

Revision Date - May 21, 2020
Revision 3.1

Sentry HP & LP STRETCHWRAPPER MANUAL

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Chapter 4: Troubleshooting

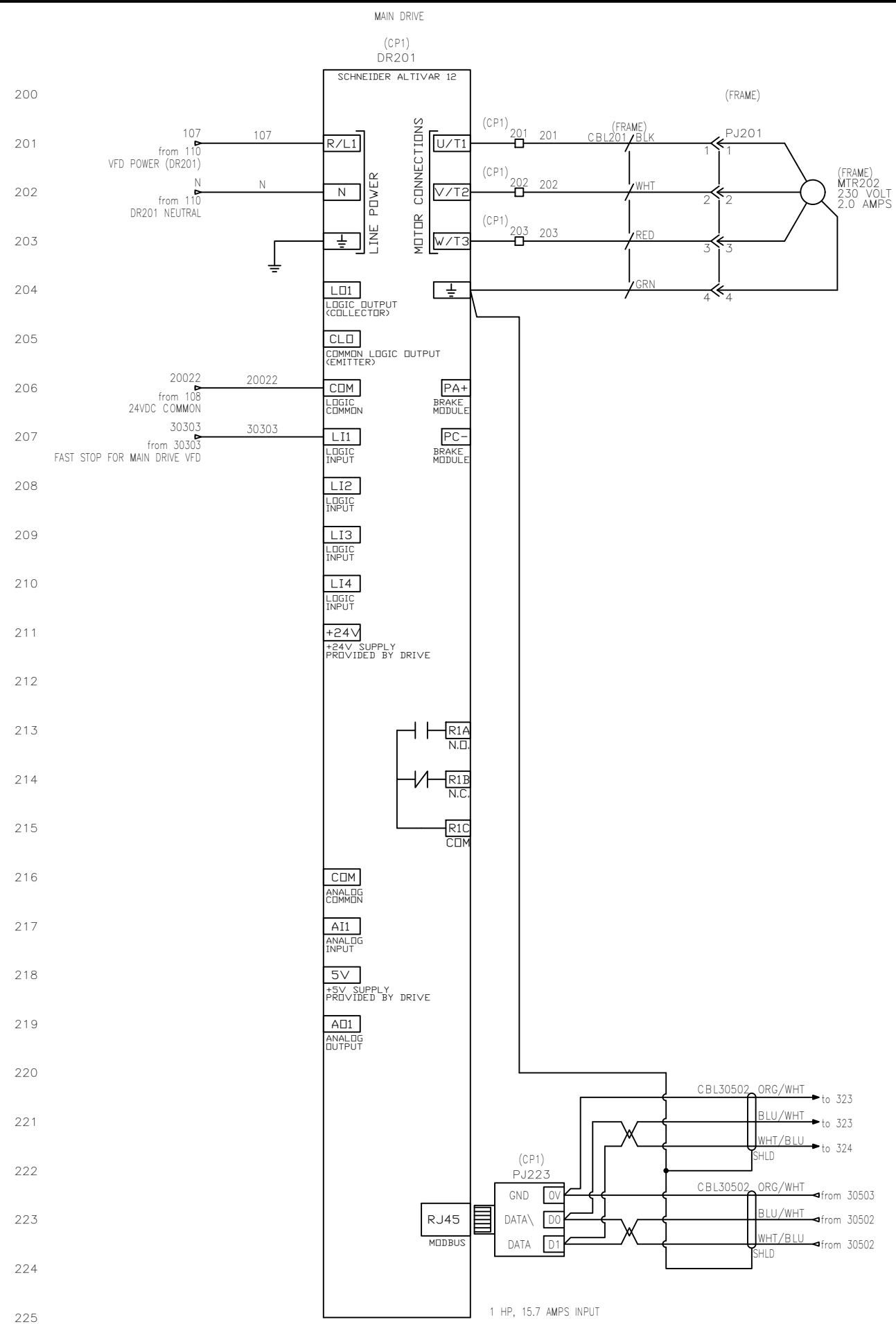
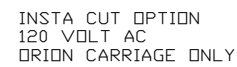
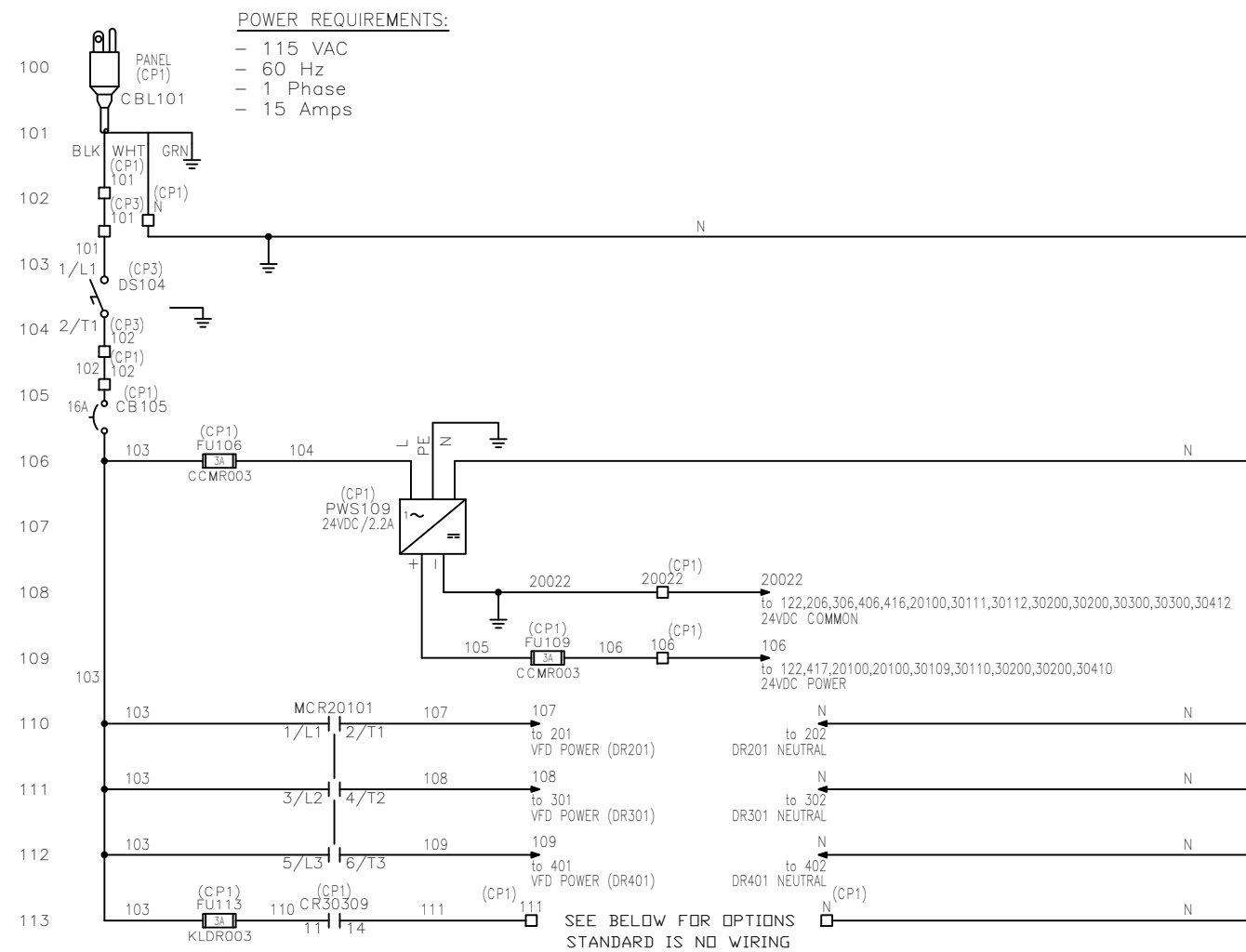
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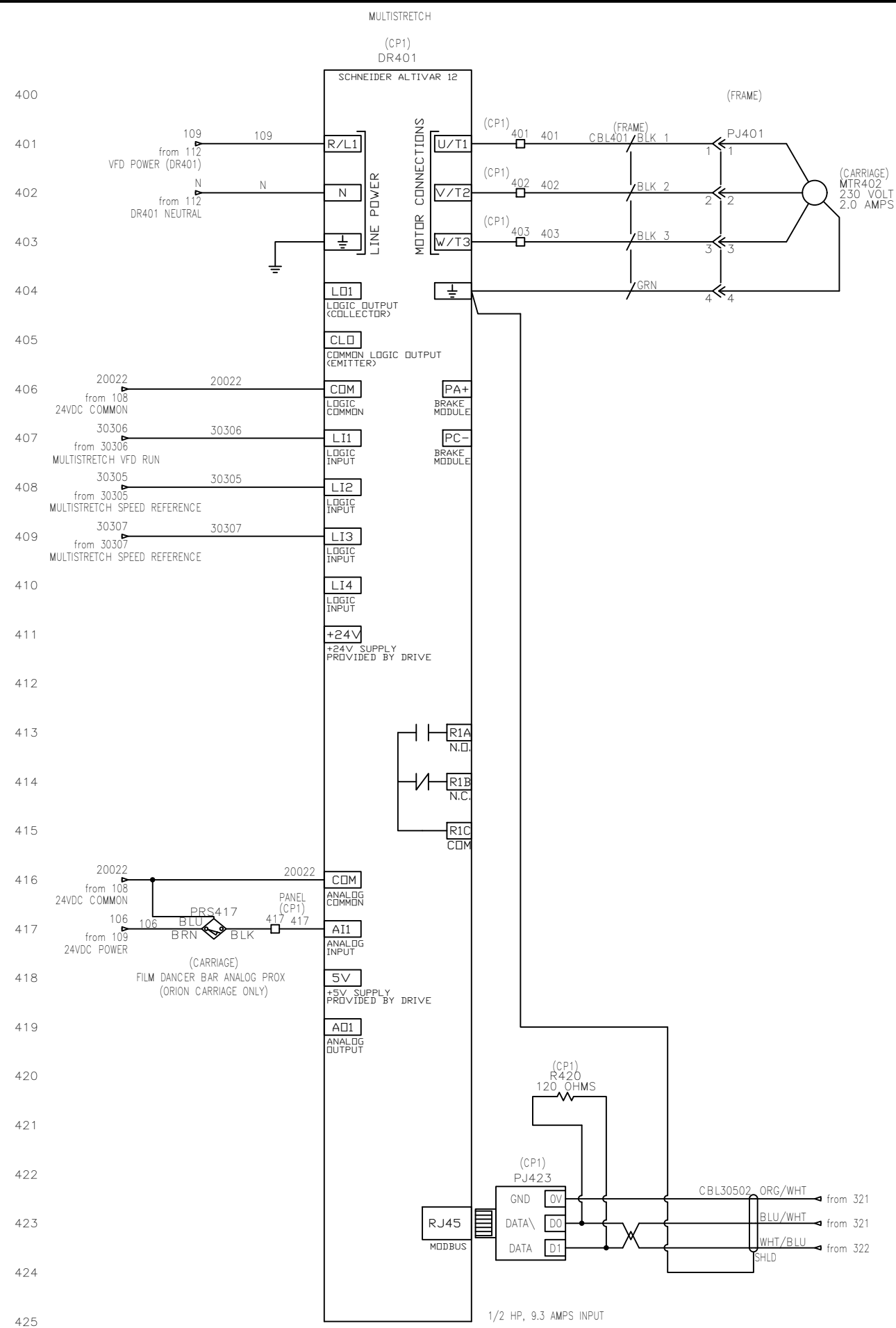
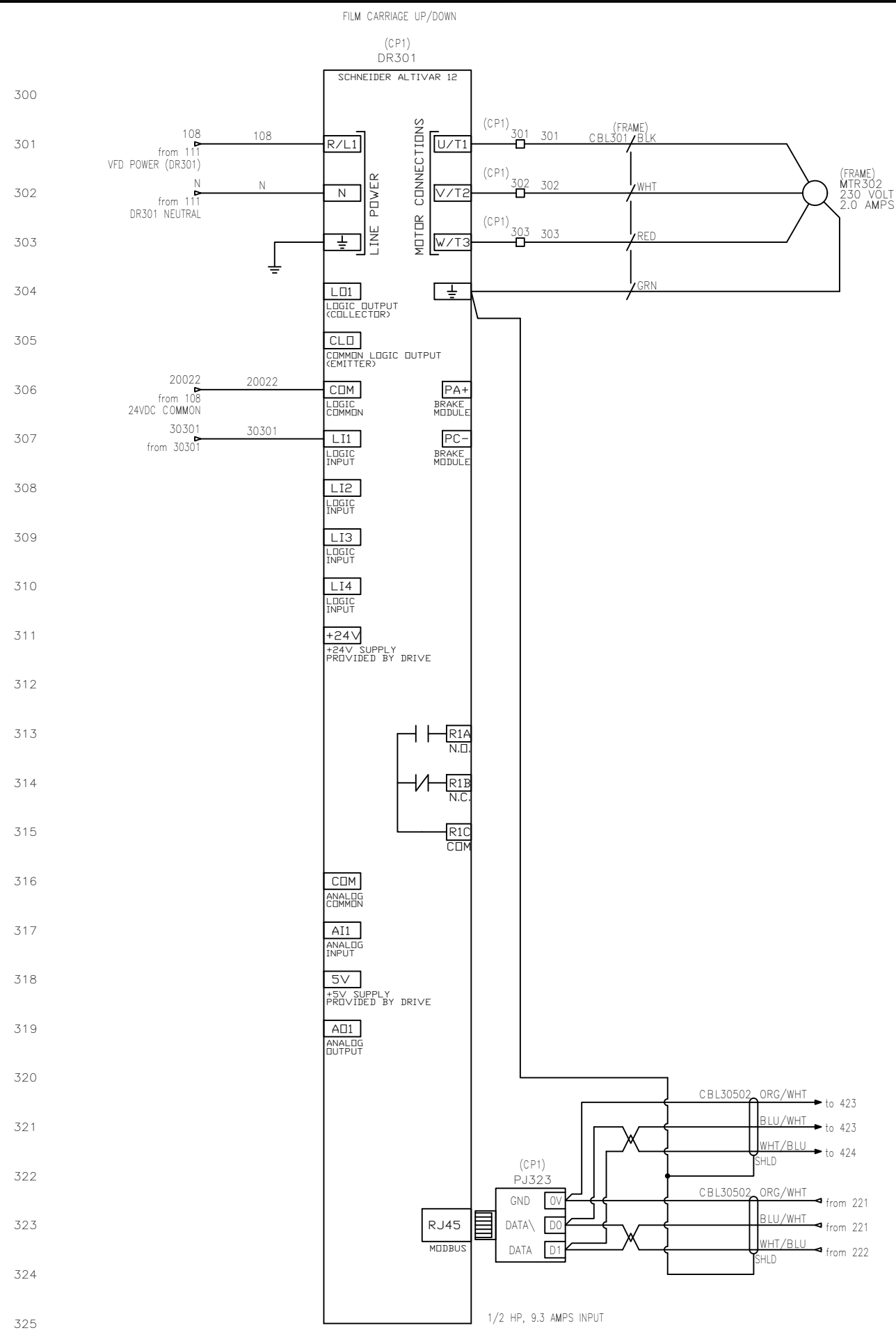
6. Electrical Prints and Mechanical Drawings

