



**2000
ELECTRICAL WIRING
MANUAL**

MVP-EF

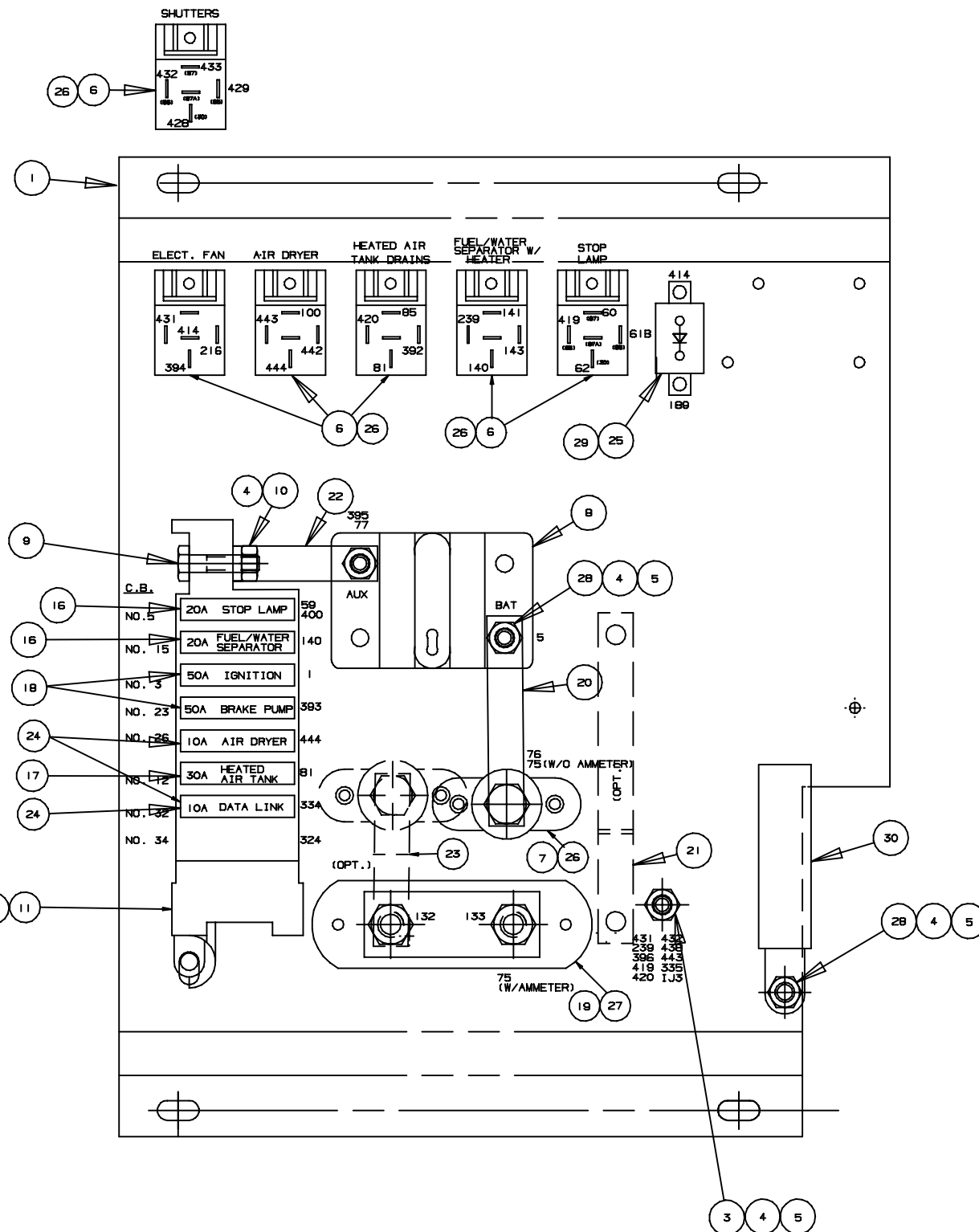
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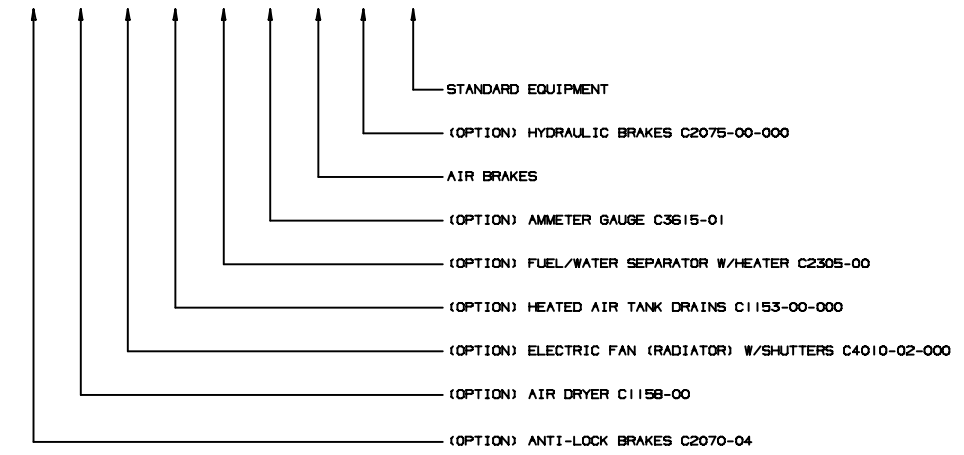


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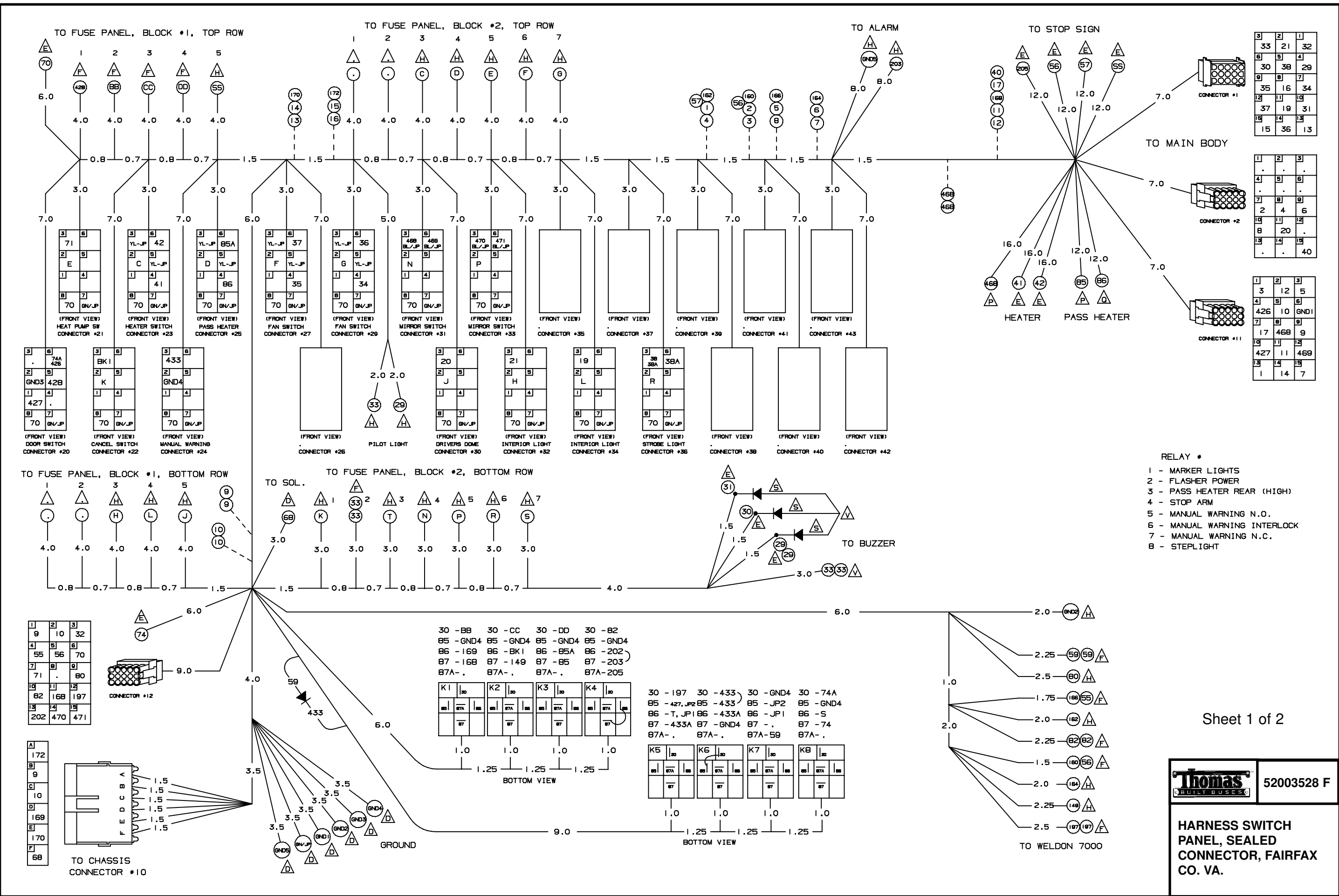
QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	PART NO.	DESCRIPTION	ITEM	
										1	62202419	PANEL, FRONT ELECT., FC CHASSIS	1
										1	61200938	TERMINAL BD. - 4 POSITION	2
										1	61370804	BOLT - HEX HEAD, 1/4-20 X 1 1/4	3
										5	61370348	FLAT WASHER - 1/4	4
										4	61370050	NUT - HEX 1/4-20	5
										2	61200915	RELAY - CONTROL, SEALED	6
										1	61200463	TERMINAL BD. - 1 POSITION	7
										1	61200870	CIRCUIT BREAKER - 150 AMP	8
										1	61370882	BOLT - HEX HEAD (METRIC) M6 - 1.0 X 30	9
										1	61370215	LOCKNUT, ELASTIC - METRIC (M6-1.0)	10
										1	61200855	FUSEBLOCK MODULE - 8 POSITION	11
										1	61200856	COVER - TOP	12
										1	61200857	BASE, MODULE - MOUNTING	13
										2	61200858	LATCH - COVER	14
										1	61200859	COMB - SECONDARY LOCK	15
										1	61200916	CIRCUIT BREAKER - MAXIFUSE, 20 AMP	16
										1	61200917	CIRCUIT BREAKER - MAXIFUSE, 30 AMP	17
										1	61200879	FUSE - MAXIFUSE 50 AMP	18
										1	61200728	SHUNT - AMMETER	19
										-1	62201424	BUSS BAR - POWER STUD TO MAIN C.B. (BAT)	20
										1	62201423	BUSS BAR - AMMETER SHUNT TO MAIN C.B. (BAT.)	21
										1	62201425	BUSS BAR - MAIN C.B. (AUX.) TO FUSEBLOCK MODULE	22
										1	62201427	BUSS BAR - POWER STUD TO AMMETER SHUNT	23
										1	61200946	CIRCUIT BREAKER - MAXIFUSE, 10 AMP	24
										1	61200926	DIODE - ENCLOSED, 5 AMP	25
										6	61370334	SCREW, SELF TAPPING - #10 X 5/8	26
										2	61370337	SCREW, SELF TAPPING - #10 X 1 1/4	27
										3	61370802	BOLT - HEX HEAD, 1/4-20 X 3/4	28
										2	61370335	SCREW, SELF TAPPING - #8 X 5/8	29
										1	61480473	CLAMP, LOOP - CUSHION	30
											62230894	BRACKET, MTG. - DATA LINK PLUG (NOT SHOWN)	31
											61370026	SCREW, MACH. #4-40 X 3/8	32
											61370027	LOCKNUT #4-40	33



Thomas
BUILT TO ORDER

62201724 F

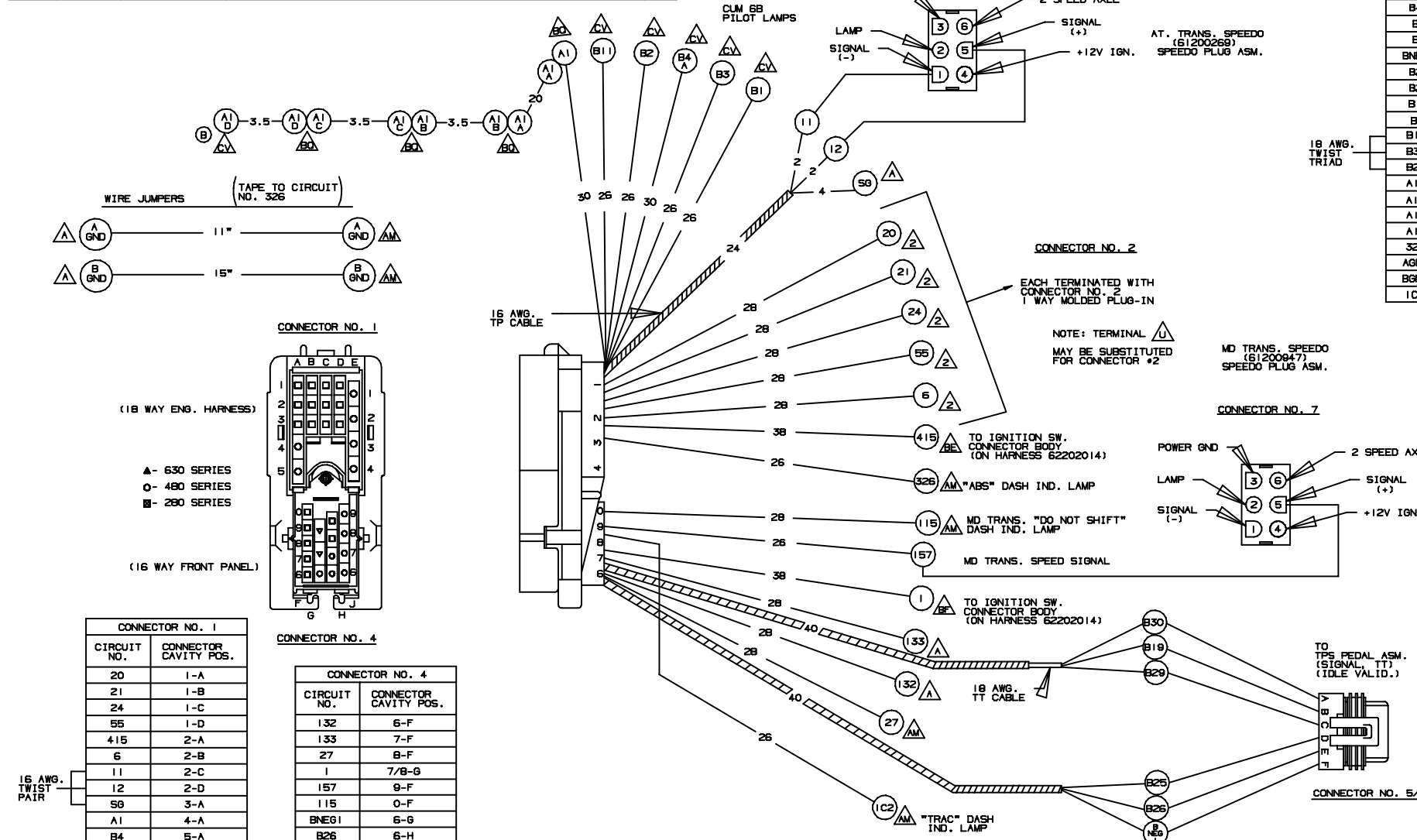
**ELECT. COMPONENT
FRONT ELECT. PANEL
CAT 3126 ENGINE
(CHASSIS)**



CONNECTOR PARTS LIST				
CONN.	VENDOR	PART NO.	DESCRIPTION	QTY.
1	PACKARD	1202012B	CONNECTOR BODY, METRI-PACK, MIXED SERIES, MALE, 18 WAY	1
	PACKARD	1201586B	SECONDARY LOCK (18 WAY)	1
	PACKARD	12020116-L	WIRE TERMINAL, METRI-PACK, 280 SERIES, MALE, 14-16 AWG.	10
	PACKARD	12020119-L	WIRE TERMINAL, METRI-PACK, 480 SERIES, MALE, 18-20 AWG.	6
2	LONDON	M1-2H	1 WAY MOLDED PLUG - IN (6-32 MALE STUD PUSH ON)	5
3	AMP	1-480704-0	CONNECTOR BODY, MALE HOUSING, 6 WAY	1
	AMP	350550-1	SOCKET TERMINAL, 20-14 AWG.	6
4	PACKARD	1201586B	CONNECTOR BODY, METRI-PACK, MIXED SERIES, MALE, 16 WAY	1
	PACKARD	12020116-L	WIRE TERMINAL, METRI-PACK, 280 SERIES, MALE, 14-16 AWG.	5
	PACKARD	12020120-L	WIRE TERMINAL, METRI-PACK, 480 SERIES, MALE, 14-16 AWG.	4
	PACKARD	12020119-L	WIRE TERMINAL, METRI-PACK, 480 SERIES, MALE, 18-20 AWG.	3
	PACKARD	12064736-L	WIRE TERMINAL, METRI-PACK, 630 SERIES, MALE, 10 AWG.	1
5/6	PACKARD	1201586B	SECONDARY LOCK (16 WAY)	1
	PACKARD	12066317	CONNECTOR ASM., METRI-PACK, 150 SERIES, 6 WAY, FEMALE	1
	PACKARD	121038B1-L	WIRE TERMINAL, METRI-PACK, 150 SERIES, FEMALE, 16-18 AWG.	6

CONNECTOR PARTS LIST				
CONN.	VENDOR	PART NO.	DESCRIPTION	QTY.
7	AMP	1-480704-0	CONNECTOR BODY, MALE HOUSING, 6 WAY	1
	AMP	350550-1	SOCKET TERMINAL, 20-14 AWG.	5

CIRCUIT	GA.	COLOR	DESCRIPTION	LENGTH (IN)
1	10	RED	CONNECTOR (16 WAY) POS. 7/B-G TO IGNITION SWITCH (BAT POS.)	38
6	14	BLACK	CONNECTOR (18 WAY) POS. 2-B TO FUEL GAUGE (S TERM.)	28
20	14	DK. GREEN	CONNECTOR (18 WAY) POS. 1-A TO TACHOMETER GAUGE (S TERM.)	28
21	16	GREEN	CONNECTOR (18 WAY) POS. 1-B TO OIL PRESSURE GAUGE (S TERM.)	28
24	16	GREEN	CONNECTOR (18 WAY) POS. 1-C TO WATER TEMP. GAUGE (S TERM.)	28
55	16	GREEN	CONNECTOR (18 WAY) POS. 1-D TO TRANSMISSION TEMP. GAUGE (S TERM.)	28
132	16	DK. BLUE	CONNECTOR (16 WAY) POS. 6-F TO AMMETER GAUGE (+)	28
133	16	DK. BLUE	CONNECTOR (16 WAY) POS. 7-F TO AMMETER GAUGE (-)	28
415	14	RED	CONNECTOR (18 WAY) POS. 2-A TO IGNITION SW. (IGN. RUN) POS.	38
27	16	GRAY/BLACK	CONNECTOR (16 WAY) POS. 8-F TO DASH LOW AIR WARNING INDICATOR LAMP	28
157	16	GREEN	CONNECTOR (16 WAY) POS. 9-F TO SPEEDOMETER (SIGNAL POS.)	26
115	16	WHITE	CONNECTOR (16 WAY) POS. 0-F TO DASH "DO NOT SHIFT" INDICATOR LAMP. (GND)	28
11	16	WHITE	CONNECTOR (18 WAY) POS. 2-C TO SPEEDO PLUG POS. 1 (SIGNAL POS.)	26
12	16	BLACK	CONNECTOR (18 WAY) POS. 2-D TO SPEEDO PLUG POS. 5 (SIGNAL POS.)	26
50	16	SS	CONNECTOR (18 WAY) POS. 3-A TO WATER TEMP. GA. GND (SHIELD GND)	28
A1	18	RED	CONNECTOR (18 WAY) POS. 4-A TO DASH CUM ENG PILOT LMP+12V TO STOP ENG. LAMP	30
B4A	18	WHITE	CONNECTOR (18 WAY) POS.5-A TO DASH "STOP ENGINE" (EPS) LAMP GND	30
B3	18	YELLOW	CONNECTOR (18 WAY) POS.3-E TO DASH "WARNING" LAMP GND	26
B1	18	WHITE	CONNECTOR (18 WAY) POS.4-E TO DASH "STOP" LAMP GND	26
BNEG1	16	WHITE	CONNECTOR (16 WAY) POS. 6-G TO TPS PEDAL (IDLE VALID.) PLUG CONN. 5/6, POS.F	40
B26	16	BROWN	CONNECTOR (16 WAY) POS. 6-H TO TPS PEDAL (IDLE VALID.) PLUG CONN. 5/6, POS.E	40
B25	16	GREEN	CONNECTOR (16 WAY) POS. 6-J TO TPS PEDAL (IDLE VALID.) PLUG CONN. 5/6, POS.D	40
B11	18	YELLOW	CONNECTOR (18 WAY) POS.1-E TO DASH "WAIT TO START" LAMP GND	26
B2	18	WHITE	CONNECTOR (18 WAY) POS.2-E TO DASH "WATER IN FUEL" LAMP GND	26
B19	18	WHITE	CONNECTOR (16 WAY) POS.7-J TO TPS PEDAL (SIG.) PLUG CONN. 5/6, POS.B	40
B30	18	BLACK	CONNECTOR (16 WAY) POS.8-J TO TPS PEDAL (SIG.) PLUG CONN.5/6, POS.A	40
B29	18	RED	CONNECTOR (16 WAY) POS.9-J TO TPS PEDAL (SIG.) PLUG CONN.5/6, POS.C	40
A1A	18	WHITE	CUM ENG. PILOT LAMP+12V COMMON (STOP ENG. LAMP) TO (WARNING LAMP) +12V COMMON	20
A1B	18	WHITE	WARNING LAMP +12V COMMON TO STOP LAMP +12V COMMON	3.5
A1C	18	WHITE	STOP LAMP +12V COMMON TO WAIT TO START LAMP +12V COMMON	3.5
A1D	18	WHITE	WAIT TO START LAMP +12V COMMON TO WATER IN FUEL LAMP +12V COMMON	3.5
326	16	BLACK	CONNECTOR (18 WAY) POS.3-D TO DASH "ABS" IND. LAMP (+12V)	26
AGND	16	WHITE	"ABS" DASH IND. LAMP GND TO WATER TEMP. GA. GND	11
BGND	16	WHITE	"TRAC" DASH IND. LAMP GND TO WATER TEMP. GA. GND	15
IC2	16	BLACK	CONNECTOR (16 WAY) POS.7-H TO "TRAC" DASH IND. LAMP (+12V)	26



CONNECTOR NO. 1	
CIRCUIT NO.	CONNECTOR CAVITY POS.
20	1-A
21	1-B
24	1-C
55	1-D
415	2-A
6	2-B
11	2-C
12	2-D
50	3-A
A1	4-A
B4	5-A
B3	3-E
B1	4-E
B11	1-E
B2	2-E
326	3-D

CONNECTOR NO. 4	
CIRCUIT NO.	CONNECTOR CAVITY POS.
132	6-F
133	7-F
27	8-F
1	7/B-G
157	9-F
115	0-F
BNEG1	6-G
B26	6-H
B25	6-J
B19	7-J
B30	8-J
B29	9-J
IC2	7-H

TWISTED PAIR/TRIAD CABLE SPECIFICATIONS		
TYPE - COMMUNICATION, CONTROL, INSTRUMENTATION CABLE, (1) TWISTED PAIR, 2 CONDUCTOR (STRANDED) W/DRAIN WIRE. 100% SHIELD COVERING. 300V - 600V RATING. 90°C - 90°C TEMP RATING		
AWG.	APPROVED VENDORS OF CABLE	PART NO.
16	BELDEN	8719
	ALPHA	5616B1601
18	BELDEN	88760
	ALPHA	5616B1801
TYPE - COMMUNICATION, CONTROL, INSTRUMENTATION CABLE, (1) TWISTED TRIAD, 3 CONDUCTOR (STRANDED) W/DRAIN WIRE. 100% SHIELD COVERING. 300V - 600V RATING. 90°C - 90°C TEMP RATING		
AWG.	APPROVED VENDORS OF CABLE	PART NO.
18	ALCATEL	697417 VNTC
	ALPHA	5646B1801

ITEM PARTS FOR CONN. NO. 3 & NO. 7			
ITEM	PART NO.	DESCRIPTION	QTY.
1	61200316	FUSEHOLDER, INLINE AUTOMOTIVE	2
2	61200344	7 1/2 AMP FUSE, AUTOMOTIVE	2

- NOTES:
1. CIRCUIT NUMBERS TO BE STAMPED AT 4" INTERVALS ON ALL LEADS, EXCEPT TWISTED PAIR CABLES. USE OF WIRE MARKERS IS ACCEPTABLE FOR CABLING.
 2. TAG HARNESS FOR IDENTIFICATION.
 3. NO CONVOLUTED CONDUIT REQUIRED ON HARNESS.
 4. WIRE CONSTRUCTION, MATERIALS AND PRACTICES TO COMPLY WITH THE FOLLOWING STANDARDS ON DWG. 62201055.
 5. ALL WIRING TO BE GXL TYPE WIRE, EXCEPT TWISTED PAIR, TRIPLE CABLES & WHERE NOTED DIFFERENT.

