

Canada Post

2016 Parts Catalog



Ford E-450 Chassis

2016 Morgan Olson Body



1.800.233.4823
WWW.MORGANOLSON.COM



TABLE OF CONTENTS	4
INTRODUCTION	5
CAB - ENGINE BOX - WINDSHIELD	6-7
STEPS - ENGINE BOX INSULATION	8-9
HEATER - DEFROSTER	10-11
HOOD	12-13
INSTRUMENT PANEL & SEATS	14-15
FLOOR	16-17
SIDES	18-19
ROOF - BACK	20-21
SIDE DOOR - SIDE DOOR POCKET	22-23
BULKHEAD	24-25
ROLL UP DOOR - 47005932	26-31
SHELVING / CARGO CONTROL	32-35
BUMPERS - KEYLESS SYSTEMS	36-37
MIRRORS & WIPER ASSEMBLY	38-39
MISCELLANEOUS	40-41
ELECTRICAL	42-43
WIRING HARNESS	44
WALK-IN VAN COMMON FASTENERS	45-49
WIRING DIAGRAMS	50-96

This parts guide contains illustrations and part numbers for Canada Post Package Delivery Vehicles and applies to bill of material # CV103310 produced in 2016.

This book has been divided into chapters.

Each chapter has illustrations with part numbers and descriptions.

Each part is pointed out to help identify it.

Orientation references are from the rear of the vehicle facing forward.

LH (LEFT HAND) is ROADSIDE and RH (RIGHT HAND) is CURBSIDE.

Items listed as "Installations" include all fasteners and parts required for completion.

Items listed as "Assemblies" include the parts but do not include the common fasteners; nuts, bolts, rivets and washers, required for completion.

Procedure to Order Parts

1. Depending on the part desired, turn to the appropriate section.
2. Locate the desired part on the Illustration Page(s) and note it's number.
3. Contact a Morgan Olson Service Parts Representative. Have part numbers readily available.
4. When placing orders, specify serial numbers.

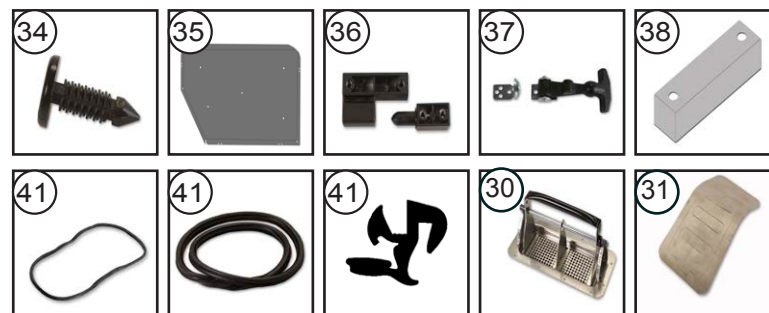
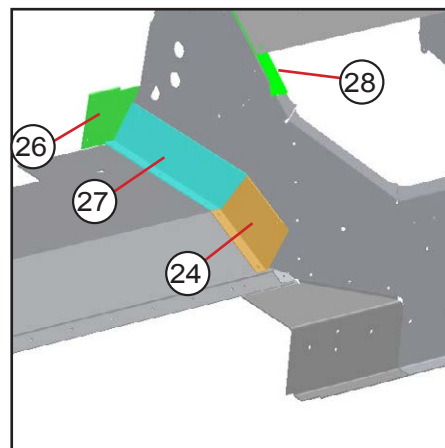
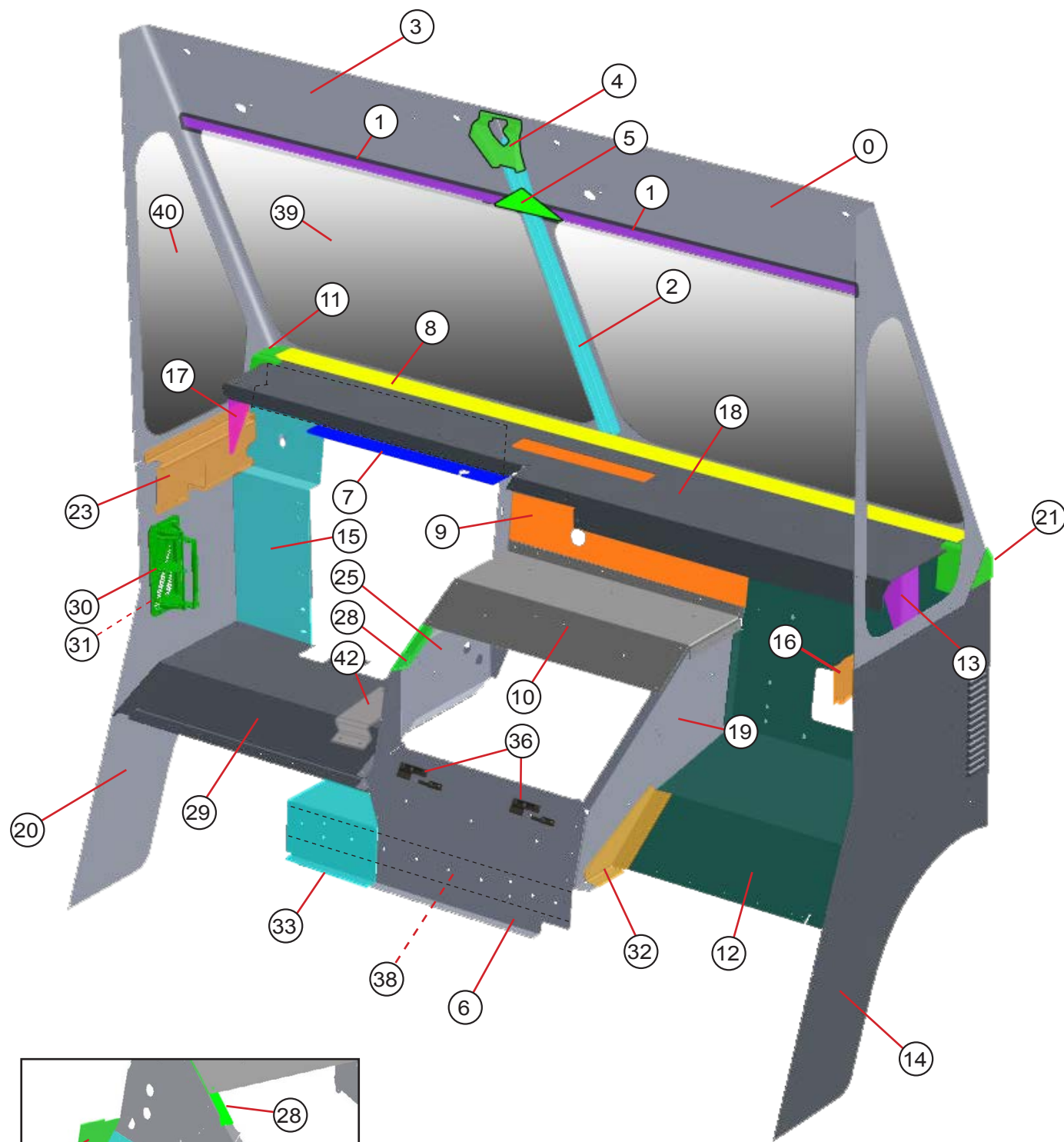
Parts are also available from our parts website at www.morganolsonparts.com.

FOR WARRANTY INFORMATION CALL 1-800-262-3437

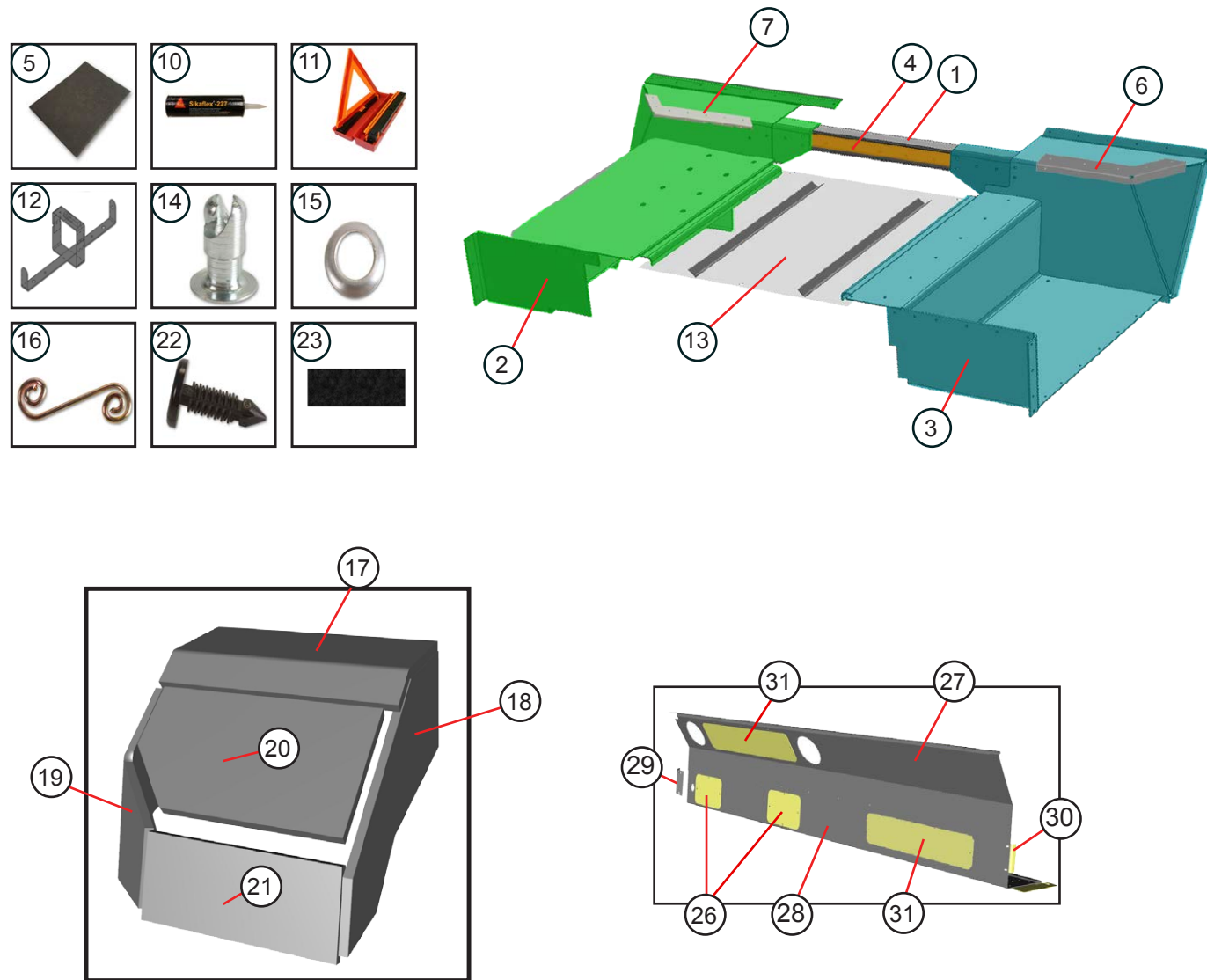
ANY QUESTIONS OR CONCERNS SHOULD BE DIRECTED TO YOUR SERVICE PARTS REPRESENTATIVE AT 1-800-233-4823

At Morgan Olson, our quest for quality and safety is ongoing and therefore the specifications on the product described herein may vary over time.

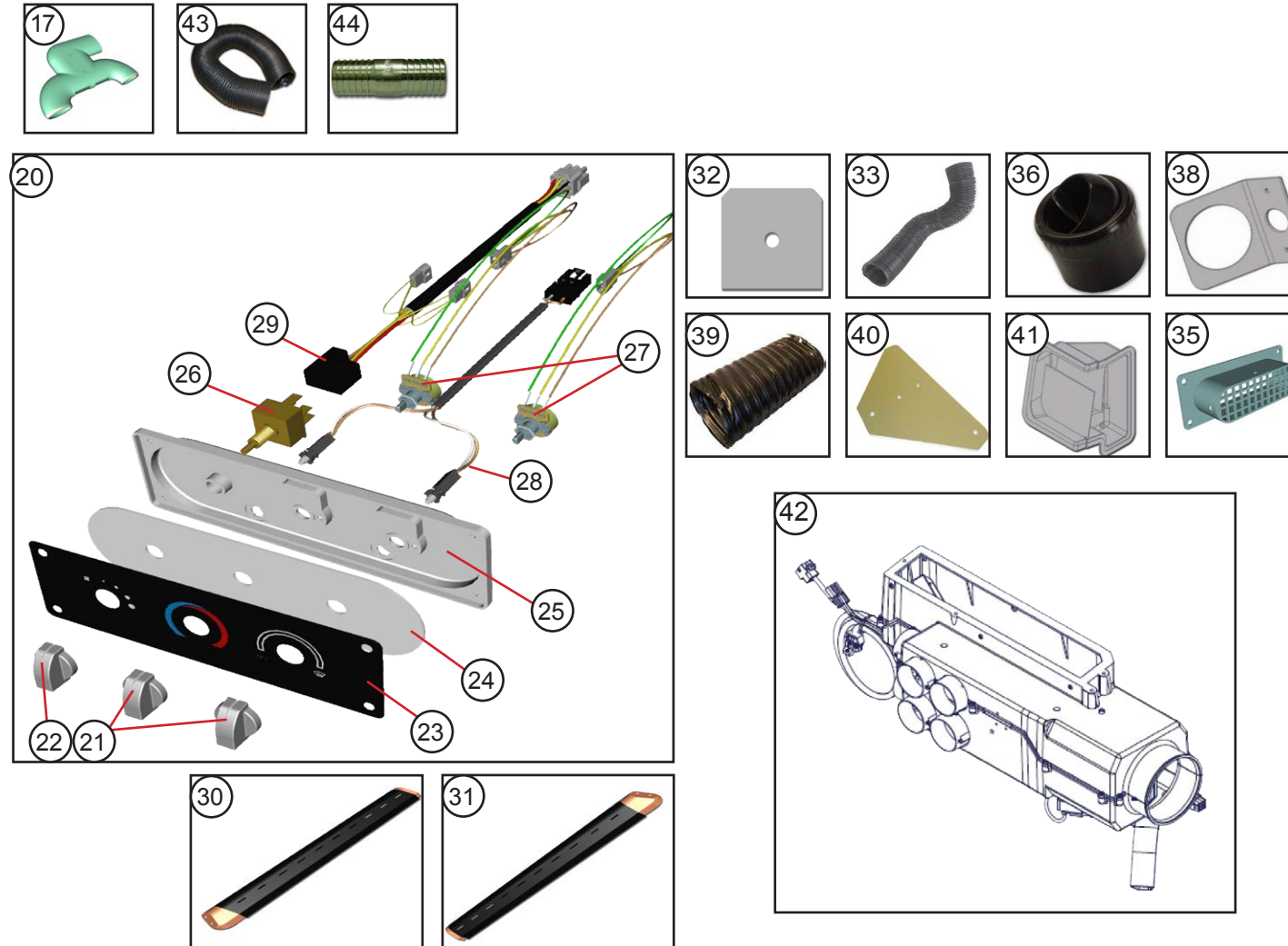
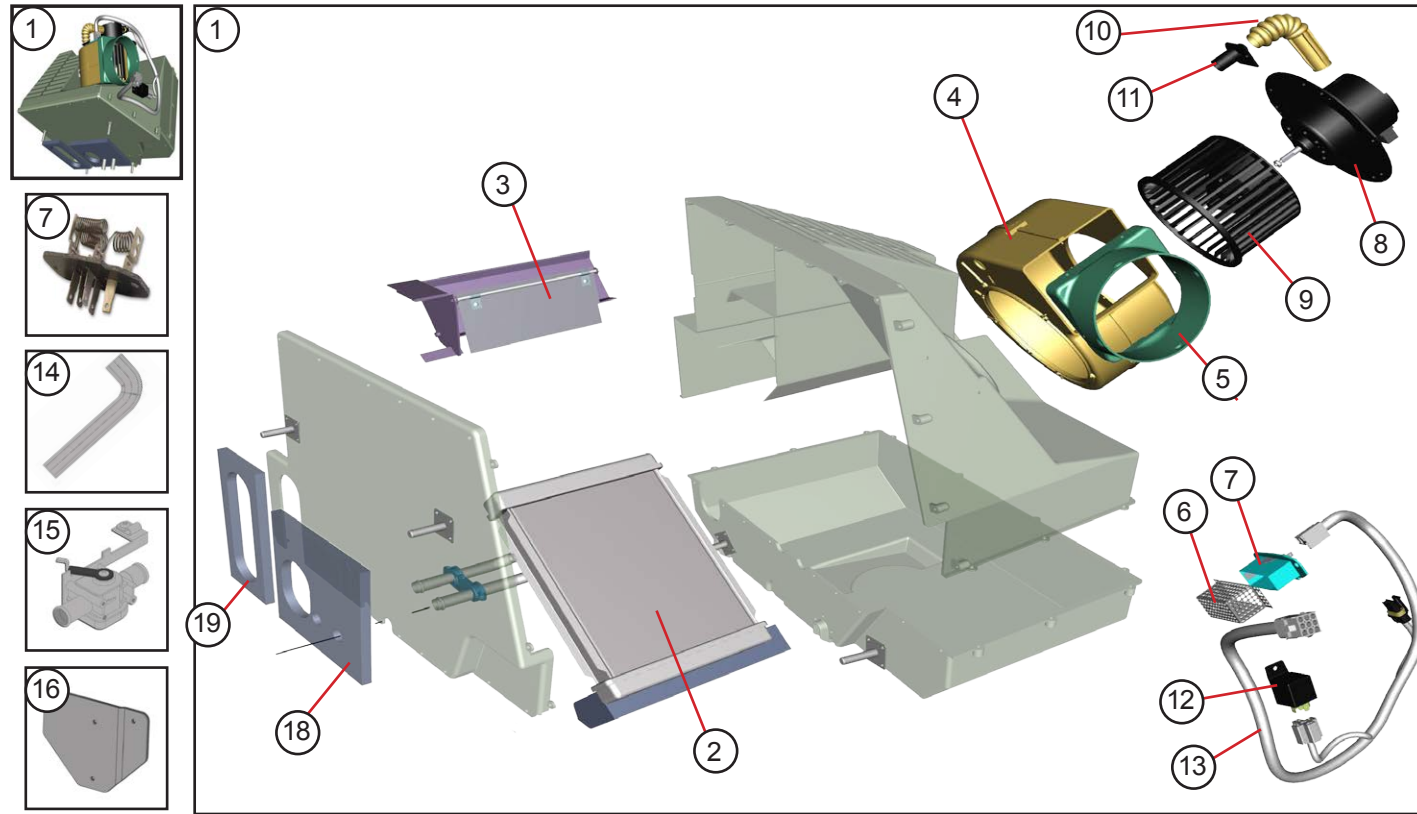
Please contact Morgan Olson for the latest product information and available safety features and options.



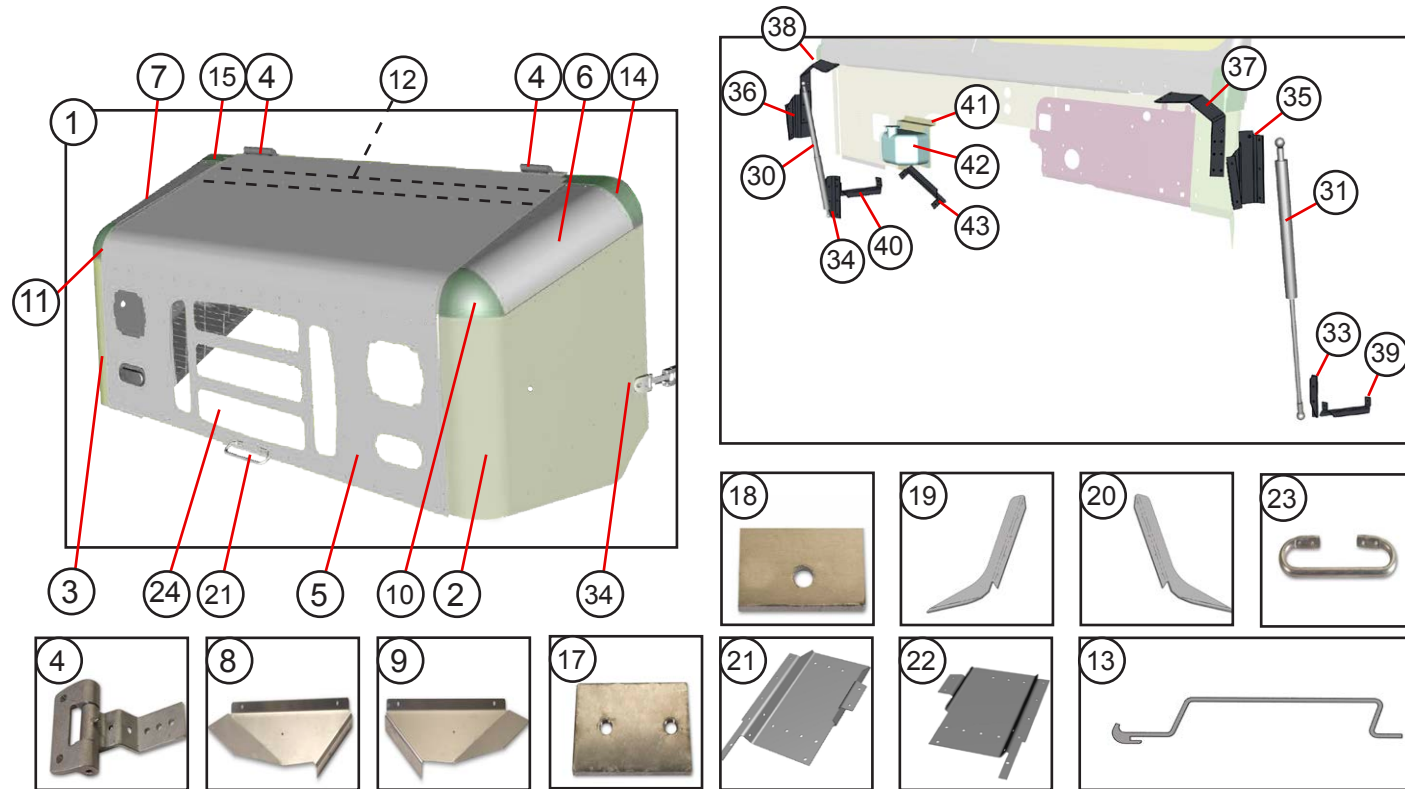
ITEM	PART #	DESCRIPTION	QTY.	UNIT
0	088055402	FRAME W/S AL .102X49.72X70.07 RH	1	EA
1	077055404	STIFFENER W/S AL 450540X44.25	2	EA
2	077055400	POST W/S CENTER AL 450540X40	1	EA
3	088055401	FRAME W/S AL .102X49.72X69.77 LH	1	EA
4	077055402	GUSSET FRAME W/S AL .125X6.49X7.27	1	EA
5	998555329	GUSSET FRAME W/S AL .125X4.6X9.19	1	EA
6	155005411	ENGINE BOX SADDLE AL .102X15.61X23.8	1	EA
7	095005482	DASH UPPER AL .102X4.6X23.74 LH	1	EA
8	083023402	RAIL W/S 93W AL 851100X89	1	EA
9	155005414	DASH WALL CENTER AL .102X14.85X31.69	1	EA
10	095005437	ENGINE BOX TOP AL .102X15.68X30.51	1	EA
11	8502000	CORNER AL CAST W/S LH	1	EA
12	095005427	TOEBOARD AL .102X32.45X47.44 RH	1	EA
13	083005419	SUPPORT RAIL W/S AL.102X5.74X8.27 RH	1	EA
14	165005408	CAB SKIRT AL .07X32.57X55.13 RH	1	EA
15	095005435	DASH WALL OUTER AL .102X13.64X28.36	1	EA
16	157005402	STIFFENER W/S AL .125X12.07X17.69 RH	1	EA
17	083005418	SUPPORT RAIL W/S AL .102X5.74X8.27 LH	1	EA
18	125027406	SHELF DASH AL .102X13.74X89	1	EA
19	155005418	ENGINE BOX PANEL AL .125X21.52X29.91 RH	1	EA
20	095005444	CAB SKIRT AL .07X40.60X45.91 LH	1	EA
21	8502001	CORNER AL CAST W/S RH	1	EA
22	095005431	DASH WALL UPPER AL .102X7.36X36.26 LH	1	EA
23	083005521	STIFFENER W/S AL .125X10.93X17.81 LH	1	EA
24	155005419	ENGINE BOX ADAPTOR AL .102X4.72X9.82	1	EA
25	155005412	ENGINE BOX PANEL AL .102X19.94X32.53 LH	1	EA
26	115005452	CLOSURE CAB AL .07X4.67X6.6	1	EA
27	115005450	ADAPTOR ENGINE BOX AL .102X4.36X13.39	1	EA
28	155005415	ENGINE BOX UPPER PANEL AL .102X2.59X11.82	1	EA
29	115005453	TOEBOARD AL .125X21.01X36.54 LH	1	EA
30	47008545	VENT AL 2WAY HINGELESS	1	EA
31	47008548	GASKET FOR SALEM VENT #47008545	1	EA
32	077050406	GUSSET TOEBOARD AL .125X5.33X14.88 RH	1	EA
33	155005416	ENGINE BOX SADDLE FILLER AL .102X12.8X13.78	1	EA
34	47006630	CLIP PLASTIC ROUND HEAD 1.32-1.34	10	EA
35	105028400	LID ENGINE BOX AL .102X18.58X32.44	1	EA
36	47007859	HINGE OFFSET	2	EA
37	1113336	LATCH ENGINE BOX	2	EA
38	117028400	SHIM ENGINE BOX	1	EA
39	96756400	GLASS WINDSHIELD	2	EA
40	083056401	GLASS SIDE TRIANGLE	2	EA
41	44004303	WINDOW STRIP X147.5	2	EA
41	44004305	WINDOW STRIP X85.5	2	EA
42	165019400	HEEL REST AL .125X4X9.56	1	EA



ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	077240400	CROSSMEMBER CENTER AL 456106X41	1	EA
2	105024207	STEP ASSEMBLY WELDMENT ROADSIDE 93W F59	1	EA
3	095024242	STEP ASSEMBLY WELDMENT CURBSIDE 93W F59	1	EA
4	077050402	SHIM AL .25X1.62X20.8	1	EA
5	1107235	PAD RUBBER RIBBED .125 X 30'	6	FT
6	095019437	TRIM TOEBOARD ALD .08X7.54X23.87 RH	1	EA
7	083019403	TRIM TOEBOARD ALD .08X2.66X31.58 LH	1	EA
10	41002103	SEALANT/ADHESIVE	2	EA
11	47009547	SAFETY KIT 3 TRIANGLES IN STORAGE BOX	1	EA
12	47009548	BRACKET MOUNTING TRIANGLE KIT	1	EA
13	095024260	TRANSVERSE FLOOR PLATE WELDMENT	1	EA
14	40900080	STUD	7	EA
15	40900081	GROMMET HALF	7	EA
16	40900082	SPRING	7	EA
17	095005455	INSUL E/BX PSA 1X12.18X28.34	1	EA
18	093005405	INSUL E/BX PSA 1X17.56X27.46 RH	1	EA
19	105005456	INSUL E/BX42002056X17.43X32.37	1	EA
20	105005457	INSUL E/BX 42002056X8.09X22.61	1	EA
21	105005458	INSUL E/BX SADDLE 42002056X7X21.5	1	EA
22	47006630	CLIP PLASTIC ROUND HEAD	15	EA
23	45200345	PLATE STEP FBG ANTI SLIP .125X13.84X25.13	1	EA
26	088076431	PLATE COVER WPR MTR AL .102X5X12	2	EA
27	088076437	COVER MOTOR WPR AL .102X10.85X87.25	1	EA
28	088076441	SHELF COVER AL .102X16.9X90.31	1	EA
29	088076449	BRACKET MOUNTING AL .102X2.36X3.9 LH	1	EA
30	088076450	BRACKET MOUNTING AL .102X2.36X3.9 RH	1	EA
31	097076435	PLATE COVER ACC AL .070X6X28.38	2	EA
NS	47009600	CARPET GREY ENGINE BOX LID	3	FT

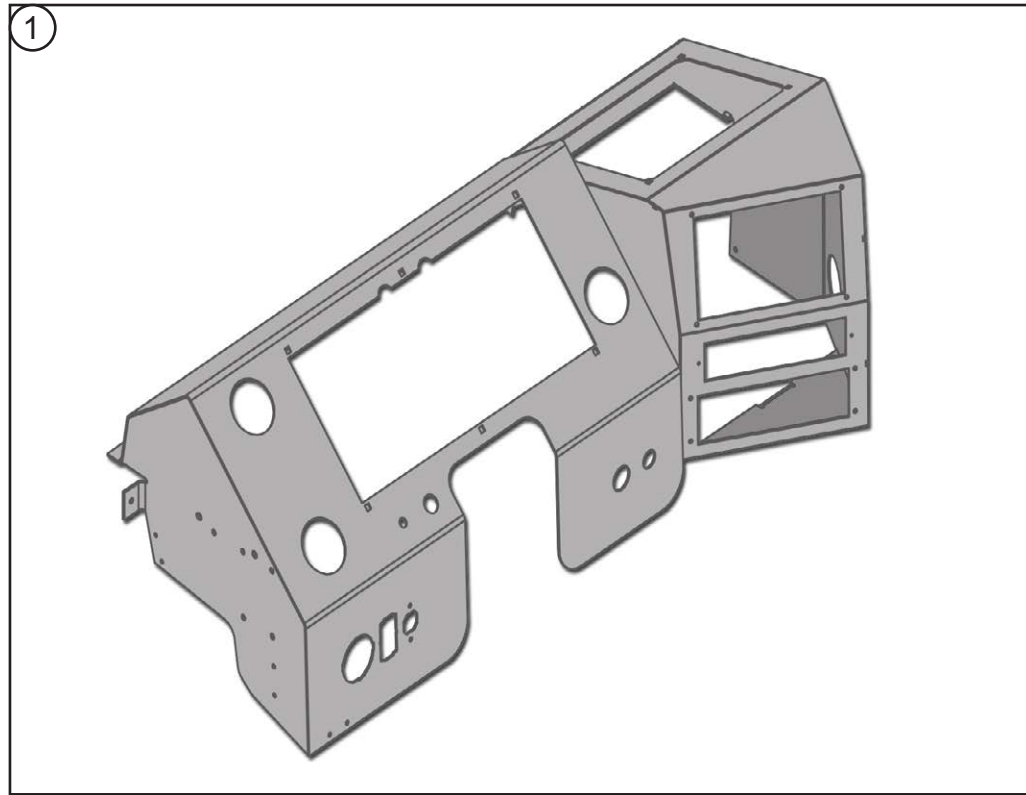


ITEM #	PART #	DESCRIPTION	QTY	UNIT
1	555001014	HEATER CORE	1	EA
2	47008760	HEATER COIL W/GASKET & CLAMP	1	EA
3	47008753	DOOR W/SEAL	1	EA
4	47008754	BLOWER HOUSING	1	EA
5	47008755	BLOWER ADAPTER	1	EA
6	47008732	RESISTER CAGE	1	EA
7	47008357	RESISTER	1	EA
8	47008756	BLOWER MOTOR	1	EA
9	47008757	BLOWER WHEEL	1	EA
10	47008730	VENT TUBE	1	EA
11	47008731	VENT TUBE ADAPTER	1	EA
12	47008716	RELAY	1	EA
13	47008758	HARNES	1	EA
14	47008580	FORMED HEATER HOSE	2	EA
15	555002053	VALVE WATER	1	EA
16	105080401	PLATE MOUNTING FOOT DUMP AL .07X4.25X5.53	1	EA
17	090080401	DUCT FT DUMP SPECIAL	1	EA
18	21-01201	GASKET - PART OF HEATER ASSEMBLY	1	EA
19	21-01202	GASKET - PART OF HEATER ASSEMBLY	1	EA
20	555001413	CONTROL PANEL ASSEMBLY	1	EA
21	47008706	KNOB	2	EA
22	47008735	KNOB	1	EA
23	47008707	DECAL	1	EA
24	47008708	LIGHT PANEL	1	EA
25	47008709	CONTROL SUB PANEL	1	EA
26	47008700	BLOWER SWITCH	1	EA
27	47008710	POTENTIOMETER SWITCH	2	EA
28	47008711	HARNES ILLUMINATION W/BULBS	1	EA
29	47008712	HARNES BLOWER MOTOR	1	EA
30	555001723	DEFROST DUCT CURBSIDE METAL	1	EA
31	555001724	DEFROST DUCT ROADSIDE METAL	1	EA
32	093080400	HOLD DOWN PLATE DEFROSTER DUCTS	4	EA
33	555001524	HOSE DEFROSTER 2.5X30	1	EA
34	555001525	HOSE DEFROSTER 2.5X38 (2X DEFROSTER / 1XFOOT DUMP)	3	EA
35	555002003	COLLAR FRESH AIR INTAKE	1	EA
36	555001715	LOUVER BALL	6	EA
38	555002007	PLNM FA HVAC SI WALL E-SER (HOSE - 555002008)	1	EA
39	555001533	HOSE BLOWER HEATER/DEFROSTER 5"X7.5"	1	EA
40	005780402	MOUNTING PLATE	1	EA
41	002080400	BRACKET HEATER CONTROL AL .102X3X11.67	1	EA
42	555001323	DUCT HVAC	1	EA
43	555001523	HOSE DEFROSTER 2.5X16	1	EA
44	47008017	CONNECTOR STRAIGHT .62ID BLACK NYLON	2	EA

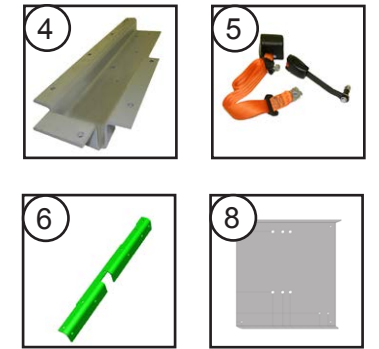
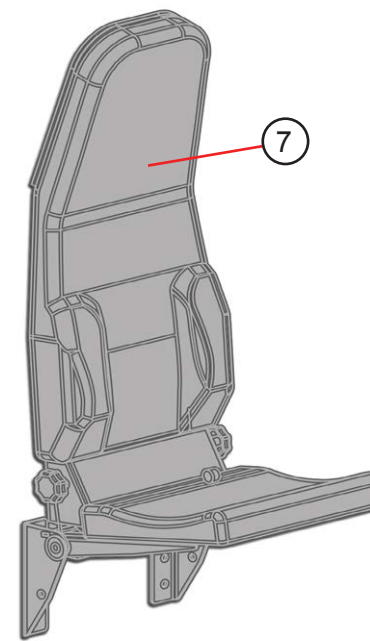


ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	095017207	HOOD ASSEMBLY AL TILT 93W FORD	1	EA
2	095017405	HOOD SKIRT AL .07X27.89X29.9 ROADSIDE	1	EA
3	095017406	HOOD SKIRT AL .07X27.89X29.9 CURBSIDE	1	EA
4	47007852	HINGE ASSEMBLY	2	EA
5	105017402	PANEL HOOD AL .07X48.92X74	1	EA
6	095017407	COWL HOOD ROADSIDE AL .07X15.19X17.47 LH	1	EA
7	095017408	COWL HOOD CURBSIDE AL .07X15.19X17.47 RH	1	EA
8	95817312	GUSSET CORNER ROADSIDE AL .07X13.52X14.72	1	EA
9	95817313	GUSSET CORNER CURBSIDE AL .07X13.52X14.72	1	EA
10	45100057	CORNER CAST KNEE COWL FRONT ROADSIDE	1	EA
11	45100058	CORNER CAST KNEE COWL FRONT CURBSIDE	1	EA
12	088017420	STIFFENER HOOD AL 450015X68.62	1	EA
13	45001500	BRACKET HOOD AL HOOD X69.77	1	EA
14	45100060	CAP COWL END ROADSIDE	1	EA
15	45100061	CAP COWL END CURBSIDE	1	EA
17	91617304	PLATE TAP AL .188X2X2.69	2	EA
18	96717312	SHIM HOOD AL .125X.62X1.88	2	EA
19	095017420	STIFFENER HOOD AL .102X15.92X22.83 LH	1	EA
20	095017421	STIFFENER HOOD AL .102X15.92X22.83 RH	1	EA
21	095017422	STIFFENER HOOD AL .102X10.98X12 LH	1	EA
22	095017423	STIFFENER HOOD AL .102X10.98X12 RH	1	EA
23	90187300	GRAB HANDLE .5DIAX15.7	1	EA
24	45700101	MESH GRILLE 20.5X38.81	1	EA
NS	44004077	SEAL TAPE #1458BTXFT	4.42	FT

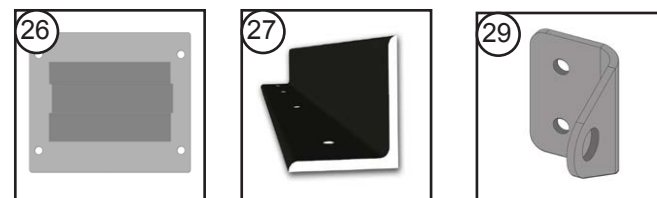
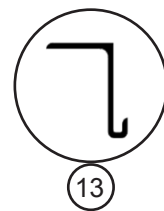
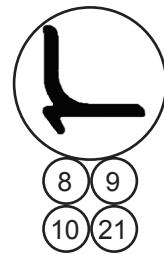
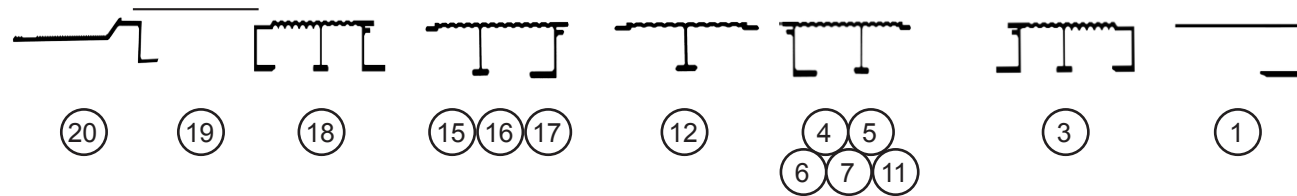
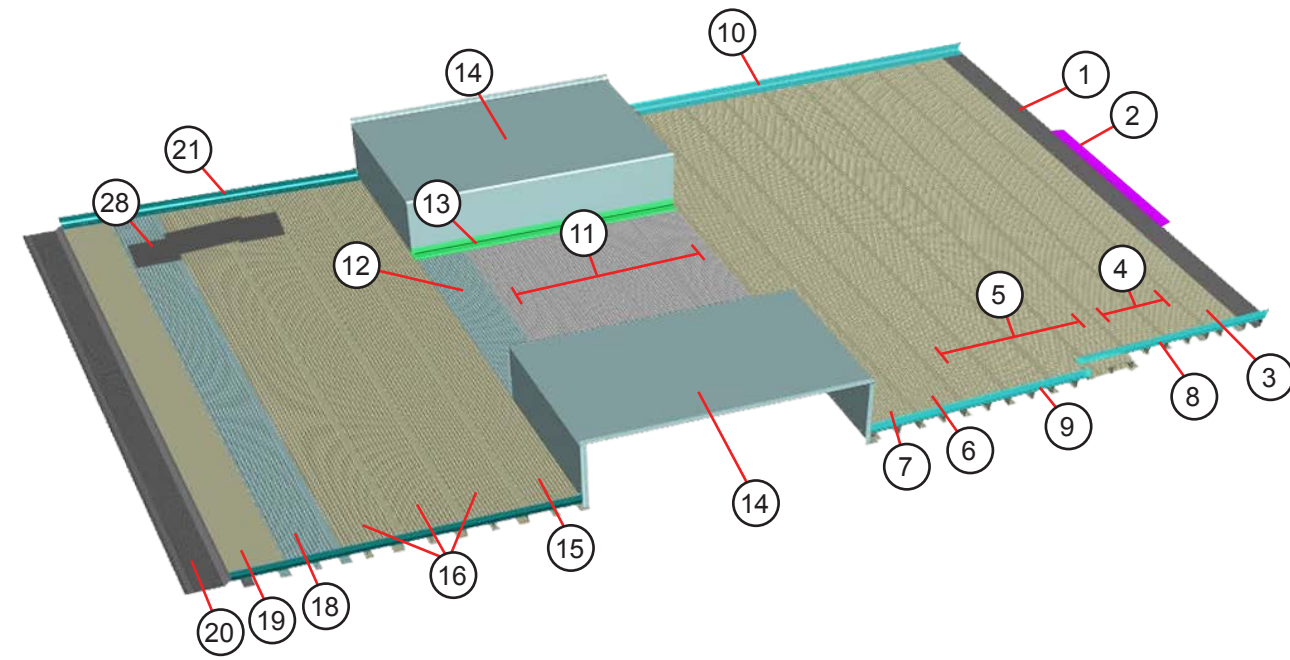
ITEM #	PART #	DESCRIPTION	QTY.	UNIT
29	44002004	BUMPER RUBBER HOOD STOP	2	EA
30	47006105	GAS SPRING WITH LOCK 110 LB	1	EA
31	47006106	GAS SPRING WITH OUT LOCK 110 LB	1	EA
32	47006086	STUD BALL .31-18	4	EA
33	077160405	BRACKET LOWER HOOD AL .188X2.84X6.34 LH	1	EA
34	077160406	BRACKET LOWER HOOD AL .188X2.84X6.34 RH	1	EA
35	077160400	BRACKET HOOD AL .125X6.76X7.75 LH	1	EA
36	077160401	BRACKET HOOD AL .125X6.76X7.75 RH	1	EA
37	095016401	BRACKET GAS SPRING AL .125X6.41X16.41 LH	1	EA
38	095016402	BRACKET GAS SPRING AL .125X6.41X16.41 RH	1	EA
39	095016403	CAB SKIRT SUPPORT AL.125X3.38X11.18 LH	1	EA
40	095016404	CAB SKIRT SUPPORT AL.125X3.38X10.74 RH	1	EA
41	093063400	BRACKET BOTTLE AL .102X14.23X23.74	1	EA
42	47004505	FLUID BOTTLE WINDOW WASHER W/PUMP	1	EA
43	093063401	BRACE BOTTLE BRACKET AL .102X2.28X11.24	1	EA
44	095017202	GRILLE SUPPORT WELDMENT HOOD	1	EA
45	45700101	GRILLE MESH	1	EA
46	46000206	HEADLAMP ASSEMBLY	2	EA
47	47000613	LATCH HOOD	2	EA
48	43000903	LABEL HOOD PROPER OPERATION	1	EA
NS	92817005	SEAL TAPE	1	EA