Electrical Prints



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PH 800-535-2730

NO.	DATE	REVISION			BY
DWG TITLE					
<i>FLEX (STANDARD) B&R SENTRY LP/HP 115VAC POWER DROP AND DISTRIBUTION</i>					
ENGINEER			CHECKED BY		
JOB NO			DRAWN BY		
SCALE NO SCALE			DATE 3/17/2018		
DWG NO					
<i>B&R SENTRY</i>					
SHEET NO					



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NO.	DATE	REVISION			BY
DWG TITLE					
<i>FLEX (STANDARD)</i> <i>B&R SENTRY LP/HP</i>					
<i>115VAC VFD</i>					
ENGINEER			CHECKED BY		
JOB NO			DRAWN BY		
SCALE NO SCALE			DATE 3/17/2018		
DWG NO					
<i>B&R SENTRY</i>					
SHEET NO					

NO.	DATE	REVISION	BY
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DWG TITLE

FLEX (STANDARD)
B&R SENTRY LP/HP

START/STOP CIRCUIT
AND REMOTE START

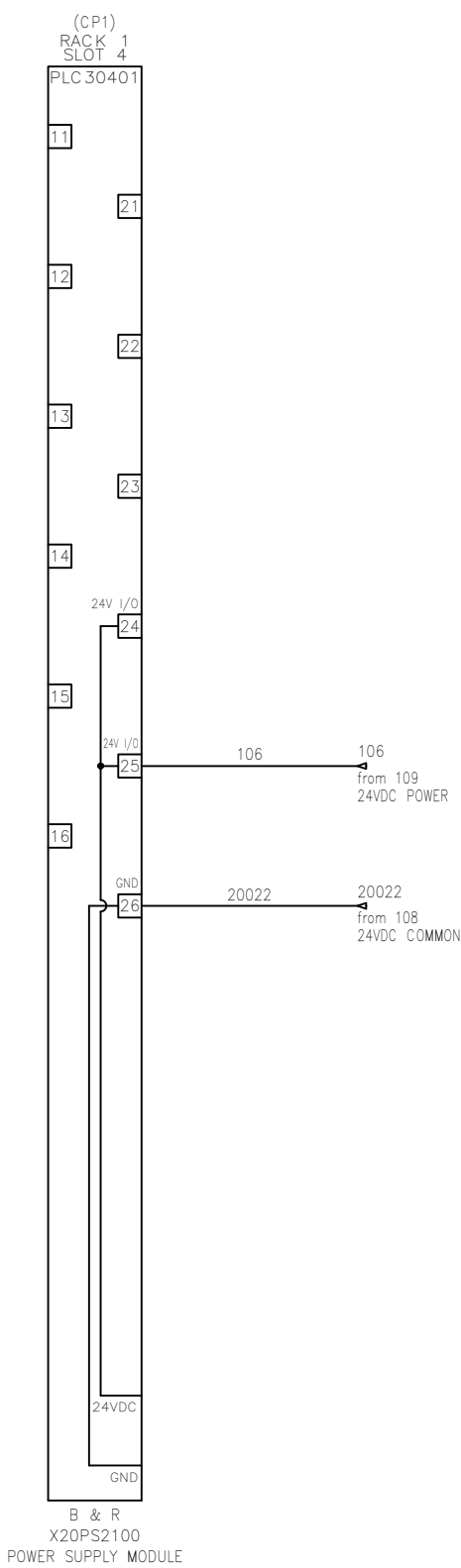
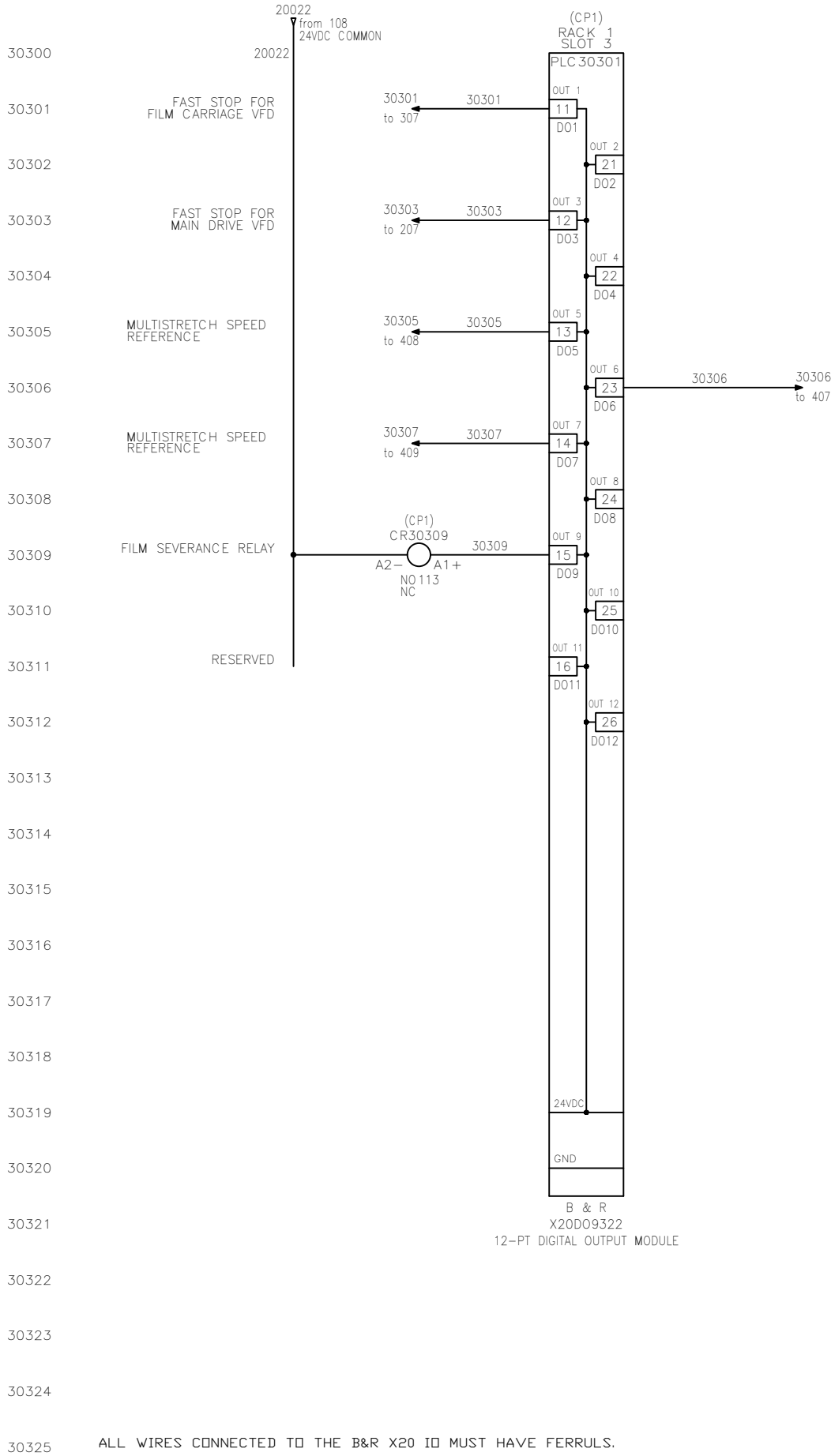
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JOB NO	DRAWN BY
SCALE	DATE
NO SCALE	3/17/2018

