

Service Bulletin

Maintenance of Way Equipment

Date: 1.06.2023**RRP Service Bulletin No:** RRP SB385**Title:** Emergency Pump Switch Harness Kit**Rating:****ALERT**

(Potential Problem)

**INFORMATION**

(Action Is Optional)

**DIRECTIVE**

(Action Is Required)

**PRODUCT IMPROVEMENT**

(Enhance Product)

Product Series: ATPI & DAA, DCA, DAS, & DASP**Serial No:****ATPI**

ATPI-045	932587	BNSF	X3800196
ATPI-046	932587	BNSF	X3800197
ATPI-047	932587	BNSF	X3800198
ATPI-048	932587	BNSF	X3800199
ATPI-049	932587	BNSF	X3800200
ATPI-050	932587	BNSF	X3800195

ATPI-019	935588	CN-W	CN43865
ATPI-020	935588	CN-W	CN43866
ATPI-030	935588	CN-W	CN43867
ATPI-031	935588	CN-W	CN43868
ATPI-042	935588	CN-W	CN43869
ATPI-043	935588	CN-W	CN43870

ATPI-021	945588	CN-S	CN43863
ATPI-022	945588	CN-S	CN43864
ATPI-051	945588	CN-S	CN43871
ATPI-052	945588	CN-S	CN43872

ATPI-032	933588	CP	7014-14
ATPI-033	933588	CP	5014-20
ATPI-036	933588	CP	5014-21
ATPI-037	933588	CP	5014-22
ATPI-038	933588	CP	5014-23

ATPI-023	931588	UPRR	RLPI-1901
ATPI-024	931588	UPRR	RLPI-1902
ATPI-025	931588	UPRR	RLPI-1903
ATPI-026	931588	UPRR	RLPI-1904
ATPI-053	931588	UPRR	
ATPI-054	931588	UPRR	

ATPI-055	931588	UPRR	RLPI-2103
ATPI-056	931588	UPRR	RLPI-2104
ATPI-057	931588	UPRR	RLPI-2105
ATPI-058	931588	UPRR	RLPI-2106
ATPI-059	931588	UPRR	
ATPI-060	931588	UPRR	

DASP

DASP-278	945582	CN-S	CN64082
DASP-279	945582	CN-S	CN64083
DASP-288	945582	CN-S	CN64090
DASP-289	945582	CN-S	CN64091
DASP-292	945582	CN-S	CN64088
DASP-293	945582	CN-S	CN64089
DASP-296	945582	CN-S	CN64098

DASP-280	955582	CN-E	CN64080
DASP-281	955582	CN-E	CN64081
DASP-290	955582	CN-E	CN64086
DASP-291	955582	CN-E	CN64087

DASP-270	935582	CN-W	CN64084
DASP-277	935582	CN-W	CN64085
DASP-284	935582	CN-W	CN64094
DASP-285	935582	CN-W	CN64095

DASP-286	935582	CN-W	CN64096
DASP-287	935582	CN-W	CN64097
DASP-294	935582	CN-W	CN64092
DASP-295	935582	CN-W	CN64093

DAA

DAA-359	933583	CP RAIL	8010-01
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DAA-355	931583	UPRR	AASQ-1901
DAA-356	931583	UPRR	AASQ-1902
DAA-357	931583	UPRR	AASQ-1903
DAA-358	931583	UPRR	AASQ-1904