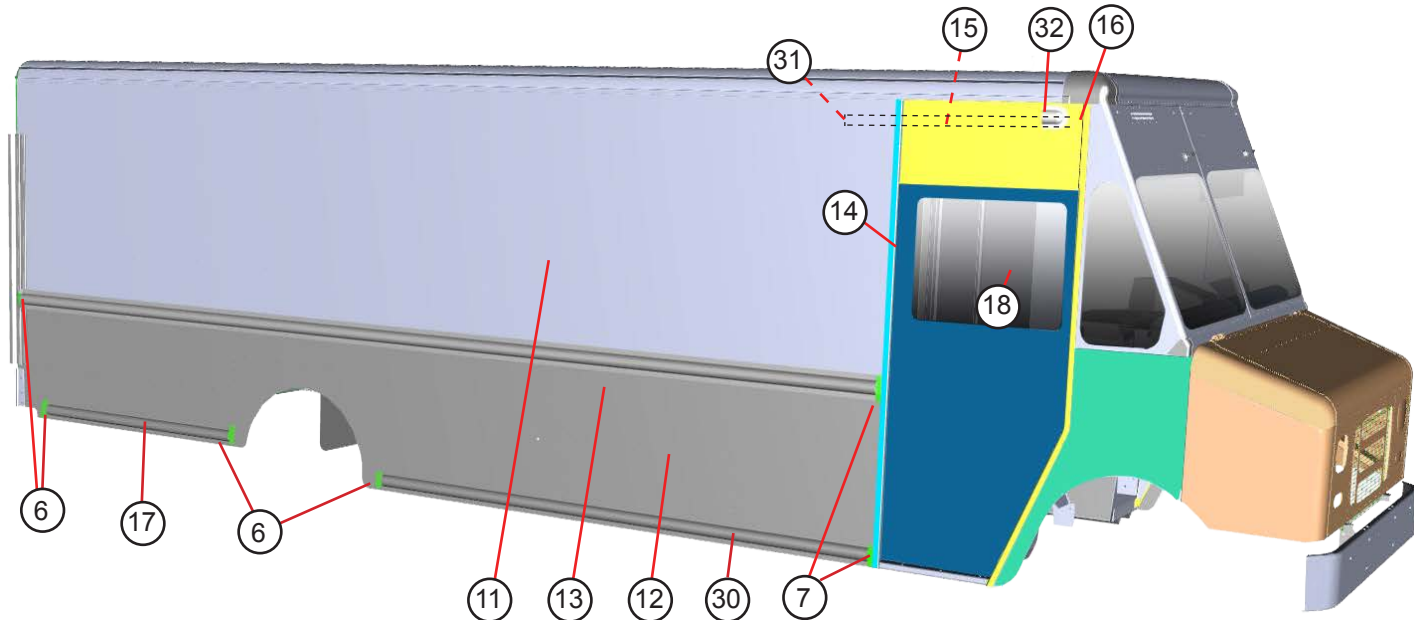
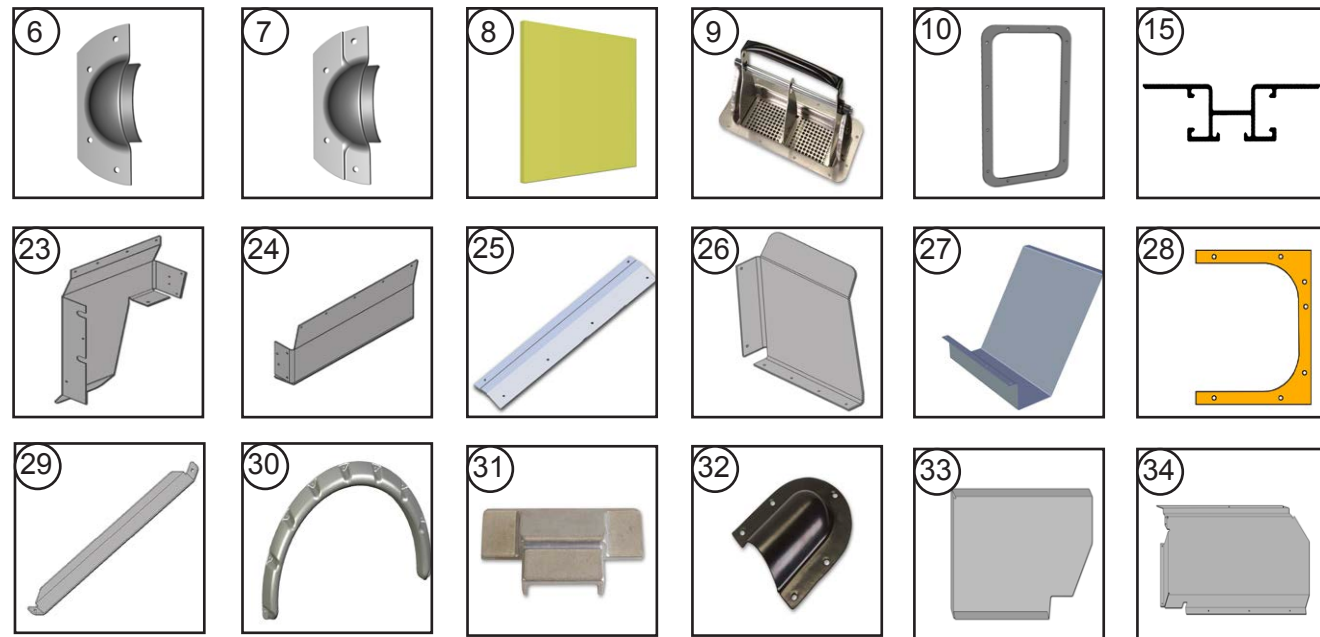
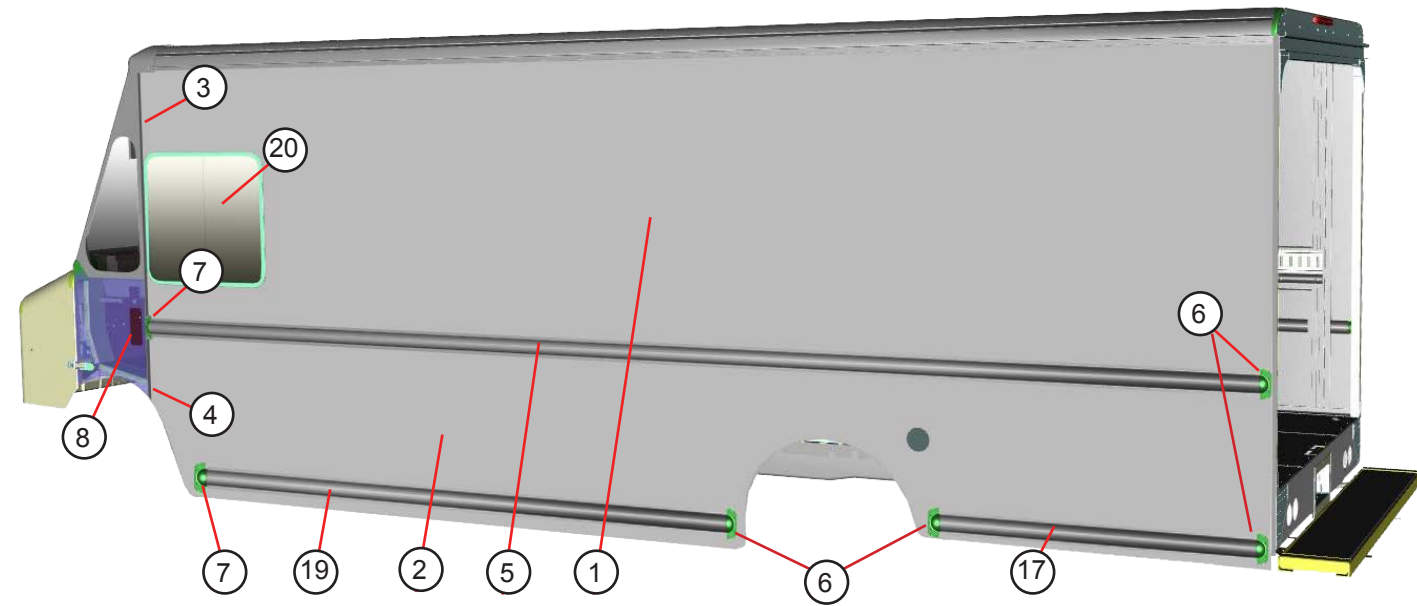
ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	125027200	INSTRUMENT PANEL WELDMENT FORD	1	EA
2	095027412	BRACE INSTRUMENT PANEL AL .102X3.43X18.39LH	1	EA
3	093027402	BRACKET STIFFENER AL .125X1.91X12.66	1	EA
4	125027407	BRACKET I/P AL .102X4.32X11.06	1	EA
5	095027408	BLOCK OFF PLATE AL .102X1.32X2.30	1	EA
6	555001413	PANEL CONTROL HVAC	1	EA
7	1111513	PLUG BLACK ROUND	1	EA
8	46026378	RECEPTACLE 12 V	1	EA
9	128027421	PLATE ACC COVER RADIO AL .102X9X11	1	EA
10	118027417	PLATE FILLER 4RK AL .07X4.5X5.5	1	EA
11	125027416	BRACKET MOUNTING AL .102X7.71X10.08	1	EA
12	46023506	PLUG BLACK ROCKER SWITCH	3	EA
13	165027400	PLATE COVER AL .07X5.74X8.64	1	EA



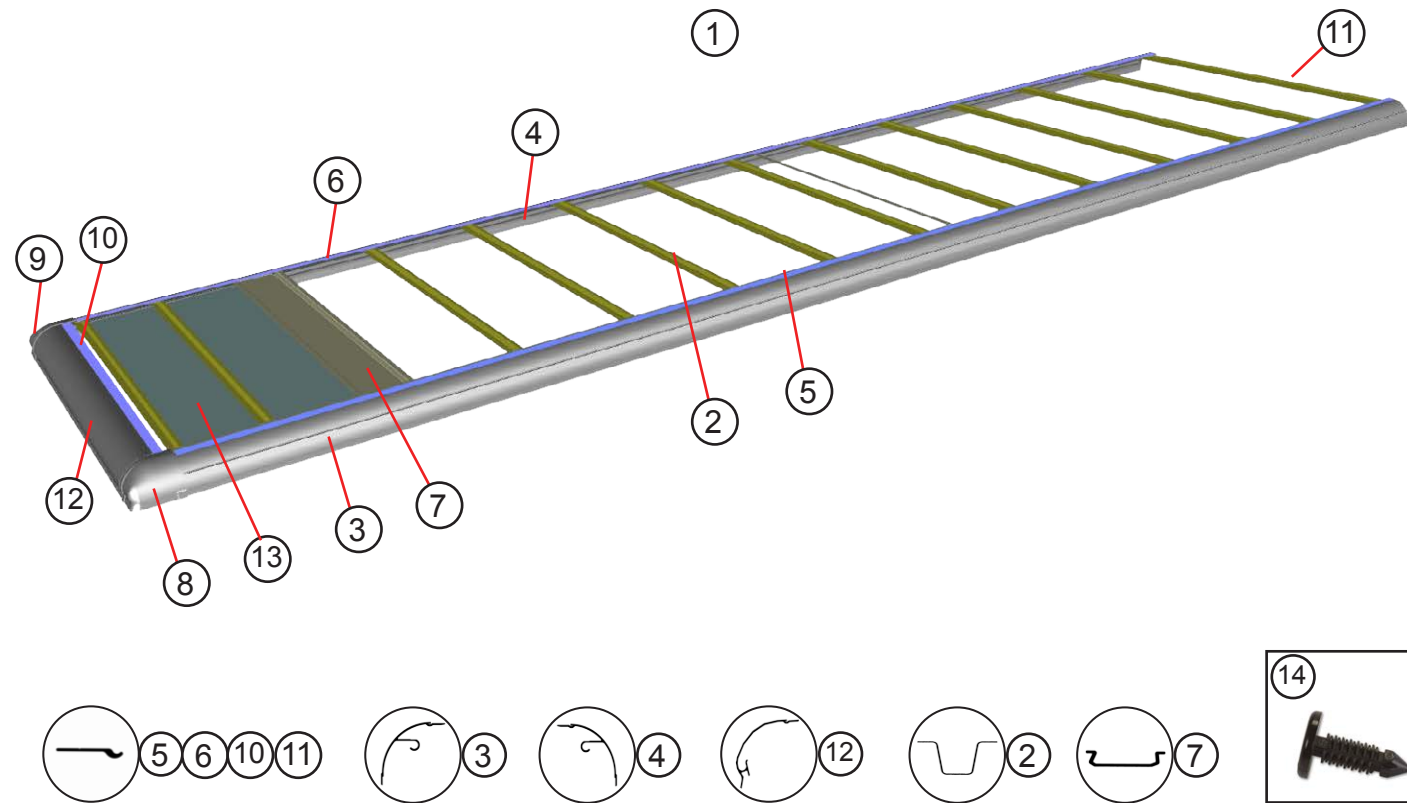
ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	47002685	SEAT DRIVER	1	EA
2	47002686	SEAT BASE	1	EA
3	47011208	ARM REST ROADSIDE	1	EA
4	98M582030	BRACE SUPPORT STEEL 7GAX9.43X23.43	1	EA
5	47004365	SEAT BELT WITH BOOT ADJUSTABLE D O GANGE	2	EA
6	91614300	ANGLE FLOOR .188X2.84X19.1	1	EA
7	47002687	JUMP SEAT	1	EA
8	165069400	PLATE REINFORCEMENT JUMP SEAT	1	EA



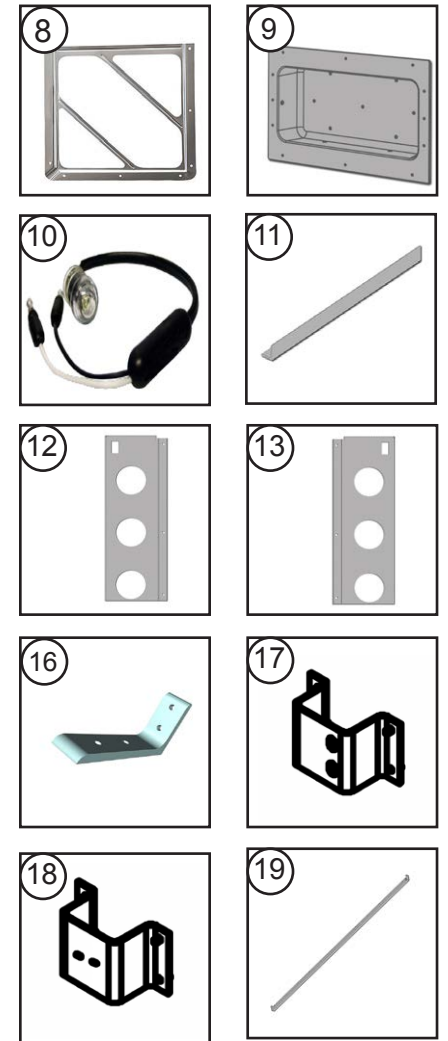
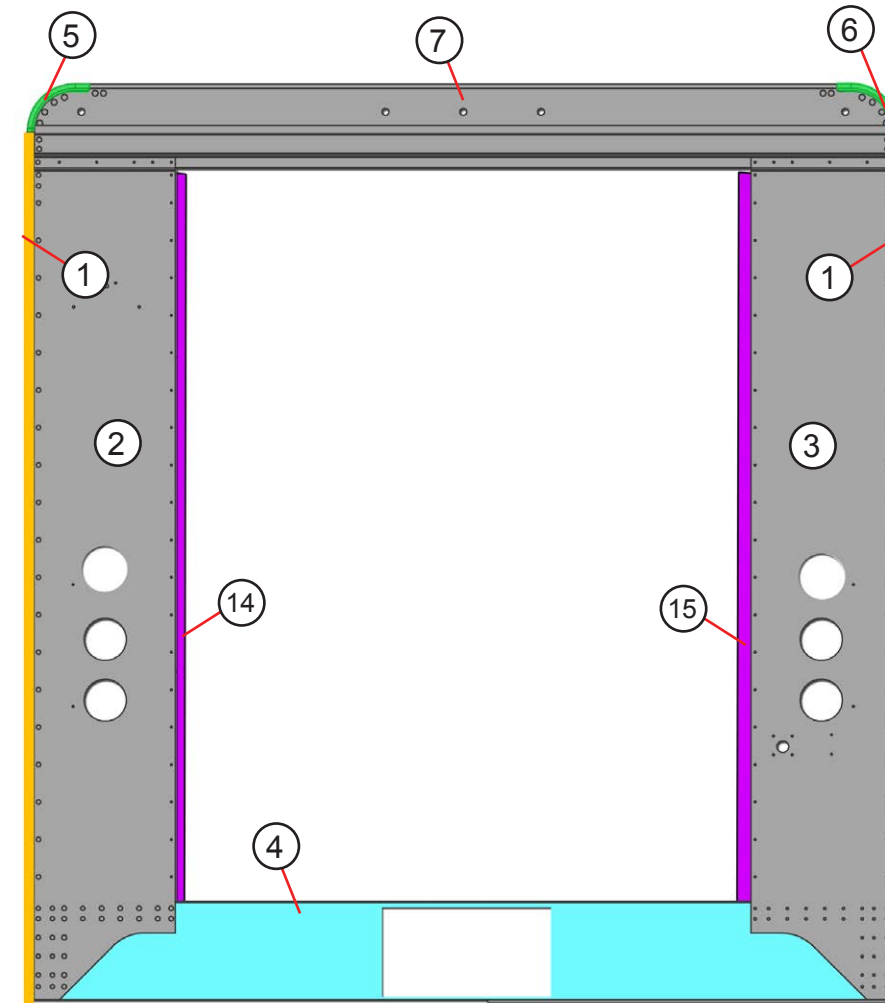
ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	095031411	BEAM @ O/LINE AL 450408X89.25	1	EA
2	003330525	ANGLE STEP 450187X34	1	EA
FLOOR FORWARD				
3	095031495	BEAM FLOOR RIB ALE450583X92.25	1	EA
4	095031443	BEAM FLOOR RIB ALE450586X92.25	2	EA
5	095031427	BEAM FLOOR RIB ALE450586X92.25	6	EA
6	095031452	BEAM FLOOR RIB ALE450584X92.25	1	EA
7	095031452	BEAM FLOOR RIB ALE450587X92.25	1	EA
8	095031424	ANGLE FLOOR AT DR ALE450303X35.75	1	EA
9	095031420	ANGLE FLOOR 2DR ALE450303X63.75 RH	1	EA
10	095031423	ANGLE FLOOR DLH ALE450303X100	1	EA
FLOOR MID				
11	095032428	BEAM FLOOR AL450586X49.26	4	EA
12	095032426	BEAM FLOOR AL450585X49.26	1	EA
13	095032425	ANGLE W/BX ATTACH ALE450018X44	2	EA
14	095032206	WHEEL BOX ASSEMBLY 93W 44"	2	EA
FLOOR REAR				
15	095031477	BEAM FLOOR RIB ALE450587X87.25	1	EA
16	095031427	BEAM FLOOR RIB ALE450586X87.25	3	EA
18	095033417	BEAM RIB FLOOR ALE450583X87.25	1	EA
19	095033437	PLATE FILLER REAR AL .125X9.45X92.38	1	EA
20	45059200	DROP SILL AL FLOOR 1.88X92.69 45 RMP	1	EA
21	095033413	ANGLE FLOOR AL450303X52.19	2	EA
ACCESS DOOR				
22	40900082	SPRING	4	EA
23	40900080	STUD	8	EA
24	40900081	GROMMET HALF	8	EA
25	125012400	SUPPORT ACCESS DOOR AL .125X12.22X17.59	1	EA
26	095032209	DOOR ACCESS WELDMENT	1	EA
27	150012400	ANGLE SUPPORT ACCESS DOOR AL450187X29	2	EA
28	150127455	BRACKET HAND CART AL .125X2X23.51	1	EA
29	150127456	BRACKET BUNGEE HAND CART	2	EA
NS	150127462	PANEL WEAR HAND CART AL .102X10X12	1	EA
NS	82930011	BUNGEE CORD HAND CART	1	EA



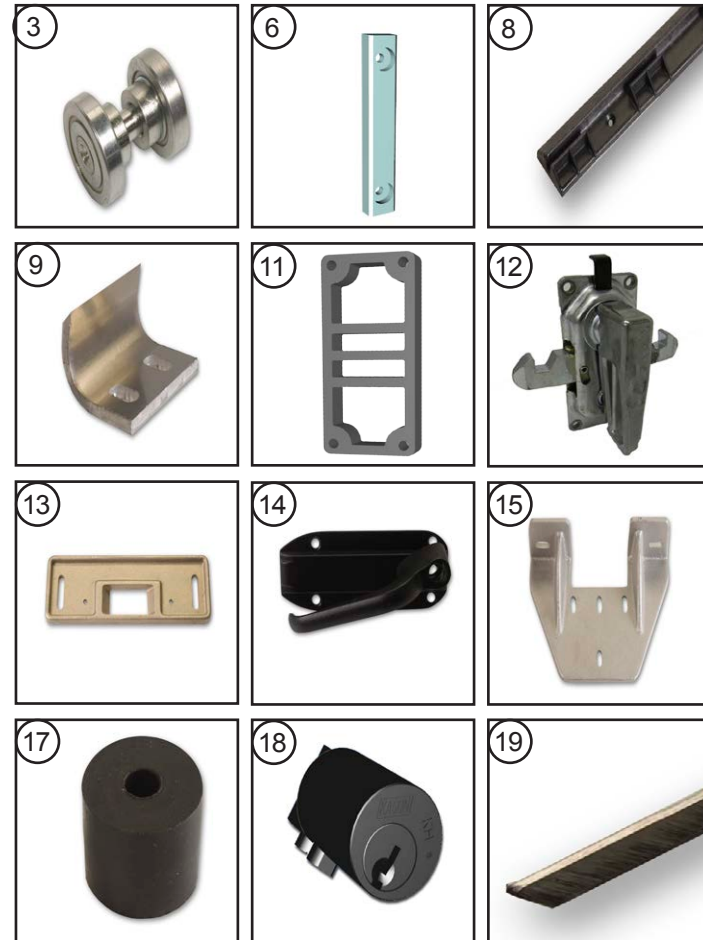
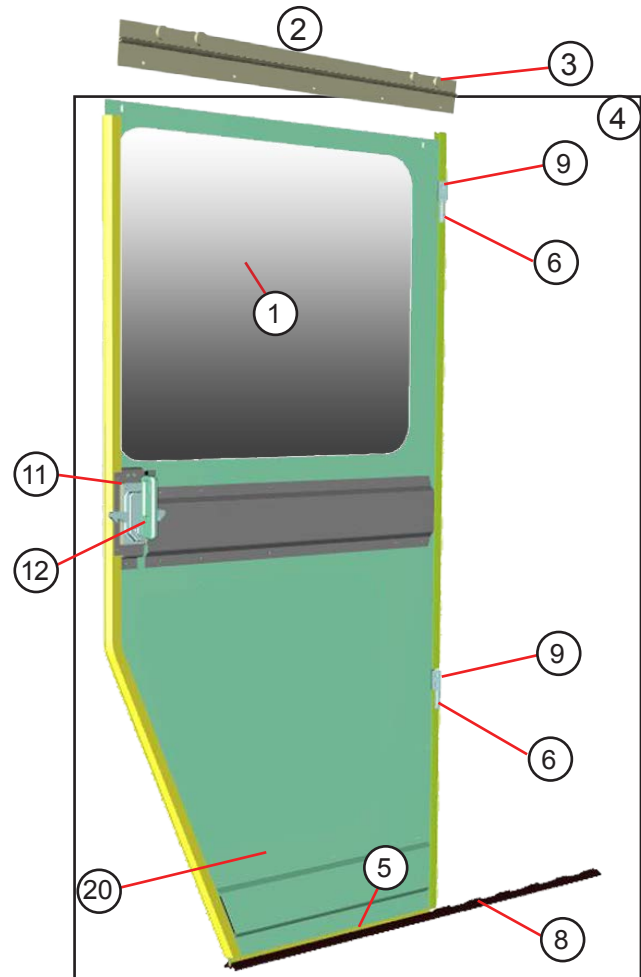
ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	165046408	SIDE UPPER AL .102X56X242.31 DLH	1	EA
2	165045402	SIDE LOWER AL .102X32X242.31 DLH	1	EA
3	095044405	DOOR POST TOP AL 456110X58.93 LH	1	EA
4	095044406	DOOR POST BOTTOM AL 456110X34.68 DLH	1	EA
5	165046409	RUB RAIL AL 450002X236.31 DLH	1	EA
6	1100799	END CAP RR FL AL.125X2.37X5.5	4	EA
7	1100800	END CAP FORWARD AL .125X2.37X5.5	2	EA
8	7600165	PLATE FILLER RUB RAIL AL.125X2.88X3	2	EA
9	47008545	VENT AL 2WAY HNGLS	1	EA
10	47008548	GASKET FOR VENT	1	EA
11	165038419	SIDE UPPER AL .102X56X201.31 RH	1	EA
12	165037423	SIDE LOWER AL .102X32X201.31 RH	1	EA
13	125038413	RUB RAIL AL 450002X197	1	EA
14	095038404	POST "B" AL 450274X90.18 RH	1	EA
15	083042401	STIFFENER HEADER AL RH (165042400 - LH)	1	EA
16	96742302	CLIP AL Z .102X3X9.57	1	EA
17	165039402	RUB RAIL LOWER REAR AL450002X49	1	EA
18	45800103	WINDOW SLIDING RH	1	EA
19	165039403	RUB RAIL LOWER FRONT AL 450002X117	1	EA
20	45800102	WINDOW SLIDING LH	1	EA
NS	093019408	STIFFENER ZEE BELOW WINDOW LH AL.07X7.59X16.19	1	EA
23	165026402	SPLASH PAN AL .125X19.95X25.13 LH	1	EA
24	165026403	SPLASH PAN AL .125X 10.42X19.2 RH	1	EA
25	113026402	ADAPTOR SPLASH PAN AL .125X3.17X16.65 RH	1	EA
26	165026404	SPLASH PAN ATTACH AL .125X14.73X16.63 RH	1	EA
27	998526301	SPLASH PAN FUEL FILL AL .07X19X30.44	1	EA
28	998512300	SHIM FUEL FILL	1	EA
29	001744400	GUSSETT FLOOR TO SIDE STRAP AL .125X2.1X16.02	3	ea
30	66104047	FENDER RUBBER REAR	2	ea
31	45100074	CAP RAIL END	2	EA
32	47008533	CAP PLASTIC END VENT	2	EA
33	093019417	PANEL LNR BELOW WINDOW LH AL.102X31.57X38.46 DLH	1	EA
34	093019410	PANEL LNR ABOVE WINDOW DLH AL.07X23.11X45.35	1	EA
NS	093019413	PANEL LNR ABOVE WINDOW AL .07X15.48X44.17 RH	1	EA
NS	1109001	INSULATION FBG	2.5	FT
NS	165040000	EXTENTION HANGER EXHAUST PIPE	1	EA
NS	40300930	"U" BOLT 11GA 3.5" HANGER	1	EA



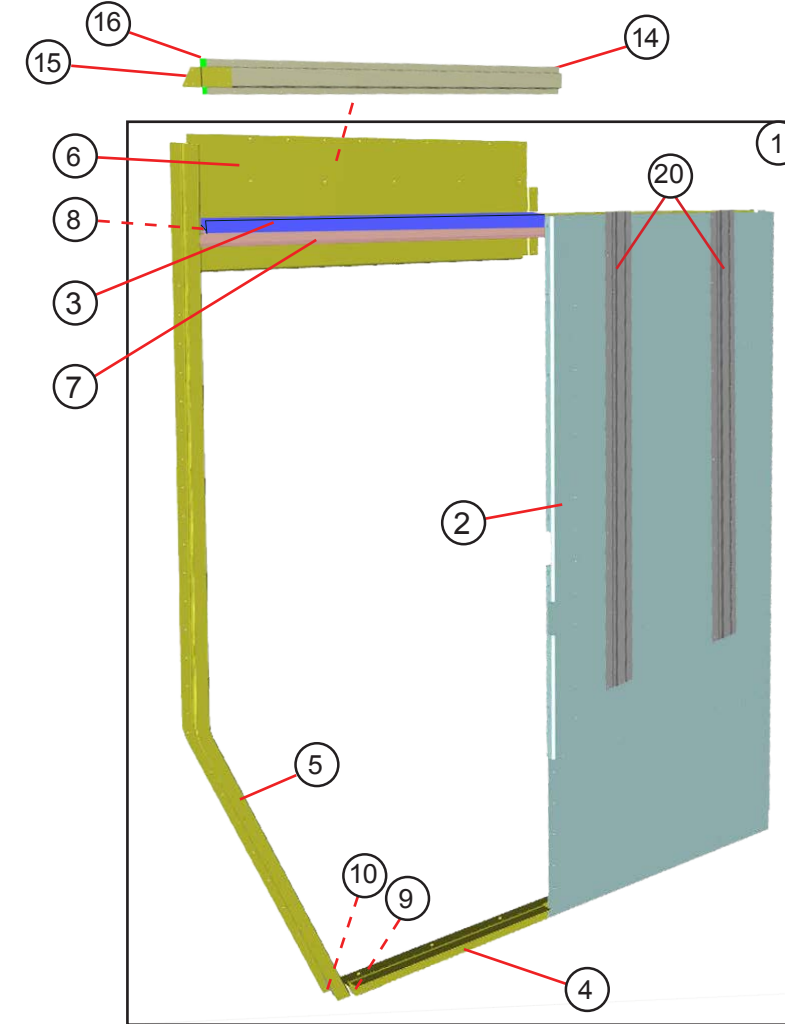
ITEM #	PART #	DESCRIPTION	QTY	UNIT
1		ROOF ASSEMBLY		
2	45601603	ROOF BOW STEEL 16GA SEC456016 X89.12	12	EA
3	098010407	ROOF RAIL 16' 456144X237.25 ROADSIDE	1	EA
4	098010408	ROOF RAIL 16' 456144X237.25 CURBSIDE	1	EA
5	088010512	RAIL INTERLOCK AL 450140X237.25 ROADSIDE	1	EA
6	088010513	RAIL INTERLOCK AL 450140X237.25 CURBSIDE	1	EA
7	118010402	ROOF BEAM @ O LINE 14GA GLNX9.54X89.12	1	EA
8	077100400	CORNER CASTING ROADSIDE	1	EA
9	077100401	CORNER CASTING CURBSIDE	1	EA
10	89310506	INTERLOCK ROOF NOSE	1	EA
11	89310507	INTERLOCK ROOF TRANSOM	1	EA
12	083010400	ROOF NOSE AL 456107X82.5	1	EA
13	108011402	LINER ROOF GR 38.5X86.12	1	EA
14	47006610	CLIP PLASTIC FLAT HEAD	60	EA
NS	45200897	ROOF SKIN FBG .075X82XFT	19.86	FT
NS	1109001	INSULATION FBG	8	FT



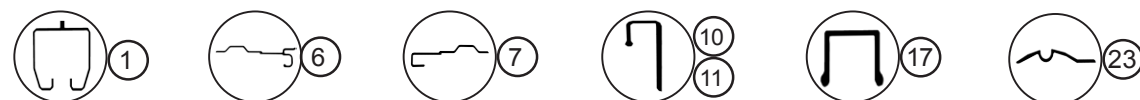
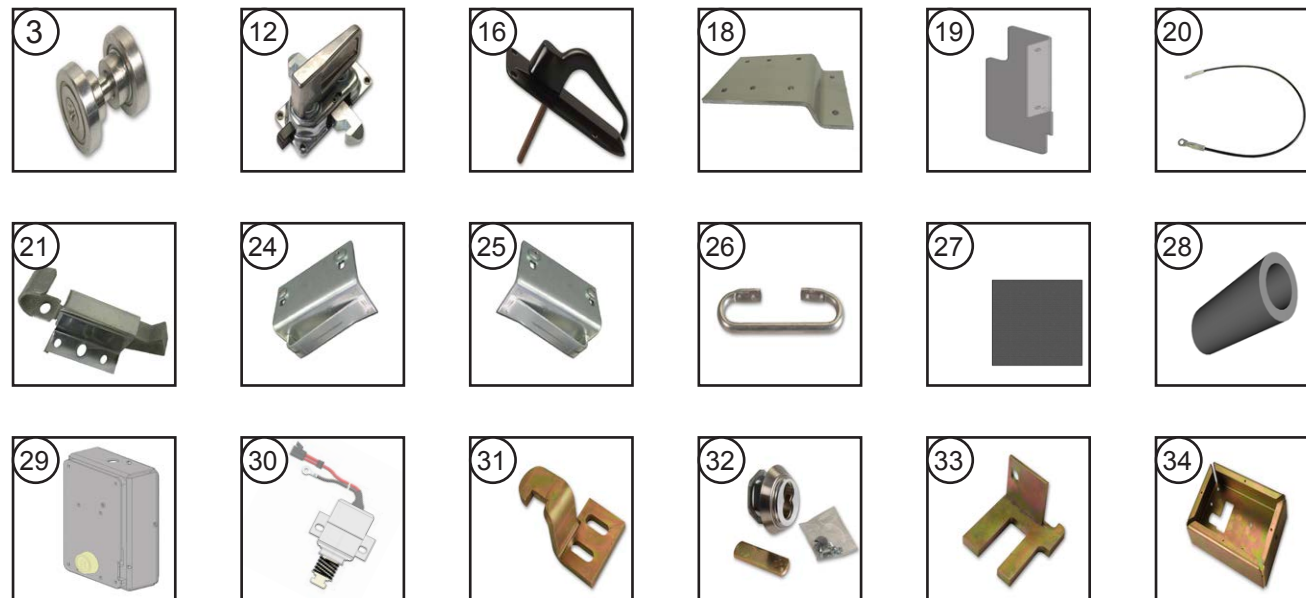
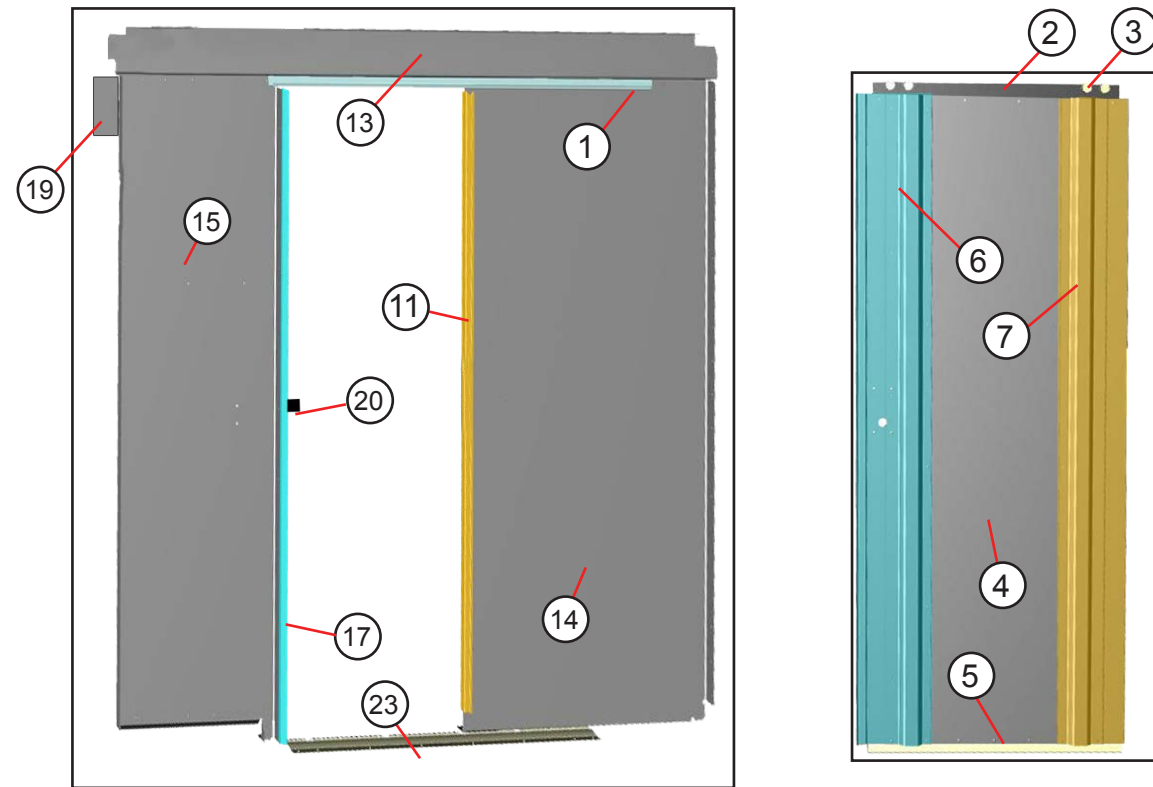
ITEM #	PART #	DESCRIPTION	QTY	UNIT
1	083053452	CHANNEL POST CORNER AL 450359X88.69	2	EA
2	165053400	PANEL BACK AL .102X15.14X864 LH	1	EA
3	165053401	PANEL BACK AL .102X15.14X864 RH	1	EA
4	083053603	SILL REAR 93W AL 450024X88.75	1	EA
5	45100009	CORNER CAST LH	1	EA
6	45100010	CORNER CAST RH	1	EA
7	083053401	TRANSOM REAR ROLL UP DOOR AL 450266X91.62	1	EA
8	43001401	PLACARD HOLDER	4	EA
9	140092400	BOX LICENSE PLATE	1	EA
10	46002427	LAMP MARKER CLEAR	1	EA
11	79885033	ANGLE SUPPORT LICENSE PLATE 450184X21.56	1	EA
12	155081400	GUARD T/L AL.07X12.81X29.24 LH	1	EA
13	155081401	GUARD T/L AL.07X12.81X23.37 RH	1	EA
14	97024200	JAMB DOOR POST ASSEMBLY LH	1	EA
15	97024201	JAMB DOOR POST ASSEMBLY RH	1	EA
16	90650309	ANGLE CLIP AL 450192X.88	2	EA
17	167130402	BRACKET SPACER DOOR AL .125X2.25X8.2	1	EA
18	167130403	BRACKET SPACER DOOR AL .125X3X8.2	2	EA
19	165135400	PLATE FILLER BACK AL .125X2.23X97.21	1	EA



ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	45800103	WINDOW SLIDING RH	1	EA
2	96760203	HANGER ASSEMBLY (INCLUDES BEARINGS & BRUSH SEAL 44008050)	1	EA
3	47006595	BEARING SR311-214 & RT311-278	4	PR
4	115060202	SIDE DOOR ASSEMBLY	1	EA
5	095060448	WEAR STRIP D/S 450008X26.85	1	EA
6	45200206	SPACER ANTI RATTLE NYLON	2	EA
NS	120041000	LATCH KIT (INCLUDES ITEMS 11 AND 12)	1	EA
8	47002766	DOOR GUIDE NYLON	1	EA
9	96760318	CLIP ANTI RATTLE AL.188X2X2.7	2	EA
10	44004104	SEAL RUBBER RS FORWARD	1	EA
11	087181	KASON SPACER (ADDITIONAL SPACER 157060404)	1	EA
12	1113016	LATCH	1	EA
13	45100093	STRIKER BRONZE CAST D/S RR	2	EA
14	47001326	HANDLE SIDE BLACK POWDER COATED	1	EA
15	45100094	BRACKET STRIKER	1	EA
13	45100163	STRIKER BRONZE CAST D/S RR	1	EA
17	44002011	RUBBER BUMPER	1	EA
18	47001194	CYLINDER HANDLE REMOVABLE	1	EA
19	44008050	SEAL BRUSH TYPE B 1X41.95"	1	EA
20	45210011	PANEL LOWER DOOR PLS 39.4X35.45 RH	1	EA



