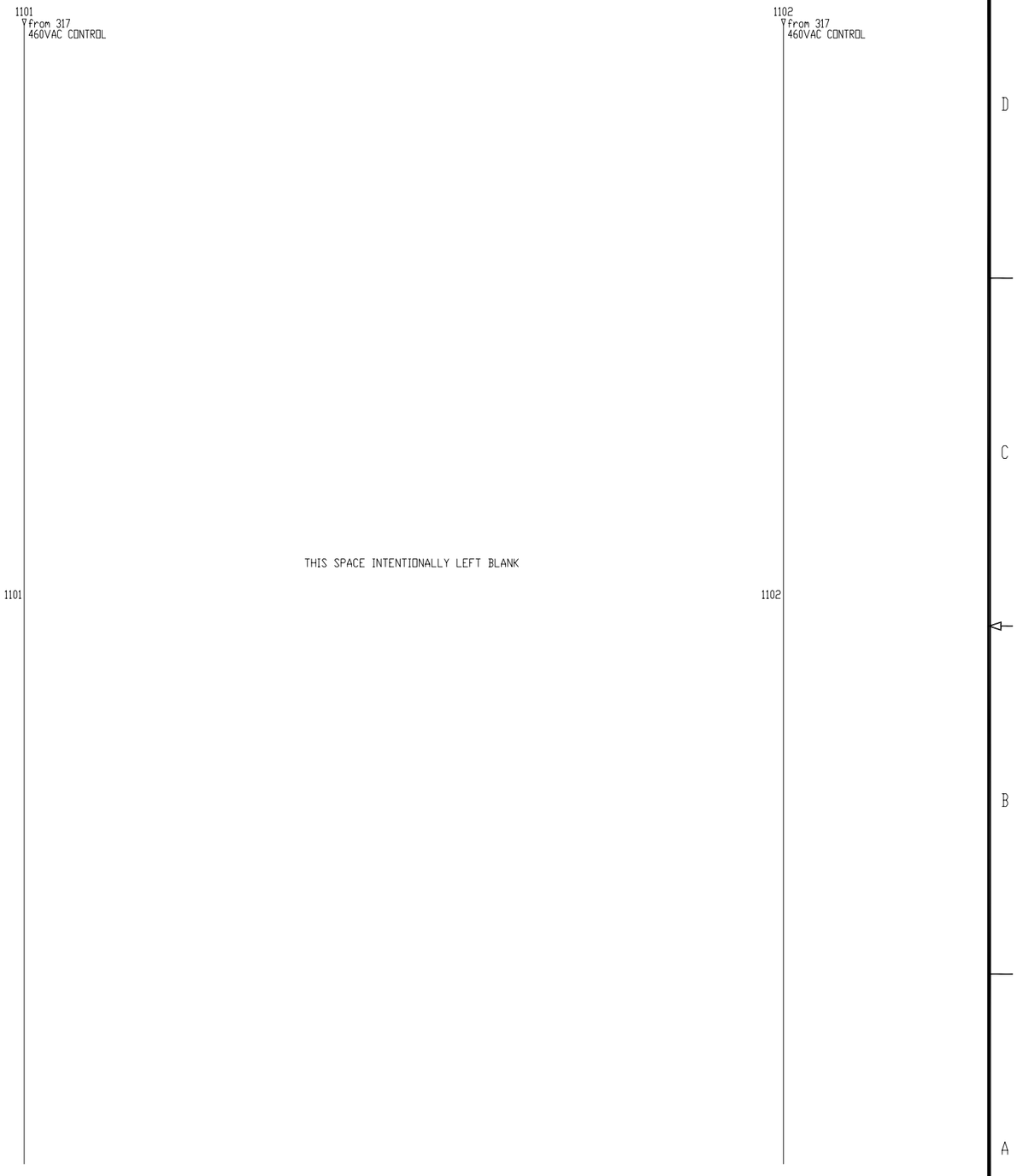
235

xxxx xxxxxxx xx xxx xxxxxxxxx xx xxxxxxxx xxxxxxxxx xx xxx xxxxxxxxxxxx xxxxxxxxx xxxxx xx xxxxxxxxxxx xxx xxx xxxxxx xxxxxx xx xxxxxxxxx	***XXXXXX_XXXX*** ***XXXXXX***	CONNECTED COMPONENTS BUILDING BLOCKS POSITION POWER DISTRIBUTION	DWN xx DATE 10-17-08 DWG NO EXAMPLE DWG REV XX SHEET 2 OF XX CUST

CAD PART CCBB_POS_460_2_POWER_DISTRIBUTION.DWG

LAYERING SELECT: ECHO





NOTES:
1. ALL WIRES TO BE xxxV, xx*, xxx.
2. OBSERVE DIRTY/CLEAN WIRING PRACTICES.
3. Dx/Cx MARKERS INDICATE WIRE WAY ROUTING FOR THE SELECTED WIRES (Dx = DIRTY, Cx = CLEAN)
4. ALL WIRES ARE #xx AWG, UNLESS OTHERWISE NOTED.
5. ALL WIRES ARE xxx, UNLESS OTHERWISE NOTED.
6. ALL GROUND WIRES ARE #xx AWG xxxxxx, UNLESS OTHERWISE NOTED.

xxxx xxxxxxx xx xxx xxxxxxxxx xx xxxxxxxx xxxxxxxxxx xx xxx xxxxxxxxxxx xxxxxxxxx xxxxx xx xxxxxxxxxxx xxx xxx xxxxxx xxxxxx xx xxxxxxxxx	***XXXXXX_XXXX*** ***XXXXXX***	CONNECTED COMPONENTS BUILDING BLOCKS POSITION 460VAC CONTROL	DWN xx DATE 10-17-08 DWG NO EXAMPLE DWG REV XX CUST SHEET 3 OF XX

CAD PART CCBB_POS_460_3_460VAC_CONTROL.DWG

LAYERING SELECT: ECHO

1024
from 105
277VAC CONTROL

1053
from 106
NEUTRAL

1024
from 417
277VAC CONTROL

1053
from 417
NEUTRAL

400
401
402
403
404
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407
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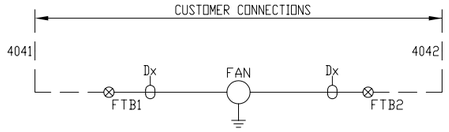

