

SERVICE MANUAL

SERVICE MANUAL SECTION

**3200, 4100, 4200, 4300, 4400, 7300, 7400, 7500, 7600, 7700, 8500, 8600,
RXT Models Built October 1, 2005 to February 28, 2007 — ELECTRICAL
CIRCUIT DIAGRAMS**

Model: 3200

Start Date: 10/01/2005 End Date: 02/28/2007

Model: 4100

Start Date: 10/01/2005 End Date: 02/28/2007

Model: 4200

Start Date: 10/01/2005 End Date: 02/28/2007

Model: 4300

Start Date: 10/01/2005 End Date: 02/28/2007

Model: 4400

Start Date: 10/01/2005 End Date: 02/28/2007

Model: 7300

Start Date: 10/01/2005 End Date: 02/28/2007

Model: 7400

Start Date: 10/01/2005 End Date: 02/28/2007

Model: 7500

Start Date: 10/01/2005 End Date: 02/28/2007

Model: 7600

Start Date: 10/01/2005 End Date: 02/28/2007

Model: 7700

Start Date: 10/01/2005 End Date: 02/28/2007

Model: 8500

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Model: 8600

Start Date: 10/01/2005 End Date: 02/28/2007

Model: RXT

Start Date: 07/06/2006 End Date: 02/28/2007

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1. INSTRUCTIONS AND CHARTS (CHAPTER 1)

1.1. CIRCUIT NUMBER IDENTIFICATION AND LOCATION CHART, P. 1

INTERNATIONAL TRUCK AND ENGINE CORPORATION

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ELECTRICAL CIRCUIT DIAGRAM

CIRCUIT IDENTIFICATION AND LOCATION CHART

CHAPTER 1

PREFIX DESIGNATIONS

PREFIX	LOCATION
A	CAB-INSTRUMENT PANEL
B	CAB-DRIVER CONTROL MODULE
C	CAB-HEADER/CLEARANCE LIGHTS
D	CAB-ROOF/REAR PANEL
E	CAB-LEFT DOOR/DOORS
F	CAB-RIGHT DOOR/DOORS.
H	CAB-SLEEPER
J	CAB-DASH (OUTSIDE)
K	ENGINE/RADIATOR
L	TRANSMISSION
M	CHASSIS/FRONT END (CAB DASH PANEL FORWARD)
N	CHASSIS/CENTER SECTION (CAB DASH PANEL TO CAB RR XMBR)
P	CHASSIS/WHEEL BASE SECTION
R	CHASSIS/SUSPENSION/REAR AXLE/AXLES
S	CHASSIS/AF SECTION/STOP/TAIL/TURN LIGHTS

CIRCUIT NUMBER AND IDENTIFICATIONS

CIRCUIT NUMBER	COLOR	DESCRIPTION
1	LT BL	ALTERNATOR - FIELD
2	RD	ALTERNATOR - CHARGE
3	DK BL GY	1708 DATA LINK, SWITCH DATA LINK (+) 1708 DATA LINK, SWITCH DATA LINK (-)
4		SERIAL/DATA COMMUNICATION J1922
5	YL GN	DRIVE TRAIN J1939 DATA LINK (+) DRIVE TRAIN J1939 DATA LINK (-)
6	GY	LOW VOLTAGE ELECTRONIC FEED (9VOLTS)
7	RD	ALTERNATOR - RESISTANCE
8		

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME	
CNA	22DEC05	REVISED COLOR CHART	C	59581V	UOODLCK	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS	
					RELEASE NO.	DATE	PART NO.
					52778H	09AUG00	AE08-52365
							SHEET
							01

Figure 1 Circuit Number Identification and Location Chart

1.2. CIRCUIT NUMBER IDENTIFICATION AND LOCATION CHART, P. 2

INTERNATIONAL TRUCK AND ENGINE CORPORATION

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ELECTRICAL CIRCUIT DIAGRAM

CHAPTER 1

INTERNATIONAL CIRCUIT NUMBER IDENTIFICATION AND LOCATION (CONT.)

CIRCUIT NUMBER AND IDENTIFICATIONS (CONT.)

CIRCUIT NUMBER	COLOR	DESCRIPTION
9	GY	ZERO VOLT REFERENCE (ZVR)
10	WH	CHASSIS/ENGINE GROUND
11	WH	CAB/SLEEPER GROUND
12	LTBL	ACCESSORY FEED
13	PK BK	IGNITION FEED IGNITION FEED (BODY BUILDER CONNECTOR)
14	RD	BATTERY FEED
15	RD	KEY SWITCH FEED
16		
17	PK	STARTER CONTROL
18	PK	GLOW PLUG/PRE-HEATER
19	GY	ENGINE SHUTDOWN
20	LTGN	REMOTE POWER MODULE
21	TN	COLD START CONTROLS (ETHER)
22		
23	TN	ENGINE FAN/SHUTTERS
24	GY	ENGINE EXHAUST BRAKE
25	TN	PYROMETER
26	TN	AMMETER
27	TN	VOLTMETER
28	TN	INSTRUMENTS AND GAUGES
29	TN	ENGINE WATER TEMPERATURE
30	TN	ENGINE OIL TEMPERATURE
31	TN	TRANSMISSION OIL TEMPERATURE
32	TN	AXLE OIL TEMPERATURE

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME		
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U	U00JXP9	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS		
					RELEASE NO.	DATE	PART NO.	SHEET
					P52778H	09AUG00	AE08-52365	02

Figure 2 Circuit Number Identification and Location Chart (Cont.)

1.3. CIRCUIT NUMBER IDENTIFICATION AND LOCATION CHART, P. 3

INTERNATIONAL TRUCK AND ENGINE CORPORATION				ELECTRICAL CIRCUIT DIAGRAM				CHAPTER 1			
THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.				INTERNATIONAL CIRCUIT NUMBER IDENTIFICATION AND LOCATION (CONT.)							
CIRCUIT NUMBER AND IDENTIFICATIONS (CONT.)											
CIRCUIT NUMBER		COLOR		DESCRIPTION							
33		TN		ENGINE OIL LEVEL							
34		TN		COOLANT LEVEL							
35		TN		ENGINE OIL PRESSURE							
36		TN		FUEL LEVEL							
37		TN		FUEL PUMP							
38											
39		GY		AIR DRYER HEATER							
40		GY		LOW AIR PRESSURE WARNING							
41		TN		AIR TEMPERATURE							
42		GY		FRONT AXLE ENGAGED							
43		GY		POWER DIVIDER LOCK (PDL) WARNING							
44		GY		PARK BRAKE WARNING							
45		LTGN		ANTI - THEFT WARNING							
46		GY		POWER TAKE - OFF WARNING							
47		GY		SPEEDOMETER							
48		GY		TACHOMETER							
49		GY		DIFFERENTIAL LOCK WARNING							
50		YL		LIGHT SWITCH FEED							
51		YL		DIMMER SWITCH FEED							
52		YL		HEADLIGHT HI - BEAM							
53		YL		HEADLIGHT LO - BEAM							
54		BN		PARKING/MARKER LIGHTS							
55		OR		TURN SIGNAL - FEED							
56		OR YL		TURN SIGNAL LIGHTS - LEFT TURN SIGNAL LIGHTS - LEFT (BODY BUILDER CONNECTION)							
57		OR LT GN		TURN SIGNAL LIGHTS - RIGHT TURN SIGNAL LIGHTS - RIGHT (BODY BUILDER CONNECTION)							
CHK	DATE	CHANGE		REV	REFERENCE	DRAWN		NAME			
PEC	16JAN01	PRODUCTION RELEASE.		A	P54304U	U00DLCK		42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS			
						RELEASE NO.		DATE		PART NO.	
						P52778H		15 MAY 00		AE08-52365	
SHEET 03											

Figure 3 Circuit Number Identification and Location Chart (Cont.)

1.4. CIRCUIT NUMBER IDENTIFICATION AND LOCATION CHART, P. 4

INTERNATIONAL TRUCK AND ENGINE CORPORATION

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ELECTRICAL CIRCUIT DIAGRAM

CHAPTER 1

INTERNATIONAL CIRCUIT NUMBER IDENTIFICATION AND LOCATION (CONT.)

CIRCUIT NUMBER AND IDENTIFICATIONS (CONT.)

CIRCUIT NUMBER	COLOR	DESCRIPTION
58	BN	CLEARANCE/IDENTIFICATION LIGHTS
59	GY	SOLENOID
60	OR	HAZARD LIGHTS
61	GY	AIR SUSPENSION
62	DKBL	PANEL LIGHTS
63	DKBL	COURTESY/DOME LIGHTS
64	YL	FOG/DRIVING LIGHTS
65	OR	CAB REAR FLOOD LIGHT
66	YL	DAYTIME RUNNING LIGHTS
67		
68	BN	TAIL LIGHTS
69	BN	LICENSE PLATE LIGHT
70	OR RD	STOP LIGHTS STOP LIGHTS (BODY BUILDER CONNECTION)
71	OR LTBL	BACK - UP LIGHTS BACK - UP LIGHTS (BODY BUILDER CONNECTION)
72	OR	TRAILER AUXILIARY FEED - BATTERY
73	LTGN	PWM
74	LTGN	HEATER RECIRC MOTOR
75	LTGN	HEATER BLOWER MOTOR
76	LTGN	AUXILIARY FAN
77	LTGN	AIR CONDITIONER
78	LTGN	MIRRORS - HEATED; MOTORIZED
79	GY	SEAT BELTS
80	BK	SLEEPER BOX RELAY - FEED
81	LTGN	POWER DOOR LOCKS

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME	
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U	U00DLCK	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS	
					RELEASE NO.	DATE	PART NO.
					P52778H	15MAY00	AE08-52365
							SHEET 04

Figure 4 Circuit Number Identification and Location Chart (Cont.)

1.5. CIRCUIT NUMBER IDENTIFICATION AND LOCATION CHART, P. 5

INTERNATIONAL TRUCK AND ENGINE CORPORATION THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.				ELECTRICAL CIRCUIT DIAGRAM CHAPTER 1 INTERNATIONAL CIRCUIT NUMBER IDENTIFICATION AND LOCATION (CONT.)																																																																													
<p>CIRCUIT NUMBER AND IDENTIFICATIONS (CONT.)</p> <table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">CIRCUIT NUMBER</th> <th style="width: 10%;">COLOR</th> <th style="width: 80%;">DESCRIPTION</th> </tr> </thead> <tbody> <tr><td>82</td><td>GY</td><td>WINDSHIELD WIPER</td></tr> <tr><td>83</td><td>LTGN</td><td>POWER WINDOWS</td></tr> <tr><td>84</td><td>LTGN</td><td>CIGAR LIGHTER</td></tr> <tr><td>85</td><td>GY</td><td>HORN</td></tr> <tr><td>86</td><td>LTGN</td><td>RADIO - ENTERTAINMENT/CLOCK</td></tr> <tr><td>87</td><td>GY</td><td>WINDSHIELD WASHER</td></tr> <tr><td>88</td><td>LTGN</td><td>CLOCK/HOURMETER</td></tr> <tr><td>89</td><td>VT</td><td>AIR BAG</td></tr> <tr><td>90</td><td>GY</td><td>HYDRAULIC BRAKE PUMP</td></tr> <tr><td>91</td><td>VT</td><td>INTERCOMMUNICATIONS</td></tr> <tr><td>92</td><td>TN</td><td>TRANSMISSION CONTROLS - ELECTRONIC</td></tr> <tr><td>93</td><td>TN</td><td>AXLE SHIFT CONTROL</td></tr> <tr><td>94</td><td>GY</td><td>ANTILOCK BRAKE SYSTEM</td></tr> <tr><td>95</td><td>TN</td><td>EXHAUST EMISSION</td></tr> <tr><td>96</td><td>YL</td><td>SNOW PLOW LIGHTS/CRUISE CONTROL</td></tr> <tr><td>97</td><td>VT</td><td>ENGINE CONTROLS - ELECTRONIC</td></tr> <tr><td>98</td><td>BK</td><td>DATALINK AND DIAGNOSTICS</td></tr> <tr><td>99</td><td>VT</td><td>ACCELERATOR POSITION SENSOR (APS)</td></tr> <tr><td>100</td><td>GY</td><td>AIR HORN (ELECTRIC SOLENOID ACTUATED)</td></tr> <tr><td>101</td><td>TN</td><td>BRAKE APPLICATION AIR</td></tr> <tr><td>102</td><td>YL</td><td>FLASH TO PASS</td></tr> <tr><td>103</td><td>LTGN</td><td>BODY BUILDER AUX. FEED</td></tr> <tr><td>104</td><td>DKBL</td><td>REMOTE START/STOP</td></tr> <tr><td>105</td><td>LTGN</td><td>HEATED SEATS</td></tr> </tbody> </table>							CIRCUIT NUMBER	COLOR	DESCRIPTION	82	GY	WINDSHIELD WIPER	83	LTGN	POWER WINDOWS	84	LTGN	CIGAR LIGHTER	85	GY	HORN	86	LTGN	RADIO - ENTERTAINMENT/CLOCK	87	GY	WINDSHIELD WASHER	88	LTGN	CLOCK/HOURMETER	89	VT	AIR BAG	90	GY	HYDRAULIC BRAKE PUMP	91	VT	INTERCOMMUNICATIONS	92	TN	TRANSMISSION CONTROLS - ELECTRONIC	93	TN	AXLE SHIFT CONTROL	94	GY	ANTILOCK BRAKE SYSTEM	95	TN	EXHAUST EMISSION	96	YL	SNOW PLOW LIGHTS/CRUISE CONTROL	97	VT	ENGINE CONTROLS - ELECTRONIC	98	BK	DATALINK AND DIAGNOSTICS	99	VT	ACCELERATOR POSITION SENSOR (APS)	100	GY	AIR HORN (ELECTRIC SOLENOID ACTUATED)	101	TN	BRAKE APPLICATION AIR	102	YL	FLASH TO PASS	103	LTGN	BODY BUILDER AUX. FEED	104	DKBL	REMOTE START/STOP	105	LTGN	HEATED SEATS
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21SEP05		CONVERSION FROM SABER TO U8	D	59756E	WOODLCK	42/43/44/65/8600 & 73/74/7500 CIRC DIAGRAMS																																																																											
					RELEASE NO.	DATE																																																																											
					52778H	15MAY00																																																																											
					PART NO.	SHEET																																																																											
					AE08-52365	05																																																																											

Figure 5 Circuit Number Identification and Location Chart (Cont.)

