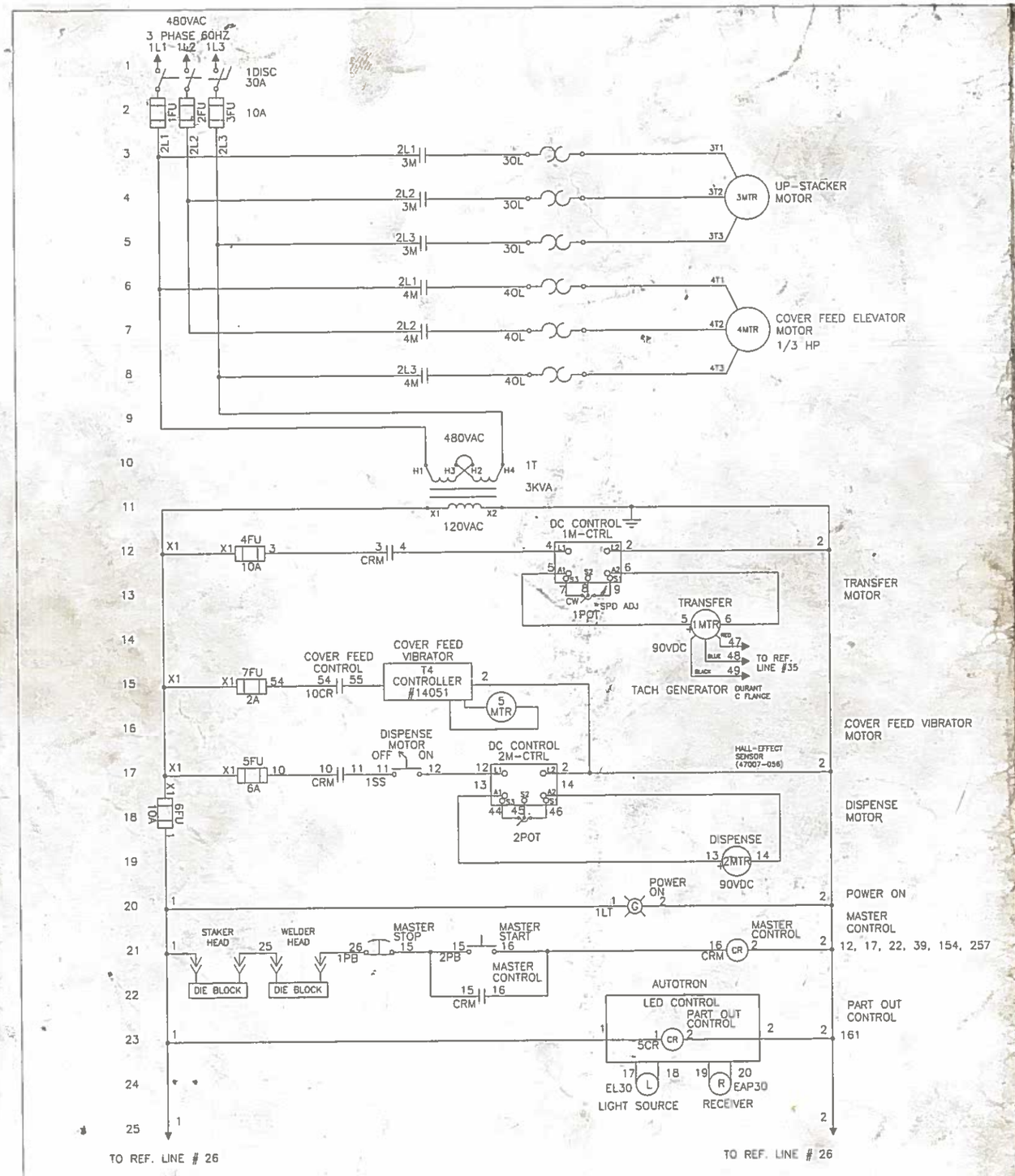

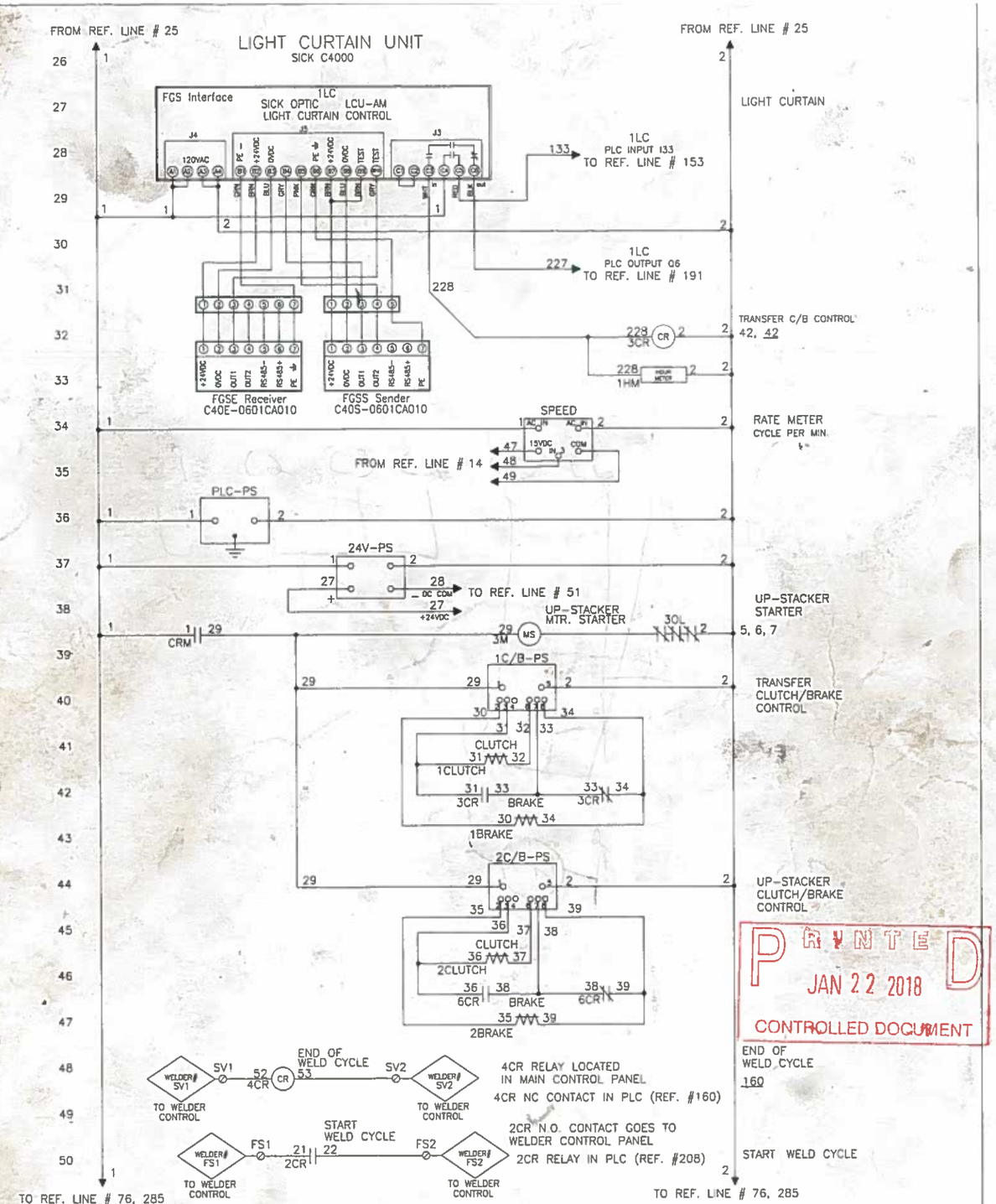

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CONTROLLED DOCUMENT

LAST WIRE NUMBER USED: 55
WIRE #23, 24, 229, 230, 231 ARE SPARES

LET.	DESCRIPTION OF REVISION	DATE	BY
G	Cover Feeder Control (4MTR & T4 Drive) added.	12/2/13	SG

LET.	DESCRIPTION OF REVISION	DATE	BY
F	Light Curtain replaced with Sick C4000. 1HM ADDED. 3CR MOVED FROM SHEET 4. 8&9CR NOT USED.	11/1/10	SG
E	TOTAL SHEET # CHANGED.	8/14/08	SG
D	TITLE BLOCK CHANGED TO B-SIZE.	11/8/05	SG
C	2 DIE BLOCKS ADDED.	3/31/98	SG
B	7CR CONTACT REPLACED W/ 1SS ON REF #16.	2/17/98	SG
A	ADDED SEQUENCER.	5/28/97	SG

CHAMPION LABORATORIES, INC.
A JCI Company
800 E. Old Street
Albion, Illinois 62806

PROCESS TECHNOLOGY

MOTOR CONTROL

NAME: AUTO WELDER #1 NORTH
A# 6303
Dept. 274

SCALE	NONE		ELECTRICAL PRINT
DWG	S.G.	4/9/97	SHEET NO. 1 OF 11
CKD	G.K.	12/9/13	NUMBER 3A-03976-001-B REV. G
APVD	K.M.	12/9/13	