DAA-360	931583	UPRR	AASQ-2002
DAA-363	931583	UPRR	AASQ-2101
DAA-364	931583	UPRR	AASQ-2102

DAS

DAS-275	931584	UPRR	AASP-1901
DAS-276	931584	UPRR	AASP-1902
DAS-282	931584	UPRR	AASP-2001

DAS-297	931584	UPRR	AASP-2101
DAS-298	931584	UPRR	AASP-2102

DCA

DCA-161	931585	UPRR	ECAM-1901
DCA-162	931585	UPRR	ECAM-1902
DCA-163	931585	UPRR	ECAM-1903

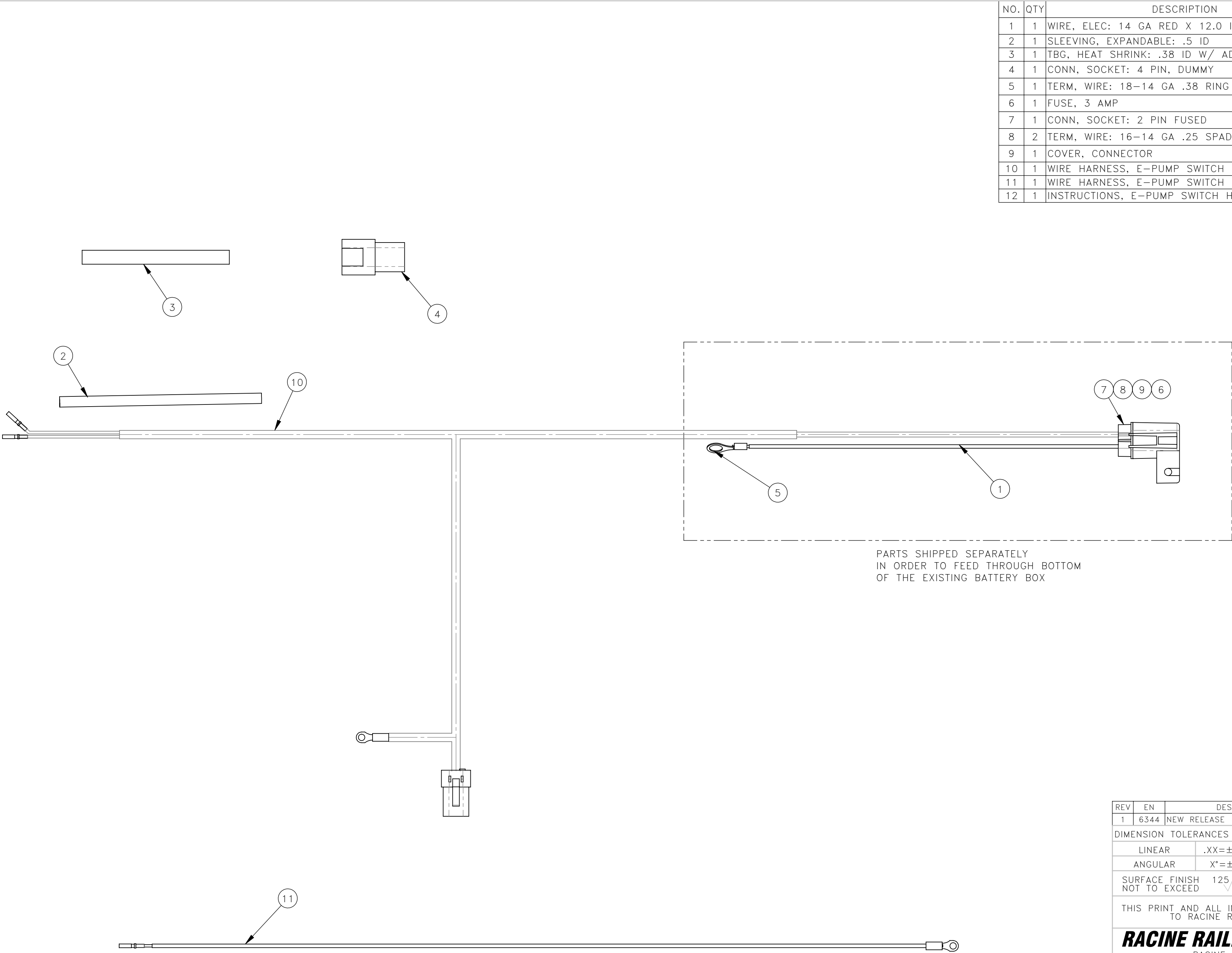
DCA-164	931585	UPRR	ECAM-1904
DCA-169	931585	UPRR	ECAM-2101

Summary: Install the Emergency Pump Switch Harness Kit to prevent MURR block tripping the breaker for Emergency pump power.

Action: Install the Emergency Pump Switch Harness Ki – See Attached 793182 Service Kit and 800405 [Rev 2] Instructions.

Completion / Resolution: Continue with normal machine operation after installing the Emergency Pump Switch Harness Kit.

See Attachments for



NO.	QTY	DESCRIPTION	PART NO.
1	1	WIRE, ELEC: 14 GA RED X 12.0 IN	323704
2	1	SLEEVING, EXPANDABLE: .5 ID	323706
3	1	TBG, HEAT SHRINK: .38 ID W/ ADHESIVE	323749
4	1	CONN, SOCKET: 4 PIN, DUMMY	323753
5	1	TERM, WIRE: 18-14 GA .38 RING NON-INS	465652
6	1	FUSE, 3 AMP	467855
7	1	CONN, SOCKET: 2 PIN FUSED	473822
8	2	TERM, WIRE: 16-14 GA .25 SPADE(F) NON-INS	473823
9	1	COVER, CONNECTOR	473824
10	1	WIRE HARNESS, E-PUMP SWITCH	720420
11	1	WIRE HARNESS, E-PUMP SWITCH	720437
12	1	INSTRUCTIONS, E-PUMP SWITCH HARNESS KIT	800405

REV	EN	DESCRIPTION		DATE	DRN
1	6344	NEW RELEASE		12-22	PR
DIMENSION TOLERANCES UNLESS OTHERWISE SPECIFIED					
LINEAR		.XX=±.03	.XXX=±.010	KERF ALLOW.	
ANGULAR		X°=±1°	X.X°=±.5°		
SURFACE FINISH NOT TO EXCEED		125 ✓	SMOOTH ALL SHARP EDGES CLEAN ALL WELDS		
THIS PRINT AND ALL INFORMATION WITHIN BELONGS TO RACINE RAILROAD PRODUCTS					
<i>RACINE RAILROAD PRODUCTS</i>					
RACINE, WISCONSIN USA					
DESCRIPTION					
KIT, E-PUMP SWITCH HARNESS					
MATERIAL TYPE					
SEE BOM					
USED ON			SCALE	DATE	
SEE NOTE			1:2	12-01-22	
DRN		WEIGHT (LBS)		JOB NO	SHEET
PR				RD190005	1 OF 1
DWG SIZE		CATALOG		DWG NO	
C		K		793182	