ITEM #	PART #	DESCRIPTION	QTY.	UNIT
2	165041401	PANEL DOOR POCKET AL .102X42.26X82.08 RH	1	EA
3	96741303	CHANNEL HEADER AL 450256X75 RH	1	EA
4	095041416	NOSE STEP AL 450247X62.57 RH	1	EA
5	095041410	DOOR POST AL 450294X92.77 RH	1	EA
6	077041402	PANEL HEADER AL .102X15.49X42.37 RH	1	EA
7	96741202	TRACK ASSEMBLY UPPER	1	EA
8	45100049	GUSSET HEADER CHANNEL TO DOOR POST	1	EA
9	45100105	DOOR POST CASTING LOWER	1	EA
10	001741408	REINFORCEMENT BRACKET AL.125X1.53X8.04 RH	1	EA
11	44004060	SEAL BRUSH TYPE C 1.5X82	1	EA
12	44008050	SEAL BRUSH TYPE B 1X83.9	1	EA
13	45900001	PLUG WD RUBRAIL .75X1.12X2.9	1	EA
14	083042401	STIFFENER HEADER AL450328X73.75 RH (LH - 083042400)	1	EA
15	96742302	CLIP AL Z .102X3X9.57 (LH X1 RH X1)	2	EA
16	45100074	CAP RAIL END (LH X1 RH X1)	2	EA
17	47008533	VENT CAP PLASTIC (LH X1 RH X1)	2	EA
18	123019405	PANEL LINER HEADER AL.07X19.48X50.57 RH	1	EA
19	47009600	CARPET GREY BLACHFORD	2	FT
20	165048408	STIFFENER AL 459919X58.75	2	EA
21	96741355	COVER DOOR POCKET AL .055X6.75X12.16 RH	1	EA
NS	158041201	DRIP EDGE WELDMENT ASSEMBLY	1	EA



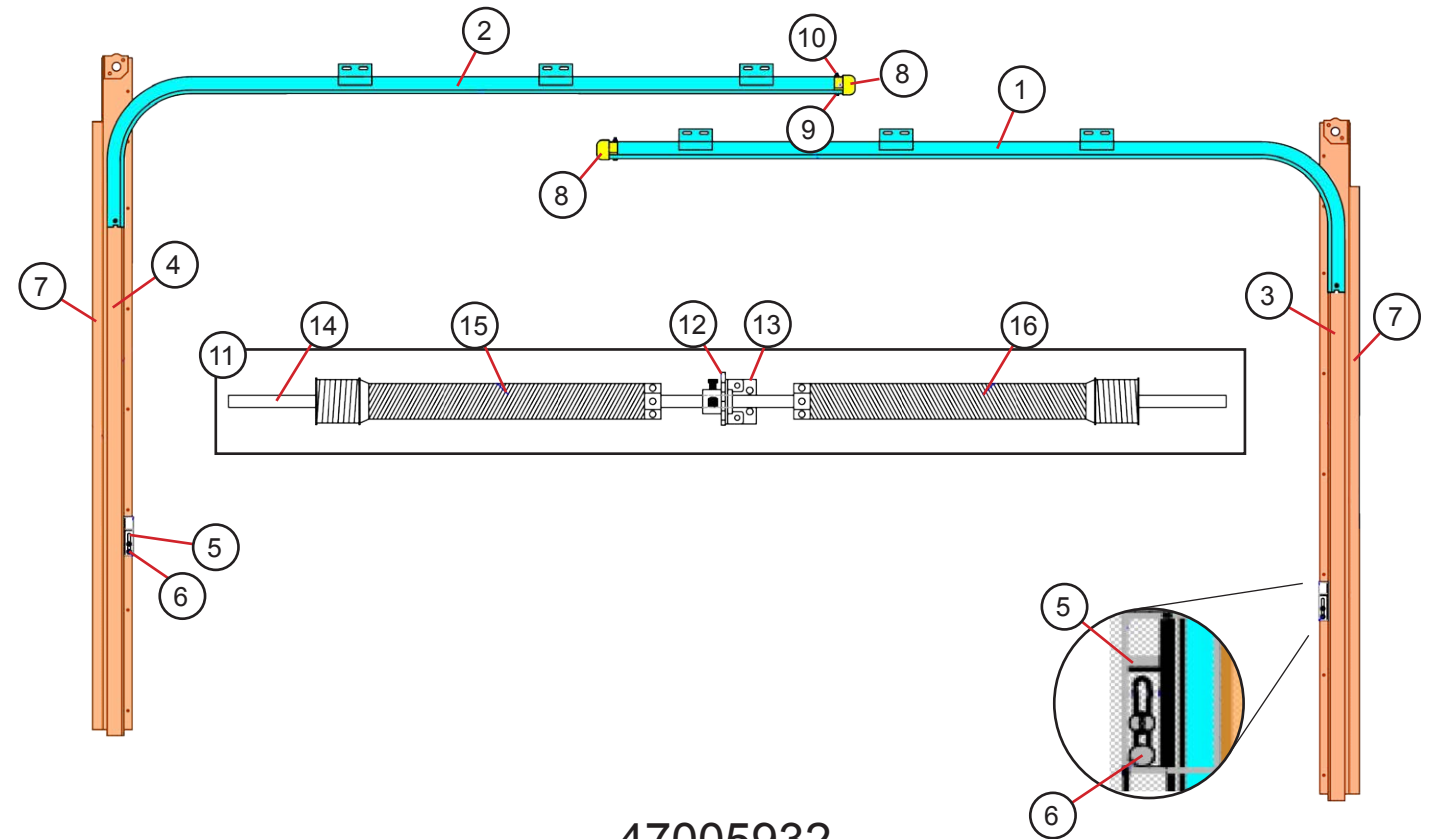
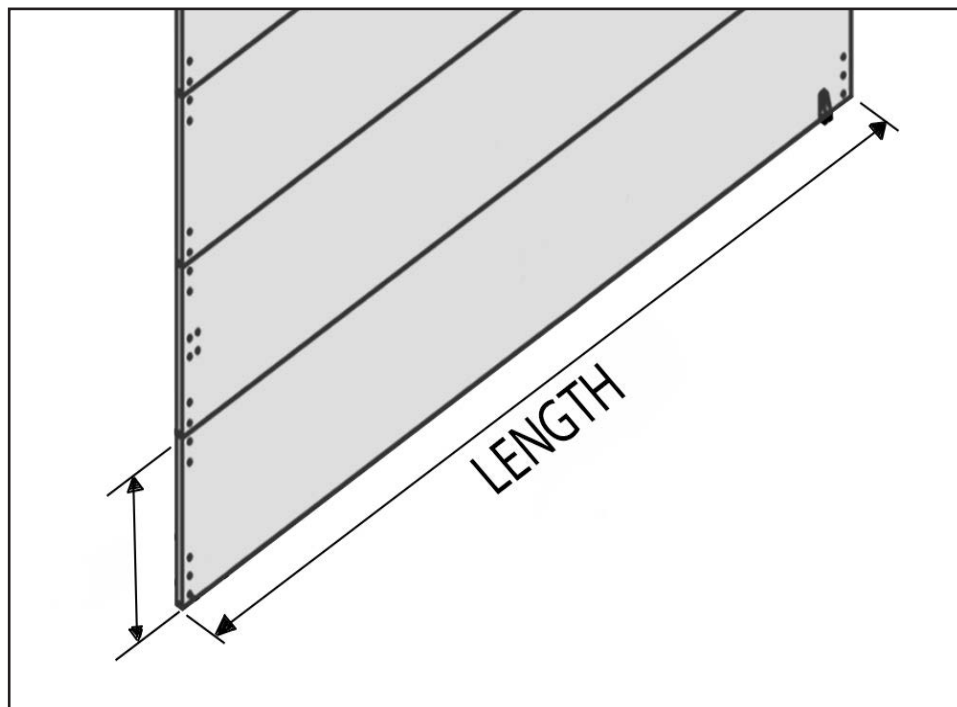
ITEM #	PART #	DESCRIPTION	QTY	UNIT
1	088070251	TRACK DOOR ASSEMBLY	1	EA
2	088070518	PLATE HANGER BRSL AL450515X32.13	1	EA
3	47006595	BEARING ASSEMBLY	4	PR
4	088070515	PANEL DOOR BULKHEAD AL .125X29.37X73.26	1	EA
5	088070516	WEAR STRIP BHD 452002X33.75	1	EA
6	088070423	BULKHEAD EDGE AL 450504X73.26 CURBSIDE	1	EA
7	088070418	BULKHEAD EDGE AL 450503X73.26 ROADSIDE	1	EA
11	088070435	CHANNEL BHD UPPER AL 450502X31.66	1	EA
12	1113016	LOCK MECH INNER D/S KAS 4002-14	1	EA
13	165070402	HEADER BHD ZEE AL .102X8.9X92.4	1	EA
14	165070403	PANEL BHD AL .102X35.34X77.17 LH	1	EA
15	165070401	PANEL BHD AL .102X24.15X77.38 RH	1	EA
16	47001329	HANDLE DOOR BLACK POWER COAT NON LOCKING	1	EA
17	96770312	JAMB AL 450326X74.37	1	EA
18	92537309	PLATE MOUNTING LATCH AL .125X3X5.29	1	EA
19	088070442	PLATE BHD FILLER AL .055X3.65X8.29 RH	1	EA
20	1113600	CABLE BULKHEAD .125X29" BLACK VINYL	1	EA
21	1113046	LATCH FINGER PULL	1	PR
23	96770316	GUIDE DOOR FLOOR AL 450414X47.88	1	EA
24	98770201	STRIKER WELDMENT BHD ASSEMBLY	1	EA
25	98770202	STRIKER WELDMENT BHD ASSEMBLY	1	EA
26	90187300	GRAB HANDLE .5 DIA	1	EA
27	47009600	CARPET BULKHEAD	18.5	FT
28	088070482	SPACER BULKHEAD 1101200X1.75	2	EA
29	001285225	LATCH BULKHEAD ASSEMBLY	1	EA
30	46032317	SOLENOID KEYLESS 12V W/SPRING	1	EA
31	001761437	LATCH STRIKER BULKHEAD STL .25 YL DICHR	1	EA
32	001285406	CYLINDER LOCK W/SPECIAL CAM	1	EA
33	001285226	BAR STRIKER ASSEMBLY	1	EA
34	001285430	HOUSING STEEL LAT 11GAX11.88X15.5	1	EA
NS	001285425	PLATE BULKHEAD LATCH 11GAX5.76X9.38	1	EA
NS	001285426	PLATE BULKHEAD LATCH 11GAX5.76X9.38	1	EA



ROLL-UP DOOR SERIAL NUMBER LOCATION

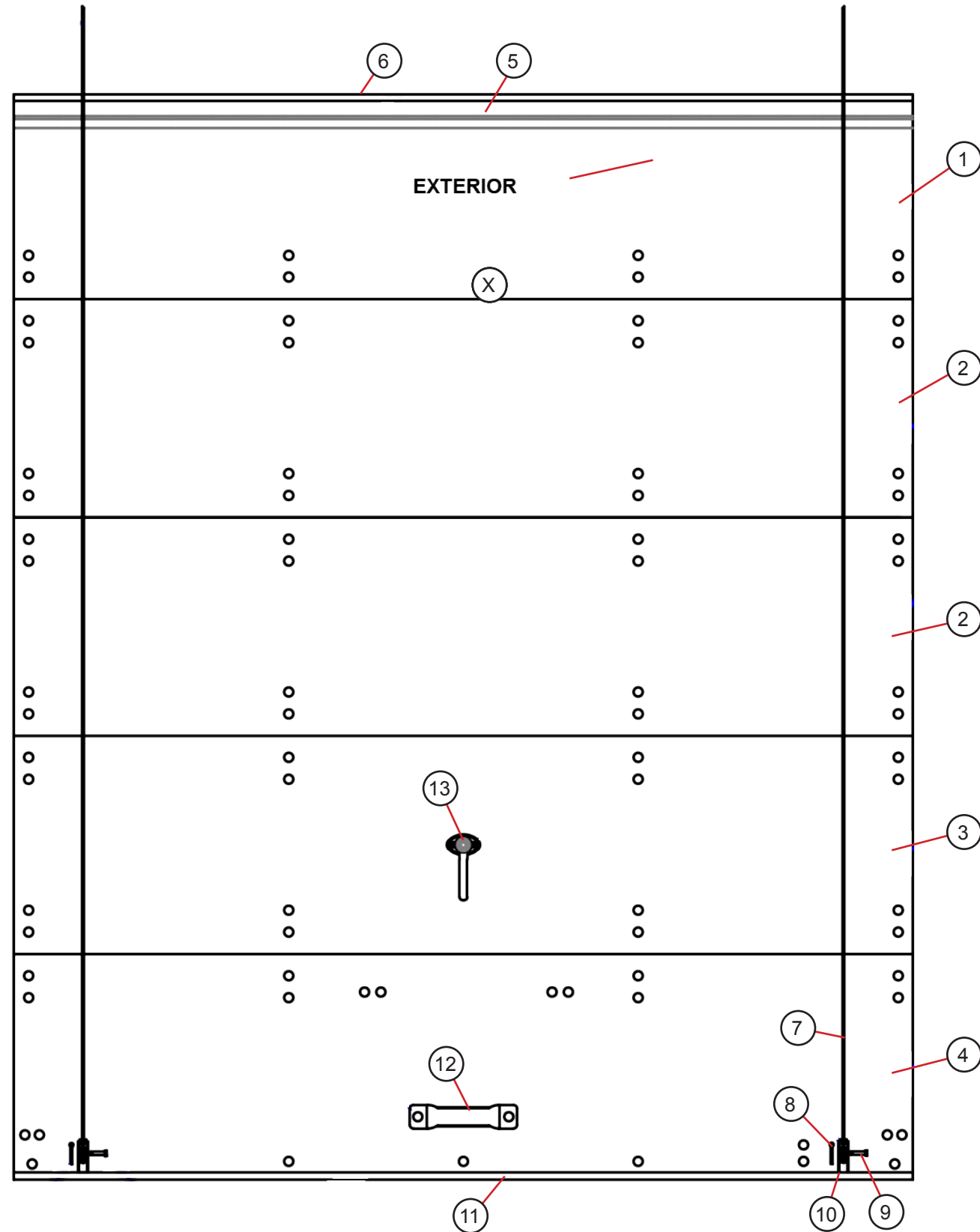
WHEN ORDERING PARTS FOR ROLL-UP DOORS,
PLEASE PROVIDE THE FOLLOWING INFORMATION.
THE SERIAL NUMBER LOCATED ON THE INTERIOR TOP PANEL ROADSIDE EDGE.
THE LENGTH AND HEIGHT OF THE DOOR PANEL(S) TO BE ORDERED.

IN THE EVENT OF A DAMAGED, UN-READABLE OR MISSING SERIAL NUMBER,
PLEASE TRY TO PROVIDE THE COMPOSITION DETAILS OF THE DOOR PANEL.
(PLASTIC PANEL (WEATHERTITE), ALUMINUM CLAD, PLYWOOD, ETC.)



47005932

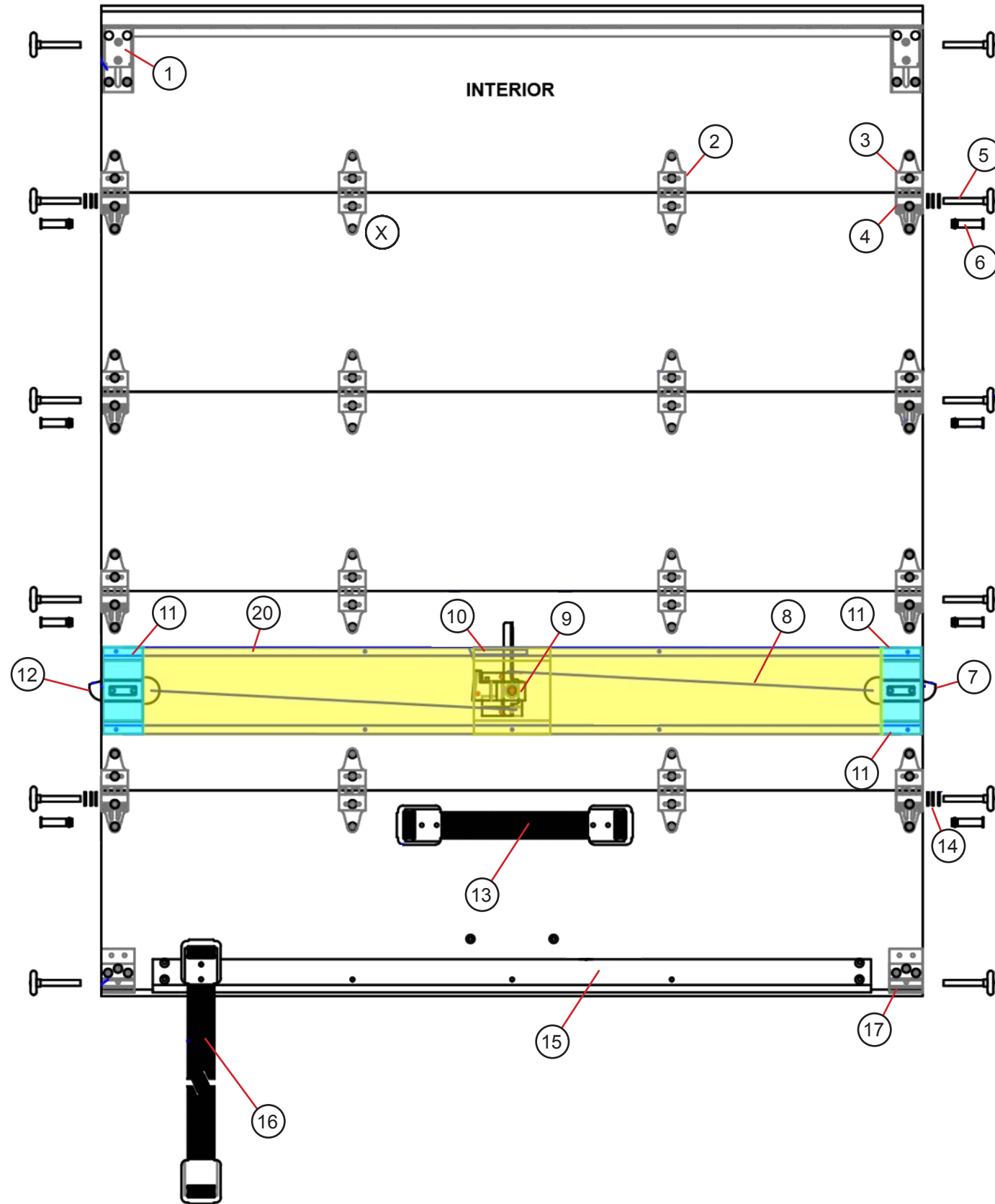
ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	47106840	HORIZONTAL TRACK ASSY #47005932-CS		EA
2	47106841	HORIZONTAL TRACK ASSY #47005932-RS		EA
3	47106842	VERTICLE TRACK ASSY #47005932-CS		EA
4	47106843	VERTICLE TRACK ASSY #47005932-RS		EA
5	47106740	LOCK CATCH		EA
6	47106744	5/16-18 KEEP NUT		EA
7	47106844	BRUSH SEAL,BLK 1.5"X.75.375" W/ EPDM FIN & RETAINER		EA
8	47106787	YELLOW HEAD PROTECTOR		EA
9	47106745	1/4-20 X 1 3/4 HEX HEAD BOLT		EA
10	47106746	1/4-20 KEP NUT		EA
11	47106845	COUNTER BALANCE ASSY #47005932		EA
12	47106822	TORSIONER, MOQ 500 (TG-WINDER)		EA
13	47106823	BASE PLATE,TORSION WINDER BASE PLATE		EA
14	47106846	COUNTERBALANCE SHAFT-62.75"		EA
15	47106820	SPRING.156 X 2 3/16 X 17 (LH) C		EA
16	47106821	SPRING.156 X 2 3/16 X 17 (RH) C		EA



ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	47106825	TOP PANEL #47005932		EA
2	47106826	INTERMEDIATE PANEL #47005932		EA
3	47106827	LATCH PANEL #47005932		EA
4	47106828	BOTTOM PANEL #47005932		EA

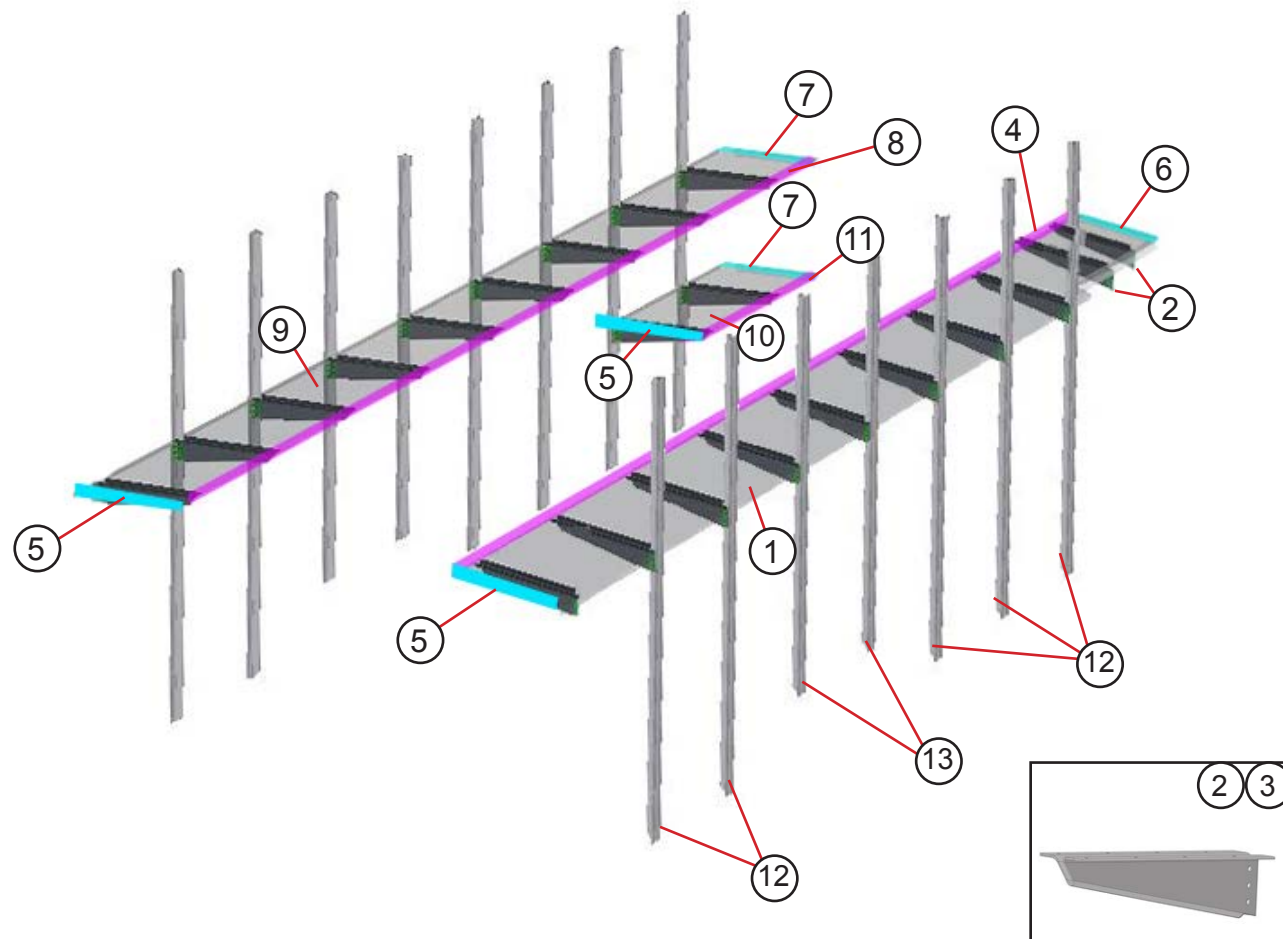
EXTERIOR HARDWARE

5	47106829	TOP PANEL SEAL EXTRUSION 3 5/8 SS		EA
6	47106830	TOP PANEL SEAL -EXTENDED LIP		EA
7	47106727	95" 7X19 STAINLESS STEEL CABLE 1/4" METAL EYE		EA
8	47106719	3/32" X1" COTTER PIN		EA
9	47106706	1/4" X 1 CABLE ANCHOR PIN		EA
10	47106762	CABLE ANCHOR BRKT (4 5/8" SS)		EA
11	47106831	.25 COMPOSIT BTM SEAL 4-PT 70" L (PCS) RUBBER		EA
12	47106796	LIFT HANDLE BLACK (2 5/8" SS)		EA
13	47106774	L-HANDLE NON-KEYED		EA

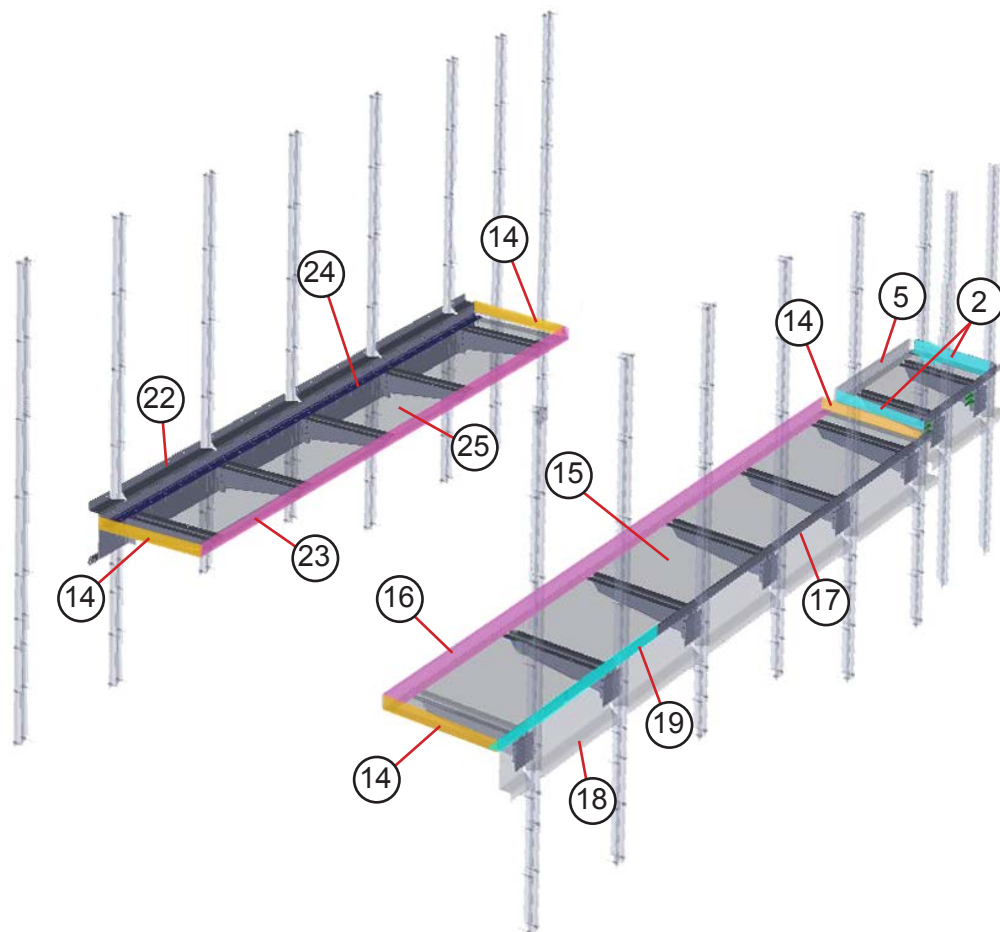
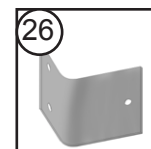
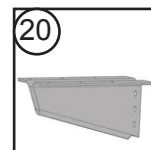
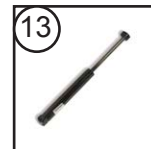
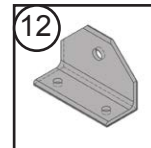
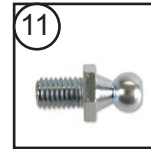
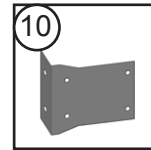
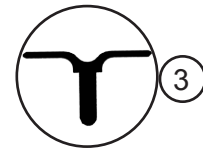
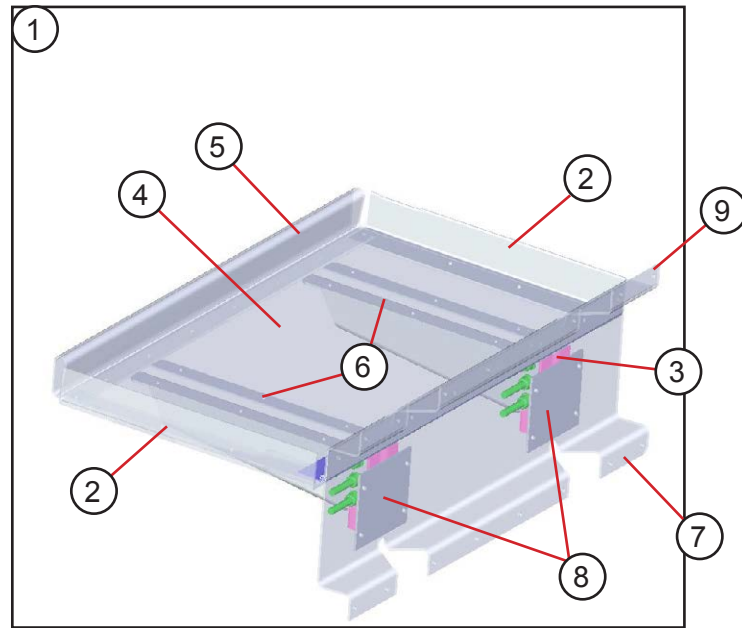


INTERIOR HARDWARE

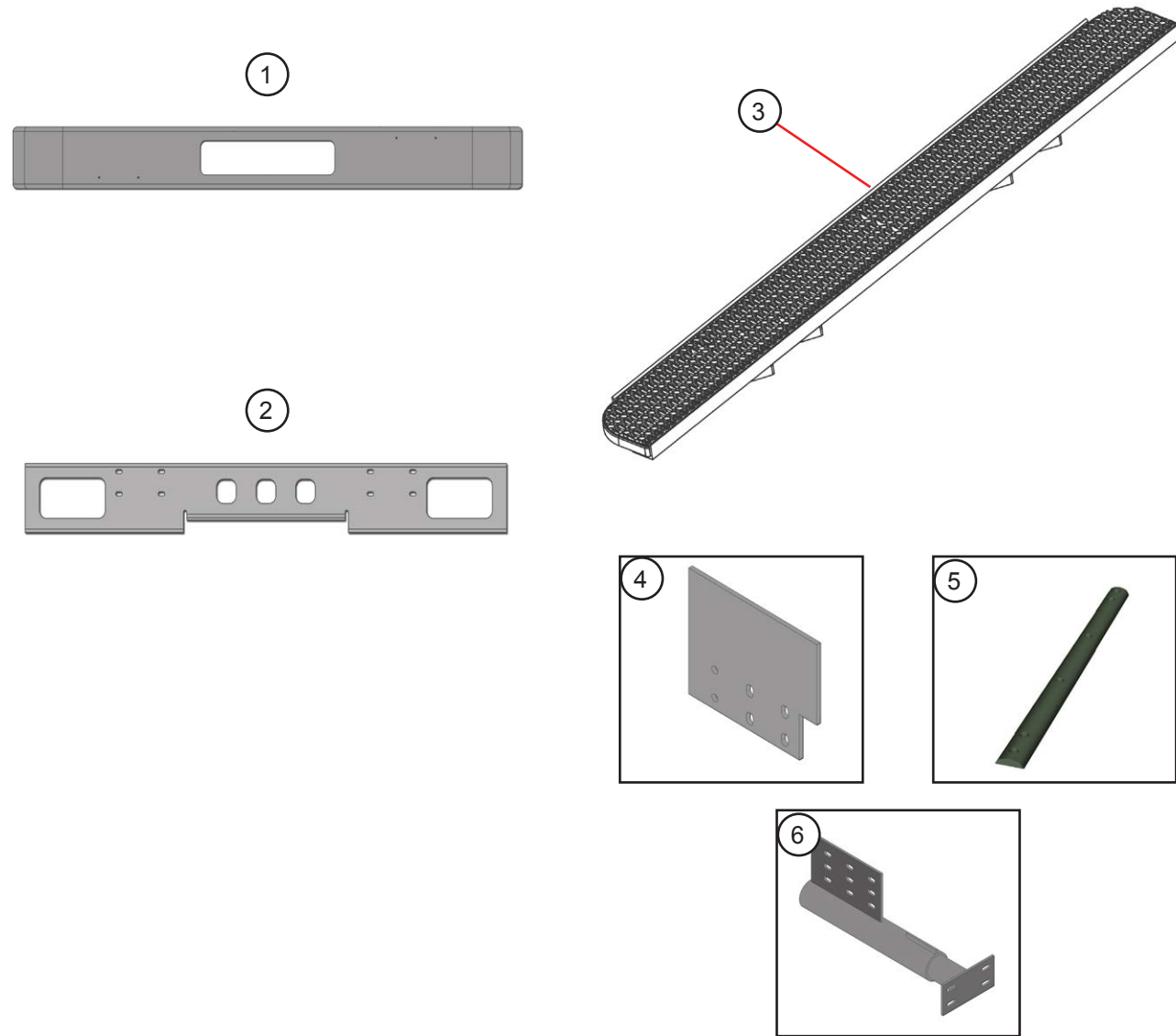
ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	47106710	TOP CLOSURE COMPLETE (4 3/4" SS)	2	EA
2	47106731	CENTER HINGE (2 11/16", 2 13/16")	8	EA
3	47106776	END HINGE HEAVY DUTY W 5/16" STUDS (2 11/16", 2 13/16")	8	EA
4	47106832	5/16" ROLLER HINGE COVER-SILENCER TUBE	8	EA
5	47106833	2" PREMIUM NYLON ROLLER	12	EA
6	47106834	SILENCER TUBE FOR END HINGE	8	EA
7	47106717	2 POINT END LATCH RS	1	EA
8	47106835	CABLE ASSEMBLY 26.25" W/(2) STOPS AND WASHER	1	EA
9	47106712	CENTER CONTROL COMPLETE	1	EA
10	47106767	LOCK COVER BASE-CENTER .91" OFFSET (2 5/8 SS)	1	EA
11	47106836	LOCK COVER BASE-END, .91" OFFSET (4 5/8" SS)	2	EA
12	47106716	2 POINT END LATCH CS	1	EA
13	47106837	12" PULL STRAP-NO LOOP-(2) BLACK RETAINERS (2 7/8" SS)	1	EA
14	47106718	SPACER WASHER	1	EA
15	47106838	54" LONG BLACK BOTTOM ANGLE FOR .25 COMPOSITE	1	EA
16	47106802	60" PULL STRAP-NO LOOP-(2) BLK RETAINERS (2 7/8 SS)	1	EA
17	47106764	3 STUD BOTTOM FIXTURE .5"&.25" COMPOSITE DOOR (3 5/8" SS)	2	EA
20	47106839	ALUMINUM CABLE COVER-61.375" LENGTH	1	EA
NS	47106720	1/4"X11/16" ALUMINUM BUCK RIVET		LB
NS	47106721	1/4"X13/16" ALUMINUM BUCK RIVET		LB
NS	47106724	5/8" SS RIVET		LB
NS	47106725	3/4" SS RIVET		LB
NS	47106725	7/8" SS RIVET		LB
NS	47106722	1/4-20X3/4" SS CARRIAGE BOLT		EA
NS	47106723	1/4-20 NYLOCK		EA



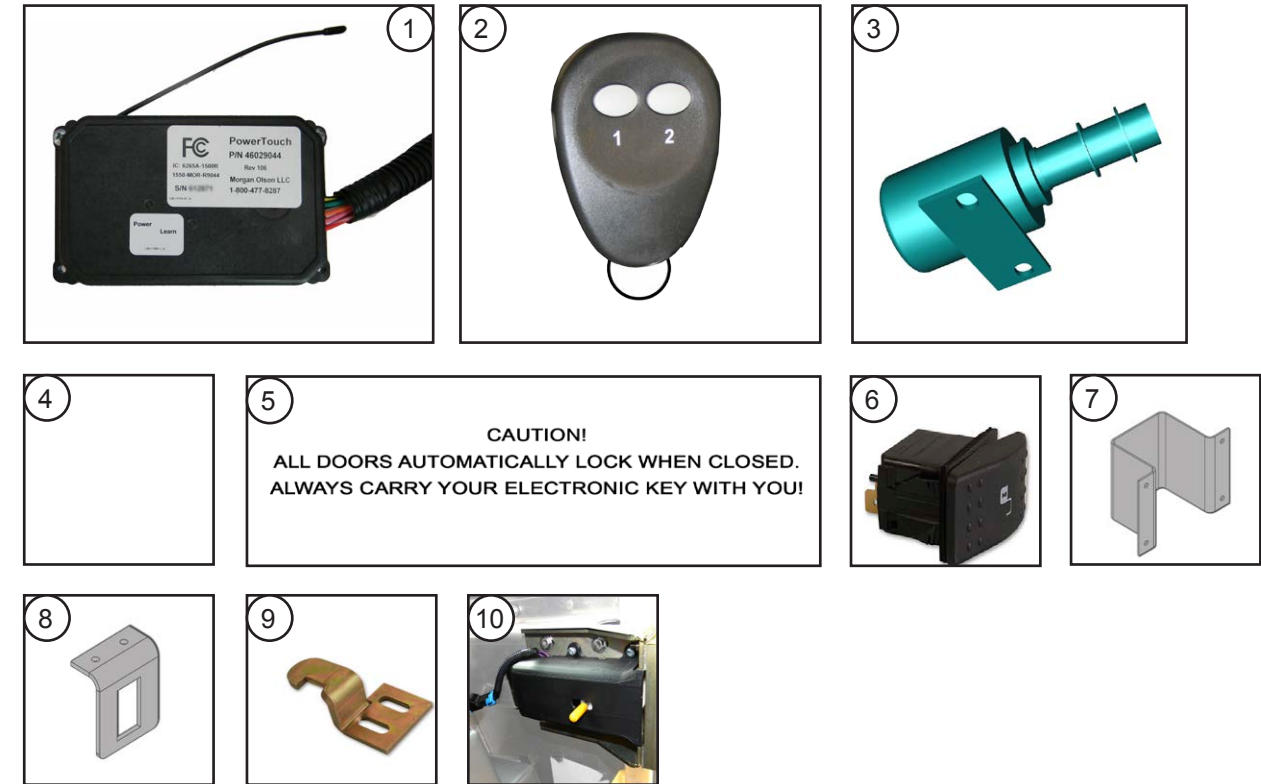
ITEM#	PART #	DESCRIPTION	QTY.	UNIT
1	165105412	PANEL SHELF AL .102X21.27X190.38 RH	1	EA
2	155105421	ARM SHELF AL .125X10.19X17.01 @ DR POCKET	2	EA
3	003779410	ARM SHELF AL .125X10.45X20.02	17	EA
4	165105413	LIP SHELF AL 45058X190.38	1	EA
5	155105417	ANGLE SHELF FXD REAR AL 450523X19.5	3	EA
6	155105420	ANGLE SHELF FXD BHD AL450180X17	1	EA
7	155105418	ANGLE SHELF FXD BHD AL 450180X20	2	EA
8	165105411	LIP SHELF AL 450589X166.38	1	EA
9	165105410	PANEL SHELF AL .102X21.27X166.38 LH	1	EA
10	165105414	PANEL SHELF AL .102X21.27X31.75 LH	1	EA
11	165105415	LIP SHELF AL 450589X31.75	1	EA
12	155048411	STIFFENER SIDE	12	EA
13	155048412	STIFFENER SIDE @ WHEEL WELL	4	EA