1.6. NAVPAK/ECM I6 ENGINE CONTROLLER CONNECTOR PIN NUMBER IDENTIFICATION, P. 6

INTERNATIONAL TRUCK AND ENGINE CORPORATION				ELECTRICAL CIRCUIT DIAGRAM CHAPTER 1	
THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.				INTERNATIONAL NAVPAK/ECM I6 ENGINE CONTROLLER CONNECTOR PIN NUMBER IDENTIFICATION	
ECM PIN#	TERM	DESCRIPTION	ECM PIN#	TERM	DESCRIPTION
12	AAT	AMBIENT AIR TEMP. SENSOR	27	IVS	IDLE VALIDATION SWITCH
33	ACD	A/C DEMAND	54	OWL	OIL/WATER WARNING LIGHT
8	APS	ACCELERATOR POS. SENSOR	25	PWR RLY	CEC MAIN POWER RELAY SIGNAL
16	ATA(+)	J1708 DATALINK (+)	31	RAS	RESUME/ACCELERATE
17	ATA(-)	J1708 DATALINK (-)	37	RPRF	PRESET SPEED
29	BAP	BAROMETRIC AIR PRESS. SENSOR	30	RPS	REMOTE ACCELERATOR POS. SENS. SIG.
43	BN01	BRAKE STATUS #1	6	RPS-RTN	REMOTE ACCELERATOR POS. SENS. RTN.
44	BN02	BRAKE STATUS #2	36	RVAR	VARIABLE SPEED SWITCH
18	CAN SHLD	DRIVETRAIN J1939 DATALINK SHLD	32	SCS	SET/COAST
19	CAN(+)	DRIVETRAIN J1939 DATALINK (+)	45	SIL	SERVICE INTERVAL LIGHT
20	CAN(-)	DRIVETRAIN J1939 DATALINK (-)	34	STL	SELF TEST INPUT
15	*****	RETARDER/EXHAUST BRAKE REQUEST	48	SUL	SHIFT UP LIGHT
10	CLS	COOLANT LEVEL SENSOR	59	TACA	TACHOMETER A
35	COD	CRUISE ON/OFF	60	TACB	TACHOMETER B
21	DC(+)	POWER	38	TCSS	TORQUE CURVE SELECTION INPUT
22	DC(+)	POWER	28	TSA	TWO SPEED AXLE
1	DC(-)	GROUND	3	VBREF(5V)	ACCELERATOR SENSOR SUPPLY
2	DC(-)	GROUND	11	VBREF GND	ACCELERATOR SENSOR GROUND
26	DDS	DRIVELINE DISENGAGED INPUT	5	VCREF(5V)	REMOTE ACCELERATOR SENS. SUPPLY
42	DPS	GROUND	7	VCREF GND	REMOTE ACCELERATOR SENSOR GND
46	ECI	ENGINE CRANK INHIBIT	24	VIGN	IGNITION FEED
56	EDL	TRANSMISSION KICKDOWN	47	VRE	RETARDER/EXHAUST BRAKE ENABLE
53	GPL	GLOW PLUG LIGHT	39	VSS(+)	VEHICLE SPEED SENSOR (+)
4	HGE	HYD. PRESS GOVERNOR ENABLE	40	VSS(-)	VEHICLE SPEED SENSOR (-)
49	HMI	HYDRAULIC PRESS GOVERNOR IND. LT	58	VSSCALA	SPEEDOMETER SIGNAL A
13	HPS	HYDRAULIC PRESSURE SENSOR	57	VSSCALB	SPEEDOMETER SIGNAL B
41	HS0(+)	POWER	55	WARN	ENGINE WARNING LIGHT
23	HS0(-)	GROUND			
CHK	DATE	CHANGE	REV	REFERENCE	DRAWN
2/15/05	POS	CONVERSION FROM SABER TO UG	D	59758E	U00JXP9
					RELEASE NO.
					52778H
					NAME
					42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS
					DATE
					09AUG00
					PART NO.
					AE08-52365
					SHEET
					06

Figure 6 NAVPAK/ECM I6 Engine Controller Connector Pin Number Identification

1.7. CIRCUIT DIAGRAM INSTRUCTIONS, P. 7

INTERNATIONAL TRUCK AND ENGINE CORPORATION

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ELECTRICAL CIRCUIT DIAGRAM CHAPTER 1

CIRCUIT DIAGRAM INSTRUCTIONS

A - SWITCH AND RELAY POSITIONS AS SHOWN ON CIRCUIT DIAGRAMS INDICATE NORMAL POSITION WITH IGNITION OFF UNLESS OTHERWISE NOTED.

SWITCH: MANUAL/MECHANICAL

RELAY - SUPPRESSED

INDICATES CASE MAGNETIC GROUND SUPPRESSED

B - MULTIPLE CONNECTIONS ARE DISPLAYED ON SCHEMATIC AS SHOWN. REFER TO CONNECTOR COMPOSITE WITH APPLICABLE NUMBER FOR MORE COMPLETE INFORMATION.

12 AND/OR 12

SINGLE IN-LINE CONNECTORS DISPLAYED AS SHOWN WITH OR WITHOUT CONNECTOR NUMBER.

C - PHANTOM LINES INDICATE PRINTED CIRCUITS OR BUSSED CIRCUITS. THESE CIRCUITS EXIST IN THE INSTRUMENT CLUSTERS AND FUSE/CIRCUIT BREAKER CONNECTORS.

PRINTED CIRCUIT IN INSTRUMENT CLUSTER

VOLTMETER

LOCATION/CIRCUIT NUMBER

WIRE GAUGE/WIRE COLOR

BUSS IN FUSE/CIRCUIT BREAKER CONNECTOR

LOCATION IN FUSE/CIRCUIT BREAKER CONNECTION

FUSE RATING

D - MULTIPLE CIRCUIT NUMBERS ON A LINE INDICATE ONE WIRE DISTRIBUTING CURRENT TO TWO CIRCUITS.

E - SWITCHES, RELAYS AND COMPONENTS INDICATE EXTERNAL WIRE CONNECTIONS AND/OR INTERNAL CONNECTIONS OR CONTACTS.

WIRE CONNECTION

INTERNAL CONNECTION

KEY SWITCH

CONTACT

WIRE CONNECTION

BUSSED CONTACT

ETHER SWITCH

PIGTAIL

F - CIRCUIT "11" DENOTES ANY COMMON GROUND, (MORE THAN ONE CIRCUIT). ANY INDIVIDUAL GROUND CIRCUIT IS IDENTIFIED WITH THAT PARTICULAR CIRCUIT NUMBER. (E.G CIRCUIT 97 CRUISE CONTROL, IS IDENTIFIED PER EXAMPLE).

NOTE: FOR CIRCUIT DESCRIPTION OTHER THAN GROUNDS, NEITHER THE LETTER "G" NOR THE COLOR WHITE SHALL BE USED.

GROUND CIRCUITS ARE DESCRIBED THUS:

COMMON GROUND CIRCUIT NUMBER

SUFFIX

G IS NOT A SUFFIX BUT INDICATES A GROUND CIRCUIT.

INDIVIDUAL GROUND CIRCUIT NUMBER

LOCATION

SUFFIX

G IS NOT A SUFFIX BUT INDICATES A GROUND CIRCUIT.

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME		
PEC	16JAN01	PRODUCTION RELEASE	A	P54304U	U00DLCK	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS		
					RELEASE NO.	DATE	PART NO.	SHEET
					P52778H	15MAY00	AE08-52365	07

Figure 7 Circuit Diagram Instructions

1.8. CIRCUIT DIAGRAM INSTRUCTIONS, P. 8

INTERNATIONAL TRUCK AND ENGINE CORPORATION

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ELECTRICAL CIRCUIT DIAGRAM

CHAPTER 1

CIRCUIT DIAGRAM INSTRUCTIONS

G - ABBREVIATIONS: COLOR, NOUN AND ENGINE

COLOR ABBREVIATION

AQ - AQUA

BK - BLACK

BL - BLUE

BN - BROWN

DK GN - DARK GREEN

GD - GOLD

GY - GRAY

GN - GREEN

LT BL - LIGHT BLUE

LT GN - LIGHT GREEN

OR - ORANGE

PK - PINK

PL - PURPLE

RD - RED

SIL - SILVER

TN - TAN

VT - VIOLET

WH - WHITE

YL - YELLOW

NOUN ABBREVIATION

A

ACC

AC -

AUX -

AWG -

B

BAT

CONN-

DRL -

ENG -

FWD -

GA -

ACCESSORY

AIR CONDITIONER

AUXILIARY

AMERICAN WIRE GAUGE

BATTERY

CONNECTION OR CONNECTOR

DAYTIME RUNNING LIGHTS

ENGINE

FORWARD

GAUGE

G

GND

I

IGN

IND

L

LT

W/O

OPT

R

S

THERMO

W/

GROUND

IGNITION

INDICATOR

LEFT

LIGHT

WITHOUT

OPTIONAL

RIGHT

START OR SENDER

THERMOSTAT

WITH

ENGINE ABBREVIATION

ISM

N14E PLUS

C-10,C-12

V8-AVNT

I6-HEUI

- MFG (CUMMINS) 10.8 LITER ELECTRONIC ENGINE CONTROL

- MFG (CUMMINS) 14 LITER ELECTRONIC ENGINE CONTROL

- MFG (CATERPILLAR) 10.3 LITER ELECTRONIC ENGINE CONTROL

- MFG (INTERNATIONAL) V8 6.0 LITER ELECTRONIC ENGINE CONTROL

- MFG (INTERNATIONAL) NGD I6 DT466 & DT/HT530 ELECTRONIC ENGINE CONTROL

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME		
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U	U00JXP9	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS		
					RELEASE NO.	DATE	PART NO.	SHEET
					P52778H	10AUG00	AE08-52365	08

Figure 8 Circuit Diagram Instructions (Cont.)

1.9. SCHEMATIC SYMBOL CHART, P. 9

INTERNATIONAL TRUCK AND ENGINE CORPORATION				ELECTRICAL CIRCUIT DIAGRAM		CHAPTER 1	
THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.				SCHEMATIC SYMBOL CHART			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	MALE/FEMALE IN-LINE CONNECTION		HORN		MAGNETIC SWITCH		
	FEMALE TERMINAL						
	MALE TERMINAL						
	GROUND		LIGHT - DOUBLE FILAMENT				
	FUSE						
	LIGHT EMITTING DIODE		SENDER - OIL, WATER, FUEL, TEMPERATURE				
	RESISTOR						
	SWITCH CONTACT, NORMALLY OPEN		MOTOR - ELECTRIC				
	SWITCH CONTACT, NORMALLY CLOSED						
	JUNCTION POINT		SOLENOID - GENERAL USAGE				
	SPLICE						
	SWITCH-PRESSURE		LIGHT - SINGLE FILMENT				
	SWITCH-MANUAL/MECHANICAL		SPEAKER - SOUND SYSTEM				
	RELAY-SUPPRESSED		CIGAR LIGHTER				

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME
21SEP05		CONVERSION FROM SABER TO U8	B	59756E	UOODLCK	42/43/44/85/8800 & 73/74/7500 CIRC DIAGRAMS
					RELEASE NO.	DATE
					52778H	19MAY00
					PART NO.	SHEET
					AE08-52365	09