CV	PART NO.	DESCRIPTION
CV	61201252	FEMALE PUSH-ON, .187 x .032, 18-20 AWG.
BO	61200743	FEMALE PUSH-ON, .187x.032, (2) 16 AWG. OR (2) 18 AWG.
VV	61200534	SOCKET TERMINAL, 20-14 AWG., AMP #350550-1
BF	61200931	WIRE TERM., 56 SERIES, FEMALE, 10 AWG., PACKARD #06288913-L
BE	61200930	WIRE TERM., 56 SERIES, FEMALE, 14-16 AWG., PACKARD #02965142-L
AM	61200704	FEMALE PUSH-ON, .187 x .032, 16-14 AWG.
U	61200180	RING TERMINAL, #8 STUD, 14 AWG.
J	61200168	BUTT SPLICE, INSULATED, 14-16 AWG.
A	61200174	RING TERMINAL, #10 STUD, 14 AWG.
△	TERMINAL	PART NO. DESCRIPTION

ROAD TEST
98 CUM 6B



**HARNESS, DASH 34-WAY
CONNECTOR FRONT
PANEL/ENGINE**

CONNECTOR PARTS LIST

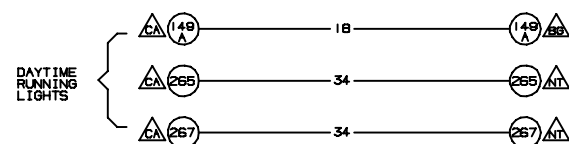
CONN.	VENDOR	PART NO.	DESCRIPTION	QTY.
	PACKARD	12015509	CONNECTOR BODY, METRI-PACK, MIXED SERIES, MALE, 25 WAY	1
	PACKARD	12015510	SECONDARY LOCK, 25 WAY	1
1	PACKARD	12020116-L	WIRE TERMINAL, METRI-PACK, 280 SERIES, MALE, 14-16 AWG.	13
	PACKARD	12020120-L	WIRE TERMINAL, METRI-PACK, 480 SERIES, MALE, 14-16 AWG.	7
	PACKARD	02977420	CONNECTOR BODY, 56 SERIES, MALE, 6 WAY	1
2	PACKARD	02971962-L	WIRE TERMINAL, 56 SERIES, MALE BLADE, 14-16 AWG.	3
	PACKARD	12015978-L	WIRE TERMINAL, 56 SERIES, MALE BLADE, 10-12 AWG.	2
	PACKARD	06294544	CONNECTOR BODY, 56 SERIES, MALE, 4 WAY	1
3	PACKARD	02971962-L	WIRE TERMINAL, 56 SERIES, MALE BLADE, 14-16 AWG.	2
	PACKARD	12015978-L	WIRE TERMINAL, 56 SERIES, MALE BLADE, 10-12 AWG.	1
	PACKARD	02977645	CONNECTOR BODY, 56 SERIES, FEMALE, 8 WAY	1
4	PACKARD	02965142-L	WIRE TERMINAL, 56 SERIES, FEMALE, 14-16 AWG.	2
	PACKARD	02965467-L	WIRE TERMINAL, 56 SERIES, FEMALE, (2) 14-16 AWG.	1
	PACKARD	06298913-L	WIRE TERMINAL, 56 SERIES, FEMALE, 10 AWG.	2
	PACKARD	02984017	CONNECTOR BODY, 56 SERIES, FEMALE, 6 WAY	1
5	PACKARD	02965142-L	WIRE TERMINAL, 56 SERIES, FEMALE, 14-16 AWG.	4
	PACKARD	06298913-L	WIRE TERMINAL, 56 SERIES, FEMALE, 10 AWG.	1
	PACKARD	12064847	CONNECTOR ASM., METRI-PACK, MIXED SERIES, FEMALE, 26 WAY	1
	PACKARD	12064845	SECONDARY LOCK	1
6	PACKARD	12047767	WIRE TERMINAL, METRI-PACK, 150 SERIES, FEMALE, 16-18 AWG.	17
	PACKARD	12034046	WIRE TERMINAL, METRI-PACK, 280 SERIES, FEMALE, 18-20 AWG.	1
	PACKARD	02977044	CONNECTOR BODY, 56 SERIES, FEMALE, 6 WAY	1
7	PACKARD	12033924	WIRE TERMINAL, 56 SERIES, FEMALE, 14-16 AWG.	3
	PACKARD	12020629	CONNECTOR BODY, METRI-PACK, MIXED SERIES, MALE, 17 WAY	1
	PACKARD	12020116-L	WIRE TERMINAL, METRI-PACK, 280 SERIES, MALE, 14-16 AWG.	9
	PACKARD	12020120-L	WIRE TERMINAL, METRI-PACK, 480 SERIES, MALE, 14-16 AWG.	3
	PACKARD	12065493-L	WIRE TERMINAL, METRI-PACK, 630 SERIES, MALE, 10 AWG.	2
	PACKARD	12015511	SECONDARY LOCK, 17 WAY	1
8A & 9B	DEUTSCH	0462-208-16141	WIRE TERMINAL, SOCKET, DT SERIES, 14-16 AWG.	1

CIRCUIT	GA.	COLOR	DESCRIPTION	LENGTH (IN)
2	14	VIOLET/WHITE	CONNECTOR POS. 1-A TO IGNITION SWITCH CONNECTOR POS. (IGN.)	37
3	14	RED	CONNECTOR POS. 1-B TO CONNECTOR NO. 7 TO OIL PRESS. GAUGE ("I" TERM.) +12V INPUT	24
4B	14	VIOLET/WHITE	CONNECTOR POS. 1-D TO IGNITION SWITCH CONNECTOR POS. (START)	37
16	14	WHITE	CONNECTOR POS. 1-E TO CONNECTOR NO. 7 TO OIL PRESS. GAUGE ("GND" TERM.) COMMON GND. INPUT	24
34	14	BROWN/WHITE	CONNECTOR POS. 1-H TO HEADLIGHT SWITCH CONNECTOR POS. (4, TAIL LIGHTS) OUTPUT	40
35	14	LT. BLUE	CONNECTOR POS. 1-J TO HEADLIGHT SWITCH CONNECTOR POS. (2, INSTRUMENT LAMPS) OUTPUT	40
94	16	DK. GREEN	CONNECTOR POS. 2-A TO CONNECTOR NO. 6, POS. 1/2-D	24
95	16	DK. GREEN	CONNECTOR POS. 2-B TO CONNECTOR NO. 6, POS 5/6-D	24
115	14	PINK	CONNECTOR POS. 2-D TO IGNITION SWITCH CONNECTOR POS. (ACC.)	37
139	16	PINK	CONNECTOR POS. 2-F TO CONNECTOR NO. 6, POS. 5/6-C TO STD. "STOP ENG" DASH IND. WARNING LAMP	24
146	16	RED	CONNECTOR POS. 2-H TO CONNECTOR NO. 6, POS. 3-A TO "LOW WATER" DASH IND. WARNING LAMP	24
147	16	DK. GREEN	CONNECTOR POS. 2-J TO CONNECTOR NO. 6, POS. 4-A TO "LOW WATER" DASH IND. WARNING LAMP	24
390	14	LT. BLUE	CONNECTOR POS. 3-A TO HEADLIGHT SWITCH CONNECTOR POS. (5, BAT. +12V INPUT) TAIL/MARKER LGTS.	40
46	14	YELLOW	CONNECTOR POS. 3-B TO STEERING COLUMN 4-WAY CONNECTOR PLUG (HAZARD FLASHER INPUT +12V)	21
45	14	PINK	CONNECTOR POS. 3-H TO STEERING COLUMN HORN BUTTON WIRE DROP-OUT	23
152	14	YELLOW/BLACK	CONNECTOR POS. 4-B TO STEERING COLUMN 4-WAY CONNECTOR PLUG (HI-BEAM RELAY COIL OUTPUT) W/*39	21
42	14	ORANGE	CONNECTOR POS. 4-H TO STEERING COLUMN 6-WAY CONNECTOR PLUG (LEFT TURN SIGNAL OUTPUT)	21
156	14	ORANGE	CONNECTOR POS. 4-J TO STEERING COLUMN 6-WAY CONNECTOR PLUG (LEFT TURN SIGNAL OUTPUT)	21
43	14	ORANGE/BLACK	CONNECTOR POS. 5-A TO STEERING COLUMN 6-WAY CONNECTOR PLUG (RIGHT TURN SIGNAL OUTPUT)	21
155	14	ORANGE/BLACK	CONNECTOR POS. 5-B TO STEERING COLUMN 6-WAY CONNECTOR PLUG (RIGHT TURN SIGNAL OUTPUT)	21
44	14	ORANGE/WHITE	CONNECTOR POS. 5-H TO STEERING COLUMN 6-WAY CONNECTOR PLUG (TURN SIGNAL FLASHER INPUT +12V)	21
67	14	RED/BLACK	CONNECTOR POS. 5-J TO TRANSMISSION SHIFT CONTROL REVERSE SWITCH (INPUT, +12V)	33
68	14	BLACK	CONNECTOR POS. 6-A TO TRANSMISSION SHIFT CONTROL REVERSE SWITCH (OUTPUT)	33
31	10	RED/BLACK	CONNECTOR POS. 3-C TO HEADLIGHT SWITCH CONNECTOR POS. (1, BAT. +12V INPUT) HEADLIGHTS	40
32	10	RED/BLACK	CONNECTOR POS. 3-G TO HEADLIGHT SWITCH CONNECTOR POS. (6, HEADLIGHTS OUTPUT)	40
36	16	LT. BLUE	CONNECTOR NO. 4 (W/*35) TO CONNECTOR NO. 7 TO OIL PRESS. GAUGE ("LAMP" TERM.) COMMON LAMP INPUT	48
39	16	PINK	CONNECTOR NO. 3 (W/*152) TO CONNECTOR NO. 6, POS. 5/6-E TO HI-BEAM DASH IND. LAMP	29
40	16	PINK	CONNECTOR NO. 2 (W/*42) TO CONNECTOR NO. 6, POS. 1-A TO LEFT TURN DASH IND. LAMP	29
41	16	PINK	CONNECTOR NO. 2 (W/*43) TO CONNECTOR NO. 6, POS. 1/2-E TO RIGHT TURN DASH IND. LAMP	29
149	14	YELLOW	CONNECTOR NO. 3 TO CONNECTOR NO. 4 (W/*32)	42
398	16	WHITE	CONNECTOR NO. 1 (POS. 6-B) TO CONNECTOR NO. 6, POS. 2-G TO "BRAKE PRESS" DASH IND. WARNING LAMP	24
413	16	LT. BLUE	CONNECTOR NO. 1 (POS. 6-J) TO CONNECTOR NO. 6, POS. 1-G TO "PARK" BRAKE DASH IND. WARNING LAMP	24
417	16	WHITE	CONNECTOR NO. 1 (POS. 6-H) TO CONNECTOR NO. 6, POS. 2-A TO LOW "BRAKE FLUID" DASH IND. WARNING LAMP	24
149A	14	YELLOW/WHITE	CONNECTOR NO. 1 (POS. 1-F) TO STEERING COLUMN 4-WAY PLUG	18
265	16	BROWN	CONNECTOR NO. 1 (POS. 3-J) TO HEADLIGHT SW. CONNECTOR PLUG (W/*34) (4, TAILLIGHTS)	6, 34
267	16	YELLOW	CONNECTOR NO. 1 (POS. 4-A) TO HEADLIGHT SW. CONNECTOR PLUG (W/*32, *149) (6, HEADLIGHTS)	9, 34
27	16	BLACK	CONNECTOR NO. 6 (POS. 3-G) TO NO. 27 DROP-OUT (HARNESS 6220197B)	8
115	16	WHITE	CONNECTOR NO. 6 (POS. 4-G) PLUG-IN REF. FOR NO. 115 (HARNESS 62202942)	8
9939	16	BROWN	CONNECTOR NO. 8 (POS. A-2) TO TRANSMISSION SHIFTER NEUTRAL SW. (INPUT)	33
409	16	ORANGE	CONNECTOR NO. 8 (POS. B-2) TO TRANSMISSION SHIFTER NEUTRAL SW. (OUTPUT)	33
998	16	BLUE	CONNECTOR NO. 6 (POS. 6-G) TO "CHECK ENG" IND. LAMP (+12V)	24
799	16	GREEN	CONNECTOR NO. 6 (POS. 1/2-F) TO "CHECK ENG" IND. LAMP (GND)	24
250	16	BLACK	CONNECTOR NO. 6 (POS. 6-A) TO "MAN HTR" IND. LAMP (GND)	8
251	16	WHITE	CONNECTOR NO. 6 (POS. 1/2-C) TO "MAN HTR" IND. LAMP (+12V)	8
326	16	BLACK	CONNECTOR NO. 6 (POS. 5-A) TO ABS IND. LAMP (+12V)	8
37	14	LT. BLUE	CONNECTOR NO. 8 (POS.F-2) TO HEADLIGHT SW. CONNECTOR 4 POS.(2, INSTRUMENT LAMPS) OUTPUT	40

REF. ONLY →

NOTE: LOAD WIRE JUMPERS INTO CONNECTOR NO. 1 CAVITY POSITIONS AS NOTED IN CHART.

WIRE JUMPERS (FOR OPTIONS)



PRODUCTION

SHEET 2 OF 2

CA	61200894	METRI-PACK, 480 SERIES, MALE 14-16 AWG. *12020120-L
S-AR	61201342	MALE BLADE TAB, 1/4", FULLY INSUL., 14-16 AWG.
S-J	61201316	BUTT SPLICE, 14 AWG.
NT		NO TERMINAL REQ'D
BB	61200933	56 SERIES, MALE BLADE, 14-16 AWG., *02971962-L
BA	61200893	METRI-PACK, 280 SERIES, MALE, 14-16 AWG., *12020116-L
S-AM	61201339	FEMALE PUSH-ON, .187 x .032, 16-14 AWG.
S-A	61201312	RING TERMINAL, *10 STUD, 14 AWG.
△	TERMINAL	PART NUM.
		DESCRIPTION

62202936 E

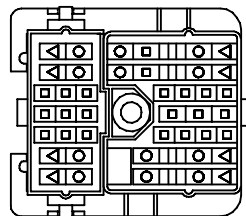
HARNESS, DASH TO ELECT. PANEL, INSTRUMENT GAUGE CLUSTER

CONNECTOR PARTS LIST

CONN.	VENDOR	PART NO.	DESCRIPTION	QTY.
1	PACKARD	12015509	CONNECTOR BODY, METRI-PACK, MIXED SERIES, MALE, 25 WAY	1
	PACKARD	12015510	SECONDARY LOCK, 25 WAY	1
	PACKARD	12020116-L	WIRE TERMINAL, METRI-PACK, 290 SERIES, MALE, 14-16 AWG.	10
	PACKARD	12020120-L	WIRE TERMINAL, METRI-PACK, 480 SERIES, MALE, 14-16 AWG.	7
2	PACKARD	02977420	CONNECTOR BODY, 56 SERIES, MALE, 6 WAY	1
	PACKARD	02971962-L	WIRE TERMINAL, 56 SERIES, MALE BLADE, 14-16 AWG.	3
	PACKARD	12015878-L	WIRE TERMINAL, 56 SERIES, MALE BLADE, 10-12 AWG.	2
3	PACKARD	06294544	CONNECTOR BODY, 56 SERIES, MALE, 4 WAY	1
	PACKARD	02971962-L	WIRE TERMINAL, 56 SERIES, MALE BLADE, 14-16 AWG.	2
	PACKARD	12015878-L	WIRE TERMINAL, 56 SERIES, MALE BLADE, 10-12 AWG.	1
4	PACKARD	02977645	CONNECTOR BODY, 56 SERIES, FEMALE, 8 WAY	1
	PACKARD	02965142-L	WIRE TERMINAL, 56 SERIES, FEMALE, 14-16 AWG.	3
	PACKARD	02965467-L	WIRE TERMINAL, 56 SERIES, FEMALE, (2) 14-16 AWG.	1
	PACKARD	06298913-L	WIRE TERMINAL, 56 SERIES, FEMALE, 10 AWG.	2
5	PACKARD	02984017	CONNECTOR BODY, 56 SERIES, FEMALE, 6 WAY	1
	PACKARD	02965142-L	WIRE TERMINAL, 56 SERIES, FEMALE, 14-16 AWG.	4
	PACKARD	06298913-L	WIRE TERMINAL, 56 SERIES, FEMALE, 10 AWG.	1
6	LONDON	M2-36 (2 WAY)	2-WAY MOLDED PLUG-IN (INSTRUMENT GAUGE 2 3/8)	2
	PACKARD	12020629	CONNECTOR BODY, METRI-PACK, MIXED SERIES, MALE, 17 WAY	1
	PACKARD	12020116-L	WIRE TERMINAL, METRI-PACK, 290 SERIES, MALE, 14-16 AWG.	7
	PACKARD	12020120-L	WIRE TERMINAL, METRI-PACK, 480 SERIES, MALE, 14-16 AWG.	3
	PACKARD	12066493-L	WIRE TERMINAL, METRI-PACK, 630 SERIES, MALE, 10 AWG.	2
	PACKARD	12015511	SECONDARY LOCK, 17 WAY	1

△ - 630 SERIES
○ - 480 SERIES
□ - 290 SERIES

CONNECTOR NO. 1
#12015509
(25 WAY MALE)

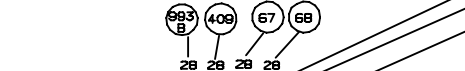


CONNECTOR NO. 7
#12020629
(17 WAY MALE)

CONNECTOR NO. 1		CONNECTOR NO. 1	
CIRCUIT NO.	CAVITY POS.	CIRCUIT NO.	CAVITY POS.
390	D-4	149A	G-8
46	E-4	265	F-5
45	C-5	267	G-5
152	D-5		
42	E-5		
156	C-6	398	A-7
43	D-6	417	B-7
155	E-6	413	B-5
44	C-7		
67	E-7		
68	F-8		
138	F-7		

NOTE:
OPT. FROM DAYTIME RUNNING LGT. HARNESS 62201613 SHOWN FOR PLUG-IN REF ONLY
OPT. FROM HYDRAULIC BRAKE HARNESS 62202073 SHOWN FOR PLUG-IN REF ONLY

TO TRANS. SHIFTER NEUTRAL SW.
TO TRANS. SHIFTER REVERSE SW.



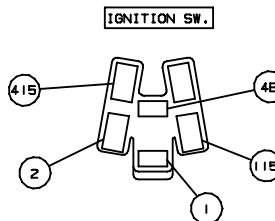
HORN DROP-OUT

LEFT TURN SIGNAL DASH IND. LAMP

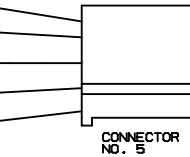
STEERING COLUMN 6 WAY/4 WAY HARNESS PLUG - INS

NOTE: CONNECTOR BODIES SHOWN FROM FRONT (MATING FACE) END

NOTE: SHOWN AS REF. ONLY FROM HARNESS 62201982 SHOWN FOR PLUG-IN MATING INFO UPON HARNESS INSTALL.



NOTE: CONNECTOR BODY SHOWN FROM FRONT (MATING FACE) END



NOTE: SHOWN AS REF. ONLY FROM HARNESS 62201982 SHOWN FOR PLUG-IN MATING INFO UPON HARNESS INSTALL.

CONNECTOR NO. 7	
CIRCUIT NO.	CAVITY POS.
2	C-1
3	D-1
4B	E-1
16	C-2
34	D-2
35	E-2
115	E-3
31	B-1
32	F-1
993B	A-2
409	B-2
37	F-2

- NOTES:
1. CIRCUIT NUMBERS TO BE STAMPED AT 4" INTERVALS ON ALL LEADS.
 2. TAG HARNESS FOR IDENTIFICATION.
 3. NO CONVOLUTED CONDUIT REQUIRED ON HARNESS.
 4. WIRE CONSTRUCTION, MATERIALS AND PRACTICES TO COMPLY WITH THE FOLLOWING STANDARDS ON DWG. 62201055.
 5. ALL WIRING TO BE GXL TYPE WIRE.

SHEET 1 OF 2

Thomas
BULB & BUSS
62202014 E

ROAD TEST

HARNESS, DASH TO SIDE ELECT. PANEL 42-WAY MALE CONNECTOR, 98

CIRC #	AWG	COLOR	CIRCUIT DESCRIPTION
1	10	VIOLET	IGNITION SW. (BAT) TO REAR ING. TOGGLE SWITCH
2	10	VIOLET/WHITE	IGNITION SW (IGN) TO IGN. POWER RELAY (IGN)
3	16	RED	CIRCUIT BREAKER #8 TO FUEL GAGE (I)
4	14	VIOLET/WHITE	IGNITION SWITCH (ST) TO NEUTRAL SWITCH
5	2	RED	CIRCUIT BREAKER #1 (LOAD) TO HOT BUSS BAR
6	16	LT. GREEN/BLACK	FUEL GAGE (S) TO FUEL SENDER
7	16	RED/WHITE	FUEL GAGE (I) TO SPEEDOMETER (+)
8	16	RED/WHITE	SPEEDOMETER (+) TO VOLT/METER (I)
9	14	RED	SPARE LEAD (DASH PANEL TO ENGINE)
10	16	WHITE/BLACK	SPEEDOMETER (-) TO VOLT/METER GROUND
11	16	WHITE	SPEEDOMETER (-) TO LEFT FRONT WHEEL (GND)
12	16	LT. GREEN	SPEEDOMETER (TACH. INPUT) TO LEFT FRONT WHEEL (SPEED)
13	16	RED/BLACK	VOLTMETER (I) TO WARNING BUZZER
14	16	RED/BLACK	VOLTMETER (I) TO OIL PRESSURE GAGE (I)
15	16	WHITE/BLACK	VOLTMETER GROUND TO GROUND LUG ON DASH
16	10	WHITE	GROUND LUG ON DASH TO GROUND ON FRAME
17	16	WHITE/BLACK	LOW AIR SWITCHES (GROUND) TO GROUND LUG ON DASH
18	16	WHITE	GROUND LUG ON DASH TO TACHOMETER (-)
19	14	YELLOW	SPARE LEAD (DASH PANEL TO ENGINE)
20	16	LT. GREEN/WHITE	TACHOMETER (+) TO ALTERNATOR
21	16	LT. GREEN/BLACK	OIL PRESSURE GAGE (S.) TO OIL PRESSURE SENDER
22	16	RED/WHITE	OIL PRESSURE GAGE (I) TO WATER TEMP. GAGE (I)
23	16	RED/WHITE	OIL PRESSURE GAGE (I) TO WARNING LIGHT (POWER)
24	16	LT. GREEN	WATER TEMP. GAGE (I) TO WATER TEMP. SENDER
25	16	RED/BLACK	WATER TEMP. GAGE (I) TO EXHAUST BRAKE DASH SW.
26	16	GRAY	LOW AIR SWITCHES TO WARNING BUZZER
27	16	GRAY/BLACK	LOW AIR SWITCHES TO WARNING LIGHT
28	16	GRAY/WHITE	LOW AIR SWITCH TO LOW AIR SWITCH (GROUND JUMPER)
29	16	GRAY	LOW AIR SWITCH TO LOW AIR SWITCH (HOT JUMPER)
30	16	PINK	WARNING LIGHT TO LOW OIL PRESSURE SWITCH
31	10	RED/BLACK	CIRCUIT BREAKER #4 TO HEADLIGHT SWITCH (BAT.)
32	14	YELLOW/BLACK	HEADLIGHT SWITCH (H) TO TURN SIGNAL SWITCH
33	14	BROWN	HEADLIGHT SWITCH (P) TO PK. LT. SERVICE TERM.
34	14	BROWN/WHITE	HEADLIGHT SWITCH (T) TO TAIL LIGHT SERVICE TERM.
35	14	LT. BLUE	HEADLIGHT SWITCH (D) TO DASH LIGHT SERVICE TERM.
36	16	LT. BLUE/WHITE	HEADLIGHT SWITCH (D) TO DASH LIGHT JUNCTION #1
37	16	LT. BLUE/BLACK	DASH LIGHT JUNCTION #1 TO DASH LIGHT JUNCTION #2
38	14	DK. BLUE	EXHAUST BRAKE DASH SW. TO MICROSWITCH OR JAKE BRAKE DASH SW TO THROTTLE MICROSWITCH
39	16	PINK/BLACK	HI-BEAM INDICATOR LIGHT TO DIMMER SWITCH
40	16	PINK	LEFT TURN INDICATOR LIGHT TO TURN SIGNAL SWITCH
41	16	PINK/WHITE	RIGHT TURN INDICATOR LIGHT TO TURN SIGNAL SWITCH
42	14	ORANGE	TURN SIGNAL SW. TO LEFT SIGNAL SERVICE TERM.
43	14	ORANGE/BLACK	TURN SIGNAL SW. TO RIGHT SIGNAL SERVICE TERM.
44	14	ORANGE/WHITE	TURN SIGNAL SW. TO TURN SIGNAL FLASHER
45	14	PINK/WHITE	HORN BUTTON LEAD TO HORN RELAYS (S)
46	14	YELLOW	HAZARD LIGHT SW. (YELLOW) TO HAZARD LT. FLASHER
47	16	RED/WHITE	WATER TEMP. GAGE (I) TO TRANSMISSION TEMP. GAGE (I)
48	14	RED/BLACK	CIRCUIT BREAKER #7 TO HORN RELAY (CENTER LUG)
49	14	PINK/WHITE	HORN RELAY (H) TO RIGHT HORN
50	14	PINK/BLACK	HORN RELAY (H) TO LEFT HORN
51	14	YELLOW/WHITE	HEADLIGHT RELAY TO HI-BEAM
52	14	YELLOW/BLACK	HEADLIGHT RELAY TO LO-BEAM
53	14	RED/BLACK	CIRCUIT BREAKER #9 TO TURN SIGNAL FLASHER
54	14	RED/BLACK	CIRCUIT BREAKER #6 TO HAZARD LIGHT FLASHER
55	16	LT. GREEN	TRANSMISSION TEMP. GAGE (S) TO TRANSMISSION TEMP. SENDER
56	14	BLACK JUMPER	DIODE 62200781 TO HEADLIGHT RELAY NO. 30 (OPTIONAL)
57	14	RED	CIRCUIT BREAKER #14 TO "BATT." LIGHT RELAY
58	14	YELLOW	
59	14	RED/BLACK	CIRCUIT BREAKER #5 TO FRONT STOPLIGHT SW. (POWER)
60	14	ORANGE/WHITE	FRONT STOPLIGHT SWITCH TO STOPLIGHT SERVICE TERMINAL
61	14	ORANGE	FRONT STOPLIGHT SW. TO REAR STOPLIGHT SW. (HOT JUMPER)
62	14	ORANGE/BLACK	FRONT STOPLIGHT SW. TO REAR STOPLIGHT SW. (SERVICE JUMPER)
63	16	LT. BLUE	DASH LIGHT SERVICE TERMINAL TO SHIFT TOWER LIGHT
64	16	WHITE/BLACK	REVERSE PILOT LIGHT TO GROUND ON FRAME
65	14	VIOLET/WHITE	REAR START BUTTON TO NEUTRAL SWITCH
66	14	VIOLET	NEUTRAL SW. TO REAR DOOR STARTER INTERLOCK SW.
67	14	RED/BLACK	CIRCUIT BREAKER #9 TO REVERSE SWITCH
68	14	BLACK	REVERSE SWITCH TO BACK UP LIGHT SERVICE TERMINAL
69	10	RED	IGN. POWER RELAY (LOAD) TO CIRC. BREAKER #2 (BAT)
70	4	RED/WHITE	IGN. POWER RELAY (BAT) TO HOT BUSS BAR
71	4	RED/BLACK	IGN. POWER RELAY (LOAD) TO COLD BUSS BAR
72	14	VIOLET/WHITE	FUEL RELAY (B7) TO FUEL SOLENOID
73	16	RED	ENGINE COMPARTMENT LT. SW. TO ENGINE COMP. LIGHTS
74	16	PINK/WHITE	HIGH WATER TEMP. SW. TO LOW OIL PRESSURE SWITCH
75	4	RED	ALTERNATOR OUTPUT TO CIRC. BREAKER #1 (BAT)
76	2	RED/WHITE	STARTER SOLENOID (BAT.) TO CIRCUIT BREAKER #1 (BAT.)
77	10	RED/WHITE	CIRCUIT BREAKER #1 (LOAD) TO STARTER RELAY (BAT)
78	10	RED/BLACK	STARTER RELAY (LOAD) TO STARTER SOLENOID SWITCH
79	14	DK. BLUE/WHITE	CIRCUIT BREAKER #2 TO "IGN" ON BLOWER DRIVEN ALTERNATOR
81	10	GRAY/BLACK	HEATED DRAIN TANK HOT JUMPER
82	14	RED/WHITE	CIRCUIT BREAKER #2 (LOAD) TO REAR START BUTTON
83	10	RED/WHITE	CIRC. BREAKER #1 (LOAD) TO CIRCUIT BREAKER #3 (BAT.)
84	10	RED/BLACK	CIRC. BREAKER #3 (LOAD) TO REAR IGN. TOGGLE SWITCH
85	10	GRAY	CIRC. BREAKER #12 (LOAD) TO HEATED AIR TANK DRAIN
86	2	RED/BLACK	MASTER SWITCH TO CIRCUIT BREAKER #1
87	16	DK. BLUE/WHITE	NEUTRAL SWITCH TO FAST IDLE DASH SWITCH
88	16	DK. BLUE/WHITE	FAST IDLE DASH SWITCH TO FAST IDLE SOLENOID
89	14	RED/BLACK	CIRCUIT BREAKER #2 (LOAD) TO KYSOR ALARMSTAT (c)
90	14	DK. GREEN/WHITE	KYSOR PRESSURESTAT (c) TO KYSOR ALARMSTAT (NC)
91	14	DK. GREEN	KYSOR PRESSURESTAT (NO) TO KYSOR MODULE (S)
92	14	DK. GREEN/WHITE	KYSOR PRESSURESTAT (NC) TO KYSOR ALARMSTAT (NO)
93	14	DK. GREEN/WHITE	KYSOR ALARMSTAT (NO) TO KYSOR BELL (POWER)
94	14	DK. GREEN	KYSOR BELL (POWER) TO KYSOR LIGHT (POWER)
95	14	DK. GREEN	KYSOR LIGHT (GROUND) TO KYSOR BELL (GROUND)
96	14	DK. GREEN/BLACK	KYSOR BELL (GROUND) TO KYSOR MODULE (4)
97	14	DK. GREEN/BLACK	KYSOR MODULE (4) TO GROUND IN FRONT PANEL
98	14	DK. GREEN/WHITE	KYSOR MODULE (2) TO FRONT PANEL (CIRC. #4)