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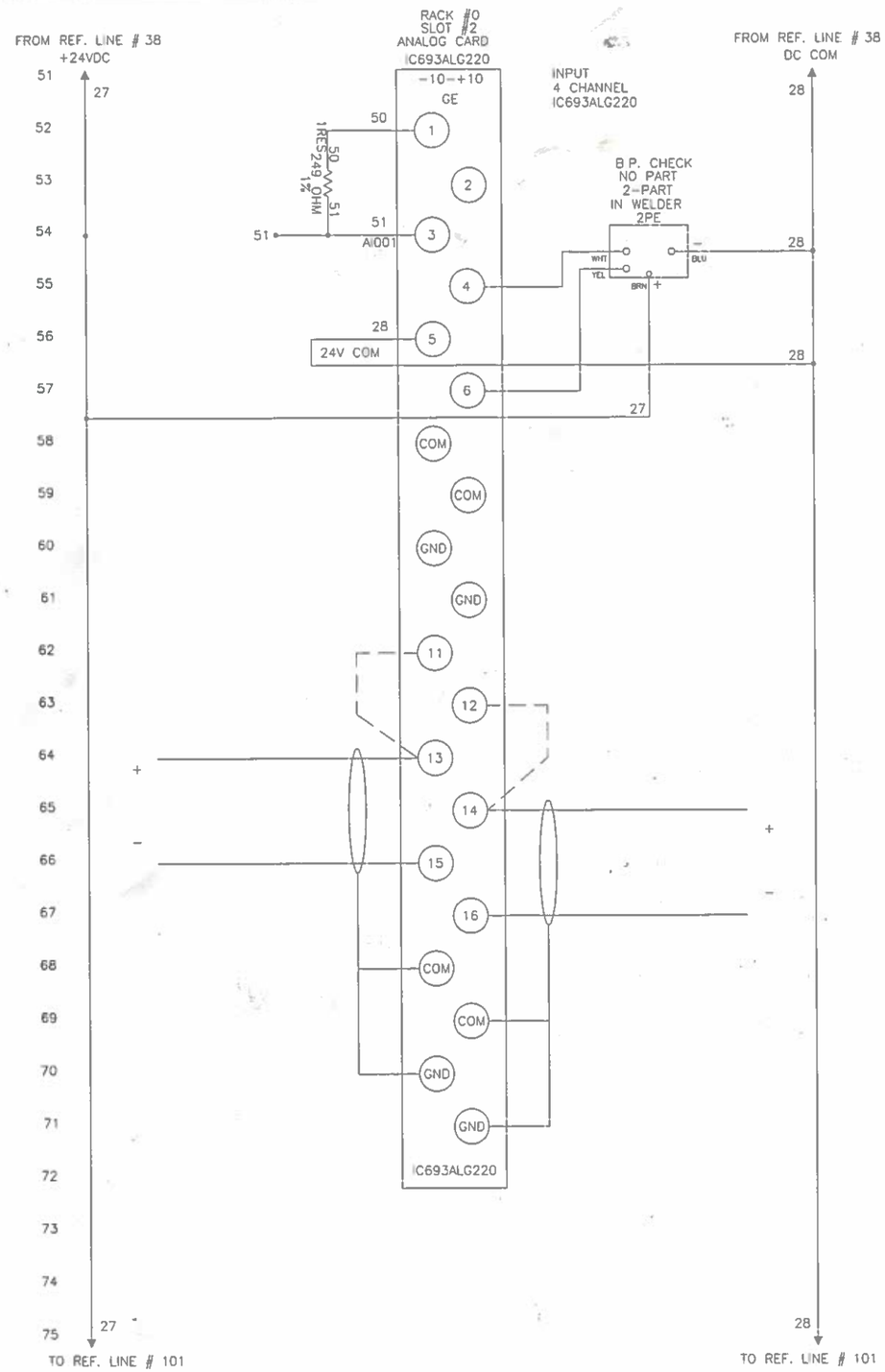

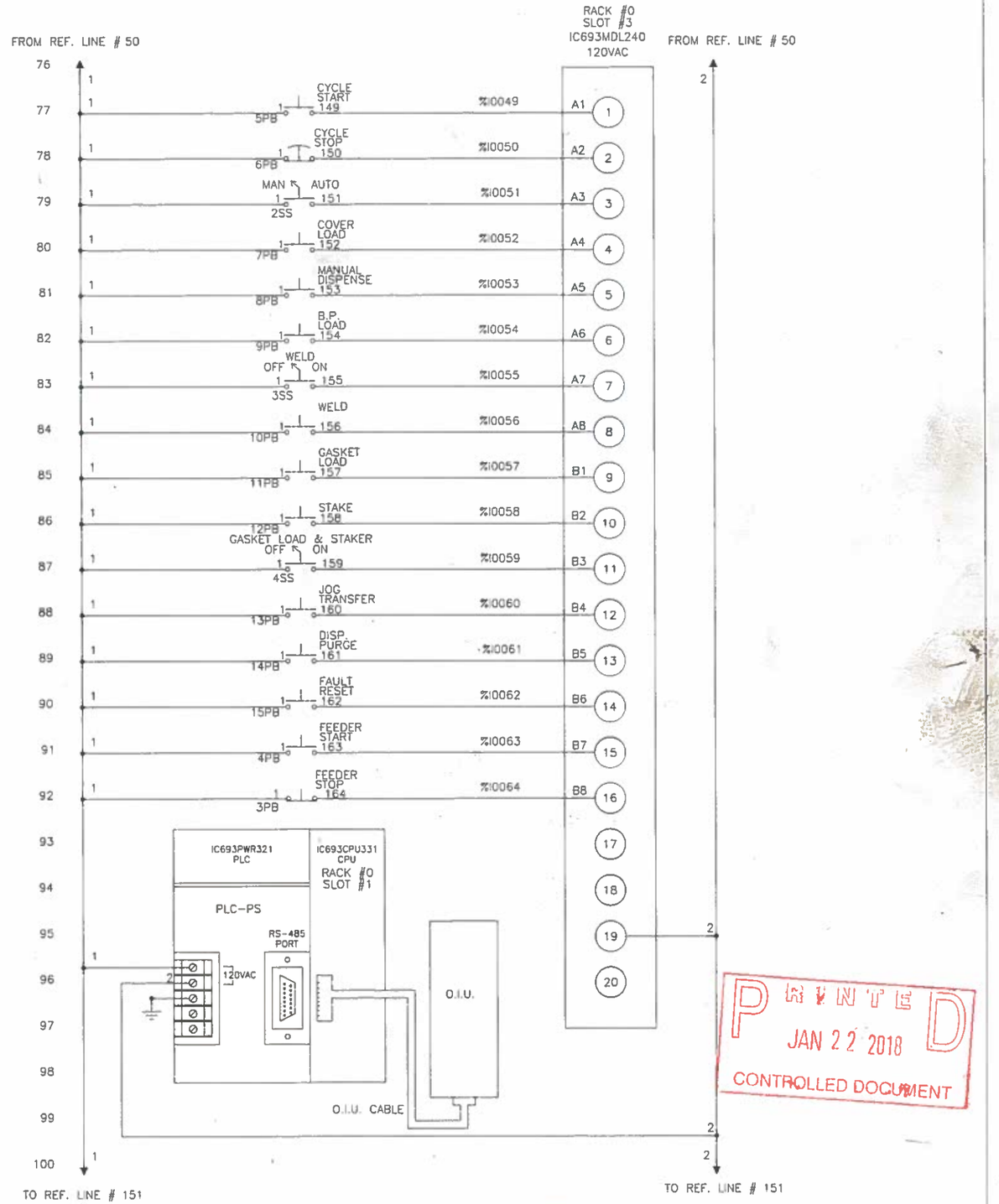

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LET.	DESCRIPTION OF REVISION	DATE	BY
G	20PX (THREAD CHECK ANALOG SENSOR) REMOVED.	3/7/17	SG

LET.	DESCRIPTION OF REVISION	DATE	BY
F	2PE DESCRIPTION MODIFIED.	12/2/13	SG
E	2PE ADDED TO AI2.	4/29/08	SG
D	TOTAL SHEET # CHANGED.	8/14/06	SG
C	TITLE BLOCK CHANGED TO B-SIZE.	11/8/05	SG
B	CMM CARD REPLACED WITH INPUT CARD 8 ON SLOT#3. ALL PB & SS ADDED. O.I.U. ADDED TO SLOT#1	2/17/98	SG
A	ADDED SEQUENCER.	5/28/97	SG

CHAMPION LABORATORIES, INC.
A BTC COMPANY
800 E. IVY STREET
ALBION, ILLINOIS 62806

PROCESS TECHNOLOGY

RACK#0, SLOT#2: AI1 ~ AI4
RACK#0, SLOT#3: I49 ~ I64
RACK#0, SLOT#1: O.I.U.

NAME: AUTO WELDER #1 NORTH
A# 6303
Dept. 274

SCALE	NONE		ELECTRICAL PRINT
DWG	S.G.	4/9/97	SHEET NO. 2 OF 11
CKD	K.M.	3/20/17	NUMBER 3A-03976-002-B REV G
APVD	G.K.	3/20/17	

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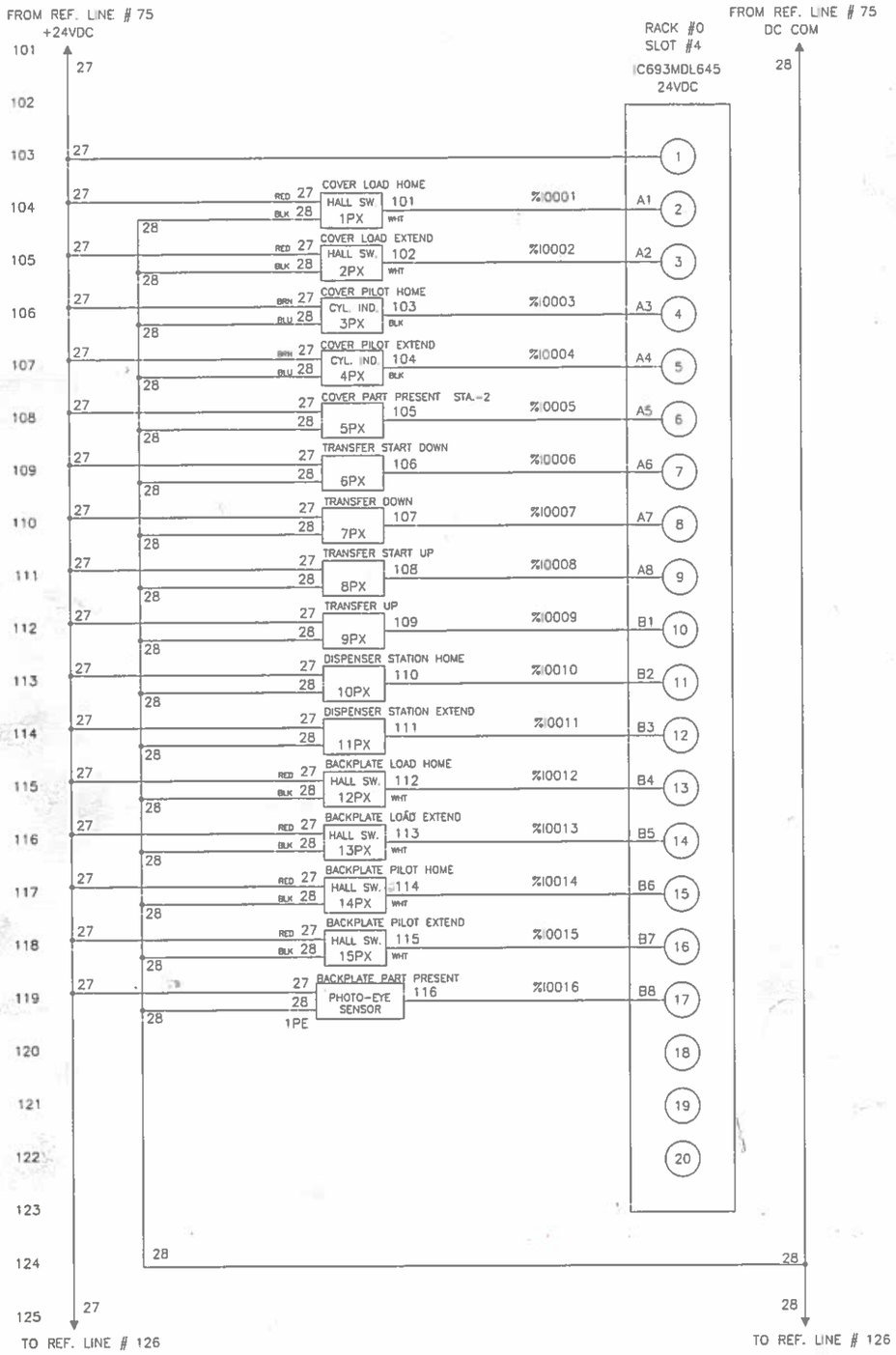