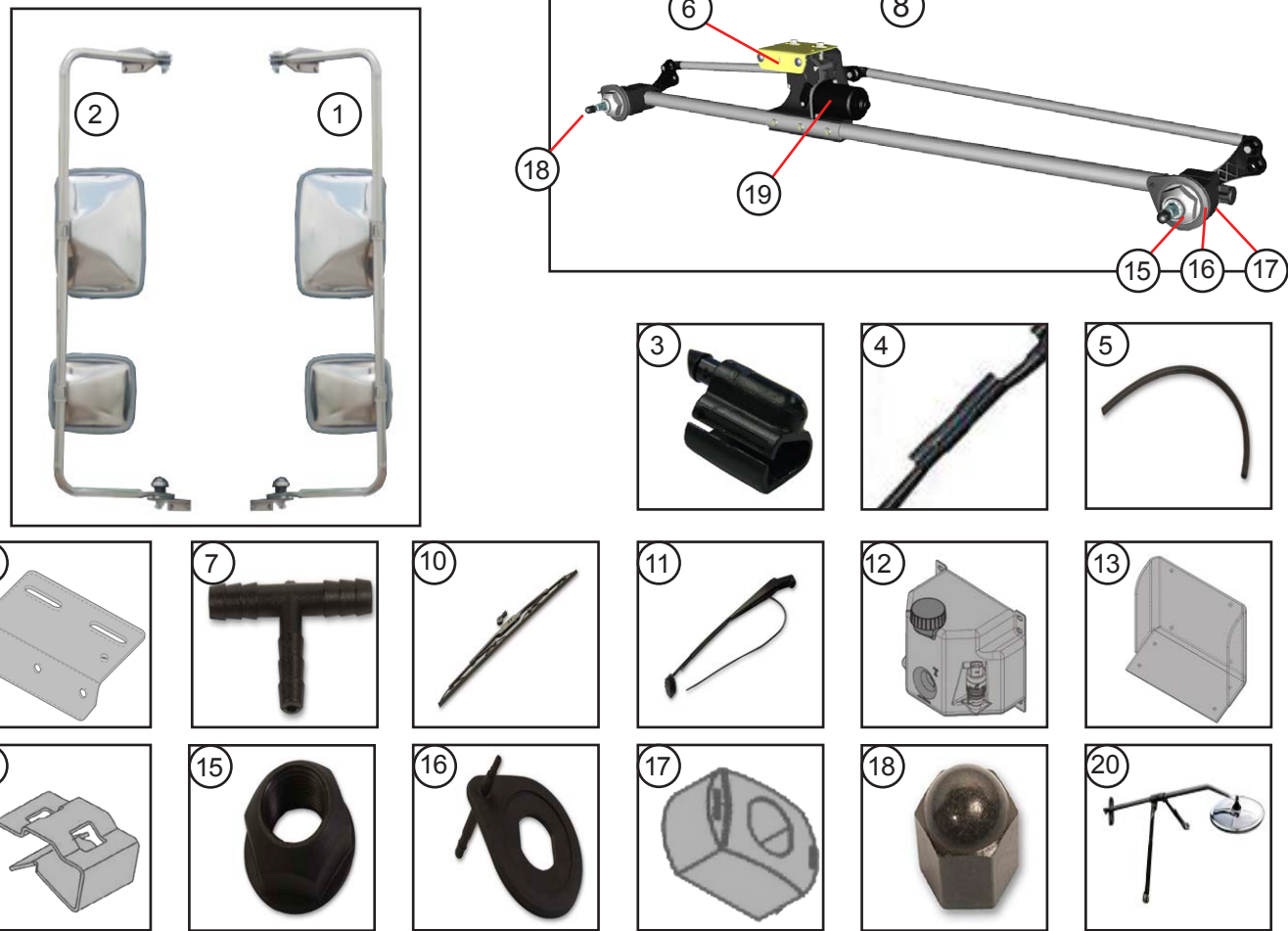
ITEM #	PART #	DESCRIPTION	QTY.	UNIT
SHELF ASSEMBLY FOLDING @ DOOR POCKET				
1		SHELF ASSEMBLY FOLDING @ DOOR POCKET		
2	155106412	ANGLE SHELF FOLDING 450523X14.75	2	EA
3	155106413	STANTION SHELF AL 459919X4.5	2	EA
4	165106412	PANEL SHELF @ DOOR POCKET AL .07X14.75X27.75	1	EA
5	165106413	LIP SHELF AL 450589X27.75	1	EA
6	155106402	ARM SHELF AL .125X10.19X14.01	2	EA
7	155106408	HORIZONTAL HAT AL .125X13.16X27.75	1	EA
8	125105408	SHIM AL .125X4X4.75	2	EA
9	155106410	HINGE SHELF 47007796X27.5	1	EA
10	155106428	CYLINDER SUPPORT SHIM AL .125X4.75X6.48	1	EA
11	47006086	STUD BALL .31-18	2	EA
12	155106429	CYLINDER SUPPORT AL 450188X3	1	EA
13	47006119	SPRING GAS 50LB 12/8.5	1	EA
SHELF ASSEMBLY FOLDING RH				
14	155106417	ANGLE SHELF AL450523X17.75	4	EA
15	165106408	PANEL SHELF AL .07X17.75X156.75 RH	1	EA
16	165106409	LIP SHELF AL 450589X156.75	1	EA
17	155106430	HINGE LONG SS .075X1.5X1.5X114	1	EA
18	165106410	HORIZONTAL HAT AL .125X13.16X156.75	1	EA
19	165106411	HINGE SHORT SS AL 470077X41.38	1	EA
20	155105421	ARM SHELF AL.125X10.19X17.01	6	EA
3	155106413	STANTION SHELF AL 459919X4.5	6	EA
8	125105408	SHIM AL .125X4X4.75	3	EA
21	47006165	SPRING GAS 70LB 12/8.5	3	EA
		SUPPORT BRACKETS ARE THE SAME AS ABOVE # 10, 11 AND 12	3	EA
SHELF ASSEMBLY FOLDING LH				
20	155105421	ARM SHELF AL .125X10.19X17.01	6	EA
3	155106413	STANTION SHELF AL 459919X4.5	6	EA
22	165106407	HORIZONTAL HAT AL.125X13.16X132.75	1	EA
14	155106417	ANGLE SHELF AL450523X17.75	2	EA
23	165106406	LIP SHELF AL 450589X132.75	1	EA
24	155106430	HINGE SHELF 47007796X114	1	EA
25	165106405	PANEL SHELF AL .07X17.75X132.75 LH	1	EA
21	47006166	SPRING GAS 90LB 12/8.5	3	EA
		SUPPORT BRACKETS ARE THE SAME AS ABOVE # 10, 11 AND 12	3	EA
26	150106410	BRACKET SHELF BUMPER AL .125X2.5X2.73	5	EA
27	44002011	BUMPER RUBBER	5	EA



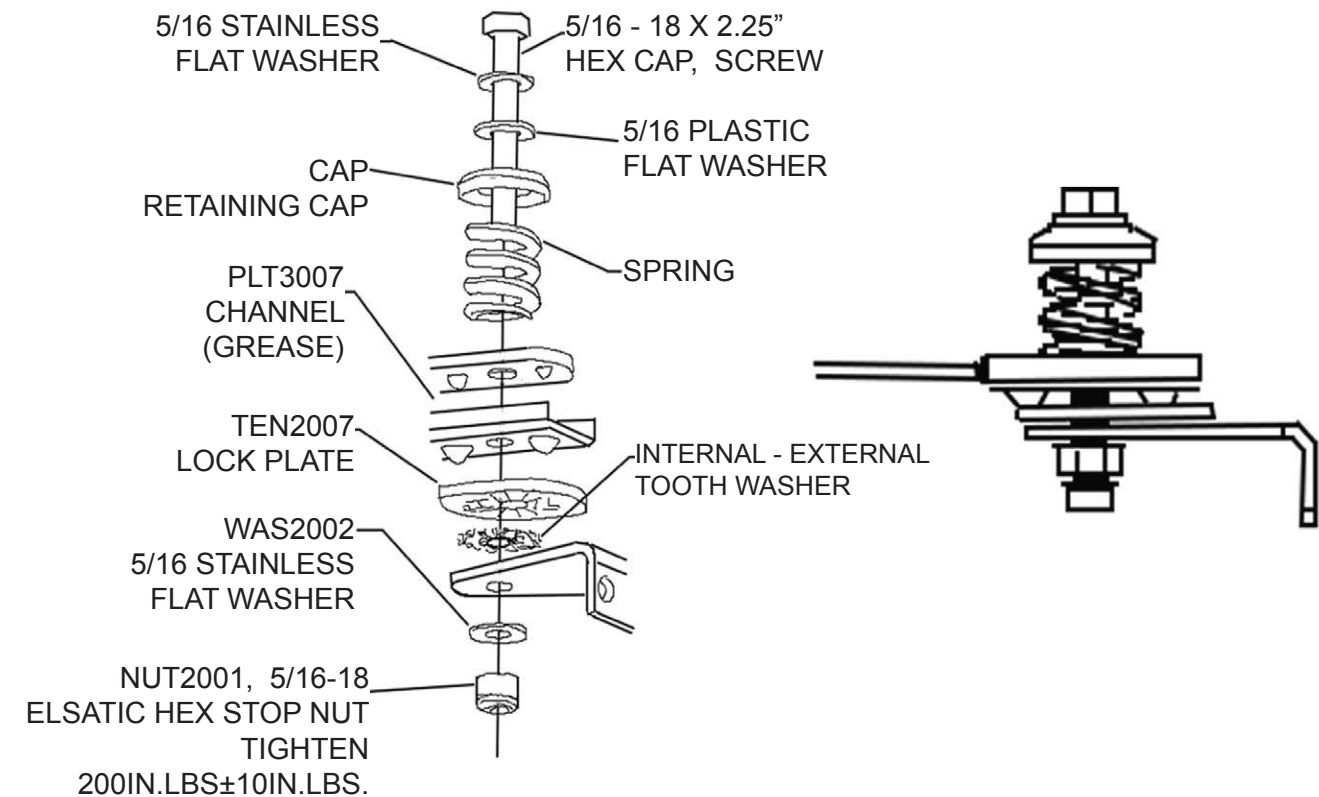
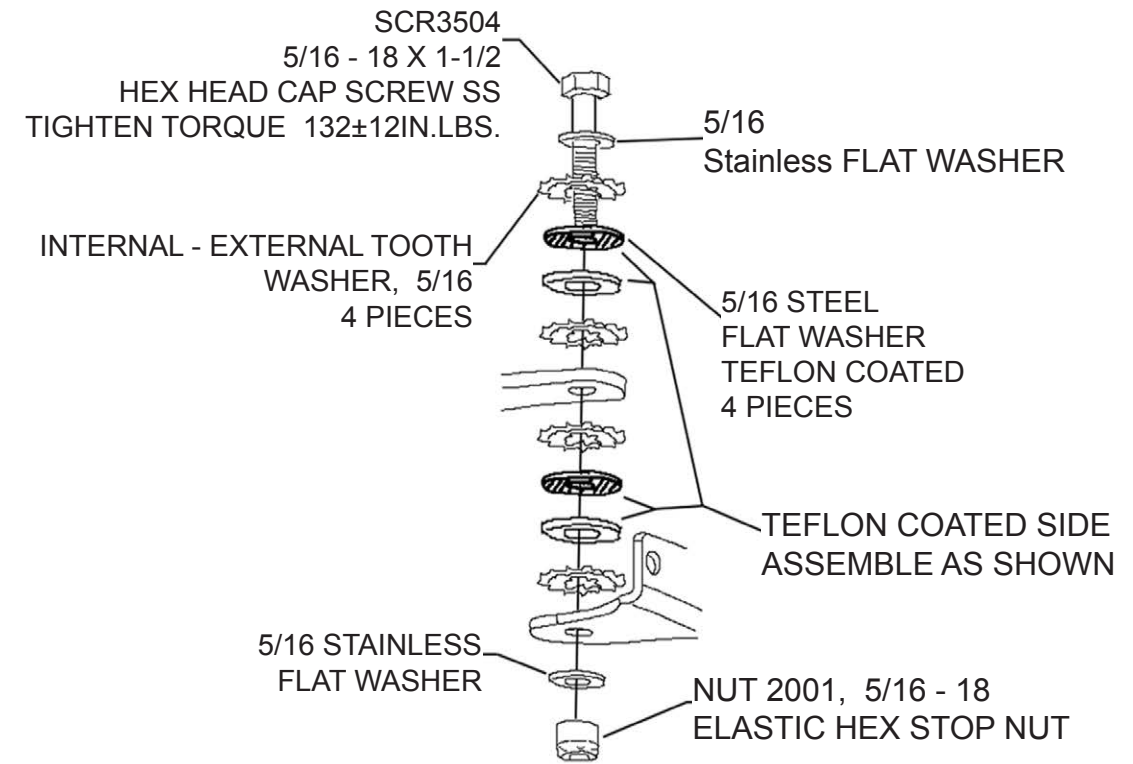
ITEM #	PART #	DESCRIPTION	QTY.	UNIT
FRONT BUMPER				
1	47004269	BUMPER STEEL FRONT 93W 9IN	1	EA
2	165008402	BRACE BUMPER FRONT AL .7X15.22X73	2	EA
REAR BUMPER				
3	47004270	BUMPER REAR 10" DEEP	1	EA
4	155007446	PLATE HANGER STEEL .312X7X11	2	EA
5	97757309	PROTECTIVE RUBBER BUMPER X29.88	2	EA
6	003057201	SHOCK BUMPER	2	EA



ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	46029044	KEYLESS RF MODULE	1	EA
2	46029045	REPLACEMENT KEY FOB	1	EA
3	46032317	SOLONOID KEYLESS ENTRY CURBSIDE	1	EA
4				
5	006700405	LABEL - DOOR LOCK CAUTION (OPTIONAL)	2	EA
6	46023511	SWITCH ROCKER DOOR UNLOCK SPST	1	EA
7	107093401	GUARD REAR SWITCH AL .102X3.25X9.12	1	EA
8	107093402	PLATE SWITCH REAR AL .125X2.06X3.13	1	EA
9	001761437	LATCH STRIKER STEEL .25 BULKHEAD DOOR	1	EA
10	001761208	LATCH ASSEMBLY KEYLESS CURBSIDE DOOR	1	EA

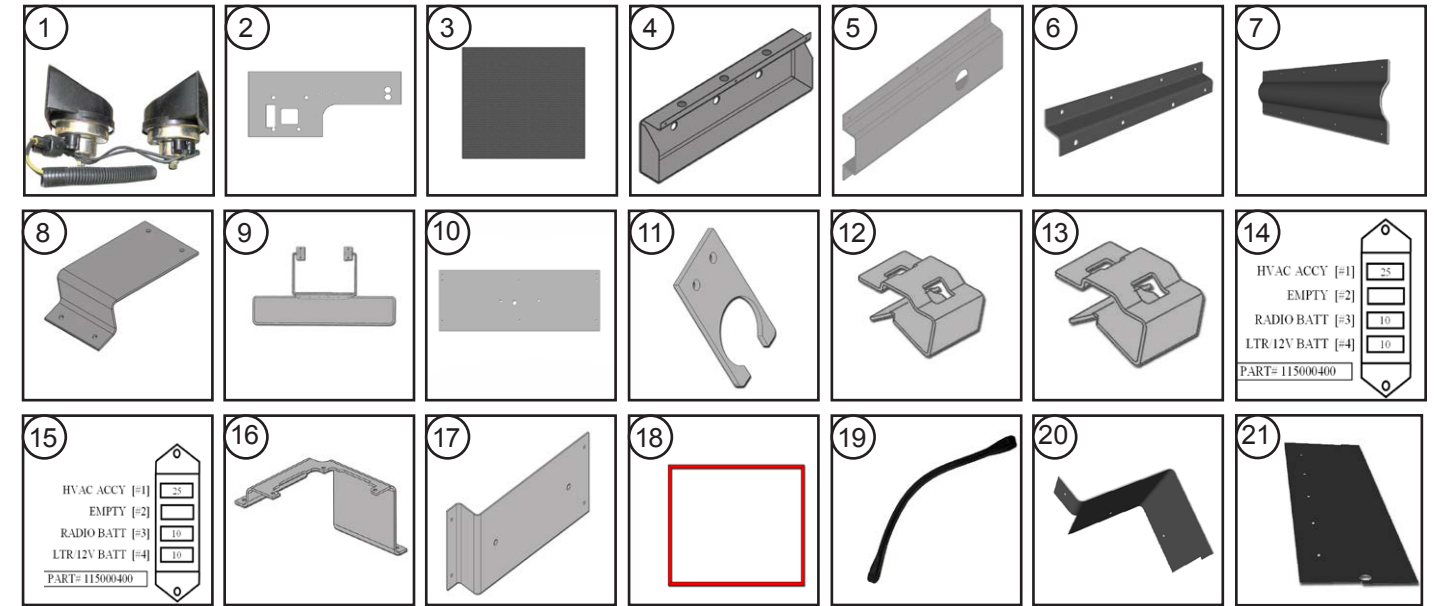


ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	47005643	MIRROR ASSEMBLY ROADSIDE HEATED	1	EA
2	47005644	MIRROR ASSEMBLY CURBSIDE HEATED	1	EA
3	47004271	WET KIT FOR WIPER ARM (NOZZLE & HOSE)	1	EA
4	47004272	RETAINER CLIP FOR HOSE	1	EA
5	1107122	HOSE .188 ID WSW	12	FT
6	083055454	BRACKET WIPER MOTOR	1	EA
7	1101694	TEE WSWA U/T	1	EA
8	47004188	WIPER SYSTEM TBLR 2 PIVOT	1	EA
10	47004134	BLADE 24IN BLACK	1	EA
11	47004206	ARM WSW WET 22IN RADIAL BLACK	1	EA
12	47004505	RSVR W/PUMP WSWA	1	EA
13	165063400	BRACKET MOUNTING RSVR AL .25X14.9X17.58	1	EA
14	46021115	CLIP BODY LARGE PAN	1	EA
15	47005901	NUT	2	EA
16	47005902	PIVOT COVER	2	EA
17	47005903	SPACER	2	EA
18	81600189	ACORN NUT	1	EA
19	47005900	MOTOR WINDSHIELD WIPER	1	EA
20	47005099	MIRROR ASSEMBLY FRONT SIDE VIEW (MIRROR ONLY- 10" 47005150)	1	EA





ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	1107324	GROMMET .625X.25X0.875	1	EA
2	1107109	GROMMET .375X.125X.625	1	EA
3	1107079	GROMMET 1X.125X1.375	1	EA
4	44000052	GROMMET .688X.125X1	2	EA
5	46004416	GROMMET 1X.25X1.375	1	EA
6	46027656	GROMMET OBLONG BLACK	2	EA
7	46004443	GROMMET ROUND BLACK 4IN LAMP	4	EA
8	1107308	MUD FLAP BLACK NO LOGO 20X24	1	PR
9	7504428	RETAINER MD/FLP AL .125X1.5X20	2	EA
10	80795014	ANGLE RETAINER AL .188X5X20	2	EA
11	47009574	FIRST AID KIT 10 PERSON	1	EA
12	46025018	REFLECTOR 2.88" AMBER	2	EA
13	46025017	REFLECTOR 2.88" RED	4	EA
14	96721405	GRAB HANDLE 28" AL 450243X39.58	1	EA
15	47001047	GRAB RAIL POWDER COATED YELLOW	1	EA
16	47001082	GRAB HANDLE .5" X 17"	1	EA
17	90187300	GRAB HANDLE .5X15.7	1	EA
18	47009621	FIRE EXTINGUISHER 2.5 LB.	1	EA
19	47009547	TRIANGLE KIT SAFETY	1	EA
20	47009548	BRACKET MOUNTING TRIANGLE KIT	1	EA
21	47009653	CENTER CONSOLE	1	EA
22	150107400	HOLDER FIRST AID KIT	1	EA
23	006526401	PANEL SPLASH VINYL .125X19.25X51.6	2	EA
24	98150310	GRAB HANDLE AL 450243X26.38	2	EA



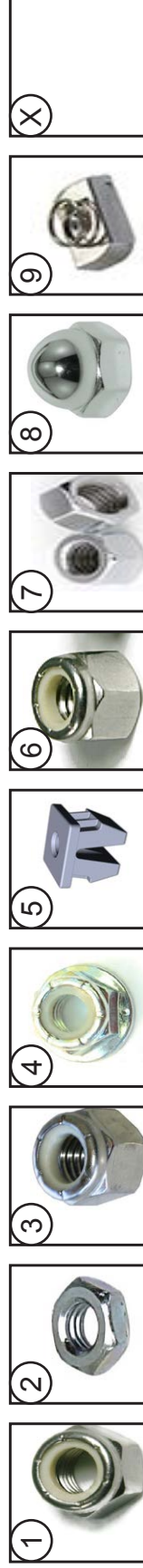
ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	115085004	HORN	1	EA
2	095116400	INSULATION DASH WALL	1	EA
3	47009600	CARPET BULKHEAD GREY	18.5	FT
4	165081400	GUARD LAMP REAR AL .07X11.2X21.25	2	EA
5	155127400	GUARD KMR LAMP AL 450039X16.44	4	EA
6	097105453	GUARD WIRING BULKHEAD KYLS AL .07X1.85X20	1	EA
7	7600858	STIFFENER AL 450003X33.5DLH SLIDING WINDOW	1	EA
8	165019400	HEEL REST ALD .08X9.25X11 LH	1	EA
9	47005614	SUN VISOR BLACK TRAPEZE	2	EA
10	100092400	BRACKET DOME LAMP	3	EA
11	090087401	PLATE FILLER WIRING AL.102X 1.44X2.63	2	EA
12	46021114	CLIP MEDIUM	1	EA
13	46021115	CLIP LARGE		EA
14	095000400	LABEL FUSE BLOCK LH	1	EA
15	095000401	LABEL FUSE BLOCK RH	1	EA
16	115084402	BRACKET MOUNTING FUSE BLOCK AL .102X6.4X8.66	1	EA
17	165094400	BRACKET MOUNTING JUNCTION BOX REAR WIRING	4	EA
18	45200376	FRAME AD HOLDER RED	2	EA
19	82930022	BUNGIE CORD .375 X 24" (HOOK END - 1113346)	1	EA
20	083005459	PLATE FILR AL .07X5.83X13.64 DLH SLIDING WINDOW	1	EA
21	083005452	PLATE FILR AL .07X4.08X27.58 DLH SLIDING WINDOW	1	EA



ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	46000213	HEADLAMP ASSEMBLY	2	EA
2	46000615	LAMP PARK / TURN (GROMMET - 46004403 x2)	2	EA
3	46002222	LAMP COMBO STOP / TURN / TAIL (SHOWN W/ GROMMET)	2	EA
4	46001431	LAMP BACK UP (SHOWN W/ GROMMET 46004402)	2	EA
5	47009642	LAMP CLEARANCE MARKER LED CLEAR	6	EA
6	46001380	LAMP CLEARANCE MARKER LED RED	3	EA
7	46001340	LAMP CLEARANCE MARKER LED RED	2	EA
8	46001339	LAMP CLEARANCE MARKER LED AMBER	6	EA
8	46001344	LAMP CLEARANCE MARKER SIDE LED AMBER	2	EA
8	46001362	LAMP CLEARANCE MARKER LED AMBER	1	EA
9	47009642	LAMP LICENSE PLATE CLEAR LED	1	EA
10	46002637	LAMP DOME LED CAB (MOUNTING BRACKET - 100092400)	1	EA
11	47006065	RING TUBE STEEL 4IN ROUND FLG MTD	1	EA
12	46002638	LAMP DOME LED CARGO (BRACKET - 100092401)	2	EA
13	46023508	SWITCH ROCKER DOME CAB SPST ON-OFF	1	EA
14	46023603	SWITCH ROCKER DOME CARGO SPDT ON-ON	1	EA
15	46023511	SWITCH ROCKER DOOR UNLOCK SPST	1	EA
16	46023605	SWITCH ROCKER DASH FAN SPDT ON-OFF-ON	1	EA
17	46023611	SWITCH ROCKER BASE ONLY SPDT ON-ON	1	EA
18	46023618	SWITCH ACTUATOR ONLY HEATED MIRRORS	1	EA
19	46023603	SWITCH ROCKER DOME CARGO SPDT ON-ON	1	EA
20	46002427	LAMP CLEAR STEPWELL	1	EA
21	46003017	LAMP INTERMITANT WIPER	1	EA



ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	48200164	MONITOR DISPLAY BACK UP CAMERA	1	EA
2	46029042	LOCK KEYLESS ENTRY CURBSIDE	1	EA
3	46025594	RADIO AM/FM/WB/RBDS	1	EA
4	46025590	SPEAKERS 6.5" BLACK	2	EA
5	46025559	ANTENNA TOP/SIDE MOUNT	1	EA
6	46030011	FAN 2 SPEED 270 CFM	1	EA
7	46027623	BOOT E/BLK HTR WP CHR M RECEP	1	EA
8	46027624	PLUG 5-15 E/BLK HTR WP CHR M		EA
9	46027625	RECEP 5-15 FLEX CBL BLK	1	EA
10	46027377	RECEPTICLE CHR FOR BLANKET HEATER CRD	1	EA
11	46025305	SWITCH MAGNETIC REED NORMALLY OPEN	1	EA
12	46032336	TIMER 20 SEC 10A MAX	1	EA
13	46026420	IDLE TIMER CONTROLLER	1	EA
14	150127459	SUPPORT WIRE RACK AL .125X2X28.5	2	EA
15	46032341	TIMER 10 MINUTE 10A W/O RELAY	1	EA
16	140092402	GUARD CAMERA REAR AL .102X1.56X19.24	1	EA
17	48200172	CAMERA BACK UP	1	EA
18	165127400	COVER WR TRAN AL .102X7.04X58.94	1	EA



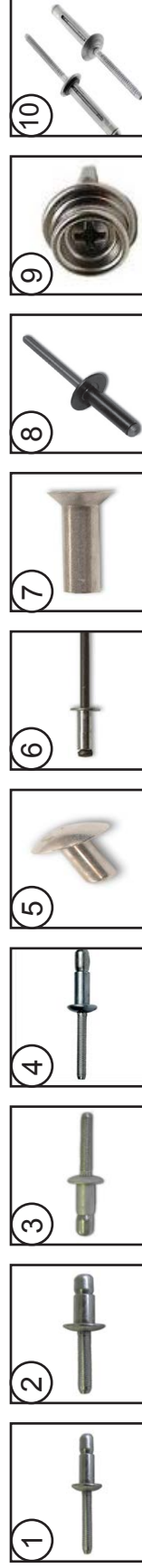
ZP - ZINC PLATED

Standard	Thread	FIG.	#8	#10	DIA.					
					1/4"	5/16	3/8"	.44	1/2"	
NYLON LOCKING NUT, HEX	32	1		052266						
NYLON LOCKING NUT, HEX	24	1		40301303						
NYLON LOCKING NUT, HEX ZP	24	3		1117307						
NYLON LOCKING NUT, HEX ZP	20	3			1117310					
NYLON LOCKING NUT, HEX ZP	18	3				1117838				
NYLON LOCKING NUT, HEX ZP	16	3					1117344			
LOCKING NUT HEX FLANGE .44-20 OVAL	20	4						1217003		
NUTSERT EXPANDING NYL .275 SQ	20	5		40900006						
NUT NON LOCKING	24	2		1117303						
NUT NON LOCKING	20	2			1117312					
NUT NON LOCKING	16	2					1117316			
GRADE 5										
NUT STL LK LRG FLG GD5 .31-18	18	4						40100560		
NUT STL HEX LK B ZP .5-13 GR 5	13	1							1117283	
Stainless										
NUT SS LOCKING	32	3	1117347	1117699						
NUT SS LOCKING	24	6		1103354						
NUT SS LOCKING	20	6			1117336					
NUT SS NON LOCKING	20	7			40100044					
NUT SS ACORN LOW CROWN	20	8			40100061					
Specialty										
CHANNEL NUT WITH SPRING 1 X 1-1/4"	20	9			47009988					

Genuine OEM Parts

1.800.233.4823

www.morganolsonparts.com

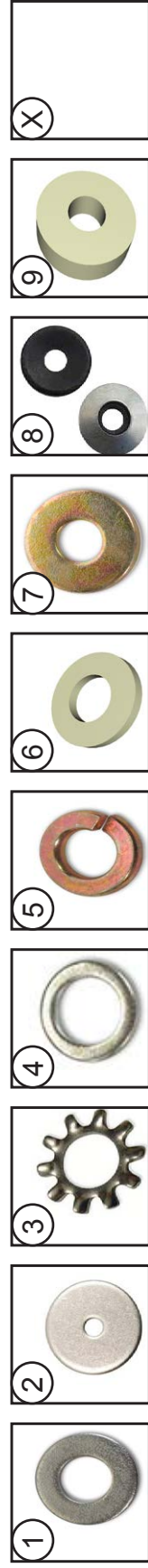


MAGNA LOCK	Diameter	Fig.	.25	.312	.375	.438	.44	Length							
								.5	.562	.625	.687	.75	.875	1"	
HUCK R6-4	.188	1		1117084	1117061										
HUCK R8-6	.25	2		1117087											
PROTRUDING HEAD	.25	3			40200304		40200634			40200303					
FLUSH HEAD B6-4	.25	4						40200630							
RIV AL BRAIZER HEAD	.125	5		1117402	1117404	1117405		1117406							
RIV AL BRAIZER HEAD	.188	5		1117351	1117353	1117355		1117357	1117359	1117361	1117363	1117365			
RIV AL BRAIZER HEAD	.25	5						1117380					1117390	1117395	
RIV AL BRAIZER HEAD MOD	.25	5					40200214	1117409	1117410		1117408				
RIV AL FLAT HEAD	.188	7					1117436								
RIV AL FLAT HEAD POP	.25	7								40200630					
RIV AL DOME HEAD BLIND	.125	10	1117464												
RIV AL DOME HEAD BLIND	.188	10	1117456					1117458		1117459					
POP AL OPEN END BLIND	.125	6													
POP AL OPEN END BLIND	.188	6	1117456							1117459		1117458			
POP CLSD BLACK		8						40200629		40200631					
SNAP FASTNER		9						40900925							
BULB TYPE BLIND w/WASHER	.188	10			40200621			40200501							

Genuine OEM Parts

1.800.233.4823

www.morganolsonparts.com



Standard	Center	FIG.	3/8	1/2	9/16	5/8	3/4"	7/8	1"	1-1/4"	1-3/4"
#10 TYPE B FLAT WASHER ZINC/ROHS	.19	1		1117929							
#10 X 1 FENDER WASHER ZC	.19	2							1117950		
#10 EXTERNAL TOOTH LW ZC	.19	3	1117971								
1/4 EXTERNAL TOOTH LW ZC	1/4	3		1117975							
1/4 TYPE B NARROW FLAT WASHER	1/4	4		1117941							
1/4 USS FLAT WASHER ZC/ROHS	1/4	1				40000047					
1/4 F436 (A325) FLAT WASHER ZC/ROHS	1/4	1							1117952		
.266 X 1 FLAT WASHER .060 THK ZC/RO	1/4	1									
1/4 USS FLAT WASHER	1/4	1		1117885							
5/16 SPLIT LOCK WASHER ZC/ROHS	5/16	5	1117965								
5/16 USS FLAT WASHER ZC/ROHS	5/16	1						1117955			
3/8 USS FLAT WASHER ZC/ROHS	3/8	1						1117957			
3/8 X 1 FLAT WASHER 1/4 THK NYLON	3/8	6							40000038		
1/2 TYPE B REGULAR FLAT WASHER	1/2	1								40000050	
1/2 TYPE B REGULAR FLAT WASHER ZC	1/2	1								1117945	
1/2 TYPE B WIDE FLAT WASHER ZC/ROHS	1/2	1									1117959
Grade 8											
5/16 USS FLAT WASHER GR 8 ZC/Y	5/16	7						1117937			
3/8 USS FLAT WASHER GR 8 ZC/Y	3/8	7							1117947		
3/8 SAE FLAT WASHER GR 8 ZC/Y	3/8	7					40000046				
7/16 USS FLAT WASHER GR 8 ZC/Y	7/16	7								1217002	
1/2 SAE FLAT WASHER GR 8 ZC/Y	1/2	7							1117943		
Stainless 18-8											
#10 X 5/8 BONDED SEALER 18-8 SS	.19	8				40000053					
1/4 X 5/8 BONDED SEALER 18-8 SS	1/4	8				40000051					
3/8 X 3/4 BONDED SEALER 18-8 SS	3/8	8					40000054				
3/8 X 1" BONDED SEALER 18-8 SS	3/8	8							40000055		
1/4 EXTERNAL TOOTH SS LW ZC	1/4	3		40000510							
Speciality											
WASHER NYLON .13 X .62 ID X 1.380D	5/8	9									137147429

Genuine OEM Parts

1.800.233.4823

www.morganolsonparts.com



	Diameter	Fig.	Length															
			.5	.625	.75	.875	1"	1-1/4"	1-1/2"	2-1/4"	2-1/2"	3"						
18-8 Stainless																		
PHILLIPS TRUSS M/S 18-8 SS	8 - 32	1		1117716														
PHILLIPS TRUSS M/S 18-8 SS	10 - 24	1	1117800	1117814	40300498		40300451	1117835										
PHILLIPS TRUSS M/S 18-8 SS	1/4 - 20	1			1117784			40300453	40300454									
PHILLIPS TRUSS M/S 18-8 SS	5/16 - 18	1			1117928													
PHILLIPS FLAT M/S 18-8 SS	10 - 32	2					1117830											
PHILLIPS FLAT M/S 18-8 SS	1/4 - 20	2					1117782											
PHILLIPS ROUND M/S 18-8 SS	10 - 24	6			40300809													
6 LOBE PAN T/C M/S 18-8 SS	1/4 - 20	9			1117209													
								1117815										
Standard Steel RoHS																		
PHILLIPS ROUND M/S ZC/ROHS	8 - 32	6								1117839								
PHILLIPS PAN TEKS/3 ZC/ROHS	10 - 16	5																
PHILLIPS TRUSS M/S ZC/ROHS	10 - 24	1																1117793
PHILLIPS TRUSS M/S ZC/ROHS	10 - 32	1	1117723						1117715									
T/C - Thread Cutting																		
PHIL PAN T/S TYPE A ZC	10	8								1117680								
PHIL TRUSS T/S TYPE A BLK	10	4							40300101									
PHIL PAN T/S TYPE A BLK	10	7							40300503									
PHIL PAN T/S TYPE A ZC	12	8								1117666								
6 LOBE PAN T/C	1/4 - 20	9							40300922								1117684	40300042

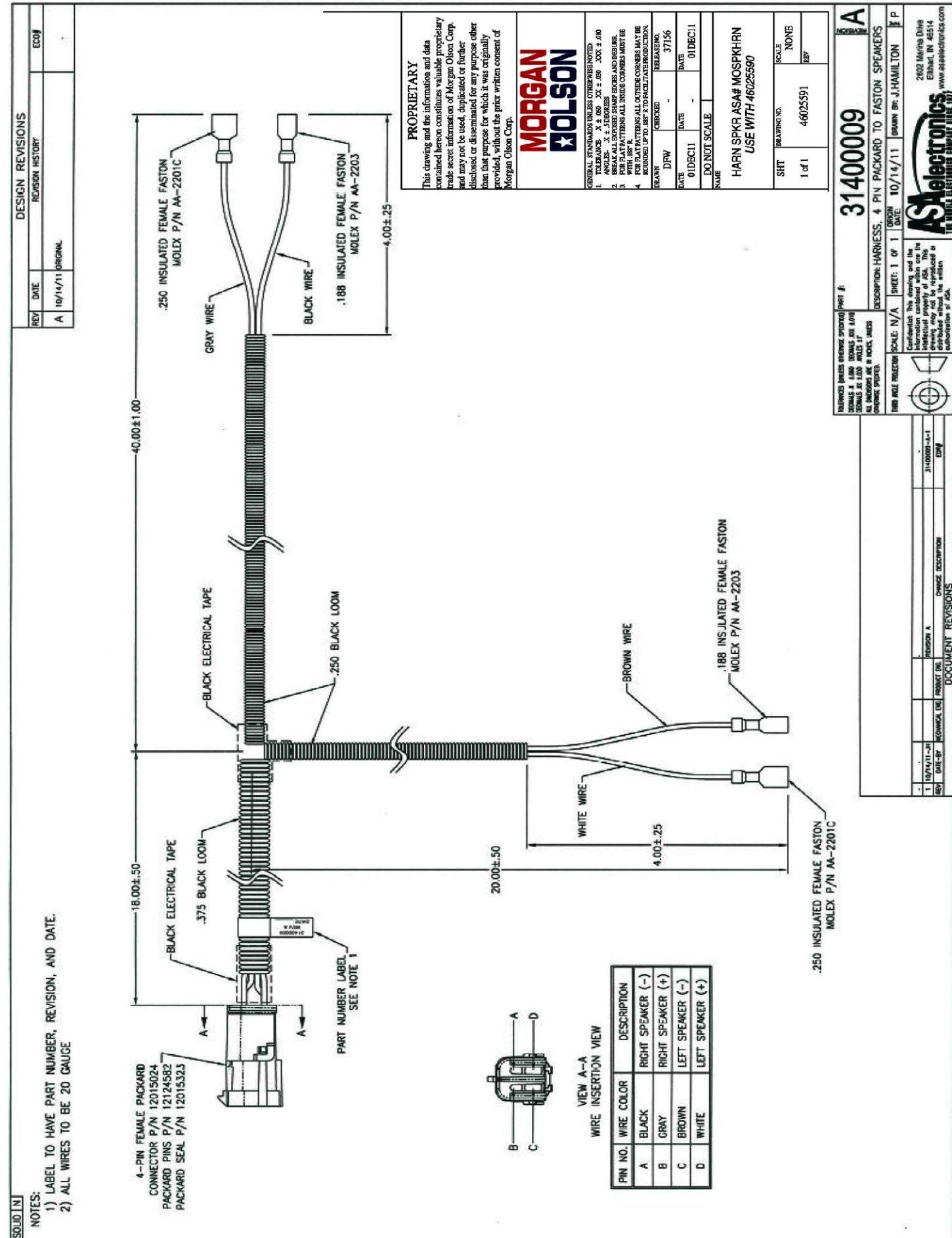


T/C Thread Cutting 6 Lobe Type A

Genuine OEM Parts

1.800.233.4823

www.morganolsonparts.com

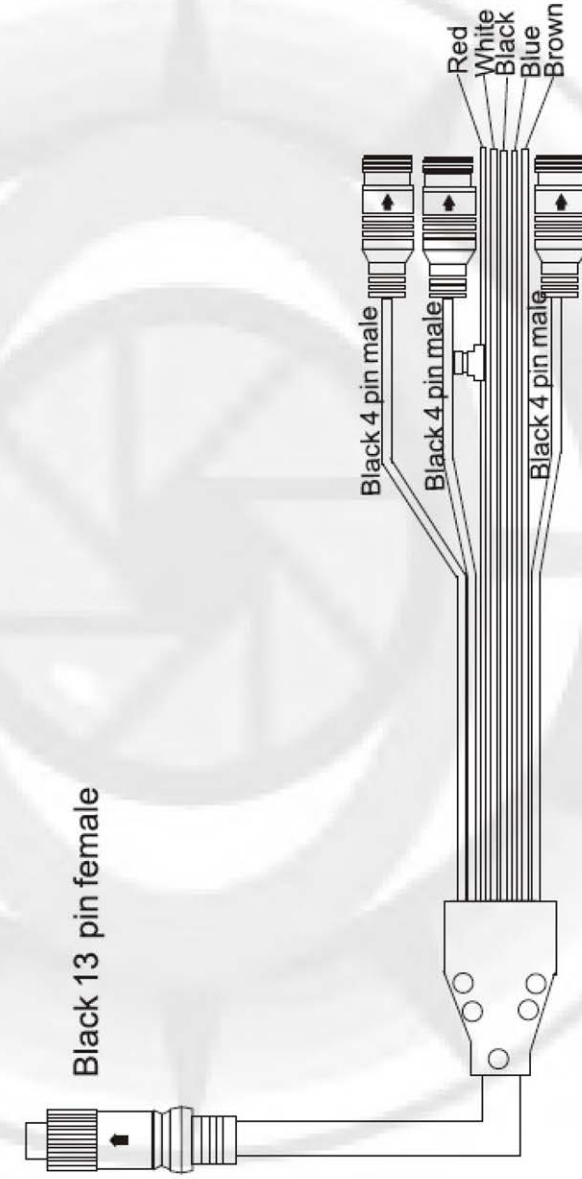


46027625
 RECEPTICLE 5-15 FLEX CABLE BLACK
 IMAGE AND/OR SCHEMATIC UNAVAILABLE

48200137
CABLE CAMERA TO MONITOR 15'
IMAGE AND/OR SCHEMATIC UNAVAILABLE

REV	SHT	DESCRIPTION	BY	REL. NO.
REL	1 of 1	RELEASE TO PRODUCTION	CHK	DATE

Black 4 pin male for Camera 1 / Camera 2 / Camera 3
Single red wire for positive ignition power supply of DC / 10-32V
Single black wire for GND
Single brown wire to positive power wire of back-up light
Single white wire to positive power wire of left turn light
Single blue wire to positive power wire of right turn light



PROPRIETARY
This drawing and the information and data contained hereon constitutes valuable proprietary trade secret information of Morgan Olson Corp. and may not be used, duplicated or further disclosed or disseminated for any purpose other than that purpose for which it was originally provided, without the prior written consent of Morgan Olson Corp.



GENERAL STANDARDS UNLESS OTHERWISE NOTED:
1. TOLERANCE - .X ± .060 .XX ± .030 .XXX ± .010
ANGLES - .X ± .5 DEGREES
2. BREAK ALL EXPOSED SHARP EDGES AND DEBURR.
3. FOR FLAT PATTERNS ALL INSIDE CORNERS MUST BE WITH .188" R.
4. FOR FLAT PATTERNS ALL OUTSIDE CORNERS MAY BE ROUNDED UP TO .188" R TO FACILITATE PRODUCTION.

DRAWN	CHECKED	RELEASE NO.
ALL	-	46230
DATE	DATE	DATE
22OCT15	-	22OCT15
DO NOT SCALE		

NAME
CABLE MONITOR POWER 5"
ZONE DEFENSE #CBL.354.300

DATE	05/2012	ZONE DEFENSE
SHEET	1 OF 1	DWG NAME
DWG NO.	01.300.C	DWG NO.
		CBL.300.C

SHT	DRAWING NO.	SCALE
1 of 1	48200165	NONE
		REV
		REL

NOTICE
This design and all technical information is the property of Zone Defense, LLC. It is not to be copied, reproduced or appropriated by others. This information is for reference purposes only and is subject to change at any time.

DESCRIPTION

REV	DESCRIPTION	BY CHK	REL NO DATE
	RELEASE TO PRODUCTION		

DRAWING NO.
48200167

REV
REL

SHT
1 of 1



PROPRIETARY

This drawing and the information and data contained hereon constitutes valuable proprietary trade secret information of Morgan Olson Corp. and may not be used, duplicated or further disclosed or disseminated for any purpose other than that purpose for which it was originally provided, without the prior written consent of Morgan Olson Corp.



GENERAL STANDARDS UNLESS OTHERWISE NOTED:

1. TOLERANCE: X ± .060 XX ± .030 .XXX ± .010
- ANGLES: X ± .5 DEGREES
2. BREAK ALL EXPOSED SHARP EDGES AND DEBURR.
3. FOR FLAT PATTERNS ALL INSIDE CORNERS MUST BE WITH .188" R.
4. FOR FLAT PATTERNS ALL OUTSIDE CORNERS MAY BE ROUNDED UP TO .188" R TO FACILITATE PRODUCTION.