CIRC #	AWG	COLOR	CIRCUIT DESCRIPTION
99	14	RED	CIRC. BREAKER #10 TO KYSOR MODULE FUSE
100	14	GRAY	CIRC. BREAKER #13 (LOAD) TO AIR DRYER
101	14	DK. BLUE	EXHAUST BRAKE MICROSWITCH TO BRAKE SOLENOID
103	14	DK. BLUE/BLACK	CIRCUIT BREAKER #11 TO ETHER START SWITCH
104	14	DK. BLUE/WHITE	ETHER START SWITCH TO ETHER VALVE SOLENOID
105	14	DK. BLUE/WHITE	ETHER VALVE SOLENOID TO OVERRIDE THERMOSTAT
106	14	WHITE/BLACK	OVERRIDE THERMOSTAT TO GROUND ON ALTERNATOR (NEG)
107	14	BLACK/WHITE	REVERSE SWITCH TO BACK-UP ALARM (+)
108	14	WHITE/BLACK	BACK ALARM (-) TO GROUND
109	16	RED	CIRC. BREAKER #2 TO REAR PANEL GAUGES (HOT)
110	14	LT. GREEN/BLACK	ENG. COMP. OIL PRESSURE GAGE TO ADDED SENDER
111	10	RED/WHITE	CIRC. BREAKER #2 TO CIRC. BREAKER #13 (HOT JUMPER)
112	14	VIOLET/WHITE	REAR DOOR STARTER INTERLOCK SW. TO STARTER RELAY
113	16	WHITE/BLACK	FAST IDLE INDICATOR LIGHT TO GND. AT BUZZER
115	14	PINK/WHITE	IGN. SWITCH (ACCC) TO SERVICE TERM. #10
116	14	LT. GREEN/WHITE	CIRC. BREAKER #3 TO ENG. COMP. LIGHT SW.
117	16	WHITE/BLACK	FAST IDLE SOLENOID TO GROUND ON DASH
118	14	DK. GREEN	CIRC. BREAKER #11 TO KYSOR COOLANT LEVEL MODULE (I)
119	14	WHITE	GROUND IN FRONT PANEL TO COOLANT MODULE (4)
120	14	DK. GREEN/WHITE	COOLANT PROBE TO COOLANT MODULE (2)
121	14	VIOLET/WHITE	STARTER RELAY (LOAD) TO FUEL START SOLENOID (CATERPILLAR TURBO ONLY)
122	14	DK. BLUE	JAKE BRAKE DASH SW. (#1) TO LEFT CYLINDER BANK
123	14	DK. BLUE/WHITE	JAKE BRAKE DASH SW. (#2) TO RIGHT CYLINDER BANK
124	14	DK. BLUE	CIRC. BREAKER #13 TO JAKE BRAKE TRANS. PRESSURE SW.
125	14	DK. BLUE/BLACK	JAKE BRAKE TRAN. SW. TO THROTTLE MICROSWITCH
126	10	VIOLET/WHITE	MASTER CONTROL SWITCH (1) TO IGN. SW. (B)
127	14	BROWN/WHITE	MASTER CONTROL SWITCH (2) TO PARK & TAIL LIGHT RELAY (COIL)
128	14	YELLOW/BLACK	MASTER CONTROL SWITCH (3) TO HEADLIGHT RELAY (COIL)
129	10	YELLOW	HEADLIGHT RELAY TO PK. & TAIL LT. RELAY (HOT JUMPER)
130	14	WHITE	HEADLIGHT GROUND TO FRAME GROUND
131	14	RED	CIRC. BREAKER NO. 13 TO REVERSE SWITCH AT TRANSMISSION
132	16	LT. GREEN	AMMETER SHUNT TO FRONT DASH AMMETER (+)
133	16	LT. GREEN/WHITE	AMMETER SHUNT TO FRONT DASH AMMETER (-)
134	16	LT. GREEN	AMMETER SHUNT TO REAR DASH AMMETER (+)
135	16	LT. GREEN/BLACK	AMMETER SHUNT TO REAR DASH AMMETER (-)
136	16	RED/BLACK	WATER TEMP. GAGE (I) TO TACHOMETER
137	16	RED/WHITE	WATER TEMP. GAGE (I) TO TEMP. & PRESSURE WARNING LIGHT
138	16	PINK	TEMP. & PRESSURE WARNING LIGHT TO WARNING BUZZER
139	14	RED	CIRC. BREAKER NO. 1 (LOAD) TO CIRC. BREAKER NO. 15 (BATT.)
140	14	RED/WHITE	CIRC. BREAKER NO. 15 (LOAD) TO FUEL HEATER RELAY NO. 30
141	14	RED	FUEL HEATER RELAY (NO. 87) TO FUEL HEATER
142	14	WHITE	FUEL HEATER RELAY (NO. 86) TO FUEL HEATER
143	16	RED	FUEL HEATER RELAY (NO. 85) TO CIRCUIT BREAKER #13
144	14	WHITE	FUEL HEATER RELAY (NO. 86) TO GND. AT ELEC. PANEL LOWER ANGLE
145	16	WHITE	FUEL GAGE SENDER MTG. SCREW TO FRAME GROUND
146	16	RED	KYSOR LOW COOLANT MODULE (1) TO WARNING LIGHTS
147	16	DK. GREEN/WHITE	KYSOR LOW COOLANT MODULE (3) TO WARNING LIGHTS
148	16	LT. BLUE/BLACK	TAIL/MARKER LT. JUNCTION TO FRONT STEP LIGHT
149	14	YELLOW/WHITE	DIMMER SW. (32) TO HD.LT. RELAY TERMINAL NO. 30
150	14	RED/WHITE	CIRC. BREAKER NO. 4 TO VISUAL HORN FEED
151	14	RED/BLACK	CIRC. BREAKER NO. 4 TO VISUAL HORN RELAY TERM. #30
152	14	YELLOW/BLACK	TURN SIGNAL SW. TO HD. LT. RELAY COIL
153	14	YELLOW/BLACK	HD. LT. RELAY COIL TO VISUAL HORN RELAY COIL
154	14	YELLOW/WHITE	HD. LT. RELAY (N.O.) TO VISUAL HORN RELAY (N.O.)
155	14	ORANGE/BLACK	DROP FOR HAZARD SWITCH
156	14	ORANGE	DROP FOR HAZARD SWITCH
157	14	WHITE	VISUAL HORN RELAY TO HD. LT. RELAY TERM. #86
158	14	WHITE	HD. LT. RELAY TO GROUND STUD
159	16	BLACK/WHITE	REVERSE PILOT LIGHT FEED
160	14	RED/WHITE	CIRCUIT BREAKER #13 TO FUEL RELAY (30)
161	14	DK. BLUE/WHITE	FUEL RELAY COIL (85) TO SERVICE TERMINAL #91
162	14	RED/WHITE	CIRCUIT BREAKER #16 TO RETARDER POWER SWITCH
163	14	RED/BLACK	CIRCUIT BREAKER #16 TO RETARDER ON SWITCH
164	14	RED	CIRCUIT BREAKER #16 TO RETARDER OVERHEAT PILOT LT.
165	14	DK. BLUE	RETARDER ON SWITCH TO RETARDER ON PILOT LIGHT
166	14	DK. BLUE/WHITE	RETARDER POWER SWITCH TO ACCELERATOR INTERLOCK
167	14	DK. BLUE/BLACK	RETARDER OVERHEAT PILOT LIGHT TO TRANSMISSION SENSOR
168	14	WHITE/BLACK	RETARDER POWER SWITCH TO DASH GROUND
169	14	WHITE	RETARDER ON PILOT LIGHT TO DASH GROUND
170	3/0	BLACK	BATTERY (NEG) TO STARTER
171	2	BLACK	STARTER TO CIRCUIT BREAKER #17
172	16	BLACK/WHITE	ALTERNATOR FIELD CIRCUIT
173	16	BLACK/WHITE	ALTERNATOR FIELD CIRCUIT
174	14	BLACK	CIRC. BKR. #16 TO BRAKE & AIR ACCELERATOR INTERLOCK SW.
175	10	VIOLET/WHITE	FUEL SOLENOID TO GROUND
176	14	VIOLET/WHITE	FUEL SOLENOID RELAY WITH KYSOR SHUTDOWN
177	14	WHITE	AIR INTAKE HEATER CONTROLLER PILOT LT TO CIRC. #19
178	16	BLUE	AIR INTAKE HEATER CONTROLLER TO CIRCUIT BKR. #2
179	8	BLUE	AIR INTAKE HEATER TO 150 AMP BREAKER
180	8	BLUE/WHITE	AIR INTAKE HEATER TO ALTERNATOR GROUND
181	14	WHITE	BODY BLOCK HEATER RECEPTICAL TO TANK TYPE BLOCK HT.
182	14	GREEN	BODY BLOCK HEATER RECEPTICAL TO GROUND
183	14	BLACK	BODY BLOCK HEATER RECEPTICAL TO TANK TYPE BLOCK HTR.
184	14	WHITE	TRANSMISSION SENSOR TO GND ON TRNS. FILTER BRACKET.
185	16	PINK	AIR DUMP SWITCH TO PILOT LIGHT (4* JUMPER)
186	16	LT. GREEN/BLACK	SPEEDOMETER TO (SIGNAL) SENDING UNIT
187	16	LT. GREEN/WHITE	SPEEDOMETER TO (SIGNAL GROUND) SENDING UNIT
188	16	GREEN	GAUGES TO REAR PANEL GROUND
189	16	BROWN/BLACK	FAN RELAY (B7) TO FAN SOLENOID
190	16	BROWN/WHITE	FAN RELAY (85) TO FAN TEMP. SENSOR
191	14	VIOLET/BLACK	FUEL SHUTDOWN SOLENOID TO GROUND ON REAR PNL.
192	10	VIOLET/WHITE	STARTER RELAY TO FUEL SHUTDOWN SOLENOID
193	14	VIOLET	FUEL SHUTDOWN SOLENOID TO FUEL RELAY (B7)
194	10	WHITE	ALTERNATOR GND. TO GROUND STUD ON REAR PANEL
195	16	LT. GREEN/WHITE	REAR WATER TEMP. GAUGE TO WATER TEMP. SENSOR
196	14	DK. BLUE/WHITE	RETARDER ON SWITCH TO RETARDER STOP LIGHT SW.
197	14	DK. BLUE	RETARDER STOP LIGHT SWITCH TO BRAKE LT. SW. (62)

CIRC #	AWG	COLOR	CIRCUIT DESCRIPTION
198	16	RED	COLD IGNITION TO FREQUENCY CONVERTER
199	14	WHITE	BRAKE RETARDER TO FOOT TREADLE
200	14	BLACK	BRAKE RETARDER TO FOOT TREADLE
201	14	YELLOW/BLACK	HEADLIGHT DIODE TO HEADLIGHT RELAY
202	14	ORANGE	DIMMER SWITCH TO TURN SIGNAL CONNECTOR (PIN 7)
203	14	ORANGE/WHITE	TURN SIGNAL CONNECTOR (PIN 8) TO DIMMER SWITCH
204	14	PINK/BLACK	HORN RELAY TO TURN SIGNAL CONNECTOR (PIN 6)
205	16	RED	COLD IGNITION TO PARK BRAKE CONTROL PRESSURE STAT. SW.
206	16	LT. GREEN/WHITE	PARK BRAKE CONTROL PRESSURE STAT SW. TO LOWER DASH PILOT LT.
207	10	RED	MISCELLANEOUS WIRING
208	14	RED	MISCELLANEOUS WIRING
209	14	BLACK	MISCELLANEOUS WIRING
210	16	GREEN/BLACK	RIGHT TURN INDICATOR LIGHT TO RIGHT REAR LAMP
211	16	GREEN/WHITE	LEFT TURN INDICATOR LIGHT TO LEFT REAR LAMP
212	16	YELLOW	TRANS. MODULATOR RELAY TO SKINNER SOLENOID
213	16	RED	TRANS. MODULATOR TO CIRCUIT BREAKER #13
214	14	YELLOW/BLACK	HEADLIGHT HAZARD FLASHER INPUT TERMINAL
215	16	BLUE	CIRCUIT BREAKER #13 TO FAN RELAY (30)
216	16	WHITE	FAN RELAY (86) TO FAN RELAY (30)
217	16	WHITE	FUEL RELAY (86) TO GROUND ON REAR PANEL
218	16	BROWN	CONNECTOR 5, PIN 12 TO DOOR RELAY
219	16	YELLOW	CONNECTOR 5, PIN 5 TO LIFT PILOT LIGHT
220	16	GREEN	CONNECTOR 5, PIN 9 TO SERVICE TERMINAL 220
221	16	ORANGE	CONNECTOR 5, PIN 10 TO LOW ALTERNATOR LAMP
222	14	WHITE	CONNECTOR 5, PIN 13 TO GROUND AT DASH
223	16	BLUE	VOLTMETER GROUND TO VOLTMETER GAUGE (S)
224	14	ORANGE	WATER TEMP. GAUGE GROUND TO ENGINE OIL PRESSURE GAUGE GROUND TO VOLTMETER GROUND
225	14	BROWN	TACHOMETER GROUND TO SPEEDOMETER GROUND
226	14	BLACK	FUEL GAUGE GROUND TO TRANSMISSION OIL TEMPERATURE GAUGE GROUND TO SPEEDOMETER GROUND
227	16	YELLOW	SPEEDOMETER LIGHT TO #37 JUNCTION
228	16	ORANGE	TACHOMETER LIGHT TO #36 JUNCTION
229	10	GREEN	VOLTMETER GROUND TO TERMINAL BOARD #1 (TBI)
230	8	B	BATTERY (+) TO BUSS BAR (+)
231	8	GREEN	BATTERY (-) TO BUSS BAR (-)
232	14	ORANGE	T84 TO T87, CPC CONNECTOR PANEL (JUMPER)
233	14	WHITE	T82 TO T81, CPC CONNECTOR PANEL (JUMPER)
234	14	BLUE	T86 TO T82, CPC CONNECTOR PANEL (JUMPER)
235	14	RED	T85 TO T86, CPC CONNECTOR PANEL (JUMPER)
236	14	BLACK/WHITE	REAR PANEL ENG. OIL PRESS GA. GND TO TERM. BD #1 (POS. 8)
237	14	RED	IGN. HOT POWER STUD NO. 3 TO CIRCUIT BREAKER NO. 2 (BATT.)
238	14	GREEN/WHITE	FUEL SOLENOID RELAY GND. (86) TO TERM. BD NO. 1 (POS. 8)
239	14	YELLOW/WHITE	FUEL/WATER SEP. RELAY GND (86) TO TERM. BD NO. 1 (POS. 8)
240	14	ORANGE/WHITE	AIR INLET HEATER RELAY GND (86) TO TERM. BD NO. 1 (POS. 8)
241	14	BLACK	AIR INLET HEATER RELAY (85) TO CIRCUIT BREAKER NO. 2 (LOAD)
242	14	RED/WHITE	AIR INLET HEATER RELAY (30) TO CIRCUIT BREAKER NO. 15 (LOAD)
243	14	WHITE	TERM. BD #3 (POS. 8) GND TO REAR PANEL GND, STUD
244	14	BLACK/WHITE	TERM. BD #1 (POS. 8) GND TO REAR PANEL GND, STUD
245	16	BLACK	INLET AIR HEATER RELAY (87) TO INLET AIR HEATER OIL PRESS. SW
246	16	RED	STARTER RELAY (LOAD) TO INLET AIR HEATER CONTROL MODULE (B)
247	16	BLUE	INLET AIR HEATER CONTROL MODULE (A) TO TERM. BD NO. 3 (POS. 8)
248	2	RED	INLET AIR HEATER 105 AMP CB TO INLET AIR HEATER CONTACTOR (LOAD)
249	16	ORANGE	INLET AIR HEATER WATER TEMP SW TO INLET AIR HEATER CONTROL MODULE (E)
250	16	YELLOW	INLET AIR HEATER CONTACTOR TO INLET AIR HEATER CONTROL MODULE (D)
251	16	GREEN	INLET AIR HEATER CONTROL RELAY (87) TO INLET AIR HEATER CONTACTOR (COIL)
252	16	BLACK	INLET AIR HEATER CONTROL RELAY (87) TO INLET AIR HEATER CONTROL MODULE (F)
253	16	WHITE	INLET AIR HEATER WATER TEMP SW TO GND STD IN REAR PANEL
254	16	GREEN	INLET AIR HEATER OIL PRESS SW TO INLET AIR HEATER CONTROL MODULE (C)
255	14	WHITE	FUEL SOLENOID GND TO GND STUD IN REAR PANEL
256	2	RED	AMP SHUNTOR HOT POWER STUD #1 TO 105 AMP CB AIR INLET HEATER
257	14	WHITE	FAN SOLENOID TO FRAME GND (JUMPER)
258	14	BROWN/WHITE	CIRCUIT BREAKER #11 TO DRL TAILLIGHT RELAY CONTACT TERM. 87A
259	14	YELLOW	CIRCUIT BREAKER #11 TO DRL HEADLIGHT DIODE
260	14	YELLOW/WHITE	DRL HEADLIGHT DIODE TO DRL HEADLIGHT RELAY CONTACT TERM. 30
261	14	YELLOW/BLACK	DRL HEADLIGHT RELAY CONTACT TERM. 30 TO HEADLIGHT RELAY CONTACT TERM. 30
262	14	BROWN	DRL TAILLIGHT RELAY CONTACT TERM. 30 TO TAILLIGHT SERVICE TERM.
263	14	BROWN	CIRCUIT BREAKER #11 TO DRL PARK LIGHT RELAY CONTACT TERM. 87A

PRODUCT	PART NO	DESCRIPTION	NON-GROUND HARNESS (STANDARD)	
			PRT. NMBR.	DRAWING
VISTA	52002792	HARNESS-WIRING, MAIN BODY, FRNT WITH OVERHEAD DORAN WITH GROUND WIRES, VISTA	52001994	52001994
	52002793	HARNESS-WIRING, MAIN BODY, FRNT NO CONDUIT WITH GROUND WIRES, VISTA	52001993	52001993
	52002794	HARNESS-WIRING, MAIN BODY, FRNT WITH CONVOLUTED CONDUIT WITH GROUND WIRES, VISTA	52002326	52001993
CONVENTIONAL	52002796	HARNESS-WIRING, MAIN BODY, FRNT WITH OVERHEAD DORAN WITH GROUND WIRES, CONVENTIONAL	52001429	52001429
	52002797	HARNESS-WIRING, MAIN BODY, FRNT NO CONDUIT WITH GROUND WIRES, CONVENTIONAL	52001428	52001428
	52002798	HARNESS-WIRING, MAIN BODY, FRNT WITH CONVOLUTED CONDUIT WITH GROUND WIRES, CONVENTIONAL	52002323	52001428
REAR ENGINE AND FORWARD CONTROL	52002799	HARNESS-WIRING, MAIN BODY, FRNT WITH OVERHEAD DORAN WITH GROUND WIRES, ER+FC	52001396	52001396
	52002800	HARNESS-WIRING, MAIN BODY, FRNT NO CONDUIT WITH GROUND WIRES, ER+FC	52001397	52001397
	52002801	HARNESS-WIRING, MAIN BODY, FRNT WITH CONVOLUTED CONDUIT WITH GROUND WIRES, ER+FC	52002324	52001397

MANUFACTURE THESE HARNESSES USING THE DRAWING FOR THE CORRESPONDING NON-GROUNDED HARNESS WITH THE CHANGES LISTED ON THIS PRINT.

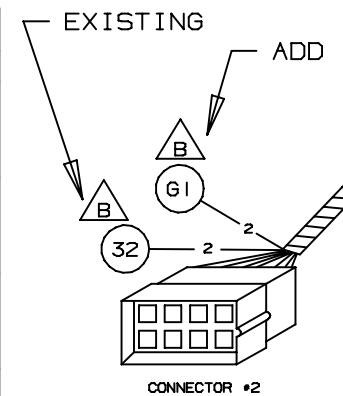


FIGURE 1

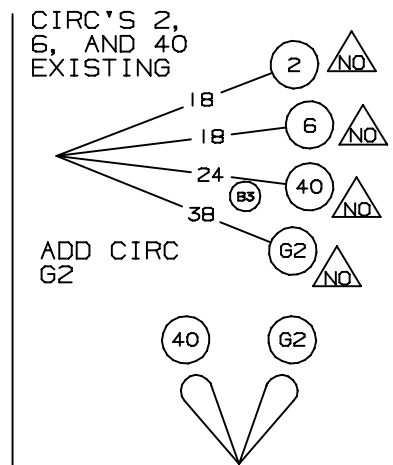


FIGURE 2

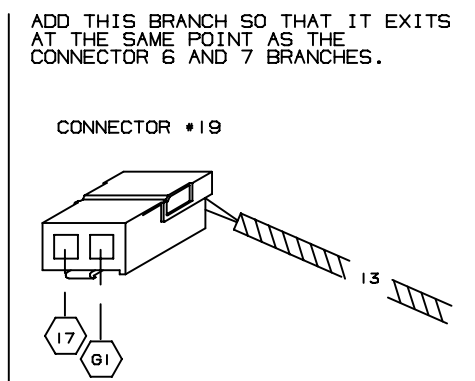


FIGURE 3

THE FOLLOWING IS A LIST OF ADDITIONAL SPECIFICATIONS REQUIRED FOR THE GROUND WIRE HARNESSES. ALL OTHER INFORMATION SHOULD BE TAKEN FROM THE NON-GROUND WIRE HARNESS PRINT.

1. CONNECTOR 19 BRANCH CONNECTS TO HARNESS WHERE BRANCHES FOR CONNECTORS 6 AND 7 CONNECT. (SEE FIGURE 3)
2. CIRCUIT 17 IS TO BE LOCATED IN CONNECTOR 19 WITH CIRCUIT G1.
3. ADD CIRCUIT G1 TO HARNESS (SEE ADDED CIRCUIT CHART) BEGINNING AT CONNECTOR 2 BREAKOUT AND ENDING AT CONNECTOR 19. (SEE ADDED CONNECTOR CHART) REFER TO FIGURES 1 AND 3.
4. ADD CIRCUIT G2 TO HARNESS (SEE ADDED CIRCUIT CHART) BEGINNING AT A SPLICE WITH G1 AND FOLLOWING CIRCUIT 40. EACH LOOP IN CIRCUIT 40 SHOULD HAVE A CORRESPONDING LOOP OF G2. CIRCUITS G2 AND 40 SHOULD RUN PARALLEL TO EACH OTHER, ENDING AT THE SAME LOCATION. (SEE FIGURE 2)
5. THE G1-G2 SPLICE SHOULD BE PLACED IN THE LONG SECTION COMMON TO THE BREAKOUTS FOR CONNECTORS 1-5.

CIRC	POS	GA	COLOR	DESCRIPTION
G1	19-B	12	GREEN	EXTERIOR LIGHT GROUND
G2	NONE	16	GREEN	FRONT MARKER LIGHT GROUND

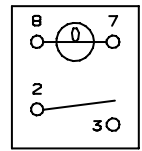
ADDED CIRCUITS

CONN	MANUF .	PART NO	DESCRIPTION	QTY
19	PACKARD	12015199	PLUG-FEMALE, 2-WAY, 280 SERIES	1
	PACKARD	12066214	TERMINAL-FEMALE RECEPTACLE, 14-16 AWG.	1
	PACKARD	12059284	TERMINAL-FEMALE RECEPTACLE, 12 AWG.	1

ADDED CONNECTOR

	52002791 B
CHART, HARNESS, MAIN BODY FRONT - w/GROUNDING LEADS ADDITIONAL SPECIFICATIONS	

SWITCH LAYOUT

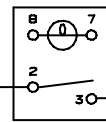
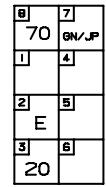


CIRCUIT

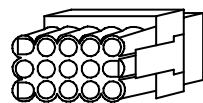


DRIVERS DOME
52003166

DRIVERS DOME
52003166
CONNECTOR #25
(REAR VIEW)

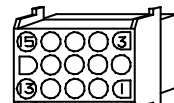


GREEN
CONNECTOR #3
(SWITCH PANEL HARNESS)

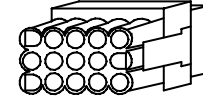


11 12
H 20

GREEN
CONNECTOR #3
(SIDE SWITCHES)

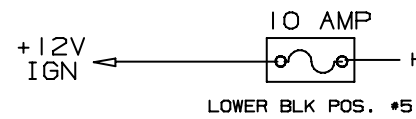
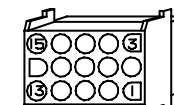


RED
CONNECTOR #2
(SWITCH PANEL HARNESS)



11
20

RED
CONNECTOR #2
(SIDE SWITCHES)

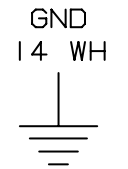
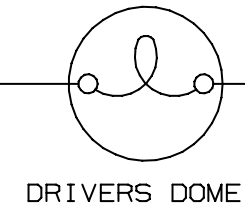


20
14 BK/WH

20
14 BK/WH

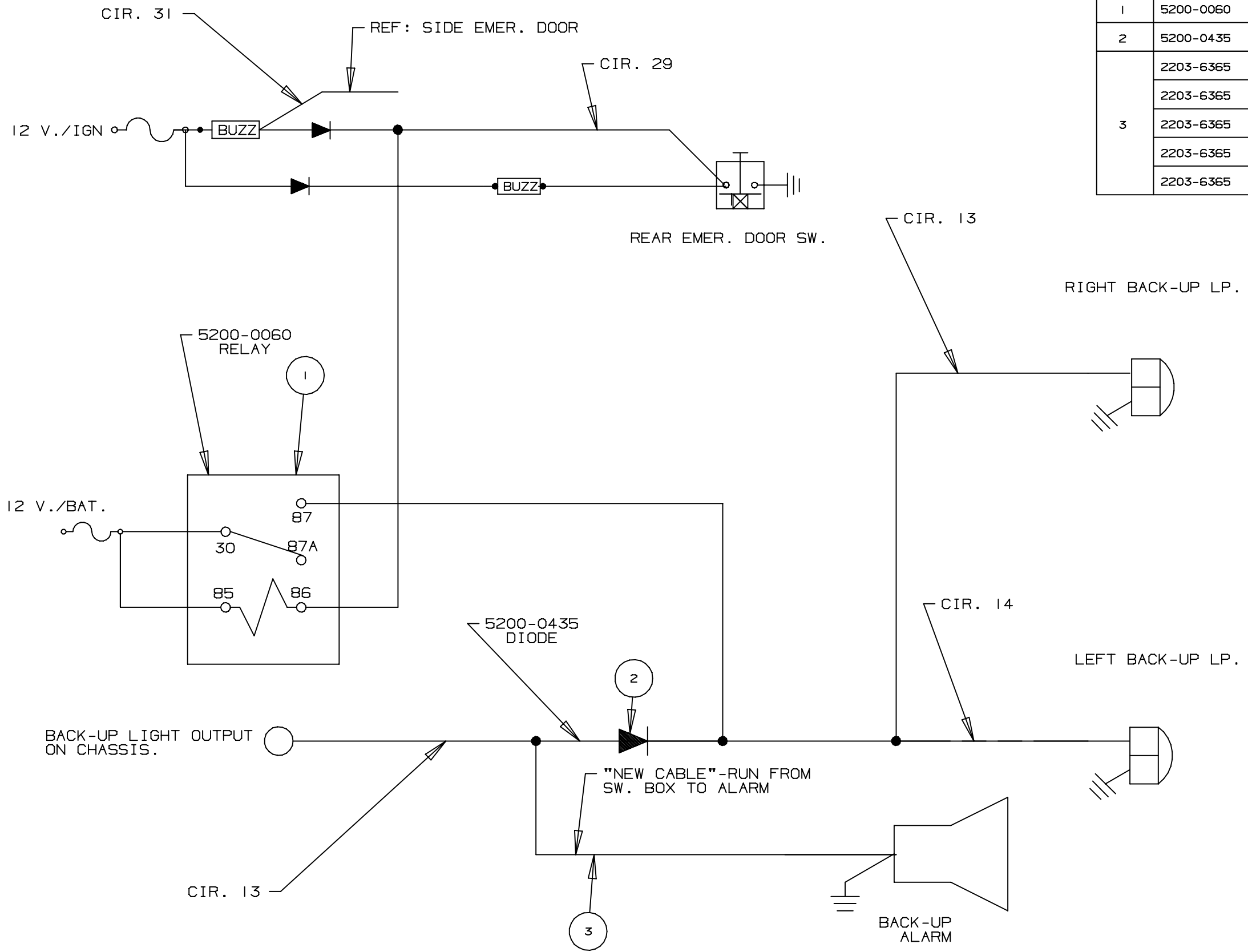
20
14 BK/WH

20
11




OPTION: B3230-XX-000

	52003469 A
DRIVERS DOME LIGHT OPTION: B3230-XX-000	

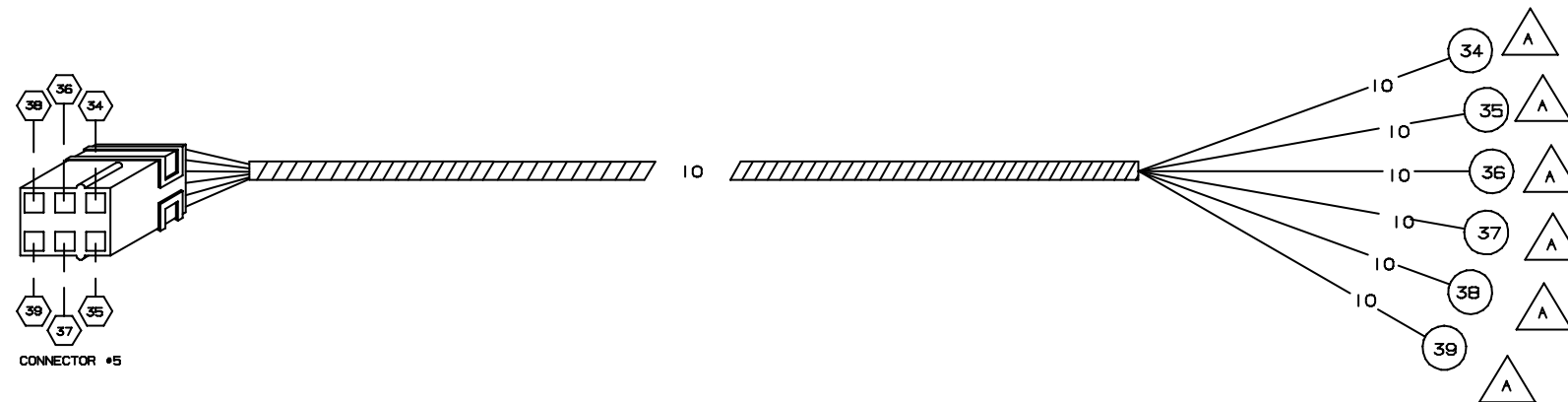


ITEM	PART NUMBER	DESCRIPTION	MODEL	QUAN.
1	5200-0060	12 V. RELAY	ALL	1
2	5200-0435	DIODE	ALL	2
3	2203-6365	WIRE, BLACK 14 GAUGE	CONV.	AR
	2203-6365	WIRE, BLACK 14 GAUGE	VISTA	AR
	2203-6365	WIRE, BLACK 14 GAUGE	"FC"	AR
	2203-6365	WIRE, BLACK 14 GAUGE	PUSH	AR
	2203-6365	WIRE, BLACK 14 GAUGE	MVP	AR

	52001949 B
BACK-UP LAMPS w/EMERGENCY DOOR (NEW JERSEY)	

CONNECTOR LIST				
CONN	VENDOR	PART NO	DESCRIPTION	QTY
5	PACKARD	12015344	PLUG - FEMALE, 6-WAY, 280 SERIES	1
	PACKARD	12066214	TERMINAL-FEMALE RECEPTACLE, 14-16 AWG.	6

CIR	CAV	GA	COLOR	DESCRIPTION
34	A	14	RED	FAN
35	F	14	WHITE	FAN
36	B	14	YELLOW	FAN
37	E	14	GREEN	FAN
38	C	16	PURPLE/BLACK	STROBE
39	D	16	PURPLE/WHITE	EXTRA



NOTES:

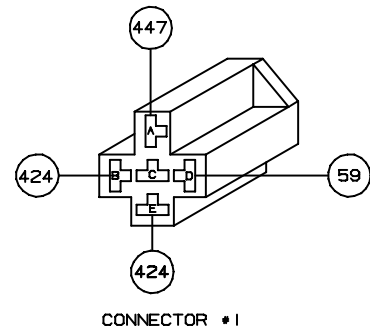
1. CIRCUIT NUMBERS TO BE STAMPED AT 4" INTERVALS WITH THE PREFIX "B" ON ALL LEADS.
2. TAG HARNESS FOR IDENTIFICATION.
3. FULLY TAPE THIS HARNESS.
4. REFER TO DWG. #52001136 FOR HARNESS SPECIFICATIONS.
5. MATES WITH FRONT MAIN BODY HARNESS.