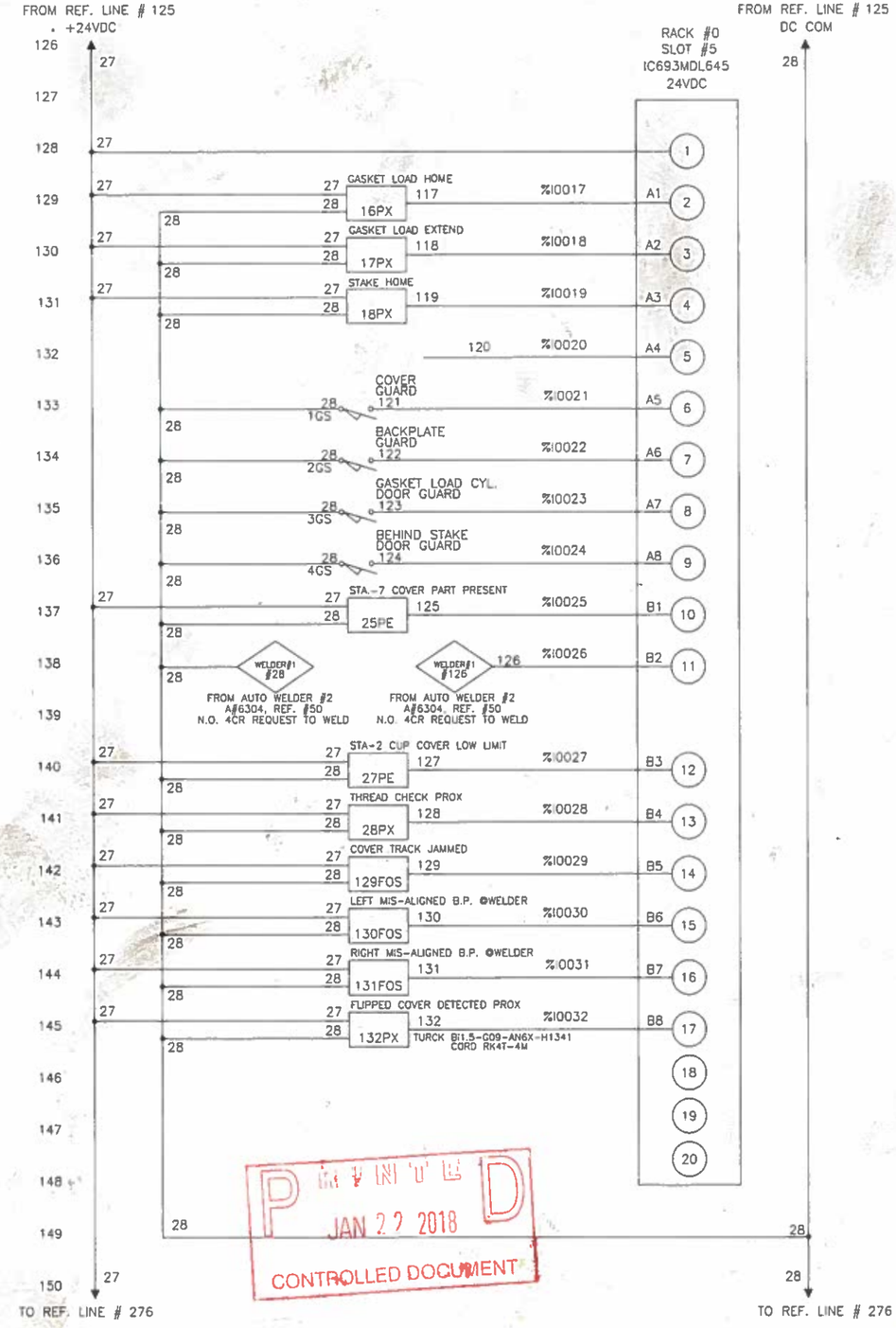

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LET	DESCRIPTION OF REVISION	DATE	BY
I	132PX ADDED.	12/20/17	SG
H	28PX, 129~131FOS ADDED.	3/7/17	SG

LET	DESCRIPTION OF REVISION	DATE	BY
G	23PX DESCRIPTION CORRECTD.	12/2/13	SG
F	23PX ADDED TO 127.	4/29/08	SG
E	TOTAL SHEET # CHANGED.	8/14/06	SG
D	TITLE BLOCK CHANGED TO B-SIZE.	11/8/05	SG
C	19PX (UP STACKER PART CHECK) REMOVED FROM 120.	1/16/02	SG
B	4CR LABEL MODIFIED ON REF.#138.	2/17/98	SG
A	ADDED SEQUENCER.	5/28/97	SG

CHAMPION LABORATORIES, INC.
A PPG Company
500 E. 4TH STREET
ALBION, ILLINOIS 62806

PROCESS TECHNOLOGY

RACK#0, SLOT#4: I1 ~ I16
RACK#0, SLOT#5: I17 ~ I32

NAME
AUTO WELDER #1 NORTH
A# 6303
Dept. 274

SCALE	NONE		ELECTRICAL PRINT
DWG	S.G.	4/9/97	SHEET NO. 3 OF 11
CKD	M.JH	12/20/17	NUMBER 3A-03976-003-B REV. I
APVD	K.M.	12/22/17	

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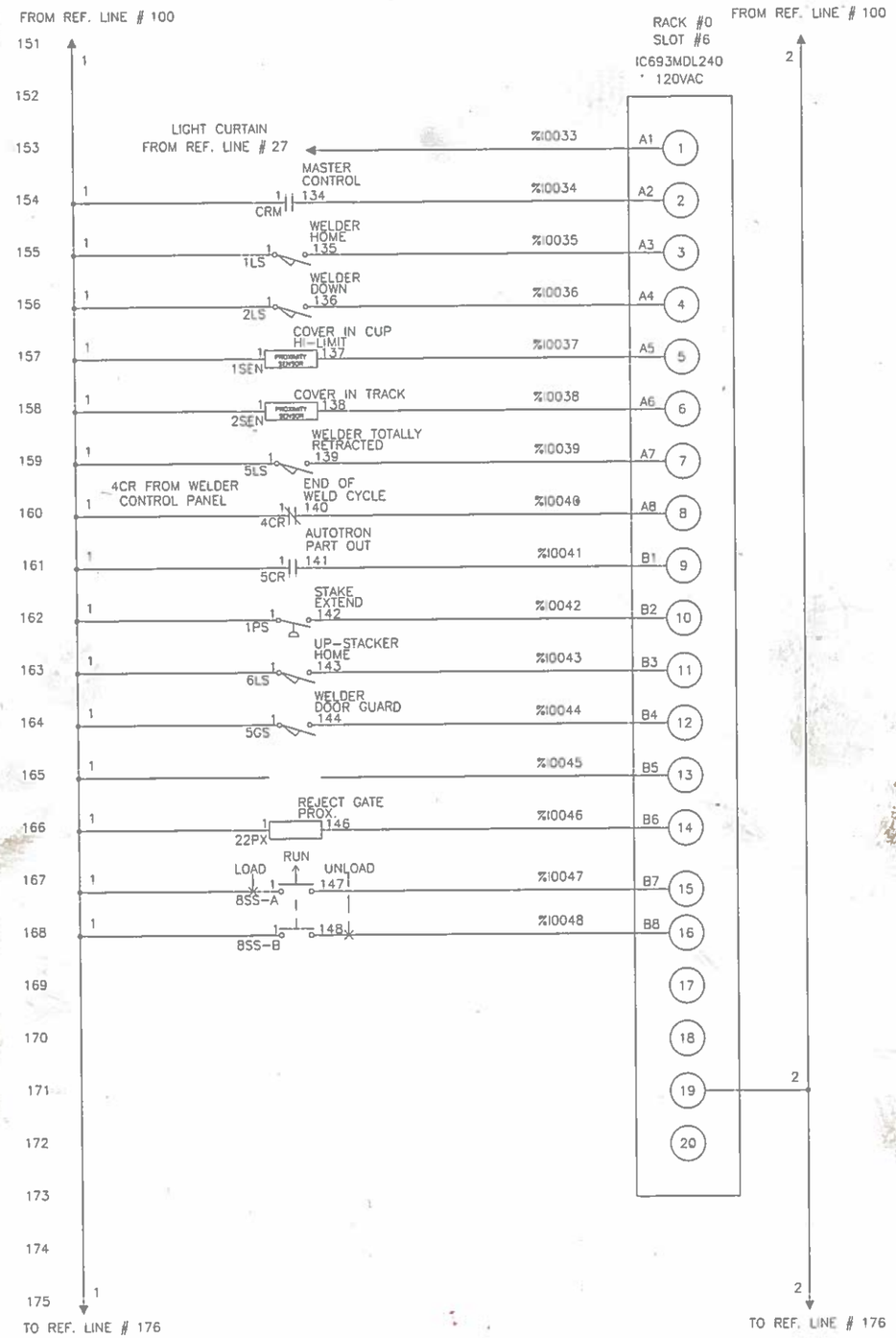