ATPIS USED ON:
930587
931587
931588
933588
935588
945588

COMBOS USED ON:
930582
931583
931584
931585
933583
935582
945582

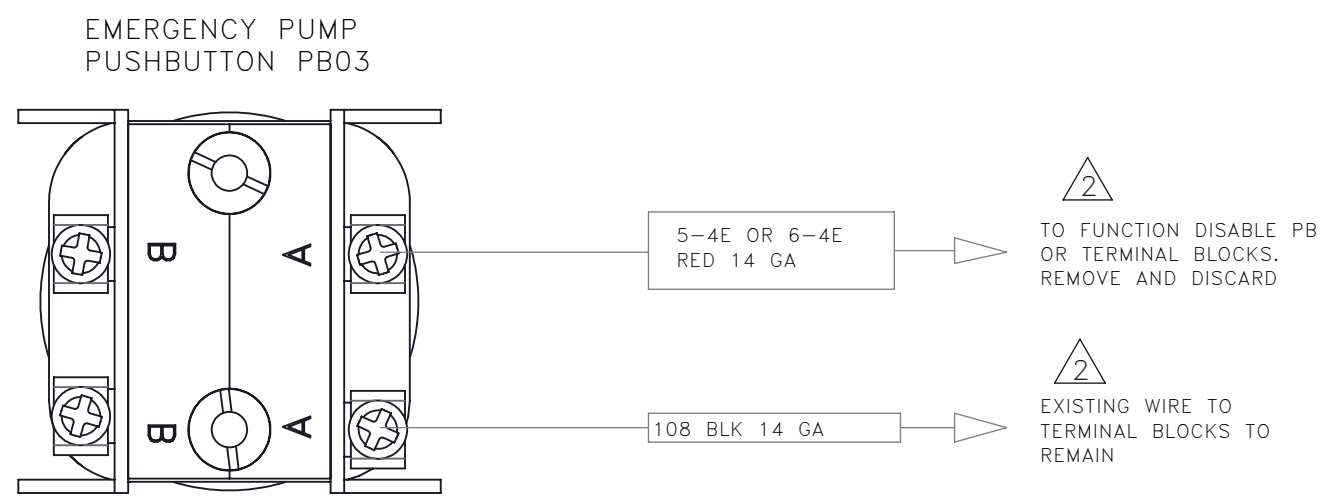
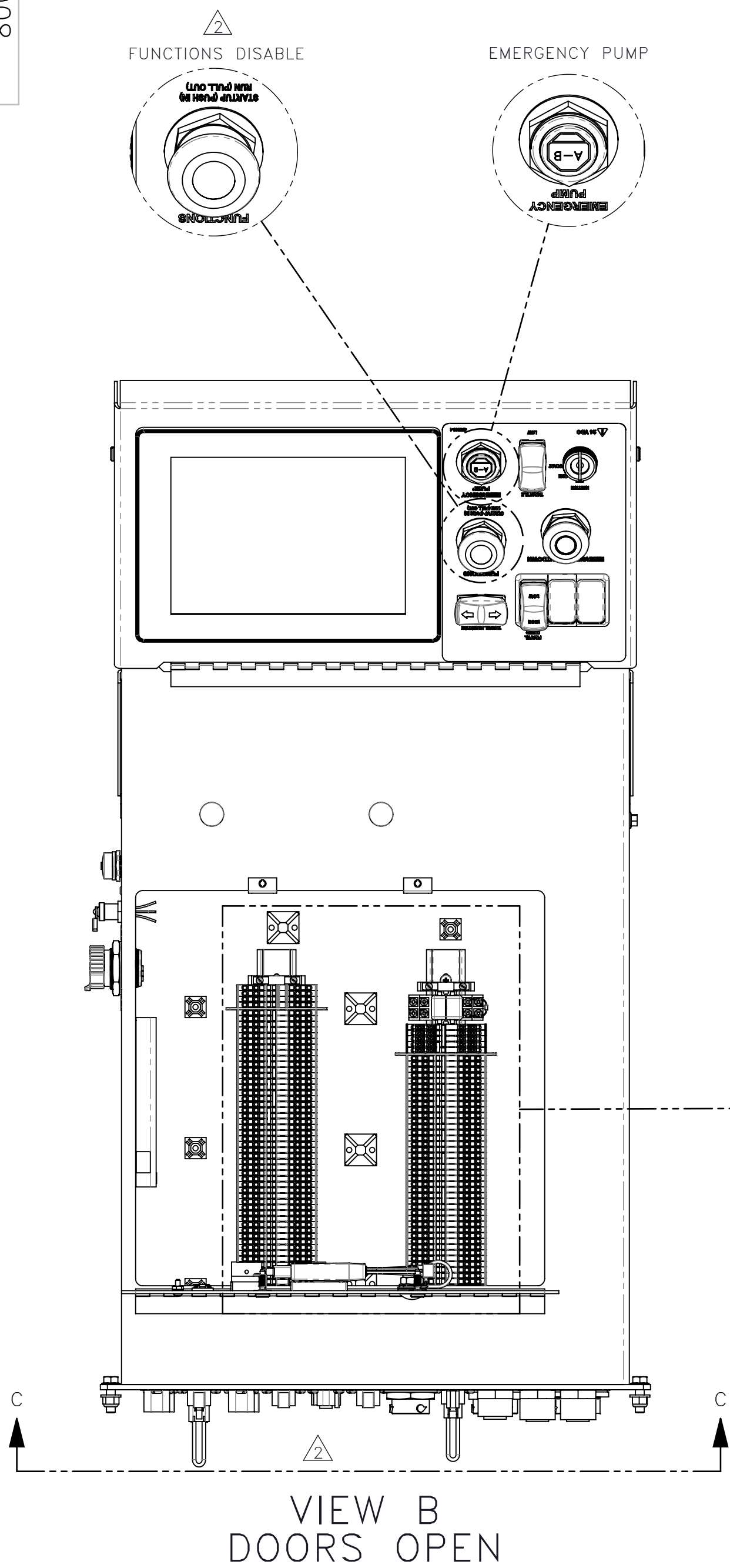