TERM	DESCRIPTION
A	FEMALE PUSH-ON, 1/4", 12-10 AWG (PREINSULATED TERMINALS)

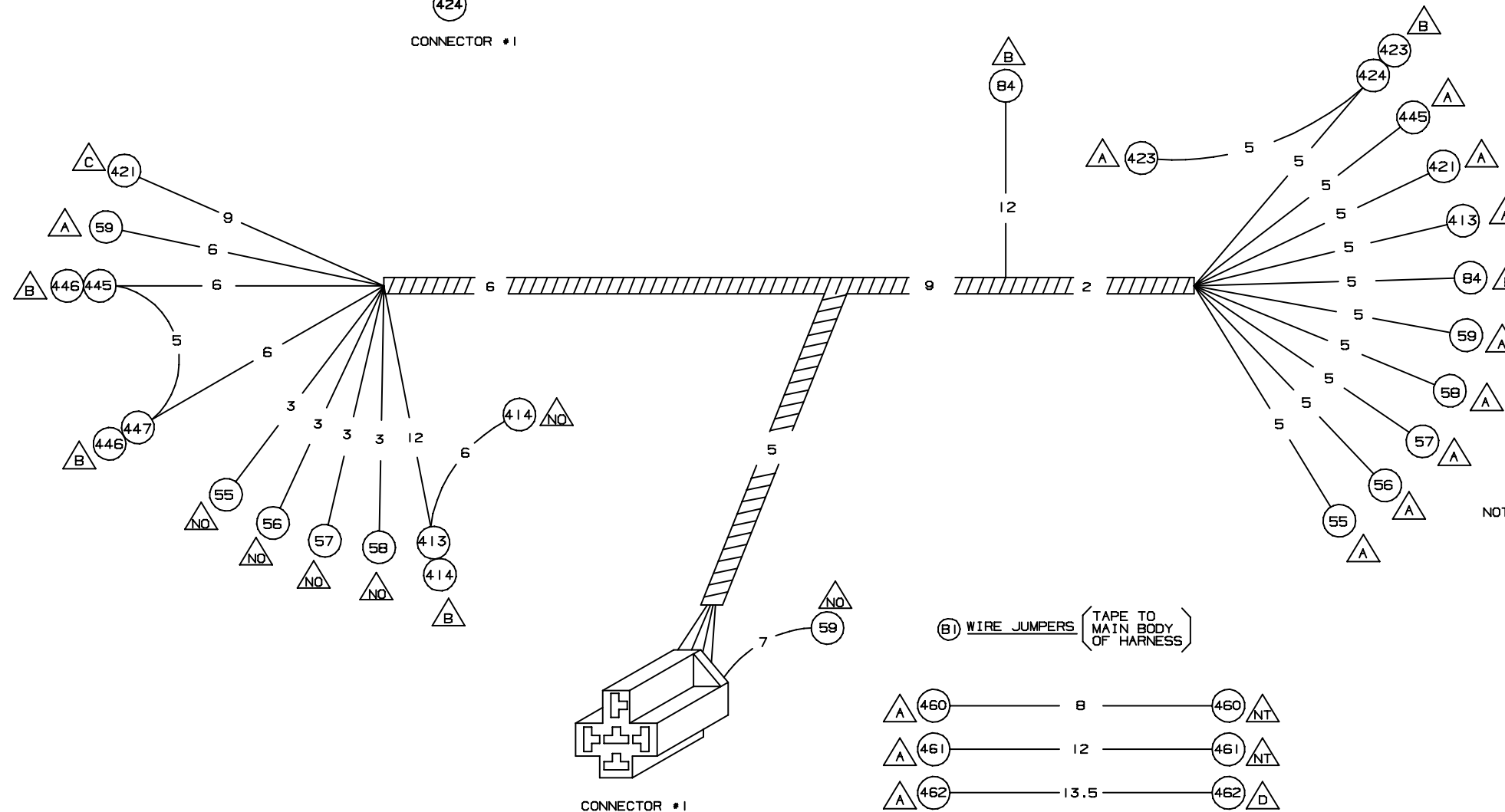


HARNESS, STROBE
LIGHT w/METRI-PACK
CONNECTOR, IN SWITCH
CABINET

CONNECTOR LIST				
CONN	VENDOR	PART NO.	DESCRIPTION	QTY.
	CONTROL DESIGNS	BR05-W-H	HOUSING-RELAY, 5-POSITION	1
I	INTERLOCK	JBC-1230-1	TERMINAL-FEMALE, 1/4", 14-16 AWG.	2
	INTERLOCK	JW-1330-2	TERMINAL-FEMALE, 1/4", (2)-16 AWG.	2

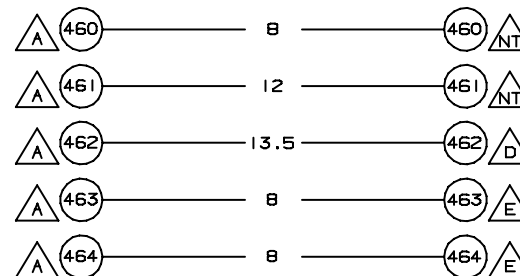


CIR	CONN-CAV.	GA	COLOR	DESCRIPTION
55	NONE	16	YELLOW	WARNING LIGHT PILOT LIGHT (AMBER)
56	NONE	16	RED	WARNING LIGHT PILOT LIGHT (RED)
57	NONE	16	RED	WARNING LIGHT PILOT LIGHT (RED)
58	NONE	16	YELLOW	WARNING LIGHT PILOT LIGHT (AMBER)
59	D	16	RED/BLACK	3 POS. SW. (4) TO DOOR SW. ON FLASHER TO RELAY (85) TO SW. ON CONTROLLER
84	NONE	12	WHITE	MASTER SWITCH TO FUSE PANEL (+12V)
413	NONE	16	RED	3 POSITION SWITCH (3) TO STOP SIGN FLASHER
414	NONE	16	RED	STOP SIGN FLASHER TO STOP SIGN
421	NONE	16	BLUE	3 POSITION SWITCH (5) TO GROUND
423	NONE	16	BLACK	3 POSITION SWITCH (2) TO MASTER SWITCH
424	B, E	16	BLACK	MASTER SWITCH TO DOOR SWITCH RELAY (30 & 86)
445	NONE	16	WHITE/BLACK	3 POSITION SWITCH (1) TO MASTER SWITCH ON FLASHER
446	NONE	16	WHITE/BLACK	MASTER SWITCH ON FLASHER TO START SWITCH ON FLASHER
447	A	16	GREEN	START SWITCH ON FLASHER TO DOOR SWITCH RELAY (87)
460	NONE	16	RED	MASTER SWITCH ON FLASHER TO STOP ARM BUZZER (+12V)
461	NONE	16	RED	STOP ARM SOLENOID ON FLASHER TO STOP ARM BUZZER RELAY TERM. 86
462	NONE	16	RED	STOP ARM BUZZER RELAY TERM. 30 (TO DIODE) TO DOOR SWITCH
463	NONE	16	WHITE	STOP ARM BUZZER RELAY TERM. 87A TO STOP ARM BUZZER GND
464	NONE	16	WHITE	STOP ARM BUZZER RELAY TERM. 85 TO GND



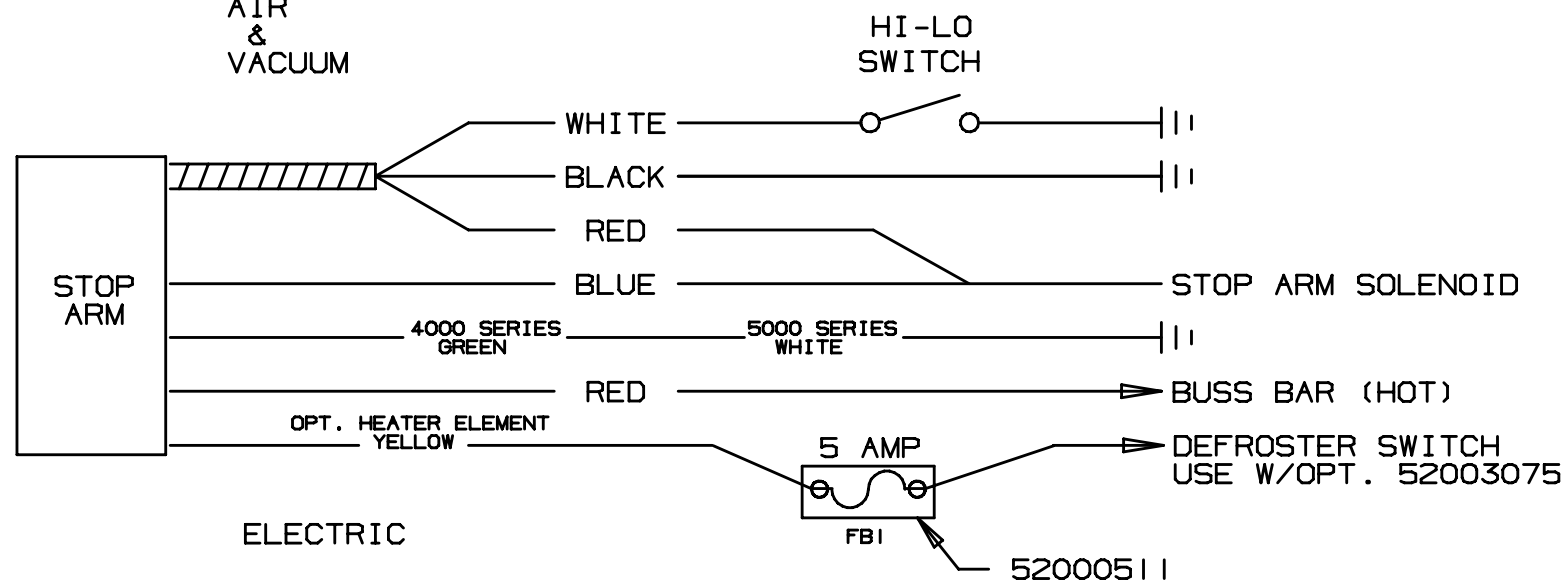
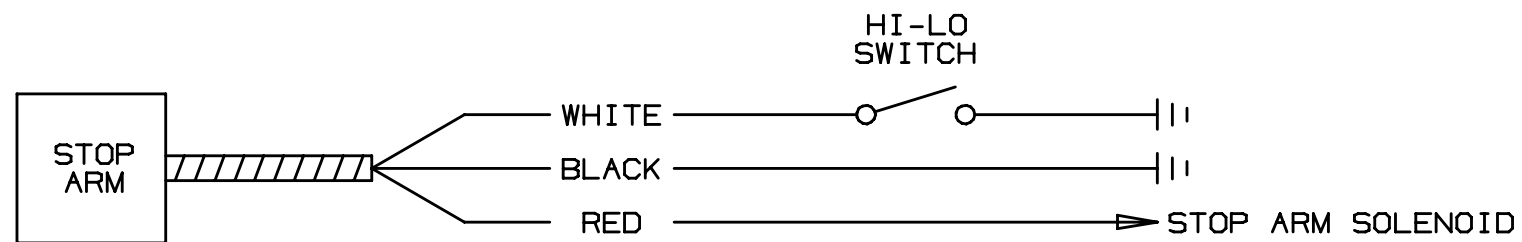
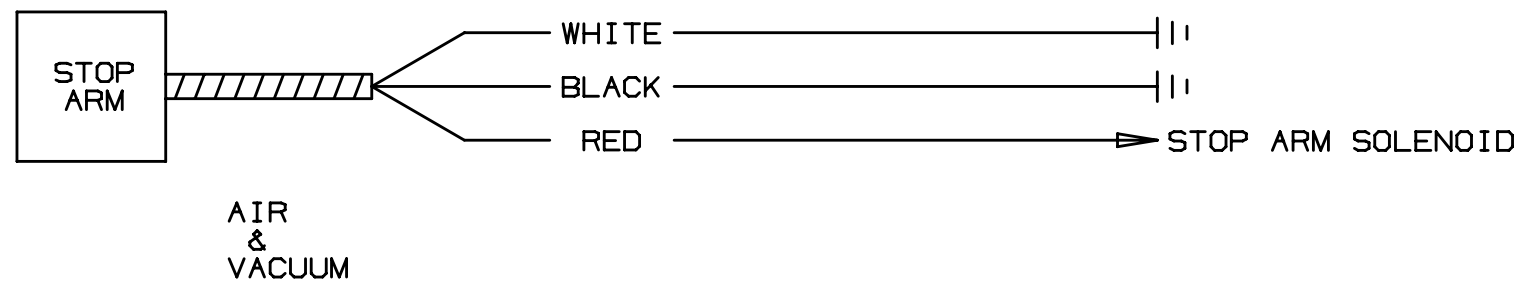
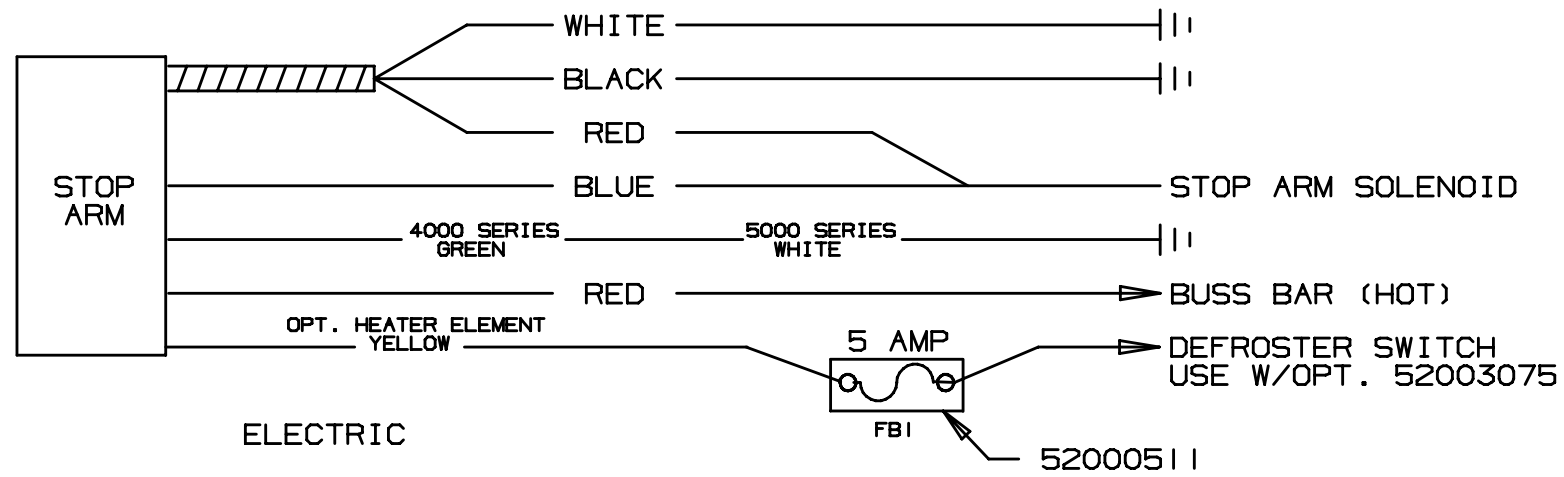
- NOTES:
1. CIRCUIT NUMBERS TO BE STAMPED AT 4" INTERVALS WITH THE PREFIX "B" ON ALL LEADS.
 2. TAG HARNESS FOR IDENTIFICATION.
 3. FULLY TAPE THIS HARNESS.
 4. REFER TO DWG. #52001136 FOR HARNESS SPECIFICATIONS.
 5. STRIP INSULATION BACK 1/2" ON UNTERMINATED LEADS.

(B) WIRE JUMPERS (TAPE TO MAIN BODY OF HARNESS)



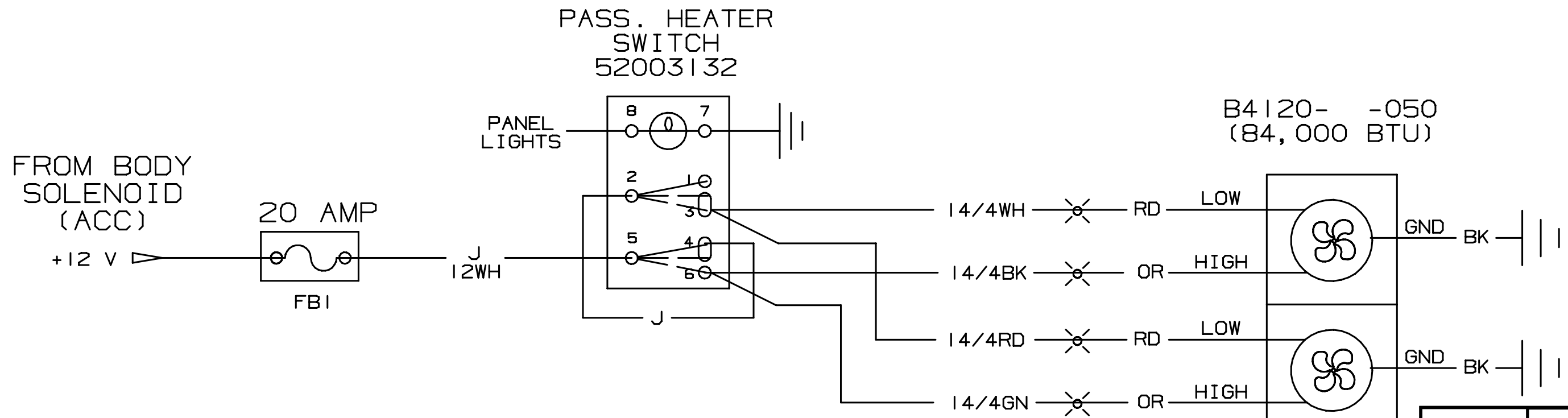
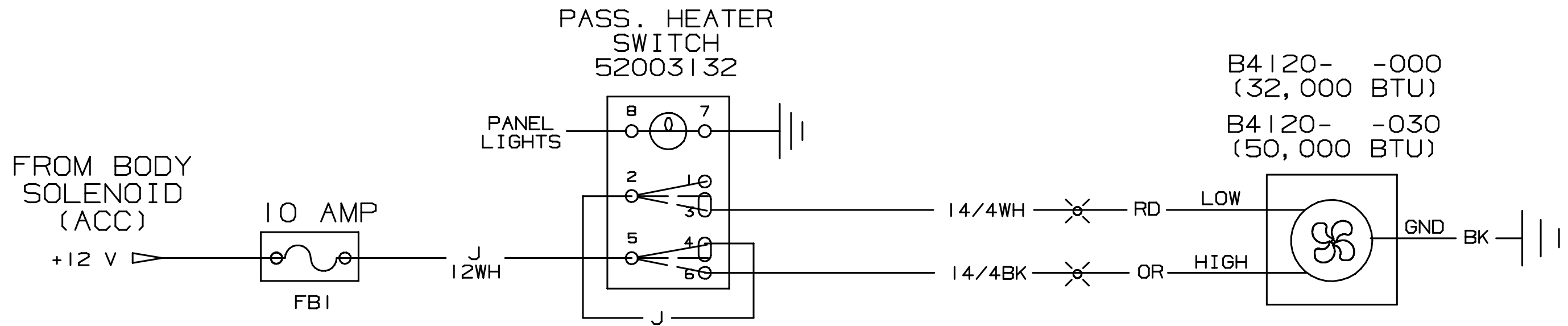
TERM	DESCRIPTION
E	SPRING SPADE, #10 STUD, 14-16 AWG., INSULATED
D	BUTT SPLICE, INSULATED, 14-16 AWG.
C	RING TERMINAL, #10, 14-16 AWG.
B	FEMALE PUSH-ON, 1/4", 10-12 AWG.
A	FEMALE PUSH-ON, 1/4", 14-16 AWG.

	52001854 C
HARNESS, WARNING-LIGHT, FLORIDA EIGHT LIGHT, IN SWITCH CABINET	



STOP ARM STROBE LIGHT, SINGLE AND H/L OPERATION, ELECTRIC, AIR & VACUUM

**MVP-EF
HEATER
SCHEMATICS**



Thomas BULBUSES	52002662 B
UNDERSEAT HEATERS	

**MVP-EF
DOOR
SCHEMATICS**

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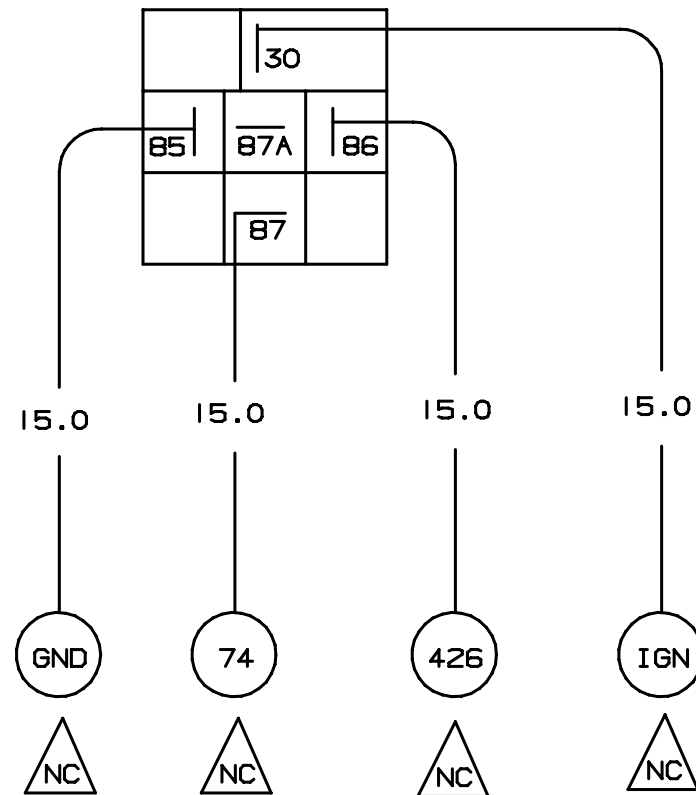
CONN	VENDOR	PART #	DESCRIPTION	QTY
RELAY BLOCK	HELLA	87122	HOUSING-RELAY, 5 POSITION	1

	INTERLOCK	JBC-1230-1	TERMINAL-FEMALE, 1/4", 14-16 GA.	4

DOME OPT.
B3255-04-000

30 - IGN
85 - GND
86 - 426
87 - 74
87A - .

LEAD #	AWG	COLOR	DESCRIPTION
IGN	16	RED	FEED FROM FUSE PANEL.
GND	16	WHITE	BODY GROUND.
426	16	GREEN	AIR DOOR OPEN SIGNAL.
74	16	BLACK	STEPLIGHTS FEED.
.	.	.	.



4. STRIP INSULATION BACK 3/8" ON UNTERMINATED LEADS.


3. REFER TO DWG. #52001136 FOR HARNESS SPECIFICATIONS.

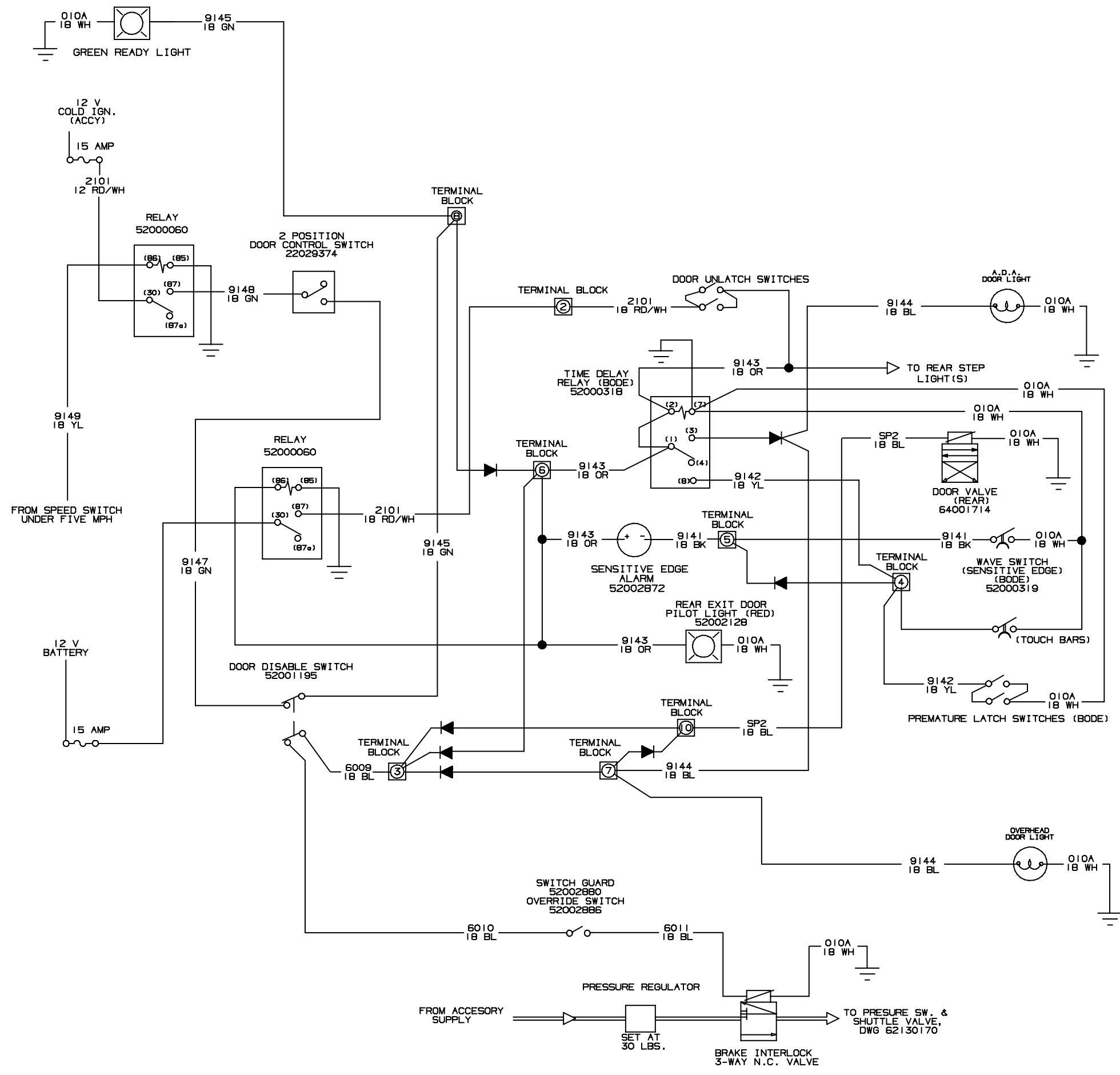
2. TAG HARNESS FOR IDENTIFICATION.

1. CIRCUIT NUMBERS TO BE STAMPED AT 4" INTERVALS WITH THE PREFIX "B"

NOTES: ON ALL LEADS.