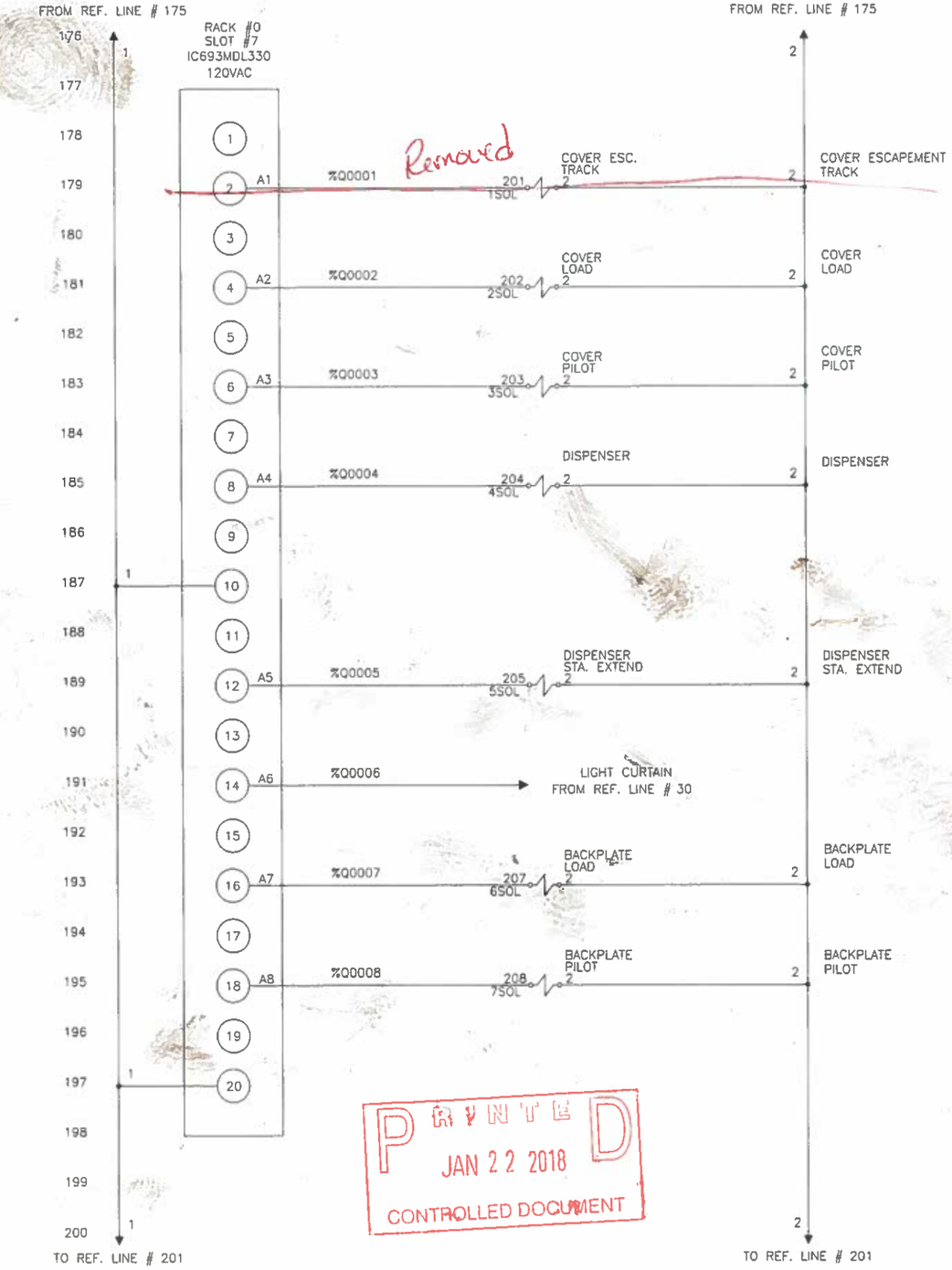

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CONTROLLED DOCUMENT

LET	DESCRIPTION OF REVISION	DATE	BY
G	1&2SEN ADDED TO %I37&38.	12/2/13	SC

LET.	DESCRIPTION OF REVISION	DATE	BY
F	B&9CR REMOVED FROM I33 & Q6. 3CR MOVED TO SHEET 1.	11/1/10	SC
E	TOTAL SHEET # CHANGED.	8/14/06	SC
D	TITLE BLOCK CHANGED TO B-SIZE.	11/8/05	SC
C	BSS ADDED TO PLC I 47 & I 48.	2/21/03	SC
B	WIRE # CHANGED IN REF # 165.	2/17/98	SC
A	ADDED SEQUENCER.	5/28/97	SC

CHAMPION LABORATORIES, INC.
A SCI Company
800 E. 9TH STREET
AURORA, ILLINOIS 60505

PROCESS TECHNOLOGY

RACK#0, SLOT#6: I33 ~ I48
RACK#0, SLOT#7: Q1 ~ Q8

NAME: AUTO WELDER #1 NORTH
A# 6303
Dept. 274

SCALE	NONE		ELECTRICAL PRINT
DWG	S.G.	4/9/97	SHEET NO. 4 OF 11
CKD	G.K.	12/9/13	NUMBER 3A-03976-004-B REV. G
APVD	K.M.	12/9/13	

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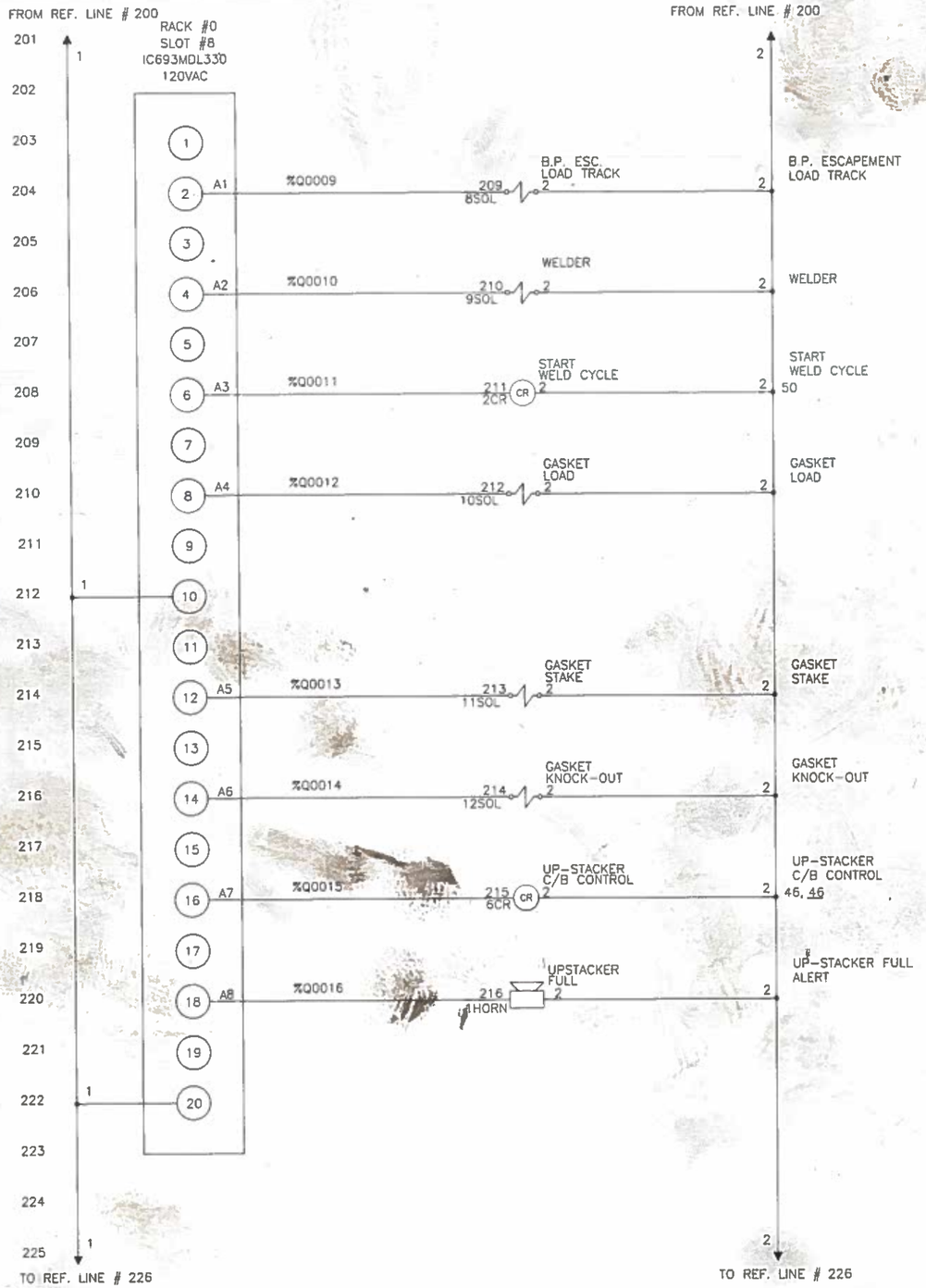