DWG NO

B&R SENTRY

SHEET NO

4 OF 15



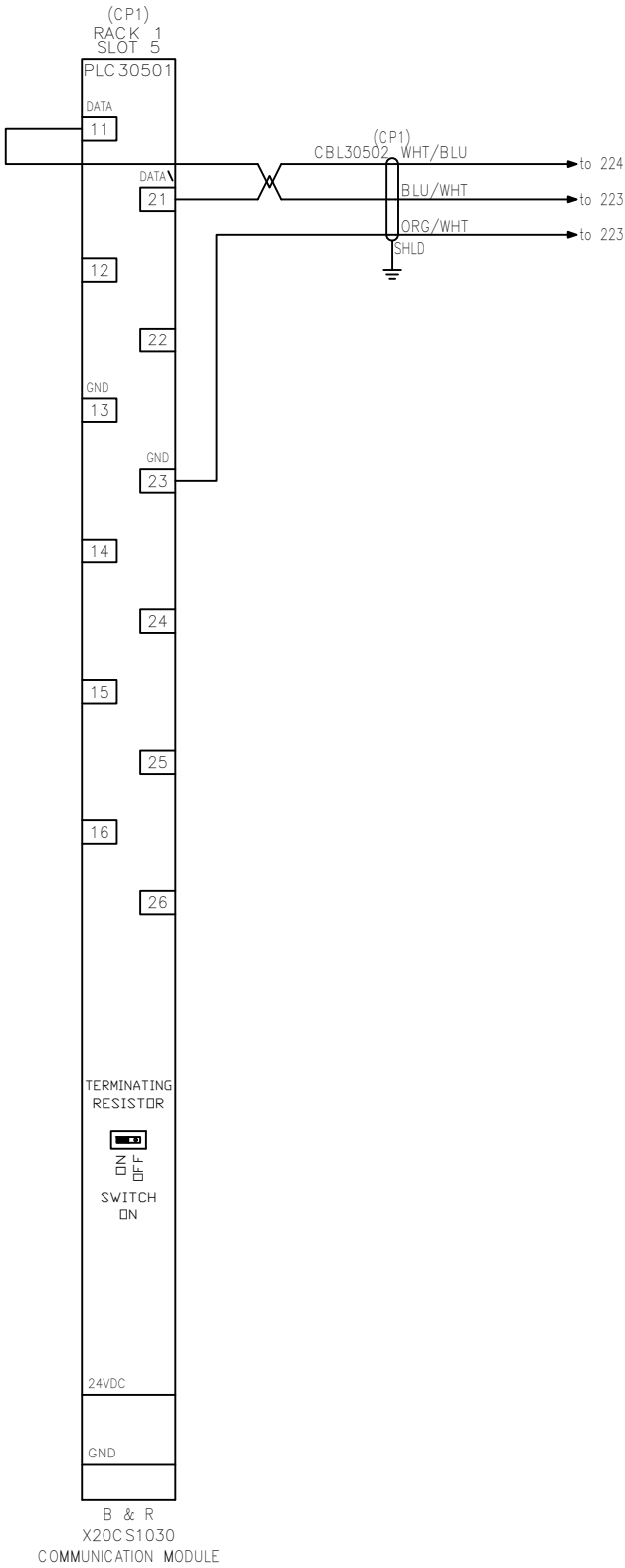
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NO.	DATE	REVISION	BY
DWG TITLE			
FLEX (STANDARD) B&R SENTRY LP X20 I/O OUTPUT / POWER SUPPLY			
ENGINEER		CHECKED BY	
JOB NO		DRAWN BY	
SCALE		DATE	
NO SCALE		3/17/2018	
DWG NO			
B&R SENTRY			
SHEET NO			

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30500
30501
30502
30503
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30505
30506
30507
30508
30509
30510
30511
30512
30513
30514
30515
30516
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30524
30525

ALL WIRES CONNECTED TO THE B&R X20 ID MUST HAVE FERRULS.

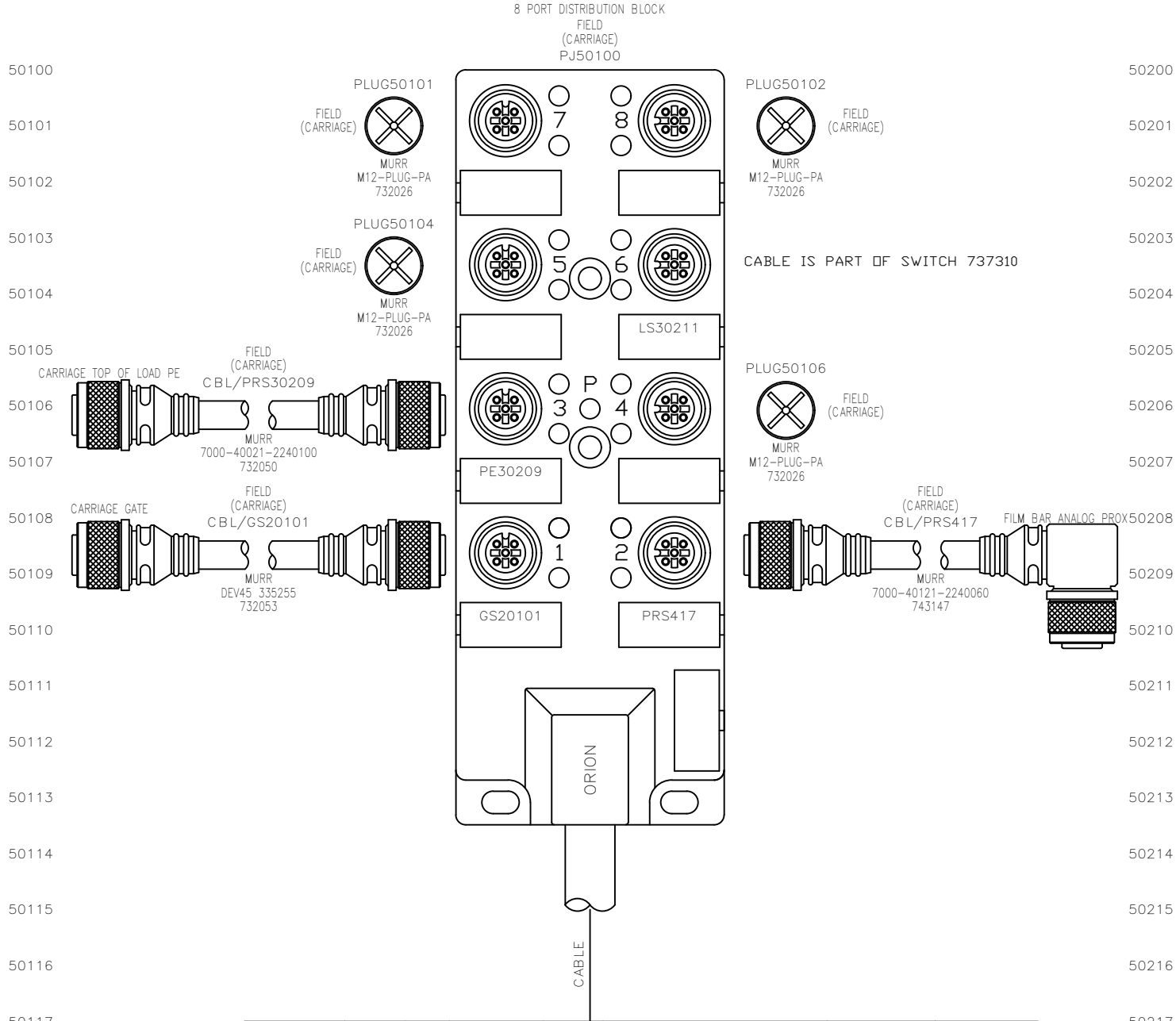


30600
30601
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NO.	DATE	REVISION	BY		
DWG TITLE					
FLEX (STANDARD) B&R SENTRY LP/HP X20 RS485 COMM					
ENGINEER		CHECKED BY			
JOB NO		DRAWN BY			
SCALE		DATE			
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SHEET NO					