Figure 9 Schematic Symbol Chart

1.10. RELAY FUNCTIONS, P. 10

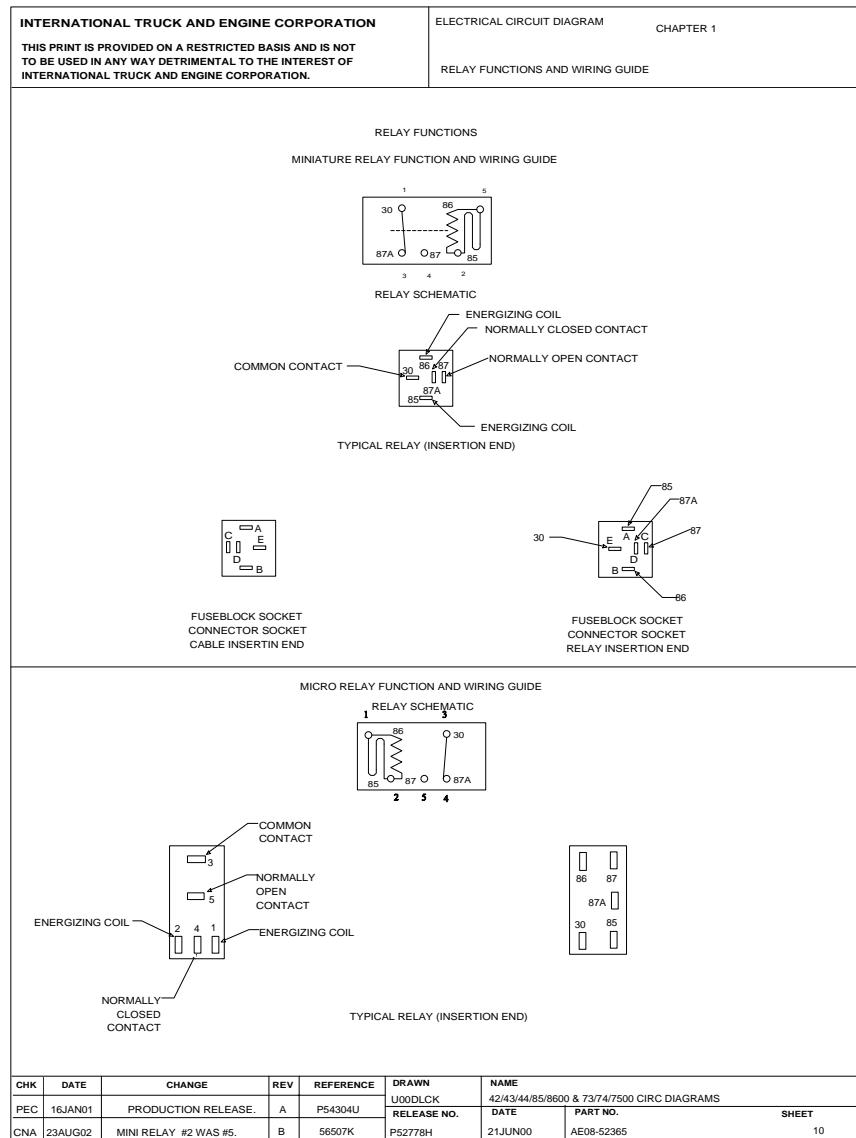


Figure 10 Relay Functions

1.11. LAMP BULB CHART, P. 11

INTERNATIONAL TRUCK AND ENGINE CORPORATION				ELECTRICAL CIRCUIT DIAGRAM		CHAPTER 1	
THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.				LAMP BULB CHART			
BULB APPLICATION		CANDLEPOWER OR WATTS		BULB TRADE NUMBER			
BACK-UP LIGHTS		32 CANDLEPOWER		GE1156			
CLEARANCE & IDENTIFICATION		3 CANDLEPOWER		GE193			
COURTESY LIGHT		3 CANDLEPOWER		GE168			
DOVE LIGHTS		12 CANDLEPOWER		GE561			
FOG LIGHTS		55 CANDLEPOWER		VH550			
HEAD LIGHTS:							
LOW BEAMS		65 WATTS		GE9007			
HIGH BEAMS		65 WATTS		GE9007			
INSTRUMENT CLUSTER:							
GAUGE BACK LIGHT				082S270538-3			
GAUGE WARNING LED (RED)				082S272109-3			
RANGE INHIBIT LED (YELLOW)				082S272109-4			
COLD AMBIENT PROTECTION LED (YELLOW)				082S272109-4			
FUEL FILTER LED (YELLOW)				082S272109-4			
WARN ENGINE LED (YELLOW)				082S272109-4			
STOP ENGINE LED (RED)				082S272109-3			
BRAKE PRESSURE LED (RED)				082S272109-3			
BRAKE FLUID LED (RED)				082S272109-3			
WAIT TO START LED (YELLOW)				082S272109-4			
CHECK TRANSMISSION LED (YELLOW)				082S272109-4			
TRAILER ABS LED (YELLOW)				082S272109-4			
WASHER FLUID LED (YELLOW)				082S272109-4			
LEFT TURN SIGNAL LED (GREEN)				082S272109-2			
TRACTION CONTROL LED (GREEN)				082S272109-2			
WATER IN FUEL LED (YELLOW)				082S272109-4			
PARK FLUID LED LIGHT (RED)				082S272109-3			
CHECK ELECTRICAL SYSTEMS LED (YELLOW)				082S272109-4			
PARK BRAKE LED (RED)				082S272109-3			
CRUISE CTRL ACTIVE LED (GREEN)				082S272109-2			
ANTILOCK BRAKING SYSTEM LED (YELLOW)				082S272109-4			
RIGHT TURN LED (GREEN)				082S272109-2			
COOLANT LEVEL LED (RED)				082S272109-3			
SEAT BELT LED (RED)				082S272109-3			
HIGH BEAM ICON LED (BLUE)				082S272109-5			
CHECK AIR CONDITIONER LED (YELLOW)				082S272109-4			
RETARD OVER HEAT LED (RED)				082S272109-3			
PTO/THROTTLE LED (RED)				082S272109-3			
MAP LIGHT		3 CANDLEPOWER		1816			
SIDE MARKER				2458			
STOP & TURN/TAIL & LICENSE PLATE		32/3 CANDLEPOWER		1157			
TURN SIGNAL/MARKER (FENDER)				3157			
TURN SIGNAL & MARKER LIGHT				2356			
WORK (TRAILER HOOK-UP) LIGHT				4411			
CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME	
PEC	16JAN01	PRODUCTION RELEASE	A	P54304U	U00DLCK	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS	
PEC	18JUN01	REVISED DRWG SHEET.	B	P54634F	RELEASE NO. P52778H	DATE 20JUN00	PART NO. AE08-52365
							SHEET 11

Figure 11 Lamp Bulb Chart

1.12. INTERNATIONAL V8 AND I6 ECM CONTROLLER CONNECTORS PIN NUMBER IDENTIFICATION, P.12

INTERNATIONAL TRUCK AND ENGINE CORPORATION

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ELECTRICAL CIRCUIT DIAGRAM

CHAPTER 1

INTERNATIONAL V8 & I6 ECM
CONTROLLER CONNECTORS PIN
NUMBER IDENTIFICATION

CONNECTOR X3 REFERENCE (6020)

ECM PIN #	TERM	DESCRIPTION
1	FPM	FUEL PUMP MONITOR
2	FLI	FUEL LEVEL INDICATOR
3	KL.15	IGNITION FEED
4	ECL	ENGINE COOLANT LEVEL
5	MPR	MAIN POWER RELAY
6	KL.31	GROUND
7	KL.31	GROUND
8	DDS	DRIVELINE DISENGAGE SWITCH
9	FPC	FUEL PUMP CONTROL
10	TCSS	TORQUE CURVE SELECT SWITCH
11	TACH	TACHOMETER CONTROL
12	CAN1+	DRIVETRAIN J1939 DATALINK +
13	CAN1-	DRIVETRAIN J1939 DATALINK -
14	RAS	RESUME/ACCELERATE
15	CAN1-SHLD	DRIVETRAIN 1939 DATALINK SHLD
16		NOT POPULATED
17	VSS_CAL	VEHICLE SPEED SENSOR CALIBRATION
18	VRE	VEHICLE RETARDER ENABLE
19	RPRE	REMOTE PRESET PTO ENABLE
20	RVAR	REMOTE VARIABLE PTO ENABLE
21	SCS	SET/COAST
22	ESHTR	ELECTRONIC SHUTTER RELAY
23	ECI	ENGINE CRANK INHIBIT
24	BAP	BAROMETRIC AIR PRESSURE

CONNECTOR X4 REFERENCE (6021)

ECM PIN #	TERM	DESCRIPTION
1	KL.B7	BATTERY POWER
2	KL.B7	BATTERY POWER
3		NOT POPULATED
4	VBREF	SENSOR REFERENCE VOLTAGE
5		NOT POPULATED
6	LSL_SPARE2	LOW SPEED INPUT 2
7		NOT POPULATED
8		NOT POPULATED
9	VSS-	VEHICLE SPEED SENSOR-
10	VSS+	VEHICLE SPEED SENSOR+
11		NOT POPULATED
12	IVS	IDLE VALIDATION SWITCH
13		NOT POPULATED
14	EFAN	ELECTRIC FAN CONTROL
15	LSO_SPARE4	LOW SIDE OUTPUT 4
16		NOT POPULATED
17		NOT POPULATED
18	APS	ACCELERATION POSITION SENSOR
19		NOT POPULATED
20	ATA+	J1708 DATALINK +
21	ATA-	J1708 DATALINK -
22		NOT POPULATED
23	GSC	GENSET SPEED CONTROL
24	KL.31B	SENSOR REFERENCE GROUND

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME	
CNA	25FEB03	PIN 6 OF CONN X4 INOUT CHANGED TO INPUT	B	58928S	U00DLCK	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS	
					RELEASE NO.	DATE	PART NO.
					P54304U	16JAN01	AE08-52365
						SHEET	
						12	

Figure 12 International V8 and I6 ECM Controller Connectors Pin Number Identification