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1024
277VAC CONTROL
to 418

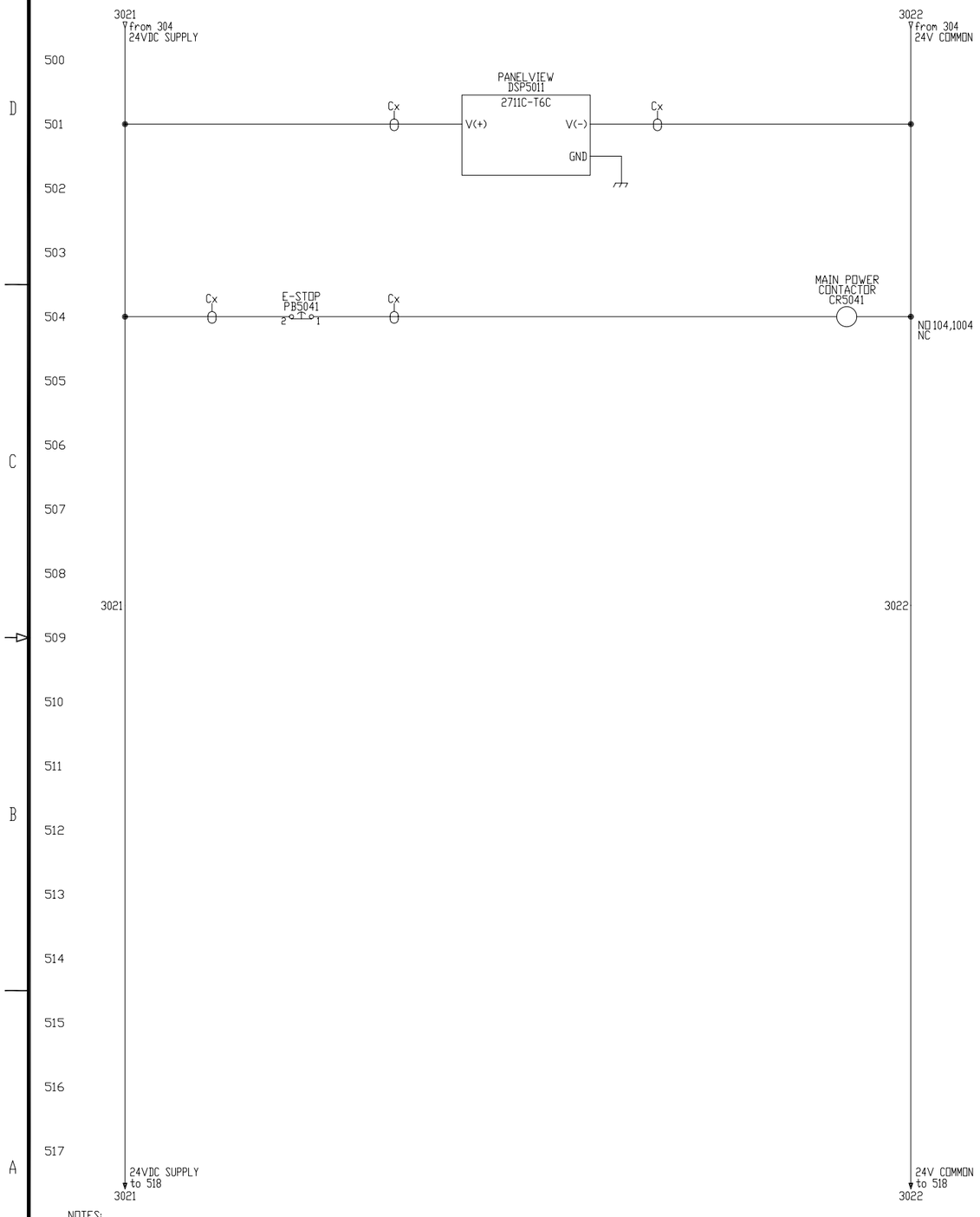
1053
NEUTRAL
to 418

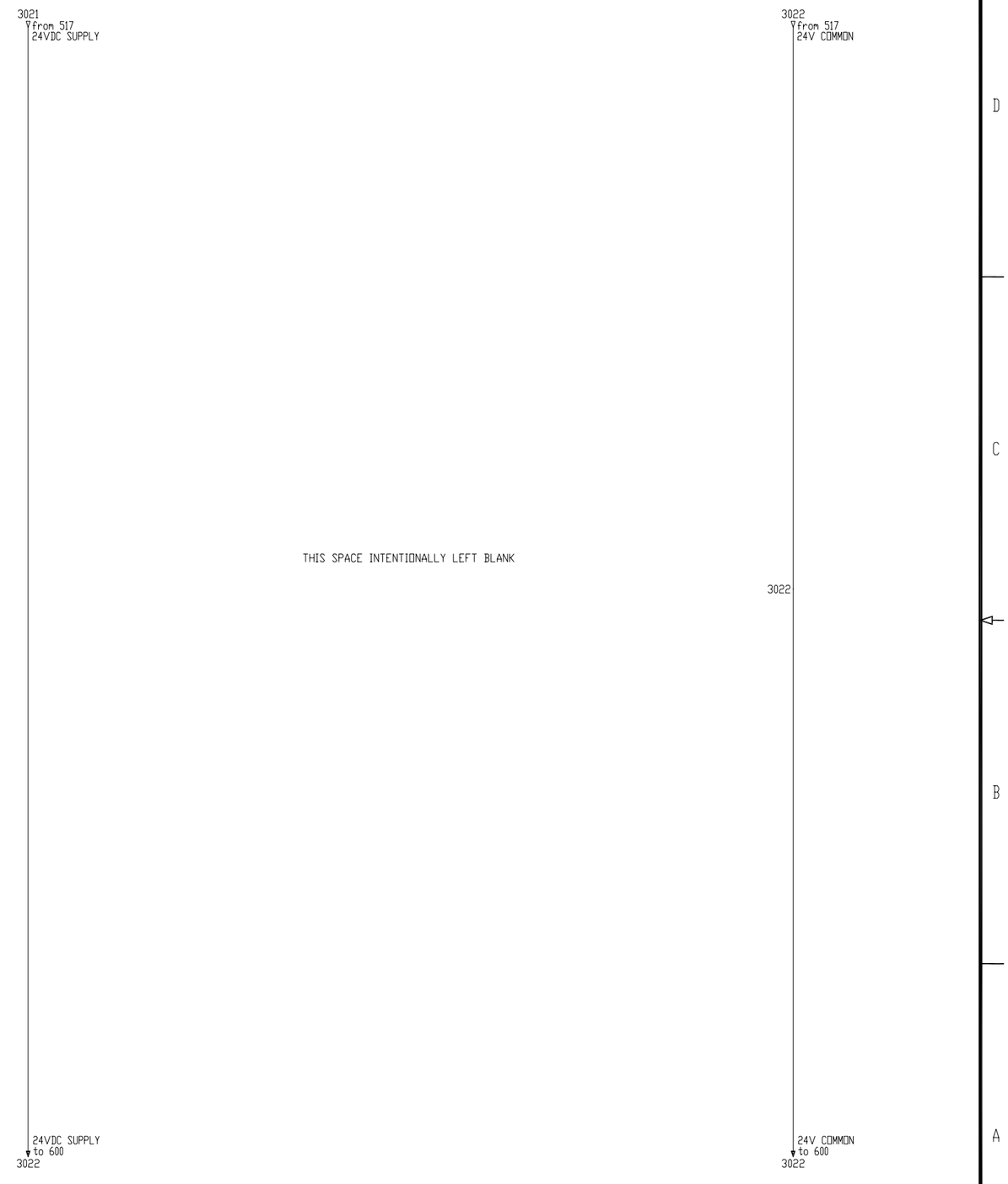
NOTES:
1. ALL WIRES TO BE xxxV, xx*, xxx.
2. OBSERVE DIRTY/CLEAN WIRING PRACTICES.
3. Dx/Cx MARKERS INDICATE WIRE WAY ROUTING FOR THE SELECTED WIRES (Dx = DIRTY, Cx = CLEAN)
4. ALL WIRES ARE #xx AWG, UNLESS OTHERWISE NOTED.
5. ALL WIRES ARE xxx, UNLESS OTHERWISE NOTED.
6. ALL GROUND WIRES ARE #xx AWG xxxxxx, UNLESS OTHERWISE NOTED.

xxxx xxxxxxx xx xxx xxxxxxxxx xx xxxxxxxx xxxxxxxxx xx xxx xxxxxxxxxxxx xxxxxxxxx xxxxx xx xxxxxxxxxxxx xxx xxx xxxxxx xxxxxx xx xxxxxxxxx	***XXXXXX_XXXX*** ***XXXXXX***	CONNECTED COMPONENTS BUILDING BLOCKS POSITION 277VAC CONTROL	DWN xx DATE 10-17-08 DWG NO EXAMPLE DWG REV XX CUST SHEET 4 OF XX

CAD PART CCBB_POS_460_4_277VAC_CONTROL.DWG

LAYERING SELECT: ECHO





NOTES:
1. ALL WIRES TO BE xxxV, xx*, xxx.
2. OBSERVE DIRTY/CLEAN WIRING PRACTICES.
3. Dx/Cx MARKERS INDICATE WIRE WAY ROUTING FOR THE SELECTED WIRES (Dx = DIRTY, Cx = CLEAN)
4. ALL WIRES ARE #xx AWG, UNLESS OTHERWISE NOTED.
5. ALL WIRES ARE xxx, UNLESS OTHERWISE NOTED.
6. ALL GROUND WIRES ARE #xx AWG xxxxxx, UNLESS OTHERWISE NOTED.