A	DESCRIPTION	QTY
	14-16 GA. BUTT-SPLICE	0

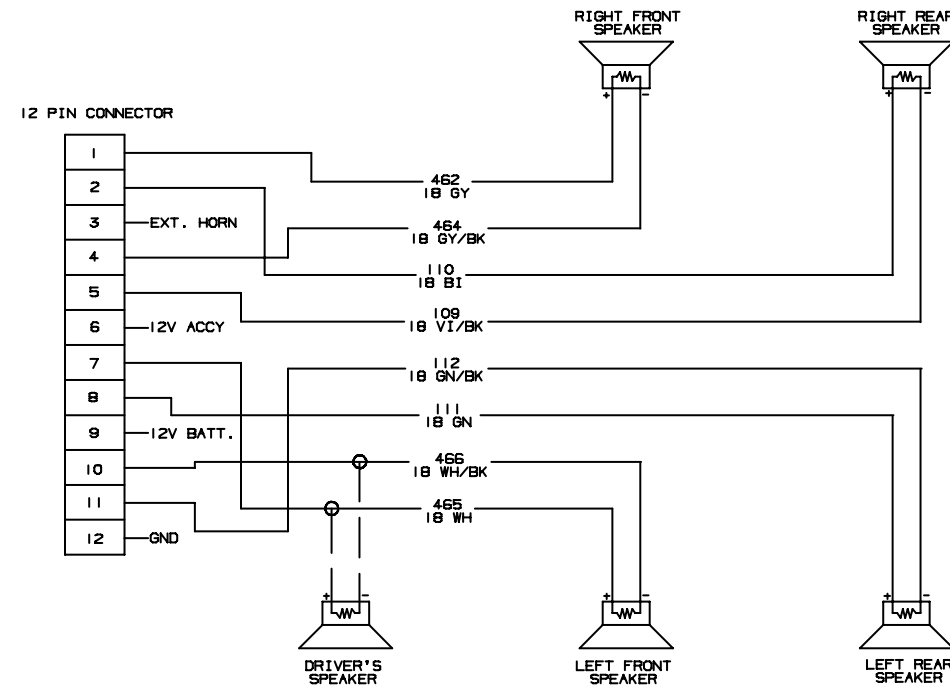
	52003992 A
HARNESS, USED w/AIR DOORS	
Effective Date: 1/21/00	



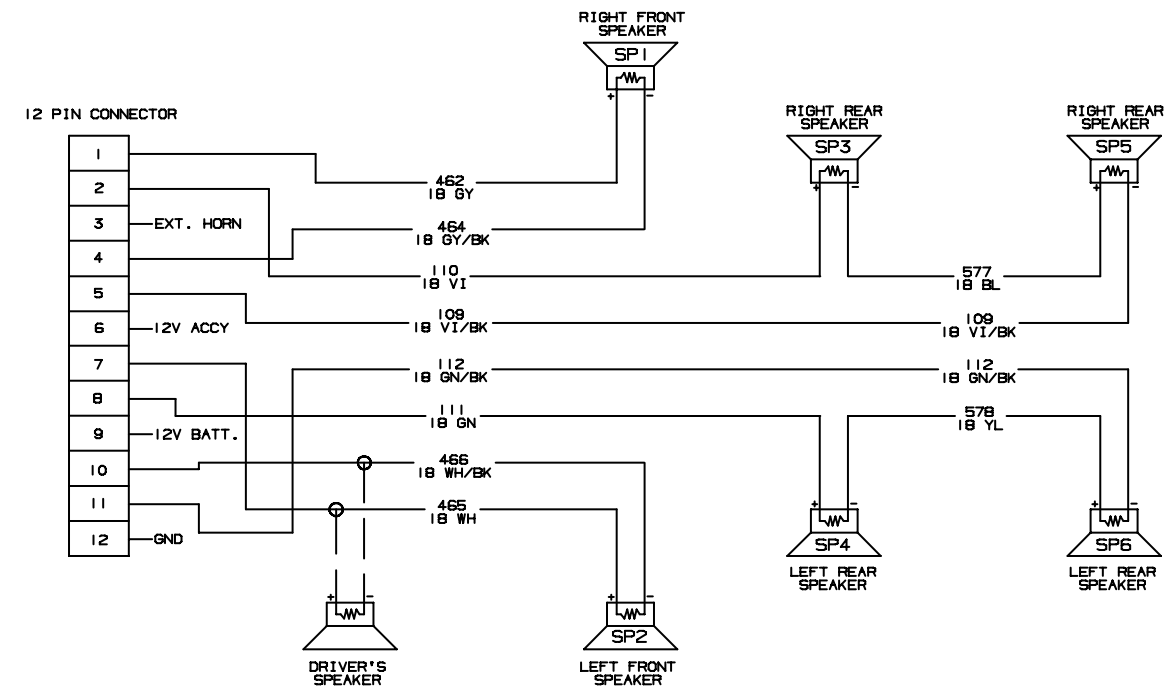
(2) POSITION DOOR CONTROL W/ TIMER
B5016-14-000

	52002894 C
<p>DOOR REAR EXIT, 2 POSITION DOOR CONTROL, w/BRAKE INTERLOCK (BODE)</p>	

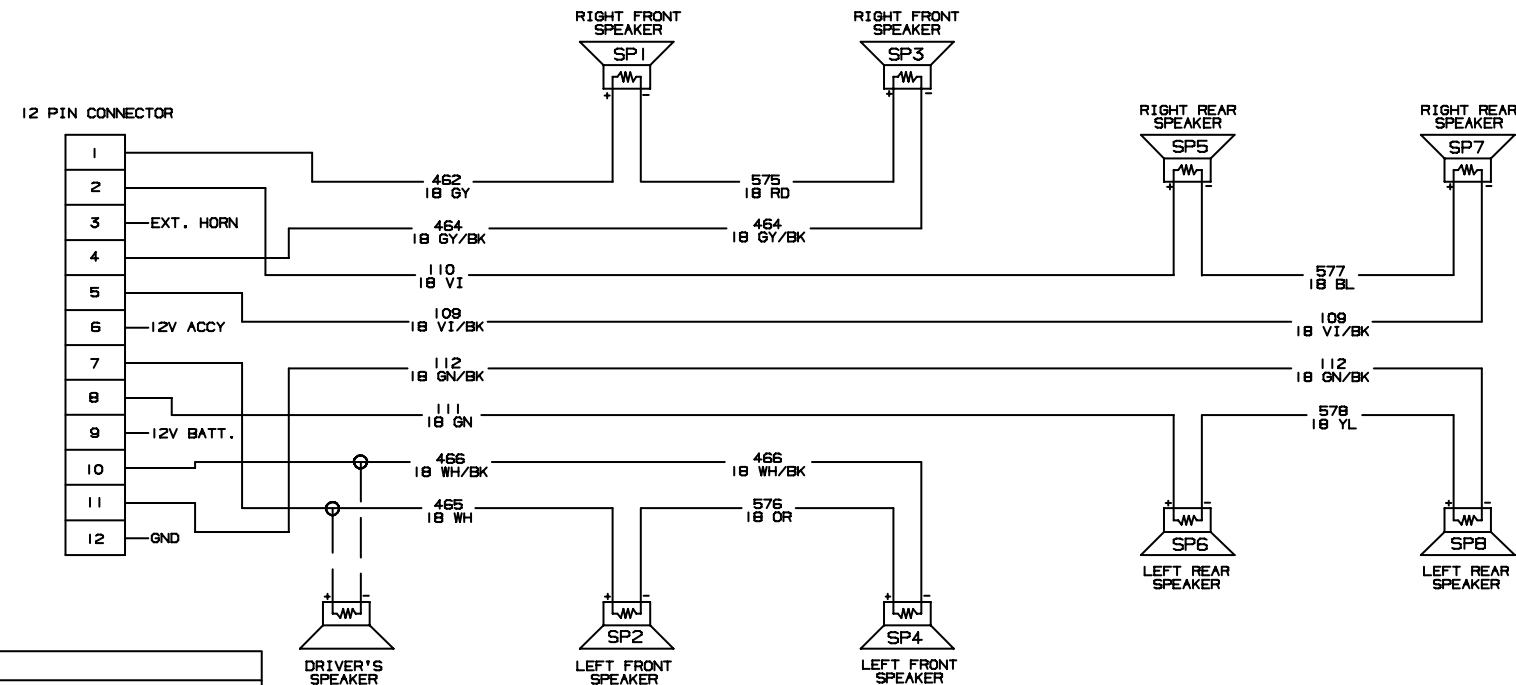
**MVP-EF
VANDALOCK
SCHEMATICS**



FOUR (4) SPEAKER SYSTEM
USE HARNESS # 52002787



SIX (6) SPEAKER SYSTEM
USE HARNESS # 52002795

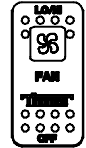


EIGHT (8) SPEAKER SYSTEM
USE HARNESS # 52002805

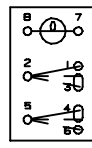
CIR	GA	COLOR	DESCRIPTION
109	18	VIOLET/BLACK	RIGHT REAR SPEAKER (-)
110	18	VIOLET	RIGHT REAR SPEAKER (+)
111	18	GREEN	LEFT REAR SPEAKER (+)
112	18	GREEN/BLACK	LEFT REAR SPEAKER (-)
462	18	GRAY	RIGHT FRONT SPEAKER (+)
464	18	GRAY/BLACK	RIGHT FRONT SPEAKER (-)
465	18	WHITE	LEFT FRONT SPEAKER (+)
466	18	WHITE/BLACK	LEFT FRONT SPEAKER (-)
575	18	RED	FROM SP1 (-) TO SP3 (+)
576	18	ORANGE	FROM SP2 (-) TO SP4 (+)
577	18	BLUE	FROM SP5 (-) TO SP7 (+)
578	18	YELLOW	FROM SP6 (-) TO SP8 (+)

	52002786 B
	RADIO SPEAKERS

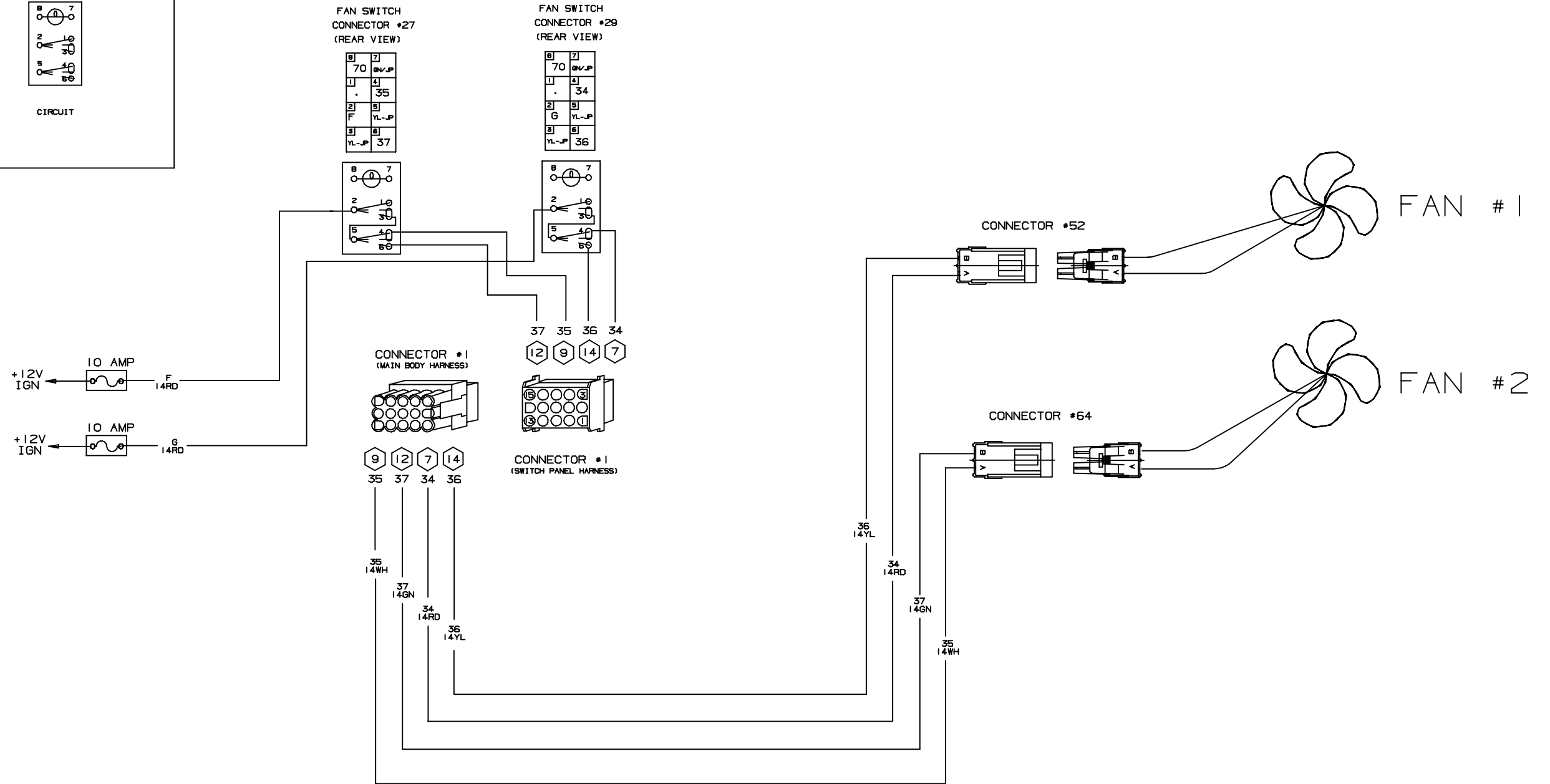
SWITCH LAYOUT



FAN SWITCH
52003133

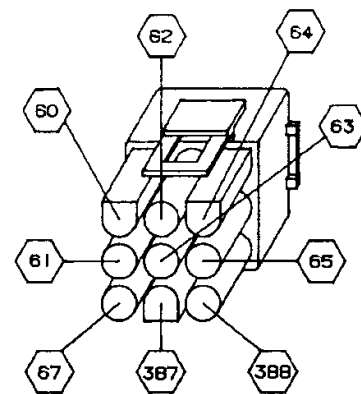


CIRCUIT



OPTION: B2160-XX-000

	52003671 A
FAN, FAIRFAX CO., VA. Effective Date: 8/4/99	

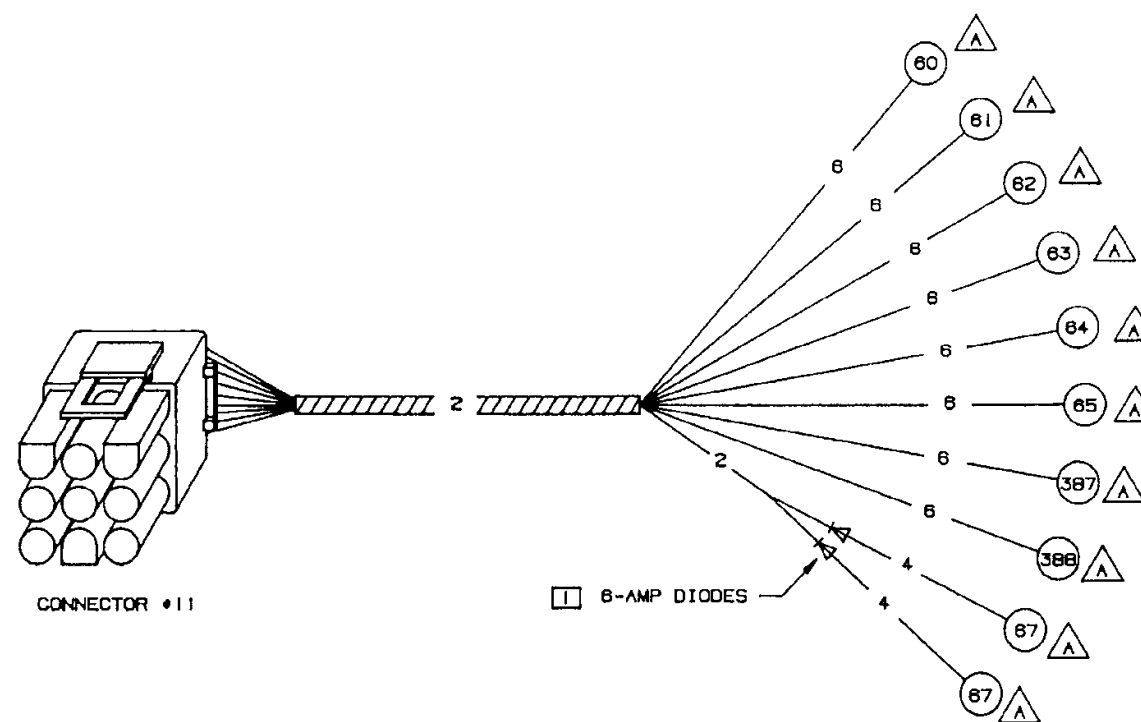


CONNECTOR #1

CONNECTOR LIST				
CONN	VENDOR	PART NO.	DESCRIPTION	QTY.
11	AMP	1-480708-0	HOUSING-PLUG, 9-WAY, MATE-N-LOCK	1
	AMP	350550-1	TERMINAL-SOCKET, 14-18 AWG.	9

PARTS LIST				
ITEM	VENDOR	PART NO.	DESCRIPTION	QTY.
1	DIXIE	P8006	DIODE-8-AMP, ANTI-FEEDBACK	2

CIR	CONN-CAV	GA	COLOR	DESCRIPTION
80	11-1	14	RED/WHITE	LEFT WINDSHIELD WIPER (HIGH)
81	11-4	14	RED	RIGHT WINDSHIELD WIPER (HIGH)
82	11-2	14	GREEN/WHITE	LEFT WINDSHIELD WIPER (LOW)
83	11-5	14	GREEN	RIGHT WINDSHIELD WIPER (LOW)
84	11-3	14	BLACK/WHITE	LEFT WINDSHIELD WIPER (PARK)
85	11-6	14	BLACK	RIGHT WINDSHIELD WIPER (PARK)
87	11-7	14	PURPLE/BLACK	WINDSHIELD WASHER
387	11-8	14	BROWN	LEFT WINDSHIELD WIPER FEED
388	11-9	14	TAN	RIGHT WINDSHIELD WIPER FEED



CONNECTOR #11

TERM	DESCRIPTION
B	BUTT SPLICE, 14-18 AWG.
A	FEMALE PUSH-ON, 1/4", 14-18 AWG.

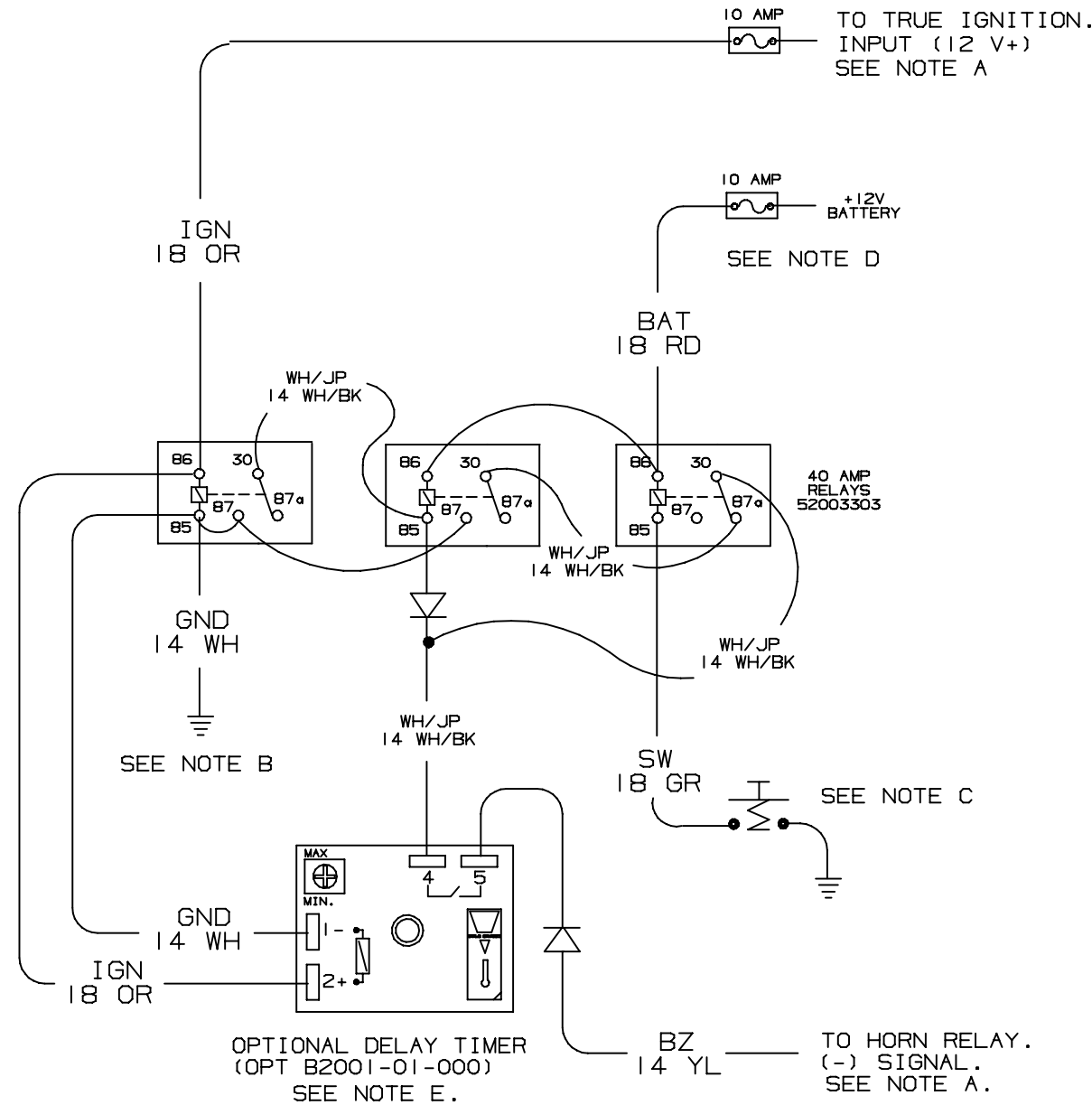
- NOTES:
1. CIRCUIT NUMBERS TO BE STAMPED AT 4" INTERVALS WITH THE PREFIX "B" ON ALL LEADS.
 2. TAG HARNESS FOR IDENTIFICATION.
 3. FULLY TAPE THIS HARNESS.
 4. REFER TO DWG. #52001138 FOR HARNESS SPECIFICATIONS.
 5. COVER DIODE ASSEMBLIES WITH HEAT SHRINK TUBING.

	52001637 B
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HARNESS, ELECTRIC WINDSHIELD WIPER, w/AMP CONNECTOR, IN SWITCH CABINET

CONN	VENDOR	PART #	DESCRIPTION	QTY
RELAYS			RELAY BLOCK	3
	AMP	.	TERM. 1/4" LOCKING FEMALE (FOR RELAY)	12
DIODE	.	.	1 AMP 400 VOLT	1

CIR	GA	COLOR	DESCRIPTION
BZ	14	YELLOW	OUTPUT TO BUZZER/HORN
IGN	18	ORANGE	TRUE IGNITION INPUT
GND	14	WHITE	GROUND
BAT	18	RED	12 V+ FROM BATTERY
SW	18	GREEN	DEACTIVATION INPUT
WH/JP	14	WHITE/BLACK	JUMPER FOR RELAY BLOCK
.	.	.	.



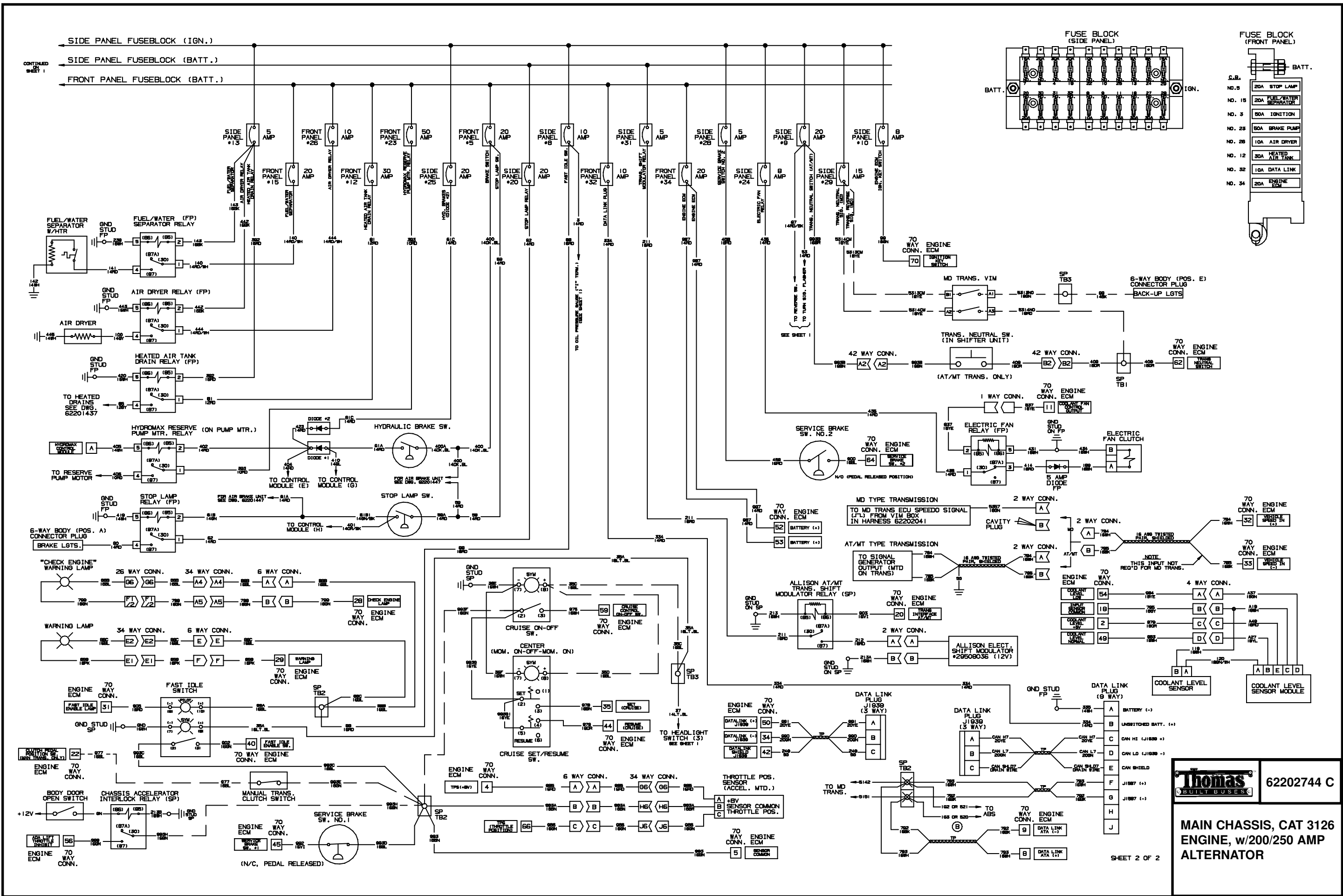
INSTALLATION NOTES

- A. IGNITION SOURCE MUST NOT BECOME COLD WHEN KEY SWITCH IS IN START POSITION. USE FUSED SOURCE, MINIMUM CURRENT REQUIREMENT. WIRE BZ IS 10 AMP GROUND OUTPUT. ATTACH TO HORN RELAY WHEN USING OPTION B2001-01-000.
- WIRE LOCATIONS:
- ALL ER: IGN- ROUTE TO IGN. BREAKER #8. FOURTH FROM BOTTOM IN SIDE PANEL ABOVE IGN PWR RELAY.
 - HORN- WIRE 45, PINK 14 GA. AT HORN RELAY IN SIDE PANEL. TERMINAL USUALLY MARKED "S".
 - MVP-EF: IGN- ABOVE IGN. POWER RELAY, 12 POS. DIST. BLOCK. USE OPEN SLOT IF POSSIBLE, FUSE AT 10 AMPS.
 - HORN- WIRE 45, PINK 14 GA. AT HORN RELAY IN SIDE PANEL. TERMINAL USUALLY MARKED "S".
- FREIGHTLINER CONV.:
- IGN- ON FUSE BLOCK, PASSENGER SIDE OF BUS SINGLE MALE TERMINAL, POSITION #14.
 - HORN- WIRE 25, TAN WIRE LOCATED TO THE LOWER LEFT ON FUSE BLOCK, YELLOW CONNECTOR.
- NAVISTAR CONV.:
- IGN- WIRE 13B (PINK 16 GA.) LOCATED IN DRIVER KICK PANEL AT BUZZER RELAY.
 - HORN- WIRE 85A, GRAY 16 GA. LOCATED IN DRIVER KICK PANEL NEAR FLOOR.
- FORD MINITOUR:
- IGN- 10 GA. RED/GREEN LOCATED IN HARNESS AT STEERING COLUMN. (IGN SWITCH HARNESS) DO NOT CUT RED/GREEN WIRE. FUSE AT 10 AMPS USE FUSE HOLDER P/N 52000656.
 - HORN- AT HORN RELAY UNDER DASH
- GM MINITOUR:
- IGN- 10 GA. PINK WIRE LOCATED IN HARNESS AT STEERING COLUMN. (IGN SWITCH HARNESS). DO NOT CUT PINK WIRE. FUSE AT 10 AMPS WITH P/N 52000656.
 - HORN- 16 GA. BLACK WIRE IN HARNESS AT STEERING COLUMN. WIRE IS (-) TRIGGER.
- B. CLEAN CHASSIS GROUND.
- C. DEACTIVATION SWITCH IS PUSH BUTTON STYLE SWITCH P/N 52002965. PROVIDES GROUND WHEN DEPRESSED. MOUNTED HIGH IN REAR OF BUS ON THOMAS LOGO PANEL. SEE DRAWING 52003491.
- D. CONSTANT 12V+ SOURCE FUSED AT 10 AMPS.
- E. TIMER TO BE SET TO 45 SEC. OR PER CUSTOMER SPECIFICATION. 45 SEC. IS APPROX. 1 O'CLOCK ON DIAL IF STARTING FROM ZERO.