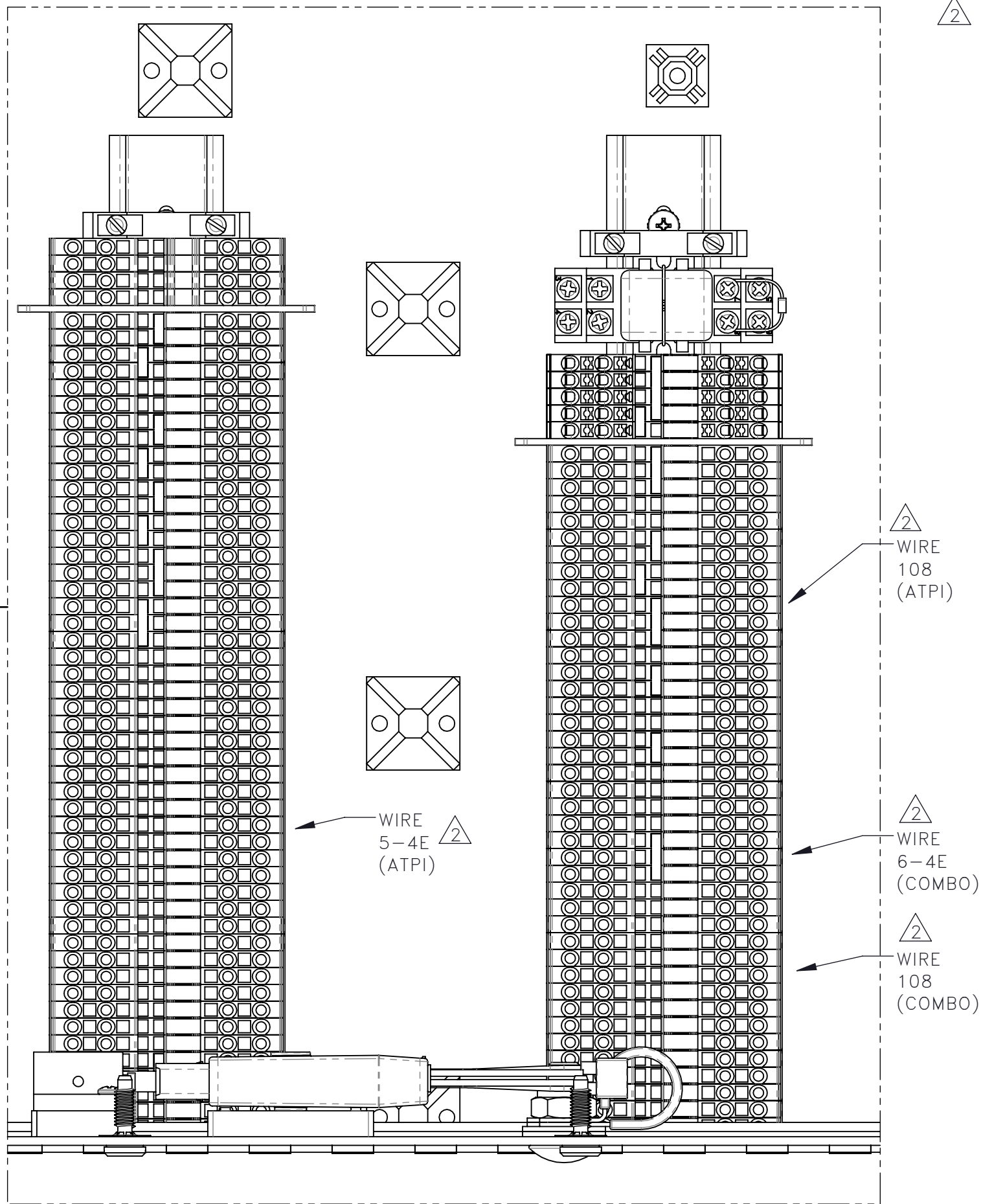
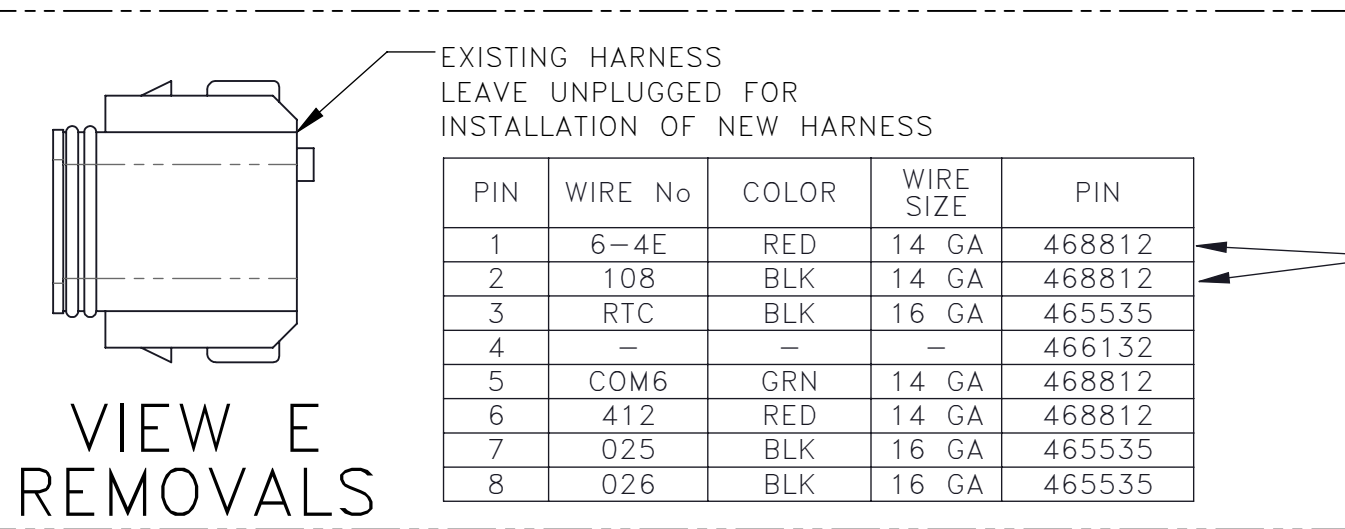
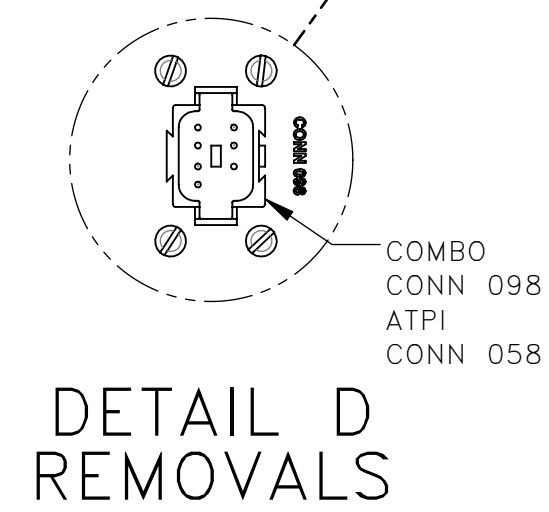