2.2. BATTERY FEEDS, CAB, P. 2

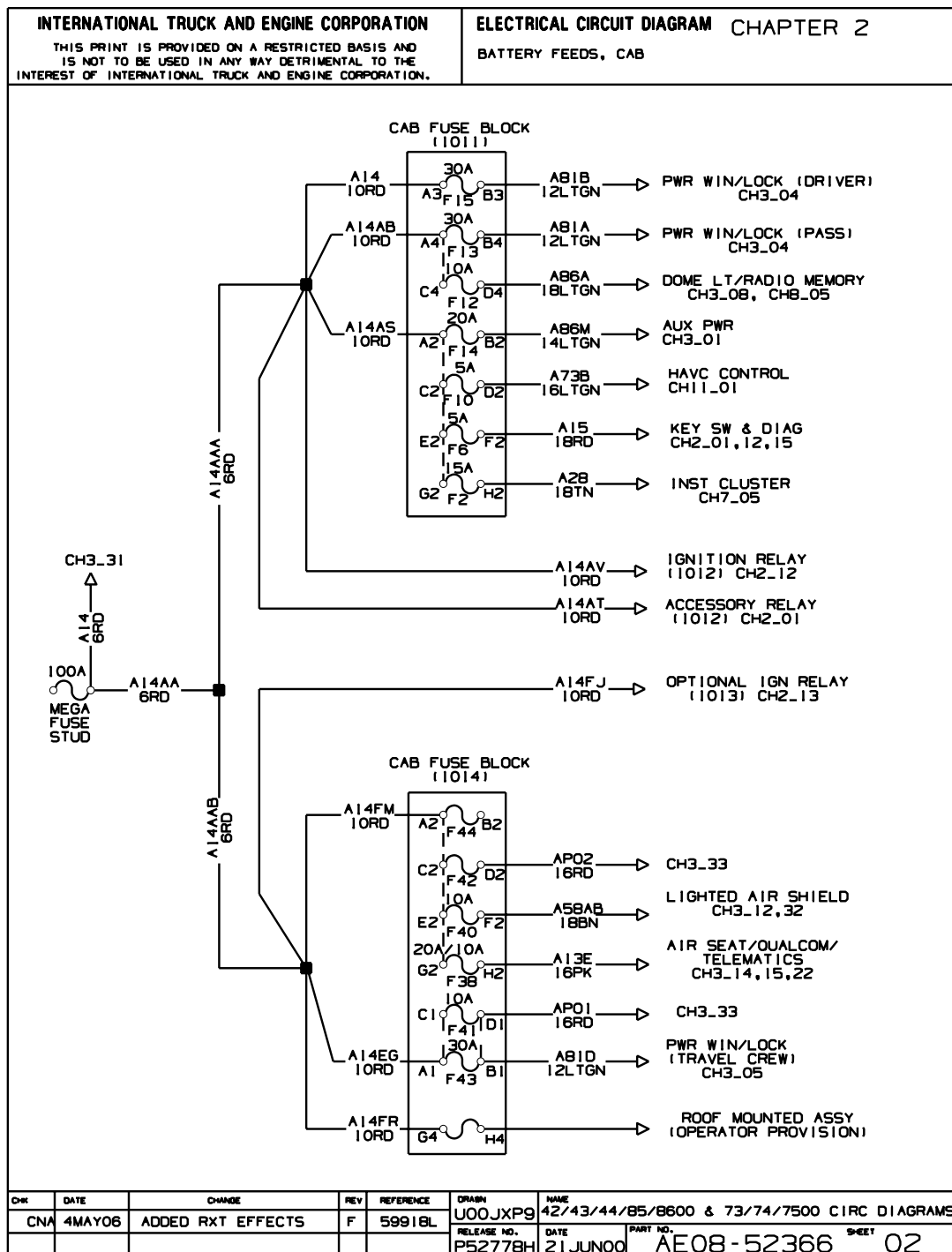


Figure 14 Battery Feeds, Cab

2.3. BATTERY, P. 3

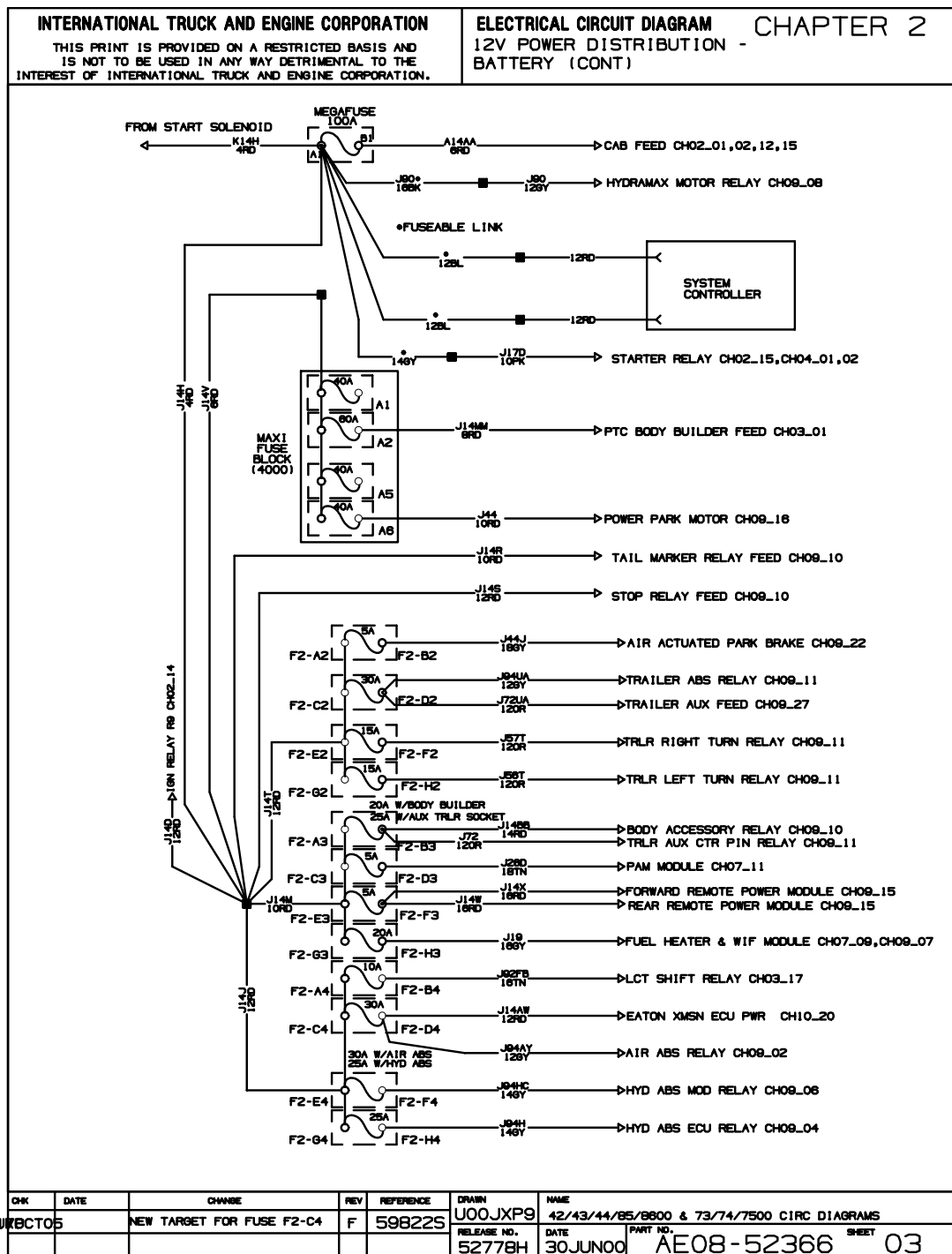


Figure 15 Battery

2.4. 1708 DATA LINK-CHASSIS, P. 4

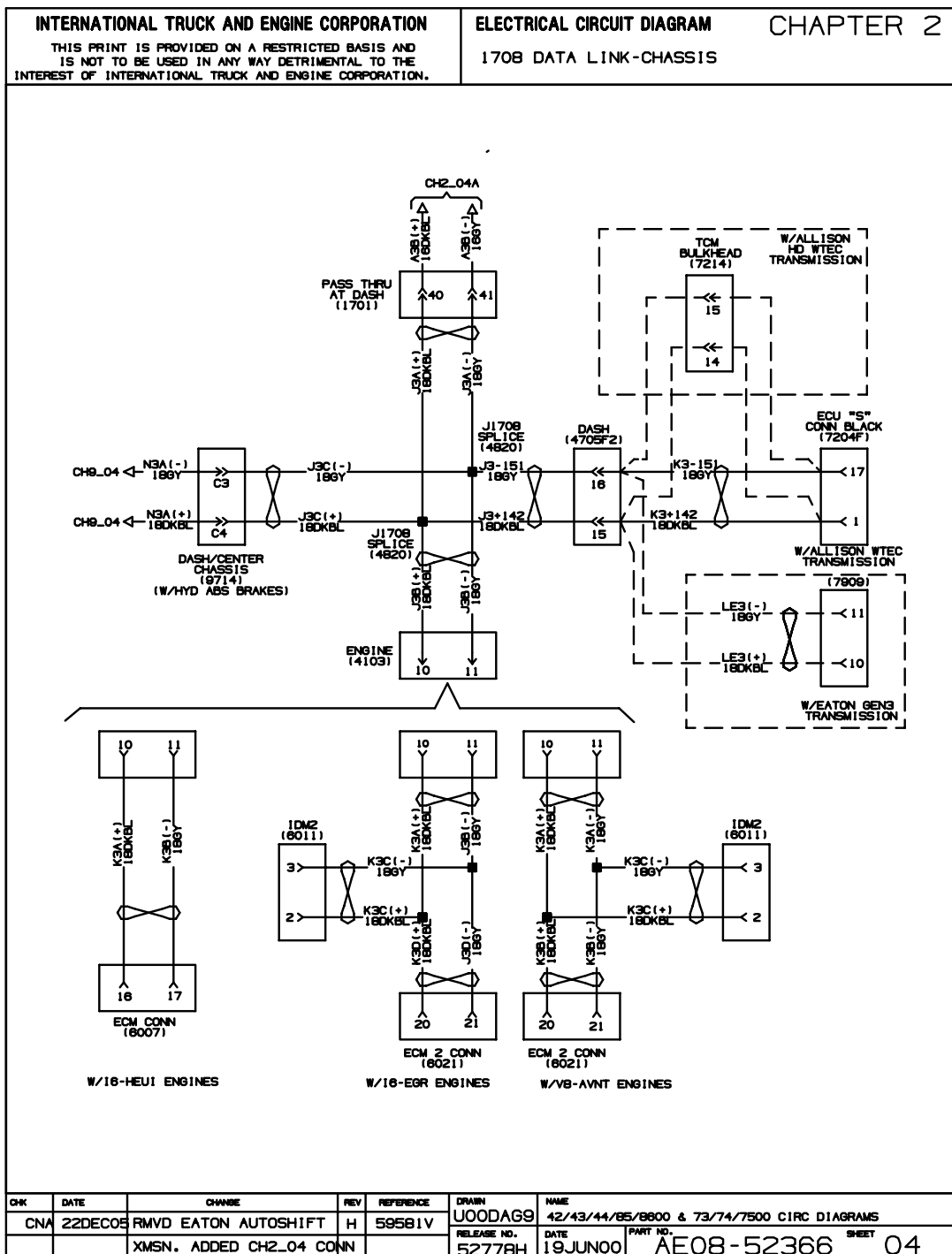


Figure 16 1708 Data Link-Chassis

2.5. J-1708 DATA LINK-CAB, P. 4A

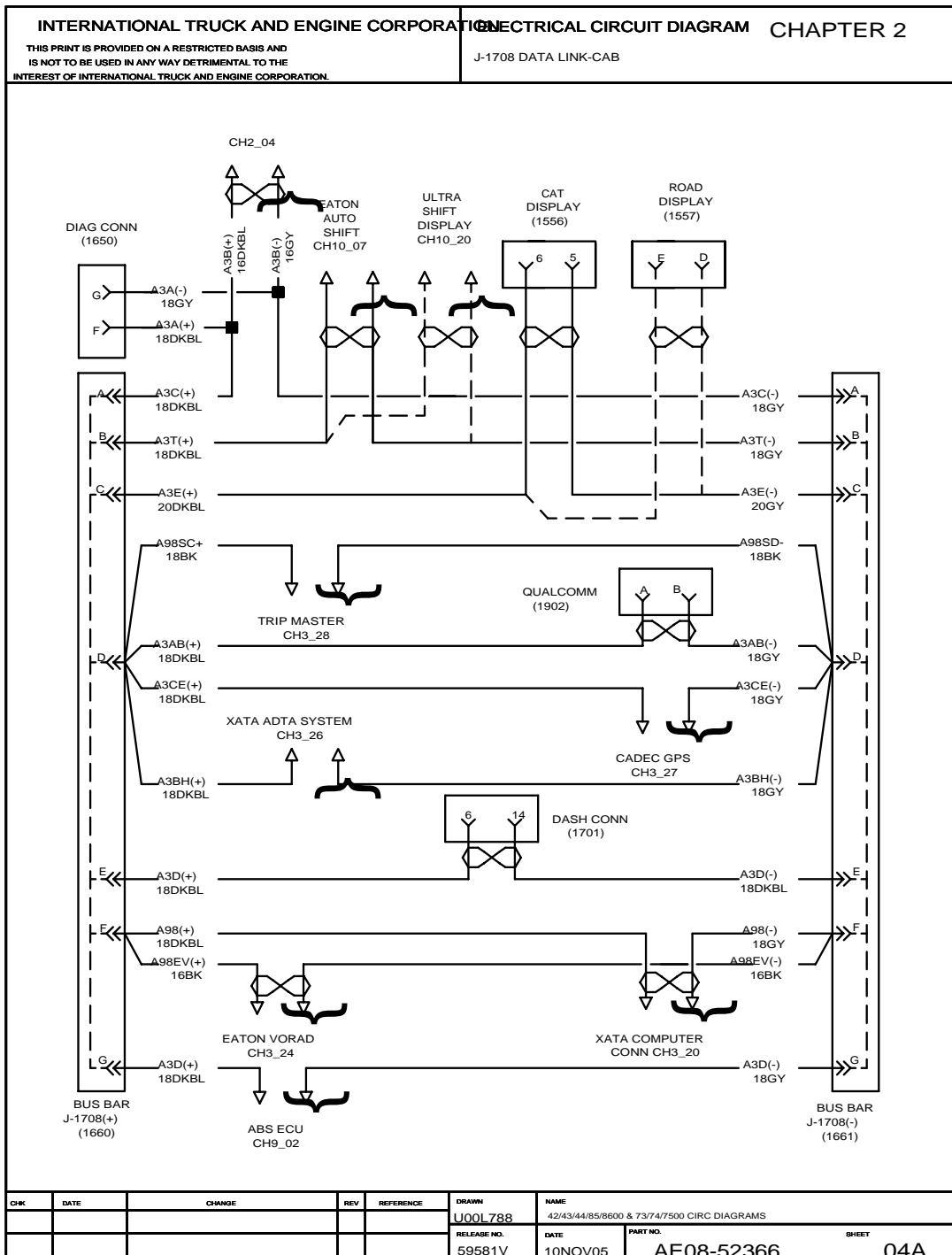


Figure 17 J-1708 Data Link-Cab

2.6. SWITCH DATA LINK, P. 5

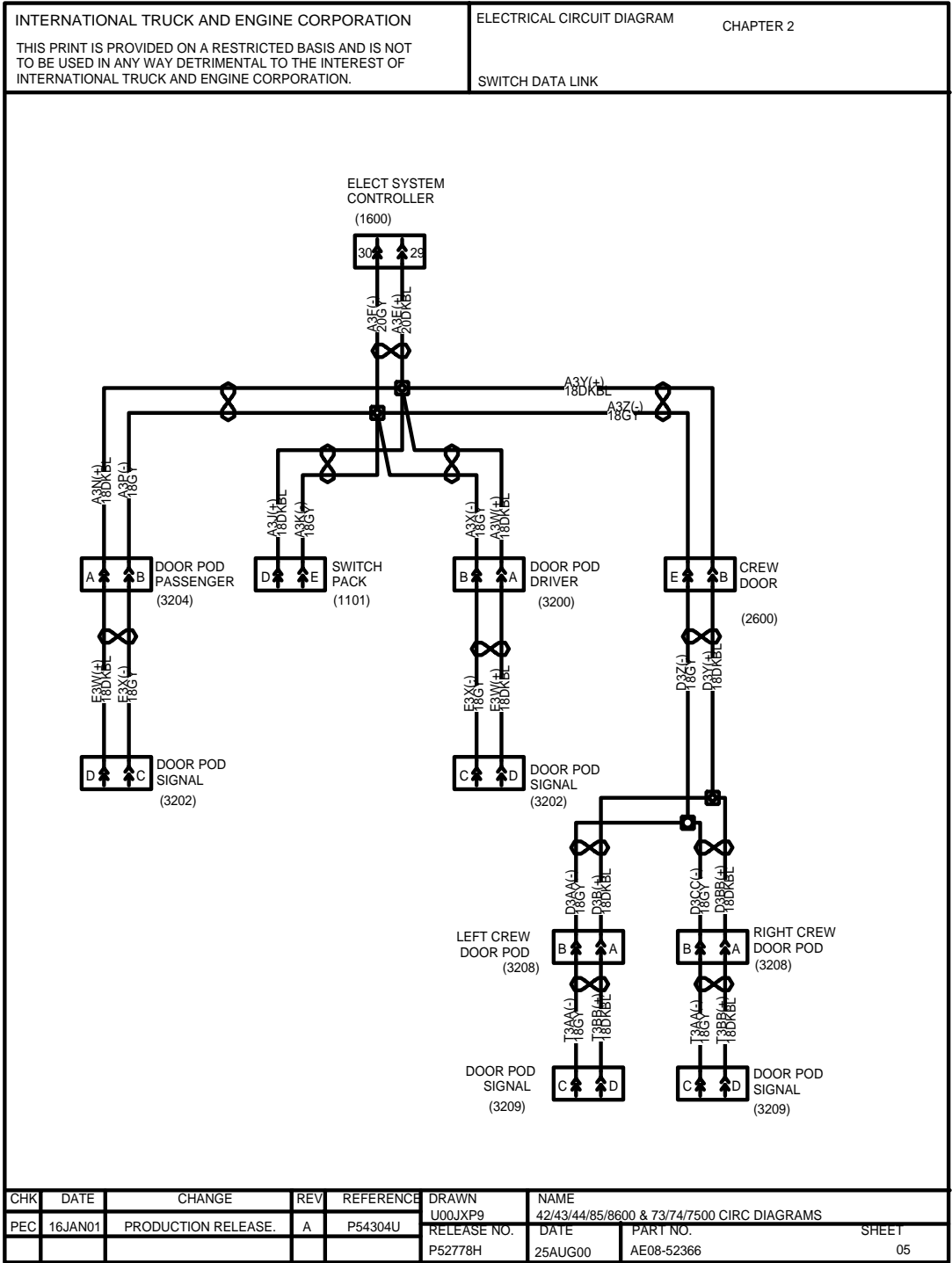


Figure 18 Switch Data Link

2.7. DRIVETRAIN 1939 DATA LINK (CAB), P. 6

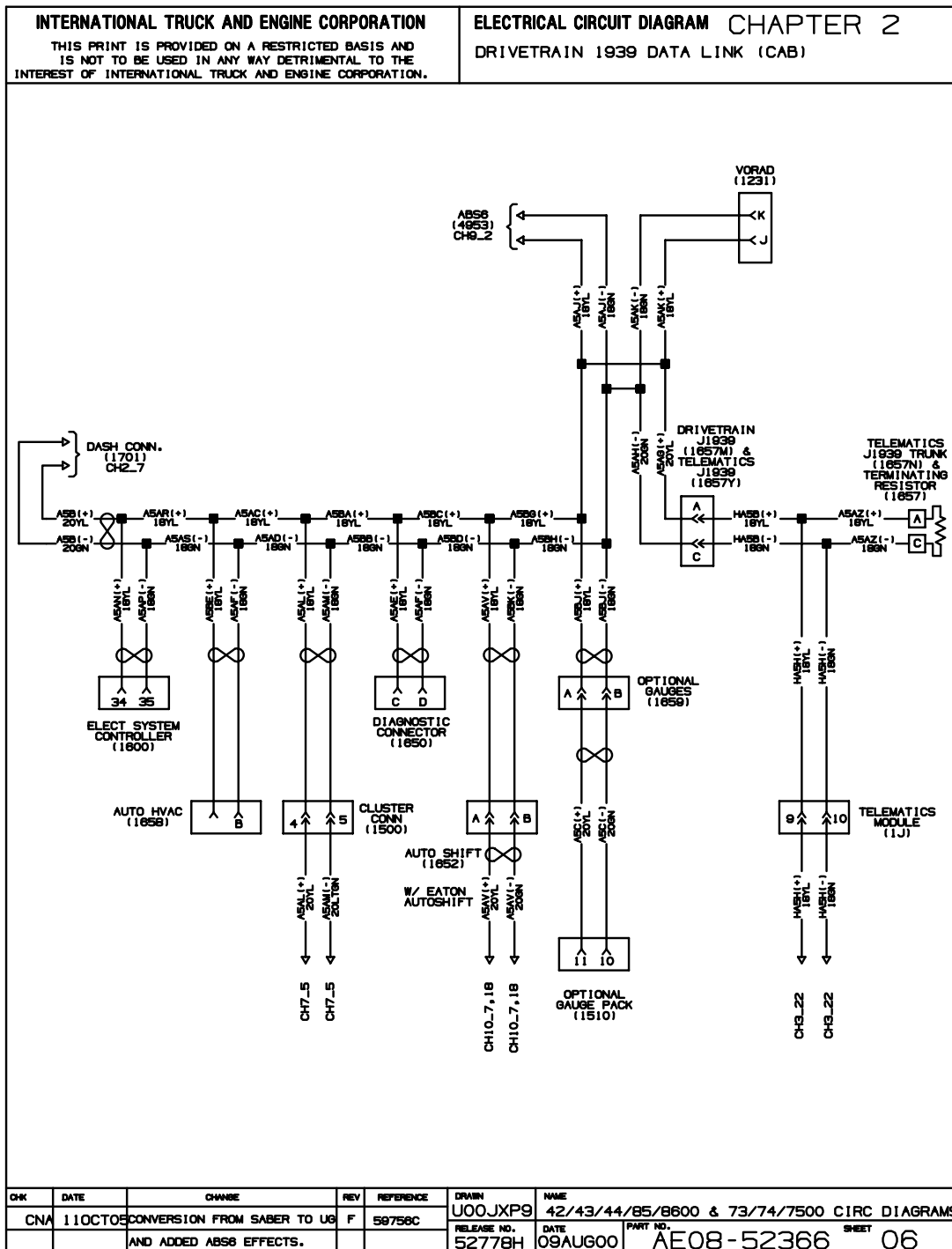


Figure 19 Drivetrain 1939 Data Link (Cab)

2.8. DRIVETRAIN 1939 DATA LINK (CHASSIS), P. 7

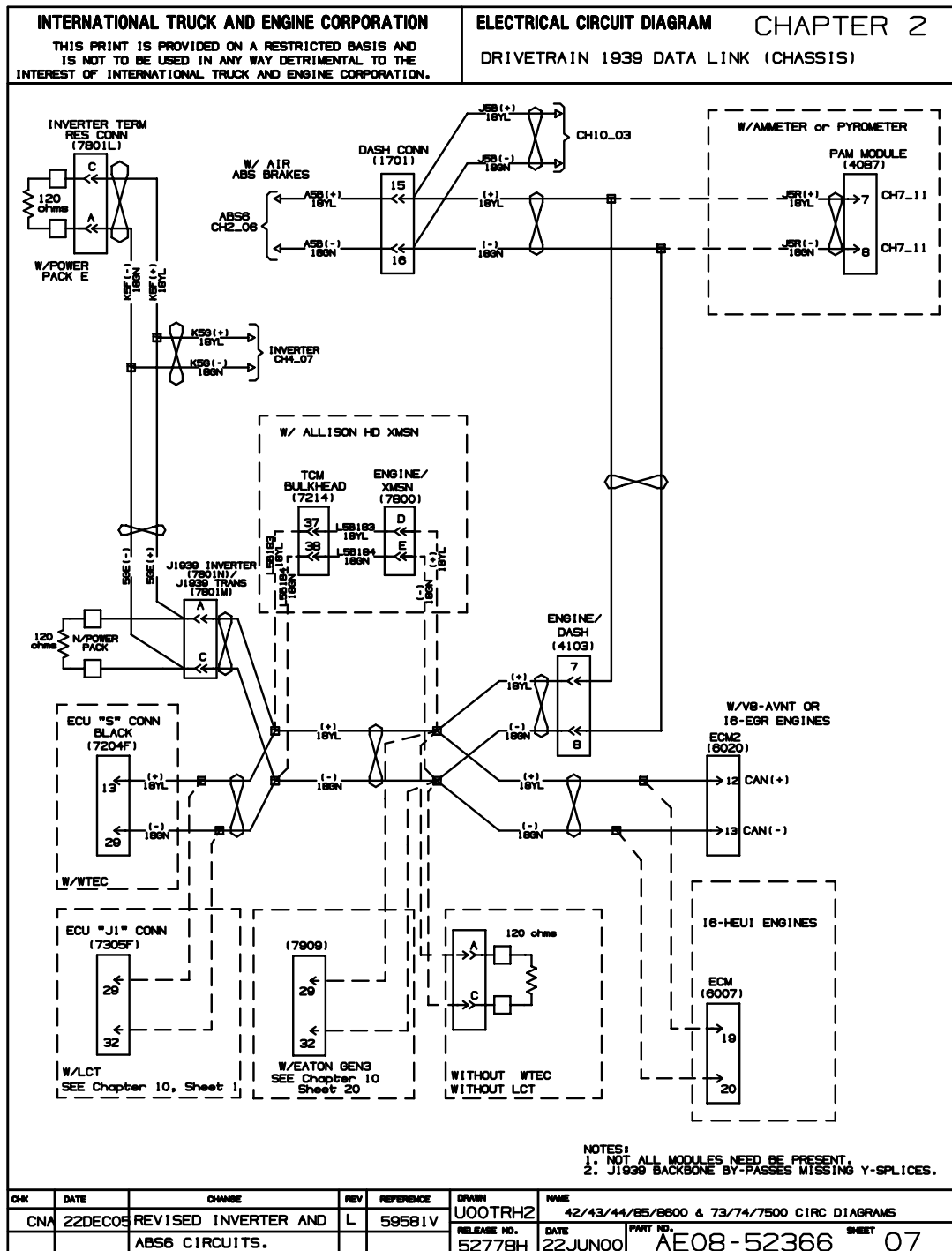


Figure 20 Drivetrain 1939 Data Link (Chassis)

2.9. GROUNDS CHASSIS, P. 8

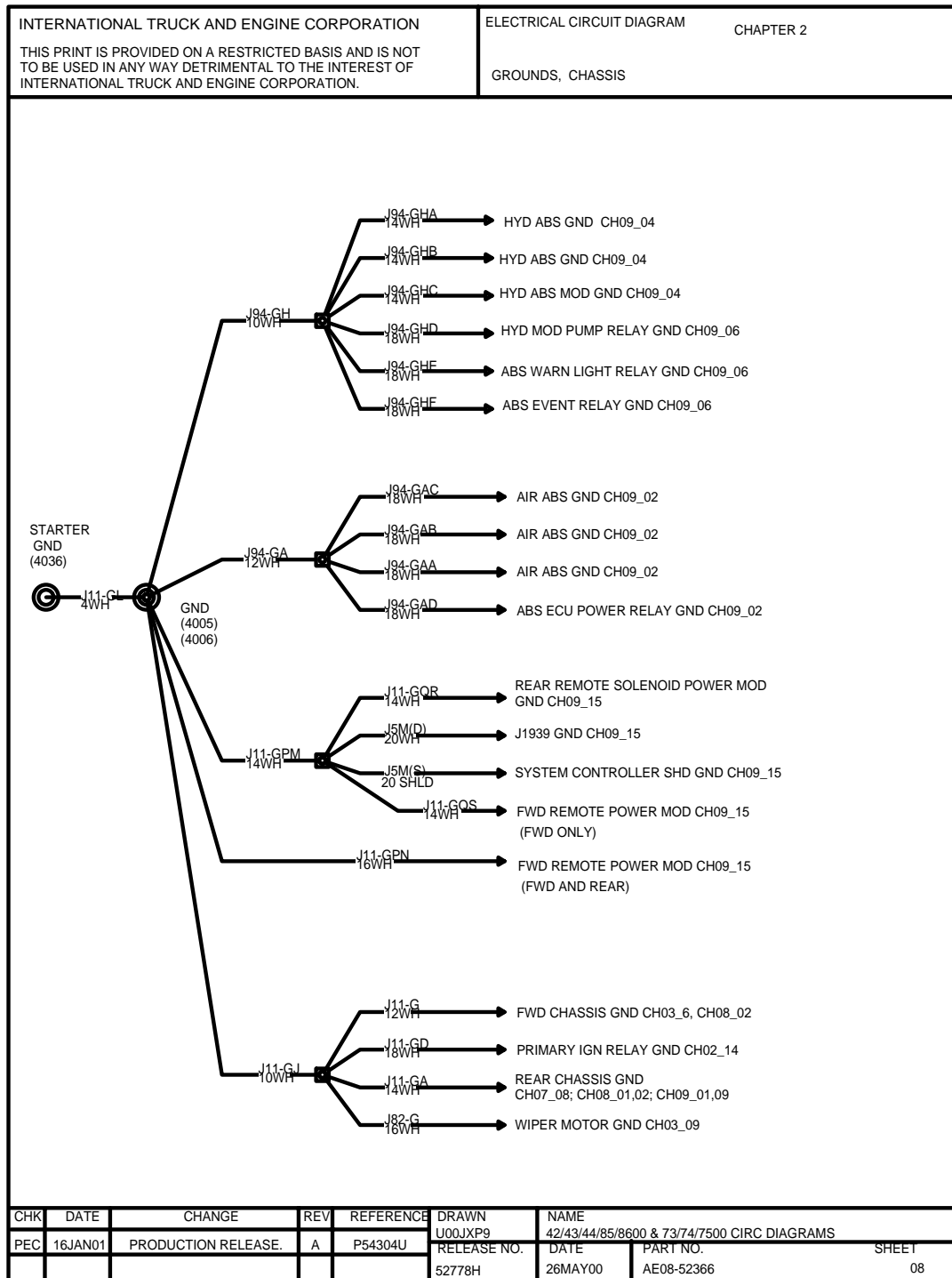


Figure 21 Grounds Chassis

INTERNATIONAL TRUCK AND ENGINE CORPORATION				ELECTRICAL DIAGRAM CHAPTER 2	
THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.				GROUNDS, CHASSIS	
<p>The diagram illustrates the electrical grounding system for the chassis. A central ground point, labeled GND (4005), is connected to numerous components via wires. The components are listed on the right side of the diagram, each with its specific wire gauge and terminal designation. On the left, there is a connection