xxxx xxxxxxx xx xxx xxxxxxxxx xx xxxxxxxx xxxxxxxxxx xx xxx xxxxxxxxxxxx xxxxxxxxx xxxxx xx xxxxxxxxxxx xxx xxx xxxxxx xxxxxx xx xxxxxxxxx	***XXXXXX_XXXX*** ***XXXXXX***	CONNECTED COMPONENTS BUILDING BLOCKS POSITION 24VDC CONTROL	DWN xx DATE 10-17-08 DWG NO EXAMPLE DWG REV XX CUST SHEET 5 OF XX

CAD PART CCBB_POS_460_5_24VDC_CONTROL.DWG

LAYERING SELECT: ECHO

3021
from 535
24VDC SUPPLY

???
from 535
24V COMMON

3021
from 617
24VDC SUPPLY

3022
from 617
24V COMMON

600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617

618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635

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3021

3022

24VDC SUPPLY
to 618
3021

24V COMMON
to 618
3021

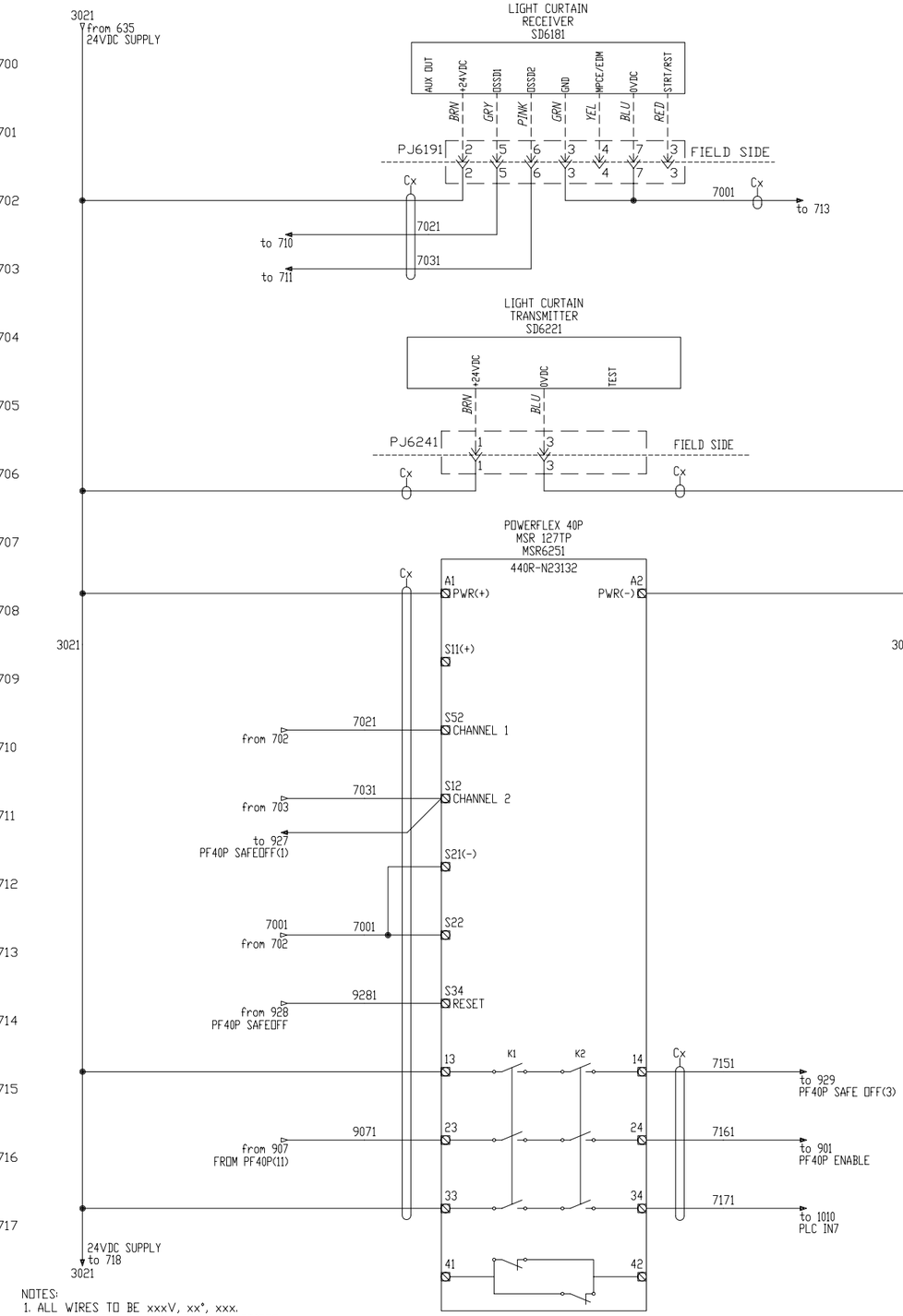
24VDC SUPPLY
to 700
3021

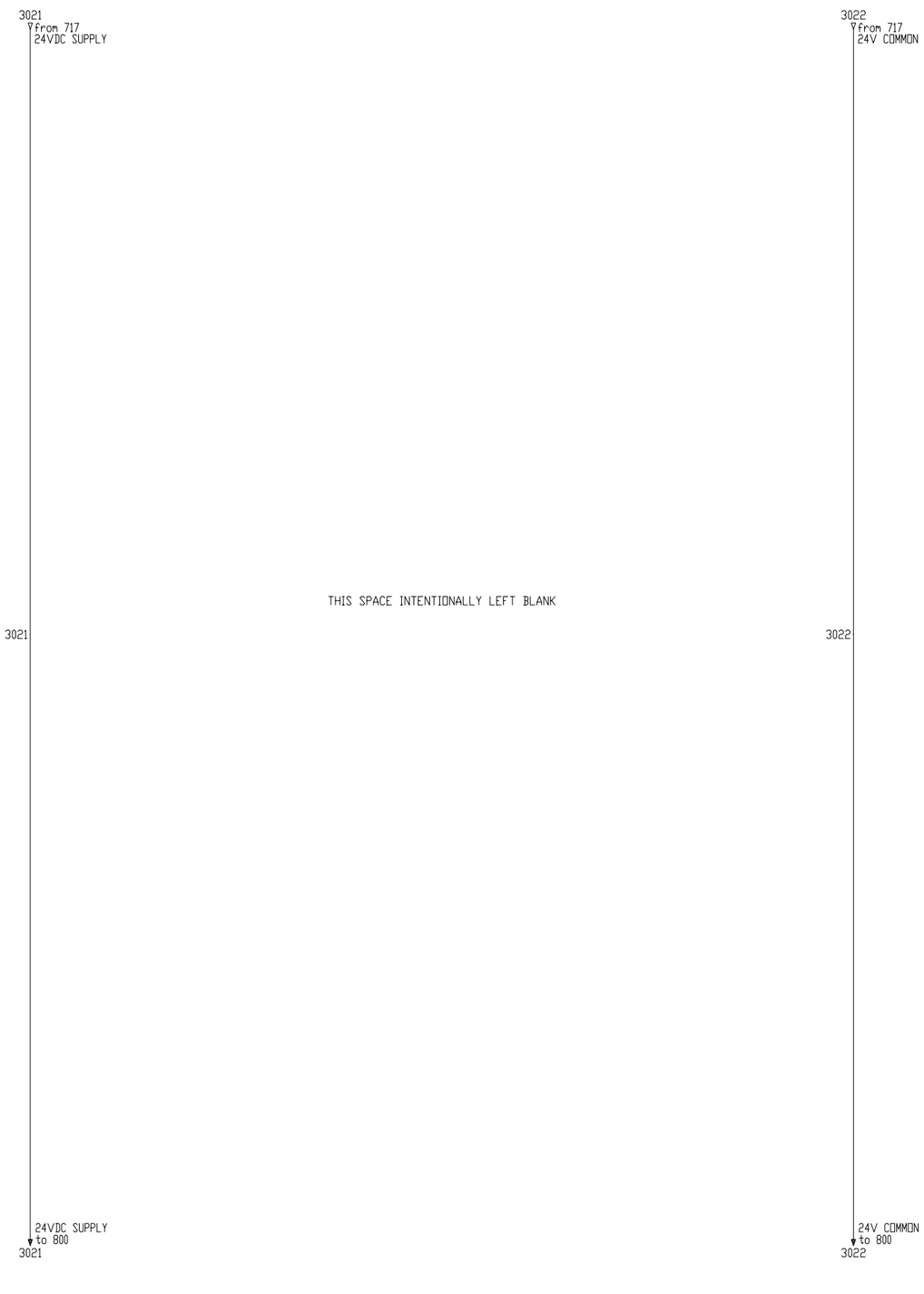
24V COMMON
to 700
3022

xxxx xxxxxxx xx xxx xxxxxxxxx xx xxxxxxxx xxxxxxxxx xx xxx xxxxxxxxxxxx xxxxxxxxx xxxxx xx xxxxxxxxxxxx xxx xxx xxxxxx xxxxxx xx xxxxxxxxx	**XXXXXX_XXXX** **XXXXXX**	CONNECTED COMPONENTS BUILDING BLOCKS POSITION SAFETY RELAYS	DWN xx DATE 10-17-08 DWG NO EXAMPLE DWG REV XX CUST SHEET 6 OF XX