FIG. 1
REMOVALS



DETAIL A
SCALE 1 : 1.5
(COMBO TERMINALS SHOWN. ATPI SIMILAR)
TERMINAL LOCATIONS APPROXIMATE



PIN	WIRE No	COLOR	WIRE SIZE	PIN
1	6-4E	RED	14 GA	468812
2	108	BLK	14 GA	468812
3	RTC	BLK	16 GA	465535
4	—	—	—	466132
5	COM6	GRN	14 GA	468812
6	412	RED	14 GA	468812
7	025	BLK	16 GA	465535
8	026	BLK	16 GA	465535

REMOVE THESE TWO WIRES. TIE BACK AND INSULATE USING HEAT SHRINK TUBING 323749 SUPPLIED. APPLY HEAT SHRINK OVER BOTH WIRES. NOT INDIVIDUALLY.

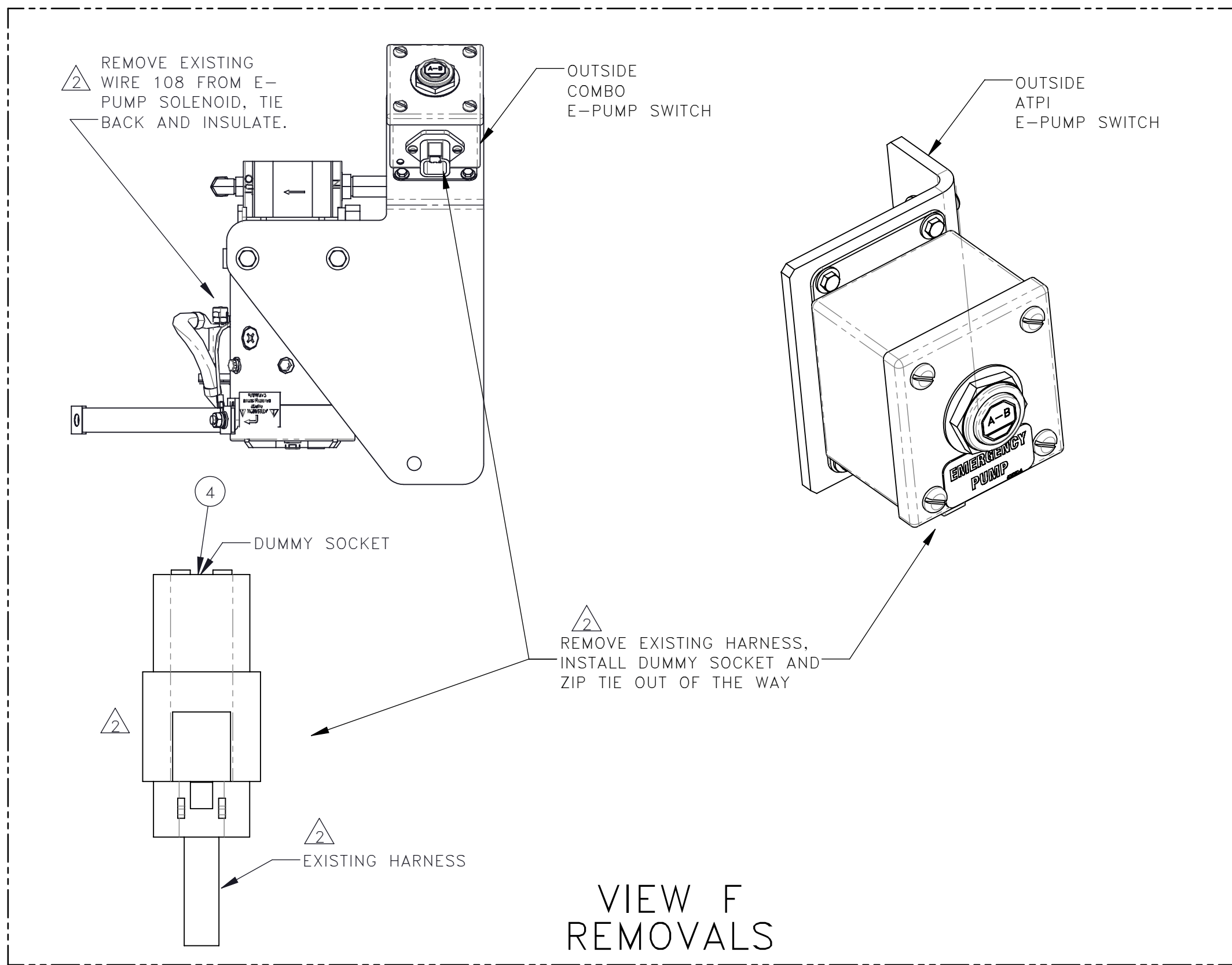
THESE INSTRUCTIONS ARE FOR KIT 793182.

REMOVALS:

1. ENSURE MACHINE IS POWERED OFF AND LOCK OUT-TAG OUT IS IN PLACE BEFORE PERFORMING THE CONVERSION.
2. UNPLUG OUTSIDE E-PUMP SWITCH WIRE HARNESS AT THE E-PUMP SWITCH BOX (SEE VIEW F).
3. CAP OFF UNPLUGGED CONNECTOR WITH SUPPLIED DUMMY SOCKET CONNECTOR AND TUCK AWAY & SECURE WITH ZIP TIES. NO LONGER USED (SEE VIEW F).
4. REMOVE EXISTING WIRE 108 FROM E-PUMP SOLENOID, TIE BACK AND INSULATE USING HALF OF SUPPLIED HEAT SHRINK (SEE VIEW F).
5. FROM UNDERNEATH THE LEFT OPERATORS CONTROL BOX (SECT. C-C & DETAIL D), DISCONNECT HARNESS CONN 058 (OR 098). REMOVE PIN 1 WIRE 5-4E (OR 6-4E). REMOVE PIN 2 WIRE 108. TIE BACK AND INSULATE BOTH TOGETHER (NOT INDIVIDUALLY) USING HALF OF SUPPLIED HEAT SHRINK (VIEW E). LEAVE CONN 058 (OR 098) UNPLUGGED FOR INSTALLATION OF NEW HARNESS WIRING.
6. LEFT OPERATOR CONTROL BOX: OPEN BOTH TOP AND BACK DOORS (VIEW B).
7. REMOVE & DISCARD WIRE 5-4E (OR 6-4E) FROM THE E-PUMP PUSHBUTTON (FIG 1) TO EITHER THE BACK OF THE FUNCTIONS DISABLE PUSHBUTTON OR TO THE TERMINAL BLOCK (DETAIL A). (ENSURE THERE IS STILL A WIRE 5-4E (OR 6-4E) FROM THE FUNCTIONS DISABLE PUSHBUTTON TO THE TERMINAL BLOCK.)