to STARTER GND (4036) through a J11-GL 4WH terminal. The components include:</p> <ul style="list-style-type: none"> J11-GW 18WH → WHEELCHAIR LIFT INTERLOCK CH9_35 J11-GSS 12WH → BODY BUILDER GND CH9_10 J11-GSR 18WH → ACCESSORY BODY BUILDER RELAY CH9_10 J11-GH 8WH → TRAILER SOCKET GND CH9_11 J11-GW 18WH → TRAILER ABS CENTER PIN RELAY CH9_11 J55-GH 18WH → TRAILER LEFT TURN RELAY CH9_11 J57-GH 18WH → TRAILER RIGHT TURN RELAY CH9_11 J72-G 18WH → TRAILER AUX CENTER PIN RELAY CH9_11 J19-G 18WH → FUEL HEATER RELAY CH9_07 J17-SR1 18PK → CRANK INHIBIT W/AUTO NEUTRAL CH10_05 J25-G 18WH → WORK LIGHT GND CH8_05 J19-SA 18WH → FUEL FILTER WARNING LIGHT GND CH7_09 J30-G 18WH → FLOW SWITCH GND CH8_08 J44-SA 18WH → POWER PARK GND J44-G 18WH → POWER PARK GND J11-SAW 12WH → EATON AUTOSHIFT GND J30-GH 12WH → HYDRAMAX MOTOR CH9_08 J11-SPW 18WH → PAM MODULE CH7_11 J11-SFN 18WH → FORWARD REMOTE POWER MODULE CH9_15 J31-G 18WH → AIR SUSPENSION SOLENOID CH9_17 J17-G 18WH → CRANK RELAY GND FOR EATON ULTRASHIFT/DM2 CH4_05 J44-GW 18WH → AIR PARK BRAKE INTERLOCK CH9_36 					

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME
CNA	27OCT05	ADDED J11-GW AND J44-GW.	D	59B73Z	U00JXP9	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS
					RELEASE NO. 52779H	DATE 26MAY00
					PART NO.	AEO8-52366
					SHEET	09

Figure 22 Grounds Chassis (Cont.)