CAD PART CCBB_POS_460_6_SAFETY_RELAYS.DWG

LAYERING SELECT: ECHO





NOTES:
1. ALL WIRES TO BE xxxV, xx°, xxx.
2. OBSERVE DIRTY/CLEAN WIRING PRACTICES.
3. Dx/Cx MARKERS INDICATE WIRE WAY ROUTING FOR THE SELECTED WIRES (Dx = DIRTY, Cx = CLEAN)
4. ALL WIRES ARE #xx AWG, UNLESS OTHERWISE NOTED.
5. ALL WIRES ARE xxx, UNLESS OTHERWISE NOTED.

xxxx xxxxxxx xx xxx xxxxxxxxx xx xxxxxxxx xxxxxxxxxx xx xxx xxxxxxxxxxxx xxxxxxxxx xxxxx xx xxxxxxxxxxx xxx xxx xxxxxx xxxxxx xx xxxxxxxxx	***XXXXXX_XXXX*** ***XXXXXX***	CONNECTED COMPONENTS BUILDING BLOCKS POSITION 24VDC CONTROL	DWN xx DATE 10-17-08 DWG NO EXAMPLE DWG REV XX SHEET 7 OF XX CUST

CAD PART CCBB_POS_460_7_24VDC_CONTROL.DWG

LAYERING SELECT: ECHO

3021
from 735
24VDC SUPPLY

3022
from 735
24V COMMON

800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817

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3021 3022

24VDC SUPPLY
to 818
3021

24V COMMON
to 818
3022

3021
from 817
24VDC SUPPLY

3022
from 817
24V COMMON

818
819
820
821
822
823
824
825
826
827
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829
830
831
832
833
834
835