INSTALLATION:

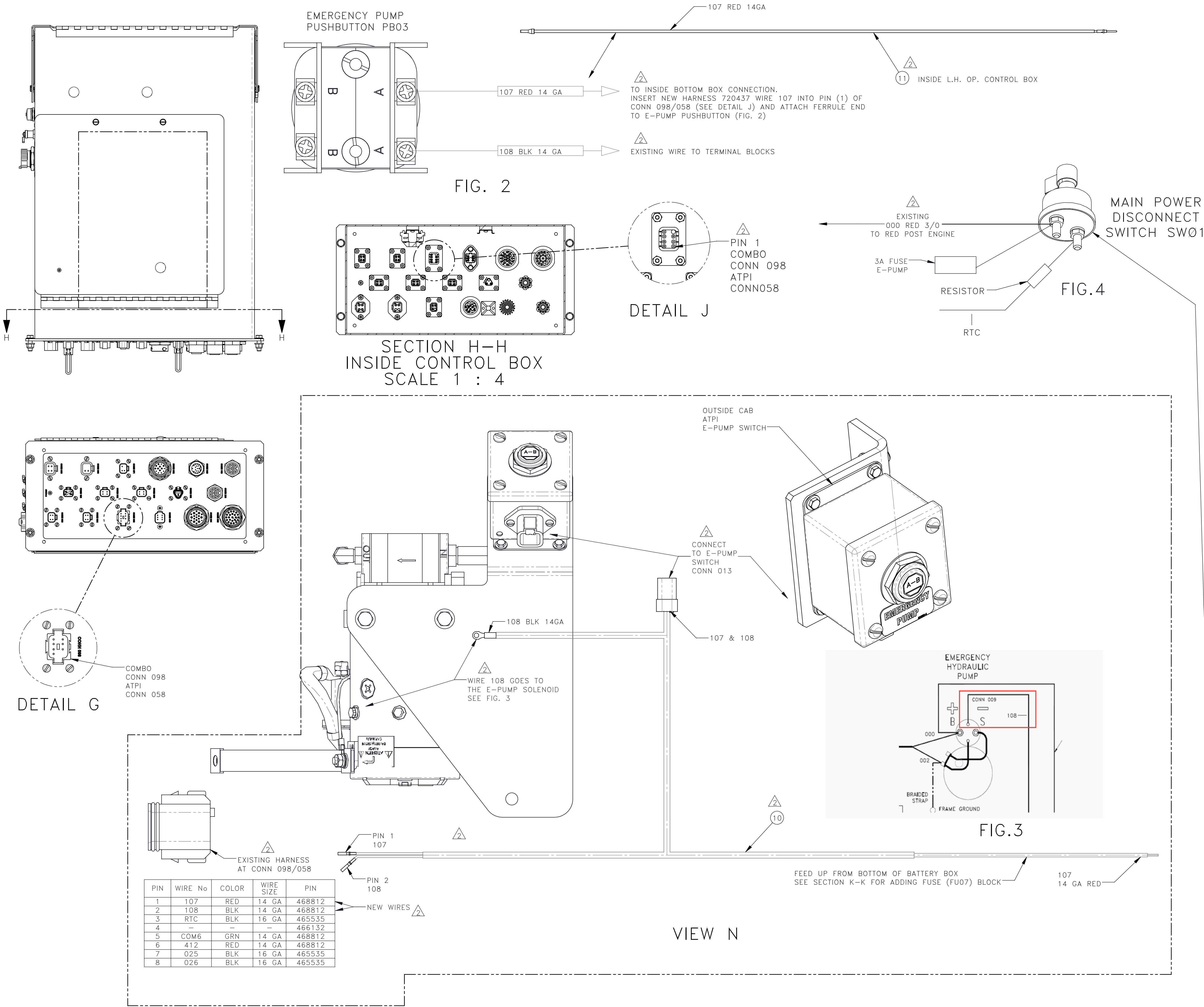
8. BRING IN NEW HARNESS 720437 AND INSERT WIRE 107 WITH PIN PLUG END INTO CONN 058 (OR 098) PIN 1 INSIDE BOTTOM OF LEFT OPERATOR CONTROL BOX (SECT H-H AND DETAIL J).
9. CONNECT THE OTHER END OF HARNESS 720437 WIRE 107 WITH FERRULE END TO THE BACK OF THE E-PUMP PUSHBUTTON (SEE FIG.2).
10. CLOSE LEFT OPERATOR CONTROL BOX DOORS.
11. CONNECT HARNESS 720420 TO THE OUTSIDE E-PUMP SWITCH CONN 013 (SEE VIEW N).
12. ROUTE THE TWO PIN ENDS OF HARNESS 720420 UNDERNEATH THE FRAME TO THE LEFT OPERATOR CONTROL BOX.
13. ADD TO THE EXISTING HARNESS CONN 058 (OR 098) WIRE 107 INTO PIN 1, AND WIRE 108 INTO PIN 2 FROM NEW HARNESS 720420. SECURE WITH ZIP TIES TO THE EXISTING HARNESS.
14. PLUG CONN 058 (OR 098) BACK INTO LEFT OPERATOR CONTROL BOX.
15. ROUTE NEW HARNESS 720420 TO THE BATTERY BOX (VIEW M). FEED WIRE THROUGH THE HOLE. ONCE IN THE BOX, ASSEMBLE THE FUSE HOLDER AS SHOWN, ADD THE SLEEVING OVER BOTH WIRES AT THE FUSE CONNECTOR, AND CONNECT RING TERMINAL (SEE SECT. K-K & FIG 4). ONCE ALL CONNECTED, POSITION AND SECURE FUSE HOLDER FOR ACCESSIBILITY OF REPLACING FUSE.
16. SECURE NEW HARNESS WITH ZIP TIES.
17. REMOVE LOCK OUT-TAG, TURN DISCONNECT TO "ON" AND CLOSE BATTERY BOX. PERFORM A STARTUP TO TEST THE E-PUMP SWITCH AND FUNCTION DISABLE PUSHBUTTON FOR PROPER OPERATION.