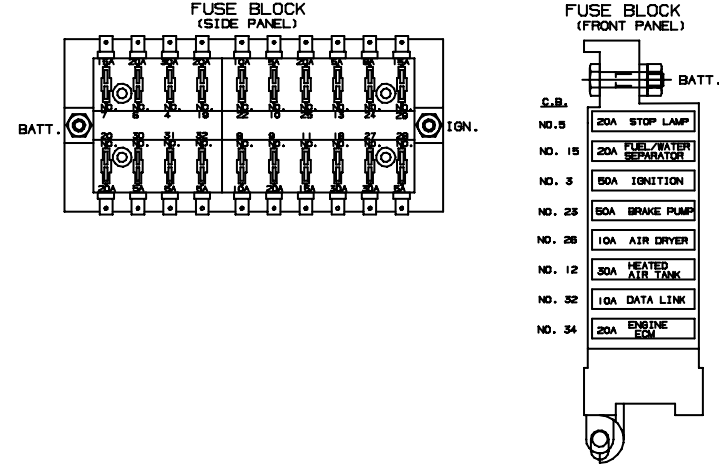
C	B	A	VENDOR	PART #	DESCRIPTION	QTY
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OPTION: B2001-01-000

	52003483 C
PASSENGER ADVISORY SYSTEM (WEST VIRGINIA)	
End Date: 9/12/00	



CONTINUED SHEET 1



Thomas
BULB INDUSTRIES

62202744 C

**MAIN CHASSIS, CAT 3126
ENGINE, w/200/250 AMP
ALTERNATOR**

SHEET 2 OF 2

CONNECTOR LIST

CONN.	VENDOR	PART NO.	DESCRIPTION	QTY
1	PACKARD	12077993	CONNECTOR, RELAY, METRI-PACK, 630 SERIES, SEALED, 5 WAY	1
	PACKARD	12066614-L	WIRE TERMINAL, METRI-PACK, 630 SERIES, FEMALE, 14-16 AWG.	4
2	PACKARD	12015799	CONNECTOR ASM., WEATHERPACK, FEMALE, 6 WAY	1
	PACKARD	12124990-L	WIRE TERMINAL, WEATHERPACK, FEMALE, 14-16 AWG.	6
	PACKARD	12015323	CABLE SEAL, 16 AWG.	3
	PACKARD	12010293	CABLE SEAL, 14 AWG.	3
3	PACKARD	12010996	CONNECTOR ASM., WEATHERPACK, MALE, 1 WAY	1
	PACKARD	12124992-L	WIRE TERMINAL, WEATHERPACK, MALE, 14-16 AWG.	1
	PACKARD	12015323	CABLE SEAL	1


GXL WIRE REQ'D	CIRCUIT	GA.	COLOR	DESCRIPTION	LENGTH (IN.)
	4A	14	DK. BLUE	SIDE PANEL TERMINAL BD. (W/ *98 AND *4B) TO TRANSMISSION NEUTRAL SW. (INPUT)	126
	6	14	BLACK	FUEL GAUGE TO FUEL TANK SENDER	422
	20	14	DK. GREEN	ALTERNATOR TACHOMETER SIGNAL TO TACHOMETER GAUGE	133
	21	16	GREEN	OIL PRESS. GAUGE SENDER TO OIL PRESS. GAUGE	141.5
	24	16	GREEN	WATER TEMP. SENDER TO WATER TEMP. GAUGE	126
	30	14	DK. BLUE	LOW OIL PRESS. SW. (W/O KYSOR) TO OIL PRESS./WATER TEMP. DUAL ALARM WARNING BUZZER (F)	165
	49	14	RED	HORN RELAY TO HORN	58.5
	50	14	RED	HORN RELAY TO HORN	58.5
	55	16	GREEN	TRANSMISSION TEMP. SENDER TO TRANSMISSION TEMP. GAUGE	114
	59	14	RED	FRONT PANEL CIRCUIT BREAKER NO. 5 TO RS FRONT STOP LAMP SW. (AIR BRAKE) (INPUT)	92
*	60	14	RED	STOP LAMP RELAY CONTACT (B7) TO 6 POSITION BODY CONNECTOR PLUG (BRAKE LIGHTS)	63
	61A	14	RED	RS REAR STOP LAMP SW. TO LS FRONT STOP LAMP SW. (AIR BRAKE JUMPER ONLY)	6
*	61B	14	GREEN	RS FRONT STOP LAMP SW. (AIR BRAKE) TO STOP LAMP RELAY (B5)	84
*	62	14	RED	STOP LAMP RELAY CONTACT (30) TO SIDE PANEL CIRCUIT BEAKER NO. 20	38
	74	14	DK. BLUE	LOW OIL PRESS. SW. (W/O KYSOR) TO HIGH WATER TEMP. SW. (W/O KYSOR)	109
	77	10	RED/BLACK	MAIN 150 AMP CIRCUIT BREAKER (AUX. LOADSIDE) TO STARTER RELAY (POWER) CONTACT	72
	78	10	RED/BLACK	STARTER RELAY (LOAD) (W/*192) TO STARTER SOLENOID (+12V)	39
	103	14	DK. BLUE	STARTER RELAY (W/*78) TO SIDE PANEL TERMINAL BD. (W/*104)	92
	104	14	DK. BLUE	SIDE PANEL TERMINAL BD. (W/*103) TO ETHER SOLENOID VALVE	86.5
	112	14	RED	STARTER RELAY COIL TO TRANSMISSION NEUTRAL SW. (OUTPUT)	53
	120	14	DK. GREEN	KYSOR LOW COOLANT LEVEL MODULE (POS. 2) TO KYSOR LOW COOLANT LEVEL PROBE	216
	145	14	WHITE	FUEL TANK SENDER GND TO FRAME GND	52
	396	14	WHITE	FRONT PANEL GND STUD TO SIDE PANEL GND STUD	37.5
	397	10	WHITE	SIDE PANEL GND STUD TO FRAME GND	162
	400	14	DK. BLUE	FRONT PANEL CIRCUIT BREAKER NO. 5 TO LS REAR STOP LAMP SW. (AIR BRAKE) (INPUT)	92
	415	14	RED	IGNITION SW. (IGN. RUN) TO ALTERNATOR "IGN." POST	133
*	419	14	WHITE	STOP LAMP RELAY CONTACT (B6) TO FRONT PANEL GND STUD	9.5
	438	14	WHITE	STARTER RELAY COIL GND TO FRONT PANEL GND STUD	69.5
*	59A	16	RED/BLACK	RS FRONT STOP LAMP SW. (AIR BRAKE) TO RS FRONT STOP LAMP SW. (HYD. BRAKE) (INPUT)	58
*	400A	16	DK. BLUE/BLACK	LS REAR STOP LAMP SW. (AIR BRAKE) TO LS REAR STOP LAMP SW. (HYD. BRAKE) (INPUT)	58
	61B1	14	GREEN/BLACK	RS FRONT STOP LAMP SW. (AIR BRAKE) TO RS FRONT STOP LAMP SW. (HYD. BRAKE) (OUTPUT)	58

NOTES:

1. CIRCUIT NUMBERS TO BE STAMPED AT 4" INTERVALS ON ALL LEADS.
2. TAG HARNESS FOR IDENTIFICATION.
3. HARNESS TO BE COVERED WITH APPROPRIATE SIZE OF CONVOLUTED CONDUIT. ALL WIRE DROPOUTS TO RECEIVE APPROPRIATE SIZE COVERING FROM POINT OF EXIT FROM MAIN BODY OF HARNESS TO END OF LEAD.
4. WIRE CONSTRUCTION, MATERIALS AND PRACTICES TO COMPLY WITH THE FOLLOWING STANDARDS ON DWG. 62201055 - WIRE SPECIFICATIONS.
5. ALL WIRING TO BE GXL TYPE WIRE, EXCEPT WHERE NOTED TO USE GXL TYPE WIRE.

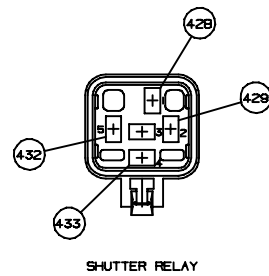
SHEET 2 OF 2

BX	61200819	CABLE SEAL, 150 SERIES, *12048066
BW	61201036	WIRE TERMINAL, METRI-PACK, 150 SERIES, MALE, 18 AWG., *12045773-L
AY	61200828	CABLE SEAL, WEATHERPACK, 14 AWG., *12010293
AX	61200850	FUSE HOLDER CONTACT, MAXI-FUSE, (2) 12 AWG., *12092444-L
AW	61200827	FEMALE SLEEVE, WEATHERPACK, 14 AWG., *12124990-L
AO	61200792	FEMALE PUSH-ON, .250 x .032, FULLY INSULATED, 90° FLAG, 16-14 AWG.
AG	61200468	FEMALE PUSH-ON, 1/4", FULLY INSULATED, 12-10 AWG.
AF	61200387	FEMALE PUSH-ON, 1/4", FULLY INSULATED, 16-14 AWG.
AM	61200189	RING TERMINAL, 5/16" STUD, 10 AWG.
KK	61200154	BULLET TERMINAL CONNECTOR, MALE, .176 DIA., 14 AWG.
FF	61200151	BULLET TERMINAL CONNECTOR, FEMALE, .176 DIA., 14 AWG.
EE	61200149	RING TERMINAL, 5/16" STUD, 14 AWG.
BB	61200133	SPRING SPADE TERMINAL, #10 STUD, 10 AWG.
AA	61200132	SPRING SPADE TERMINAL, #10 STUD, 14 AWG.
V	61200181	RING TERMINAL, 1/4" STUD, 10 AWG.
L	61200388	FEMALE PUSH-ON, 1/4", 14 AWG.
J	61200168	BUTT SPLICE, 14 AWG.
D	61200173	RING TERMINAL, 1/4" STUD, 14 AWG.
B	61200190	RING TERMINAL, #10 STUD, 10 AWG.
A	61200174	RING TERMINAL, #10 STUD, 14 AWG.
TERM Δ	PART NO.	DESCRIPTION

	62201685 B
HARNESS, BASIC ENGINE CAT 3126 BULKHEAD HARNESS	

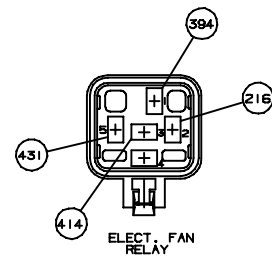
CONNECTOR LIST				
CONN	VENDOR	PART NO.	DESCRIPTION	QTY
1	PACKARD	12015792	CONNECTOR, WEATHERPACK, 2 WAY, FEMALE	1
	PACKARD	12124580-L	WIRE TERMINAL, FEMALE SLEEVE, 14-16 AWG.	2
	PACKARD	12015323	CABLE SEAL, 16 AWG.	2
2	PACKARD	12077993	CONNECTOR, RELAY, METRI-PACK, 630 SERIES, SEALED, 5 WAY	1
	PACKARD	12066614-L	WIRE TERMINAL, METRI-PACK, 630 SERIES, FEMALE, 14-16 AWG.	4
3	PACKARD	12077993	CONNECTOR, RELAY, METRI-PACK, 630 SERIES, SEALED, 5 WAY	1
	PACKARD	12066614-L	WIRE TERMINAL, METRI-PACK, 630 SERIES, FEMALE, 14-16 AWG.	4
4	PACKARD	12015797	CONNECTOR, WEATHERPACK, 4 WAY, FEMALE	1
	PACKARD	12124580-L	WIRE TERMINAL, FEMALE SLEEVE, 14-16 AWG.	4
	PACKARD	12015323	CABLE SEAL, 16 AWG.	4
5	PACKARD	12015793	CONNECTOR, WEATHERPACK, 3 WAY, FEMALE	1
	PACKARD	12124580-L	WIRE TERMINAL, FEMALE SLEEVE, 14-16 AWG.	3
	PACKARD	12015323	CABLE SEAL, 16 AWG.	3

CONNECTOR CAVITY POS.	CIRCUIT NO.	RELAY TERM. POS. (REF.)
1	428	30
2	429	65
3	N/A	67A
4	433	67
5	432	66



SHUTTER RELAY

NOTE: RELAY CONNECTOR PLUGS SHOWN FROM FRONT MATING FACE END.



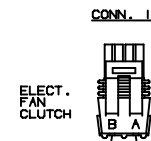
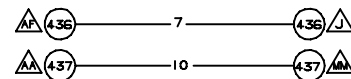
ELECT. FAN RELAY

CONNECTOR CAVITY POS.	CIRCUIT NO.	RELAY TERM. POS. (REF.)
1	394	30
2	216	65
3	414	67A
4	N/A	67
5	431	66

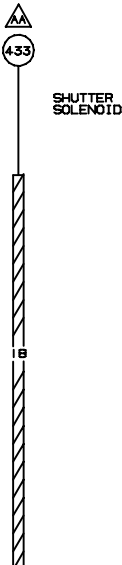
L	61200388	FEMALE PUSH-ON, 1/4, 14-16 AWG.
NT		NO TERMINATION REQ'D
MM	61200189	RING TERMINAL, 5/16 STUD, 10 AWG.
AA	61200132	SPRING SPADE TERMINAL, #10 STUD, 14 AWG.
AF	61200387	FEMALE PUSH-ON, 1/4, FULLY INSULATED, 14-16 AWG.
J	61200168	BUTT SPLICE, 14 AWG., INSULATED
D	61200173	RING TERMINAL, 1/4 STUD, 14-16 AWG.
A	61200174	RING TERMINAL, #10 STUD, 14-16 AWG.
TERM	△	PART NO. DESCRIPTION

NOTE: TAPE JUMPERS TO MAIN BODY OF HARNESS.

WIRE JUMPERS



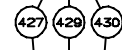
ELECT. FAN CLUTCH



SHUTTER SOLENOID



SHUTTER INLET AIR TEMP. SENSOR



CONN. 5

CIRCUIT	GA.	COLOR	DESCRIPTION	LENGTH (IN)
189	16	BROWN	DIODE (OUTPUT) TO ELECT. FAN CLUTCH CONNECTOR (POS. A)	118
216	16	ORANGE	FAN/SHUTTER TEMP. SENSOR CONNECTOR (POS. C) TO ELECT. FAN RELAY (65)	125
394	14	RED	CIRCUIT BREAKER NO. 24 TO ELECT. FAN RELAY (30)	58
414	16	RED	ELECT. FAN RELAY (67A) TO DIODE (INPUT)	16.5
425	16	RED	2 AMP FUSE TO FAN/SHUTTER TEMP. SENSOR CONNECTOR (POS. A)	173
426	16	BLACK	FAN/SHUTTER TEMP. SENSOR CONNECTOR (POS. D) TO GND STUD ON FRONT PANEL	117
427	16	BLUE	FAN/SHUTTER TEMP. SENSOR CONNECTOR (POS. B) TO SHUTTER INLET AIR TEMP. SENSOR (POS. A)	37
428	14	RED	CIRCUIT BREAKER NO. 24 TO SHUTTER RELAY (30)	58
429	16	BLUE	SHUTTER INLET AIR TEMP. SENSOR (POS. B) TO SHUTTER RELAY (65)	142.5
430	16	BLACK	SHUTTER INLET AIR TEMP. SENSOR (POS. C) TO GND STUD ON FRONT PANEL	135
431	16	WHITE	ELECT. FAN RELAY (66) TO GND STUD ON FRONT PANEL	19
432	16	WHITE	SHUTTER RELAY (66) TO GND STUD ON FRONT PANEL	15.5
433	14	BLUE	SHUTTER RELAY (67) TO SHUTTER ELECT. SOLENOID VALVE	81.5
434	16	WHITE	ELECT. FAN CLUTCH CONNECTOR (POS. B) TO GND STUD ON FRONT PANEL	116
436	14	RED	SIDE PANEL CIRCUIT BREAKER NO. 28 TO 2 AMP FUSE	7
437	16	WHITE	SHUTTER ELECT. SOLENOID VALVE GND TO FRAME GND	10

NOTES:

1. ALL WIRING TO BE GXL TYPE WIRE.
2. CIRCUIT NUMBERS TO BE STAMPED AT 4" INTERVALS ON ALL LEADS.
3. HARNESS SHALL CONFORM TO SPECS. LISTED ON DWG. NO. 62201055.
4. COVER HARNESS WITH APPROPRIATE SIZE CONVOLUTED CONDUIT COVERING.



HARNESS, ELECT.
FAN/SHUTTERS CAT 3126
ENGINE

CONNECTOR LIST				
CONN.	VENDOR	PART NO.	DESCRIPTION	QTY
1	PACKARD	12077993	CONNECTOR, RELAY, METRI-PACK, 630 SERIES, SEALED, 5 WAY	1
	PACKARD	12066614-L	WIRE TERMINAL, METRI-PACK, 630 SERIES, FEMALE, 14-16 AWG.	4
	PACKARD	12077993	CONNECTOR, RELAY, METRI-PACK, 630 SERIES, SEALED, 5 WAY	1
2	PACKARD	12066614-L	WIRE TERMINAL, METRI-PACK, 630 SERIES, FEMALE, 14-16 AWG.	4
	PACKARD	12015799	CONNECTOR ASM., WEATHERPACK, FEMALE, 6 WAY	1
3	PACKARD	12124580-L	WIRE TERMINAL, WEATHERPACK, FEMALE, 14-16 AWG.	6
	PACKARD	12015323	CABLE SEAL, 16 AWG.	3
	PACKARD	12010293	CABLE SEAL, 14 AWG.	3
4	PACKARD	12015793	CONNECTOR ASM., WEATHERPACK, FEMALE, 3 WAY	1
	PACKARD	12015917-L	WIRE TERMINAL, WEATHERPACK, FEMALE SLEEVE, 12 AWG.	2
	PACKARD	12015193	CABLE SEAL, 12 AWG.	2
	PACKARD	12124580-L	WIRE TERMINAL, WEATHERPACK, FEMALE SLEEVE, 14 AWG.	1
	PACKARD	12010293	CABLE SEAL, 14 AWG.	1
5	PACKARD	12010896	CONNECTOR ASM., WEATHERPACK, MALE, 1 WAY	1
	PACKARD	12069305	WIRE TERMINAL, WEATHERPACK, MALE, 14-16 AWG.	1
	PACKARD	12015323	CABLE SEAL	1


GXL WIRE REQ'D	CIRCUIT	GA.	COLOR	DESCRIPTION	LENGTH (IN.)
	4A	14	DK. BLUE	SIDE PANEL TERMINAL BD. (W/*9B AND *4B) TO TRANSMISSION NEUTRAL SW.(INPUT)	126
	6	14	BLACK	FUEL GAUGE TO FUEL TANK SENDER	422
	20	14	DK. GREEN	ALTERNATOR TACHOMETER SIGNAL TO TACHOMETER GAUGE	108.5
	21	16	GREEN	OIL PRESS. GAUGE SENDER TO OIL PRESS. GAUGE	109.5
	24	16	GREEN	WATER TEMP. SENDER TO WATER TEMP. GAUGE	94
	30	14	DK. BLUE	LOW OIL PRESS. SW. (W/O KYSOR) TO OIL PRESS./WATER TEMP. DUAL ALARM WARNING BUZZER (F)	129.5
	49	14	RED	HORN RELAY TO HORN	58.5
	50	14	RED	HORN RELAY TO HORN	58.5
	95	16	GREEN	TRANSMISSION TEMP. SENDER TO TRANSMISSION TEMP. GAUGE	114
	59	14	RED	FRONT PANEL CIRCUIT BREAKER NO. 5 TO RS FRONT STOP LAMP SW. (AIR BRAKE) (INPUT)	92
*	60	14	RED	STOP LAMP RELAY CONTACT (B7) TO 6 POSITION BODY CONNECTOR PLUG (BRAKE LIGHTS)	63
	61A	14	RED	RS REAR STOP LAMP SW. TO LS FRONT STOP LAMP SW. (AIR BRAKE JUMPER ONLY)	6
*	61B	14	GREEN	RS FRONT STOP LAMP SW. (AIR BRAKE) TO STOP LAMP RELAY (B5)	84
*	62	14	RED	STOP LAMP RELAY CONTACT (30) TO SIDE PANEL CIRCUIT BREAKER NO. 20	38
*	72	14	RED	FUEL SOLENOID RELAY CONTACT (B7) TO FRONT PANEL TERMINAL BD. (W/*193)	8.5
	74	14	DK. BLUE	LOW OIL PRESS. SW. (W/O KYSOR) TO HIGH WATER TEMP. SW. (W/O KYSOR)	103.5
	77	10	RED/BLACK	MAIN 150 AMP CIRCUIT BREAKER (AUX. LOADSIDE) TO STARTER RELAY (POWER) CONTACT	72
	78	10	RED/BLACK	STARTER RELAY (LOAD) (W/*192) TO STARTER SOLENOID (+12V)	33.5
	89	14	RED/BLACK	SIDE PANEL CIRCUIT BREAKER NO. 18 TO KYSOR ALARMSTAT (C)	130
	90	14	DK. GREEN	KYSOR PRESSURESTAT (C) TO KYSOR ALARMSTAT (N/C)	108.5
	91A	14	DK. GREEN	KYSOR PRESSURESTAT (N/O) TO FRONT PANEL TERMINAL BD. (W/*161 & *91B)	113
	91B	14	DK. GREEN	FRONT PANEL TERMINAL BD. (W/*91A AND *161) TO SIDE PANEL TERMINAL BD. (W/*91C OR *91D)	44
	92	14	DK. GREEN	KYSOR PRESSURESTAT (N/C) TO KYSOR ALARMSTAT (N/O)	108.5
	93A	14	DK. GREEN	KYSOR ALARMSTAT (N/O) TO FRONT PANEL TERMINAL BD. (W/*93B)	107
	93B	14	DK. GREEN	FRONT PANEL TERMINAL BD. (W/*93A) TO KYSOR SHUTDOWN WARNING BUZZER (POS.) (W/*94)	44
	103	14	DK. BLUE	STARTER RELAY (W/*78) TO SIDE PANEL TERMINAL BD. (W/*104)	92
	104	14	DK. BLUE	SIDE PANEL TERMINAL BD. (W/*103) TO ETHER SOLENOID VALVE	86.5
	112	14	RED	STARTER RELAY COIL TO TRANSMISSION NEUTRAL SW. (OUTPUT)	53
	120	14	DK. GREEN	KYSOR LOW COOLANT LEVEL MODULE (POS. 2) TO KYSOR LOW COOLANT LEVEL PROBE	189.5
	145	14	WHITE	FUEL TANK SENDER GND TO FRAME GND	52
*	160	14	RED	SIDE PANEL CIRCUIT BREAKER NO. 18 TO FUEL SOLENOID RELAY (30)	46.5
*	161	14	RED	FUEL SOLENOID RELAY CONTACT (B5) TO FRONT PANEL TERMINAL BD. (W/*91A & *91B)	7
	191	12	BLACK	FUEL SOLENOID GND TO FRONT PANEL GND STUD	71
	192	12	WHITE	FUEL SOLENOID (PULL-IN COIL) TO STARTER RELAY (LOAD) (W/*78)	22
	193	14	RED	FUEL SOLENOID (HOLD-IN COIL) TO FRONT PANEL TERMINAL BD. (W/*72)	72.5
*	238	14	WHITE	FUEL SOLENOID RELAY CONTACT (B6) TO FRONT PANEL GND STUD	11
	396	14	WHITE	FRONT PANEL GND STUD TO SIDE PANEL GND STUD	37.5
	397	10	WHITE	SIDE PANEL GND STUD TO FRAME GND	129
	400	14	DK. BLUE	FRONT PANEL CIRCUIT BREAKER NO. 5 TO LS REAR STOP LAMP SW. (AIR BRAKE) (INPUT)	92
	415	14	RED	IGNITION SW. (IGN. RUN) TO ALTERNATOR "IGN." POST	108.5
*	419	14	WHITE	STOP LAMP RELAY CONTACT (B6) TO FRONT PANEL GND STUD	9.5
	438	14	WHITE	STARTER RELAY COIL GND TO FRONT PANEL GND STUD	69.5
*	59A	16	RED/BLACK	RS FRONT STOP LAMP SW. (AIR BRAKE) TO RS FRONT STOP LAMP SW. (HYD. BRAKE) (INPUT)	58
*	400A	16	DK. BLUE/BLACK	LS REAR STOP LAMP SW. (AIR BRAKE) TO LS REAR STOP LAMP SW. (HYD. BRAKE) (INPUT)	58
	61B1	14	GREEN/BLACK	RS FRONT STOP LAMP SW. (AIR BRAKE) TO RS FRONT STOP LAMP SW. (HYD. BRAKE) (OUTPUT)	58

BX	61200919	CABLE SEAL, 150 SERIES, *12049096
BW	61201036	WIRE TERMINAL, METRI-PACK, 150 SERIES, MALE, 18 AWG., *12045773-L
AY	61200928	CABLE SEAL, WEATHERPACK, 14 AWG., *12010293
AX	61200950	FUSE HOLDER CONTACT, MAXI-FUSE, (2) 12 AWG., *12092444-L
AW	61200927	FEMALE SLEEVE, WEATHERPACK, 14 AWG., *12124580-L
AD	61200782	FEMALE PUSH-ON, .250 x .032, FULLY INSULATED, 90° FLAG, 16-14 AWG.
AG	61200468	FEMALE PUSH-ON, 1/4", FULLY INSULATED, 12-10 AWG.
AF	61200387	FEMALE PUSH-ON, 1/4", FULLY INSULATED, 16-14 AWG.
NM	61200189	RING TERMINAL, 5/16" STUD, 10 AWG.
KK	61200154	BULLET TERMINAL CONNECTOR, MALE, .176 DIA., 14 AWG.
FF	61200151	BULLET TERMINAL CONNECTOR, FEMALE, .176 DIA., 14 AWG.
EE	61200149	RING TERMINAL, 5/16" STUD, 14 AWG.
BB	61200133	SPRING SPADE TERMINAL, *10 STUD, 10 AWG.
AA	61200132	SPRING SPADE TERMINAL, *10 STUD, 14 AWG.
V	61200181	RING TERMINAL, 1/4" STUD, 10 AWG.
L	61200388	FEMALE PUSH-ON, 1/4", 14 AWG.
J	61200168	BUTT SPLICE, 14 AWG.
D	61200173	RING TERMINAL, 1/4" STUD, 14 AWG.
B	61200190	RING TERMINAL, *10 STUD, 10 AWG.
A	61200174	RING TERMINAL, *10 STUD, 14 AWG.
TERM Δ	PART NO.	DESCRIPTION

NOTES:

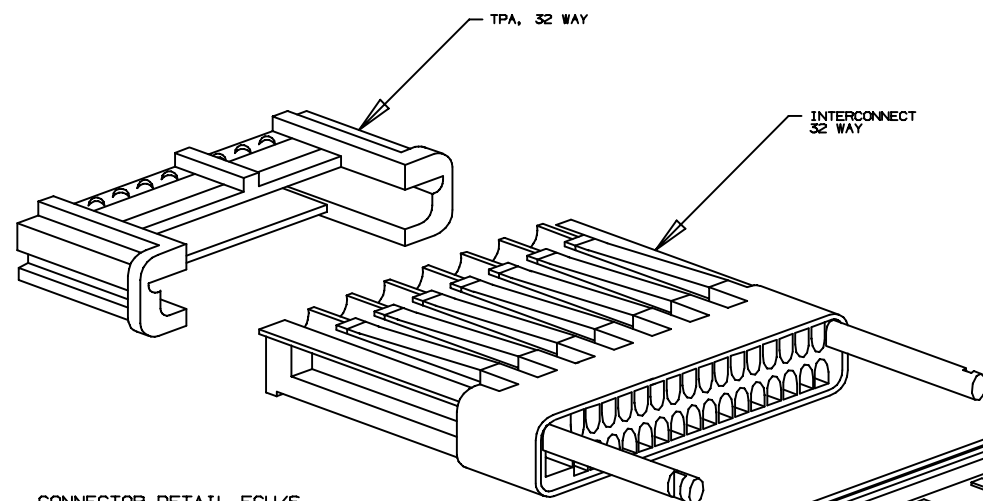
1. CIRCUIT NUMBERS TO BE STAMPED AT 4" INTERVALS ON ALL LEADS.
2. TAG HARNESS FOR IDENTIFICATION.
3. HARNESS TO BE COVERED WITH APPROPRIATE SIZE OF CONVULUTED CONDUIT. ALL WIRE DROPOUTS TO RECEIVE APPROPRIATE SIZE COVERING FROM POINT OF EXIT FROM MAIN BODY OF HARNESS TO END OF LEAD.
4. WIRE CONSTRUCTION, MATERIALS AND PRACTICES TO COMPLY WITH THE FOLLOWING STANDARDS ON DWG. 62201055 - WIRE SPECIFICATIONS.
5. ALL WIRING TO BE SXL TYPE WIRE, EXCEPT WHERE NOTED TO USE GXL TYPE WIRE.