DRAWN ALL CHECKED - RELEASE NO. 46230

DATE 22OCT15 DATE 22OCT15

DO NOT SCALE

NAME

CBL CAM TO MON 32'
ZONE DEFENSE #CBL.358B

SHT 1 of 1 DRAWING NO. 48200167 SCALE NONE

REV REL

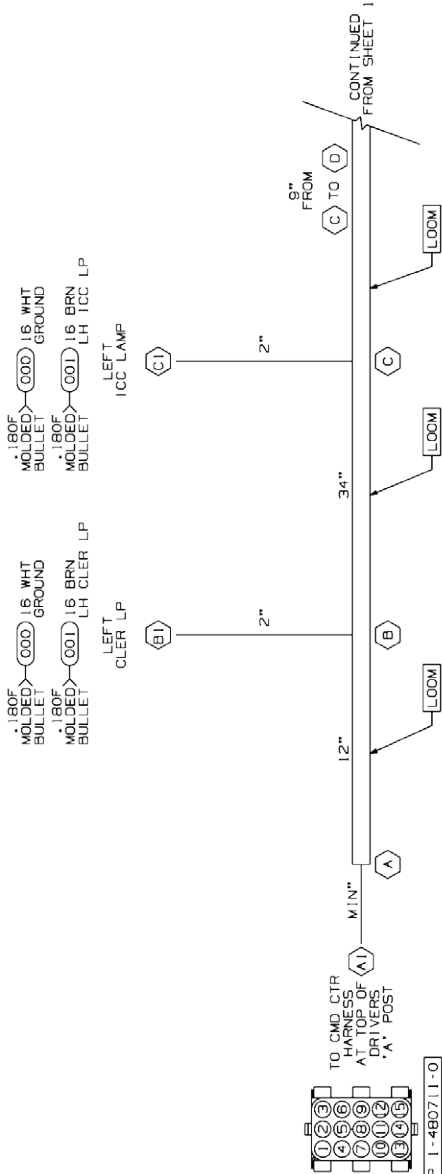
48200171
CABLE CAMERA 5M 4 PIN ZD
IMAGE AND/OR SCHEMATIC UNAVAILABLE

DRAWING NO.	090091202	REV	A	SHT	2 of 2
DESCRIPTION	RELEASE FOR PRODUCTION				
DATE	11/15/2008				
BY	A. ZI. REVISED NOTES				

CIRCUIT	GA/COLOR	END POINTS	FUNCTION
109	16 ORN	A1,E1	WIPER PK SWITCH- OUTPUT
224	14 RED/GRN	A1,D2	BATTERY - SWITCHED
226	14 ORN/GRN	A1,D2	ACCESSORY - SWITCHED
300	12/14 WHT/RED	A1,D2,D2,SPLICE 2	AUX GROUND
304	16 YEL/BLK	A1,D3	DASH FAN LOW
305	16 GRN/BLK	A1,D3	DASH FAN HIGH
405	16 RED/YEL	A1,F2	AUXILIARY ACCESSORY

CIRCUIT	GA/COLOR	END POINTS	FUNCTION
000A	12 WHT	A1,E2,SPLICE 1	GROUND
000	14/16 WHT	B1,C1,D1,E1,F1,F2,F3,SPLICE 1	GROUND
001	16 BRN	A1,B1,C1,D1,F1,F3	CLEARANCE/ICC LPS
004	16 PNK	A1,F2	BACK-UP SIGNAL
106	16 LBL	A1,E1	WIPER PARK SWITCH B+
107	16 GRN/WHT	A1,E1	WIPER LOW
108	16 RED/WHT	A1,E1	WIPER HIGH

[SPLICE 1]
000A, 12 WHT IS TO BE SPLICED TO THE 000 WHT CIRCUIT. VENDOR TO DETERMINE LOCATION(S)



- <-(000A) 12 WHT (1) GROUND
- <-(001) 16 BRN (2) CLEARANCE/ICC LAMPS
- <-(004) 16 PNK (3) BACK-UP SIGNAL
- <-(106) 16 LBL (4) WIPER PARK SWITCH B+
- <-() EMPTY (5)
- <-(107) 16 GRN/WHT (6) WIPER LOW
- <-(108) 16 RED/WHT (7) WIPER HIGH
- <-() EMPTY (8)
- <-(109) 16 ORN (9) WIPER PARK SW OUTPUT
- <-(224) 14 RED/GRN (10) BATT (SW)
- <-(300) 12 WHT/RED (11) AUX GROUND
- <-(226) 14 ORN/GRN (12) ACCY (SW)
- <-(304) 16 YEL/BLK (13) FAN LOW
- <-(305) 16 GRN/BLK (14) FAN HIGH
- <-(405) 16 RED/YEL (15) ACCESSORY

AMP 1-4807(11-0)
CONN. IS CKT
USE MALE TERMS

PROPRIETARY
This drawing and the information contained herein are the property of Morgan Olson and shall remain confidential. No part of this drawing may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written consent of Morgan Olson.

MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED: .001" ± .010
1. HOLE DIA. ± 0.005
2. DIMENSIONS TO CENTER UNLESS NOTED
3. DIMENSIONS TO SURFACE UNLESS NOTED
4. DIMENSIONS TO CENTER UNLESS NOTED
5. DIMENSIONS TO SURFACE UNLESS NOTED

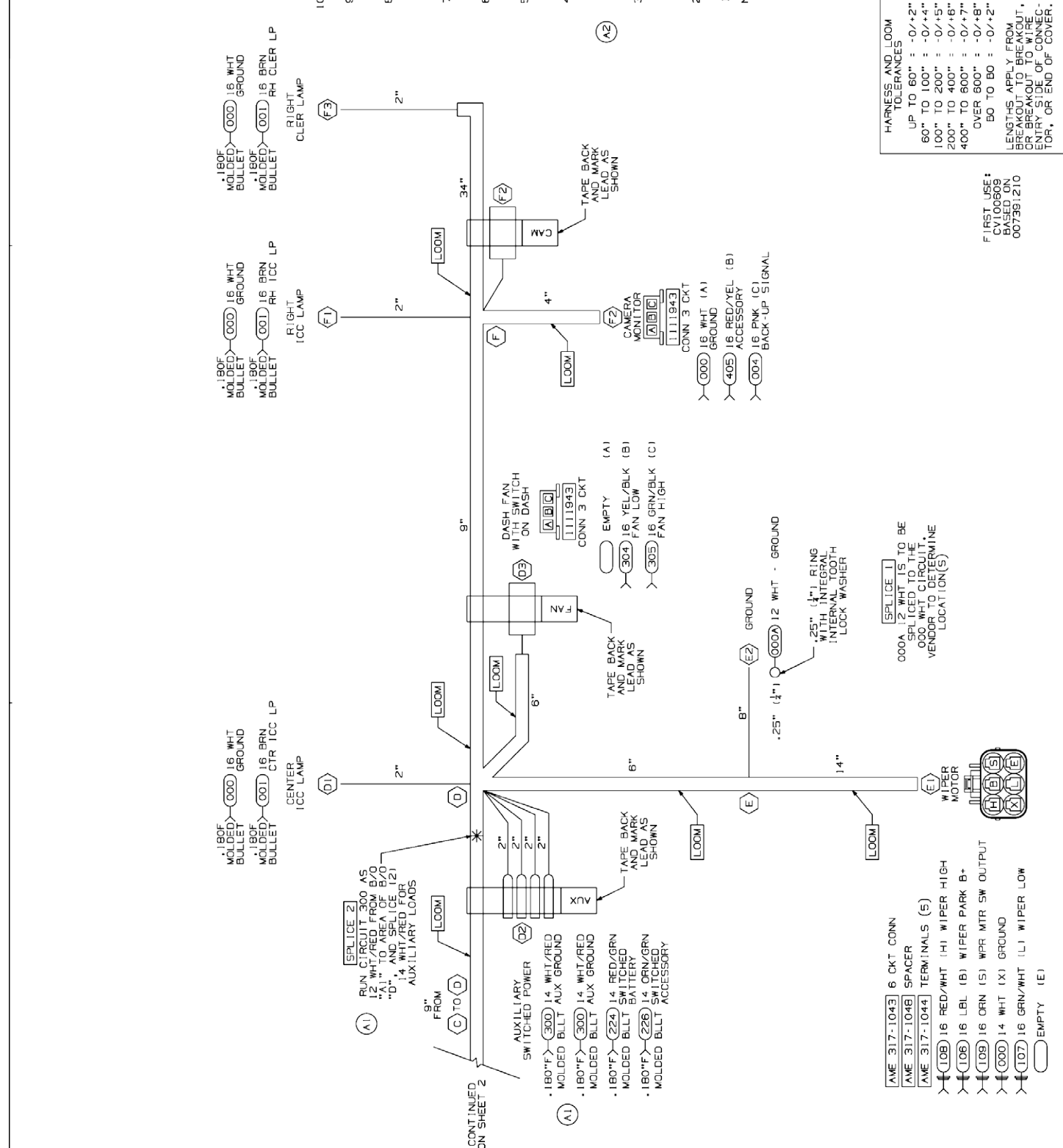
DFW 27989
01SEP09 01SEP09 01SEP09
DO NOT SCALE
HARN RFNO RSF 2009 M-100
SHT 2 OF 2
DRAWING NO. 090091202
SCALE NONE
REV A

PROPRIETARY
This drawing and the information contained herein are the property of Morgan Olson and shall remain confidential. No part of this drawing may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written consent of Morgan Olson.

MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED: .001" ± .010
1. HOLE DIA. ± 0.005
2. DIMENSIONS TO CENTER UNLESS NOTED
3. DIMENSIONS TO SURFACE UNLESS NOTED
4. DIMENSIONS TO CENTER UNLESS NOTED
5. DIMENSIONS TO SURFACE UNLESS NOTED

DFW 27989
01SEP09 01SEP09 01SEP09
DO NOT SCALE
HARN RFNO RSF 2009 M-100
SHT 2 OF 2
DRAWING NO. 090091202
SCALE NONE
REV A



- <-(AME 317-1043) 6 CKT CONN
- <-(AME 317-1048) SPACER
- <-(AME 317-1044) TERMINALS (5)
- <-(108) 16 RED/WHT (H) WIPER HIGH
- <-(108) 16 LBL (B) WIPER PARK B+
- <-(108) 16 MTR (S) WPR MTR SW OUTPUT
- <-(000) 14 WHT (X) GROUND
- <-(107) 16 GRN/WHT (L) WIPER LOW
- <-() EMPTY (E)

[SPLICE 1]
000A, 12 WHT IS TO BE SPLICED TO THE 000 WHT CIRCUIT. VENDOR TO DETERMINE LOCATION(S)

FIRST USE:
CV100609
BASED ON
007351210

PROPRIETARY
This drawing and the information contained herein are the property of Morgan Olson and shall remain confidential. No part of this drawing may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written consent of Morgan Olson.

MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED: .001" ± .010
1. HOLE DIA. ± 0.005
2. DIMENSIONS TO CENTER UNLESS NOTED
3. DIMENSIONS TO SURFACE UNLESS NOTED
4. DIMENSIONS TO CENTER UNLESS NOTED
5. DIMENSIONS TO SURFACE UNLESS NOTED

DFW 27989
01SEP09 01SEP09 01SEP09
DO NOT SCALE
HARN RFNO RSF 2009 M-100
SHT 2 OF 2
DRAWING NO. 090091202
SCALE NONE
REV A

PROPRIETARY
This drawing and the information contained herein are the property of Morgan Olson and shall remain confidential. No part of this drawing may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written consent of Morgan Olson.

MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED: .001" ± .010
1. HOLE DIA. ± 0.005
2. DIMENSIONS TO CENTER UNLESS NOTED
3. DIMENSIONS TO SURFACE UNLESS NOTED
4. DIMENSIONS TO CENTER UNLESS NOTED
5. DIMENSIONS TO SURFACE UNLESS NOTED

DFW 27989
01SEP09 01SEP09 01SEP09
DO NOT SCALE
HARN RFNO RSF 2009 M-100
SHT 2 OF 2
DRAWING NO. 090091202
SCALE NONE
REV A

DRAWING NO.	REV	SHT
090093202	A	1 of 1
DESCRIPTION	DATE	BY
RELEASE FOR PRODUCTION		
A 80" WAS 84"		

9. THIS IS A PURCHASED HARNESS. NO BILL OF MATERIAL EXISTS.
8. VENDOR MAY REPLACE PIGTAILS WITH WIRING APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
7. HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
6. CONNECTORS SHOWN FROM WIRE ENTRY SIDE UNLESS OTHERWISE NOTED.
5. SPLICES TO BE AUTOMATED WITH SOLDER AND ADHESIVE LINED HEAT SHRINK TUBING.
4. TAPE [1111096]: 6" AT BREAKOUTS, 2" AT 18" INTERVALS FOR UNINTERRUPTED LOOM LENGTHS GREATER THAN 24", AND 2" AT LOOM ENDS.
3. HARNESS TO HAVE A LABEL PART NUMBER, REVISION LEVEL, AND DATE OF MANUFACTURE.
2. SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
1. GXL WIRE.

NOTES:

PROPRIETARY

This drawing and the information and data contained hereon are the property of Morgan Olson and shall be used only for the purpose intended. It is not to be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written consent of Morgan Olson.



GENERAL STANDARD VALUES (UNLESS OTHERWISE NOTED):
 1. DIMENSIONS: U.S. DIMENSIONS.
 2. DIMENSIONS: U.S. DIMENSIONS.
 3. DIMENSIONS: U.S. DIMENSIONS.
 4. DIMENSIONS: U.S. DIMENSIONS.
 5. DIMENSIONS: U.S. DIMENSIONS.
 6. DIMENSIONS: U.S. DIMENSIONS.
 7. DIMENSIONS: U.S. DIMENSIONS.
 8. DIMENSIONS: U.S. DIMENSIONS.
 9. DIMENSIONS: U.S. DIMENSIONS.
 10. DIMENSIONS: U.S. DIMENSIONS.

HARN AND LOOM TOLERANCES
 UP TO 60" : -0/+2"
 60" TO 100" : -0/+4"
 100" TO 200" : -0/+8"
 200" TO 400" : -0/+16"
 400" TO 600" : -0/+32"
 OVER 600" : -0/+64"
 60 TO 90 : -0/+2"

LENGTHS APPLY FROM BREAKOUT TO BREAKOUT, OR BREAKOUT TO WIRE ENTRY POINT, OR TO END OF COVER, TOP, OR END OF COVER.

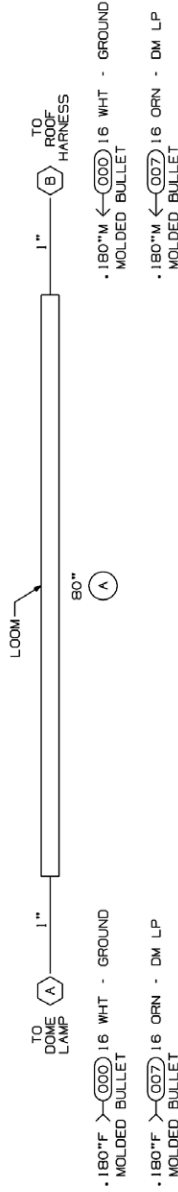
DO NOT SCALE

DATE: 28816
 DWG: 280CT09

NAME: HARN JPR CRG D/LP
 GEN: .180BLLT

DRAWING NO.: 090093202
 REV: NONE
 SHT: 1 of 1

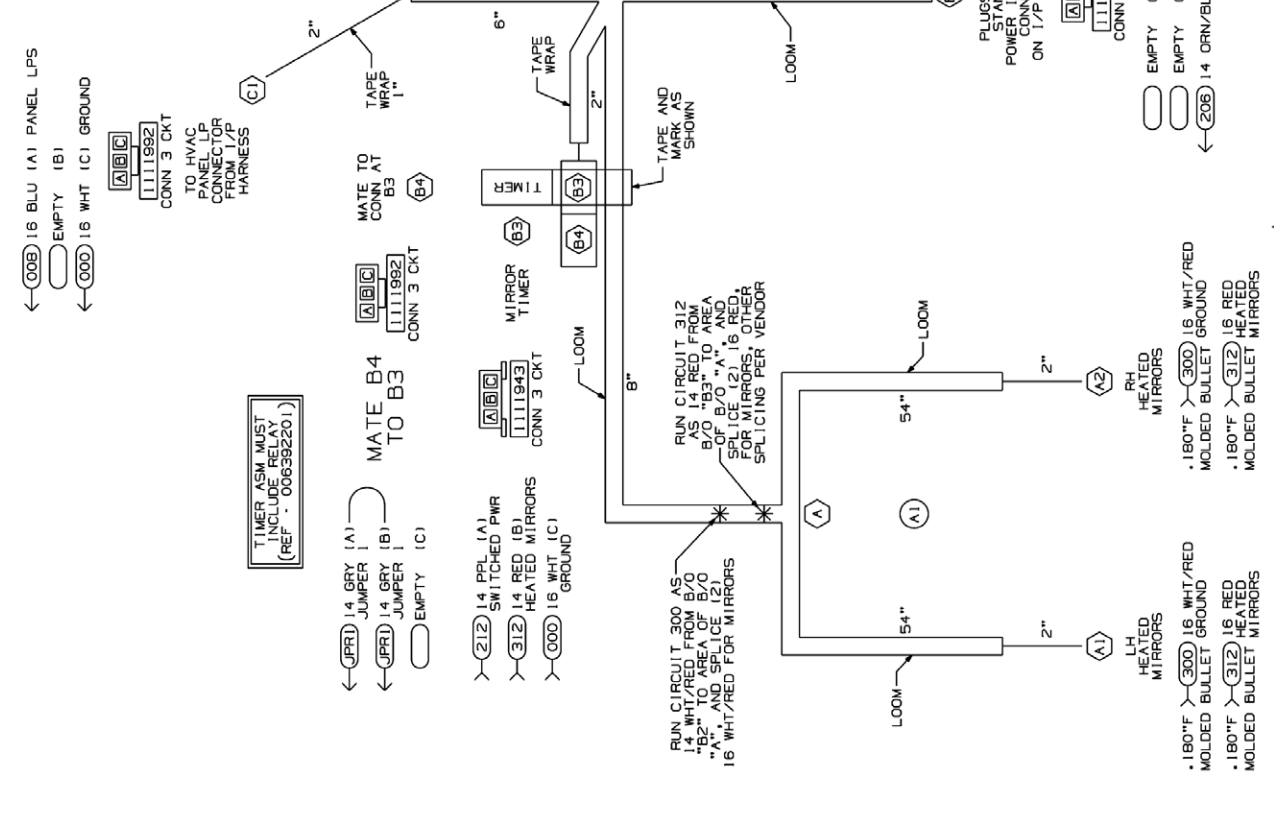
FIRST USE:
 CV100632
 BASED ON:
 007388326



FEMALE BULLET TERMINALS TO BE GREASED

CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
000	16 WHT	B3, B5, C1, C2	GROUND
008	16 BLU	B5, C1, C2	PANEL LAMPS
206	14 ORN/BLK	B1, B5	ACCESSORY POWER
212	14 PPL	B3, B5	SWITCHED POWER
300	14/16 WHT/RED	A1, A2, B2	GROUND - MIRRORS
312	14/16 RED	A1, A2, B3, B5	HEATED MIRRORS / PILOT
JPR1	14 GRV	B4, B4	JUMPER LEAD FOR NO TIMER

THIS HARNESS MAX. CURRENT USAGE RATINGS WITHOUT OPT. TIMER WITH OPT. TIMER	15 AMPS	10 AMPS
--	---------	---------



DRAWING NO.	REV	SHT
093051201	B	1 of 1
DESCRIPTION	DATE	BY
RELEASE FOR PRODUCTION		
A 1 REVISED AS PER MIRRORS		
B ADDED GREASE NOTE		

10. VENDOR TO GREASE FEMALE BULLET TERMINALS.
9. THIS IS A PURCHASED HARNESS. NO BILL OF MATERIAL EXISTS.
8. VENDOR MAY REPLACE PIGTAILS WITH WIRING APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
7. HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
6. CONNECTORS SHOWN FROM WIRE ENTRY SIDE UNLESS OTHERWISE NOTED.
5. SPLICES TO BE AUTOMATED WITH SOLDER AND ADHESIVE LINED HEAT SHRINK TUBING.
4. TAPE [1111096]: 6" AT BREAKOUTS, 2" AT 18" INTERVALS FOR UNINTERRUPTED LOOM LENGTHS GREATER THAN 24", AND 2" AT LOOM ENDS.
3. HARNESS TO HAVE A LABEL PART NUMBER, REVISION LEVEL, AND DATE OF MANUFACTURE.
2. SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
1. GXL WIRE.

NOTES:

PROPRIETARY

This drawing and the information and data contained hereon are the property of Morgan Olson and shall be used only for the purpose intended. It is not to be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written consent of Morgan Olson.



GENERAL STANDARD VALUES (UNLESS OTHERWISE NOTED):
 1. DIMENSIONS: U.S. DIMENSIONS.
 2. DIMENSIONS: U.S. DIMENSIONS.
 3. DIMENSIONS: U.S. DIMENSIONS.
 4. DIMENSIONS: U.S. DIMENSIONS.
 5. DIMENSIONS: U.S. DIMENSIONS.
 6. DIMENSIONS: U.S. DIMENSIONS.
 7. DIMENSIONS: U.S. DIMENSIONS.
 8. DIMENSIONS: U.S. DIMENSIONS.
 9. DIMENSIONS: U.S. DIMENSIONS.
 10. DIMENSIONS: U.S. DIMENSIONS.

HARN AND LOOM TOLERANCES
 UP TO 60" : -0/+2"
 60" TO 100" : -0/+4"
 100" TO 200" : -0/+8"
 200" TO 400" : -0/+16"
 400" TO 600" : -0/+32"
 OVER 600" : -0/+64"
 60 TO 90 : -0/+2"

LENGTHS APPLY FROM BREAKOUT TO BREAKOUT, OR BREAKOUT TO WIRE ENTRY POINT, OR TO END OF COVER, TOP, OR END OF COVER.

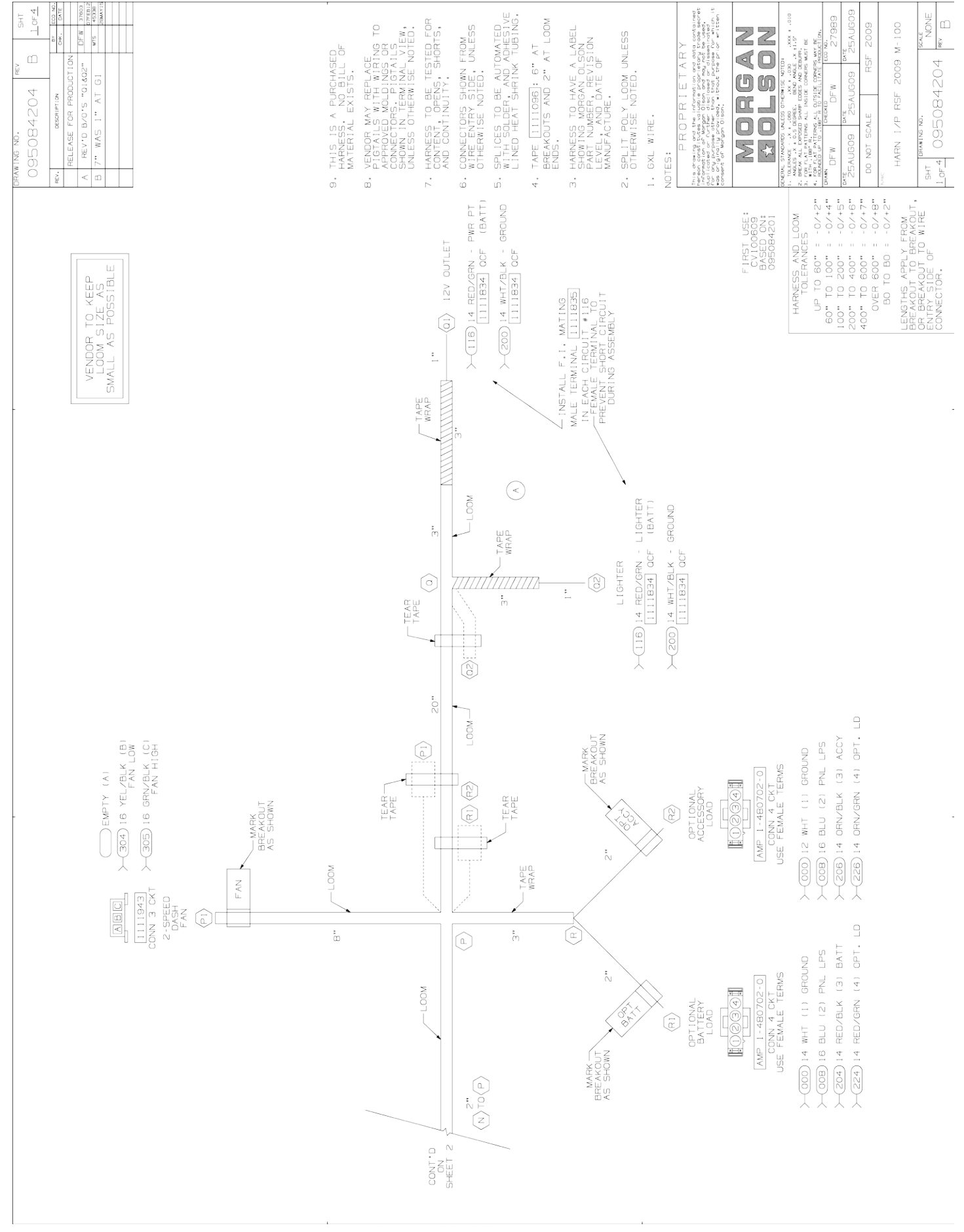
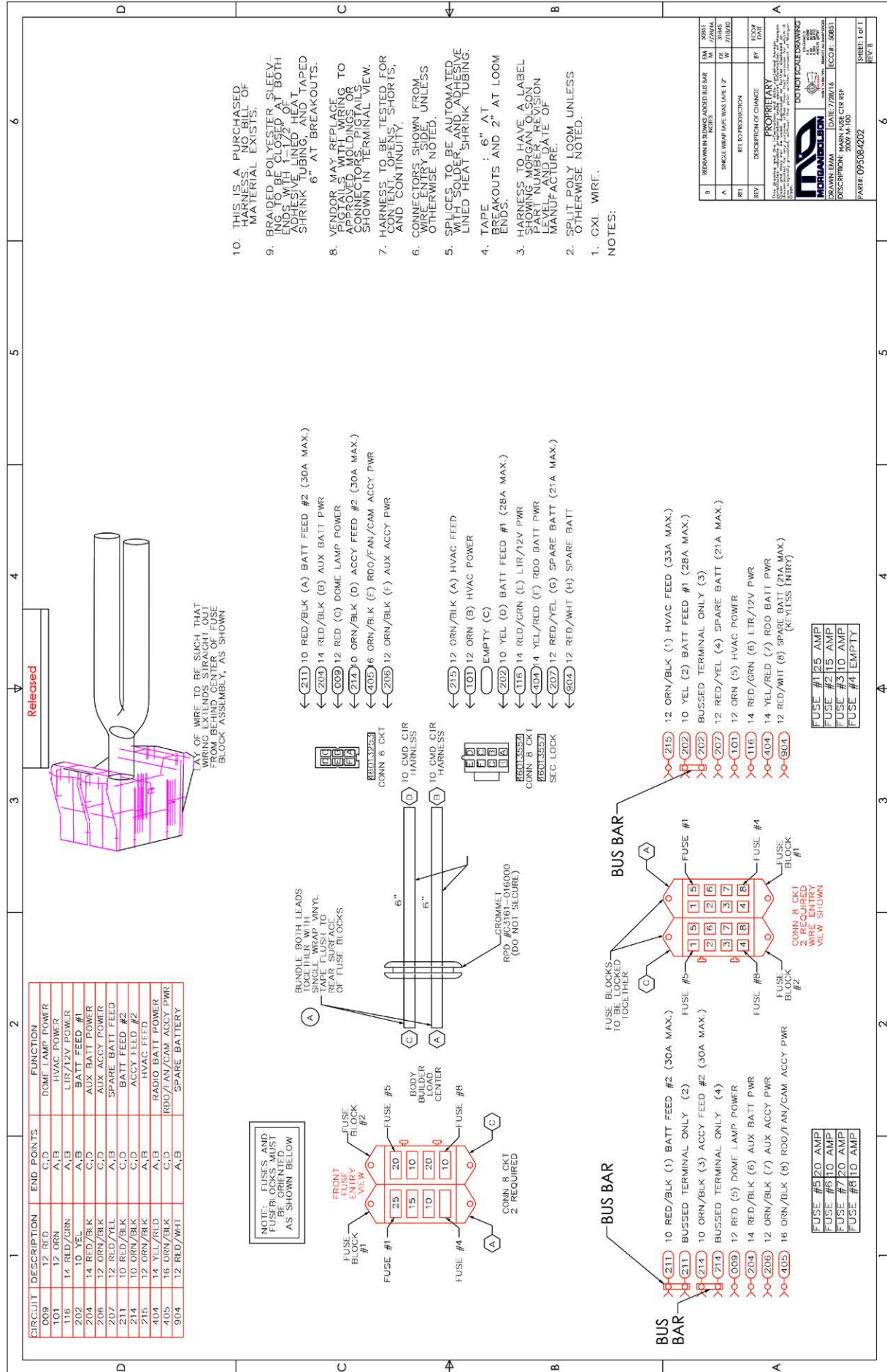
DO NOT SCALE

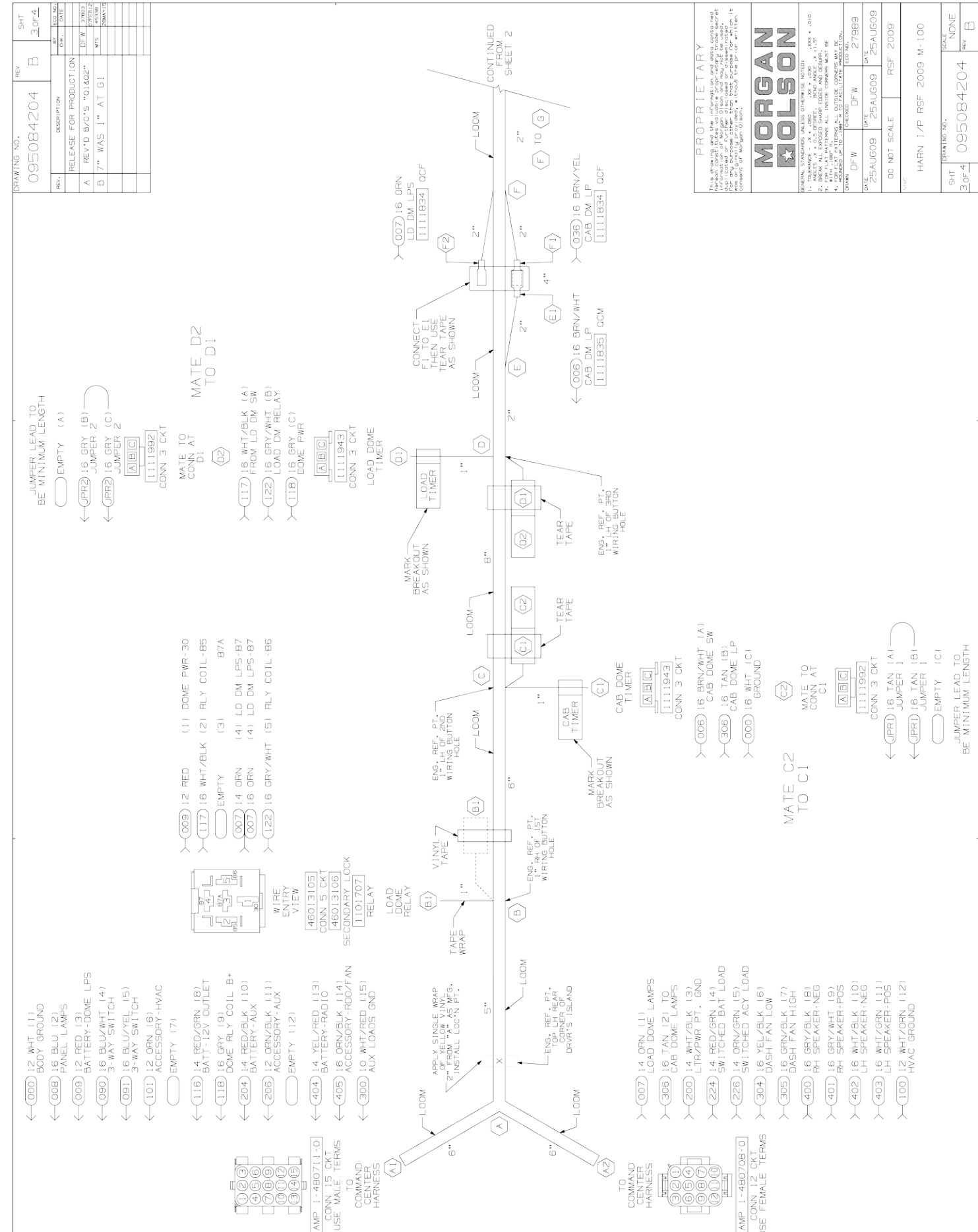
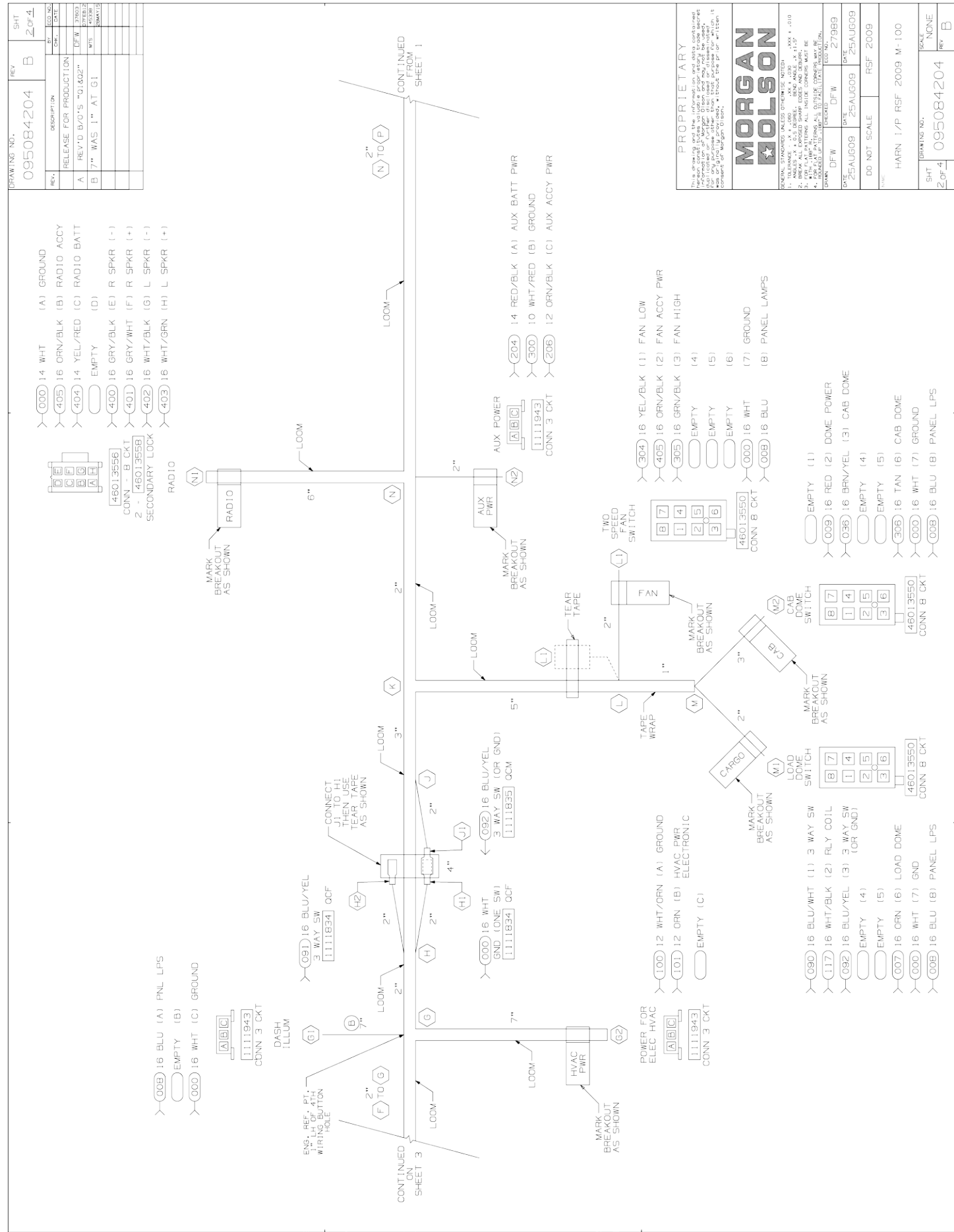
DATE: 28717
 DWG: 210CT09

NAME: HARN RKR SW FOR MIR
 RSW 2009 M-100 ROSCO

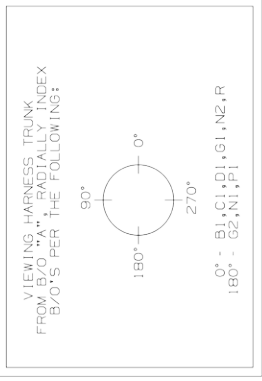
DRAWING NO.: 093051201
 REV: NONE
 SHT: 1 of 1

FIRST USE:
 CV100634
 BASED ON:
 095051202
 & 98117494





DRAWING NO.	REV	SHT
095084204	B	4 of 4
DESCRIPTION		
RELEASE FOR PRODUCTION		
A REV'D B/O'S "01,02"		
B 7" WAS 1" AT 01		
DATE	BY	CHKD
01/11/01	WJS	AKS
01/11/01		



CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
000	12/14/16 WHT	A1,C1,G1,H1,L1,M1,M2,N1,R1,R2	GROUND
005	16 BRN/WHT	C1,E1	CAB DOME LAMP (PRE-TIMER)
007	14/16 ORN	A2,B1,B1,F2,M1	LOAD DOME LAMP(S)
009	16 BLU	A1,G1,L1,M1,W2,R1,R2	DASH ILLUMINATION
009	12/16 RED	F1,M2	DOME BATTERY FEED
036	16 BRN/YEL	A1,M1	CAB DOME LAMP (SWITCHED)
090	16 BLU/WHT	A1,H2	LOAD DM 3W SW
091	16 BLU/YEL	J1,M1	LOAD DM 3W SW
092	16 WHT/ORN	A2,G2	LOAD DM 3W SW
100	12 ORN	A1,G2	HVAC GROUND
101	16 WHT/GRN	A1,G1,G2	ELEK HVAC POWER
116	14 RED/BLK	B1,D1,M1	LIGHTER/12V OUTLET
117	16 WHT/BLK	A1,D1	LD DM RELAY COIL GND
118	16 GRY	B1,D1	LD DM RELAY COIL
122	16 GRY/WHT	B1,D1	LD DM RELAY COIL
200	14 WHT/BLK	A2,O1,G2	LIGHTER/12V OUTLET GND
204	14 RED/BLK	A1,N2,R1	AUX BATTERY POWER
206	12/14 ORN/BLK	A1,N2,R2	AUX ACCESSORY POWER
224	14 RED/GRN	A2,R1	SWITCHED BATTERY LOADS
226	14 ORN/GRN	A2,R2	SWITCHED ACCESSORY LOADS
300	10 WHT/RED	A1,N2	AUXILIARY LOADS GND
304	16 YEL/BLK	A2,L1,P1	DASH FAN LOW
305	16 GRN/BLK	A2,L1,P1	DASH FAN HIGH
306	16 TAN	A2,D1,W2	CAB DOME LAMP (POST-TIMER)
400	16 GRY/BLK	A2,N1	RH SPEAKER (-)
401	16 GRY/WHT	A2,N1	RH SPEAKER (+)
402	16 WHT/BLK	A2,N1	LH SPEAKER (-)
403	16 WHT/GRN	A2,N1	LH SPEAKER (+)
404	14 YEL/RED	A1,N1	RADIO BATTERY POWER
405	16 ORN/BLK	A1,L1,N1	ROQ/FAN/CAM ACCY POWER
JPR1	16 TAN	C2,C2	CAB DOME JUMPER
JPR2	16 GRY	D2,D2	LOAD DOME JUMPER

• SEE NOTES
 OPTIONAL: CIRCUITS 400 & 401 MAY BE SUPPLIED AS STANDARD SPEAKER "ZIP CORD" PAIRS. CIRCUIT NUMBER AND CONNECTOR INDEXING MUST BE MAINTAINED AS SHOWN.
 OPTIONAL: CIRCUITS 402 & 403 MAY BE SUPPLIED AS STANDARD SPEAKER "ZIP CORD" PAIRS. CIRCUIT NUMBER AND CONNECTOR INDEXING MUST BE MAINTAINED AS SHOWN.

PROPRIETARY
 This drawing and the information and data contained herein are the property of Morgan Olson and are not to be distributed, copied, or used in any way without the written consent of Morgan Olson. © 2009 Morgan Olson.