NO.	QTY	DESCRIPTION	PART NO.
1	REF	WIRE, ELEC: 14 GA RED X 12.0 IN	323704
2	REF	SLEEVING, EXPANDABLE: .25 ID x 6.00 IN	323706
3	REF	TBG, HEAT SHRINK: .38 ID W/ ADHESIVE x 4.38 IN	323749
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9	REF	COVER, CONNECTOR	473824
10	REF	WIRE HARNESS, E-PUMP SWITCH	720420
11	REF	WIRE HARNESS, E-PUMP SWITCH	720437

NOTES:
SHT 1: REMOVAL
SHT 2: INSTALLATION

REV	EN	DESCRIPTION	DATE	DRN
1	6344	NEW RELEASE	12-22	PR
2	00072	ECR6714. SEE EN FOR DETAILS	3-23	SAG
DIMENSION TOLERANCES UNLESS OTHERWISE SPECIFIED				
LINEAR		.XX=±.03	.XXX=±.010	KERF ALLOW.
ANGULAR		X°=±1°	X.X°=±.5°	
SURFACE FINISH		125/✓	SMOOTH ALL SHARP EDGES	CLEAN ALL WELDS
NOT TO EXCEED				
THIS PRINT AND ALL INFORMATION WITHIN BELONGS TO RACINE RAILROAD PRODUCTS				
RACINE RAILROAD PRODUCTS RACINE, WISCONSIN USA				
DESCRIPTION INSTRUCTIONS, E-PUMP SWITCH HARNESS KIT				
MATERIAL TYPE				
REFERENCE		SCALE	DATE	
USED ON		1:2	12-01-22	
DRN		WEIGHT (LBS)	JOB NO	SHEET
PR		N/A	RD190005	1 OF 2
DWG SIZE		CATALOG	DWG NO	
D		A		800405



REV	EN	DESCRIPTION	DATE	DRN
1	6344	NEW RELEASE	12-22	PR
2	00072	ECR6714. SEE EN FOR DETAILS	3-23	SAG
DIMENSION TOLERANCES UNLESS OTHERWISE SPECIFIED				
LINEAR		.XX=±.03	.XXX=±.010	KERF ALLOW.
ANGULAR		X°=±1°	X.X°=±.5°	
SURFACE FINISH			125/	SMOOTH ALL SHARP EDGES NOT TO EXCEED
THIS PRINT AND ALL INFORMATION WITHIN BELONGS TO RACINE RAILROAD PRODUCTS				
RACINE RAILROAD PRODUCTS				
RACINE, WISCONSIN USA				
DESCRIPTION				
INSTRUCTIONS, E-PUMP SWITCH HARNESS KIT				
MATERIAL TYPE				
REFERENCE				
USED ON	793182	SCALE	DATE	
		1:2	12-01-22	
DRN	WEIGHT (LBS)	JOB NO	SHEET	
PR	N/A	RD190005	2 OF 2	
DWG SIZE	CATALOG	DWG NO		
D	A			