2.11. GROUNDS IP, P. 10

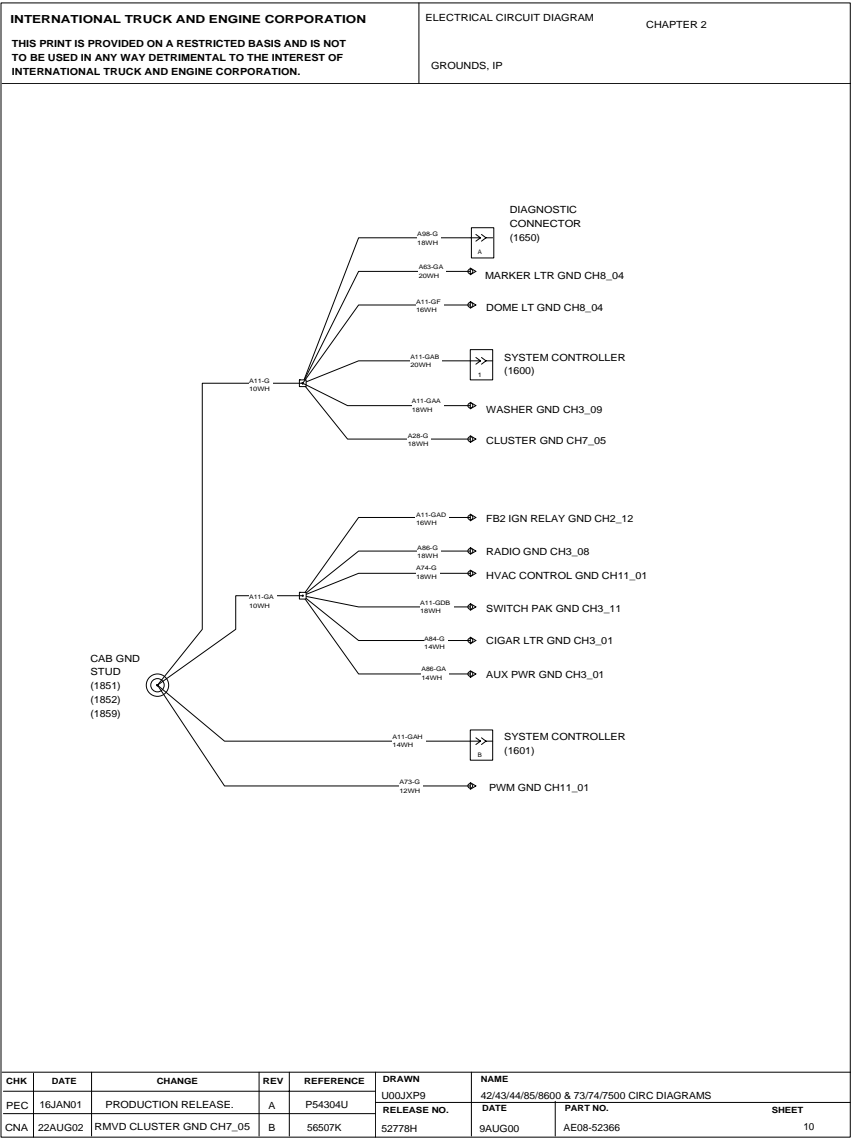


Figure 23 Grounds IP

2.12. GROUNDS IP, P. 11

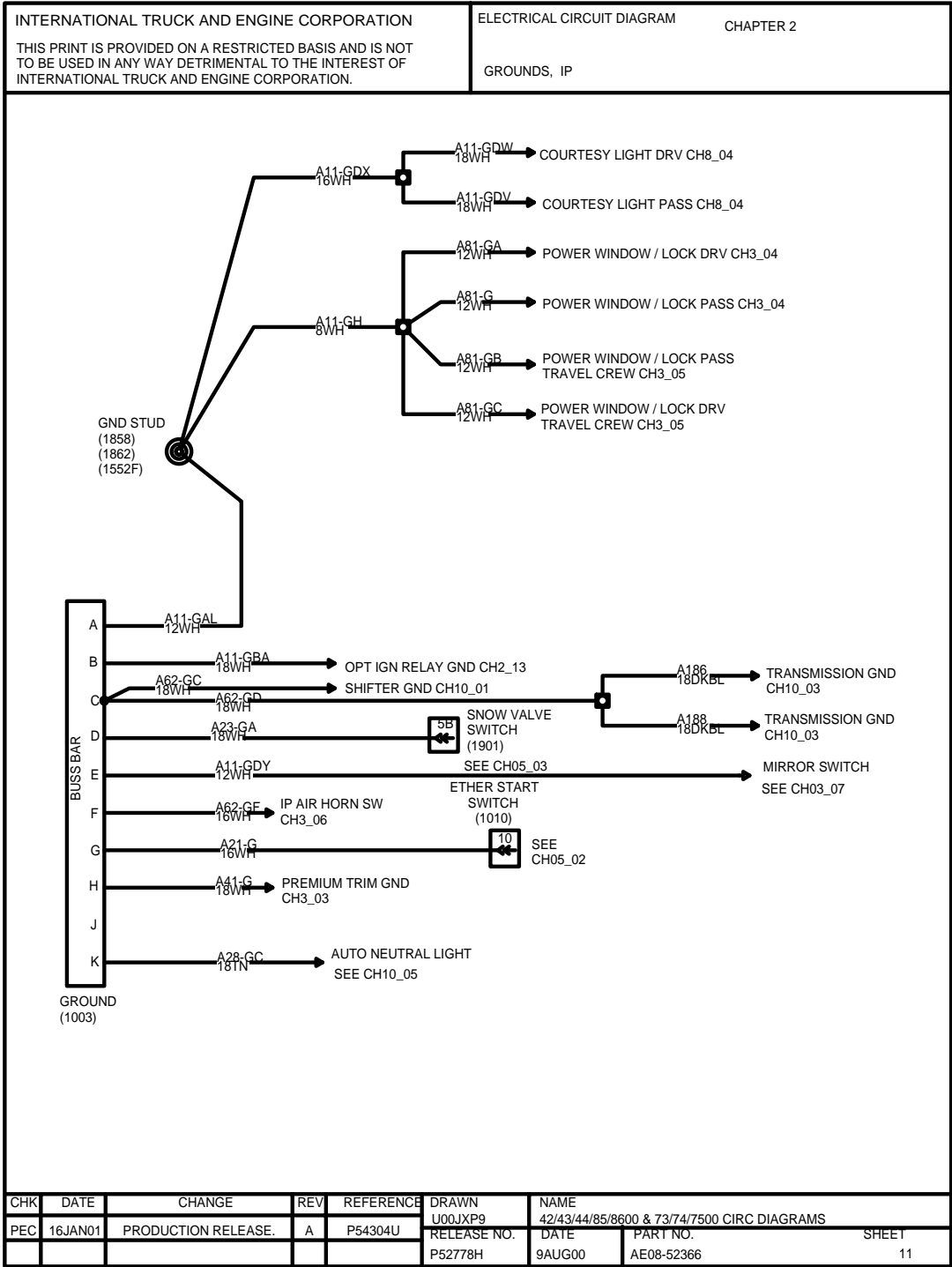


Figure 24 Grounds IP

2.13. IGNITION CAB WITH THEFT DETERRENT, P. 12

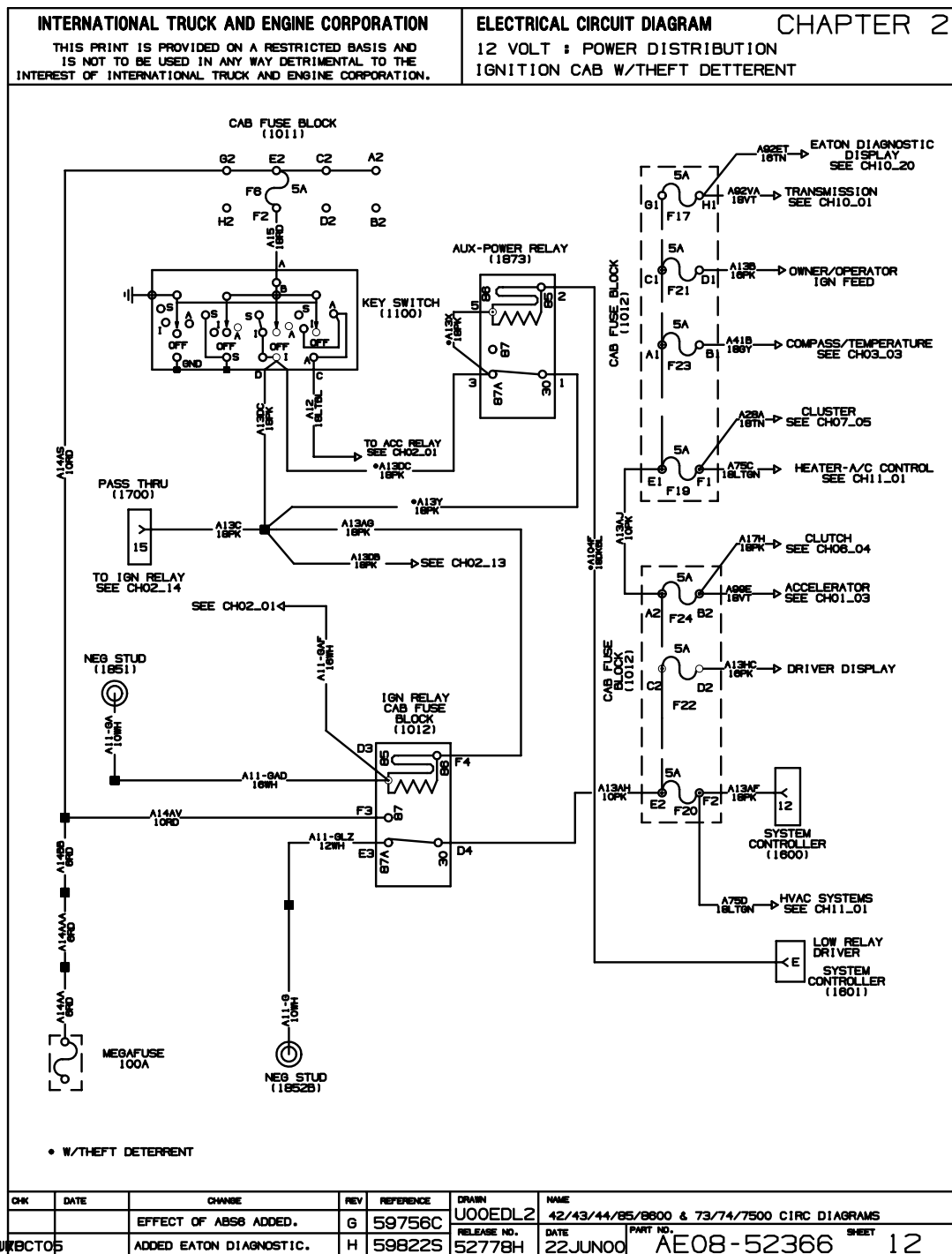


Figure 25 Ignition Cab with Theft Deterrent

2.14. IGNITION CAB, P. 13

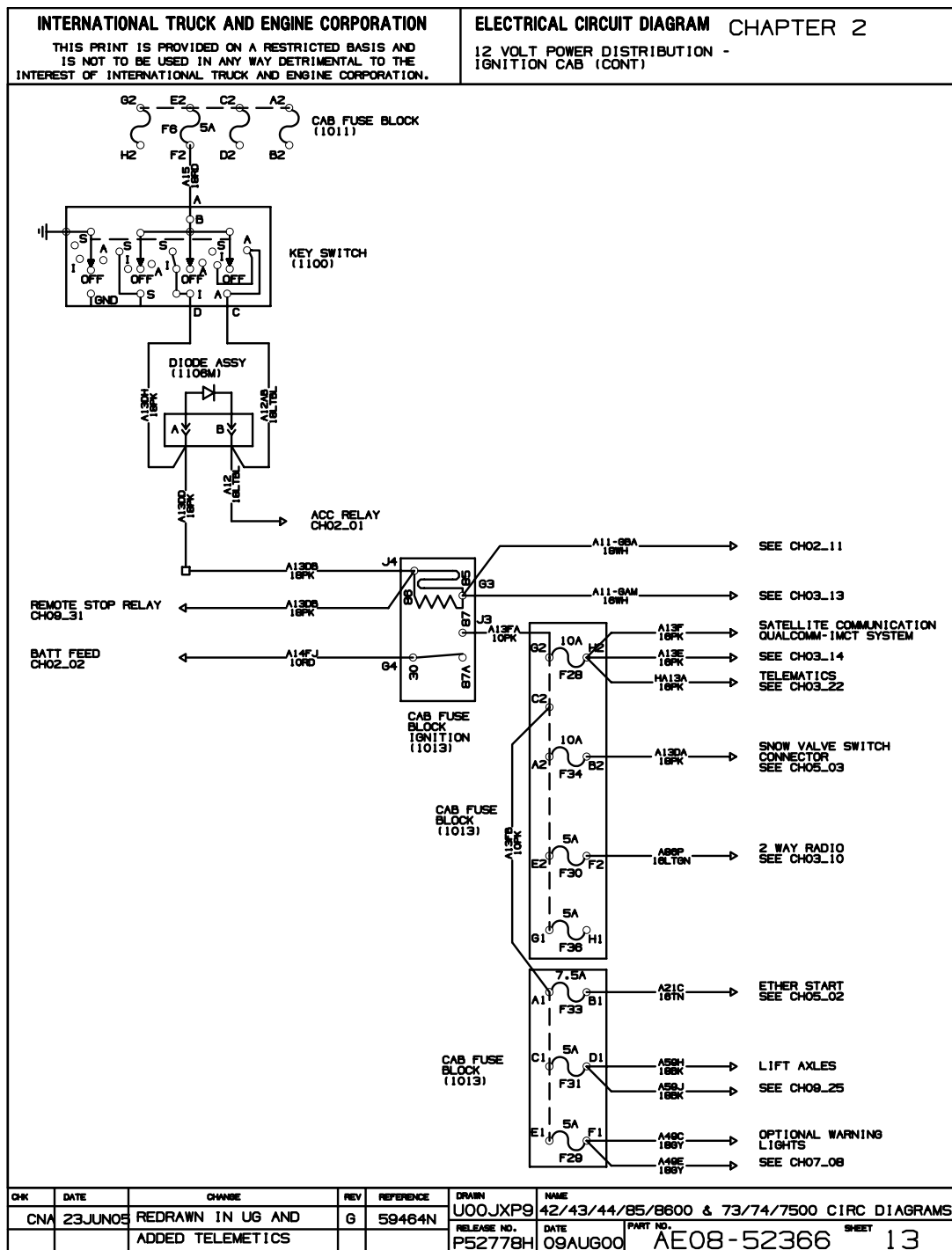


Figure 26 Ignition Cab (Cont.)