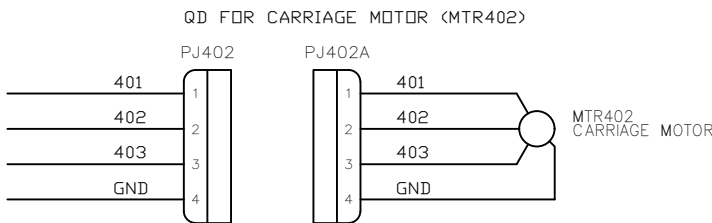
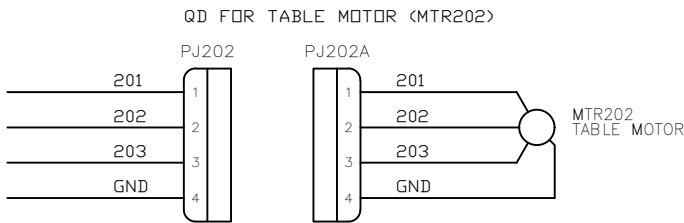
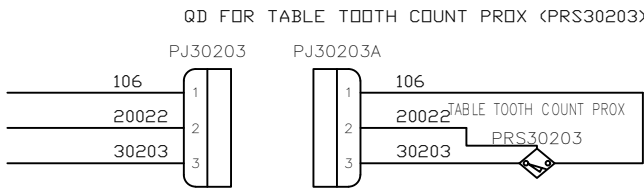
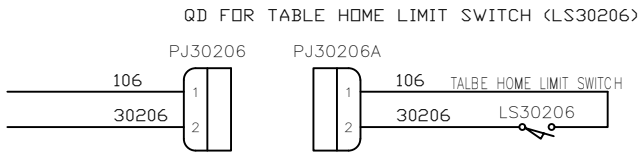
WIRE COLOR	PORT#	PIN#	DEVICE TAG	WIRE#	DESCRIPTION	I/O ADDRESS	PIN# ON QD
WHITE	1	4	GS20101	30204	CARRIAGE GATE OPEN		3
GRY/PNK	1	2	GS20101	20101	CARRIAGE GATE CLOSED		4
GREEN	2	4					
RED/BLU	2	2	PRS417	417	ANALOG PROX		9
YELLOW	3	4	PE30209	30209	CARRIAGE AUTO HEIGHT		5
WHT/GRN	3	2					
GRAY	4	4					
BRN/GRN	4	2					
PINK	5	4					
WHT/YEL	5	2					
RED	6	4	LS30211	30211	CARRIAGE OBSTACLE DETECT		6
YEL/BRN	6	2					
BLACK	7	4					
WHT/GRY	7	2					
VIOLET	8	4					
GRY/BRN	8	2					
BROWN	1 - 8	1		106	24VDC +		1
BLUE	1 - 8	3		20022	0VDC -		2
GRN/YEL	1 - 8	5		GND	GROUND		10

PIN 7 & 8 ON QD IS NOT USED

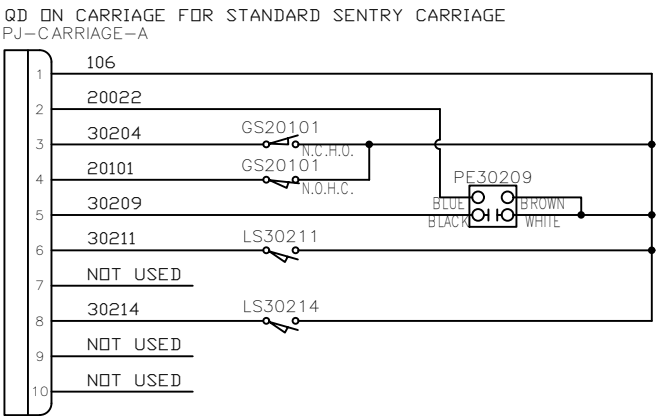
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ORION, a ProMach product brand
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DWG TITLE	
FLEX (STANDARD) B&R SENTRY LP/HP CARRIAGE I/O BLOCK	
ENGINEER	CHECKED BY
JOB NO	DRAWN BY
SCALE	DATE
NO SCALE	3/17/2018
DWG NO	
B&R SENTRY	
SHEET NO	
8 OF 15	



CABLE IN TOWER GOING TO CARRIAGE WITH QD PJ-CARRIAGE	
+24 VDC	BLACK 106
VDC COMM	BROWN 20022
CARRIGE GATE OPEN	BLUE 30204
CARRIAGE GATE CLOSED	WHITE 20101
TOP OF LOAD PE	PINK 30209
CARRIAGE OBSTACLE DETECT	GRAY 30211
FILM CUT	VIOLET 122
DANCER BAR LIMIT SWITCH	GREEN 30214
DANCER BAR ANALOG PROX	RED 417
GND	YELLOW GND



QD ON CARRIAGE FOR SENTRY PLUS CARRIAGE PJ-CARRIAGE-B	
1	106 BROWN
2	20022 BLUE
3	30204 WHITE
4	20101 GRY/PNK
5	30209 YELLOW
6	30211 RED
7	122 BLACK
8	NOT USED
9	417 RED/BLU
10	GND GRN/YEL

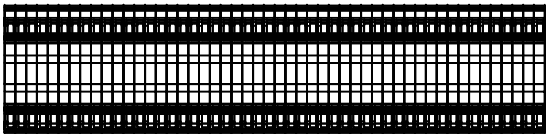
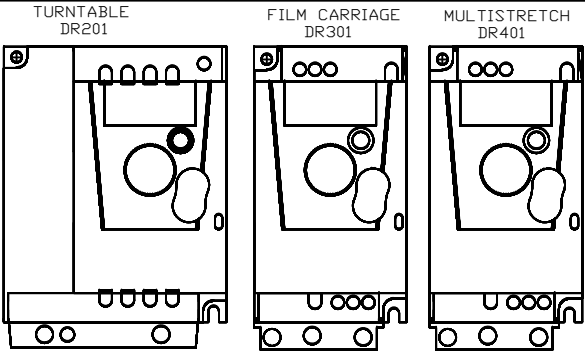
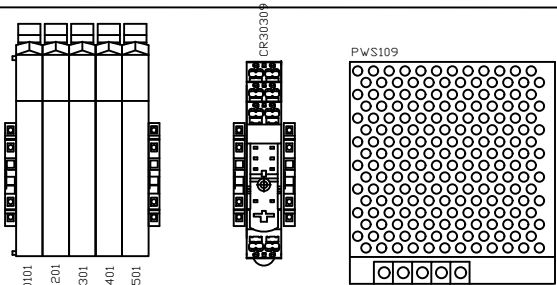
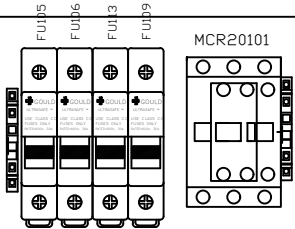
WIRED TO MURR QD BLOCK
SEE PAGE 8 FOR LAYOUT

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NO.	DATE	REVISION	B.Y.
DWG TITLE			
FLEX (STANDARD) B&R SENTRY LP/HP			
QD CONNECTORS			
ENGINEER	CHECKED BY		
JOB NO	DRAWN BY		
SCALE	DATE		
DWG NO	NO SCALE 3/17/2018		
B&R SENTRY			
SHEET NO			

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1.1.25"x 2" WIREWAY



TERMINAL LIST

- 101
N
N
N
N
201
202
203
301
302
303
401
402
403
20101
20102
30203
30204
30205
30206
30207
30209
30210
30211
30212
30213
30214
30215
122
106
106
106
106
106
106
106
20022
20022
20022
20022
20022
20022
20022

TAGS	QTY	SUB	ASSYCODE	MFG	CATALOG	DESCRIPTION	DESC2
CB105	1		750569	CHINT	NXB-63Z / C16		
CR30309	1	*1	75576	SCHNEIDER	RXM2LB1BD		
		*1	750577	TEND	PYF-08N		
DR301 DR401	2		732691	SCHNEIDER	ATV12H037F1	VARIABLE SPEED DRIVE, .5 HP, 0.37 kW, 120V, 1 PH, ATV-12 .5 HP 0.7KW,1HP	
DR201	1		732692	SCHNEIDER	ATV12H075F1	VARIABLE SPEED DRIVE, 1 HP, 0.75 kW, 120V, 1 PH, ATV-12 1 HP 0.7KW,1HP	
FU113	1	*1	750570	JINSHAN	RT18-32		
		*1	731039	LITTELFUSE	KLDR003	FUSE, CLASS CC, 3 AMP, TIME DELAY TIME DELAY 600VAC 3AMPS	
FU106 FU109	2	*1	750570	JINSHAN	RT18-32		
		*1	730995	LITTELFUSE	CCMR003	DUAL ELEMENT FUSE - CLASS CC, 3 AMP FAST ACTING, TIME DELAY 600VAC 3AMPS MOTOR CIRCUIT PROTECTION	
CBL101	1		738880	HARTFIEL	9-1051193		OR EQUIVALENT
PJ223 PJ323 PJ423	3		746197	B & R	8IOXC002.100.1		SUPPLIED BY HANGZHOU YOUNSUN
MCR20101	1	*1	732928	SCHNEIDER	LC1D09		OR EQUIVALENT
		*1	012635	SCHNEIDER	LADN20		
PLC30101	1	*1	731535	B & R	X20BR9300	X20 BUS RECEIVER, X2X LINK BUS RECEIVER, 24VDC X20 BUS RECEIVER	SLOT 1
		*1	742087	B & R	X20BM01		
		*1	742088	B & R	X20TB12		
PLC30501	1	*1	738900	B & R	X20CS1030	X20 INTERFACE MODULE, 1-PORT RS422/485, 24VDC, 115.2kbits X20 INTERFACE MODULE	SLOT 5
		*1	742083	B & R	X20BM11	PLC B&R BUS MODULE X20 TEREMINAL BLOCK	
		*1	742088	B & R	X20TB12		
PLC30201	1	*1	742084	B & R	X20DIF371	16 POINT X20 INPUT MODULE X20 DISCRETE INPUT	SLOT 2
		*1	742083	B & R	X20BM11	PLC B&R BUS MODULE X20 TEREMINAL BLOCK	
		*1	742082	B & R	X20TB1F	16 PIN TERMINAL BLOCK X20 TEREMINAL BLOCK	
PLC30301	1	*1	742996	B & R	X20D09322	X20 OUTPUT MODULE, 12-PT DIGITAL SOURCE, 24VDC X20 DIGITAL OUTPUT	SLOT 3
		*1	742083	B & R	X20BM11	PLC B&R BUS MODULE X20 TEREMINAL BLOCK	
		*1	742088	B & R	X20TB12		
PLC30401	1	*1	738899	B & R	X20PS2100	X20 POWER SUPPLY, FOR INTERNAL I/O, 24VDC, X20 POWER SUPPLY Required line fuse: Max. 10 A, slow-blow	SLOT 4
		*1	742087	B & R	X20BM01		
		*1	742088	B & R	X20TB12		
PWS109	1		750572	SCHNEIDER	ABL2REM24020K		
R420	1		ANY	120 OHM	0.25 W		SUPPLIED BY BRENTON
	17		742993	PHOENIX	3209578		
	1		742994	PHOENIX	3209594		
CBL20123	2		743144	HARTFIEL	THC50967		SUPPLIED BY HANGZHOU YOUNSUN
CBL30502	6		743142	HARTFIEL	THC80290		SUPPLIED BY BRENTON