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3021 3022

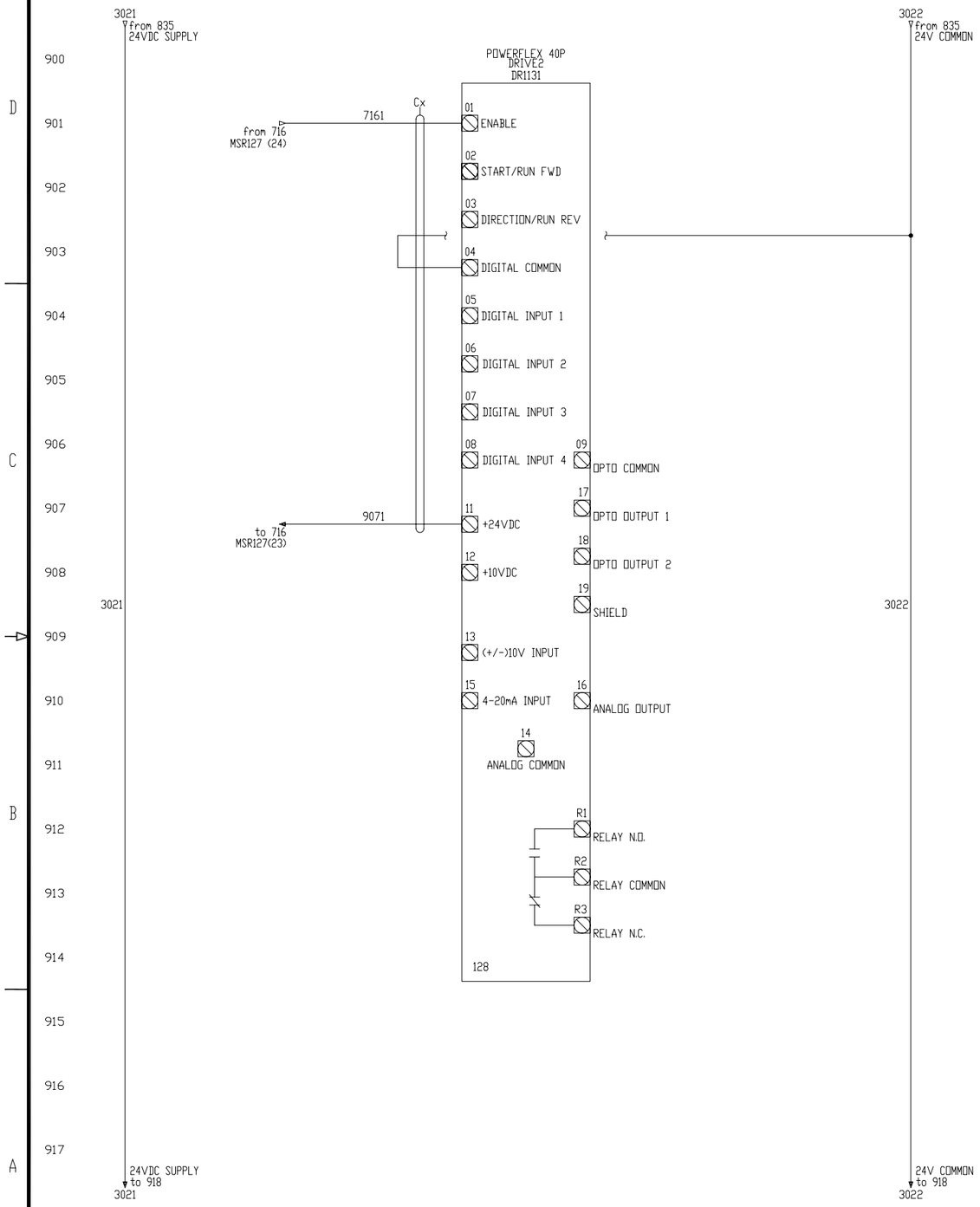
24VDC SUPPLY
??
3021

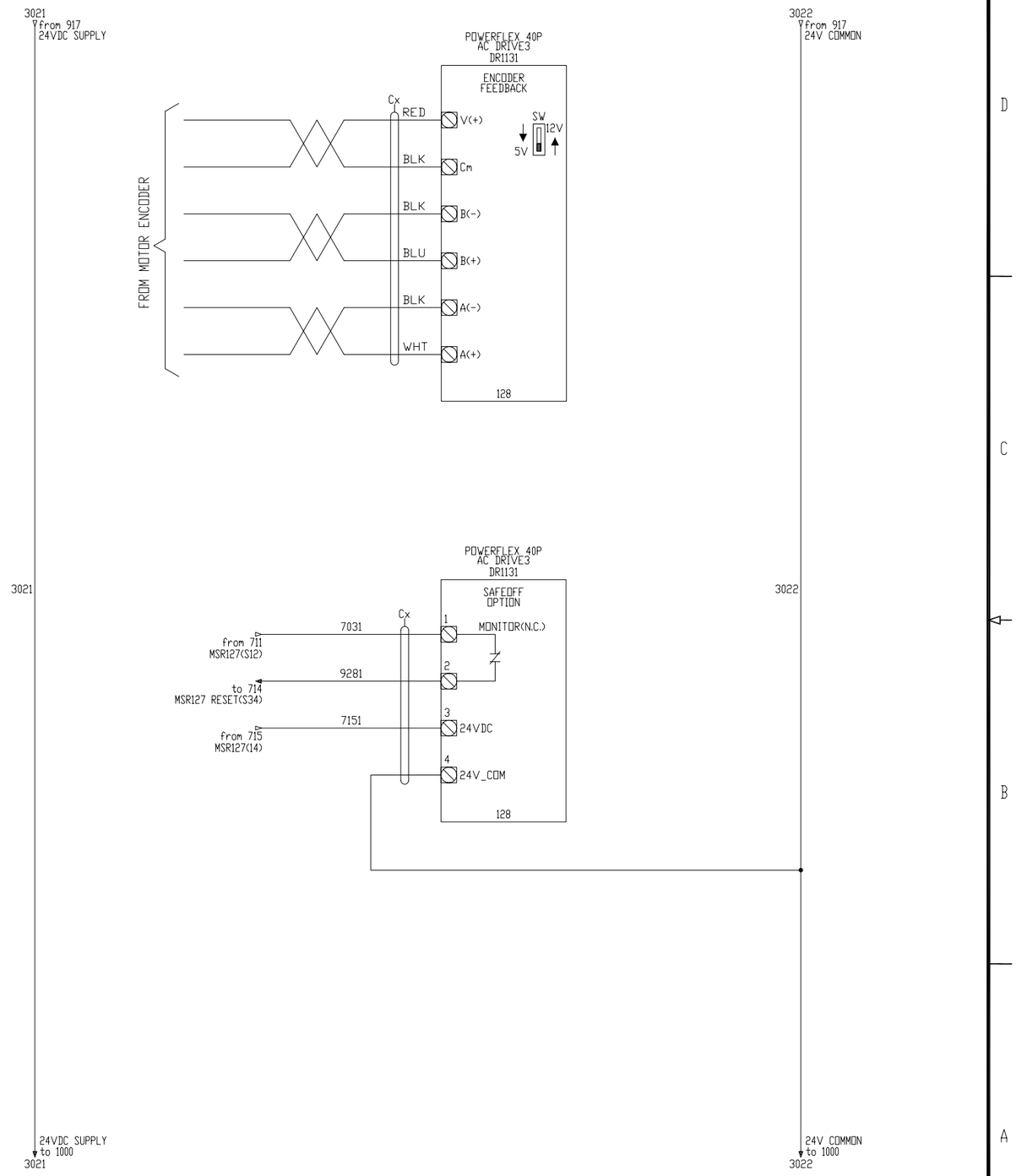
24V COMMON
??
3022

xxxx xxxxxxx xx xxx xxxxxxxxx xx xxxxxxxx xxxxxxxxx xx xxx xxxxxxxxxxx xxxxxxxxx xxxxx xx xxxxxxxxxxx xxx xxx xxxxxx xxxxxx xx xxxxxxxxx	***XXXXXX_XXXX*** ***XXXXXX***	CONNECTED COMPONENTS BUILDING BLOCKS POSITION DRIVES I/O	DWN xx DATE 10-17-08 DWG NO EXAMPLE DWG REV XX CUST SHEET 8 OF XX