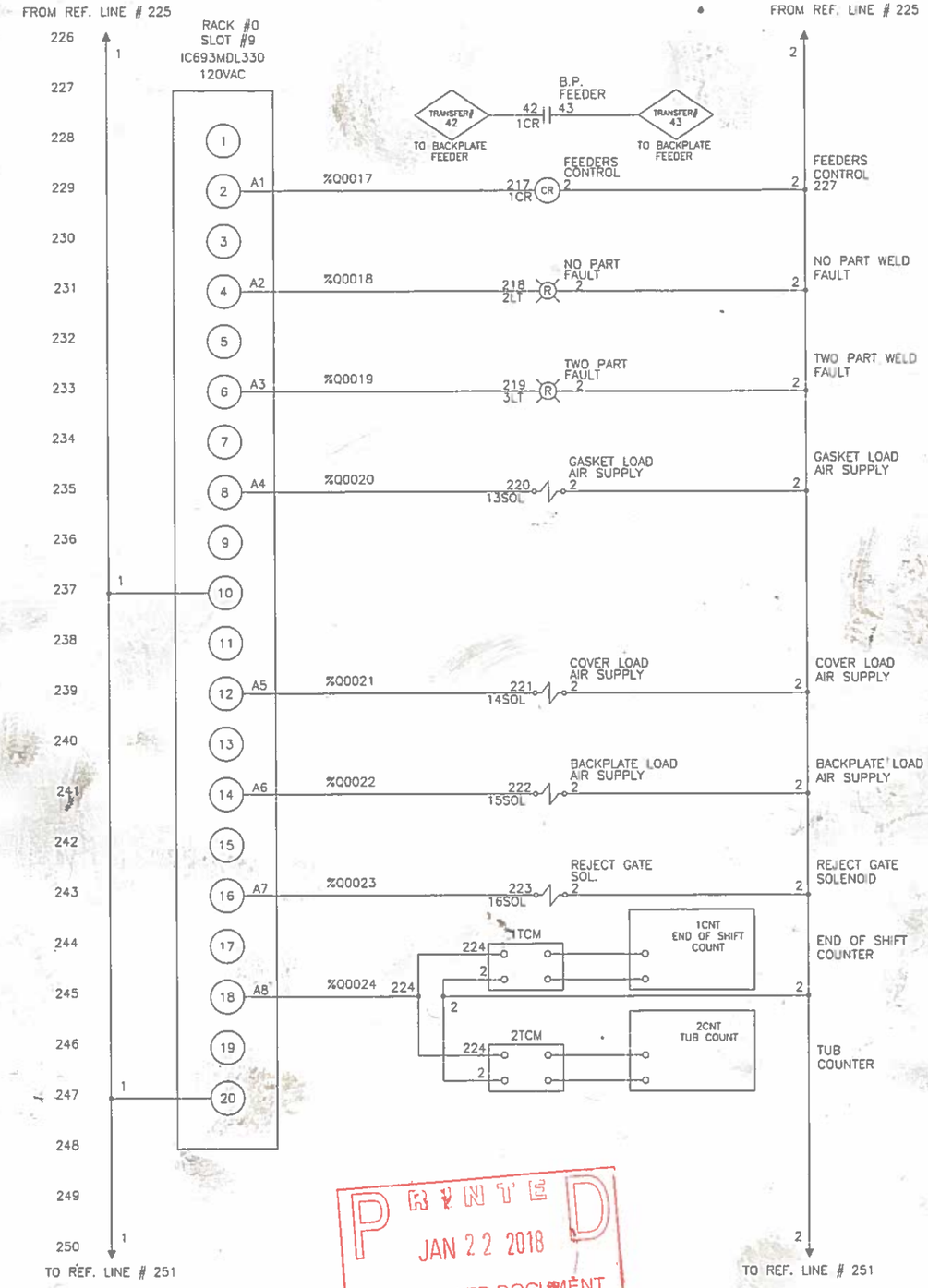

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LET.	DESCRIPTION OF REVISION	DATE	BY
F	1CR contact to Cover Feeder removed.	12/2/13	SG
E	1HORN ADDED.	8/14/06	SG
D	TITLE BLOCK CHANGED TO B-SIZE.	11/8/05	SG
C	WIRE# 1 & 2 REF. # ADDED.	3/31/98	SG
B	7CR REMOVED.	2/17/98	SG
A	ADDED SEQUENCER.	5/28/97	SG

CHAMPION LABORATORIES INC.
ALBION, ILLINOIS 62806

PROCESS TECHNOLOGY

RACK#0, SLOT#8: Q9 ~ Q16
RACK#0, SLOT#9: Q17 ~ Q24

NAME: AUTO WELDER #1 NORTH
A# 6303
Dept. 274

SCALE	NONE		ELECTRICAL PRINT
DWG	S.G.	4/9/97	SHEET NO. 5 OF 11
CKD	G.K.	12/9/13	NUMBER 3A-03976-005-B REV. F
APVD	K.M.	12/9/13	

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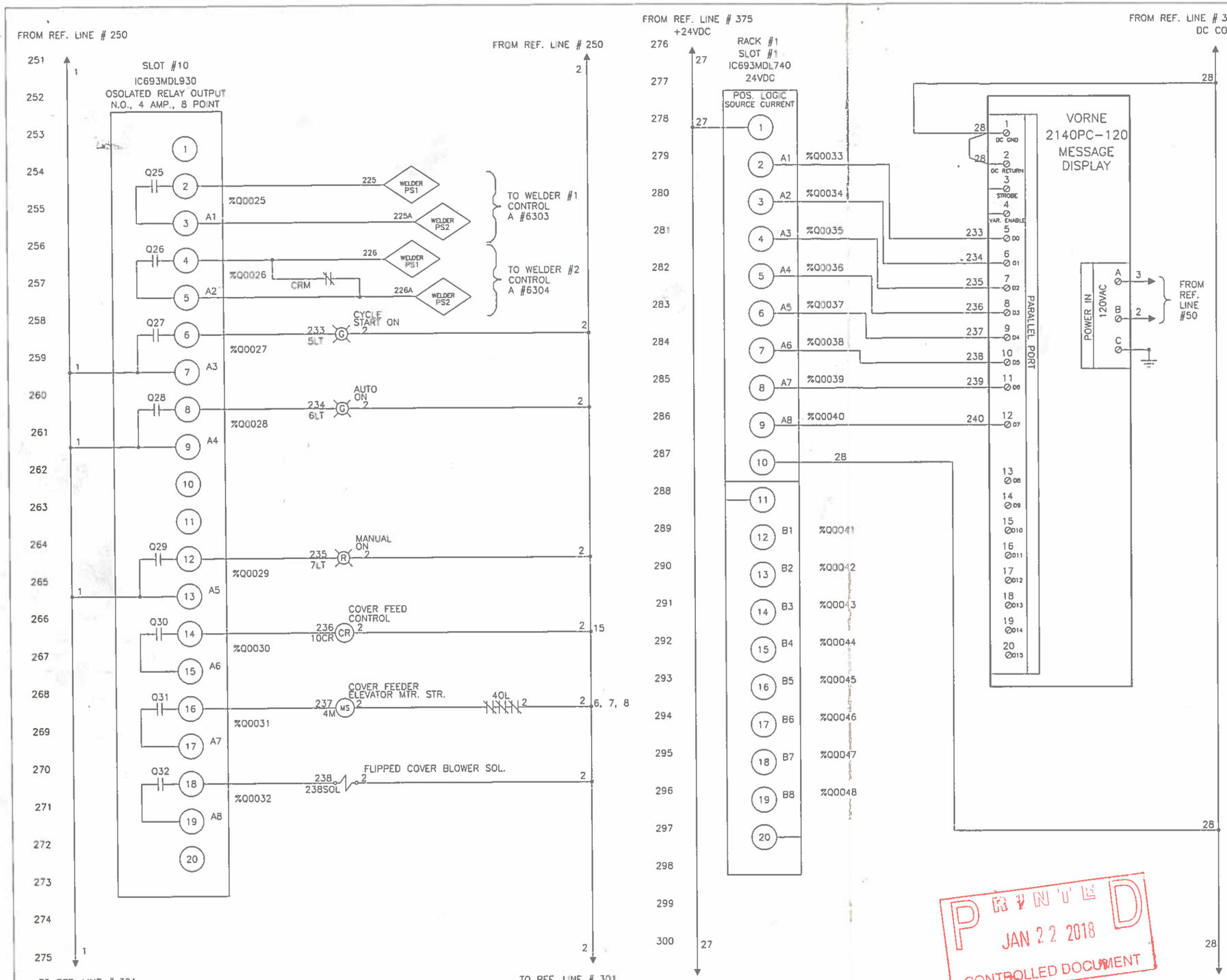

	MESSAGE PROGRAMMING LOG SHEET: Display Pro 2140		
	PLC MSG#	MSG#	MESSAGE
		0	AUTO WELDER #1 NORTH A#6303
M402	1	1	CYCLE START
M401	2	2	AUTO CYCLE
M400	3	3	MANUAL CYCLE
M405	4	4	STA. 2, COVER FAULT
M406	5	5	BACK PLATE FAULT
M407	6	6	NO PART WELDER FAULT
M408	7	7	TWO PART WELDER FAULT
M409	8	8	REJECT GATE FAILED
M410	9	9	PART OUT FAULT
M411	10	10	COVER DOOR OPEN
M412	11	11	BACK PLATE DOOR OPEN
M413	12	12	WELDER DOOR OPEN
M415	13	13	GASKET DOOR OPEN
M417	14	14	STAKE DOOR OPEN
M404	15	15	FEEDERS OFF
M416	16	16	STA. 7, COVER FAULT
M425	17	17	TRACK COVER FAULT
M432	18	18	NO COVER IN CUP
M418	19	19	TOP STOP
M433	20	20	MIS-ALIGNED BACK PLATE
M420	21	21	COVER LOAD FAULT
M414	22	22	THREAD FAULT
M421	23	23	LOAD COMPLETE
M422	24	24	UNLOAD COMNPLETE
M403	25	25	LIGHT CURTAIN
M423	26	26	LID STACK FULL
M424	27	27	GASKET MISSING FAULT
M426	28	28	LOADING
M427	29	29	UNLOADING
M430	30	30	WELDER CYLINDER NOT UP FAULT
	31	31	
M419	32	32	BACKPLATE LOAD FAULT
	33	33	
M429	34	34	DISPENSE CYLINDER FAULT
M428	35	35	GASKET LOAD CYLINDER FAULT
	36	36	
	37	37	

VORNE MESSAGE DISPLAY NOTES

TERM 5 ISO-GND & 6 SETUP MUST BE JUMMPERED TO LOAD PROGRAM.
DB9Male to DBFemal CABLE MUST BE USED TO CONNECT TO LAPTOP.

F1: SELECT LEFT, F2: SELECT RIGHT, F3: ENTER

FROM "GENERAL SETUP" MENU,
BOOT MESSAGE SHOULD BE SET TO ZERO TO DISPLAY FIRST.
TERM MODE SHOULD BE DISABLED.
DATA STREAM PORT SHOULD BE DISABLED.
IGNORE THE REST OF GENERAL SETUP, AND EXIT

FROM "CHOOSE AN OPTION",
IN "PARALLEL PORT" MODE,
PORT MODE SHOULD BE NO STROBE.
INPUT LOGIC TYPE SHOULD BE SET TO NORMAL.
INPUT NUMBER FORMAT SHOULD BE SET TO BCD, AND EXIT

"ENTER PROGRAM MODE", F3 'WAITING FOR HOST' WILL FLASH.
FROM THE LAPTOP, 'COMPILE' AND PRESS 'PROGRAM' TO LOAD.
IT WILL SHOW "ERASING FLASH".
GO TO "GENERAL SETUP DISPLAY" AND THEN REMOVED JUMPER.

EXIT SET UP
IT WILL ASK TO SAVE THE CHANGES. PRESS F3 TO SAVE.
(WHEN THE JUMPER IS OFF, "SETUP CHANGE!")
PRESS F3 EXIT TO SAVE SETUP CHANGES.

NOTE: TO GET RID OF "ADDRESS=000"
HAVE "CLEAR SCREEN" TO "ON" MODE ON EACH MESSAGE
FROM THE COMPUTER SOFTWARE SCREEN.

ALSO DO NOT USE VORNE & GE PLC SOFTWARE AT THE SAME TIME.
GE SOFTWARE INTERFEARS WITH VORN DURING PROGRAM MODE.