CBL20123 ASSY. INCLUDES
TB20123
AND CABLE

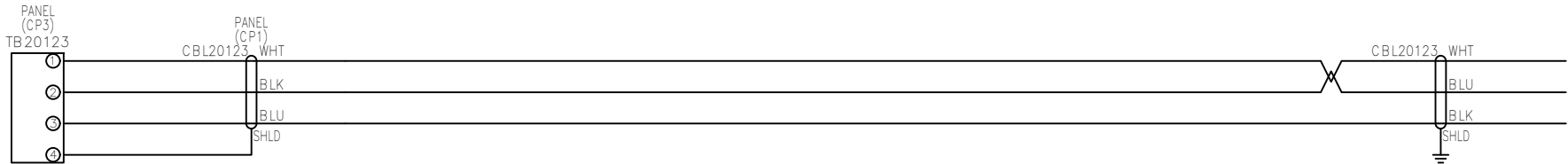
CBL30502 ASSY. INCLDES
PJ223
PJ323
PJ423
R420
AND CABLE

NOTE:
BACK PANEL INSTALLED
INSIDE TOWER UNIT

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NO.	DATE	REVISION	BY
DWG TITLE			
FLEX (STANDARD)			
B&R SENTRY LP/HP			
(CP1) PANEL AND BOM			
ENGINEER		CHECKED BY	
JOB NO		DRAWN BY	
SCALE		DATE	
NO SCALE		3/17/2018	
DWG NO			
B&R SENTRY			
SHEET NO			

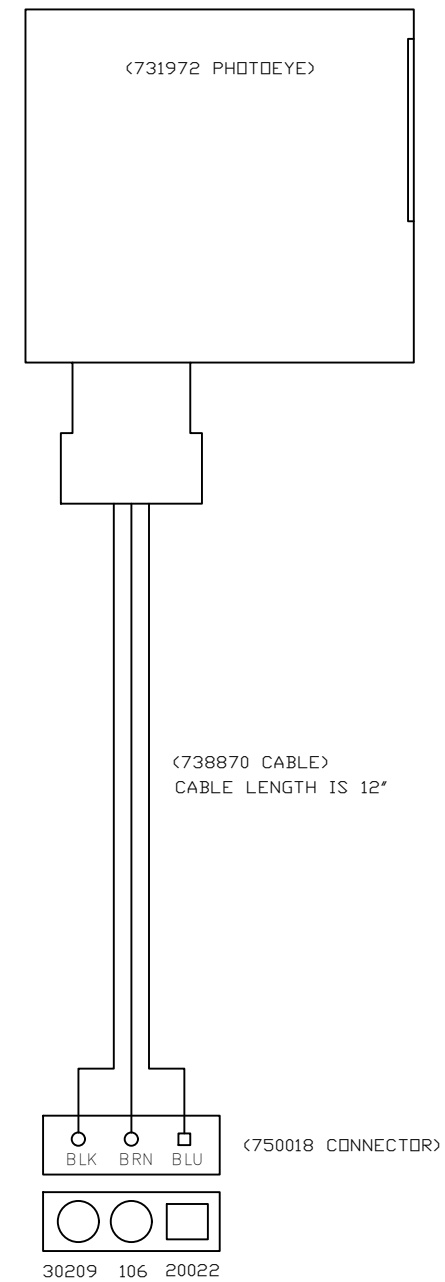


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NO.				DATE				REVISION				B.Y.			
DWG TITLE															
FLEX (STANDARD) B&R SENTRY LP/HP															
CABLE CBL30602 (743145)															
ENGINEER								CHECKED BY							
JOB NO								DRAWN BY							
SCALE								DATE							
NO SCALE								3/17/2018							
DWG NO															
B&R SENTRY															
SHEET NO															
13 OF 15															

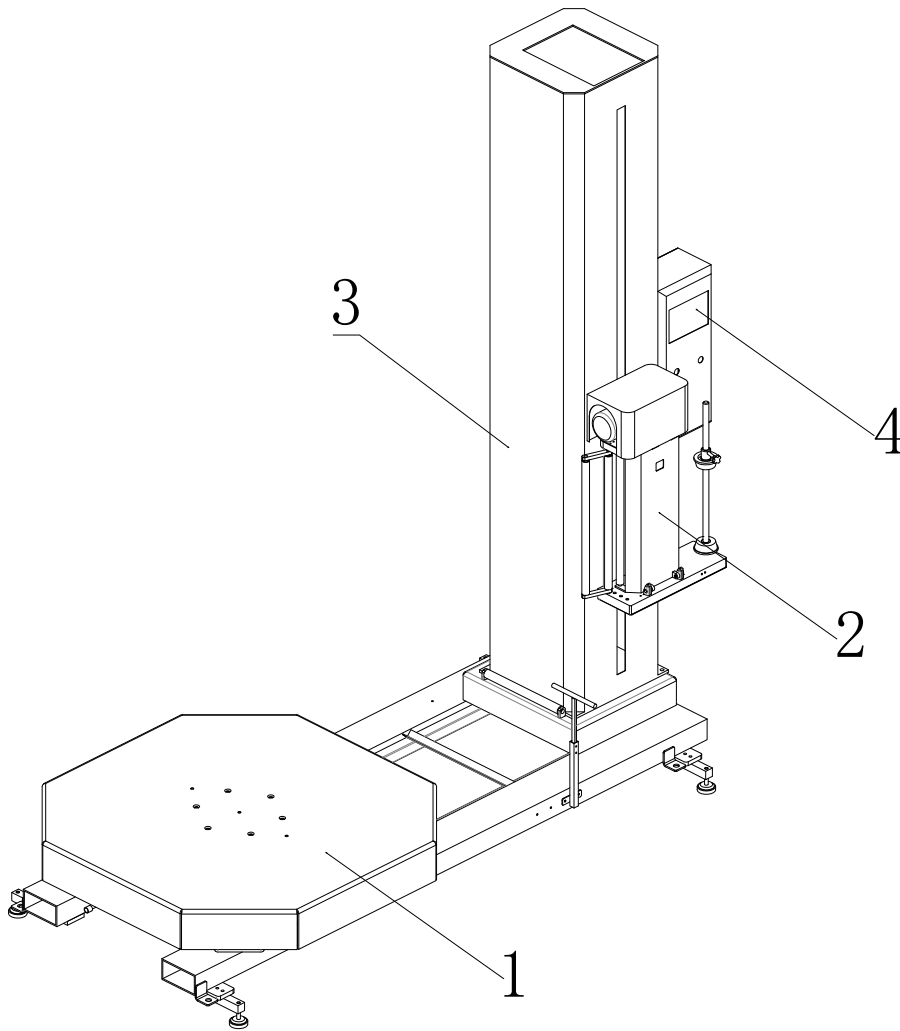
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DARK LOAD PHOTOEYE KIT (D0393156)

[illegible]