MORGAN OLSON

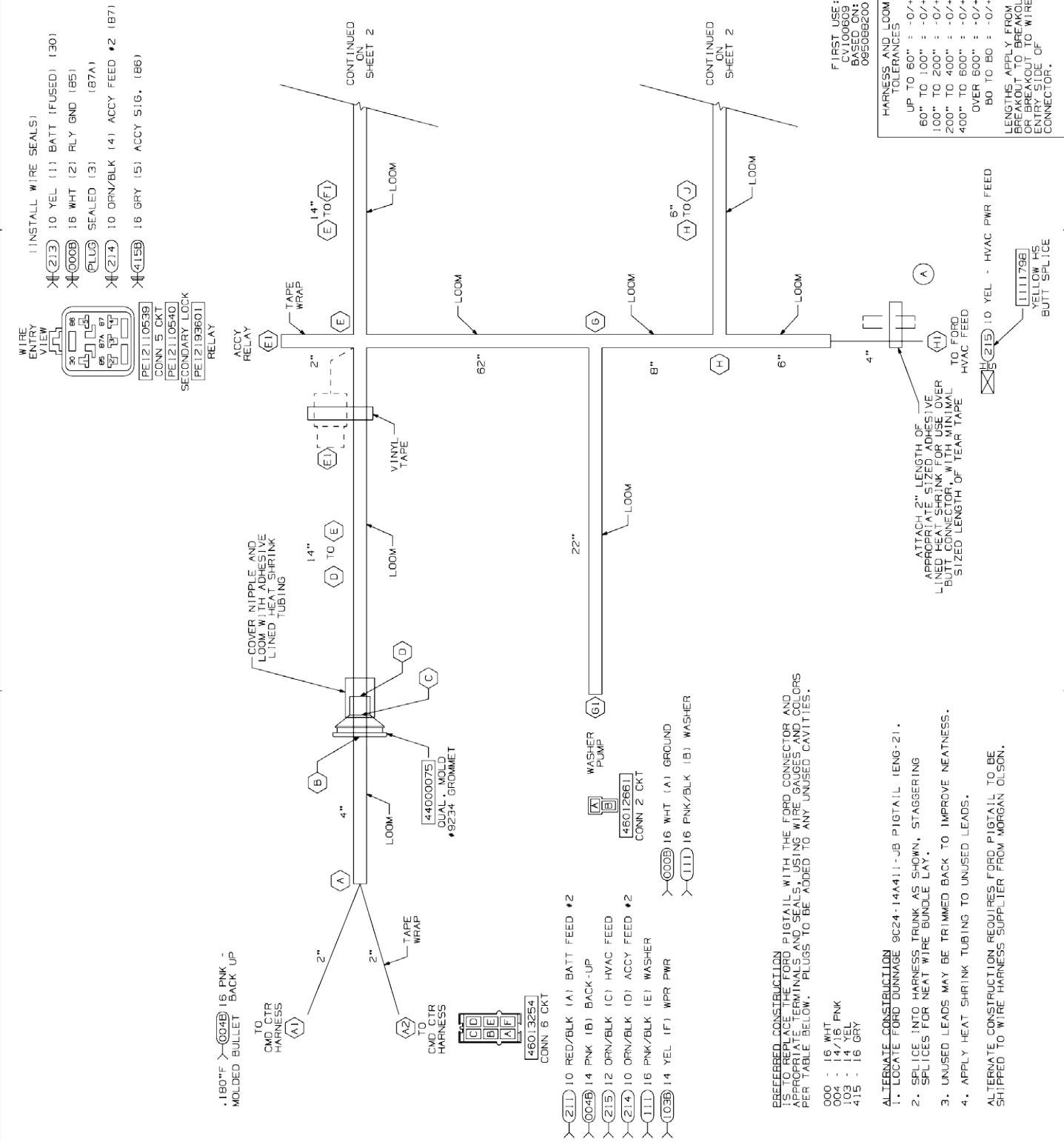
GENERAL STANDARDS UNLESS OTHERWISE NOTED:
 1. MATERIALS: U.S.A. DIMENSIONS: U.S.A. DIMENSIONS: U.S.A. DIMENSIONS: U.S.A.
 2. BREAK ALL EXPOSED SHARP EDGES AND CORNERS.
 3. DIMENSIONS ARE TO CENTER UNLESS OTHERWISE NOTED.
 4. DIMENSIONS ARE TO CENTER UNLESS OTHERWISE NOTED.
 5. DIMENSIONS ARE TO CENTER UNLESS OTHERWISE NOTED.
 6. DIMENSIONS ARE TO CENTER UNLESS OTHERWISE NOTED.

DATE	DFW	DATE	27989
DATE	25AUG09	DATE	25AUG09
DATE	25AUG09	DATE	25AUG09
DATE	25AUG09	DATE	25AUG09

DO NOT SCALE
 HARN. 1/P RSF 2009 M-100

DRAWING NO. 095084204
 REV. 4
 SHT. 4 OF 4
 SCALE: NONE
 REV. B

DRAWING NO.	REV	SHT
095088201	A	1 of 2
DESCRIPTION		
RELEASE FOR PRODUCTION		
A BUTT SPLICE WAS 400/801 CONN		



- THIS IS A PURCHASED HARNESS. NO BILL OF MATERIAL EXISTS.
- VENDOR MAY REPLACE PIGTAILS WITH APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN FROM TERMINAL SIDE, UNLESS OTHERWISE NOTED.
- HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
- CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
- SPLICES TO BE AUTOMATED WITH SOLDER AND ADHESIVE LINED HEAT SHRINK TUBING.
- TAPE [111096]: 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
- HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION LEVEL, AND DATE OF MANUFACTURE.
- SPLIT NYLON LOOM, BLACK WITH GRAY STRIPE ONLY, UNLESS OTHERWISE NOTED.
- GXL WIRE.

PROPRIETARY
 This drawing and the information and data contained herein are the property of Morgan Olson and are not to be distributed, copied, or used in any way without the written consent of Morgan Olson. © 2009 Morgan Olson.

MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED:
 1. MATERIALS: U.S.A. DIMENSIONS: U.S.A. DIMENSIONS: U.S.A. DIMENSIONS: U.S.A.
 2. BREAK ALL EXPOSED SHARP EDGES AND CORNERS.
 3. DIMENSIONS ARE TO CENTER UNLESS OTHERWISE NOTED.
 4. DIMENSIONS ARE TO CENTER UNLESS OTHERWISE NOTED.
 5. DIMENSIONS ARE TO CENTER UNLESS OTHERWISE NOTED.

DATE	DFW	DATE	27989
DATE	19AUG09	DATE	19AUG09
DATE	19AUG09	DATE	19AUG09
DATE	19AUG09	DATE	19AUG09

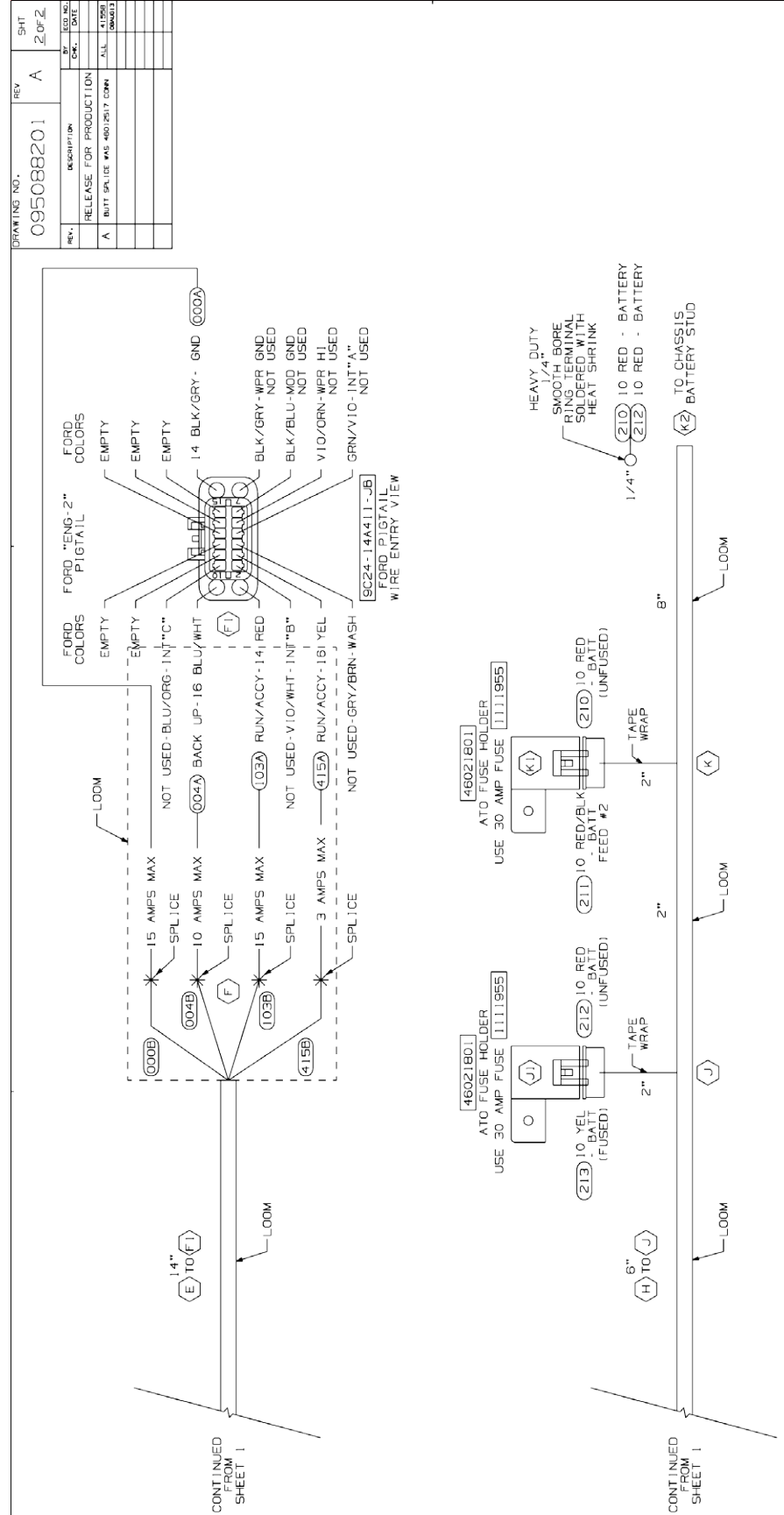
DO NOT SCALE
 HARN WPR/ENG RSF
 2009 M-100

DRAWING NO. 095088201
 REV. A

FIRST USE:
 CV100609
 BASED ON:
 065088200

HARNESS AND LOOM TOLERANCES:
 UP TO 60" : -0/+2"
 60" TO 100" : -0/+4"
 100" TO 200" : -0/+5"
 200" TO 400" : -0/+6"
 400" TO 600" : -0/+7"
 OVER 600" : -0/+8"
 80 TO 80 : -0/+2"

LENGTHS APPLY FROM BREAKOUT TO WIRE OR BREAKOUT TO WIRE CONNECTOR OF CONNECTOR.



THIS HARNESS IS FOR WIPERS, BACK-UP, HVAC ACCESSORY. POWER FEED #1 AND FEED #2 ARE TO BE INSTALLED BETWEEN THE FORD WIPER CONNECTION UNDER THE HOOD, THE CHASSIS BATTERY, THE CHASSIS HEATER POWER SOURCE (JUST BEHIND THE BATTERY), THE WIPER/WASHER RESERVOIR, AND THE FORD COMMAND CENTER HARNESS IN THE LH TOEBOARD AREA.

CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
000A	14 BLK/GRY	F1,F1	GROUND
000B	16 WHT	E1,F,G1	GROUND
004A	16 BLU/WHT	F,F1	BACK-UP
004B	14/16 PNK	A1,A2,F	BACK-UP
103A	14 RED	F,F1	WIPER POWER
103B	14 YEL	A2,F	WIPER POWER
111	16 PNK/BLK	A2,G1	WASHER
210	10 RED	K1,K2	BATTERY (UNFUSED)
211	10 RED	A2,K1	BATT FEED #2
212	10 RED	J1,K2	BATTERY (UNFUSED)
213	10 YEL	E1,J1	BATTERY (UNFUSED)
214	10 ORN/BLK	A2,E1	ACCY FEED #2
215	12 ORN/BLK	A2,H1	HVAC FEED
415A	16 YEL	F1,F1	ACCT SIGNAL
415B	16 GRY	E1,F	ACCT SIGNAL

SEE NOTES

PROPRIETARY
This drawing and the information and data contained herein constitutes valuable proprietary trade secret information of Morgan Olson Corp. and may not be used, duplicated or further disclosed or disseminated for any purpose other than that purpose for which it was originally provided, without the prior written consent of Morgan Olson Corp.

MORGAN OLSON

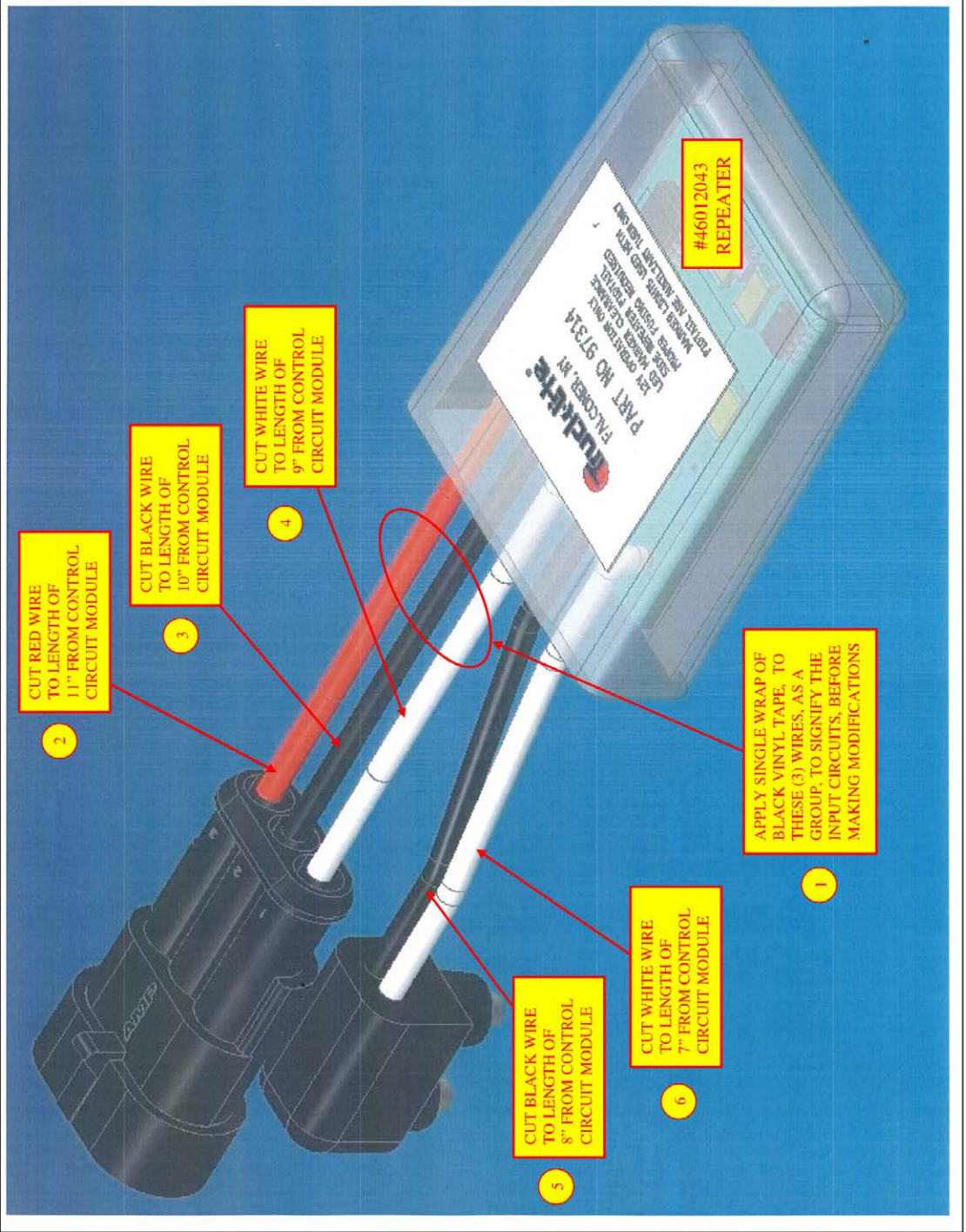
GENERAL STANDARDS UNLESS OTHERWISE NOTED:
1. DIMENSIONS: X ± .060 XX ± .030 XXX ± .010
2. ANGLES: X ± .5 DEGREES
3. BREAK ALL EXPOSED SHARP EDGES AND DEBURR.
4. FOR FLAT PATTERNS ALL INSIDE CORNERS MUST BE WITH .188" R.
5. FOR FLAT PATTERNS ALL OUTSIDE CORNERS MAY BE ROUNDED UP TO .188" R TO FACILITATE PRODUCTION.

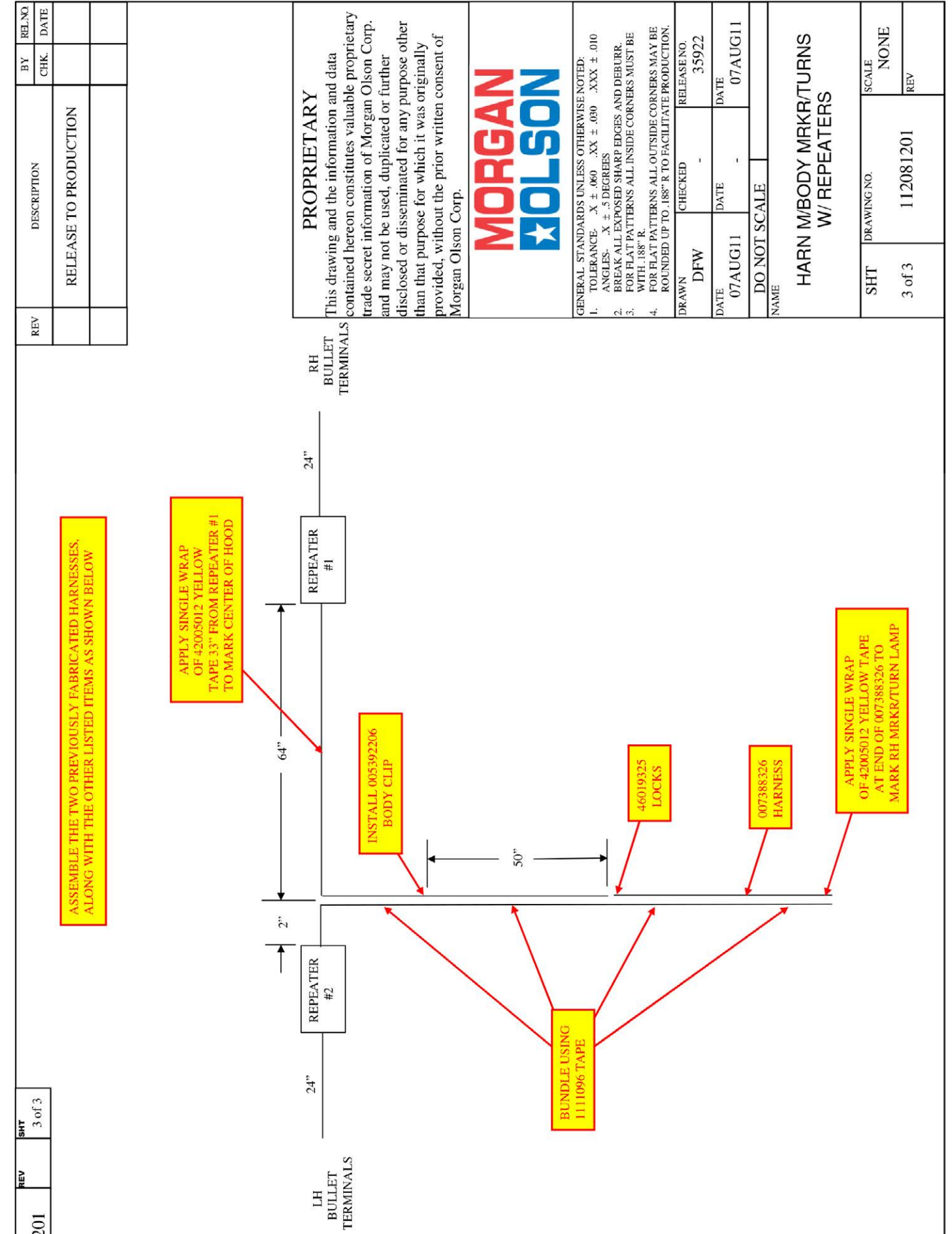
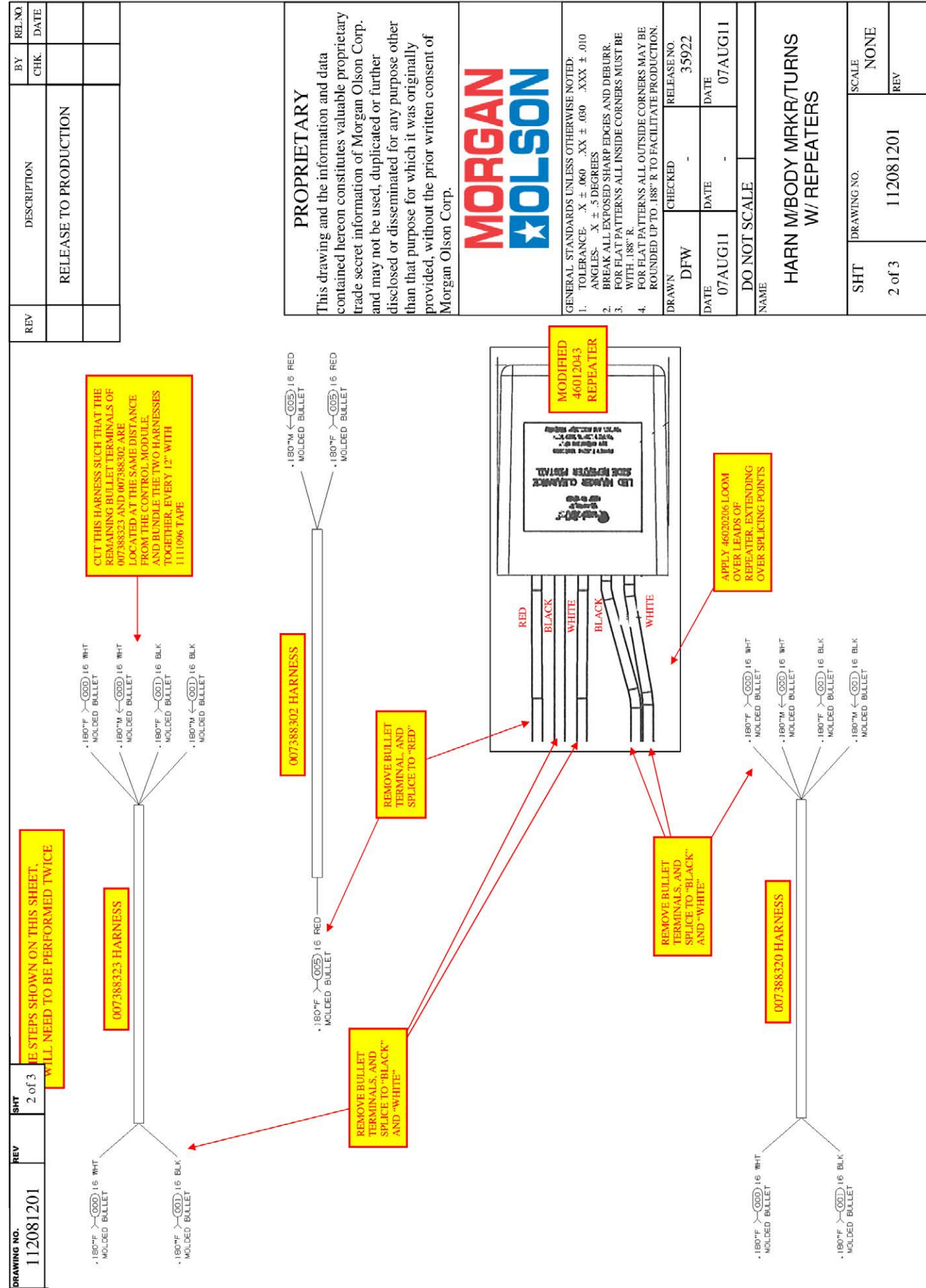
DATE: 19AUG09
DWG NO: 27989
REV: 19AUG09
SCALE: NONE
BY: HARN WPR/ENG RSF
DATE: 2009 M-100
SHT: 2 OF 2
DRAWING NO: 095088201
REV: A

DRAWING NO.	112081201
REV	1 of 3

THE STEPS SHOWN ON THIS SHEET, WILL NEED TO BE PERFORMED TWICE

REV	DESCRIPTION	BY	REL NO
	RELEASE TO PRODUCTION	CHK	DATE





DRAWING NO.	115084206	REV	3 OF 5	SHT
REV.		DESCRIPTION		
		RELEASE FOR PRODUCTION		

- > (000) 12 WHT (I1)
- > (000B) 16 BLU (I2)
- > (000) 12 RED (I3)
- > (000) 16 BLU/WHI (I4)
- > (000) 16 BLU/YEL (I5)
- > (101) 12 ORN (I6)
- > (000) 16 GRN/WHI (I7)
- > (110) 14 RED/GRN (I8)
- > (110) 16 GRN (I9)
- > (204) 14 RED/BLK (I10)
- > (208) 12 ORN/BLK (I11)
- > (000) 16 GRN/WHI (I12)
- > (404) 14 YEL/RED (I13)
- > (405) 16 GRN/BLK (I14)
- > (300) 10 WHT/RED (I15)

- < (007) 14 GRN (I1)
- < (306) 16 TAN (I2)
- < (200) 14 WHT/BLK (I3)
- < (224) 14 RED/GRN (I4)
- < (226) 14 GRN/GRN (I5)
- < (304) 16 YEL/BLK (I6)
- < (305) 16 DASH FAN LOW (I7)
- < (400) 16 GRN/BLK (I8)
- < (401) 16 GRY/WHI (I9)
- < (402) 16 WHT/BLK (I10)
- < (403) 16 WHT/GRN (I11)
- < (100) 12 WHT/GRN (I12)

DRAWING NO.	115084206	REV	3 OF 5	SHT
REV.		DESCRIPTION		
		RELEASE FOR PRODUCTION		

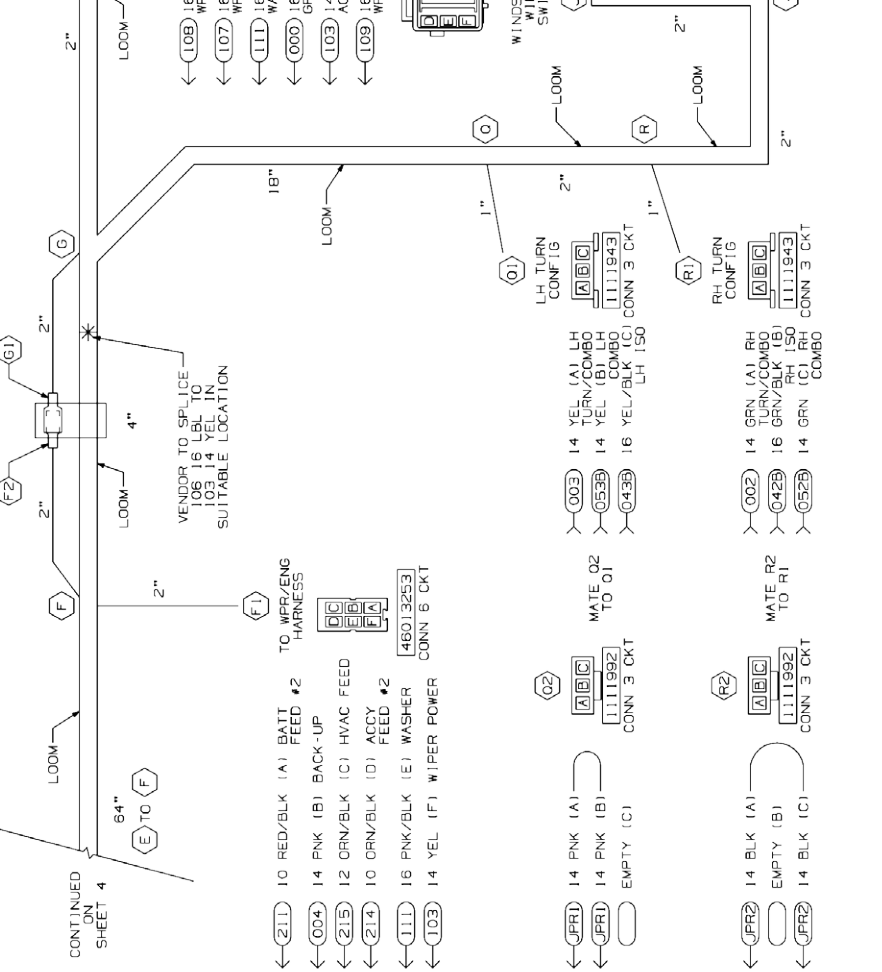
- < (007) 14 GRN (I1)
- < (306) 16 TAN (I2)
- < (200) 14 WHT/BLK (I3)
- < (224) 14 RED/GRN (I4)
- < (226) 14 GRN/GRN (I5)
- < (304) 16 YEL/BLK (I6)
- < (305) 16 DASH FAN LOW (I7)
- < (400) 16 GRN/BLK (I8)
- < (401) 16 GRY/WHI (I9)
- < (402) 16 WHT/BLK (I10)
- < (403) 16 WHT/GRN (I11)
- < (100) 12 WHT/GRN (I12)

PROPRIETARY
This drawing and the information on it are the confidential property of Morgan Olson and shall not be disclosed, copied, or otherwise used without the written consent of Morgan Olson.

MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED: DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED
1. DIMENSIONS TO CENTER UNLESS OTHERWISE NOTED
2. DIMENSIONS TO SURFACE UNLESS OTHERWISE NOTED
3. DIMENSIONS TO EDGE UNLESS OTHERWISE NOTED
4. DIMENSIONS TO CENTER UNLESS OTHERWISE NOTED
5. DIMENSIONS TO SURFACE UNLESS OTHERWISE NOTED
6. DIMENSIONS TO EDGE UNLESS OTHERWISE NOTED

DATE: 14 JUN 11
DRAWN: RLC
CHECKED: RLC
DATE: 14 JUN 11
DO NOT SCALE
REF: 2011
HARN COM CTR RSF
1/P TO RP W/ MOD WPR SW
SCALE: NONE
SHT: 3 OF 5
DRAWING NO.: 115084206



- > (000) 12 WHT (I1)
- > (000B) 16 BLU (I2)
- > (000) 12 RED (I3)
- > (000) 16 BLU/WHI (I4)
- > (000) 16 BLU/YEL (I5)
- > (101) 12 ORN (I6)
- > (000) 16 GRN/WHI (I7)
- > (110) 14 RED/GRN (I8)
- > (110) 16 GRN (I9)
- > (204) 14 RED/BLK (I10)
- > (208) 12 ORN/BLK (I11)
- > (000) 16 GRN/WHI (I12)
- > (404) 14 YEL/RED (I13)
- > (405) 16 GRN/BLK (I14)
- > (300) 10 WHT/RED (I15)

- < (007) 14 GRN (I1)
- < (306) 16 TAN (I2)
- < (200) 14 WHT/BLK (I3)
- < (224) 14 RED/GRN (I4)
- < (226) 14 GRN/GRN (I5)
- < (304) 16 YEL/BLK (I6)
- < (305) 16 DASH FAN LOW (I7)
- < (400) 16 GRN/BLK (I8)
- < (401) 16 GRY/WHI (I9)
- < (402) 16 WHT/BLK (I10)
- < (403) 16 WHT/GRN (I11)
- < (100) 12 WHT/GRN (I12)

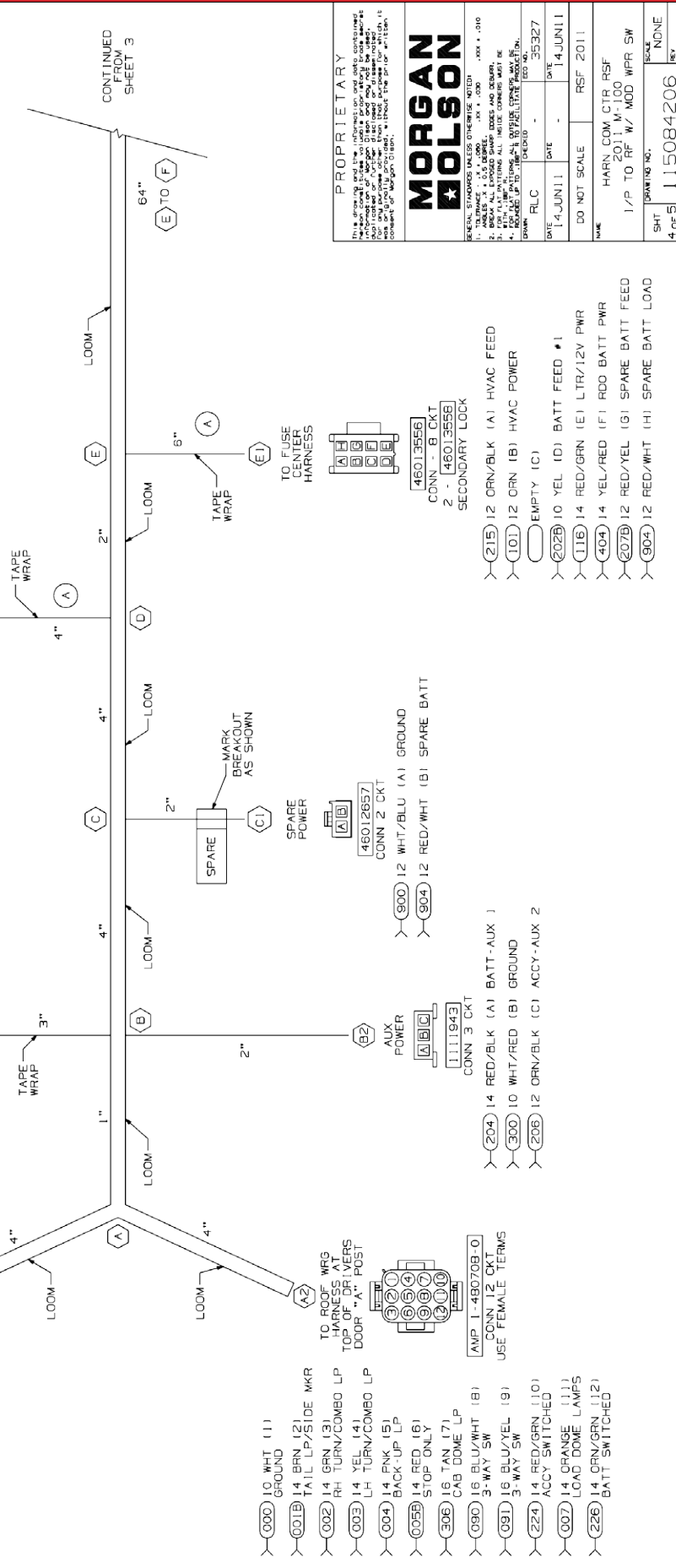
DRAWING NO.	115084206	REV	4 OF 5	SHT
REV.		DESCRIPTION		
		RELEASE FOR PRODUCTION		

- > (211) 10 RED/BLK (A) BATT FEED #2
- > (204) 14 RED/BLK (B) AUX BATT PMW
- > (009) 12 RED (C) DOME LAMP POWER
- > (214) 10 ORN/BLK (D) ACCY FEED #2
- > (405) 16 ORN/BLK (E) RDO/FAN/CAM ACCY PMW
- > (206) 12 ORN/BLK (F) AUX ACCY PMW

- > (400) 16 GRN/BLK (A) RH SPEAKER-NEG
- > (401) 16 GRN/WHI (B) RH SPEAKER-POS
- > (402) 16 WHT/BLK (C) LH SPEAKER-NEG
- > (403) 16 WHT/GRN (D) LH SPEAKER-POS

- > (000) 12 WHT (I1)
- > (000B) 16 BLU (I2)
- > (004) 16 PNK (I3)
- > (106) 16 BLK (I4)
- > (000) 16 GRN/WHI (I5)
- > (107) 16 RED/WHI (I6)
- > (108) 16 RED/WHI (I7)
- > (108) 16 GRN (I8)
- > (224) 14 RED/GRN (I10)
- > (300) 12 WHT/RED (I11)
- > (226) 14 GRN/GRN (I12)
- > (304) 16 YEL/BLK (I13)
- > (305) 16 GRN/BLK (I14)
- > (405) 16 ORN/BLK (I15)

- < (007) 14 GRN (I1)
- < (306) 16 TAN (I2)
- < (200) 14 WHT/BLK (I3)
- < (224) 14 RED/GRN (I4)
- < (226) 14 GRN/GRN (I5)
- < (304) 16 YEL/BLK (I6)
- < (305) 16 DASH FAN LOW (I7)
- < (400) 16 GRN/BLK (I8)
- < (401) 16 GRY/WHI (I9)
- < (402) 16 WHT/BLK (I10)
- < (403) 16 WHT/GRN (I11)
- < (100) 12 WHT/GRN (I12)



- > (000) 12 WHT (I1)
- > (000B) 16 BLU (I2)
- > (002) 14 GRN (I3)
- > (003) 14 YEL (I4)
- > (004) 14 PNK (I5)
- > (005B) 14 RED (I6)
- > (306) 16 TAN (I7)
- > (000) 16 BLU/WHI (I8)
- > (001) 16 BLU/YEL (I9)
- > (224) 14 RED/GRN (I10)
- > (007) 14 ORANGE (I11)
- > (226) 14 ORN/GRN (I12)

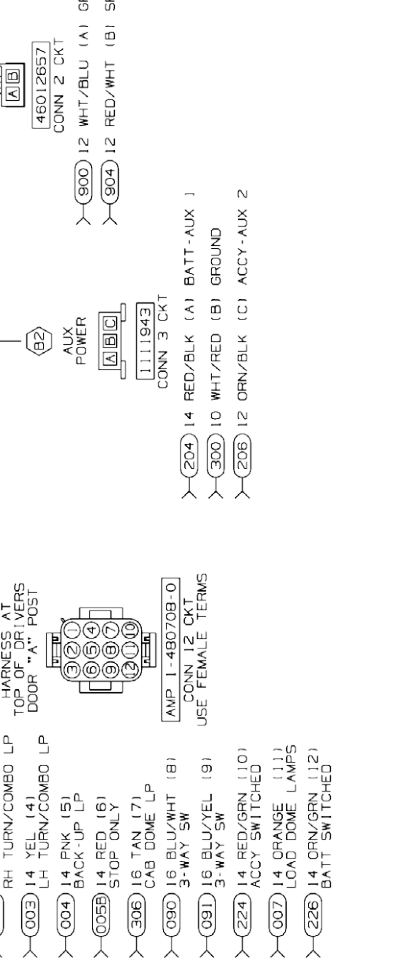
- < (007) 14 GRN (I1)
- < (306) 16 TAN (I2)
- < (200) 14 WHT/BLK (I3)
- < (224) 14 RED/GRN (I4)
- < (226) 14 GRN/GRN (I5)
- < (304) 16 YEL/BLK (I6)
- < (305) 16 DASH FAN LOW (I7)
- < (400) 16 GRN/BLK (I8)
- < (401) 16 GRY/WHI (I9)
- < (402) 16 WHT/BLK (I10)
- < (403) 16 WHT/GRN (I11)
- < (100) 12 WHT/GRN (I12)

DRAWING NO.	115084206	REV	4 OF 5	SHT
REV.		DESCRIPTION		
		RELEASE FOR PRODUCTION		

DRAWING NO.	115084206	REV	4 OF 5	SHT
REV.		DESCRIPTION		
		RELEASE FOR PRODUCTION		

- > (211) 10 RED/BLK (A) BATT FEED #2
- > (204) 14 RED/BLK (B) AUX BATT PMW
- > (009) 12 RED (C) DOME LAMP POWER
- > (214) 10 ORN/BLK (D) ACCY FEED #2
- > (405) 16 ORN/BLK (E) RDO/FAN/CAM ACCY PMW
- > (206) 12 ORN/BLK (F) AUX ACCY PMW

- > (400) 16 GRN/BLK (A) RH SPEAKER-NEG
- > (401) 16 GRN/WHI (B) RH SPEAKER-POS
- > (402) 16 WHT/BLK (C) LH SPEAKER-NEG
- > (403) 16 WHT/GRN (D) LH SPEAKER-POS



- > (000) 12 WHT (I1)
- > (000B) 16 BLU (I2)
- > (002) 14 GRN (I3)
- > (003) 14 YEL (I4)
- > (004) 14 PNK (I5)
- > (005B) 14 RED (I6)
- > (306) 16 TAN (I7)
- > (000) 16 BLU/WHI (I8)
- > (001) 16 BLU/YEL (I9)
- > (224) 14 RED/GRN (I10)
- > (007) 14 ORANGE (I11)
- > (226) 14 ORN/GRN (I12)

- < (007) 14 GRN (I1)
- < (306) 16 TAN (I2)
- < (200) 14 WHT/BLK (I3)
- < (224) 14 RED/GRN (I4)
- < (226) 14 GRN/GRN (I5)
- < (304) 16 YEL/BLK (I6)
- < (305) 16 DASH FAN LOW (I7)
- < (400) 16 GRN/BLK (I8)
- < (401) 16 GRY/WHI (I9)
- < (402) 16 WHT/BLK (I10)
- < (403) 16 WHT/GRN (I11)
- < (100) 12 WHT/GRN (I12)

REV	115084206	SHT	5 OF 5
DESCRIPTION		BY	
RELEASE FOR PRODUCTION		CHK	
		DATE	

CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
000	10/12/16 WHT	A1, A2, HI, J1, K1, P1	GROUND
001A	16 VIO	N, NI	CLER/MKB/ICC LAMPS
001B	14/16 BRN	A1, A2, N	CLER/MKB/ICC LAMPS
002	14 GRN	A2, R1	RH TURN/COMBO
003	14 YEL	A2, O1	LH TURN/COMBO
004	14/16 PPK	A1, A2, F1	BACKUP SIGNAL
005A	18 V10/WHT	N, NI	STOP ONLY
005B	14 RED	A2, N	STOP ONLY
007	14 GRN	A2, H2	LOAD DOME LAMP(S)
008A	18 V10/GRY	M, M1	DASH ILLUMINATION
008B	16 BLU	HI, KI, M	DASH ILLUMINATION
009	12/16 RED	DI, F2, H1	DOME BATTERY FEED
042A	18 GRN/ORN	N, NI	RH ISO TURN
042B	16 GRN/BLK	N, R1	RH ISO TURN
043A	18 GRY/ORN	N, NI	LH ISO TURN
043B	16 YEL/BLK	N, O1	LH ISO TURN
052A	18 GRY/BRN	N, NI	RH TURN COMBO
052B	14 GRN	N, R1	RH TURN COMBO
053A	18 GRY/BRN	N, NI	LH TURN COMBO
053B	14 YEL	N, O1	LH TURN COMBO
090	16 BLU/WHT	A2, H1	LOAD DM 3M SW
081	16 BLU/YEL	A2, H1	LOAD DM 3M SW
100	12 WHT/GRN	H2, P2	HVAC GROUND
101	12 GRN	E1, H1	ELEC HVAC POWER
103	14 YEL	F1, J1, SPLICE	WIPER POWER (ACCY)
106	16 LBL	A1, SPLICE	WIPER PARK SWITCH B+
107	16 GRN/WHT	A1, J1	WIPER HIGH
108	16 RED/WHT	A1, J1	WIPER MOTOR SWITCH
109	16 GRN	A1, J1	WASHER PUMP
114	16 GRY/YEL	M, M1	AC DEMAND
114A	16 PPL	M, P3	AC DEMAND
116	14 RED/GRN	E1, H1	LIGHTER/12V OUTLET
118	16 GRY	G1, H1	LOAD DOME RELAY COIL B+
119	18 V10/GRY	M1, M1	HVAC BLOWER RELAY COIL
200	14 WHT/BLK	H2, P2	LIGHTER/12V OUTLET GND
202A	12 WHT/RED	N, NI	BATTERY FEED #1
202B	10 YEL	E1, N	BATTERY FEED #1
204	14 RED/BLK	B2, D1, H1	AUX BATTERY POWER
206	12 BRN/BLK	B2, D1, H1	AUX ACCESSORY POWER
207A	14 BRN/RED	M, M1	SPARE BATTERY FEED
207B	12 RED/YEL	E1, M	SPARE BATTERY FEED
214	10 RED/BLK	D1, F1	BATTERY FEED #2
214	10 ORN/BLK	D1, F1	ACCESSORY FEED #2
215	12 ORN/BLK	E1, F1	ACCESSORY FEED #2
224	14 RED/GRN	A1, A2, H2	HVAC POWER FEED (ACCY)
226	14 ORN/GRN	A1, A2, H2	SWITCHED BATTERY LOADS
300	10/12 WHT/RED	A1, B2, H1, P1	AUXILIARY LOADS GND
304	16 YEL/BLK	A1, H2	DASH FAN LOW
305	16 GRN/BLK	A1, H2	DASH FAN HIGH
306	16 TAN	A2, H2	CAB DOME LAMP
400	16 GRY/BLK	B1, H2	RH SPEAKER (-)
401	16 GRY/WHT	B1, H2	RH SPEAKER (+)
402	16 WHT/BLK	B1, H2	LH SPEAKER (-)
403	16 WHT/GRN	B1, H2	LH SPEAKER (+)
404	14 YEL/RED	E1, H1	RADIO BATTERY POWER
405	16 ORN/BLK	A1, D1, H1	RDD/FAN/CAM ACCY POWER
416	18 GRY	M1, M1	RUN/ACCESSORY
900	12 WHT/BLU	C1, P2	SPARE GROUND
904	12 RED/WHT	C1, E1	SPARE BATTERY POWER
JPR1	14 PPK	O2, O2	LH TURN JUMPER
JPR2	14 BLK	R2, R2	RH TURN JUMPER

*SEE NOTES
 OPTIONAL: CIRCUITS 400 & 401 MAY BE SUPPLIED AS STANDARD SPEAKER "ZIP CORD" PAIRS. CIRCUIT NUMBER AND CONNECTOR INDEXING MUST BE MAINTAINED AS SHOWN.
 OPTIONAL: CIRCUITS 402 & 403 MAY BE SUPPLIED AS STANDARD SPEAKER "ZIP CORD" PAIRS. CIRCUIT NUMBER AND CONNECTOR INDEXING MUST BE MAINTAINED AS SHOWN.