Figure 27 Ignition Feeds, Chassis



2.16. START, P. 15

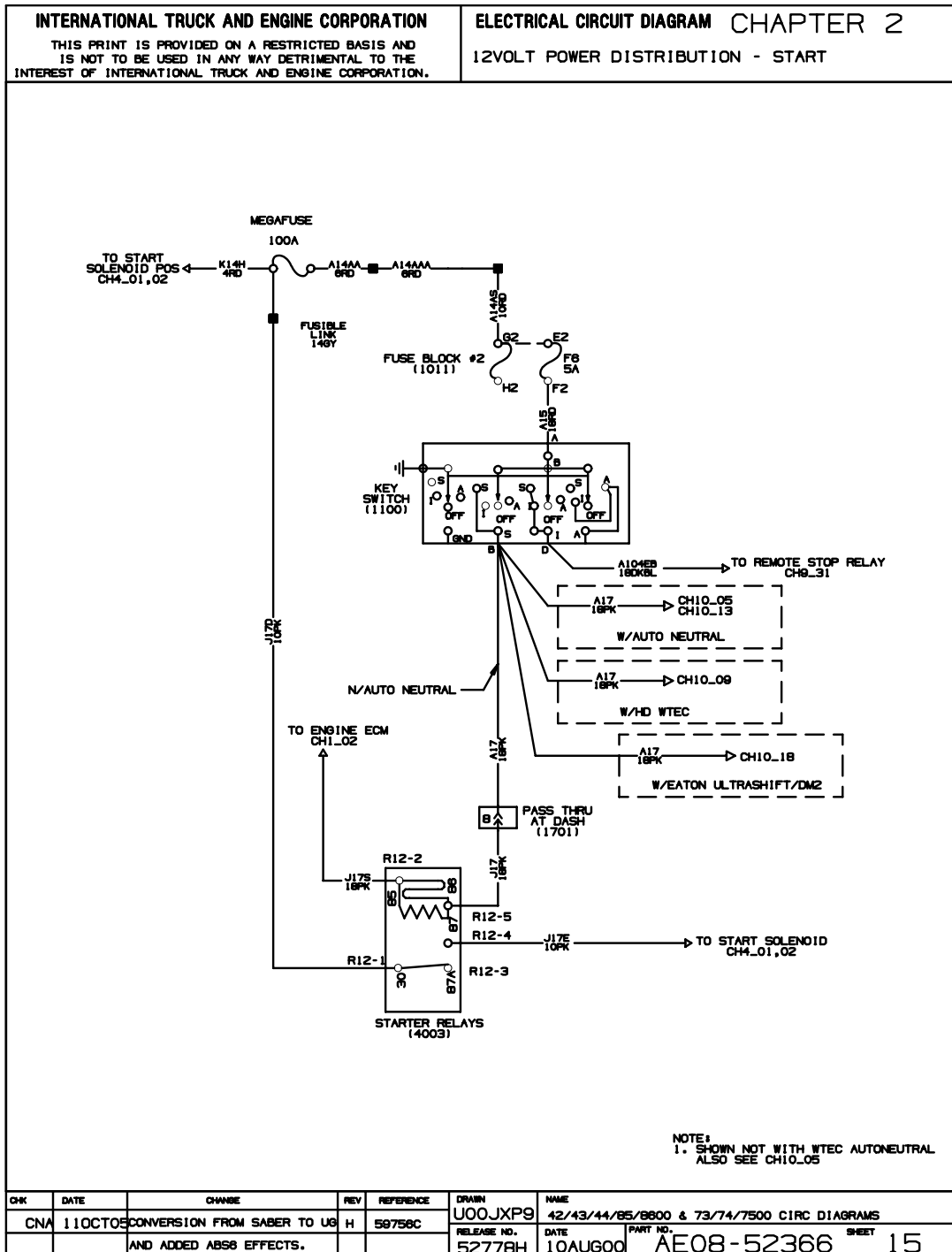


Figure 28 Start

3. CAB ACCESSORIES (CHAPTER 3)

3.1. CIGAR LIGHTER AND POWER FEEDS, P. 1

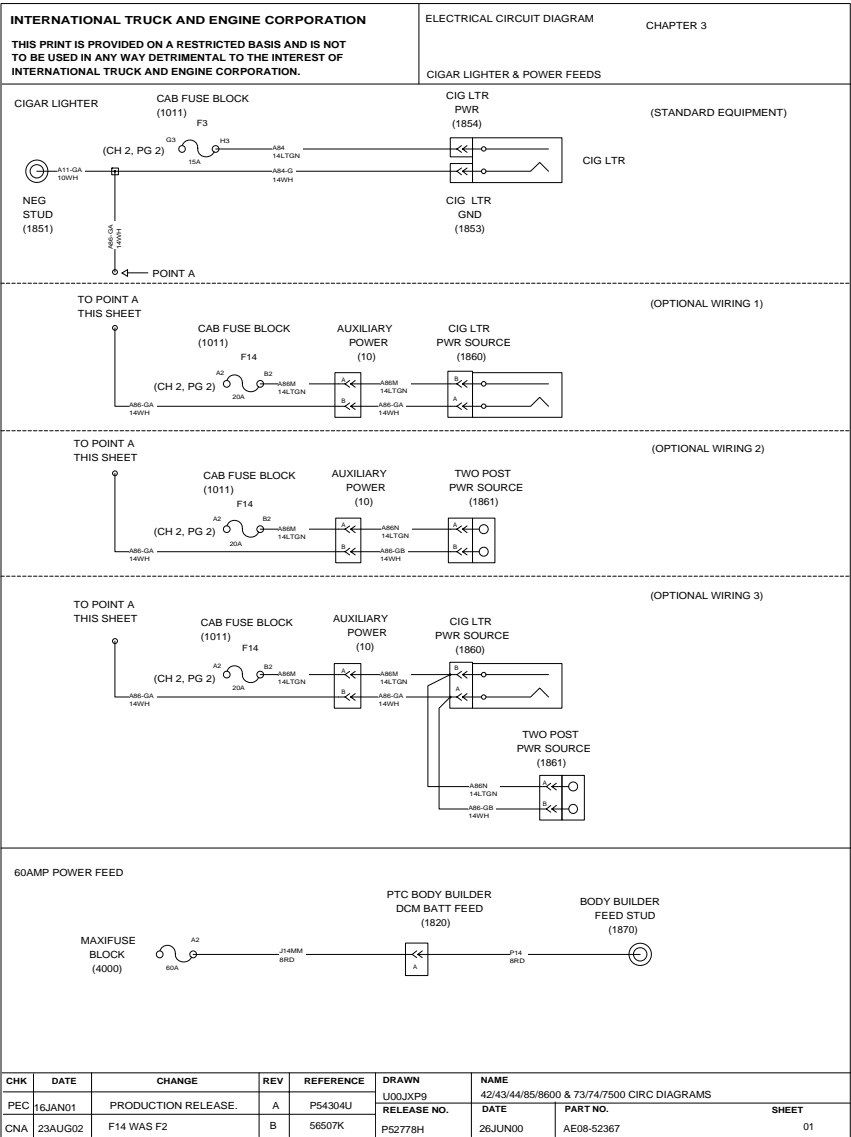


Figure 29 Cigar Lighter and Power Feeds

3.2. CB POWER, P. 2

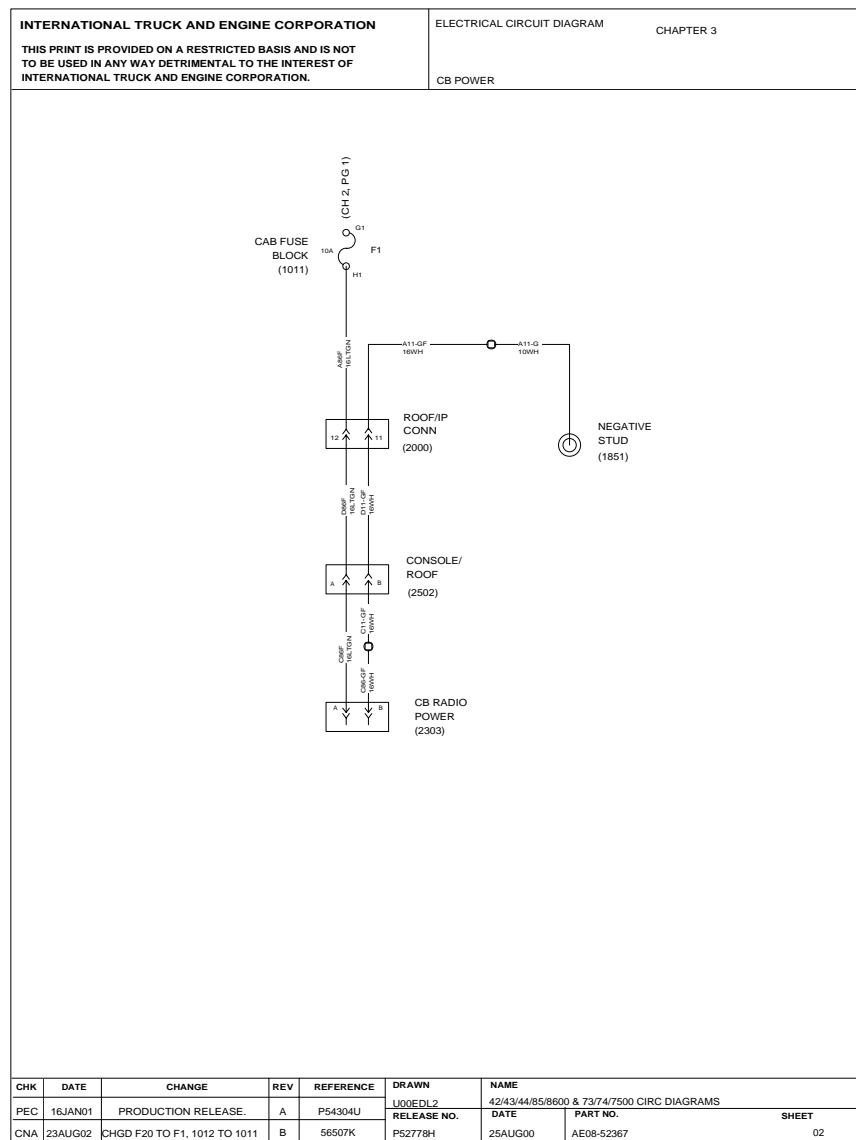


Figure 30 CB Power

3.3. COMPASS AND TEMPERATURE DISPLAY, P. 3

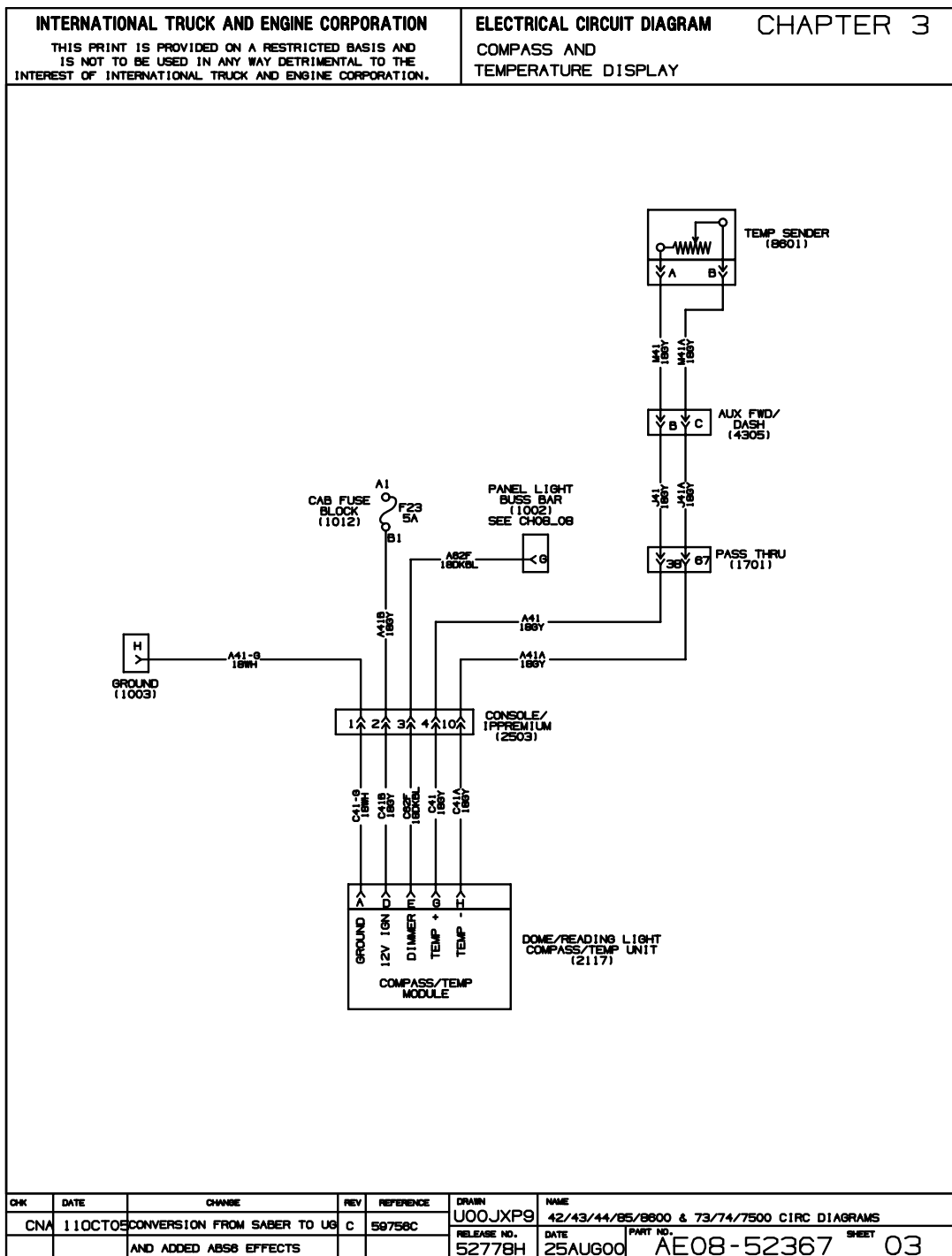


Figure 31 Compass and Temperature Display

3.4. FRONT DOORS WINDOWS AND LOCKS (POWER), P. 4

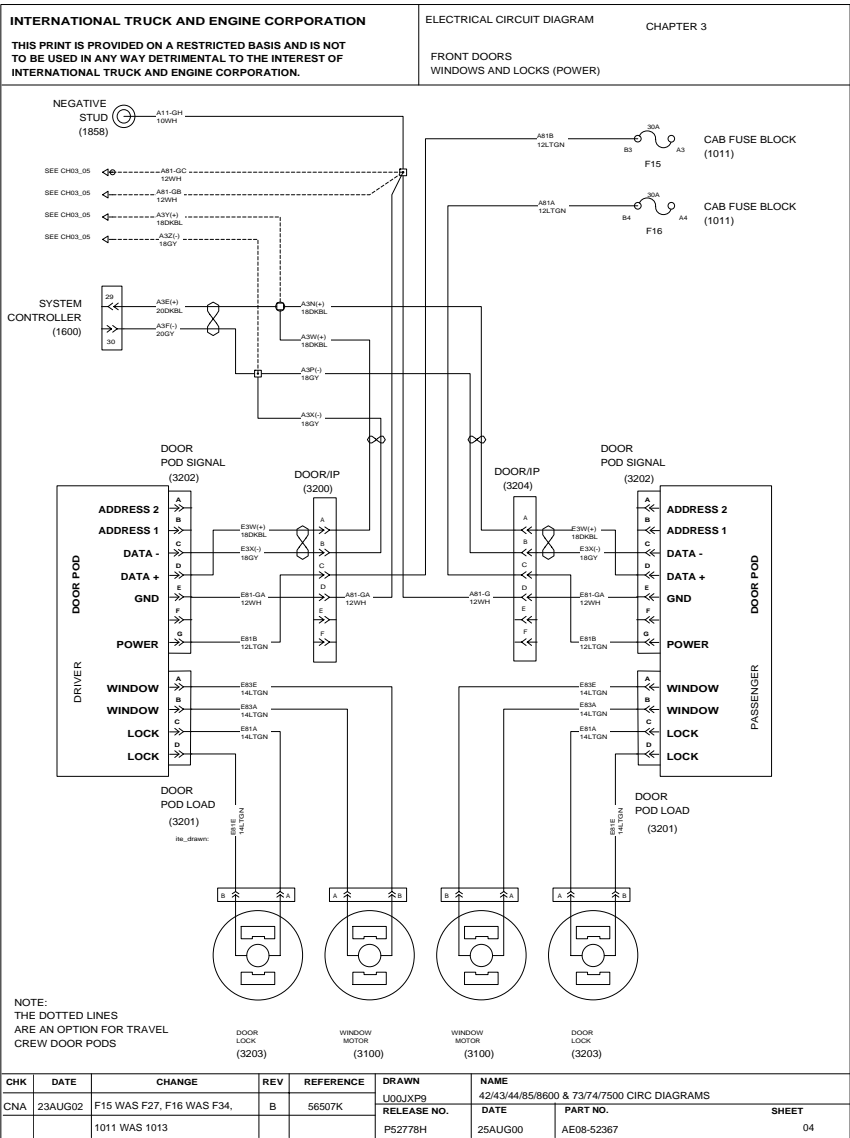


Figure 32 Front Doors Windows and Locks (Power)

3.5. CREW DOORS WINDOWS AND LOCKS (POWER), P. 5

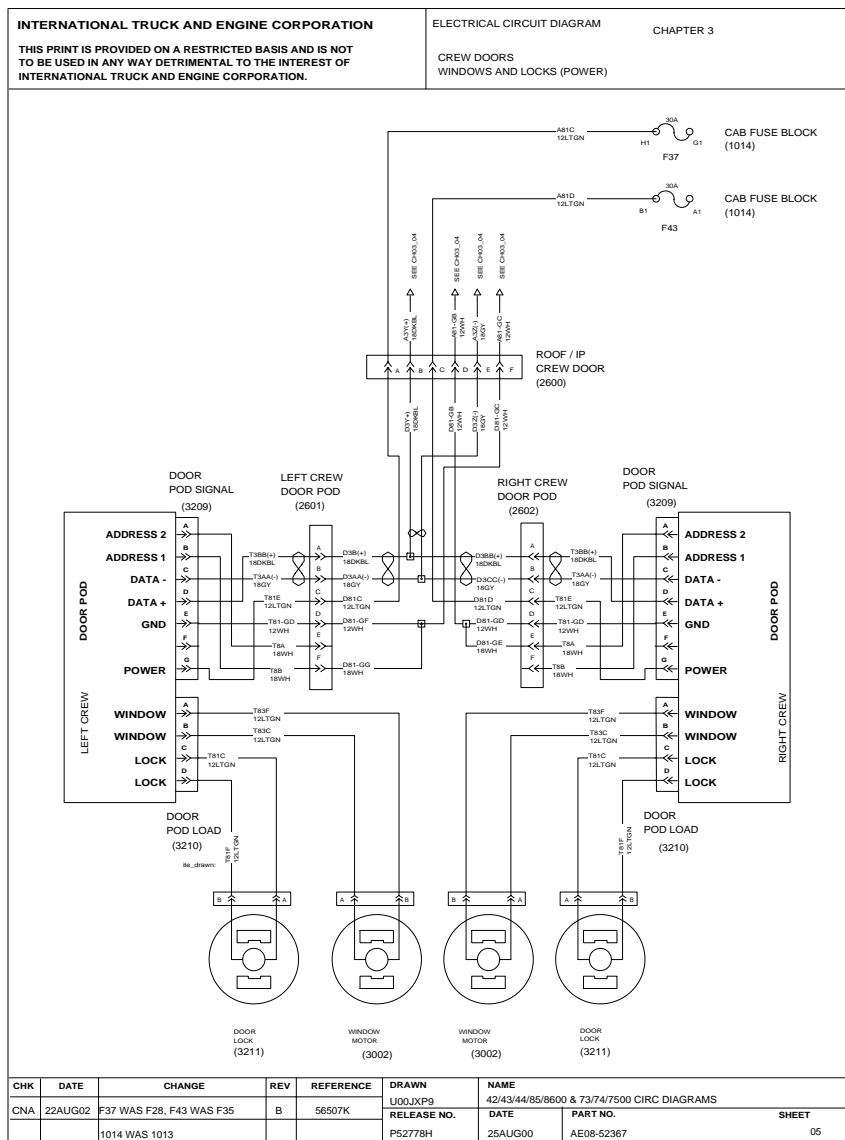


Figure 33 Crew Doors Windows and Locks (Power)

INTERNATIONAL TRUCK AND ENGINE CORPORATION

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ELECTRICAL CIRCUIT DIAGRAM

CHAPTER 3