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LET.	DESCRIPTION OF REVISION	DATE	BY
I	238SOL ADDED.	12/20/17	SG
H	MESSAGE #18(No Cover)& #20(Mis-aligned BP)added.	3/7/17	SG

LET.	DESCRIPTION OF REVISION	DATE	BY
G	10CR & 4M added to %Q30&31.	12/2/13	SG
F	MSG#17 ADDED.	4/29/08	SG
E	MESSAGES 26~30, 32~35 ADDED.	8/14/06	SG
D	MESSAGE DISPLAY REPLACED CINCINATTI TO VORNE.	11/8/05	SG
C	5~7LT ADDED.	3/31/98	SG
B	PAGE # CHANGED FROM 10 TO 6. RACK #1, SLOT #2 & CINCINATTI MESSAGE DISPLAY ADDED.	2/17/98	SG
A	ADDED SEQUENCER.	5/28/97	SG

CHAMPION LABORATORIES, INC.
ALBION, ILLINOIS 62806

PROCESS TECHNOLOGY

RACK#0, SLOT#10: Q25 ~ Q32
RACK#1, SLOT#2: Q33 ~ Q48
MESSAGE DISPLAY

NAME: AUTO WELDER #1 NORTH
A# 6303
Dept. 274

SCALE	NONE		ELECTRICAL PRINT
DWG	S.G.	4/9/97	SHEET NO. 6 OF 11
CKD	MJH	12/20/17	NUMBER 3A-03976-006-B REV. I
APVD	K.M.	12/22/17	

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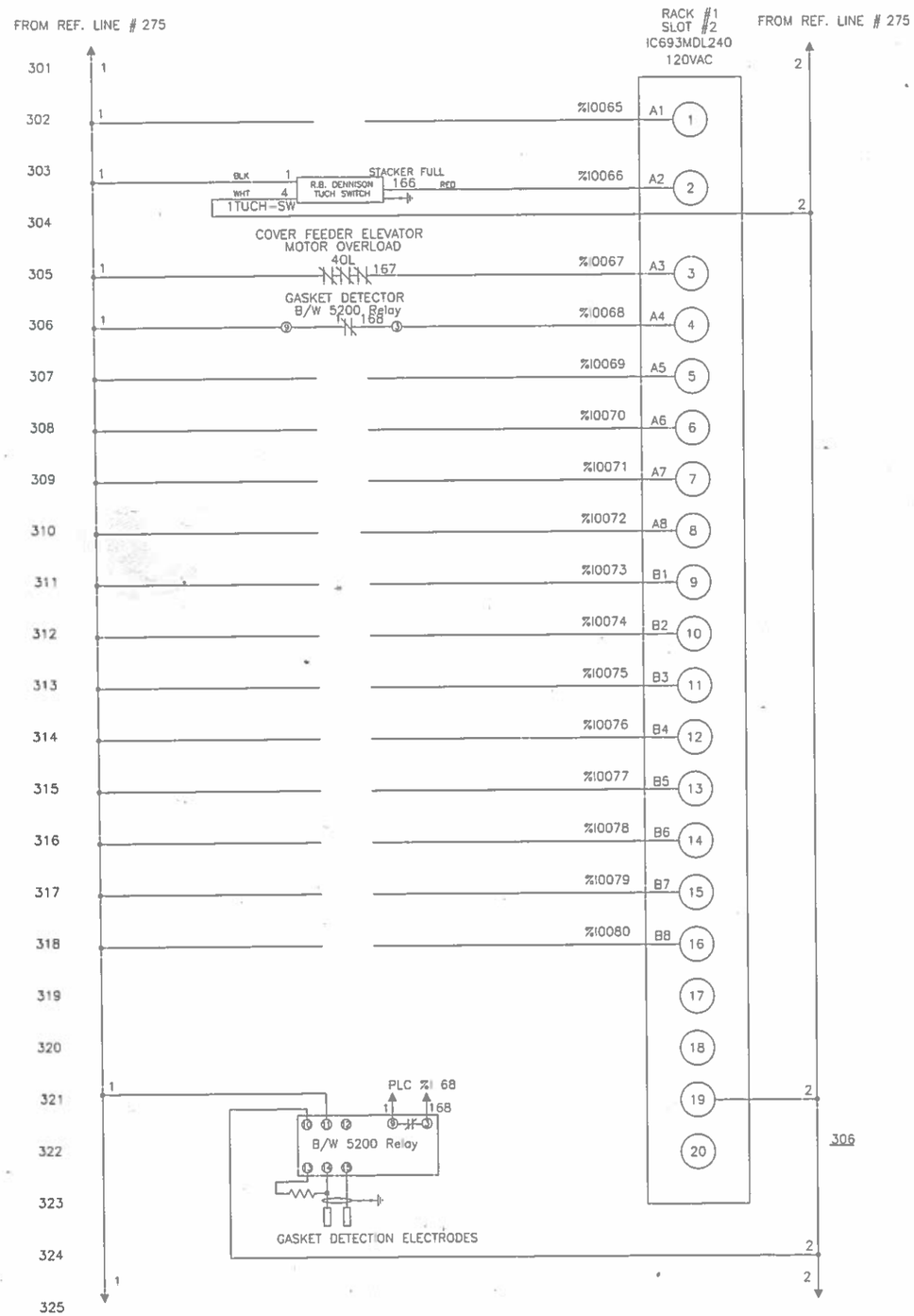

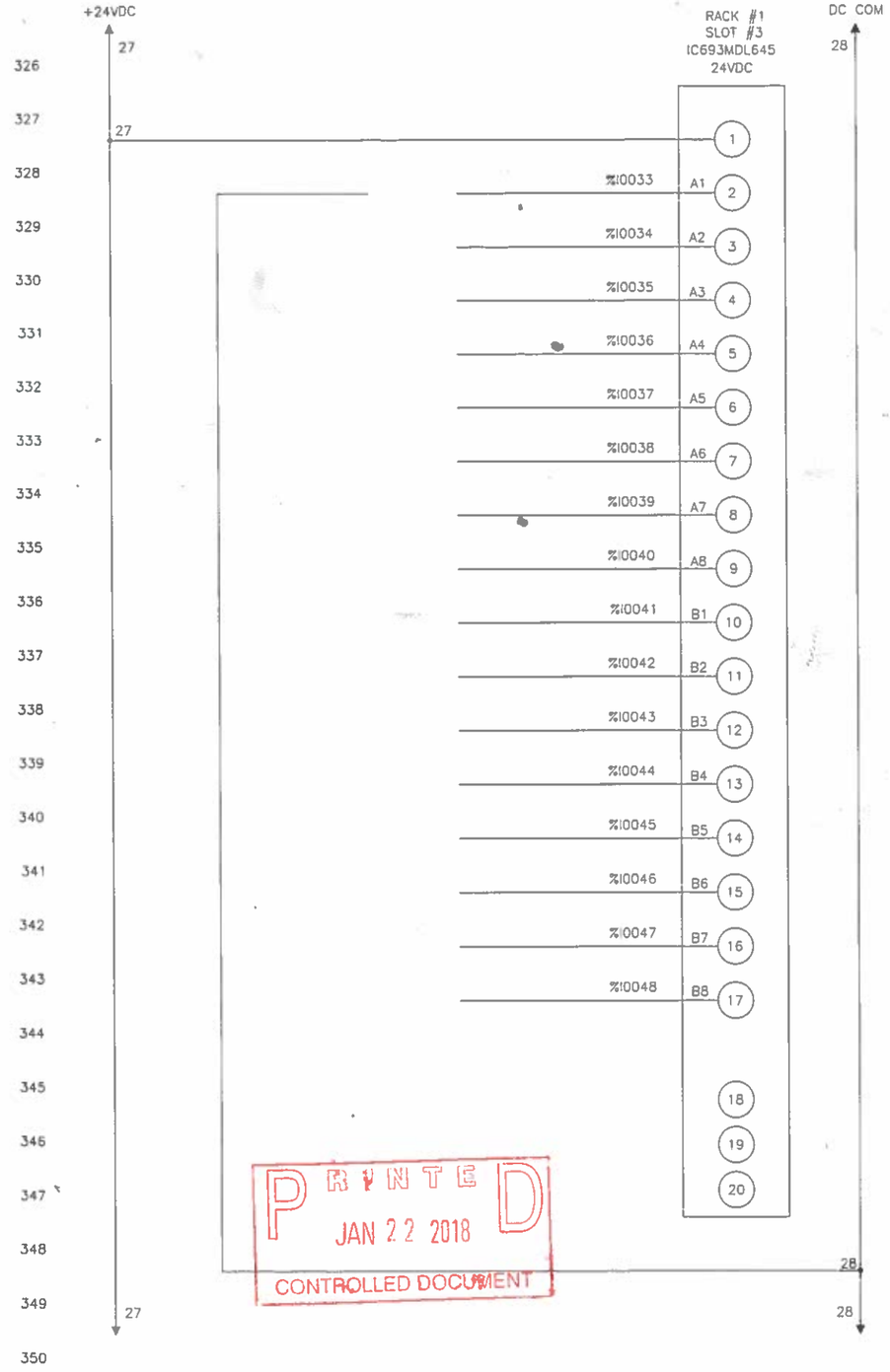

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LET.	DESCRIPTION OF REVISION	DATE	BY
	No gasket Dennison Touch switch replaced by B/W 5200 Relay in %I0068.	8/14/17	GK
I	RACK#1 SLOT#3 DC MODULE ADDED.	3/7/17	SG
H	No gasket touch switch added to input 68.	3/3/17	GK
C	40L ADDED TO %I67.	12/2/13	SG

LET.	DESCRIPTION OF REVISION	DATE	BY
F	SLOT#12, 19PX & 1TUCH-SW ADDED.	8/14/08	SG
E	TITLE BLOCK CHANGED TO B-SIZE.	11/8/05	SG
D	8SS ADDED TO OP-STA JB#11.	2/21/03	SG
C	ENCL#1 & JB#11 T.B. CORRECTED.	3/31/98	SG
B	7CR REMOVED. PAGE # CHANGED FROM 8 TO 7. RACK #1, O.I.U. & OPERATOR PANEL (JB#11) ADDED. JB#3&4 ADDED.	2/17/98	SG
A	ADDED SEQUENCER.	5/28/97	SG

CHAMPION LABORATORIES, INC.
A Div. of Champion Aerospace
1200 S. Pine Street
AUBURN, ILLINOIS 62000

PROCESS TECHNOLOGY

RACK#1, SLOT#2: I65 ~ I80
RACK#0, SLOT#5: I33 ~ I48

NAME: AUTO WELDER #1 NORTH
A# 6303
Dept. 274

SCALE	NONE		ELECTRICAL PRINT
DWG	S.G.	4/9/97	SHEET NO. 7 OF 11
CKD	M.JH	12/20/17	NUMBER 3A-03976-007-B REV J
APVD	K.M.	12/22/17	