PROPRIETARY
 In the drawing and the information on this sheet contained hereon, all rights are reserved. No part of this drawing may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written consent of Morgan Olson.

MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED: .XXX X .010
 1. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
 2. DIMENSIONS IN PARENTHESIS ARE RECOMMENDED.
 3. DIMENSIONS IN SQUARE PARENTHESIS ARE MINIMUMS.
 4. DIMENSIONS IN BRACKETED PARENTHESIS ARE MAXIMUMS.
 5. DIMENSIONS IN DASHED PARENTHESIS ARE TOLERANCES.
 DRAWN: RLC DATE: 35327
 DATE: 4 JUN 11
 DO NOT SCALE
 RSF 2011

NAME: HARN COM CTR RSF
 QTY: 1000
 1/P TO RP W/ MOD WPR SW

DRAWING NO.: 115084206
 SHEET NO.: 5 OF 5
 SCALE: NONE
 REV:

CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
002	16 RED (A) RH TURN	A1, B1	GENERIC

REV	120088201	SHT	1 OF 1
DESCRIPTION		BY	
RELEASE FOR PRODUCTION		CHK	
		DATE	

PROPRIETARY
 In the drawing and the information on this sheet contained hereon, all rights are reserved. No part of this drawing may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written consent of Morgan Olson.

MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED: .XXX X .010
 1. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
 2. DIMENSIONS IN PARENTHESIS ARE RECOMMENDED.
 3. DIMENSIONS IN SQUARE PARENTHESIS ARE MINIMUMS.
 4. DIMENSIONS IN BRACKETED PARENTHESIS ARE MAXIMUMS.
 5. DIMENSIONS IN DASHED PARENTHESIS ARE TOLERANCES.
 DRAWN: RLC DATE: 35327
 DATE: 4 JUN 11
 DO NOT SCALE
 RSF 2011

NAME: HARN COM CTR RSF
 QTY: 1000
 1/P TO RP W/ MOD WPR SW

DRAWING NO.: 115084206
 SHEET NO.: 5 OF 5
 SCALE: NONE
 REV:

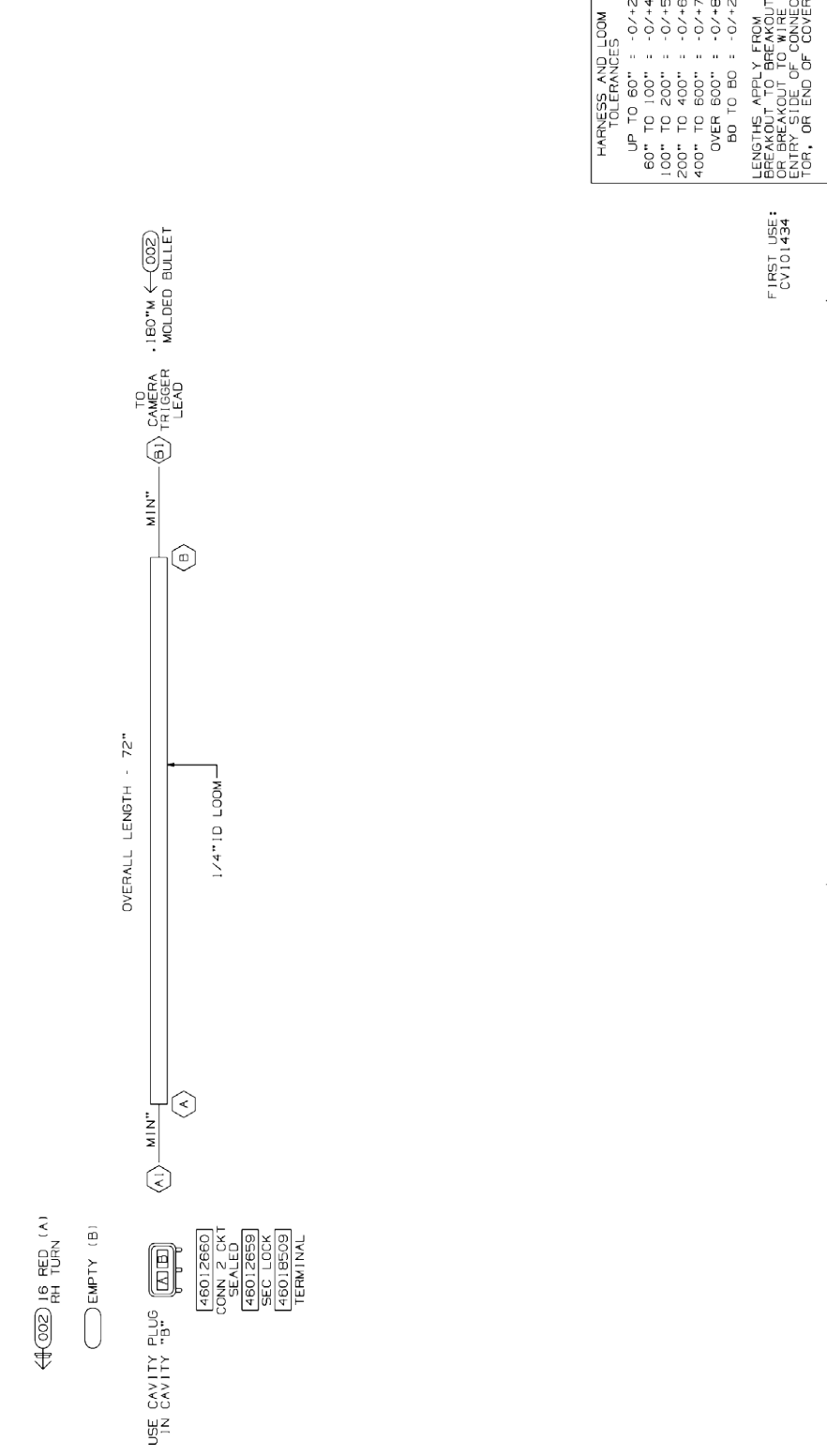
REV	120088201	SHT	1 OF 1
DESCRIPTION		BY	
RELEASE FOR PRODUCTION		CHK	
		DATE	

- THIS IS A PURCHASED PART. MATERIALS SHALL BE OF THE BEST QUALITY AVAILABLE.
- VENDOR MAY REPLACE WITH WIRING TO PISTONALS WITH WIRING TO PISTONALS CONNECTIONS. CONNECTOR PIGTAILS SHOWN IN TERMINAL VIEW.
- HARNNESS TO BE TESTED FOR CONTINUITY, SHORTS, AND OPEN CIRCUITS.
- CONNECTORS SHOWN FROM OTHER SIDE, UNLESS OTHERWISE NOTED.
- SPLICES TO BE AUTOMATED LINED HEAT SHRINK TUBING.
- TAPE (1111096): 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
- HARNNESS TO HAVE A LABEL FOR IDENTIFICATION. LABEL TO SHOW PART NUMBER, REVISION LEVEL, AND DATE OF MANUFACTURE.
- SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
- GXL WIRE.

PROPRIETARY
 In the drawing and the information on this sheet contained hereon, all rights are reserved. No part of this drawing may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written consent of Morgan Olson.

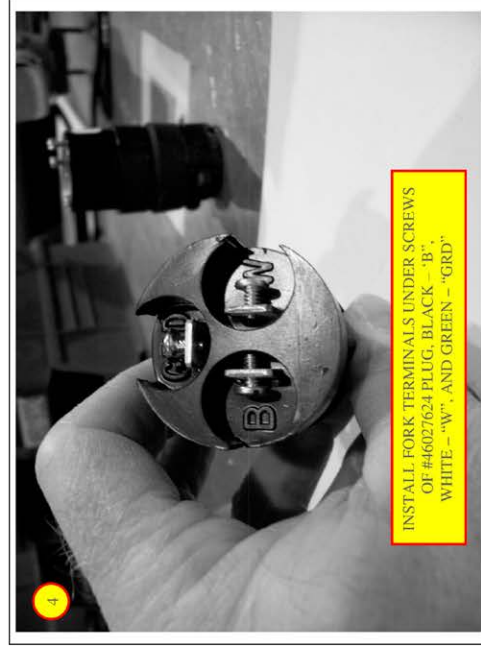
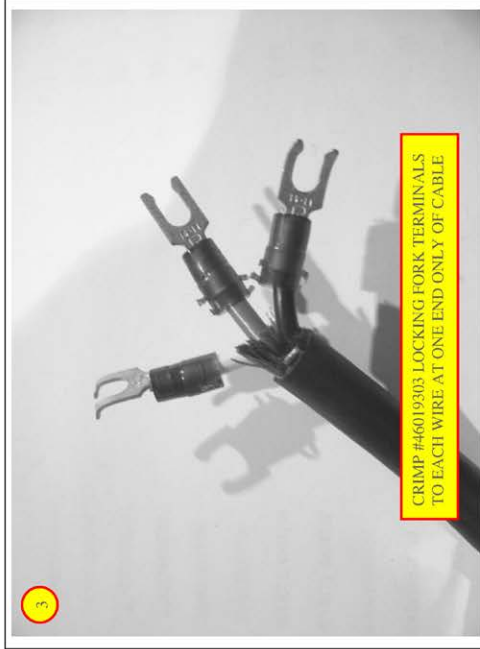
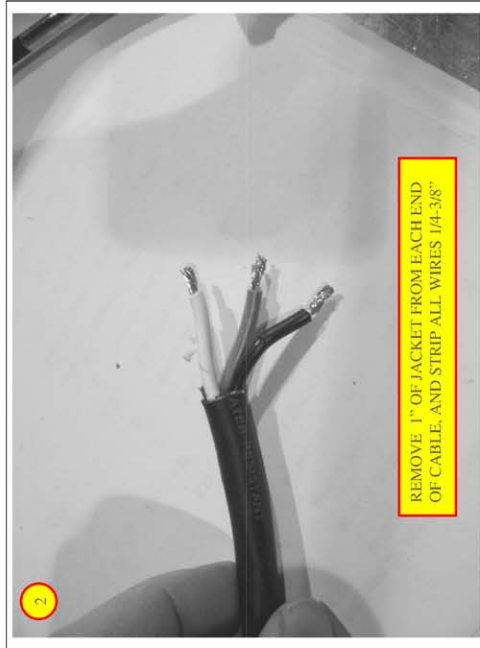
MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED: .XXX X .010
 1. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
 2. DIMENSIONS IN PARENTHESIS ARE RECOMMENDED.
 3. DIMENSIONS IN SQUARE PARENTHESIS ARE MINIMUMS.
 4. DIMENSIONS IN BRACKETED PARENTHESIS ARE MAXIMUMS.
 5. DIMENSIONS IN DASHED PARENTHESIS ARE TOLERANCES.
 DRAWN: JKP DATE: 21SEP12
 DATE: 21SEP12
 DO NOT SCALE
 NAME: HARN JPR 72" LW CAMERA TRIGGER LEAD
 SHEET NO.: 1 OF 1
 SCALE: NONE
 REV: 120088201



FIRST USE:
 CV101434

DRAWING NO. 122111201	REV	SHT 1 of 2
DESCRIPTION RELEASE TO PRODUCTION	BY CHK	REL NO DATE



PROPRIETARY
This drawing and the information and data contained hereon constitutes valuable proprietary trade secret information of Morgan Olson Corp. and may not be used, duplicated or further disclosed or disseminated for any purpose other than that purpose for which it was originally provided, without the prior written consent of Morgan Olson Corp.



GENERAL STANDARDS UNLESS OTHERWISE NOTED:
1. TOLERANCE: X ± .060 XX ± .030 XXX ± .010
ANGLES: X ± 5 DEGREES
2. BREAK ALL EXPOSED SHARP EDGES AND DEBURR
3. FOR FLAT PATTERNS ALL INSIDE CORNERS MUST BE WITH .188" R
4. FOR FLAT PATTERNS ALL OUTSIDE CORNERS MAY BE ROUNDED UP TO .188" R TO FACILITATE PRODUCTION

DRAWN: JKP CHECKED: - RELEASE NO: 39448
DATE: 16OCT12 DATE: 16OCT12
DO NOT SCALE

HARN EXTN CORD 25 FEET
120V SJEOWW WP W/BOOT&PLUG

SHT	DRAWING NO.	SCALE
1 of 2	122111201	NONE
		REV

DRAWING NO. 122111201	REV	SHT 2 of 2
DESCRIPTION RELEASE TO PRODUCTION	BY CHK	REL NO DATE



PROPRIETARY
This drawing and the information and data contained hereon constitutes valuable proprietary trade secret information of Morgan Olson Corp. and may not be used, duplicated or further disclosed or disseminated for any purpose other than that purpose for which it was originally provided, without the prior written consent of Morgan Olson Corp.



GENERAL STANDARDS UNLESS OTHERWISE NOTED:
1. TOLERANCE: X ± .060 XX ± .030 XXX ± .010
ANGLES: X ± 5 DEGREES
2. BREAK ALL EXPOSED SHARP EDGES AND DEBURR
3. FOR FLAT PATTERNS ALL INSIDE CORNERS MUST BE WITH .188" R
4. FOR FLAT PATTERNS ALL OUTSIDE CORNERS MAY BE ROUNDED UP TO .188" R TO FACILITATE PRODUCTION

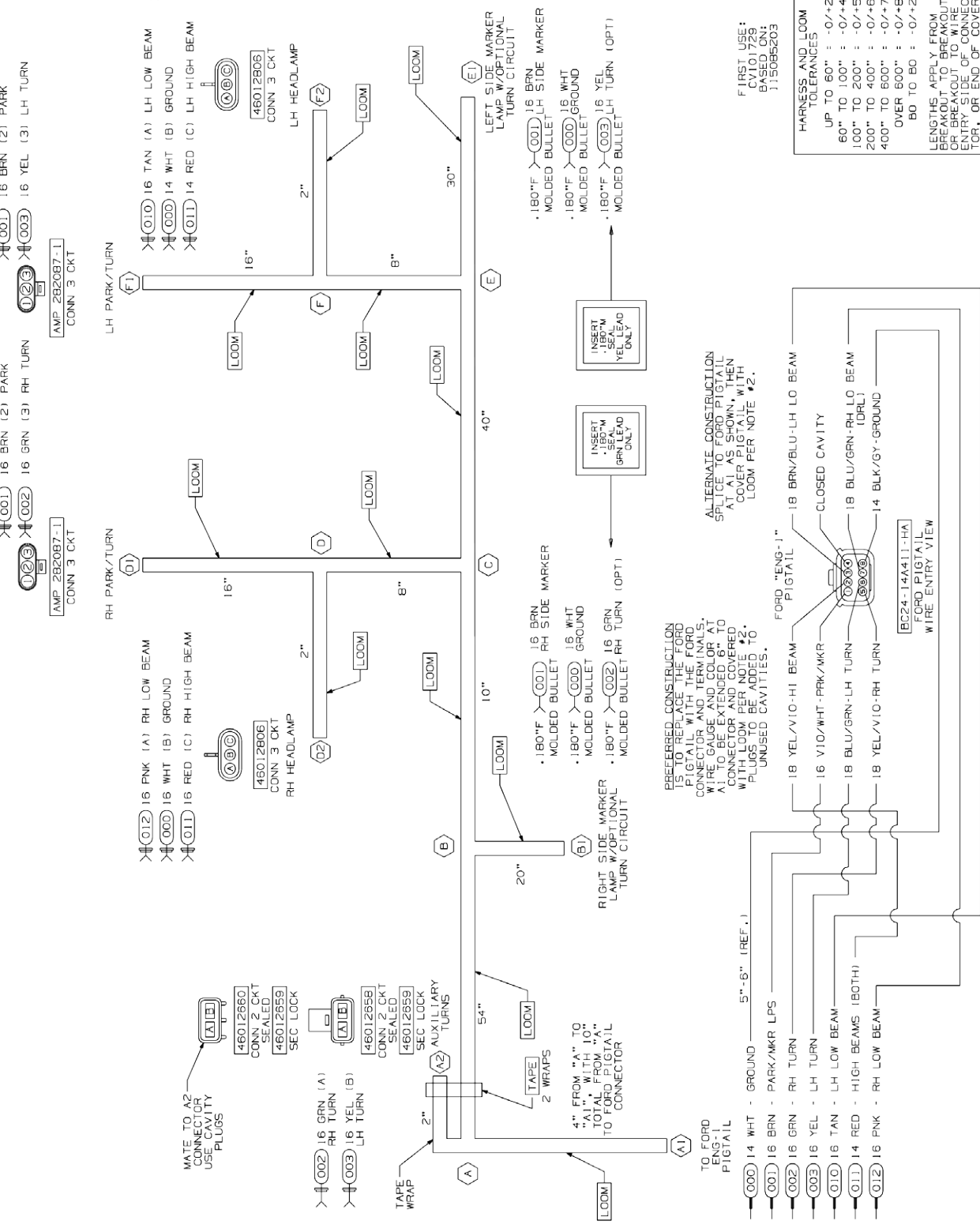
DRAWN: JKP CHECKED: - RELEASE NO: 39448
DATE: 16OCT12 DATE: 16OCT12
DO NOT SCALE

HARN EXTN CORD 25 FEET
120V SJEOWW WP W/BOOT&PLUG

SHT	DRAWING NO.	SCALE
2 of 2	122111201	NONE
		REV

REV	135085204	SHT	1 OF 1
DESCRIPTION	RELEASE FOR PRODUCTION	BY	
DATE		CHECKED	

CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
000	14/16 WHT	A1, B1, D1, D2, E1, F1, F2	GROUND
001	16 BRN	A1, B1, D1, E1, F1	PARK/MARKER
002	16 GRN	A1, A2, B1, D1	RH TURN
003	16 YEL	A1, A2, E1, F1	LH TURN
010	16 TAN	A1, F2	LH LOW BEAM
011	14/16 RED	A1, D2, F2	HIGH BEAMS (BOTH)
012	16 PNK	A1, D2	RH LOW BEAM



- VENDOR TO GREASE FEMALE BULLET TERMINALS.
- THIS IS A PURCHASED HARNESS. NO BILL OF MATERIAL EXISTS.
- VENDOR MAY REPLACE PIGTAILS WITH WIRING TO CONVENTIONAL WIRING OR SHOWN IN TERMINAL VIEW.
- HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
- CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
- SPLICES TO BE AUTOMATED WITH SOLDER, AND ADHESIVE LINED HEAT SHRINK TUBING.
- TAPE [1111096]: 6" AT BREAKOUTS AND AT INTERFERING POINTS. FOR ANTI-INTERFERED LOOM LENGTHS GREATER THAN 24", AND 2" AT LOOM ENDS.
- HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION LEVEL AND DATE OF MANUFACTURE.
- SPLIT NYLON LOOM, BLACK WITH GRAY STRIPE, VENDOR SPECIFIED. SMALLER PRACTICAL SIZES SPECIFIED ON THE DRAWING.
- GXL WIRE.

NOTES:

1. GXL WIRE.

2. SPLIT NYLON LOOM, BLACK WITH GRAY STRIPE, VENDOR SPECIFIED. SMALLER PRACTICAL SIZES SPECIFIED ON THE DRAWING.

3. HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION LEVEL AND DATE OF MANUFACTURE.

4. TAPE [1111096]: 6" AT BREAKOUTS AND AT INTERFERING POINTS. FOR ANTI-INTERFERED LOOM LENGTHS GREATER THAN 24", AND 2" AT LOOM ENDS.

5. CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.

6. SPLICES TO BE AUTOMATED WITH SOLDER, AND ADHESIVE LINED HEAT SHRINK TUBING.

7. HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.

8. HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION LEVEL AND DATE OF MANUFACTURE.

9. SPLIT NYLON LOOM, BLACK WITH GRAY STRIPE, VENDOR SPECIFIED. SMALLER PRACTICAL SIZES SPECIFIED ON THE DRAWING.

10. GXL WIRE.

PROPRIETARY

This drawing and the information contained herein are the property of Morgan Olson and shall remain confidential. No part of this drawing may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Morgan Olson.

MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED: .001" .002" .003" .010" .015" .020" .030" .040" .050" .060" .070" .080" .090" .100" .125" .150" .175" .200" .250" .300" .350" .400" .450" .500" .550" .600" .650" .700" .750" .800" .850" .900" .950" .1000"

FIRST USE:
GXL WIRE
115085203

HARNESS AND LOOM TOLERANCES:
UP TO 60" : -0/+2"
60" TO 100" : -0/+4"
100" TO 200" : -0/+5"
200" TO 400" : -0/+6"
400" TO 600" : -0/+7"
OVER 600" : -0/+8"

LENGTHS APPLY FROM BREAKOUT TO BREAKOUT, OR BREAKOUT TO WIRE ENTRY POINT, OR COVER FOR, OR END OF COVER.

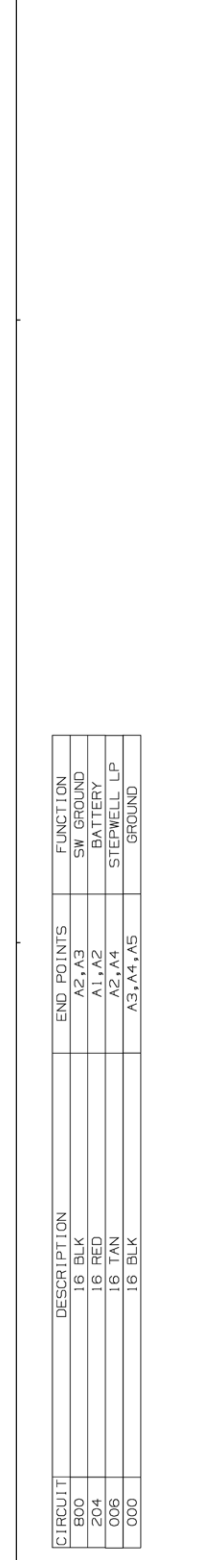
PREFERRED CONSTRUCTION
IS TO REPLACE THE FORD PIGTAIL WITH THE FORD WIRE CLAMP AND BULB. WIRE CLAMP AND BULB TO BE EXTENDED 6" TO A1 TO BE COVERED WITH LOOM PER NOTE #2. UNUSED CAVITIES.

ALTERNATE CONSTRUCTION
SPLICE TO FORD PIGTAIL AT A1 AS SHOWN, WITH COVER PIGTAIL WITH LOOM PER NOTE #2.

REV	135085204	SHT	1 OF 1
DESCRIPTION	RELEASE FOR PRODUCTION	BY	
DATE		CHECKED	



REV	137392203	SHT	1 OF 1
DESCRIPTION	RELEASE TO PRODUCTION	BY	
DATE		CHECKED	



- VENDOR MAY REPLACE PIGTAILS WITH WIRING TO APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
- HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
- CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
- SPLICES TO BE AUTOMATED WITH SOLDER, AND ADHESIVE LINED HEAT SHRINK TUBING. HEAT SHRINK BUTT SPLICES ARE ACCEPTABLE FOR M-O FABRICATION IF NECESSARY.
- TAPE [1111096]: 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
- HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION LEVEL AND DATE OF MANUFACTURE.
- SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
- GXL WIRE.

PROPRIETARY

This drawing and the information contained herein are the property of Morgan Olson and shall remain confidential. No part of this drawing may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Morgan Olson.

MORGAN OLSON

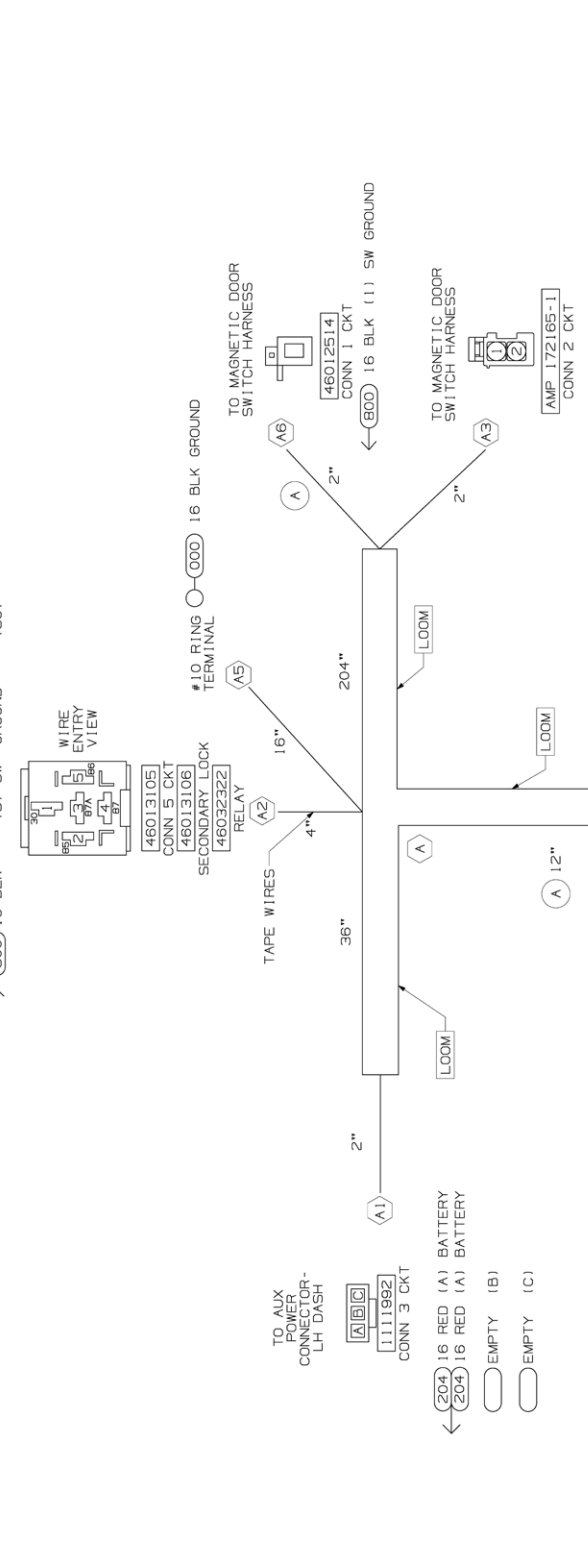
GENERAL STANDARDS UNLESS OTHERWISE NOTED: .001" .002" .003" .010" .015" .020" .030" .040" .050" .060" .070" .080" .090" .100" .125" .150" .175" .200" .250" .300" .350" .400" .450" .500" .550" .600" .650" .700" .750" .800" .850" .900" .950" .1000"

FIRST USE:
GXL WIRE
115085203

HARNESS AND LOOM TOLERANCES:
UP TO 60" : -0/+2"
60" TO 100" : -0/+4"
100" TO 200" : -0/+5"
200" TO 400" : -0/+6"
400" TO 600" : -0/+7"
OVER 600" : -0/+8"

LENGTHS APPLY FROM BREAKOUT TO BREAKOUT, OR BREAKOUT TO WIRE ENTRY POINT, OR COVER FOR, OR END OF COVER.

REV	137392203	SHT	1 OF 1
DESCRIPTION	RELEASE TO PRODUCTION	BY	
DATE		CHECKED	



- VENDOR MAY REPLACE PIGTAILS WITH WIRING TO APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
- HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
- CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
- SPLICES TO BE AUTOMATED WITH SOLDER, AND ADHESIVE LINED HEAT SHRINK TUBING. HEAT SHRINK BUTT SPLICES ARE ACCEPTABLE FOR M-O FABRICATION IF NECESSARY.
- TAPE [1111096]: 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
- HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION LEVEL AND DATE OF MANUFACTURE.
- SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
- GXL WIRE.

PROPRIETARY

This drawing and the information contained herein are the property of Morgan Olson and shall remain confidential. No part of this drawing may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Morgan Olson.

MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED: .001" .002" .003" .010" .015" .020" .030" .040" .050" .060" .070" .080" .090" .100" .125" .150" .175" .200" .250" .300" .350" .400" .450" .500" .550" .600" .650" .700" .750" .800" .850" .900" .950" .1000"

FIRST USE:
GXL WIRE
115085203

HARNESS AND LOOM TOLERANCES:
UP TO 60" : -0/+2"
60" TO 100" : -0/+4"
100" TO 200" : -0/+5"
200" TO 400" : -0/+6"
400" TO 600" : -0/+7"
OVER 600" : -0/+8"

LENGTHS APPLY FROM BREAKOUT TO BREAKOUT, OR BREAKOUT TO WIRE ENTRY POINT, OR COVER FOR, OR END OF COVER.

DRAWING NO.	REV	SHT
155084203	A	1 of 1
DESCRIPTION	DATE	
RELEASE FOR PRODUCTION	DATE	
A RADIO ACCY SW'D WAS GROUND SW'D	DATE	
	DATE	
	DATE	

- THIS IS A PURCHASED HARNESS. NO BILL OF MATERIAL EXISTS.
- VENDOR MAY REPLACE PIGTAILS WITH WIRING TO APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
- HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
- CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
- SPLICES TO BE AUTOMATED WITH SOLDER AND ADHESIVE LINED HEAT SHRINK TUBING.
- TAPE [1111096]: 6" AT BREAKOUTS, 2" AT 18" INTERVALS FOR UNINTERRUPTED LENGTHS GREATER THAN 24" AND 2" AT LOOM ENDS.
- HARNESS TO HAVE A LABEL SHOWING MORGAN NOLSON PART NUMBER, REVISION LEVEL, AND DATE OF MANUFACTURE.
- SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
- GXL WIRE.

NOTES:

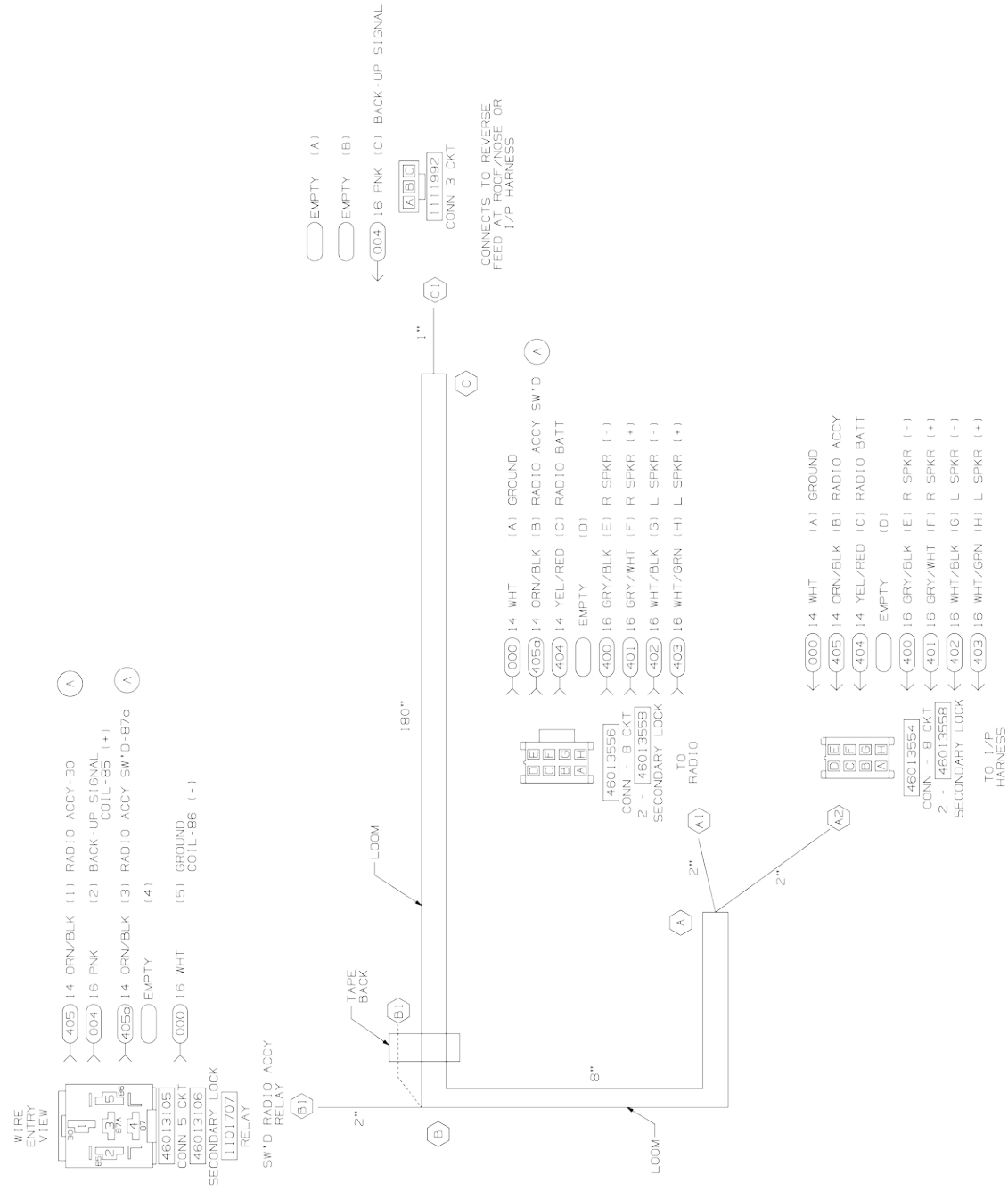
PROPRIETARY
This drawing and the information and data contained hereon are the property of Morgan Olson and may not be copied, reproduced, or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Morgan Olson.

MORGAN NOLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED:
1. MATERIALS: A. GXL WIRE, 18 AWG, 110°
2. WIRE STRANDING: 7/30
3. WIRE COLOR: ALL WIRE SHALL BE IDENTIFIED BY COLOR AND NUMBER
4. WIRE END TREATMENT: ALL WIRE ENDS SHALL BE STRIPPED TO THE REQUIRED LENGTH AND INSULATED WITH HEAT SHRINK TUBING
5. WIRE ENTRY SIDE: UNLESS OTHERWISE NOTED, ALL CONNECTORS SHALL BE SHOWN FROM THE WIRE ENTRY SIDE
6. WIRE ENTRY SIDE: UNLESS OTHERWISE NOTED, ALL CONNECTORS SHALL BE SHOWN FROM THE WIRE ENTRY SIDE

DATE	DATE
08SEP15	09SEP15
DO NOT SCALE	
HARN SW RADIO OFF REV TRIG W/ RLY	
DRAWING NO.	SCALE
155084203	NONE
REV	REV
A	A

CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
000	14/16 WHT	A2.B1	GROUND
405a	14 ORN/BLK	A1.B1	RADIO ACCY SW'D
004	16 PNK	B1.C1	BACK-UP SIGNAL
400	16 GRN/BLK	A1.A2	R SPKR (-)
401	16 GRN/WHI	A1.A2	R SPKR (+)
402	16 WHT/BLK	A1.A2	L SPKR (-)
403	16 WHT/GRN	A1.A2	L SPKR (+)
404	14 YEL/RED	A1.A2	RADIO BATT
405	14 ORN/BLK	A1.A2	RADIO ACCY



DRAWING NO.	REV	SHT
157388200		1 of 1
DESCRIPTION	DATE	
RELEASE TO PRODUCTION	DATE	
	DATE	
	DATE	

- VENDOR MAY REPLACE PIGTAILS WITH WIRING TO APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
- HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
- CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
- SPLICES TO BE AUTOMATED WITH HEAT SHRINK TUBING. HEAT SHRINK BUTT SPLICES ARE ACCEPTABLE FOR L/O FABRICATION IF NECESSARY.
- TAPE [1111096]: 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
- HARNESS TO HAVE A LABEL SHOWING MORGAN NOLSON PART NUMBER, REVISION LEVEL, AND DATE OF MANUFACTURE.
- SPLIT POLY LOOM UNLESS JACKETED CABLE IS USED.
- JACKETED CABLE AS NOTED.

NOTES:

PROPRIETARY
This drawing and the information and data contained hereon are the property of Morgan Olson and may not be copied, reproduced, or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Morgan Olson.