CAD PART CCBB_POS_460_8_POWERFLEX_4M_IO.DWG

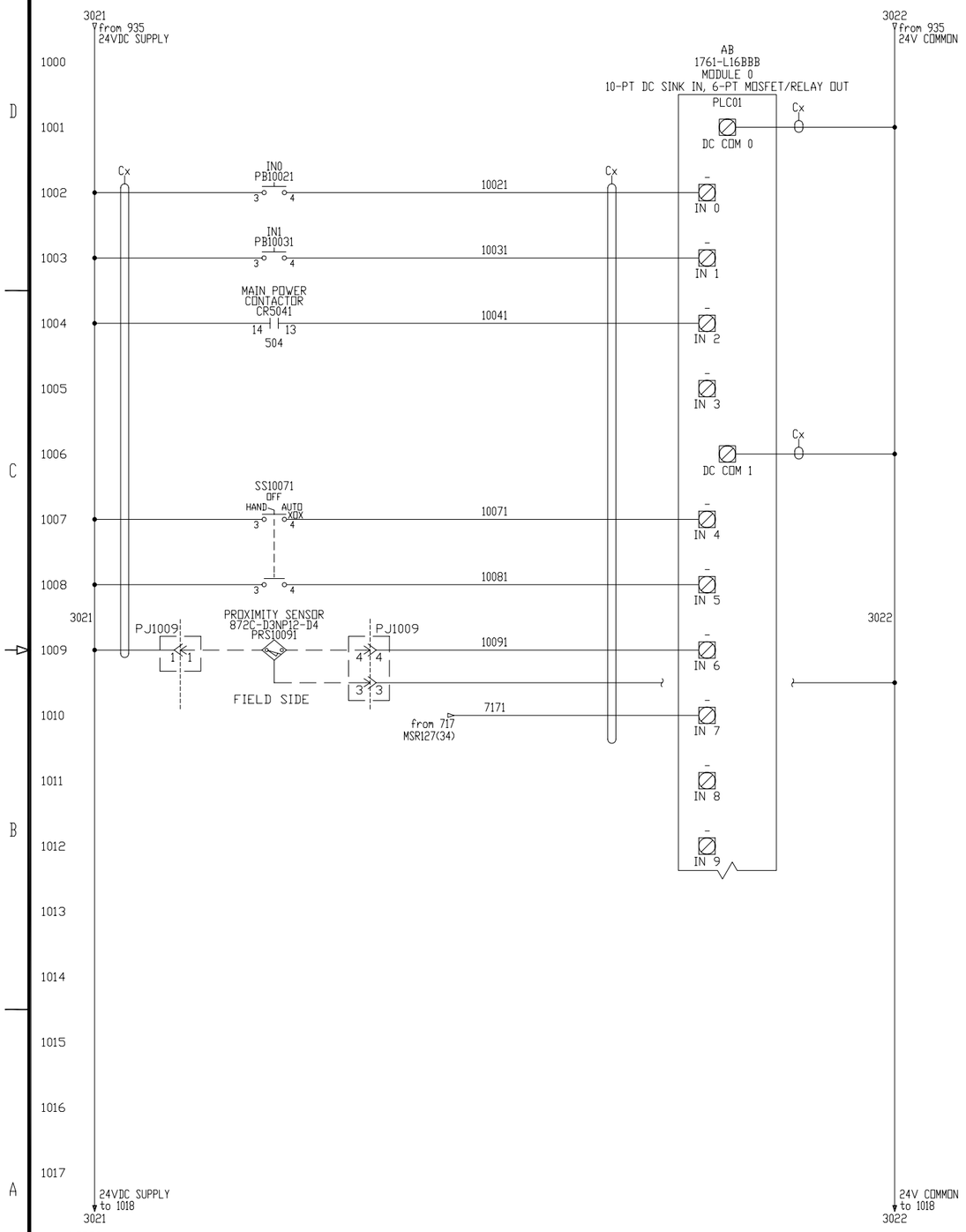
LAYERING
SELECT: ECHO

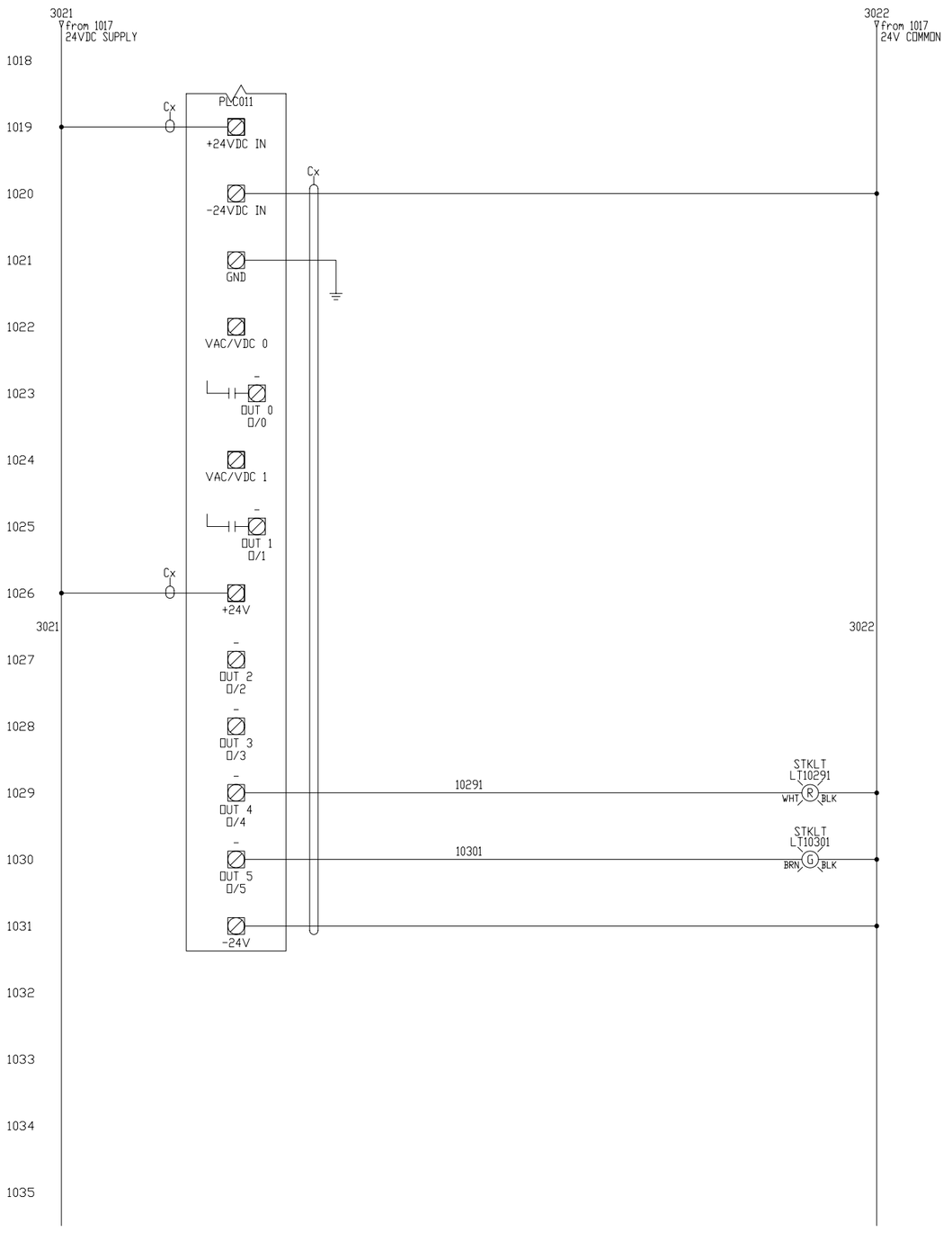




NOTES:
1. ALL WIRES TO BE xxxV, xx°, xxx.
2. OBSERVE DIRTY/CLEAN WIRING PRACTICES.
3. Dx/Cx MARKERS INDICATE WIRE WAY ROUTING FOR THE SELECTED WIRES (Dx = DIRTY, Cx = CLEAN)
4. ALL WIRES ARE #xx AWG, UNLESS OTHERWISE NOTED.
5. ALL WIRES ARE xxx, UNLESS OTHERWISE NOTED.
6. ALL GROUND WIRES ARE #xx AWG xxxxxx, UNLESS OTHERWISE NOTED.

xxxx xxxxxxx xx xxx xxxxxxxxx xx xxxxxxxx xxxxxxxxxx xx xxx xxxxxxxxxxx xxxxxxxxx xxxxx xx xxxxxxxxxxx xxx xxx xxxxxx xxxxxx xx xxxxxxxxxx	***XXXXXX_XXXX*** ***XXXXXX***	CONNECTED COMPONENTS BUILDING BLOCKS POSITION POWERFLEX 40P I/O	DWN xx DATE 10-17-08 DWG NO EXAMPLE DWG REV XX SHEET 9 OF XX CUST





NOTES:
1. ALL WIRES TO BE xxxV, xx*, xxx.
2. OBSERVE DIRTY/CLEAN WIRING PRACTICES.
3. Dx/Cx MARKERS INDICATE WIRE WAY ROUTING FOR THE SELECTED WIRES (Dx = DIRTY, Cx = CLEAN)
4. ALL WIRES ARE #xx AWG, UNLESS OTHERWISE NOTED.
5. ALL WIRES ARE xxx, UNLESS OTHERWISE NOTED.
6. ALL GROUND WIRES ARE #xx AWG xxxxxx, UNLESS OTHERWISE NOTED.

xxxx xxxxxxx xx xxx xxxxxxxxx xx xxxxxxxx xxxxxxxxx xx xxx xxxxxxxxxxx xxxxxxxx xxxxx xx xxxxxxxxxxx xxx xxx xxxxxx xxxxxx xx xxxxxxxxx	***XXXXXX_XXXX*** ***XXXXXX***	CONNECTED COMPONENTS BUILDING BLOCKS POSITION PLC I/O	DWN xx DATE 10-17-08 DWG NO EXAMPLE DWG REV XX CUST SHEET 10 OF XX

CAD PART CCBB_POS_460_10_PLC_IO.DWG
LAYERING SELECT: ECHO

1100
1101
1102
1103
1104
1105
1106
1107
1108
1109
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1111
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1113
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1116
1117

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1118
1119
1120
1121
1122
1123
1124
1125
1126
1127
1128
1129
1130
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1132
1133
1134
1135

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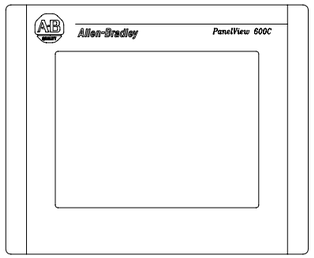
xxxx xxxxxxx xx xxx xxxxxxxxx xx xxxxxxxx xxxxxxxxx xx xxx xxxxxxxxxxxx xxxxxxxxx xxxxx xx xxxxxxxxxxx xxx xxx xxxxxx xxxxxx xx xxxxxxxxx	***XXXXXX_XXXX*** ***XXXXXX***	CONNECTED COMPONENTS BUILDING BLOCKS POSITION PLC I/O	DWN xx DATE 10-17-08 DWG NO EXAMPLE DWG REV XX CUST SHEET 11 OF XX