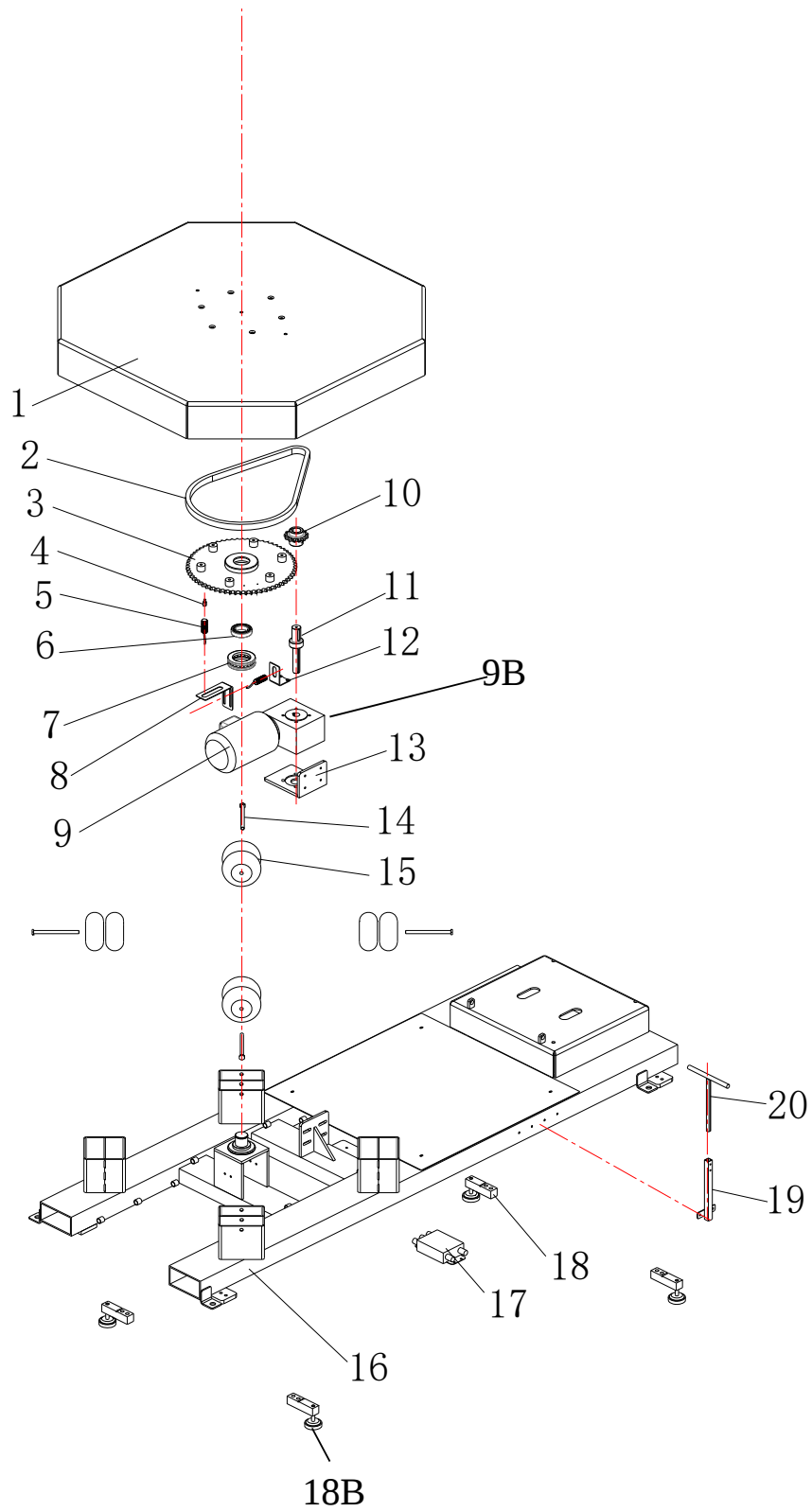
Mechanical Drawings

Download the mechanical drawings for your particular model on the Orion Webpage.
<https://www.orionpackaging.com/parts-and-service/manuals/>

SENTRY HP/ LP PARTS DIAGRAM AND LIST

NO.	Name	Part Number	Qty	Remarks
1A	Sentry HP Base	753831		
1B	Sentry LP Base Assembly	749511		
2	Sentry Carriage Assembly	750497		
3	Sentry Tower Assembly (B&R)	749510		
4	Sentry Control Panel	750029		

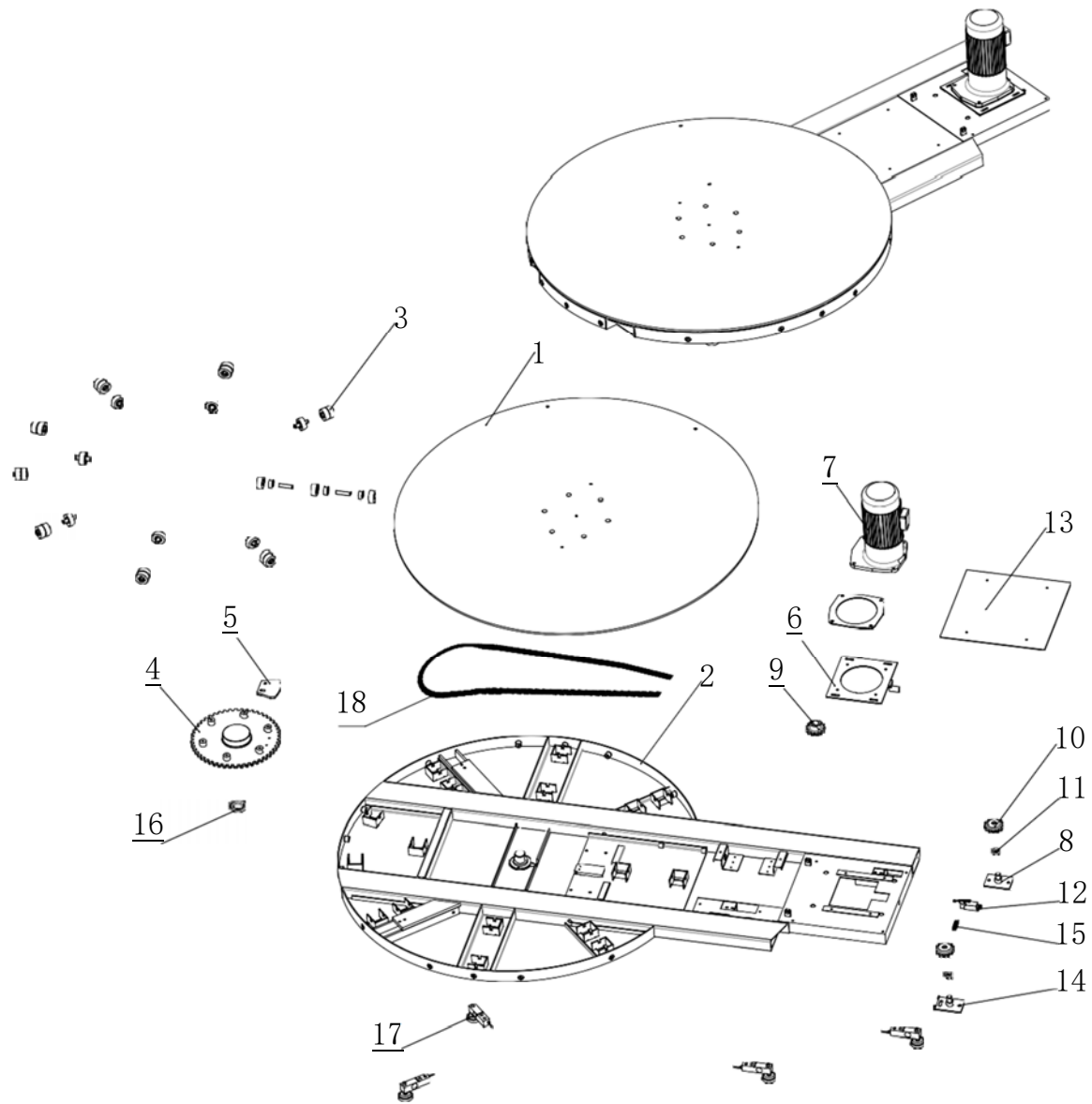
HP Base Unit Assembly



HP Base Parts List

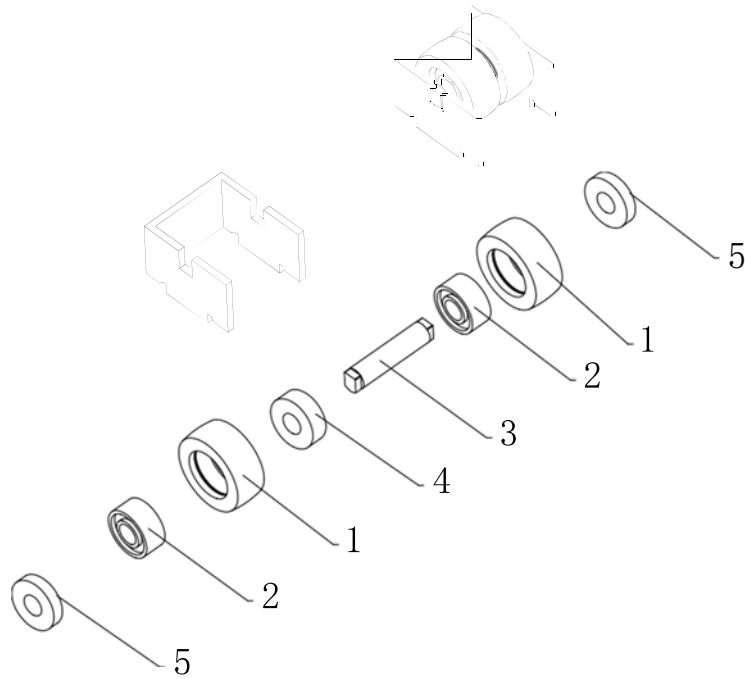
NO.	Name	Part Number	Qty	Remarks
-	Complete HP Base Assembly	753831	1	
1	Turntable	752068	1	
2	TT Chain	752069	1	
3	TT Sprocket	751259	1	
4				
5				
6	Bearing	752070	1	
7	Bearing	752072	1	
8	Proximity Switch Mount	752073	1	
9A	Motor	752074	1	
9B	Gearbox	753841	1	
10	Drive Sprocket	753842	1	
11	Motor Shaft	753843	1	
12	Sensor Bracket	753844	1	
13	Reducer Mount	753845	1	
14	Caster Wheel Shaft	753846	4	
15	Caster Wheel	753847	8	
16	Sentry HP Base	753848	1	
17	Stainless Wire Box	753849	1	
18A	Scale Load Cell	751015	4	
18B	Scale Load Cell Feet	751016	4	
19	Roping Bar Holder	753850	1	
20	Roping Bar	753851	1	
21	Caster Wheel Kit	753852	1	
22	Optional Scale Kit with Feet, Load Cells, and LCD Indicator	751013	1	