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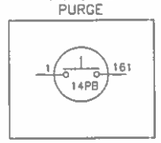
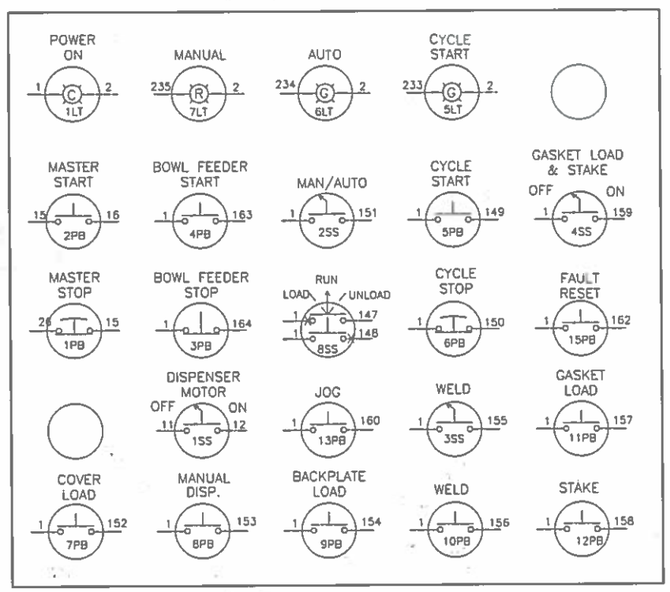
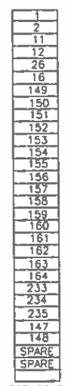
JB#4
DISPENSE
PURGE



1 HOLE PB BOX

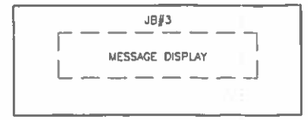
JB#11
OPERATOR'S PANEL
25 HOLE PUSH BUTTON BOX



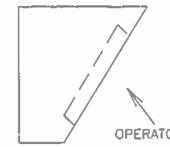


30BLOCKS

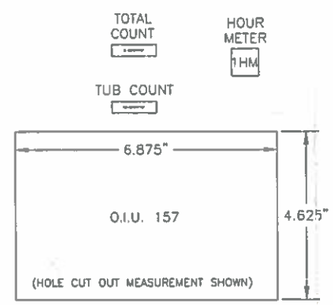
HOFFMAN CONSOLET
C-8C16 (8X16X7.09)
FRONT VIEW



SIDE VIEW

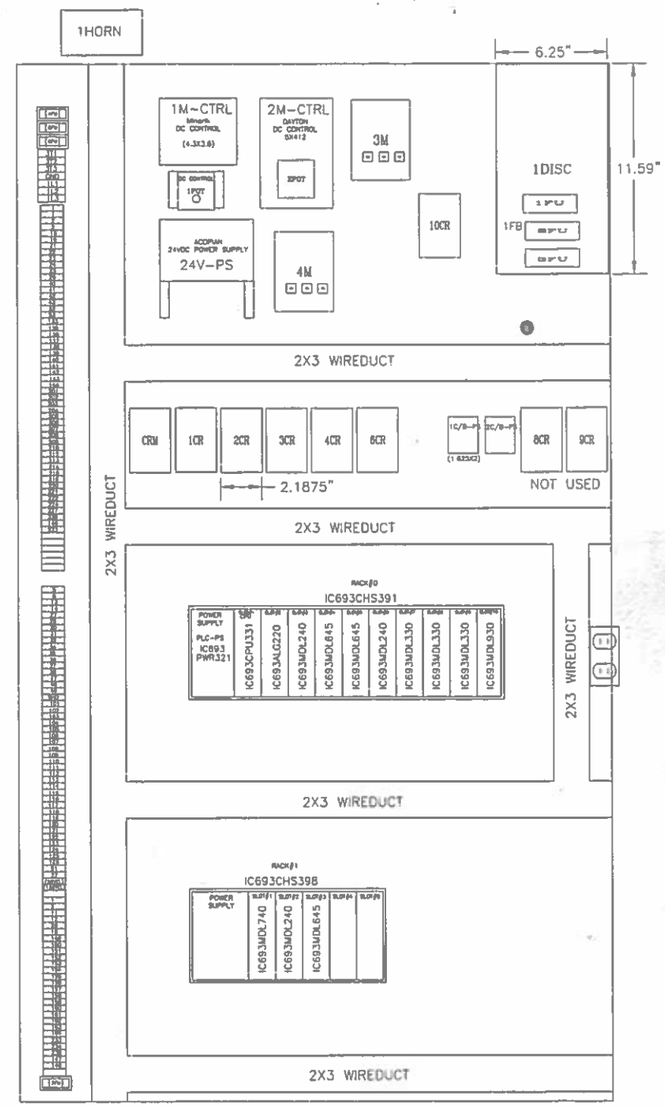


DOOR PANEL LAYOUT



IT IS TO THE RIGHT OF THE ENCLOSURE.

MAIN CONTROL PANEL
ENCLOSURE #1
HOFFMAN ENCLOSURE A-60AB3810LP
PANEL A-60P36 (57X33)



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LET	DESCRIPTION OF REVISION	DATE	BY
H	RACK#1 SLOT#3 ADDED.	3/7/17	SG
G	7FU, 4M & 10CR ADDED.	12/2/13	SG

LET	DESCRIPTION OF REVISION	DATE	BY
F	1HM ADDED. 8&9CR NOT USED.	11/1/10	SG
E	TOTAL SHEET # CHANGED. 1HORN & SLOT 12 ADDED	8/14/06	SG
D	MESSAGE DISPLAY REPLACED CINCINATTI TO VORNE.	11/8/05	SG
C	MIDDLE T.B. REMOVED FROM JB#1.	3/31/98	SG
B	JB#4 & MIDDLE TERMINAL STRIP IN JB#1 ADDED. PAGE # CHANGED FROM 9 TO 8.	2/17/98	SG
A	ADDED SEQUENCER.	5/28/97	SG

CHAMPION LABORATORIES, INC.
A WCI Company
845 W. 41st Street
AUBURN, ILLINOIS 61935

PROCESS TECHNOLOGY

MAIN CONTROL PANEL
OPERATOR STATION

NAME
AUTO WELDER #1 NORTH
A# 6303
Dept: 274

SCALE	1/8"=1"		ELECTRICAL PRINT
DWG	S.G.	4/9/97	SHEET NO. 8 OF 11
CKD	K.M.	3/20/17	NUMBER 3A-03976-008-B REV. H
APVD	G.K.	3/20/17	

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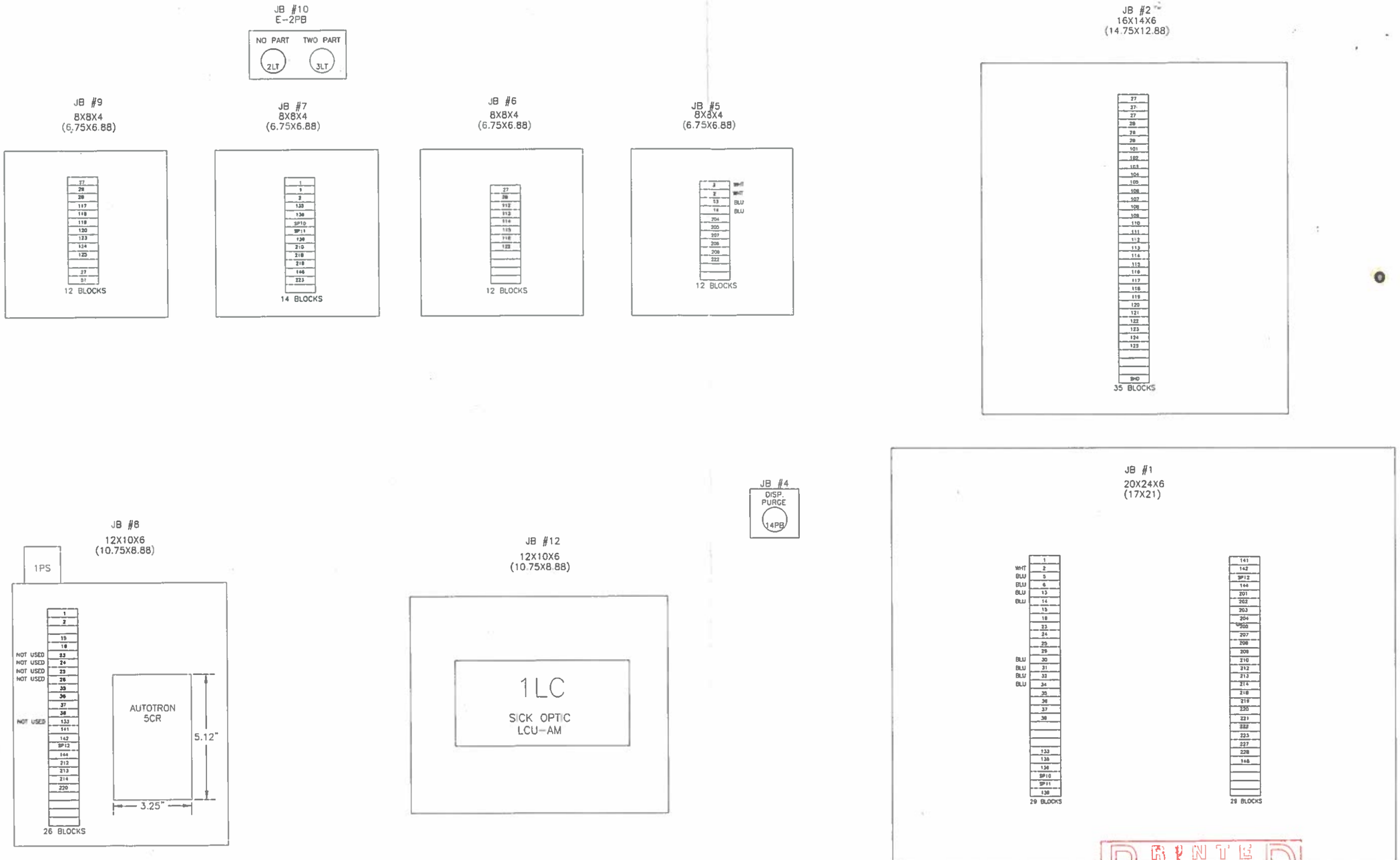

LET	DESCRIPTION OF REVISION	DATE	BY
H	WIRE # 137, 138 & 143 ARE SPARES SP10~12.	12/2/13	SG
C	JB#12 & 1LC ADDED.	11/1/16	SG

LET	DESCRIPTION OF REVISION	DATE	BY
F	TOTAL SHEET # CHANGED.	8/14/06	SG
E	WIRES 147&8 ADDED TO CONDUIT FOR JB#11.	11/8/05	SG
D	19PX REMOVED FROM JB#9.	1/16/02	SG
C	DIE BLOCKS ADDED TO JB#1.	3/31/98	SG
B	WIRING TO JB#11 CHANGED & JB#3&4 ADDED. PAGE # CHANGED FROM 7 TO 9.	2/17/98	SG
A	ADDED SEQUENCER.	5/26/97	SG