CAD PART CCBB_POS_460_11_PLC_IO.DWG

LAYERING SELECT: ECHO

HMI PANELVIEW 600C

2711C-T6C



2711P-CBL-EX04

MICROLOGIX 1100

1763-L16BBB

PLC01

ETHERNET PORT

RS232 PORT

PLC01

1763-NC01

GND	SHLD	COM	B	A	TERM

POWERFLEX

40P DRIVE

22D-D2P3N104

RS485 PORT

TXRXD-	TXRXD+

14	15	16

ADAPTER

AK-U0-RJ45-TB2P

WITH

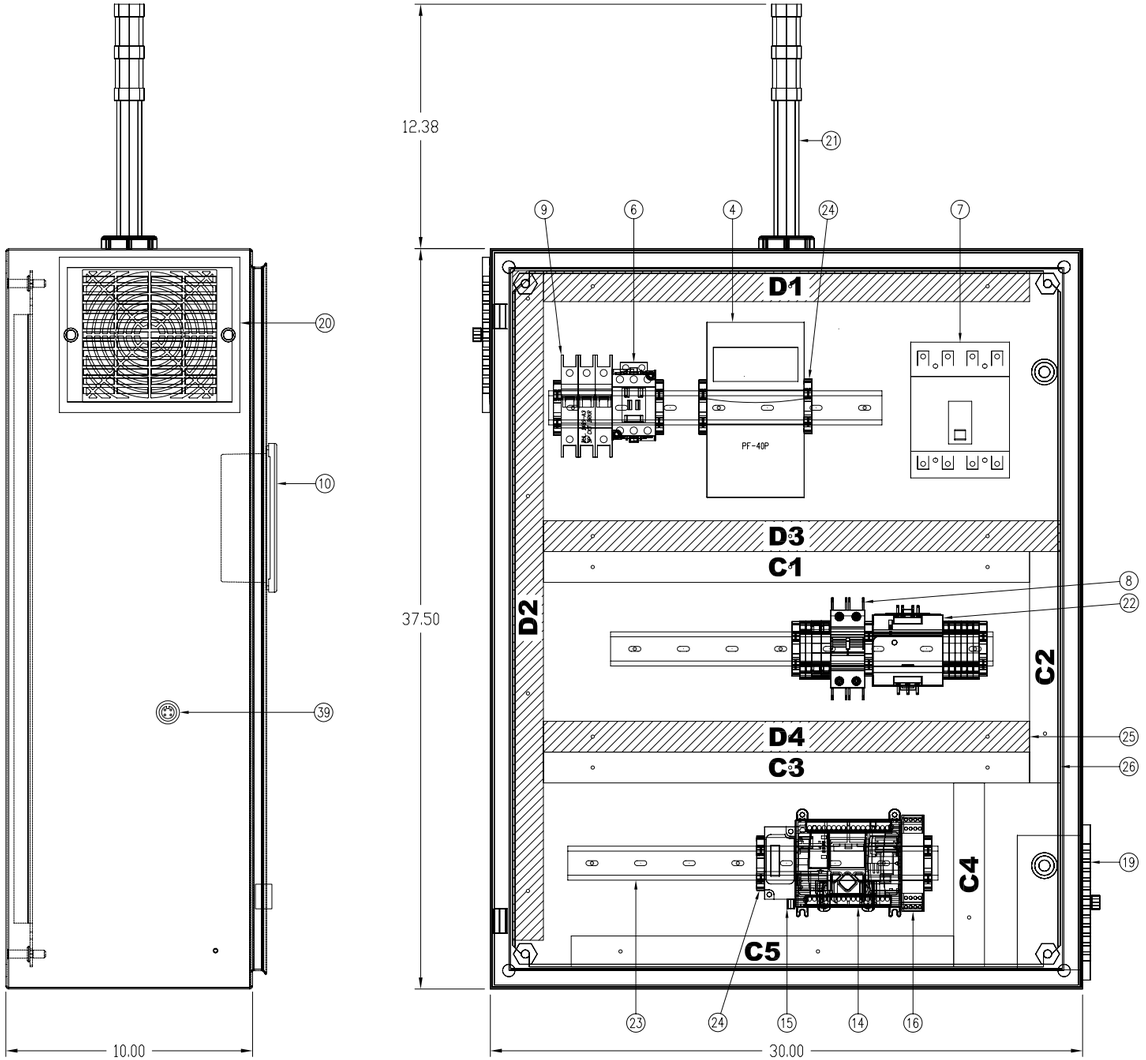
TERMINATING RESISTOR

USE BELDEN PART #3105A OR EQUIVALENT RS485 NETWORK CABLE

xxxx xxxxxxx xx xxx xxxxxxxxx xx xxxxxxxx xxxxxxxxxx xx xxx xxxxxxxxxxx xxxxxxxxx xxxxx xx xxxxxxxxxxx xxx xxx xxxxxx xxxxxx xx xxxxxxxxx	***XXXXXX_XXXX*** ***XXXXXX***	CONNECTED COMPONENTS BUILDING BLOCKS POSITION COMMUNICATION DIAGRAM	DWN xx DATE 10-17-08 DWG NO EXAMPLE DWG REV XX CUST SHEET 12 OF XX

CAD PART CCBB_POS_460_12_COMM_DIAGRAM.DWG

LAYERING SELECT: ECHO



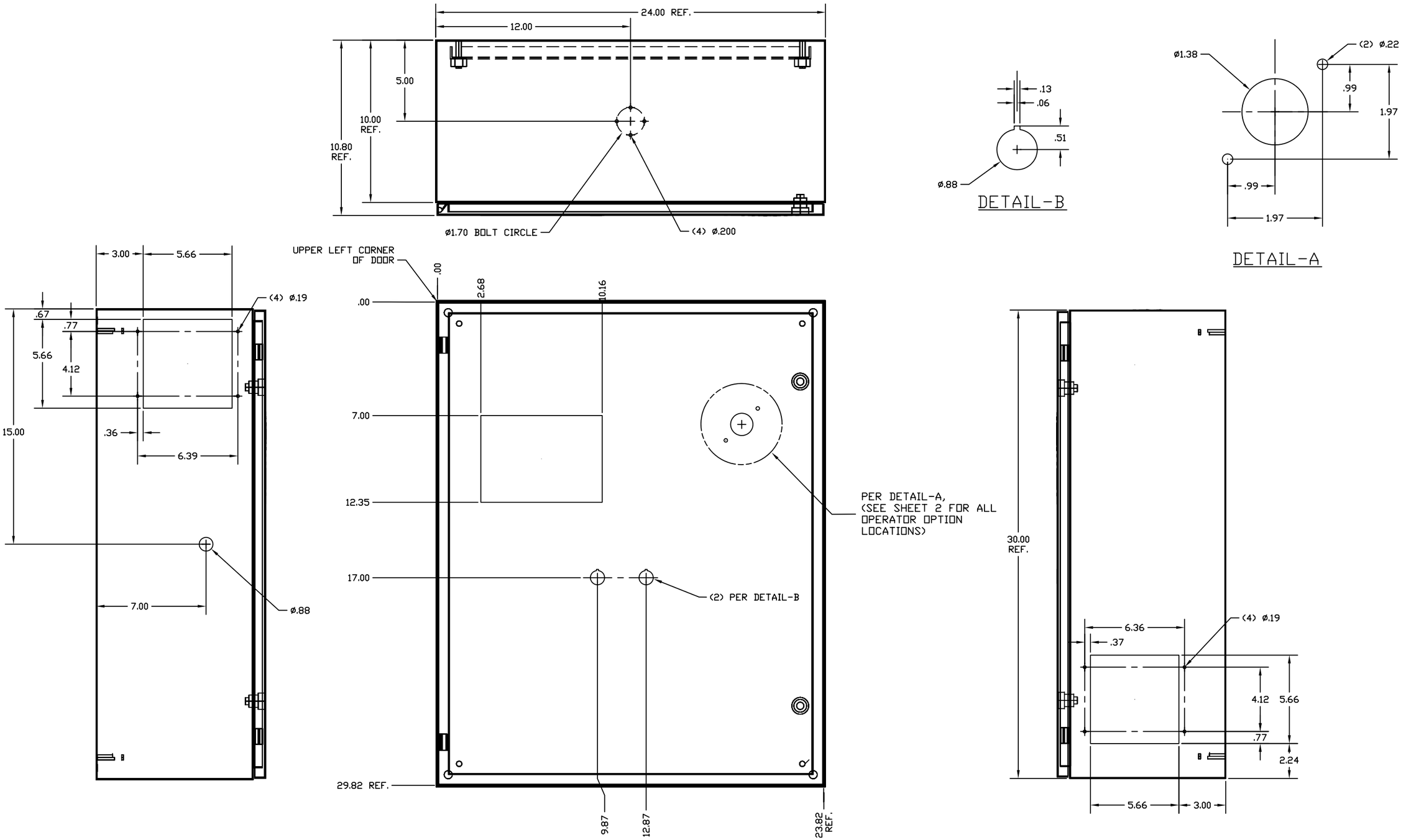
ITEM	QTY	DESCRIPTION	MFG	CATALOG
1	1	NEMA1 ENCLOSURE 30"x24"x10"	HOF	CSD302410
2	1	PANEL FOR ENCLOSURE 21"x22.5"	HOF	CP3024
3				
4	1	POWERFLEX-40P DRIVE 480VAC/2.3A/1HP	AB	22D-D2P3N104
5				
6	1	CONTACTOR MCS-C, IEC,37A, 24V DC, SINGLE PACK	AB	100-C40ZJ200
7	1	CIRCUIT BREAKER IEC, H-FRAME T/M 32 AMP	AB	140UE-H2E4-C32
8	1	CIRCUIT BREAKER 2 POLE 10 AMP 480/277VAC	AB	1489-A2D100
9	1	CIRCUIT BREAKER 3 POLE 7 AMP 480/277VAC	AB	1489-A3C070
10	1	6" COLOR (TRANSMISSIVE CSTN) TOUCHSCREEN	AB	2711C-T6C
11				
12				
13				
14	1	MICROLOGIX 1100, 24VDC POWER	AB	1763-L16BBB
15	1	CABLE MLX 1100 CH. 0(8-pin DIN) TO RS485(6-pin PHOENIX)	AB	1763-NC01
16	1	MSR 127 SAFETY RELAY	AB	440R-N23132
17				
18	1	STRATIX 6000 8 PORT ETHERNET SWITCH(1783-EMS08T)	AB	9300-8EDM
19	1	FAN KIT 115V WITH FILTER	HOFFMAN	TFP41
20	1	EXHAUST GRILL WITH FILTER	HOFFMAN	TEP4
21	1	STACKLIGHT 30mm S.M. 24VAC/DC GRN, RED LED	AB	885D-P00SC20G24Y3Y4
22	1	COMPACT POWER SUPPLY, 24VDC OUTPUT, 120/240VAC INPUT	AB	1606-XLP95E
23	3	35mm DIN RAIL	AB	199-DR1
24	9	END ANCHOR USED w/STANDARD 35mm DIN	AB	1492-EAJ35
25	–	PANDUIT WIRE DUCT, 1"x4" GRAY	PANDUIT	F1X4LG6
26	–	PANDUIT WIRE DUCT COVER, 1" GRAY	PANDUIT	C1LG6
27	–	PANDUIT WIRE DUCT, 1" x4" WHITE	PANDUIT	F1X4WH6
28	–	PANDUIT WIRE DUCT COVER, 1" WHITE	PANDUIT	C1WH6
29	1	3 POS. SELECTOR SWITCH, MAINTAINED, BLACK	AB	800FP-SM32
30	1	MUSHROOM HEAD PUSHBUTTON, TWIST TO RELEASE	AB	800FP-MT44
31	1	E-STOP LEGEND PLATE	AB	800F-15YE112
32	1	SELECTOR SWITCH LEGEND PLATE, AUTO-OFF-HAND	AB	800F-11WE104
33	1	PUSHBUTTON, EXTENDED HEAD, RED	AB	800FP-E405
34	1	PUSHBUTTON, FLUSH HEAD, GREEN	AB	800FP-F306
35	4	CONTACT BLOCK, N.O.	AB	800F-X10
36	2	CONTACT BLOCK, N.C.	AB	800F-X01
37	4	PLASTIC MOUNTING LATCH	AB	800F-ALP
38	1	CIRCUIT BREAKER OPERATOR W/ROD	AB	140U-H-RVM12R
39	1	RECEPTACLE (M12), FEMALE, STRAIGHT, 4 PIN, 22AWG	AB	888D-F4AC1-1