LP Base Unit Assembly



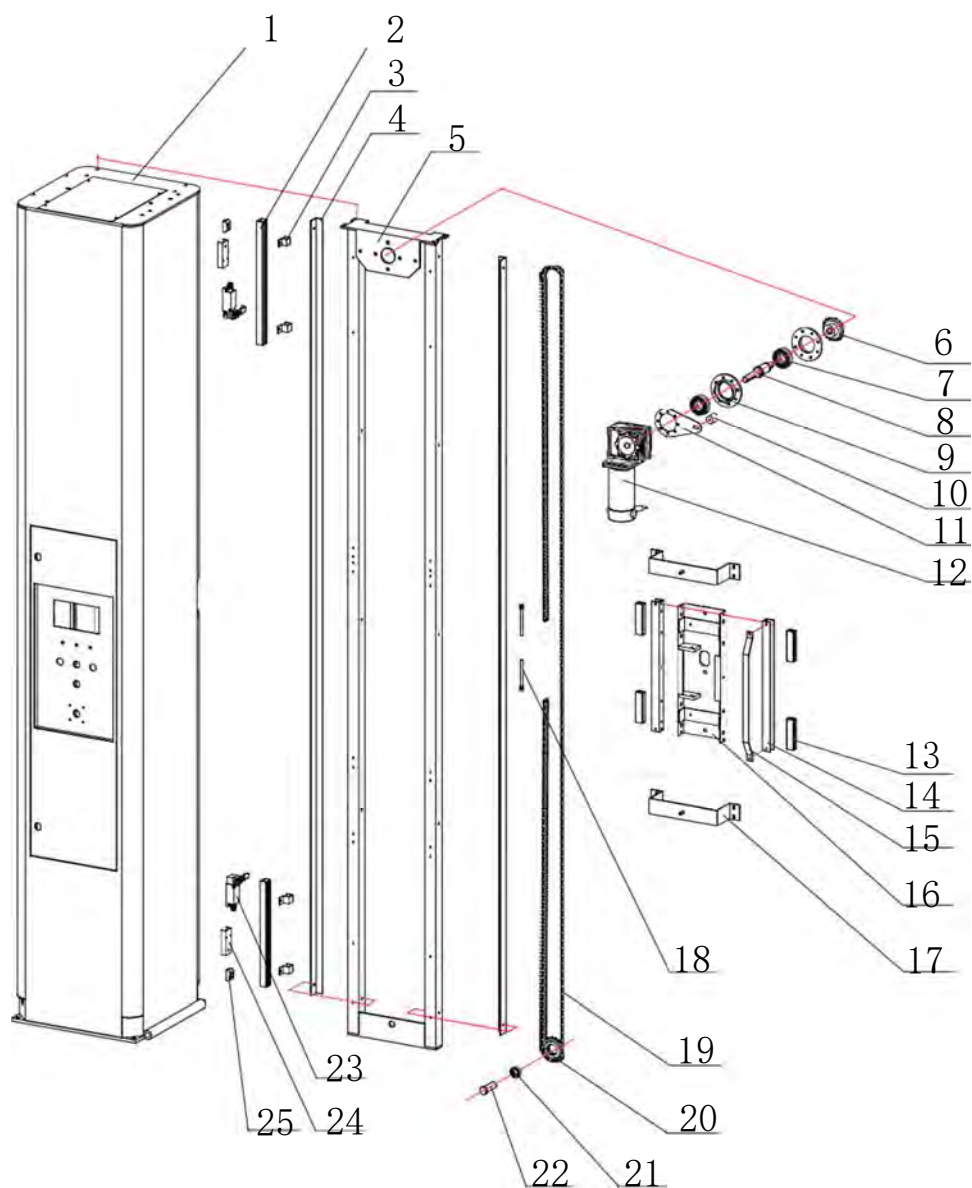
LP Base Parts List

NO.	Name	Part Number	Qty	Remarks
-	Complete LP Base Assembly	749511	1	
1	Turntable	751257	1	
2	Base	751258	1	
3	Roller Assembly	See Roller Assembly	13	
4	Driven Sprocket	751259	1	
5	Travel Switch Touch Block	751260	1	
6	Main Motor Baseplate	751261	1	
7	Turntable Motor	734351	1	750W 1:30
8	Tension Wheel Seat	751262	1	
9	Main Motor Drive Sprocket	751263	1	
10	Tension Chain Sprocket	751264	2	
11	Bearing	013428	2	6205
12	Limit Switch	734379	5	
13	Base Cover Plate	751265	1	
14	Elastic Tension Wheel Seat	751266	1	
15	Tension spring	751267	1	
16	Bearing	747355	1	6009
17	Load Cell Sensor	750865	4	Optional
18	Turntable Chain	0297067	1	#60

LP Roller Assembly**LP Roller Assembly Parts List**

Part Ref	Description	Part Number	Qty	Remarks
1	Roller Body	751229	2	
2	Roller Bearing	712455	2	6202
3	Roller Shaft	751230	1	
4	Inner Spacer Bushing	751231	1	L=16mm
5	Outer Spacer Bushing	751232	2	L=9.5mm
6	Roller Stand	Welded to base Not available for sale	1	

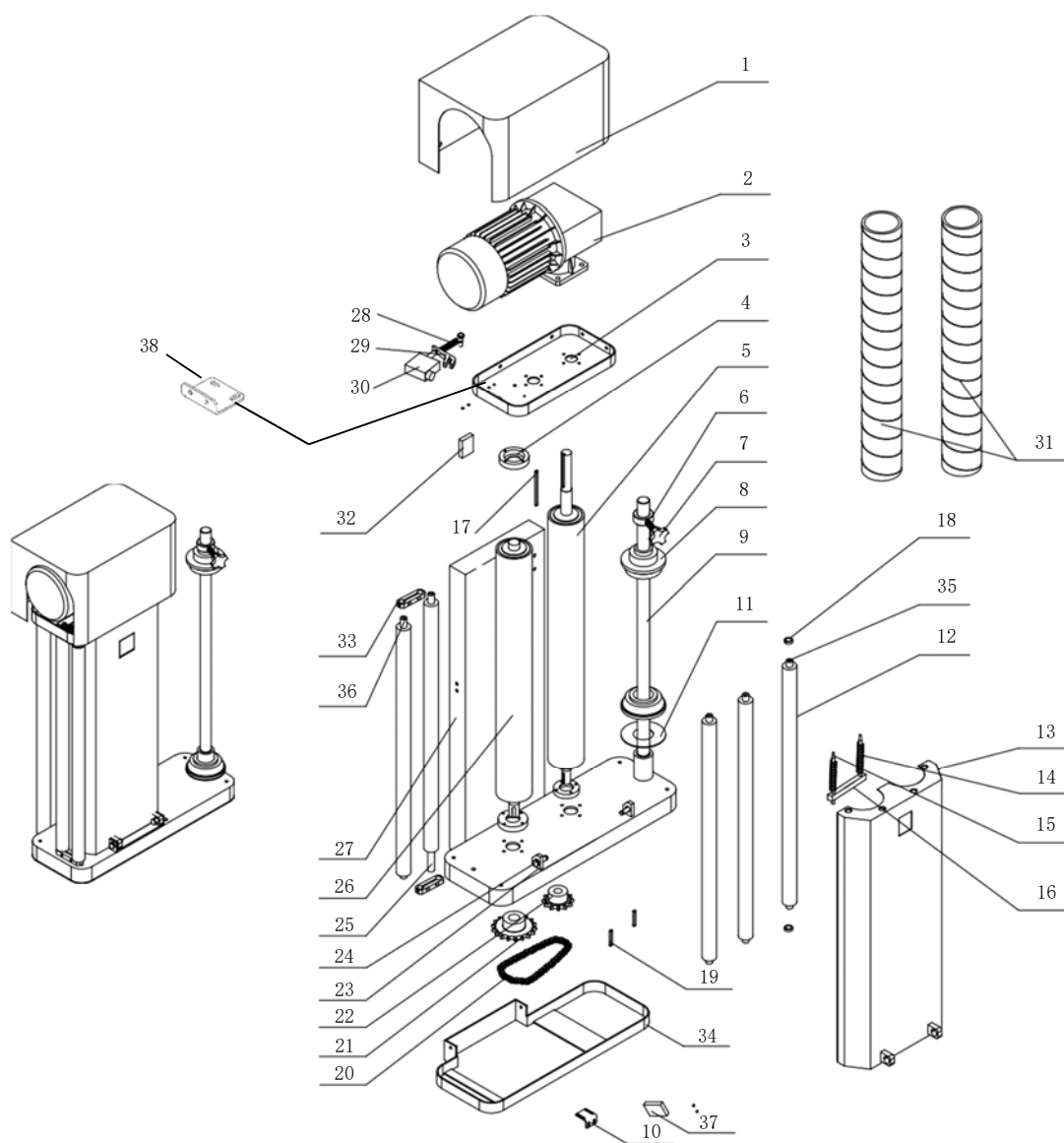
Tower Unit Assembly



Tower Parts List

NO.	Name	Part Number	Qty	Remarks
-	Complete Tower (8' High)	749510	1	
	Complete Tower (9' High)	749991	1	
1	Tower (8' High)	751268	1	
	Tower (9' High)	Contact for Details	1	
2	Travel Switch Sliding Slot	751269	2	
3	Lifting Wire Slot Support	751270	4	
4	Aluminum Slide	751271	2	
5	Mount Rack Lifting Bracket	751272	1	
6	Chain Driven Sprocket	751273	1	
7	Bearing	013429	2	6206
8	Motor Shaft	751274	1	
9	Bearing Seat	751275	2	
10	Torque Arm Mount	751276	1	
11	Torque Arm	751277	1	
12	Lifting Motor	751278	1	250W
12A	Tower Lift Kit (Motor, Gearbox, Shaft)	1078934	1	
13	Plastic Sliding Block	751279	4	
14	Sliding Block Frame	751280	2	
15	Lifting Touch Block	751281	1	
16	Single Chain Lifting Frame	751282	1	
17	Electrical Mount Plate	751283	2	
18	Adjusting Screw Rod	751284	2	
19	Chain (8' Tower)	0364241	1	
	Chain (9" Tower)	0364242	1	
20	Chain Idler Sprocket	751285	1	
21	Idler Bearing	741616	1	
22	Chain Idler Shaft	751286	1	
23	Limit switch	751292	2	OMRON
24	Limit Switch Plate	751287	2	
25	Limit Switch Block	751291	2	