SHEET 2 OF 2

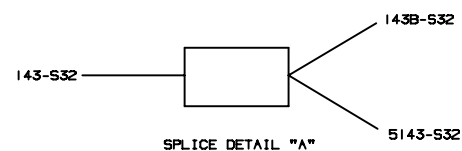
	62201597 C
HARNESS, MAIN ENGINE, CUMMINS 6B BULKHEAD HARNESS	

**MVP-EF
TRANSMISSION
SCHEMATICS**

TERMINAL PARTS LIST		
TERM Δ	PART NO.	DESCRIPTION
S-D	61201314	RING TERMINAL, 1/4"
S-CL	61201360	BUTT SPLICE, 18 AWG.
S-DK	61201359	RING TERMINAL, #10 STUD, 18 AWG.
S-CM	61201357	FEMALE PUSH-ON, 14", 18 AWG.



CONNECTOR DETAIL ECU/S



SPLICE DETAIL "A"

SPLICE CONNECTION "A"				
WIRE NO.	AWG.	SPLICE TO	WIRE NO.	AWG.
5143-S32	18	→	143-S32	18
143B-S32	18			

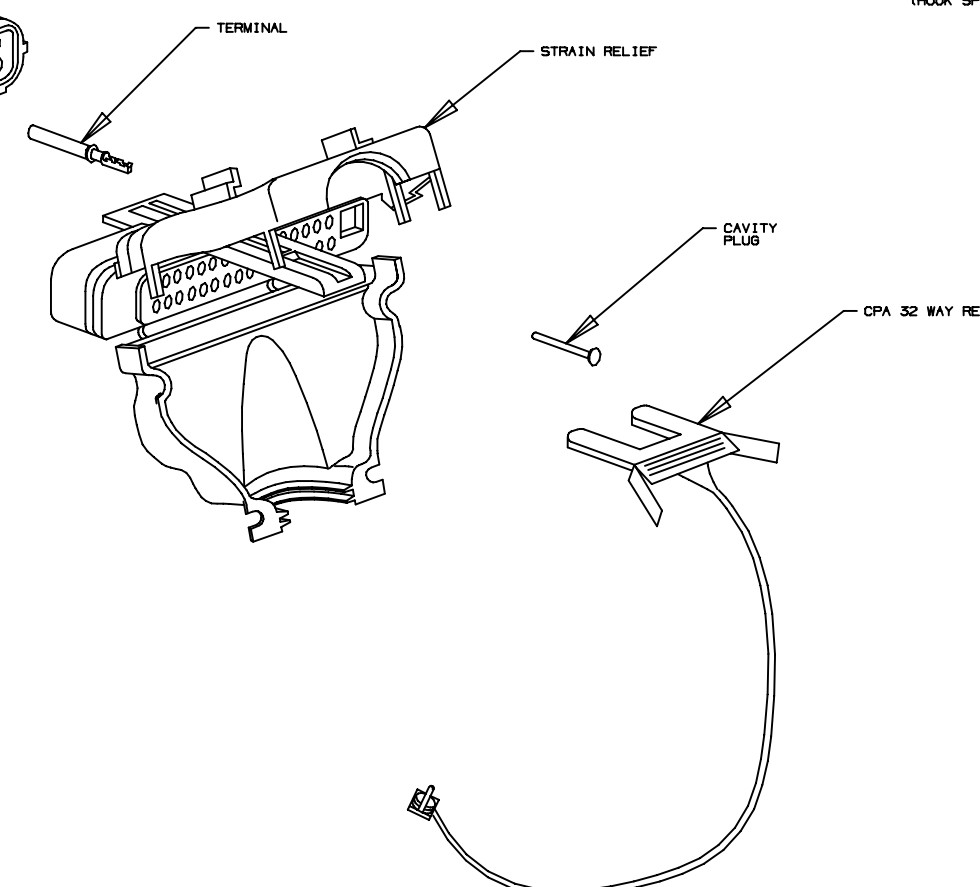
ADDITIONAL PARTS REQUIRED FOR SPLICE DETAIL		
ITEM	QTY.	DESCRIPTION
1	2	SPLICE CONNECTOR
2	AR	ADHESIVE HEAT SHRINK

TWISTED PAIR CABLE SPECIFICATIONS		
TYPE - COMMUNICATION, CONTROL, INSTRUMENTATION CABLE, (1) TWISTED PAIR, 2 CONDUCTOR (STRANDED) W/DRAIN WIRE, 100% SHIELD COVERING, 300V - 600V RATING, 90°C - 90°C TEMP RATING		
AWG.	APPROVED VENDORS OF CABLE	PART NO.
18	BELDEN	88760
	ALPHA	6616B1801

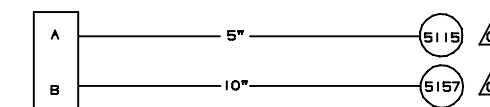
NOTE: OPTIONAL WIRE VENDORS ARE APPROVED IF ABOVE SPECIFICATIONS FOR CABLE CONSTRUCTION ARE MET OR EXCEEDED.

J1939 TWISTED PAIR CABLE SPECIFICATIONS		
TYPE - COMMUNICATION, CONTROL, DATA BUS CABLE, (1) TWISTED PAIR, 2 CONDUCTOR (STRANDED) W/DRAIN WIRE, 100% SHIELD COVERING, 300V - 600V RATING, 90°C - 150°C TEMP RATING FOR SAE J1939 USAGE, IMPEDANCE AT 120 OHMS ± 12 OHMS CONDUCTOR NO.1 (GREEN), CONDUCTOR NO.2 (YELLOW)		
AWG.	APPROVED VENDORS OF CABLE	PART NO.
20	ANIXTER	CE3656065
	RAYCHEM/STAF-CO	301

NOTE: OPTIONAL WIRE VENDORS ARE APPROVED IF ABOVE SPECIFICATIONS FOR CABLE CONSTRUCTION ARE MET OR EXCEEDED. MUST MEET SAE J1939/11 (5.2).



SPD1B



JUMPER HARNESS (HOOK SPD1B TO SPD1A)

- NOTES:
1. LOOM IN ACCORDANCE WITH DWG. NO. 62201055, RATED AT 300°F.
 2. ALL DROPOUTS TO RECEIVE APPROPRIATE SIZE CONVOLUTED COVERING FROM POINT OF EXIT FROM MAIN HARNESS BODY TO END OF LEAD.
 3. WIRING TO BE TXL-18 GAUGE WIRE.
 4. STAMP ALL CIRCUIT NUMBERS AT 4" INTERVAL, EXCEPT TWISTED PAIR CABLES. USE OF WIRE MARKERS IS ACCEPTABLE FOR CABLING.
 5. TERMINATE WIRES TO APPROPRIATE CONNECTORS AND TERMINALS.
 6. INSERT CAVITY PLUGS IN UNUSED CAVITIES OF SEALED CONNECTORS BY INSERTING UNTIL LARGE DIAMETER IS FLUSH WITH GROMMET.
 7. EXCEPT AT ECU CONNECTORS, ALL CONVOLUTED CONDUIT ENDS SHALL BE SECURED USING ADHESIVE TAPE.
 8. SPOT TAPE HARNESS EVERY 12 INCHES UNDERNEATH CONDUIT. ENDS OF CONDUIT TO BE TAPED OVER AND UNDERNEATH CONDUIT. HARNESS BREAKOUTS TO BE REINFORCED WITH TAPE.
 9. TAG HARNESS FOR IDENTIFICATION.

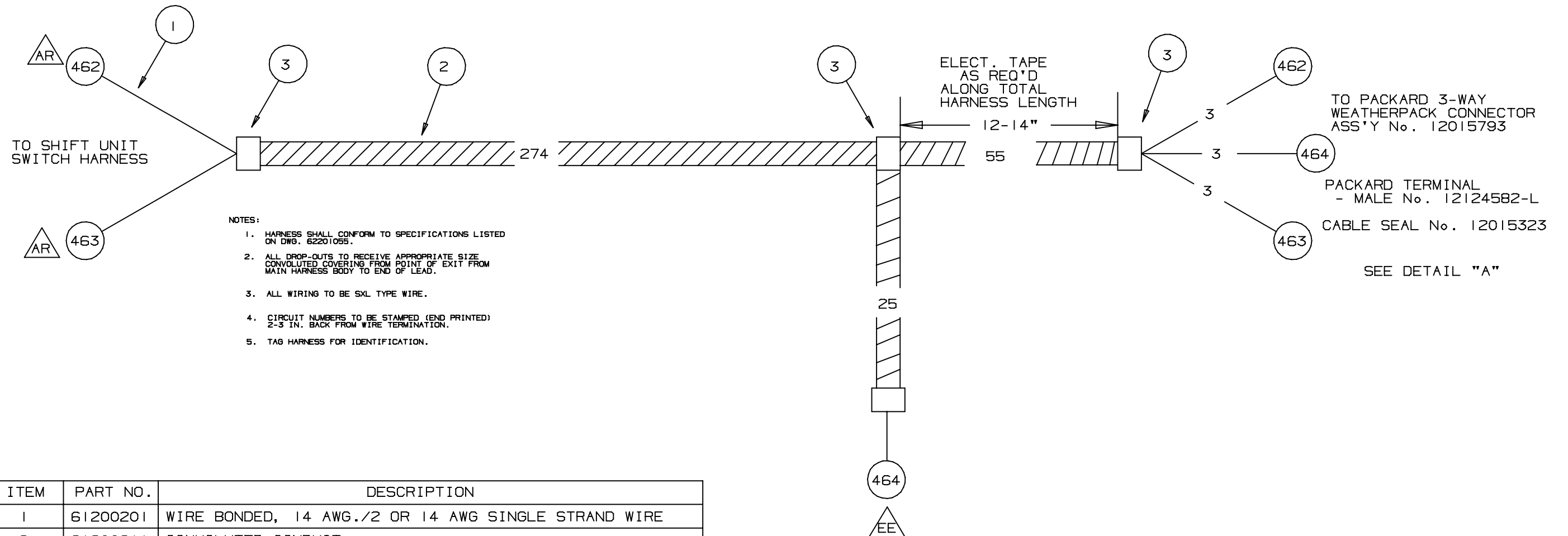
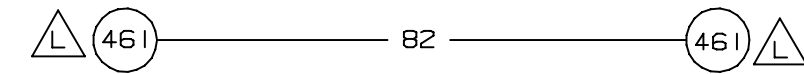
SHEET 2 OF 2

	62202349 D
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HARNESS, MD TRANS.
WTEC III, ECU/S TO SHIFT
SELECT, J1587/J1939

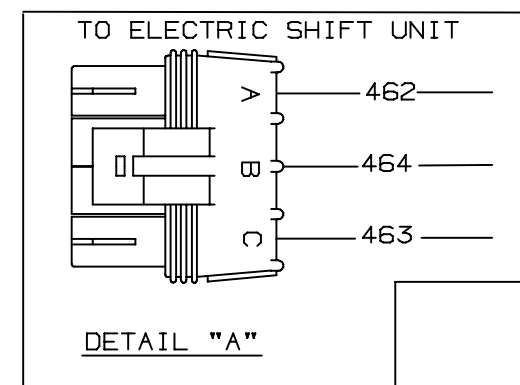
CIRCUIT NO.	GA.	COLOR	DESCRIPTION
461	14	GREEN	C.B. No. 29 OF SIDE ELECT. PANEL TO SHIFT UNIT SWITCH HARNESS
462	14	RED	SHIFT UNIT SWITCH HARNESS TO PACKARD 3-WAY WEATHERPACK CONN., POS. A
463	14	BLACK	SHIFT UNIT SWITCH HARNESS TO PACKARD 3-WAY WEATHERPACK CONN., POS. C
464	14	GREEN	PACKARD 3-WAY WEATHERPACK CONN., POS. B, TO CHASSIS GND

TAPE JUMPER TO MAIN HARNESS.



ITEM	PART NO.	DESCRIPTION
1	61200201	WIRE BONDED, 14 AWG./2 OR 14 AWG SINGLE STRAND WIRE
2	61200211	CONVOLUTED CONDUIT
3	61200386	TAPE-ELECTRICAL

TERMINAL	PART NO.	DESCRIPTION
EE	61200149	RING TERMINAL, 5/16" STUD, 14 AWG.
L	61200388	FEMALE PUSH-ON, 1/4", 14 AWG
AR	61200805	MALE BLADE TAB, 1/4", FULLY INSUL.,
--	--	16-14 AWG, 14RB-251T



Thomas
BUILT BUSES

62201623 A

HARNESS, 2 SPEED AXLE
MANUAL TRANS.

CIR.	GA.	COLOR	DESCRIPTION	LENGTH (IN.)
1A1	18	WHITE	CONN. NO.1, POS.A1, EC-17 TO SIDE ELECT. PANEL GND STUD	82
1A2	18	WHITE	CONN. NO.1, POS.A2, EC-17 TO SIDE ELECT. PANEL GND STUD	82
1A3	18	WHITE	CONN. NO.1, POS.A3, EC-17 TO SIDE ELECT. PANEL GND STUD	82
1B1	18	RED	CONN. NO.1, POS.B1, EC-17 TO ABS START INTERLOCK RELAY (87A)	82
1B2	-	-----	NOT USED (CAVITY PLUG REQUIRED)	---
1B3	-	-----	NOT USED (CAVITY PLUG REQUIRED)	---
1C1	18 TT1	RED	CONN. NO.1, POS.C1, EC-17 TO RIGHT FRONT MODULATOR (SOURCE)	141
1C2	18	BLACK	CONN. NO.1, POS.C2, EC-17 TO CONN. NO.7, POS.A (TRACTION LAMP GND)	59
1C3	20	YELLOW	CONN. NO.1, POS.C3, EC-17 TO CONN. NO.6, POS.A (J1939(+)) HIGH	31
1D1	18 TT1	WHITE	CONN. NO.1, POS.D1, EC-17 TO RIGHT FRONT MODULATOR (HOLD)	141
1D2	20	SHIELD	CONN. NO.1, POS.D2, EC-17 TO CONN. NO.6, POS.C (J1939 SHIELD)	31
1D3	20	GREEN	CONN. NO.1, POS.D3, EC-17 TO CONN. NO.6, POS.B (J1939(-)) LOW	31
1E1	18 TT1	BLACK	CONN. NO.1, POS.E1, EC-17 TO RIGHT FRONT MODULATOR (EXHAUST)	141
1E2	-	-----	NOT USED (CAVITY PLUG REQUIRED)	---
1E3	18	YELLOW	CONN. NO.1, POS.E3, EC-17 TO ABS WARNING LAMP RELAY (86) SIDE PANEL	81
1F1	18 TT2	BLACK	CONN. NO.1, POS.F1, EC-17 TO LEFT FRONT MODULATOR (EXHAUST)	131
1F2	18	GREEN	CONN. NO.1, POS.F2, EC-17 TO CONN. NO.7, POS.B (TRACTION SW. +12V)	59
1F3	-	-----	NOT USED (CAVITY PLUG REQUIRED)	---
1G1	18 TT2	WHITE	CONN. NO.1, POS.G1, EC-17 TO LEFT FRONT MODULATOR (HOLD)	131
1G2	18 CABLE	WHITE	CONN. NO.1, POS.G2, EC-17 TO SIDE PANEL TERM. BD. NO.2, POS.3, J1587+	79
1G3	18 CABLE	BLACK	CONN. NO.1, POS.G3, EC-17 TO SIDE PANEL TERM. BD. NO.2, POS.2, J1587-	80
1H1	18 TT2	RED	CONN. NO.1, POS.H1, EC-17 TO LEFT FRONT MODULATOR (SOURCE)	131
1H2	18 TP	BLACK	CONN. NO.1, POS.H2, EC-17 TO RIGHT FRONT WHEEL SENSOR (SIGNAL)+	151
1H3	18 TP	WHITE	CONN. NO.1, POS.H3, EC-17 TO RIGHT FRONT WHEEL SENSOR (RETURN)-	151
1J1	18 TP	BLACK	CONN. NO.1, POS.J1, EC-17 TO LEFT FRONT WHEEL SENSOR (SIGNAL)+	97
1J2	18 TP	WHITE	CONN. NO.1, POS.J2, EC-17 TO LEFT FRONT WHEEL SENSOR (RETURN)-	97
1J3	-	---	NOT USED (CAVITY PLUG REQUIRED)	---
1K1	18	WHITE	CONN. NO.1, POS.K1, EC-17 TO SIDE PANEL TERM. BD. NO.2, POS.4 (ABS ACTIVE)	78
1K2	18	RED	CONN. NO.1, POS.K2, EC-17 TO ABS START INTERLOCK RELAY (87A)	82
1K3	18	RED	CONN. NO.1, POS.K3, EC-17 TO ABS START INTERLOCK RELAY (87A)	82
2A1	18 TT3	RED	CONN. NO.2, POS.A1, EC-17 TO RIGHT REAR MODULATOR (SOURCE)	157+DIMA
2A2	-	-----	NOT USED (CAVITY PLUG REQUIRED)	---
2A3	-	-----	NOT USED (CAVITY PLUG REQUIRED)	---
2B1	18 TT3	WHITE	CONN. NO.2, POS.B1, EC-17 TO RIGHT REAR MODULATOR (HOLD)	157+DIMA
2B2	-	-----	NOT USED (CAVITY PLUG REQUIRED)	---
2B3	-	-----	NOT USED (CAVITY PLUG REQUIRED)	---
2C1	18 TT3	BLACK	CONN. NO.2, POS.C1, EC-17 TO RIGHT REAR MODULATOR (EXHAUST)	157+DIMA
2C2	-	-----	NOT USED (CAVITY PLUG REQUIRED)	---
2C3	-	-----	NOT USED (CAVITY PLUG REQUIRED)	---
2D1	18 TT4	BLACK	CONN. NO.2, POS.D1, EC-17 TO LEFT REAR MODULATOR (EXHAUST)	147+DIMA
2D2	18 TP	BLACK	CONN. NO.2, POS.D2, EC-17 TO TRACTION CONTROL VALVE SOLENOID (SOURCE)	151+DIMA
2D3	18 TP	WHITE	CONN. NO.2, POS.D3, EC-17 TO TRACTION CONTROL VALVE SOLENOID (GND)	151+DIMA
2E1	18 TT4	WHITE	CONN. NO.2, POS.E1, EC-17 TO LEFT REAR MODULATOR (HOLD)	147+DIMA
2E2	18 TP	BLACK	CONN. NO.2, POS.E2, EC-17 TO RIGHT REAR WHEEL SENSOR (SIGNAL)+	167+DIMA
2E3	18 TP	WHITE	CONN. NO.2, POS.E3, EC-17 TO RIGHT REAR WHEEL SENSOR (RETURN)-	167+DIMA
2F1	18 TT4	RED	CONN. NO.2, POS.F1, EC-17 TO LEFT REAR MODULATOR (SOURCE)	147+DIMA
2F2	18 TP	BLACK	CONN. NO.2, POS.F2, EC-17 TO LEFT REAR WHEEL SENSOR (SIGNAL)+	133+DIMA
2F3	18 TP	WHITE	CONN. NO.2, POS.F3, EC-17 TO LEFT REAR WHEEL SENSOR (RETURN)-	133+DIMA
323	14	RED	SIDE PANEL TERM. BD. NO.1, POS.1 TO ABS START INTERLOCK RELAY (85)	11
324	10	RED	CIRCUIT BREAKER NO. 18 TO ABS START INTERLOCK RELAY (30)	20
326	16	BLACK	ABS WARNING LAMP RELAY (87A) TO CONN. NO.7, POS.C (ABS LAMP)+12V	30
327	16	RED	CIRCUIT BREAKER NO. 28 TO ABS WARNING LAMP RELAY (85&30)	19, 3, 5
351	14	WHITE	ABS START INTERLOCK RELAY (86) TO SIDE PANEL GND STUD	18
510	16	RED	CIRCUIT BREAKER NO. 28 TO CONN. NO.7, POS.D (TRACTION LAMP & SW. +12V INPUT)	31
35H	18	LT. BLUE	TRACTION SW. (SYMBOL LAMP) +12V TO SIDE PANEL TERM. BD. 3, POS.4	47
36K	18	WHITE	TRACTION SW. (SYMBOL LAMP) GND TO SIDE PANEL GND STUD	52

TT = TWISTED TRIAD

(J1939) 20 AWG. TWISTED PAIR CABLE

(J1587) 18 AWG. TWISTED PAIR CABLE

WIRE CONNECTOR PARTS LIST				
CONN.	VENDOR	PART NO.	DESCRIPTION	QTY.
1	PACKARD	12034398	CONNECTOR ASM. - METRI PACK, 150 SERIES, FEMALE, 30 WAY SEALED P25	1
	PACKARD	12103891-L	WIRE TERMINAL, METRI PACK, 150 SERIES, FEMALE, 16-18 AWG.	22
	PACKARD	12059168	CAVITY PLUG - METRI PACK, 150 SERIES	5
	PACKARD	12089290-L	WIRE TERMINAL, METRI PACK, 150 SERIES, FEMALE, 20-22 AWG.	3
2	PACKARD	12040921	CONNECTOR ASM. - METRI PACK, 150 SERIES, FEMALE, 18 WAY SEALED P25	1
	PACKARD	12103891-L	WIRE TERMINAL, METRI PACK, 150 SERIES, FEMALE, 16-18 AWG.	12
	PACKARD	12059168	CAVITY PLUG - METRI PACK, 150 SERIES	6
3	DEUTSCH	DTM04-2P	CONNECTOR ASM. - 2 POSITION MALE, RECEPTACLE	4
	DEUTSCH	1060-20-0122	PIN CONTACT TERMINAL	8
	DEUTSCH	WM-2P	SECONDARY LOCK	4
4	PACKARD	12040977	CONNECTOR ASM. - METRI PACK, 280 SERIES, FEMALE, 3 WAY SEALED	4
	PACKARD	12034145	SECONDARY LOCK - WIRE CONNECTOR	4
	PACKARD	12077411-L	WIRE TERMINAL - METRI PACK, 280 SERIES, FEMALE SOCKET, 18-20 AWG.	12
	PACKARD	12015323	CABLE SEAL	12
5	DEUTSCH	DT06-2S	CONNECTOR ASM. - 2 POSITION, FEMALE, PLUG	1
	DEUTSCH	0462-201-16141	SOCKET CONTACT TERMINAL	2
	DEUTSCH	W2S	SECONDARY LOCK	1
6	DEUTSCH	DT04-3P-EO08	CONNECTOR ASM., RECEPTACLE	1
	DEUTSCH	0460-202-1631	WIRE TERMINAL, MALE, 20 AWG.	3
	DEUTSCH	W3P	WEDGE PLUG	1
7	PACKARD	12015797	CONNECTOR ASM., WEATHERPACK, FEMALE, 4 WAY	1
	PACKARD	12124580-L	WIRE TERMINAL, WEATHERPACK, FEMALE, 14-16 AWG.	2
	PACKARD	12015323	CABLE SEAL, 16-18 AWG.	4
	PACKARD	12089188-L	WIRE TERMINAL, WEATHERPACK, FEMALE, 18-20 AWG.	2
8	DEUTSCH	DT06-3S-EO03	CONNECTOR ASM., PLUG	1
	DEUTSCH	W3S	WEDGE PLUG	1
	DEUTSCH	114017	CAVITY PLUG	3
9	DEUTSCH	DT04-2P	CONNECTOR ASM., 2 POS., MALE, RECEPTACLE	1
	DEUTSCH	114017	CAVITY PLUG	2

NOTES:

- CIRCUIT NUMBERS TO BE STAMPED AT 4" INTERVALS ON ALL LEADS; EXCEPT TWISTED PAIR CABLES. USE OF WIRE MARKERS IS ACCEPTABLE FOR CABLING.
- TAG HARNESS FOR IDENTIFICATION.
- HARNESS TO BE COVERED WITH APPROPRIATE SIZE OF CONVOLUTED CONDUIT. ALL WIRE DROPOUTS TO RECEIVE APPROPRIATE SIZE COVERING FROM POINT OF EXIT FROM MAIN BODY OF HARNESS TO END OF LEAD.
- WIRE CONSTRUCTION, MATERIALS, AND PRACTICES TO COMPLY WITH THE FOLLOWING STANDARDS ON DWG. 62201055 WIRE SPECIFICATIONS.
- ALL WIRING TO BE 6XL TYPE WIRE, EXCEPT TWISTED PAIR CABLES.
- USE CONVOLUTED CONDUIT (BLACK W/ GRAY STRIPE) NYLON, PACKARD, RATED AT 300°F HIGH TEMP. ENG. COMPARTMENT USAGE OR EQUIVALENT.
- TWISTED PAIR/TRIAD SPEC. ALL NOTED/ DESIGNATED TWISTED PAIR AND TWISTED TRIAD WIRING MUST INCORPORATE 1-2 TWISTS PER IN.
- CONNECTOR I.D. LABELS SHOULD BE ATTACHED TO EACH CONNECTOR NO. 3, NO. 4, & NO. 5 DIRECTLY BEHIND EACH CONNECTOR. EXAMPLE OF I.D. LABEL SHOWN BELOW:

CONN. NO. 3 (WHEEL SENSORS)	L. FRONT WHEEL SENSOR
CONN. NO. 4 (MODULATORS)	R. REAR MODULATOR
- ALL RING TERMINAL, PUSH-ON TERMINAL, AND BUTT SPLICE CRIMPS SHALL BE ENVIRONMENTALLY SEALED. EQUIVALENT ASSEMBLY TO TERMINALS FOUND ON DWG. 6220342 MAY BE SUBSTITUTED FROM DWG. 6220224 BY SLEEVING EACH TERMINAL WITH A HEAT SHRINK INSULATOR. THE HEAT SHRINK SLEEVE IS TO COMPLETELY COVER THE CONDUCTOR ENTRY INTO THE TERMINAL, ACTING AS AN ENVIRONMENTAL SEAL AND STRAIN RELIEF. BUTT SPLICES FROM DWG. 6220342 MUST BE USED, AND CAN NOT BE REPLACED BY USING A HEAT SHRINK SLEEVE.

SHEET 2 OF 2

	62203052 B
HARNESS, ABS w/TRAC-TION OPTION SPECIAL WIRING	
Effective Date: 1/12/00	

TERM. Δ	PART NO.	DESCRIPTION
S-A	61201312	RING TERMINAL, #10 STUD, 14 AWG.
S-D	61201314	RING TERMINAL, 1/4" STUD, 14 AWG
S-L	61201318	FEMALE PUSH-ON, 1/4", 14 AWG.
S-M	61201319	FEMALE PUSH-ON, 1/4", 10 AWG.
S-AM	61201338	FEMALE PUSH-ON, .187 X .032, 16-14 AWG.
BC	61200847	FUSE HOLDER CONTACT, MAXIFUSE, 10 AWG., PACKARD 12110127-L
NT	---	NO TERMINAL REQUIRED
S-A8	61201337	FEMALE PUSH-ON, 1/4" FULLY INSUL., 12-10 AWG.
S-DK	61201359	RING TERMINAL, #10 STUD, 18 AWG.
S-CP	61201358	RING TERMINAL, 1/4" STUD, 18 AWG.
S-CM	61201357	FEMALE PUSH-ON, 1/4" FULLY INSUL., 18-20 AWG.
S-V	61201324	RING TERMINAL, 1/4" STUD, 12-10 AWG.
GN	61201227	WIRE TERMINAL, MP, 630, F, 18-20 AWG., #12015868-L

WIRE TERMINAL CHART NOTES

- NOTES:
- ALL WIRE TERMINALS SHOWN IN THIS CHART MUST COMPLY WITH THE FOLLOWING MATERIAL AND INSTALLATION SPECIFICATION.
 - WIRE TERMINALS MUST BE CRIMPED AND/OR SOLDERED TO TERMINATING CONDUCTOR.
 - EACH TERMINAL IS TO BE SLEEVED WITH A HEAT SHRINK INSULATOR. HEAT SHRINK SLEEVE IS TO COMPLETELY COVER THE TERMINAL CRIMP AREA AND EXTEND TO COVER THE CONDUCTOR ENTRY INTO THE TERMINAL, ACTING AS AN ENVIRONMENTAL SEAL AND STRAIN RELIEF.
 - THE USE OF PRE-INSULATED HEAT SHRINK TERMINALS (MANUFACT. - AMP, THOMAS & BETTS, PANDUIT) ARE ACCEPTABLE AS AN EQUIVALENT TERMINAL/ HEAT SHRINK SUBSTITUTION.

TWISTED PAIR CABLE SPECIFICATION

TYPE - COMMUNICATION, CABLE, INSTRUMENTATION. (1) TWISTED PAIR, 2 CONDUCTOR, (STRANDED) W/DRAIN WIRE. 100% SHIELD COVERING. 300V - 600V RATING. 80°C - 90°C TEMP. RATING.		
AWG.	APPROVED VENDORS OF CABLE	PART NO.
18	BELDEN ALPHA	88760 561681801

NOTE: OPTIONAL WIRE VENDORS ARE APPROVED IF ABOVE SPECIFICATIONS FOR CABLE CONSTRUCTION ARE MET OR EXCEEDED.