CHAMPION LABORATORIES INC.
A PCI Company
ALBION, ILLINOIS 62809

PROCESS TECHNOLOGY

JUNCTION BOXES
TERMINAL BLOCK LAYOUTS

NAME
AUTO WELDER #1 NORTH
A# 6303
Dept. 274

SCALE	NONE		ELECTRICAL PRINT	
DWG	S.G.	4/9/97	SHEET NO. 9 OF 11	
CKD	G.K.	12/9/13	NUMBER 3A-03976-009-B	REV. H
APVD	K.M.	12/9/13		

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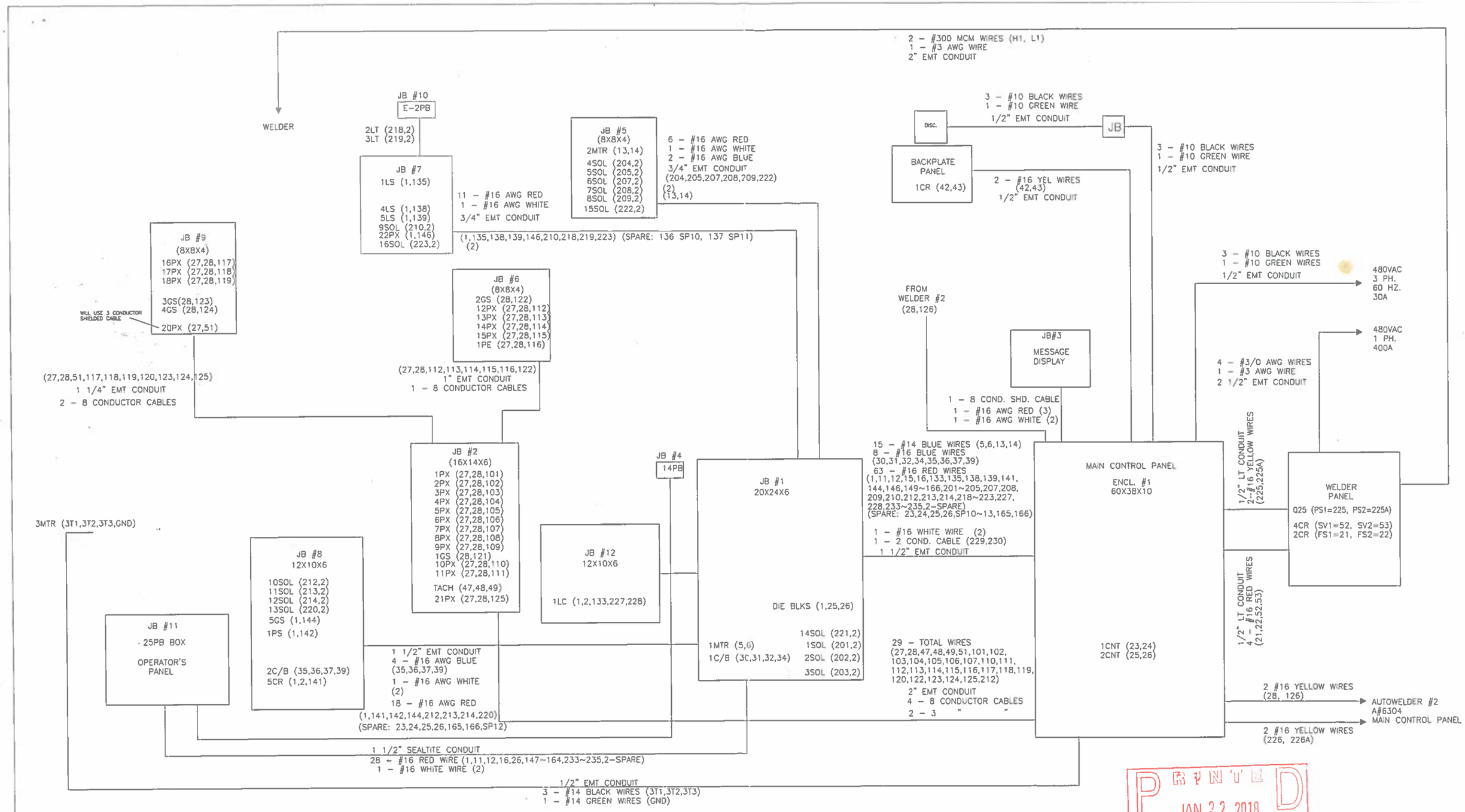

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LET.	DESCRIPTION OF REVISION	DATE	BY
E	COVER FEEDER PANEL REMOVED.	12/2/13	SG
D	JB#12 ADDED.	11/1/10	SG
C	TOTAL SHEET # CHANGED.	8/14/06	SG
B	TITLE BLOCK CHANGED TO B-SIZE.	11/8/05	SG
A	PAGE # CHANGED FROM 6 TO 10. JB#3&4 ADDED.	2/17/98	SG

CHAMPION LABORATORIES, INC.
A DELI Company
AUROR, ILLINOIS 60506

PROCESS TECHNOLOGY

WIRING DIAGRAM

NAME: AUTO WELDER #1 NORTH
A# 6303
Dept. 274

SCALE	NONE		ELECTRICAL PRINT
DWG	S.G.	4/9/97	SHEET NO. 10 OF 11
CKD	G.K.	12/9/13	NUMBER 3A-03976-010-B REV E
APVD	K.W.	12/9/13	

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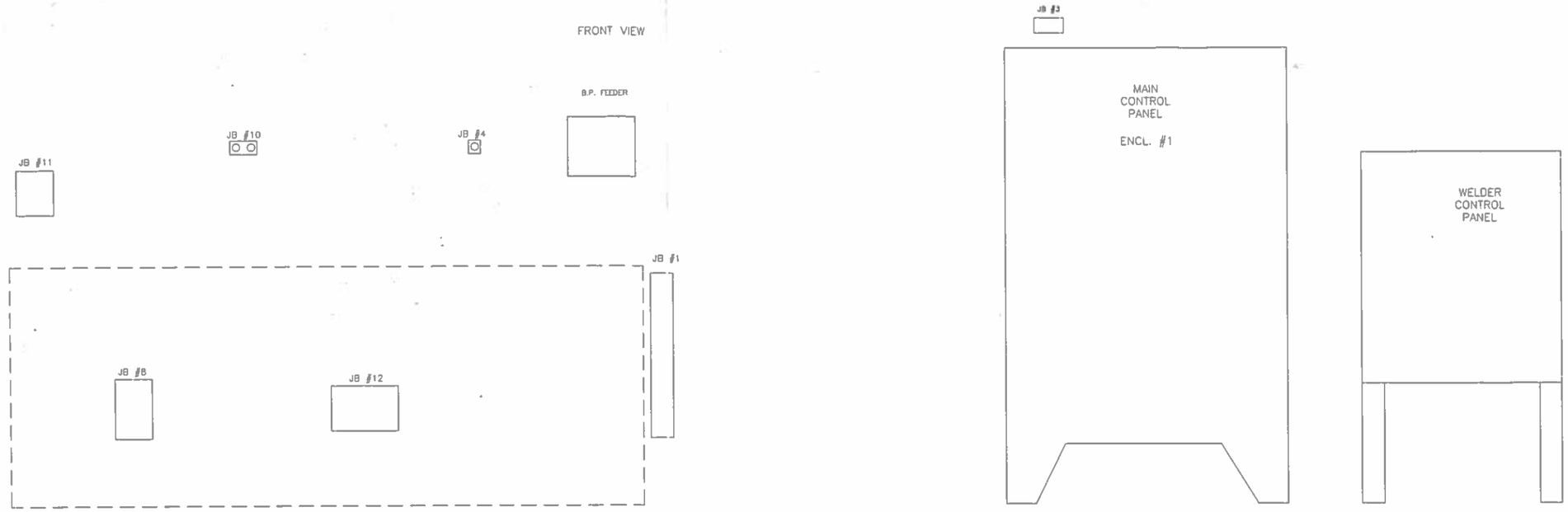

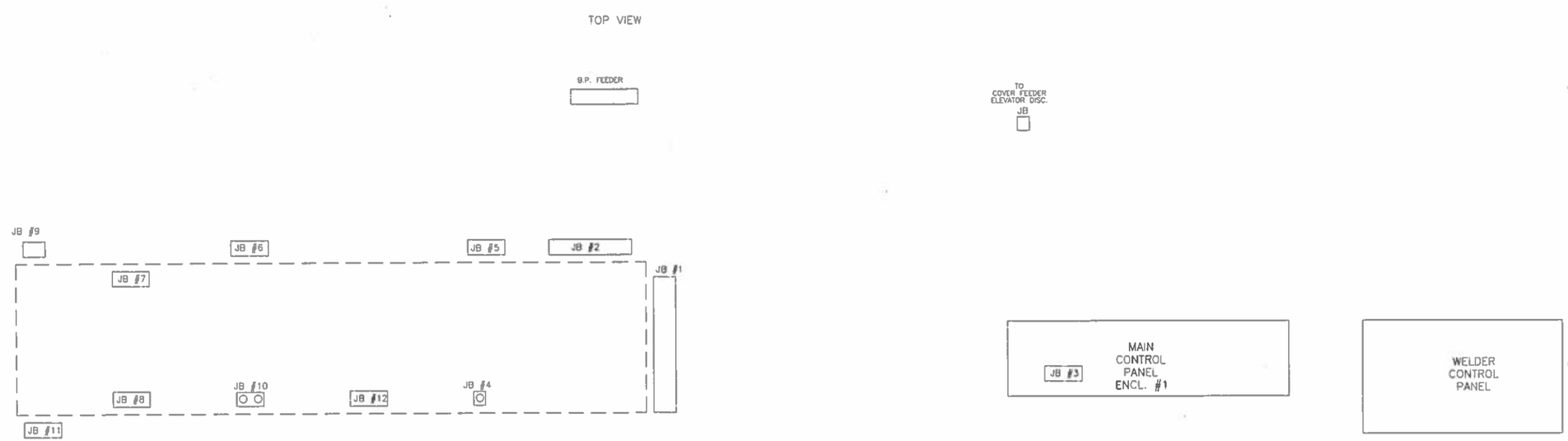

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JAN 22 2018
CONTROLLED DOCUMENT

LET.	DESCRIPTION OF REVISION	DATE	BY
B	COVER FEEDER PANEL REMOVED.	12/2/13	SG
A	JB#12 ADDED.	11/1/10	SG

CHAMPION LABORATORIES, INC.
A SPX Company
200 W. 3RD STREET
ALBION, ILLINOIS 62806

PROCESS TECHNOLOGY

NAME: AUTO WELDER #1 NORTH
A# 6303
Dept. 274

JUNCTION BOX LOCATIONS

SCALE	NONE		ELECTRICAL PRINT
DWG	S.G.	8/14/06	SHEET NO. 11 OF 11
CKD	G.K.	12/9/13	NUMBER 3A-03976-011-B REV. B
APVD	K.M.	12/9/13	

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