MORGAN NOLSON

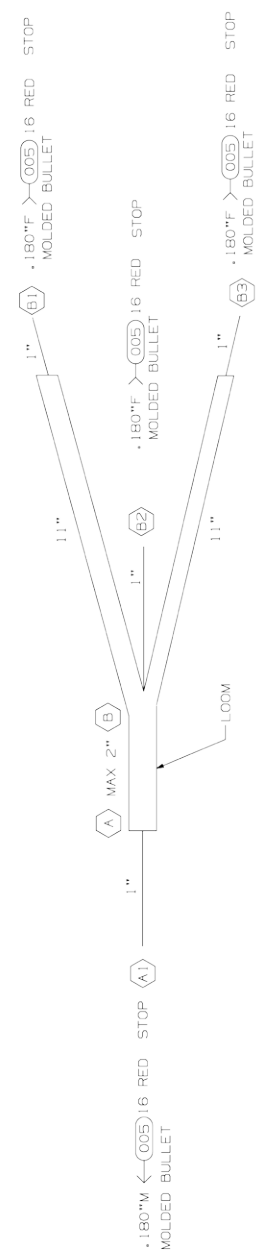
GENERAL STANDARDS UNLESS OTHERWISE NOTED:
1. MATERIALS: A. GXL WIRE, 18 AWG, 110°
2. WIRE STRANDING: 7/30
3. WIRE COLOR: ALL WIRE SHALL BE IDENTIFIED BY COLOR AND NUMBER
4. WIRE END TREATMENT: ALL WIRE ENDS SHALL BE STRIPPED TO THE REQUIRED LENGTH AND INSULATED WITH HEAT SHRINK TUBING
5. WIRE ENTRY SIDE: UNLESS OTHERWISE NOTED, ALL CONNECTORS SHALL BE SHOWN FROM THE WIRE ENTRY SIDE
6. WIRE ENTRY SIDE: UNLESS OTHERWISE NOTED, ALL CONNECTORS SHALL BE SHOWN FROM THE WIRE ENTRY SIDE

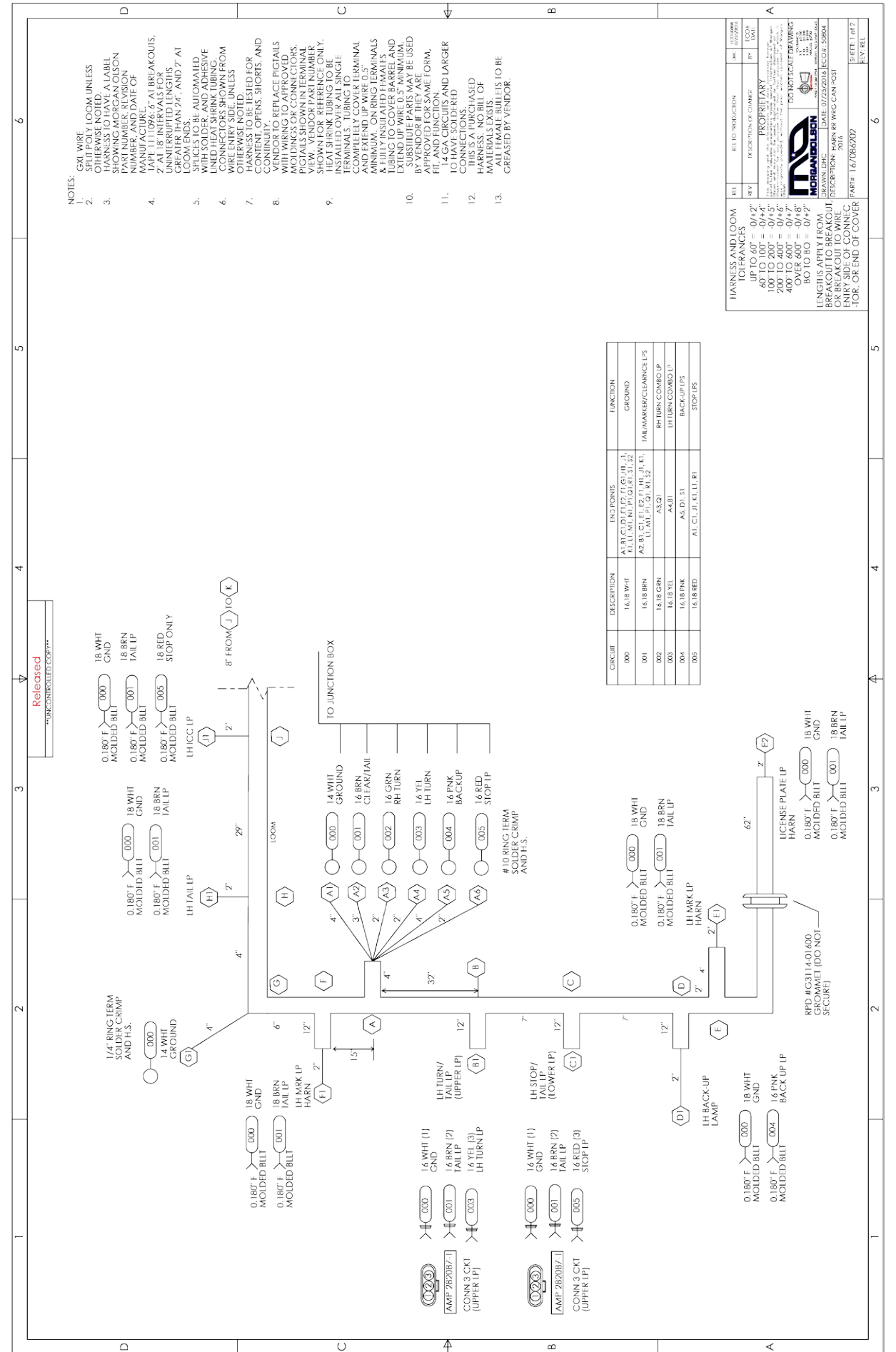
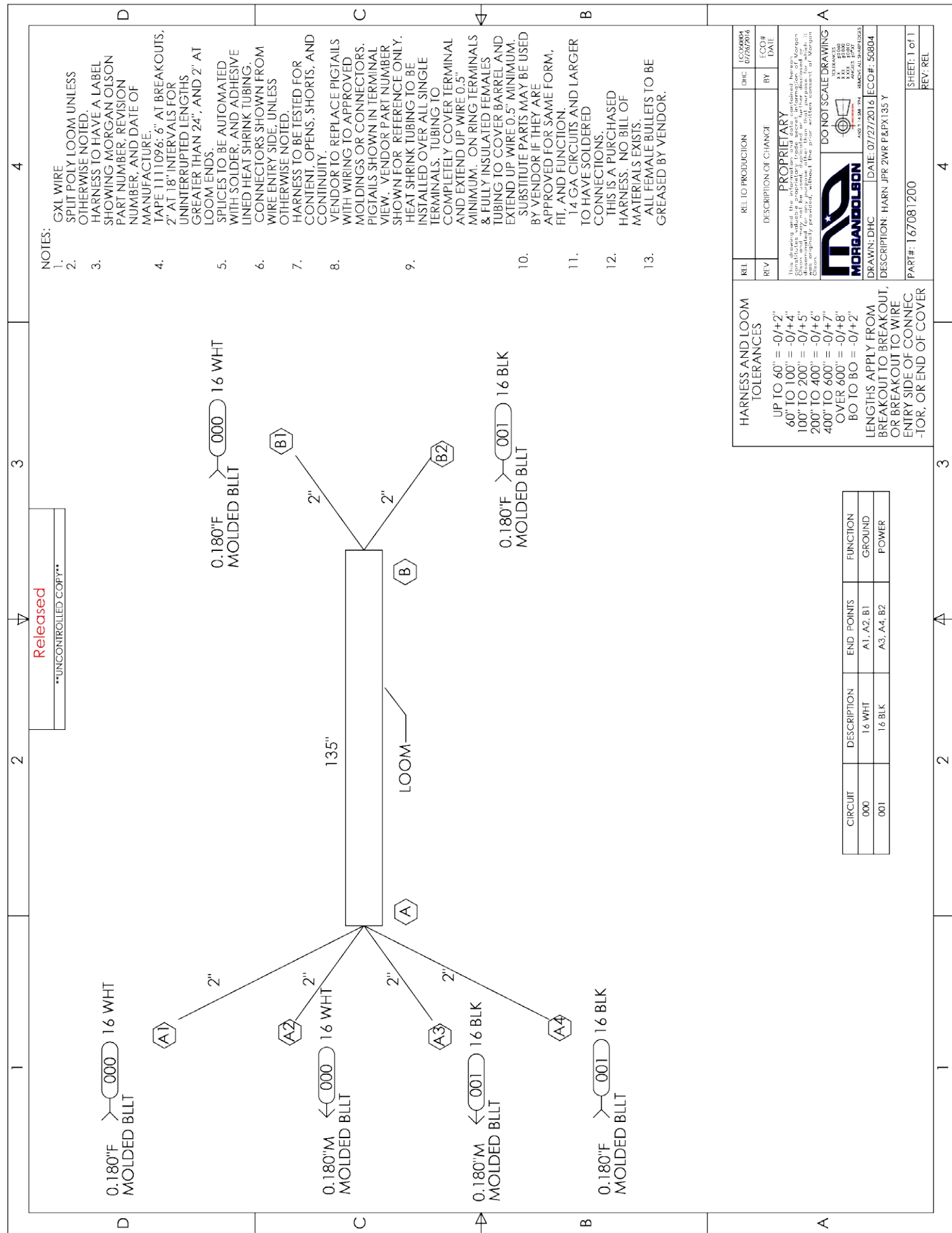
DATE	DATE
21OCT15	4B230
DO NOT SCALE	
HARNNESS JUMPER SPCL CHMSL 100	
DRAWING NO.	SCALE
157388200	NONE
REV	REV
1 of 1	A

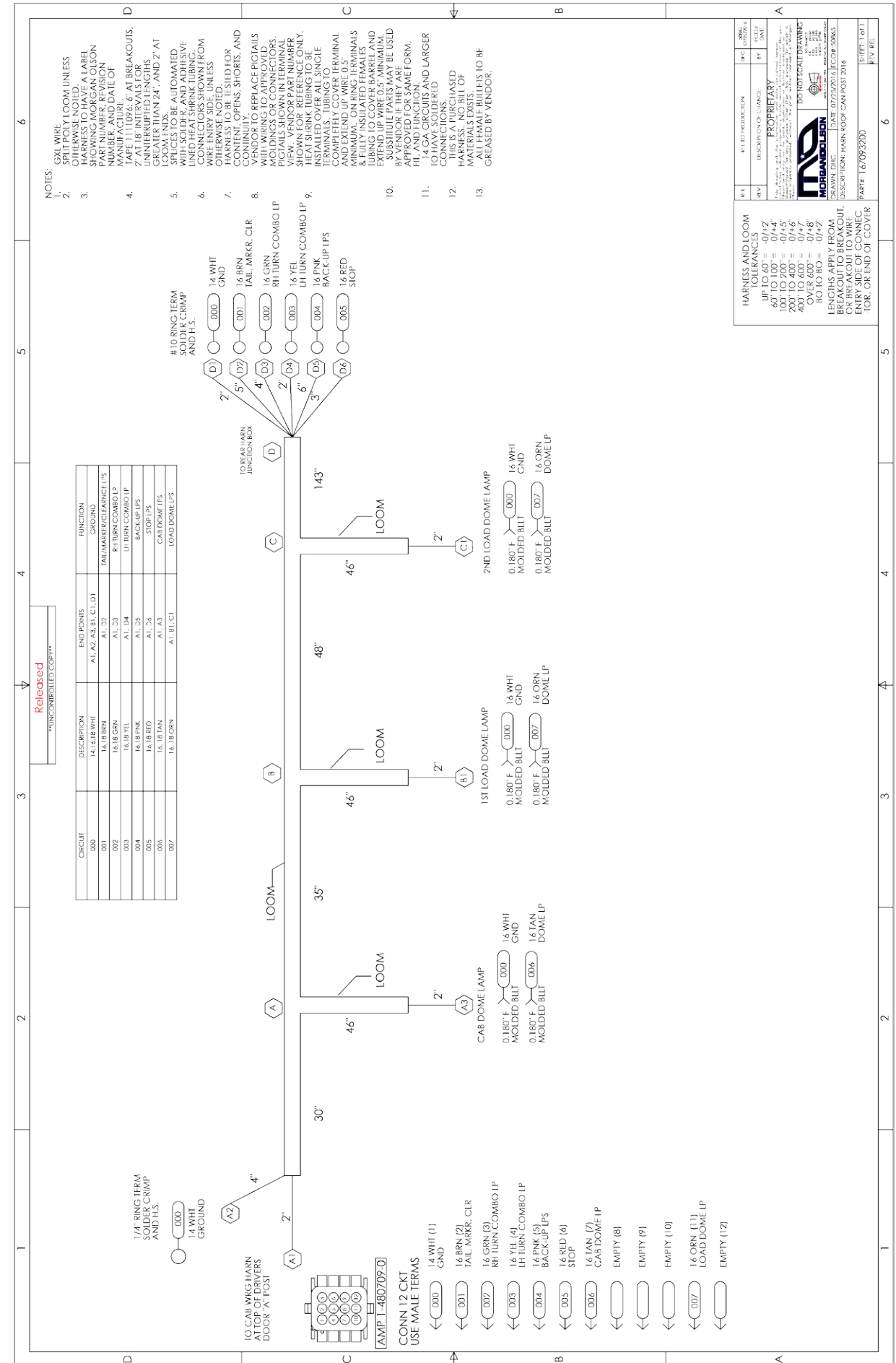
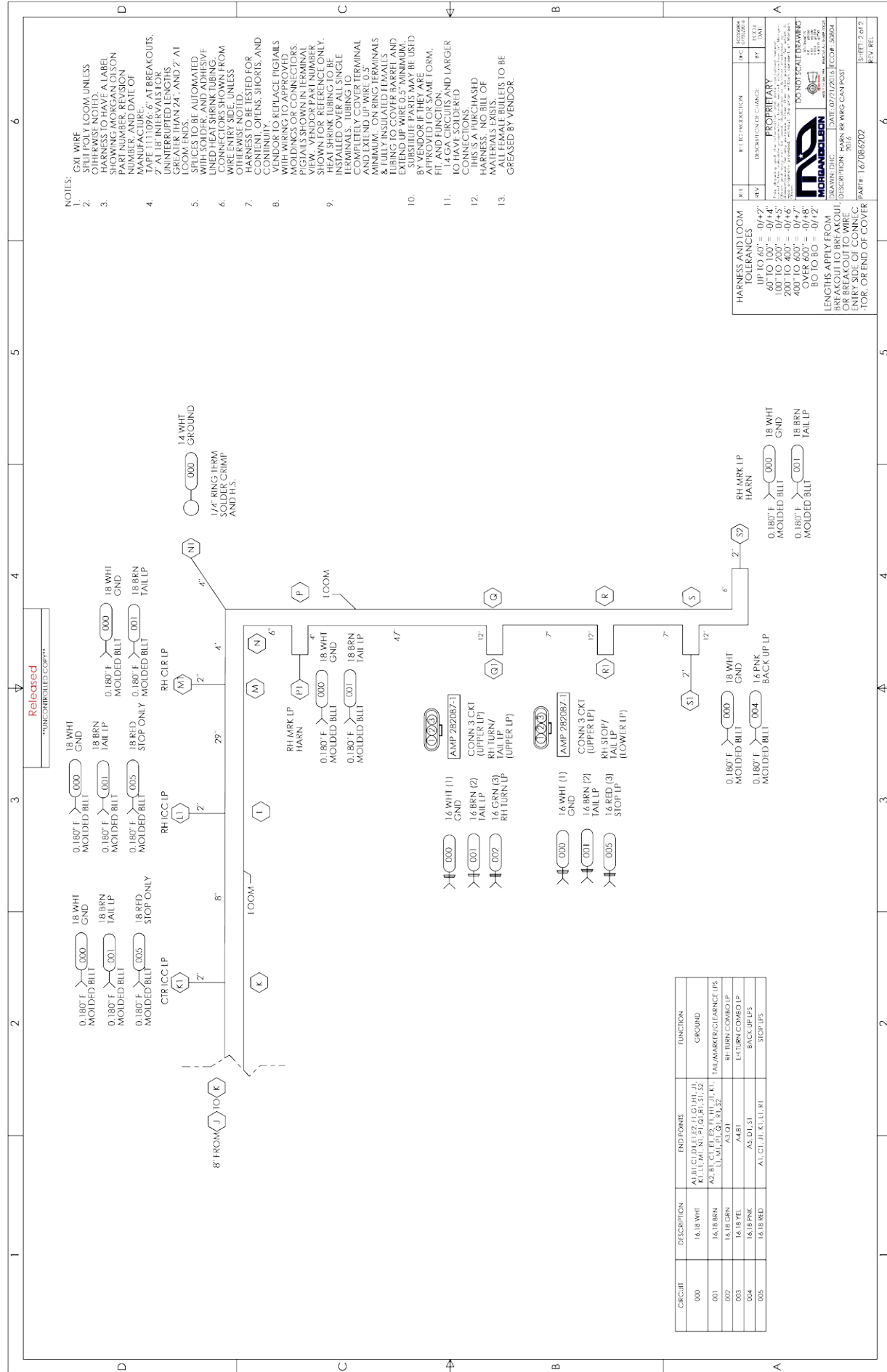
HARNNESS AND LOOM TOLERANCES

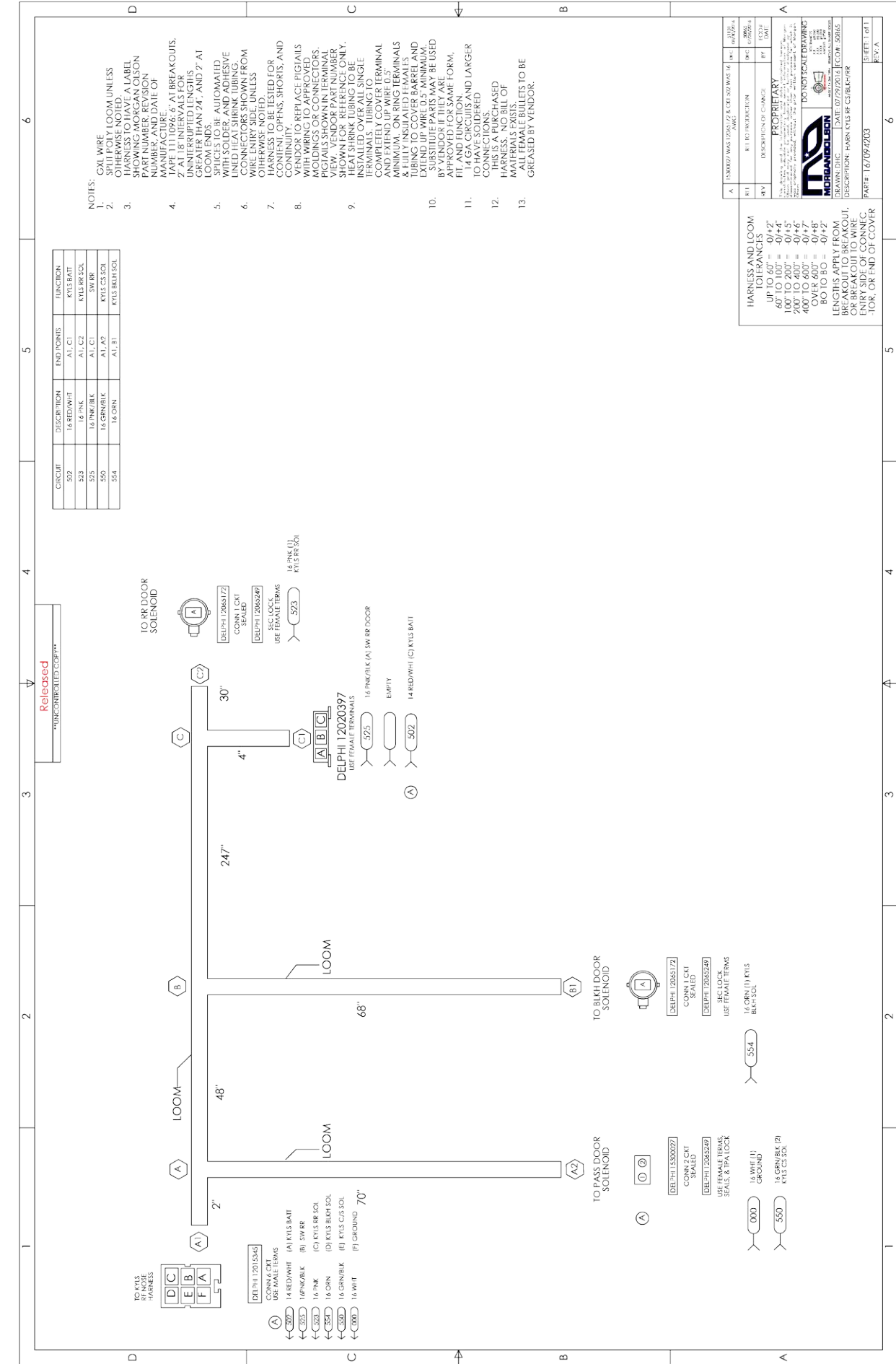
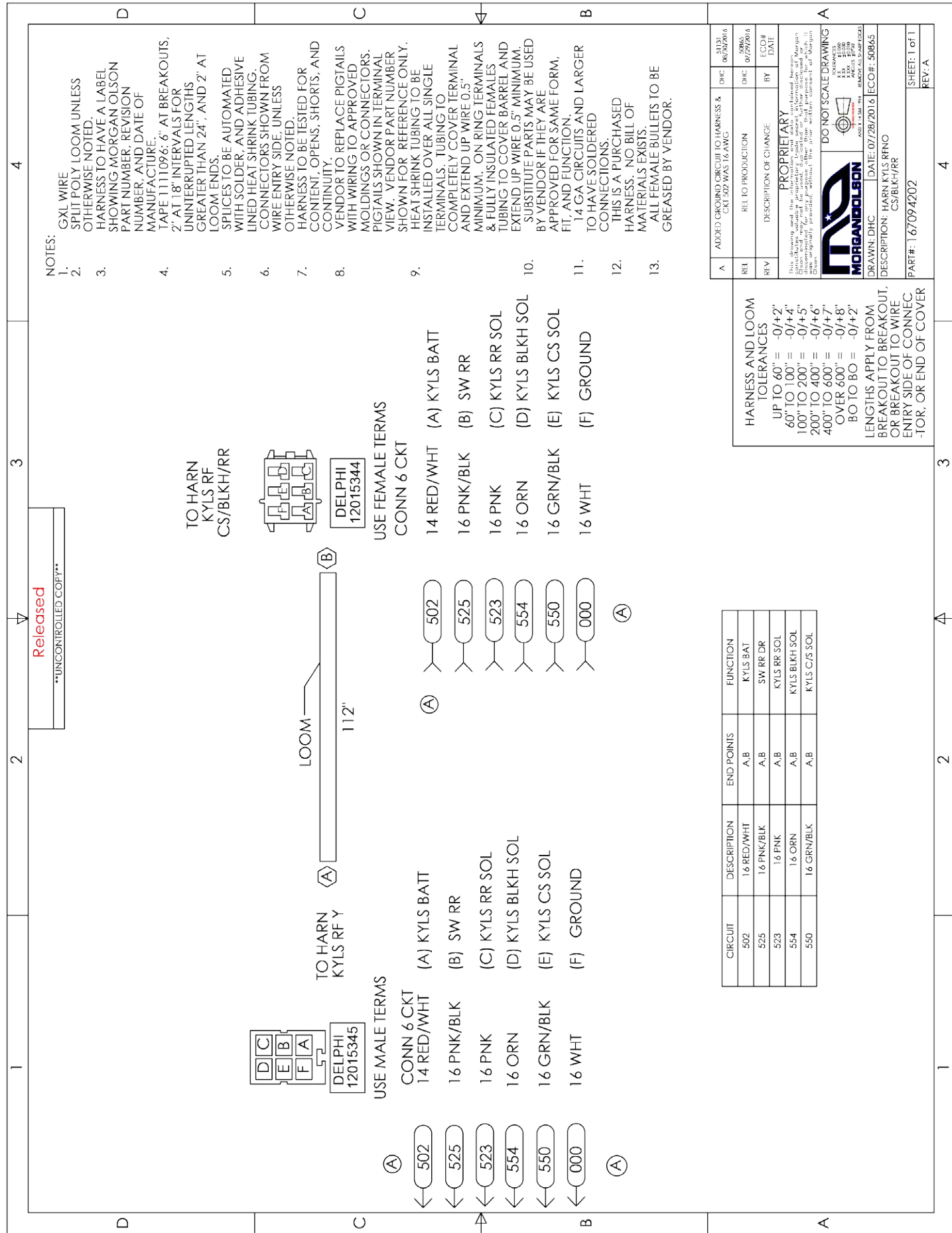
UP TO 60"	= -0/+2"
60" TO 100"	= -0/+4"
100" TO 200"	= -0/+5"
200" TO 400"	= -0/+6"
400" TO 600"	= -0/+7"
OVER 600"	= -0/+8"

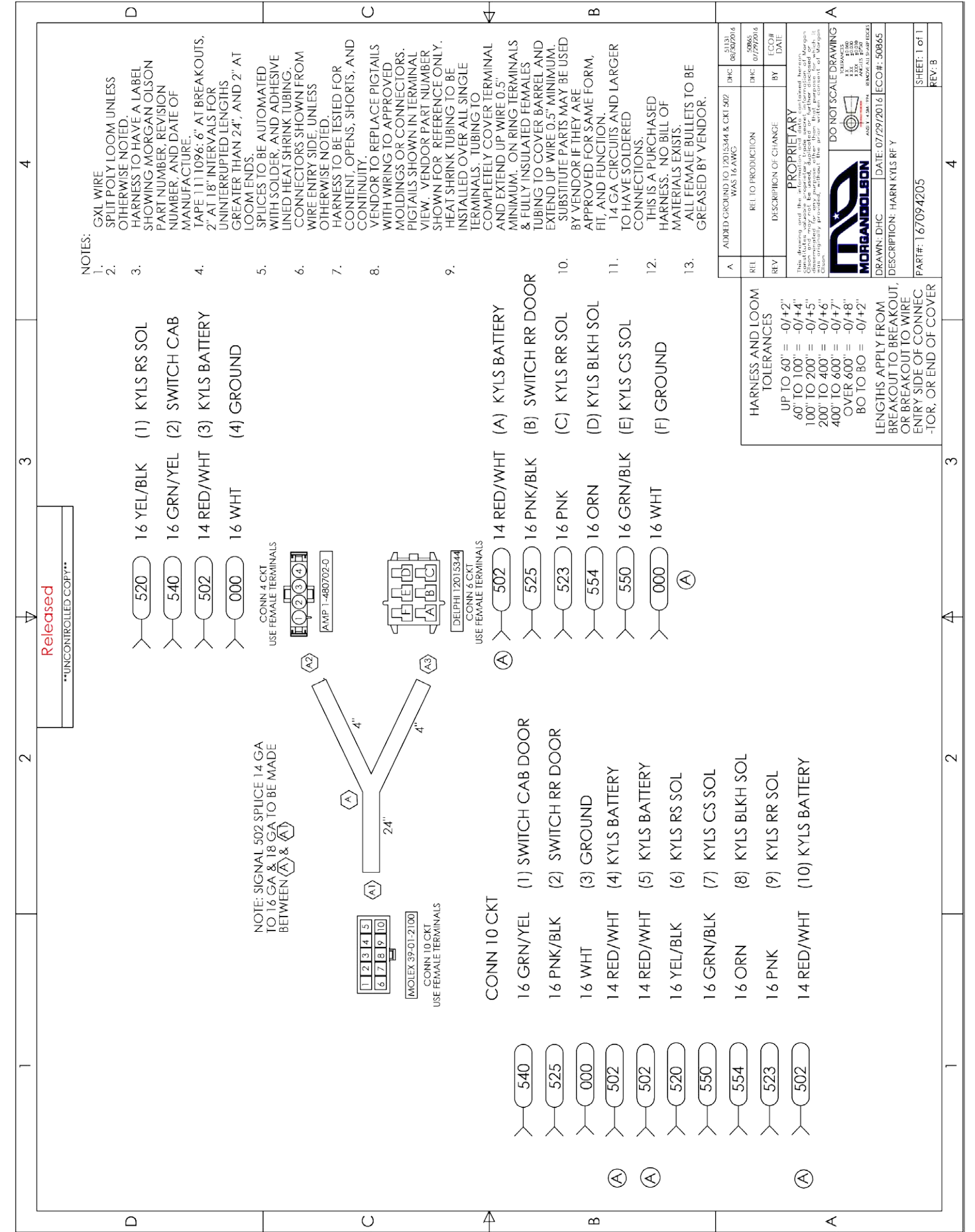
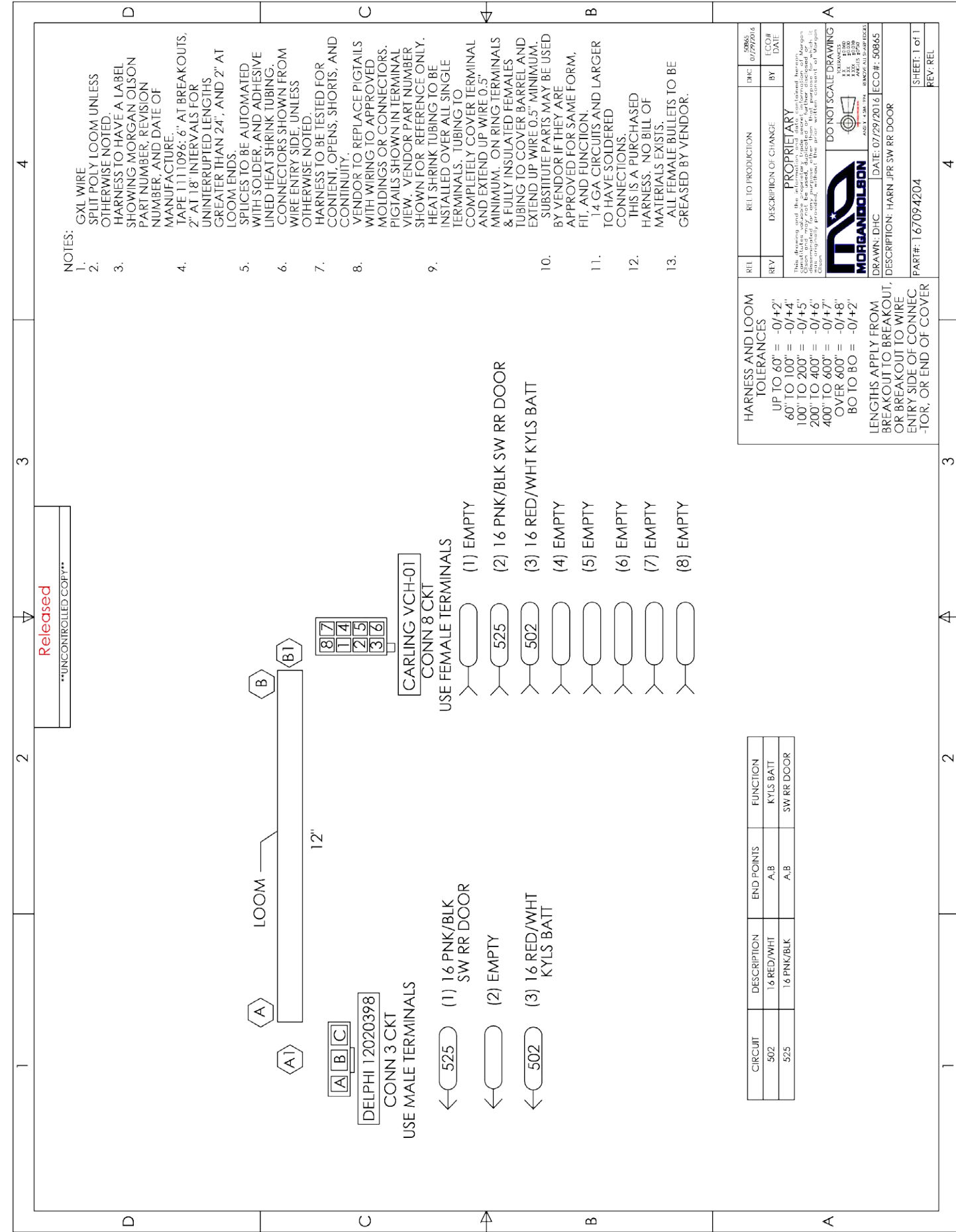
60 TO 80 = -0/+2"
TOLERANCE IS NOT APPLICABLE TO OVERALL HARNESS LENGTH, BREAKOUT TO END, OR LOOM.

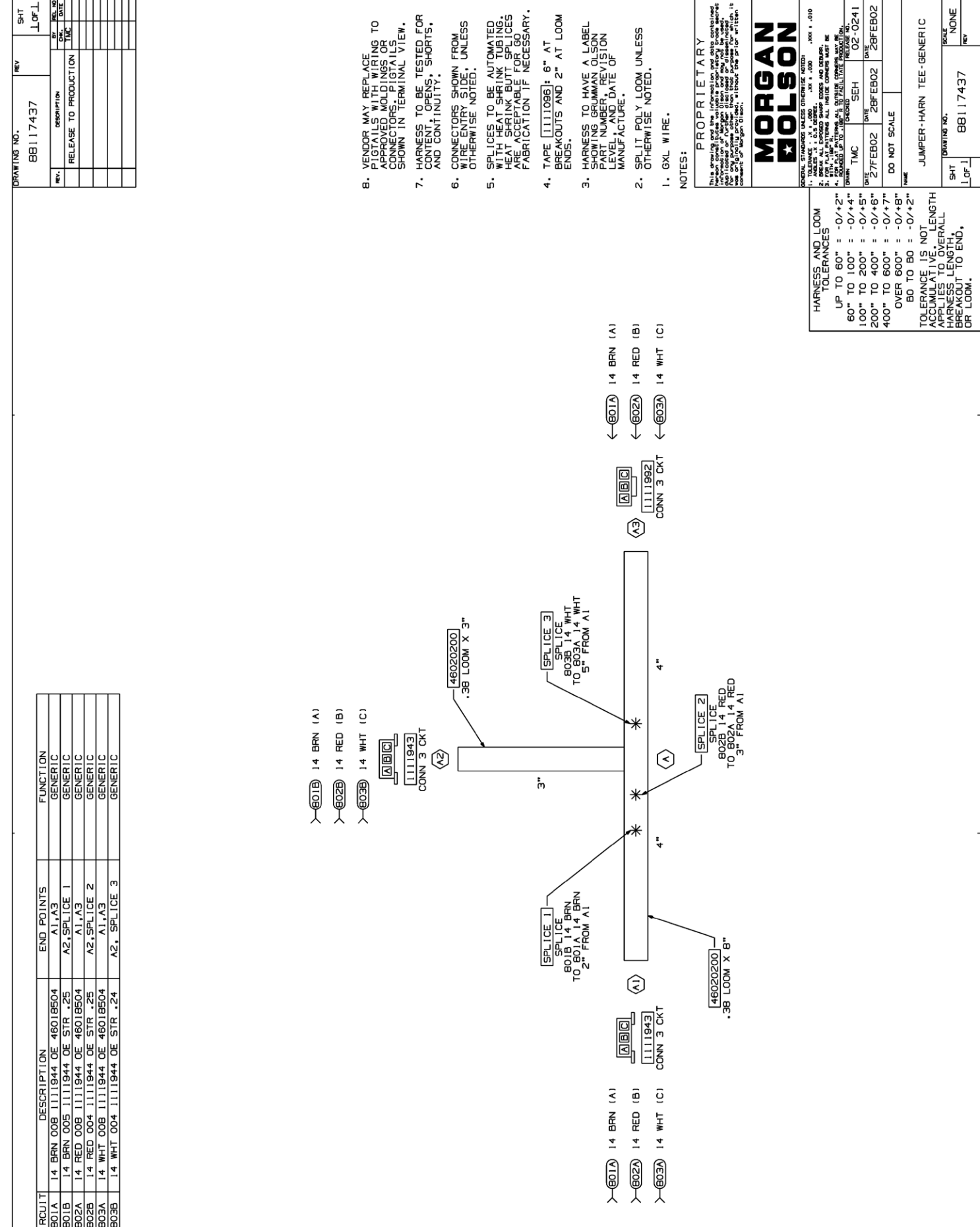
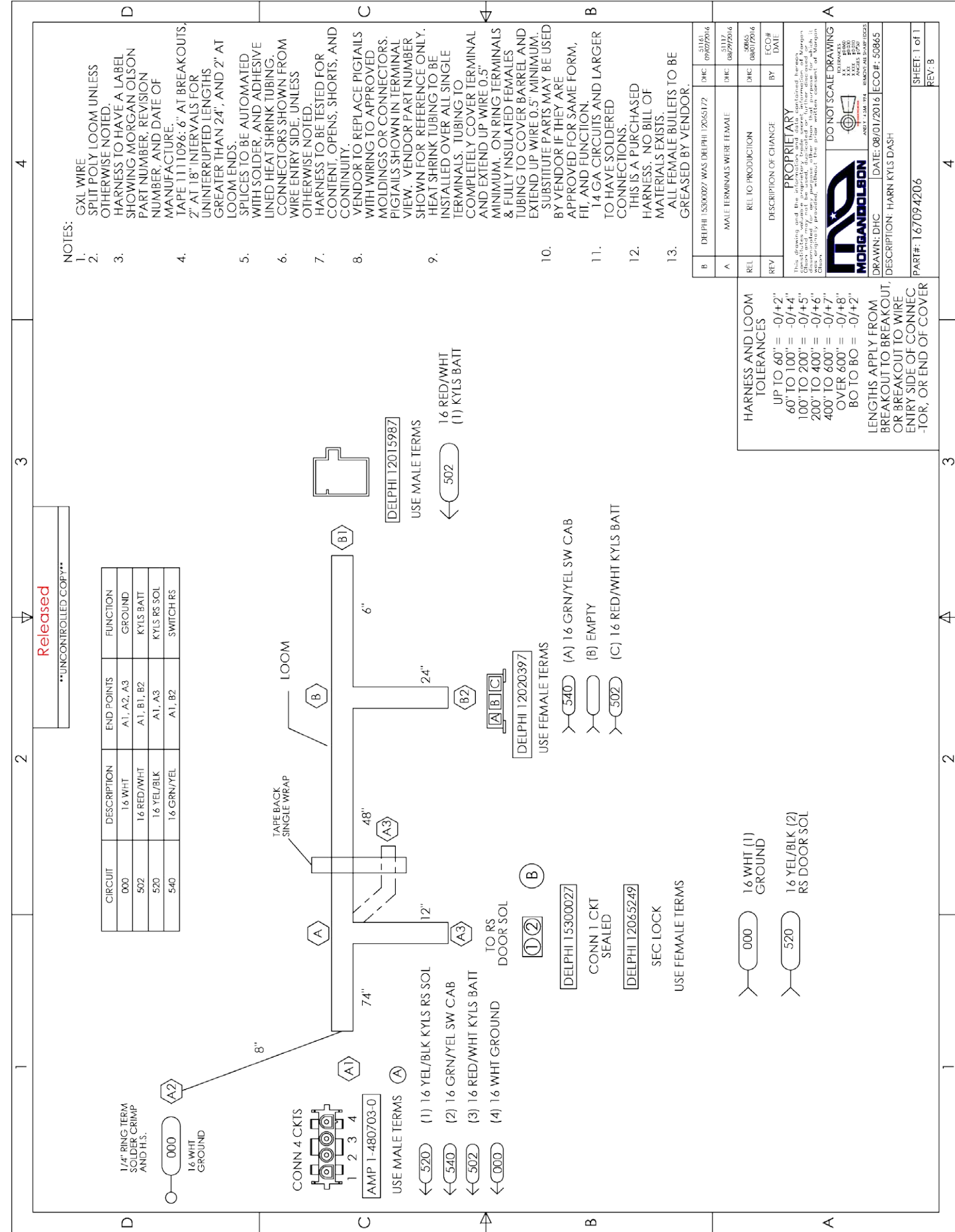












REV	DESCRIPTION	BY	DATE
1	RELEASE TO PRODUCTION		

MORGAN OLSON
 DRAWING NO. 88117437
 DATE: 08/01/2016
 ECO#: 50865
 PART#: 167094206
 SHEET: 1 of 1
 REV: B

PROPRIETARY
 This drawing is the property of Morgan Olson. It is to be used only for the purpose intended. It is not to be reproduced, copied, or distributed in any form without the prior written consent of Morgan Olson.

MORGAN OLSON

REV: B

DRAWING NO.	REV	SHT
092094203	A	1 OF 1
DESCRIPTION	DATE	BY
RELEASE FOR PRODUCTION		
A 110" HAS 108"	DFW	28501

- THIS IS A PURCHASED HARNESS. NO BILL OF MATERIAL EXISTS.
- VENDOR TO REPLACE PIGTAILS WITH WIRING TO APPROVED MOULDINGS OR CONNECTORS (GALV. SOLDER) TO PERFORM. VENDOR PART NUMBER SHOWN FOR REFERENCE ONLY.
- HARNESS TO BE TESTED FOR CONTIN. OPEN, SHORTS, AND CONTINUITY.
- CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
- SPLICES TO BE AUTOMATED WITH SOLDER AND ADHESIVE LINED HEAT SHRINK TUBING.
- TAPE [1111096]: 6" AT BREAKOUTS, 2" AT 18" INTERVALS FOR UNINTERRUPTED LOOM LENGTHS GREATER THAN 24", AND 2" AT LOOM ENDS.
- HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION LEVEL, AND DATE OF MANUFACTURE.
- SPLIT NYLON LOOM, BLACK WITH GRAY STRIPE ONLY UNLESS OTHERWISE NOTED.
- GXL WIRE.

NOTES:

PROPRIETARY

This drawing and the information and data contained hereon are the property of Morgan Olson and shall be used only for the purpose intended. No part of this drawing is to be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written consent of Morgan Olson.



GENERAL SPECIFICATIONS (UNLESS OTHERWISE NOTED)	
1. TOLERANCES	±.000
2. BREAK ALL EXPOSED SHARP EDGES AND CORNERS	±.005
3. WITH ALL DIMENSIONS ALL HOLE LOCATIONS MUST BE WITHIN .005" TYPICAL	
4. ALL DIMENSIONS TO CENTER UNLESS OTHERWISE NOTED	
DATE	REV
040CT09	28501
DATE	040CT09
DO NOT SCALE	

HARN PWR KYLS SPCL 2009 M-100 RTL FCC	
DRAWING NO.	REV
092094203	A

HARNESS AND LOOM TOLERANCES	
UP TO 60"	: -0/+2"
60" TO 100"	: -0/+4"
100" TO 200"	: -0/+5"
200" TO 400"	: -0/+6"
400" TO 600"	: -0/+7"
OVER 600"	: -0/+8"
BO TO BO	: -0/+2"

LENGTHS APPLY FROM BREAKOUT TO BREAKOUT, OR BREAKOUT TO WIRE ENTRY SIDE OF CONNECTOR, OR END OF COVER.

FIRST USE:
CV100626
BASED ON:
098094201