NOTES:
1. WIREWAYS MARKED Cx/Dx INDICATE CLEAN/DIRTY SIGNAL/POWER
2. FOR FURTHER INFORMATION ON SYSTEM DESIGN FOR CONTROL OF ELECTRICAL NOISE SEE ROCKWELL PUBLICATION #GMC RM001_-EN-P

xxxx xxxxxxx xx xxx xxxxxxxxx xx xxxxxxx xxxxxxxxx xx xxx xxxxxxxxxxx xxxxxxxx xxxxx xx xxxxxxxxxxx xxx xxx xxxxxx xxxxxx xx xxxxxxxxx	***XXXXXX_XXXX*** ***XXXXXX***	CONNECTED COMPONENTS BUILDING BLOCKS POSITION PANEL LAYOUT

DWN xx | DATE 10-17-08
DWG NO EXAMPLE | DWG REV XX
CUST | SHEET 13 OF XX

CAD PART CCBB_POS_460_13_PANEL_LAYOUT.DWG
LAYERING SELECT: ECHO:



DOOR MODIFICATION

PART NO.	CHG. CHAR.	MATERIAL	SURFACE TREATMENT
-01	1	HOFFMAN PART CSD302410	ANSI 61 GRAY

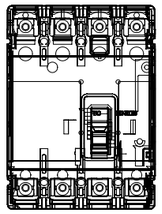
XXXX XXXXXXX XX XXX XXXXXXXXX XX XXXXXXX XXXXXXXXX XX XXX XXXXXXXXXXX XXXXXXXX XXXXX XX XXXXXXXXXXX XXX XXX XXXXXX XXXXXX XX XXXXXXXXX	XXXXXX_XXXX XXXXXX	CONNECTED COMPONENTS BUILDING BLOCKS POSITION ENCLOSURE DOOR LAYOUT	DWN XX DATE 10-17-08 DWG NO EXAMPLE DWG REV XX SHEET 14 OF XX

CAD PART CCBB_POS_460_14_ENCLOSURE_DOOR_LAYOUT.DWG

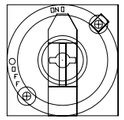
LAYERING SELECT: ECHO

ADDITIONAL PARTS LIST

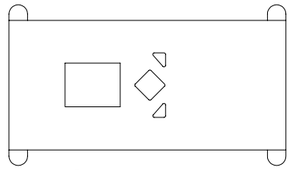
ITEM	DESCRIPTION	MFG	CATALOG
50	ROTARY VARIABLE DEPTH MECHANISM	AB	140U-RVM12R
51	"F" FRAME CIRCUIT BREAKER	AB	140UE-H2EA-C32
52	30A FUSED DISCONNECT	AB	194R-C30-1753
53	60A FUSED DISCONNECT	AB	194R-D32/D63-1753
54	MICROLOGIX 1400, 24VDC, DIGITAL I/O, ANALOG I/O, ETHERNET	AB	1766-L32BXBA
55	STRATIX 6000, 8 PORT ETHERNET SWITCH	AB	9300-8EDM
56	REMOTE ACCESS ETHERNET SWITCH	AB	9300-RADES
57	STRATIX 6000 SWITCH, ENTRY-LEVEL MANAGED, 8-PORT	AB	1783-EMS08T
58	STRATIX 2000 SWITCH, UNMANAGED, 5-COPPER PORTS	AB	1783-US05T



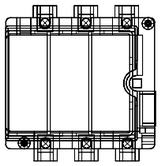
(51) "F" FRAME CIRCUIT BREAKER



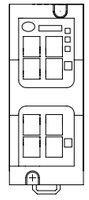
(50) ROTARY VARIABLE DEPTH MECHANISM



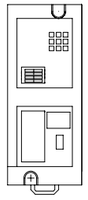
(54) MICROLOGIX 1400



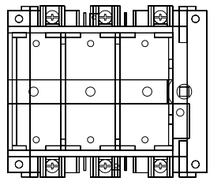
(52) 30A FUSED DISCONNECT



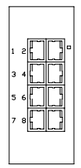
(55) ETHERNET SWITCH



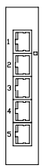
(56) REMOTE ACCESS ETHERNET SWITCH



(53) 60A FUSED DISCONNECT



(57) ETHERNET SWITCH



(58) ETHERNET SWITCH

XXXX XXXXXXX XX XXX XXXXXXXXX XX XXXXXXXX XXXXXXXXX XX XXX XXXXXXXXXXX XXXXXXXXX XXXXX XX XXXXXXXXXXX XXX XXX XXXXXX XXXXXX XX XXXXXXXXX	***XXXXXX_XXXX*** ***XXXXXX***	CONNECTED COMPONENTS BUILDING BLOCKS POSITION ADDITIONAL PARTS	DWN XX DATE 11-07-08 DWG NO EXAMPLE DWG REV XX CUST SHEET 15 OF XX

CAD PART CCBB_POS_460_15_ADDITIONAL_PARTS.DWG

LAYERING SELECT: ECHO