J1939 TWISTED PAIR CABLE SPECIFICATIONS

TYPE - COMMUNICATION, CONTROL, DATA BUS CABLE. (1) TWISTED PAIR, 2 CONDUCTOR (STRANDED) W/DRAIN WIRE. 100% SHIELD COVERING. 300V - 600V RATING. 90°C - 150°C TEMP RATING FOR SAE J1939 USAGE. IMPEDANCE AT 120 OHMS ± 12 OHMS CONDUCTOR NO.1 (GREEN), CONDUCTOR NO.2 (YELLOW)		
AWG.	APPROVED VENDORS OF CABLE	PART NO.
20	ANIXTER RAYCHEM/STAF-CD	CE3656065 301

NOTE: OPTIONAL WIRE VENDORS ARE APPROVED IF ABOVE SPECIFICATIONS FOR CABLE CONSTRUCTION ARE MET OR EXCEEDED. MUST MEET. SAE J1939/11 (5.2).

CIR.	GA.	COLOR	DESCRIPTION	LENGTH (IN.)
326	16	BLACK	ABS WARNING LAMP RELAY (87A) TO CONN. NO. 7 POS.C (ABS LAMP) +12V	35
518	12	RED	SIDE PANEL CIRCUIT BREAKER TO ABS ECU, CONN. NO. 2 POS.1 (+12V BATT)	82
519	16	RED	SIDE PANEL CIRCUIT BREAKER TO ABS ECU, CONN. NO. 2 POS.2 (+12V IGN.)	82
520	18	BLACK	SIDE PANEL TERM. BD. NO.2 POS.2 TO ABS ECU CONN. 2 POS.5 (J1587-)	75.5
521	TP	WHITE	SIDE PANEL TERM. BD. NO.2 POS.3 TO ABS ECU, CONN.2 POS.6 (J1587+)	75.5
522	16	YELLOW	ABS WARNING LAMP RELAY (86) TO ABS ECU, CONN. 2 POS.18	44.5
523	16	WHITE	SIDE PANEL GROUND STUD TO ABS ECU, CONN.2 POS.12 (GROUND)	68
524	16	RED	SIDE PANEL CIRCUIT BREAKER TO ABS WARNING LAMP RELAY (30+85)	7.5
525	12	RED	+12V BATT TERM. BD. TO 4 POS. FUSEBLOCK (ABS ECU)	20
526	10	RED	+12V BATT TERM. BD. TO 4 POS. FUSEBLOCK (ABS PUMP RELAY)	20
527	10	RED	4 POS. FUSEBLOCK TO ABS PUMP RELAY (30)	7.5
528	14	RED	FUSE PANEL TERM. POST (IGN) TO 4 POS. FUSEBLOCK	21
529	16	RED	ABS ECU, CONN. 1, POS.15 TO ABS PUMP RELAY (85)	77
530	16	WHITE	ABS PUMP RELAY (86) TO SIDE PANEL GROUND STUD	18
531	10	RED	ABS PUMP RELAY (87) TO RECIRCULATION PUMP, CONN.6 POS.	199
532	16	BLUE	ABS ECU (MOTOR MONITOR), CONN.2, POS.8 TO ABS PUMP RELAY (87 W/531)	75
533	10	WHITE	ABS RECIRCULATION PUMP CONN. 6 POS. TO SIDE PANEL GND	199
534	16	RED/WHITE	ABS ECU, CONN.1, POS.11 TO ABS MODULATOR UNIT CONN. 4 POS.12 (LEFT FRONT INLET)	206
535	16	RED/BLACK	ABS ECU CONN.1 POS.10 TO ABS MODULATOR UNIT CONN.4 POS.13 (LEFT FRONT OUTLET)	206
536	16	RED/WHITE	ABS ECU CONN.1 POS.8 TO ABS MODULATOR UNIT CONN.4 POS.4 (RIGHT FRONT INLET)	206
537	16	RED/BLACK	ABS ECU CONN.1 POS.7 TO ABS MODULATOR UNIT CONN.4 POS.5 (RIGHT FRONT OUTLET)	206
538	16	RED/WHITE	ABS ECU CONN.1 POS.5 TO ABS MODULATOR UNIT CONN.4 POS.2 (LEFT REAR INLET)	206
539	16	RED/BLACK	ABS ECU CONN.1 POS.4 TO ABS MODULATOR UNIT CONN.4 POS.1 (LEFT REAR OUTLET)	206
540	16	RED/WHITE	ABS ECU CONN.1 POS.2 TO ABS MODULATOR UNIT CONN.4 POS.11 (RIGHT REAR INLET)	206
541	16	RED/BLACK	ABS ECU CONN.1 POS.1 TO ABS MODULATOR UNIT CONN.4 POS.10 (RIGHT REAR OUTLET)	206
542	18	BLACK	ABS ECU CONN.3 POS.1 TO LEFT FRONT WHEEL SENSOR (SIGNAL+)	151
543	TP	WHITE	ABS ECU CONN.3 POS.2 TO LEFT FRONT WHEEL SENSOR (RETURN-)	151
544	18	BLACK	ABS ECU CONN.3 POS.4 TO RIGHT FRONT WHEEL SENSOR (SIGNAL+)	212
545	TP	WHITE	ABS ECU CONN.3 POS.5 TO RIGHT FRONT WHEEL SENSOR (RETURN-)	212
546	18	BLACK	ABS ECU CONN.3 POS.7 TO LEFT REAR WHEEL SENSOR (SIGNAL+)	199+DIMA
547	TP	WHITE	ABS ECU CONN.3 POS.8 TO LEFT REAR WHEEL SENSOR (RETURN-)	199+DIMA
548	18	BLACK	ABS ECU CONN.3 POS.3 TO RIGHT REAR WHEEL SENSOR (SIGNAL+)	213+DIMA
549	TP	WHITE	ABS ECU CONN.3 POS.6 TO RIGHT REAR WHEEL SENSOR (RETURN-)	213+DIMA
550	16	WHITE	ABS ECU CONN.3 POS.3 TO ABS MODULATOR UNIT CONN.4 POS.9 (REF. GND)	206
551	8	WHITE	ABS MODULATOR UNIT CONN. 5 TO GND	188
552	16	GREEN	ABS ECU, CONN. 1 POS.12 TO SIDE ELECT. PANEL (ENDURANCE BRAKE)	76
553	16	YELLOW/WHITE	ABS WARNING LAMP RELAY (86 W/522) TO ABS BLINK CODE ACTIVATION SW.	81.5
554	16	WHITE	ABS ACTIVATION BLINK CODE SWITCH TO SIDE PANEL GND STUD	75.5
556	16	WHITE	ABS EDURANCE BRAKE RELAY (86+30) TO SIDE PANEL GND STUD	20.5
557	16	WHITE	ABS EDURANCE BRAKE RELAY (87) TO SIDE PANEL TERM. BD. NO.1, POS.4	9

(J1587) 18 AWG. TWISTED PAIR CABLE

NOTE: CIRCUIT DESCRIPTIONS WITH AN ** HAVE CHANGED FROM HARNESS DRAWING 62202639.

TP TWISTED PAIR

TP TWISTED PAIR

TP TWISTED PAIR

TP TWISTED PAIR

WIRE CONNECTOR PARTS LIST

CONN.	VENDOR	PART NO.	DESCRIPTION	QTY.
1	AMP	864561-2	CONNECTOR ASM. - 15 PIN	1
	AMP	927779-3	WIRE TERMINAL - TIN PLATED, 0.5-1.5mm2	11
2	AMP	1-967367-1	CONNECTOR ASM. - 18 PIN	1
	AMP	927779-3	WIRE TERMINAL - TIN PLATED, 0.5-1.5mm2	4
	AMP	927777-3	WIRE TERMINAL - TIN PLATED, 1.0-2.5mm2	1
	AMP	927779-8	WIRE TERMINAL - GOLD PLATED, 0.5-1.5mm2	2
3	AMP	964561-4	CONNECTOR ASM. - 9 PIN	1
	AMP	927779-3	WIRE TERMINAL - TIN PLATED, 0.5-1.5mm2	8
4	AMP	344263-1	CONNECTOR ASM. - 13 PIN	1
	AMP	344264-1	SECONDARY LOCK	1
	AMP	173707-1	WIRE TERMINALS - TIN 0.5-2.0 mm2	9
	AMP	172746-1	WIRE SEALS - 1.6 - 2.4 mm2	9
5	AMP	172748-1	PLUG SEALS	4
	SUMITOMO	61890101	CONNECTOR ASM. - TS 312, FEMALE, 1 WAY SEALED	1
6	SUMITOMO	81000453	WIRE TERMINAL - TS SERIES, FEMALE, 10 AWG.	1
	SUMITOMO	71650393	WIRE SEAL	1
	SUMITOMO	61892361	CONNECTOR ASM. - TYP 305F, FEMALE 2 WAY SEALED	1
7	SUMITOMO	8242-4132	WIRE TERMINAL	2
	SUMITOMO	7165-0001	WIRE SEAL	1
	PACKARD	12015797	CONNECTOR ASM., WEATHERPACK, FEMALE, 4 WAY	1
	PACKARD	12124580-L	WIRE TERMINAL, WEATHERPACK, FEMALE, 14-16 AWG.	1
8	PACKARD	12015323	CABLE SEAL, 16-18 AWG.	1
	PACKARD	12010300	CAVITY PLUG	3
	PACKARD	12020400	TERMINAL - PACK CONN, FEMALE, 10-12 AWG.	4
9	WABCO	8945900592	CONNECTOR WITH CABLE (5 METER)	1
10	WABCO	8945900602	CONNECTOR WITH CABLE (6.5 METER)	1
10	WABCO	8945900622	CONNECTOR WITH CABLE (10 METER)	2
11	PACKARD	12004943	FUSEBLOCK - 4 POSITION	1
	PACKARD	12004564	TERMINAL - PACK CONN, FEMALE, 2 WAY, 14-16 AWG.	1
	PACKARD	12020321	TERMINAL - PACK CONN, FEMALE, 14-16 AWG.	2
	PACKARD	12020400	TERMINAL - PACK CONN, FEMALE, 10-12 AWG.	4

NOTES:

- CIRCUIT NUMBERS TO BE STAMPED AT 4" INTERVALS ON ALL LEADS; EXCEPT TWISTED PAIR CABLES. USE OF WIRE MARKERS IS ACCEPTABLE FOR CABLING.
- TAG HARNESS FOR IDENTIFICATION.
- HARNESS TO BE COVERED WITH APPROPRIATE SIZE OF CONVOLUTED CONDUIT. ALL WIRE DROPOUTS TO RECEIVE APPROPRIATE SIZE COVERING FROM POINT OF EXIT FROM MAIN BODY OF HARNESS TO END OF LEAD.
- WIRE CONSTRUCTION, MATERIALS, AND PRACTICES TO COMPLY WITH THE FOLLOWING STANDARDS ON DWG. 62201055 WIRE SPECIFICATIONS.
- ALL WIRING TO BE GXL TYPE WIRE, EXCEPT TWISTED PAIR CABLES.
- USE CONVOLUTED CONDUIT (BLACK W/ GRAY STRIPE) NYLON, PACKARD, RATED AT 300°F HIGH TEMP. ENG. COMPARTMENT USAGE OR EQUIVALENT.
- TWISTED PAIR/TRIAD SPEC. ALL NOTED/ DESIGNATED TWISTED PAIR AND TWISTED TRIAD WIRING MUST INCORPORATE 1-2 TWISTS PER IN.
- CONNECTOR I.D. LABELS SHOULD BE ATTACHED TO EACH CONNECTOR NO. 3, NO. 4, & NO. 5 DIRECTLY BEHIND EACH CONNECTOR. EXAMPLE OF I.D. LABEL SHOWN BELOW:

CONN. NO. 3 (WHEEL SENSORS) L. FRONT WHEEL SENSOR
- CIRCUITS 12 & 18 OF 17 PIN CONNECTOR (#2) MUST BE SPECIAL GOLD PLATED CONTACTS (AMP # 927779-9)

TWISTED PAIR CABLE SPECIFICATION		
TYPE - COMMUNICATION, CABLE, INSTRUMENTATION. (1) TWISTED PAIR, 2 CONDUCTOR, (STRANDED) W/DRAIN WIRE, 100% SHIELD COVERING, 300V - 600V RATINGS, 80°C - 90°C TEMP. RATING.		
AWG.	APPROVED VENDORS OF CABLE	PART NO.
18	BELDEN	88760
	ALPHA	561681801

NOTE: OPTIONAL WIRE VENDORS ARE APPROVED IF ABOVE SPECIFICATIONS FOR CABLE CONSTRUCTION ARE MET OR EXCEEDED.


WIRE TERMINAL CHART NOTES

NOTES:

- ALL WIRE TERMINALS SHOWN IN THIS CHART MUST COMPLY WITH THE FOLLOWING MATERIAL AND INSTALLATION SPECIFICATION:
- WIRE TERMINALS MUST BE CRIMPED AND/OR SOLDERED TO TERMINATING CONDUCTOR.
 - EACH TERMINAL IS TO BE SLEEVED WITH A HEAT SHRINK INSULATOR. HEAT SHRINK SLEEVE IS TO COMPLETELY COVER THE TERMINAL CRIMP AREA AND EXTEND TO COVER THE CONDUCTOR ENTRY INTO THE TERMINAL, ACTING AS AN ENVIRONMENTAL SEAL AND STRAIN RELIEF.
 - THE USE OF PRE-INSULATED HEAT SHRINK TERMINALS (MANUFACT. - AMP, THOMAS & BETTS, PANDUIT) ARE ACCEPTABLE AS AN EQUIVALENT TERMINAL/ HEAT SHRINK SUBSTITUTION.

TERM. Δ	PART NO.	DESCRIPTION
A	61200174	RING TERMINAL, #10 STUD, 14 AWG.
AF	61200397	FEMALE PUSH-ON, 1/4" FULLY INSUL., 16-14 AWG.
AG	61200468	FEMALE PUSH-ON, 1/4" FULLY INSUL., 12-10 AWG.
CQ	61201231	RING TERMINAL, #10 STUD, 18 AWG.
TT	61200605	RING TERMINAL, 1/4" STUD, 8 AWG.
V	61200181	RING TERMINAL, 1/4" STUD, 12-10 AWG.
U	61200180	RING TERMINAL, #8 STUD, 14 AWG.
D	61200173	RING TERMINAL, 1/4" STUD, 14 AWG.

SHEET 2 OF 2

	62570323 A
HARNESS, HYDRAULIC ANTILOCK BRAKE SYSTEM	
Effective Date: 8/18/99	

SPLICE TO CIRC #35
(BLUE WIRE TO BODY INTERFACE)

OR

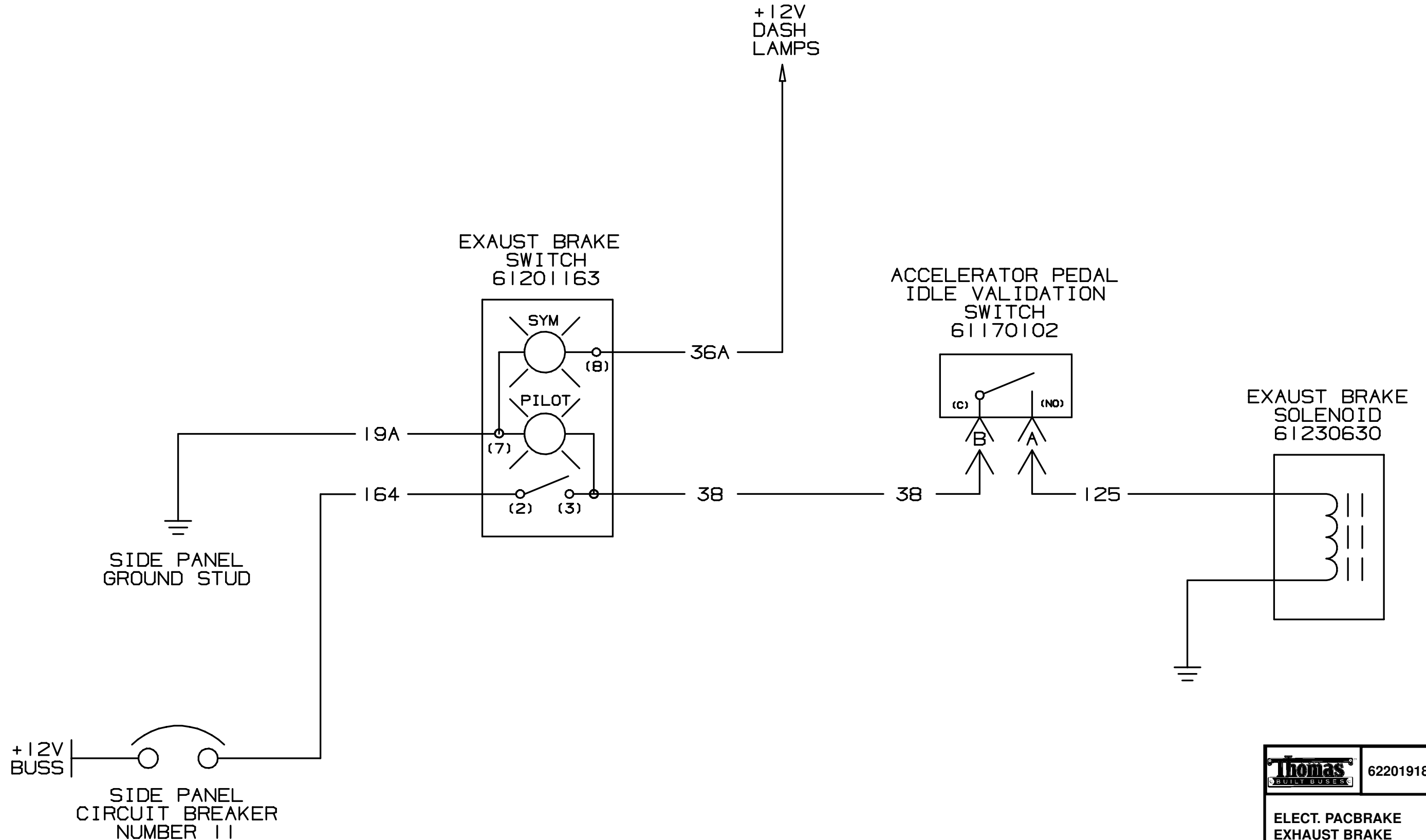
WITH MD ELECTRONIC TRANS:
CONNECT TO T.B. NO. 2, POS. 4
(W/ WIRE #35)

+12V
DASH
LAMPS


EXHAUST BRAKE
SWITCH
61201163

ACCELERATOR PEDAL
IDLE VALIDATION
SWITCH
61170102

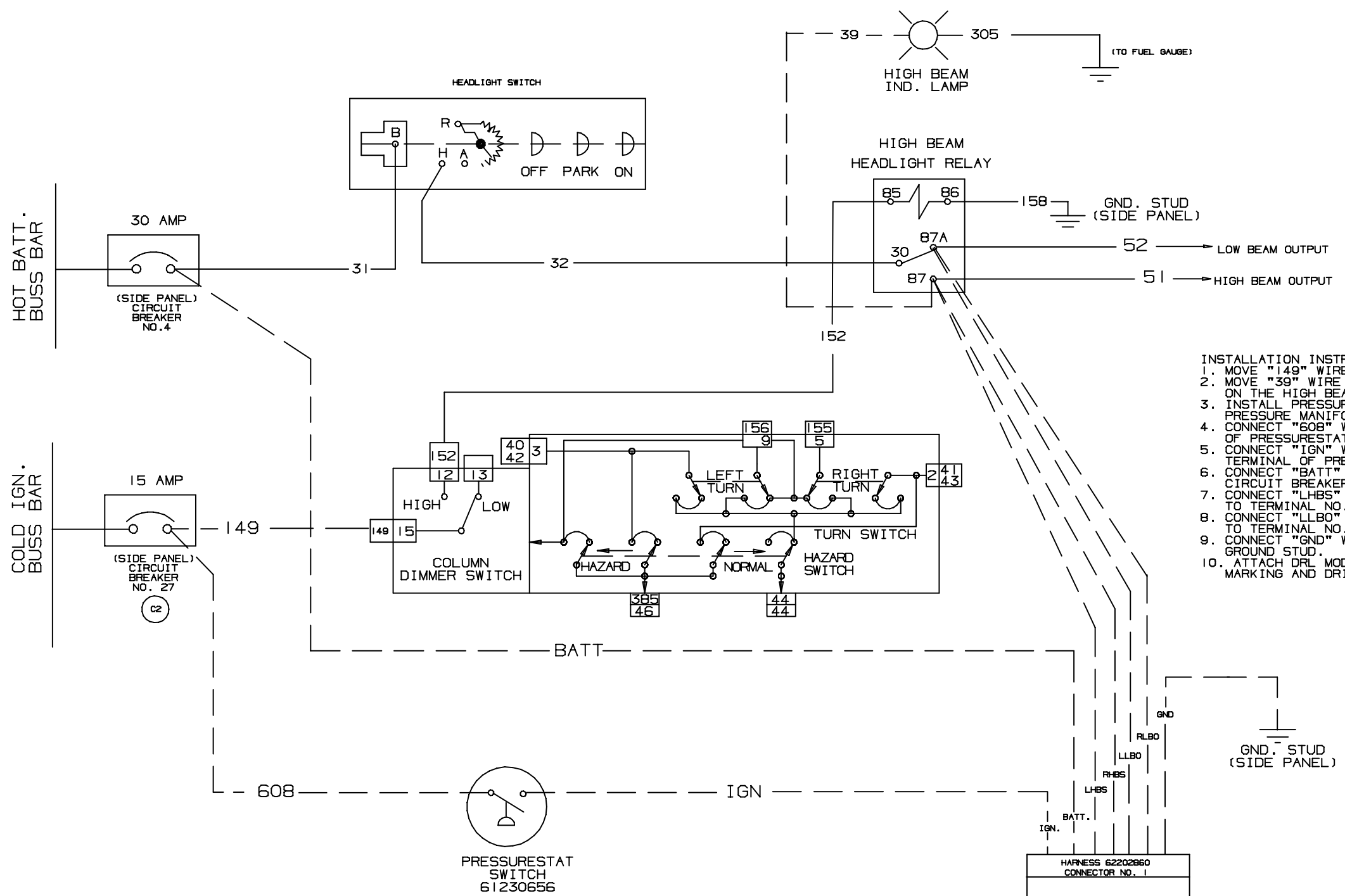
EXHAUST BRAKE
SOLENOID
61230630



USE HARNESS 62201913

 BUILT TO USE	62201918 C
ELECT. PACBRAKE EXHAUST BRAKE	

**MVP-EF
LIGHTS
SCHEMATICS**



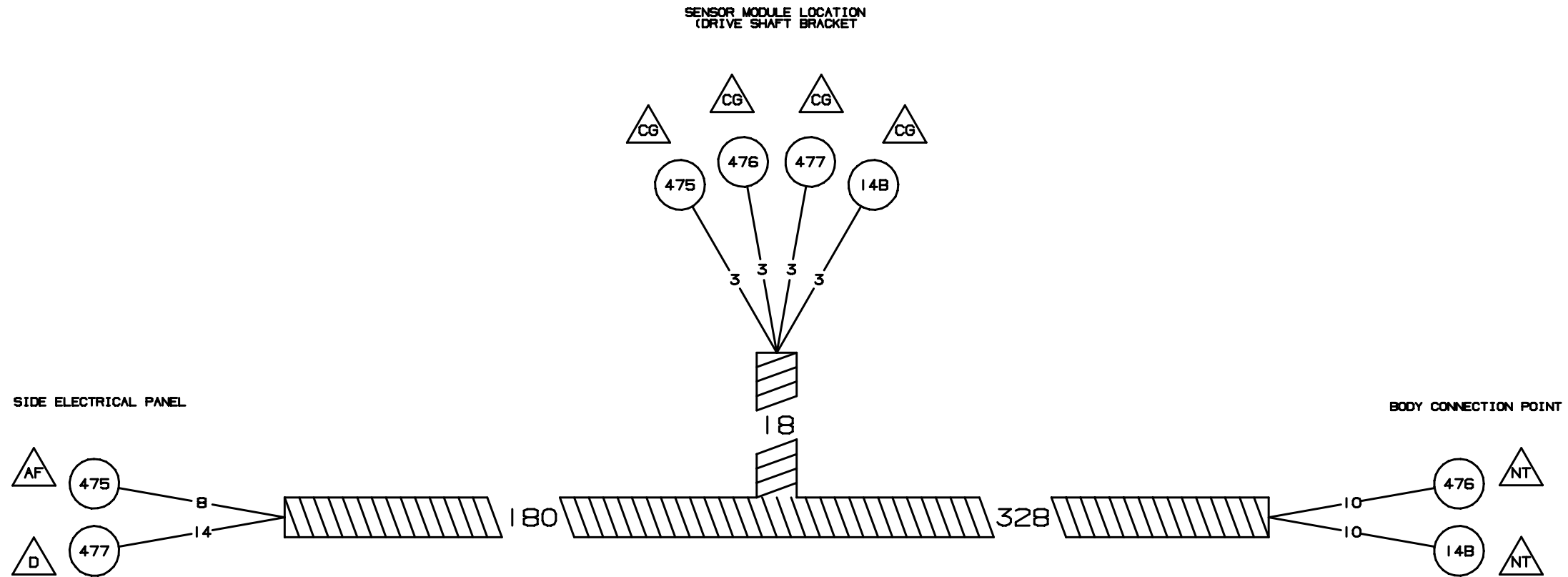
- INSTALLATION INSTRUCTIONS:**
1. MOVE "149" WIRE FROM HEADLIGHT SWITCH TO SIDE PANEL C.B. NO. 27.
 2. MOVE "39" WIRE FROM COLUMN DIMMER SWITCH TO TERMINAL 87 ON THE HIGH BEAM HEADLIGHT RELAY (WITH THE "51" WIRE).
 3. INSTALL PRESSURESTAT SWITCH IN AVAILABLE PORT OF OIL PRESSURE MANIFOLD. (SEE INSTALLATION DWG. 62202866)
 4. CONNECT "608" WIRE FROM SIDE PANEL C.B. NO. 11 TO "RIGHT" TERMINAL OF PRESSURESTAT SWITCH.
 5. CONNECT "IGN" WIRE FROM DRL MODULE HARNESS TO "LEFT" TERMINAL OF PRESSURESTAT SWITCH.
 6. CONNECT "BATT" WIRE OF DRL MODULE HARNESS TO SIDE PANEL CIRCUIT BREAKER NO. 4.
 7. CONNECT "LHBS" AND "RHBS" WIRES OF DRL MODULE HARNESS TO TERMINAL NO. 87 ON HIGH BEAM HEADLIGHT RELAY.
 8. CONNECT "LLBO" AND "RLBO" WIRES OF DRL MODULE HARNESS TO TERMINAL NO. 87A ON HIGH BEAM HEADLIGHT RELAY.
 9. CONNECT "GND" WIRE OF DRL MODULE HARNESS TO SIDE PANEL GROUND STUD.
 10. ATTACH DRL MODULE TO SIDE ELECTRICAL PANEL BY MARKING AND DRILLING TWO 3/16" HOLES IN "BEST FIT" LOCATION.

LINE TYPE	DESCRIPTION
SOLID	STANDARD HEADLIGHT WIRING
DASHED	AFFECTED WIRING FOR DAYTIME RUNNING LIGHTS

DAYTIME RUNNING LIGHT MODULE
62202867

	62202861 C
HARNES, DAYTIME RUNNING LIGHTS, 85% BRIGHT	


CIRCUIT	GA	COLOR	DESCRIPTION	LENGTH (IN)
475	14	RED	SIDE PANEL CIRCUIT BREAKER TO MODULE	214
476	14	WHITE	MODULE TO ALARM	364
477	14	BLACK	MODULE GROUND	220
14B	14	GREEN	BACK-UP LIGHT (REVERSE SIGNAL) TO MODULE	364



NOTES:

1. CIRCUIT NUMBERS TO BE STAMPED AT 4" INTERVALS ON ALL LEADS.
2. TAG HARNESS FOR IDENTIFICATION.
3. HARNESS TO BE COVERED WITH APPROPRIATE SIZE OF CONVOLUTED CONDUIT.
4. WIRE CONSTRUCTION, MATERIALS AND PRACTICES TO COMPLY WITH THE FOLLOWING STANDARDS ON DWG. 62201055.
5. ALL WIRING TO BE SXL TYPE WIRE.

△ TERMINAL	PART NUM.	DESCRIPTION
D	61200173	RING TERMINAL, #10 STUD, 14 AWG.
AF	61200387	FEMALE PUSH-ON, 1/4", FULLY INSUL., 16-14 AWG.
CG	61230706	BUTT SPLICE, MOISTURE RESISTANT, 14-16 AWG
NT	—	NO TERMINAL REQ'D.

 BUILT BUSES	62201851 A
HARNESS, ROLL-BACK ALARM	

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