Carriage Assembly

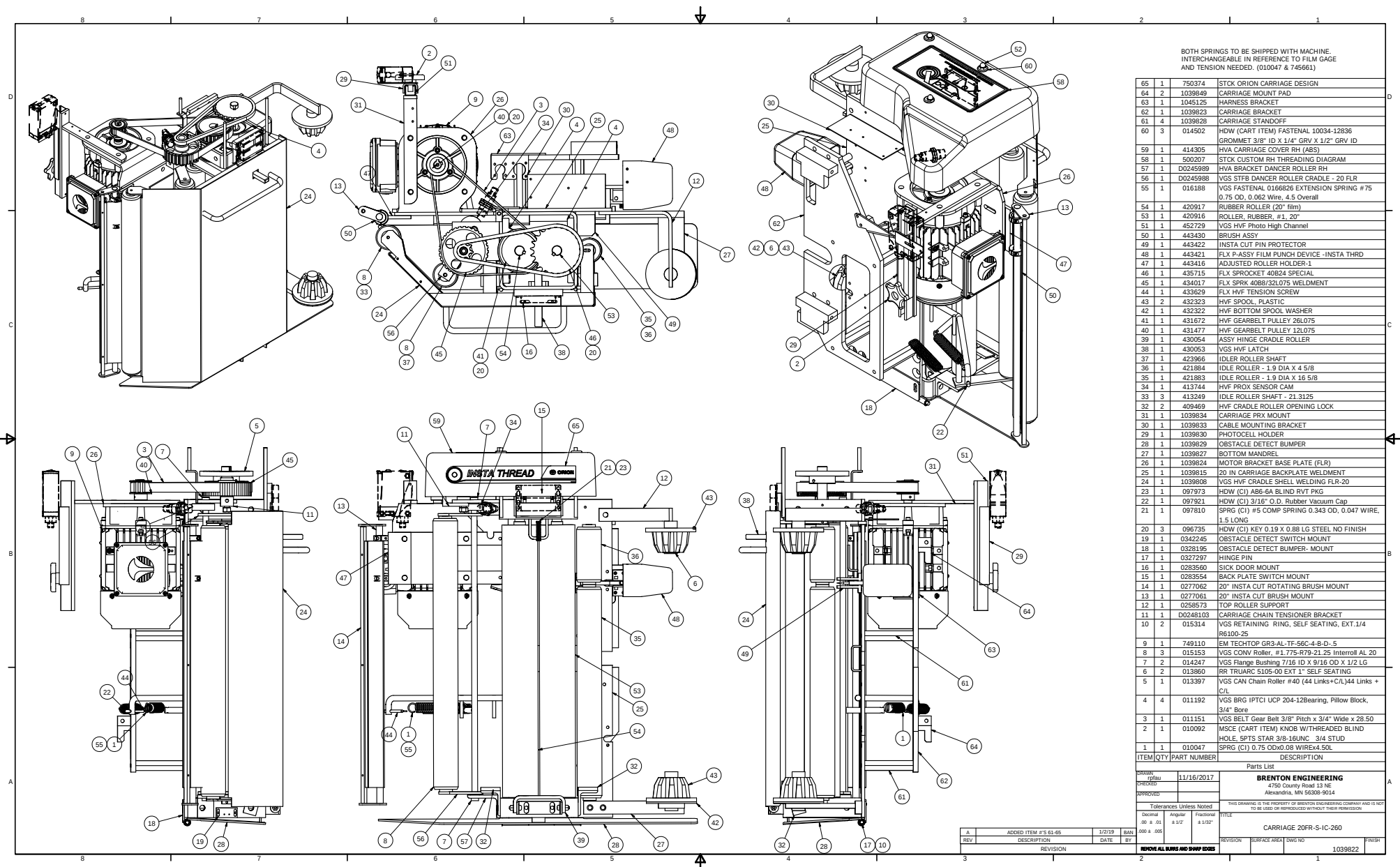


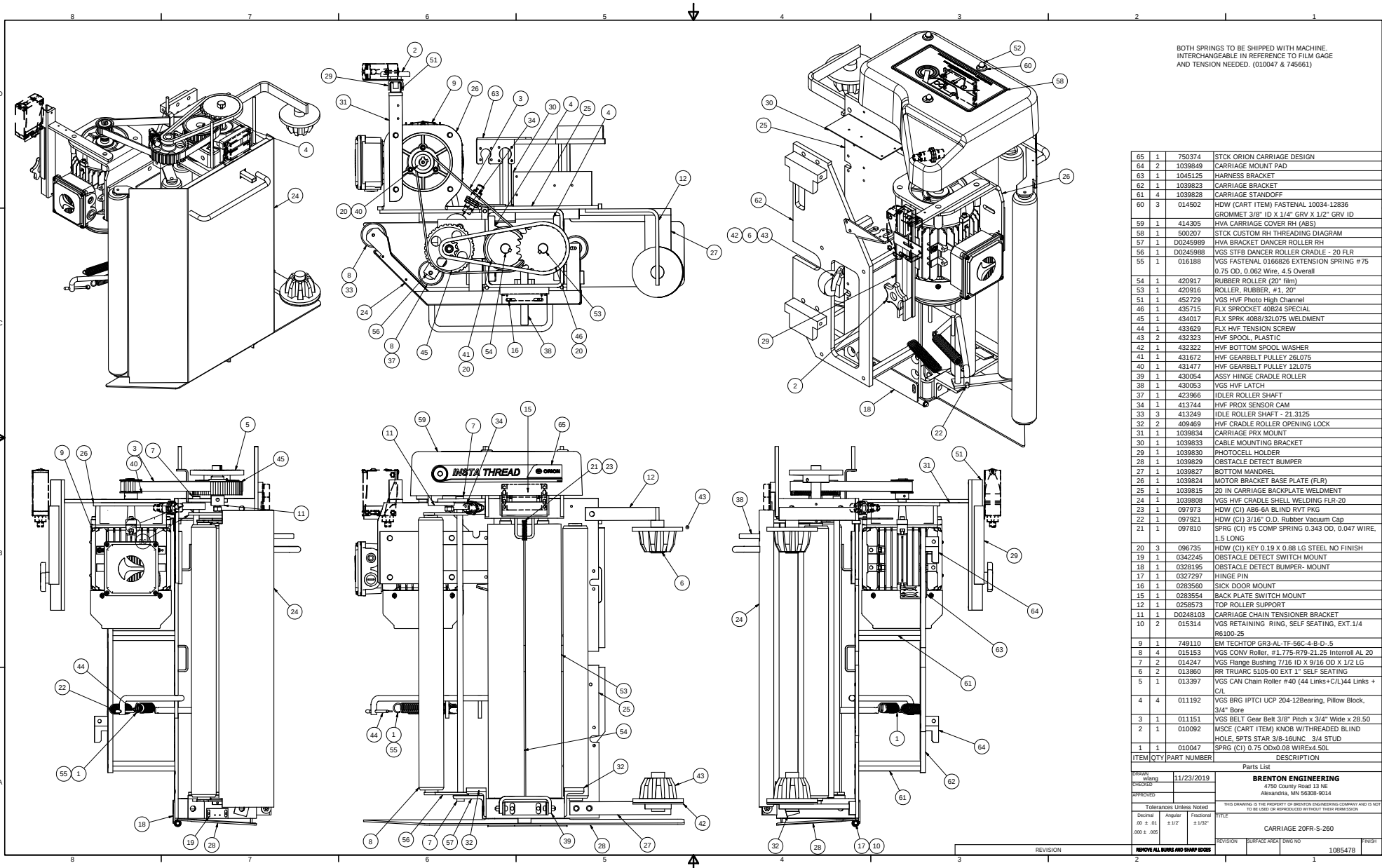
Carriage Parts List

NO.	Name	Part #	Qty	Remarks
-	Complete Sentry Carriage Assembly	750497	1	
1	Pre-stretch Motor Cover	735671	1	
2	Pre-stretch Gearbox & Motor	1011893	1	
2.1	Pre-stretch Motor Only	745000	1	Motor Only(250W)
2.2	Pre-stretch Gearbox Only	735672	1	Gearbox Only
3	Pre-stretch Upper Cover	735673	1	
4	Bearing w/Base	735674	3	
4.1	Bearing Only	741616	3	6904 bearing
5	Pre-stretch Roller	735675	1	
6	Tightening ring	735676	1	
7	Tightening Screw	735677	1	M10
8	Film Locating Plate	735678	2	
9	Film Shaft	735679	1	
10	Micro-Active Switch Frame	735680	1	
11	Locating Plate	735681	1	w/Ext. Ret. Ring
11.1	Ext. Retaining Ring	736040	1	
12	Transition Roller Kit (Rollers, Shaft & Bearings)	735682	5	w/shaft & bearings
13	Cradle Roller Door	735683	1	
14-16	Door Latch Kit (Spring, Pin & Rail)	1011894	--	Item #'s 14,15,16
14	Compressed Spring	735684	2	
15	Locating Pin	735685	2	
16	Cross Bar/Rail	735687	1	
17	Roller Key	753264	1	6mm×6mm×60mm
18	Roller Bearing (Part of item #12)	-----	10	6901
19	Sprocket Key	1070497	2	5mm×5mm×14mm
20	Carriage Chain	735690	1	06B
21	Driven Sprocket	735691	1	
22	Drive Sprocket	735692	1	
23	Lower hinge	735693	1	
24	Hinge pin	735694	2	
25	Swing support shaft	735695	1	
26	Main roller	735696	1	
27	Lifting body	735697	1	
28	Tension spring	735698	1	
29	Micro switch touch block	735699	1	
30	Micro switch	735700	1	OMRON
31	Rough Surface on Main Roller	Contact for Details	2	

Sentry LP Mechanical Drawings

32	Top Load Photoelectric switch	735702	1	P+F
33	Left Connecting Block	735703	2	
34	Bottom Protection Frame	735704	1	
35	Transition roller shaft (Part of item #12)	-----	3	
36	Swing shaft (short)	735706	1	
37	Micro switch	738183	1	
38	Dark Photo Eye Mount Bracket	1057079	1	Optional Part





BOTH SPRINGS TO BE SHIPPED WITH MACHINE.
INTERCHANGEABLE IN REFERENCE TO FILM GAGE
AND TENSION NEEDED, (010047 & 745061)

DATE		11/23/2019	PARTS LIST	
DRAWN			BRENTON ENGINEERING	
CHECKED			4750 County Road 13 NE	
APPROVED			Alexandria, MN 56308-9014	
Tolerances Unless Noted			THIS DRAWING IS THE PROPERTY OF BRENTON ENGINEERING COMPANY AND IS NOT TO BE LOANED OR REPRODUCED WITHOUT THEIR PERMISSION	
Decimal	Angular	Fractional	TITLE	
.00 ± .01	± .1/2°	± 1/32"	CARRIAGE 20FR-S-260	
.00 ± .005			DIVISION	
			SURFACE AREA	DRG NO
				1085478
			FINISH	