HORN, DUAL ELECTRIC

RIGHT SIDE ELECT HORN (8312)

LEFT SIDE ELECT HORN (8311)

RADIATOR GND (8600)

GROUND ADAPTER #1 (8800)

GROUND ADAPTER #2 (8801)

FWD CHASSIS/DASH (4301)

SYSTEM CONTROLLER BROWN FRONT (4007)

GROUND 2 (4006)

W/INSTRUMENT PANEL HORN SWITCH

HORN SWITCH (1018)

PANEL LIGHT BUSS BAR (1002)

SEE CH08_08

GROUND ADAPTER (1003)

SYSTEM CONTROLLER (1600)

CAB/DCM (1800)

CLOCK SPRING (1809)

CITY HORN

AIR HORN

ZERO VOLT RELAY (1600)

ELEC HORN SW (1600)

AIR HORN (1600)

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U	U00EDL2	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS
					RELEASE NO.	DATE
					P52778H	19JUN00
						PART NO.
						AE08-52367
						SHEET
						06

Figure 34 Horn, Dual Electric

3.7. MIRRORS (HEATED, LIGHTED AND POWER), P. 7

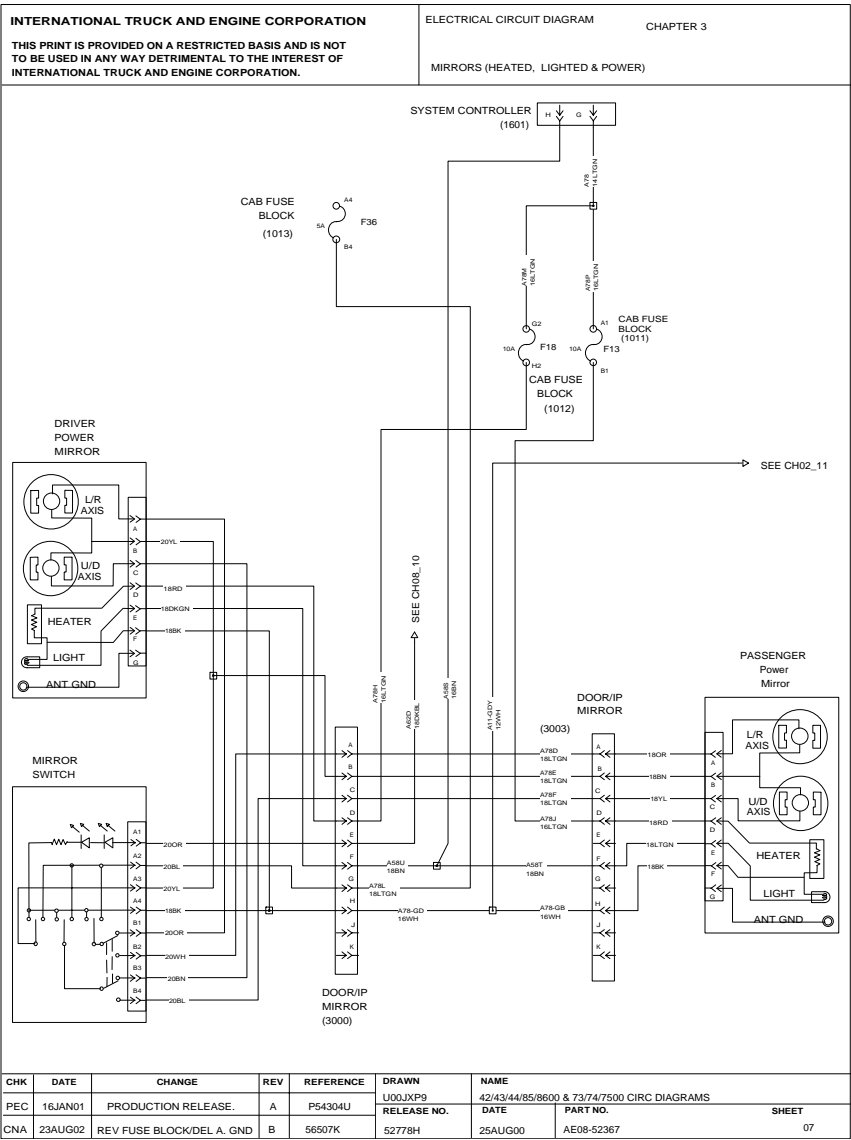


Figure 35 Mirrors (Heated, Lighted and Power)

3.8. RADIO (ENTERTAINMENT), SPEAKERS, P. 8

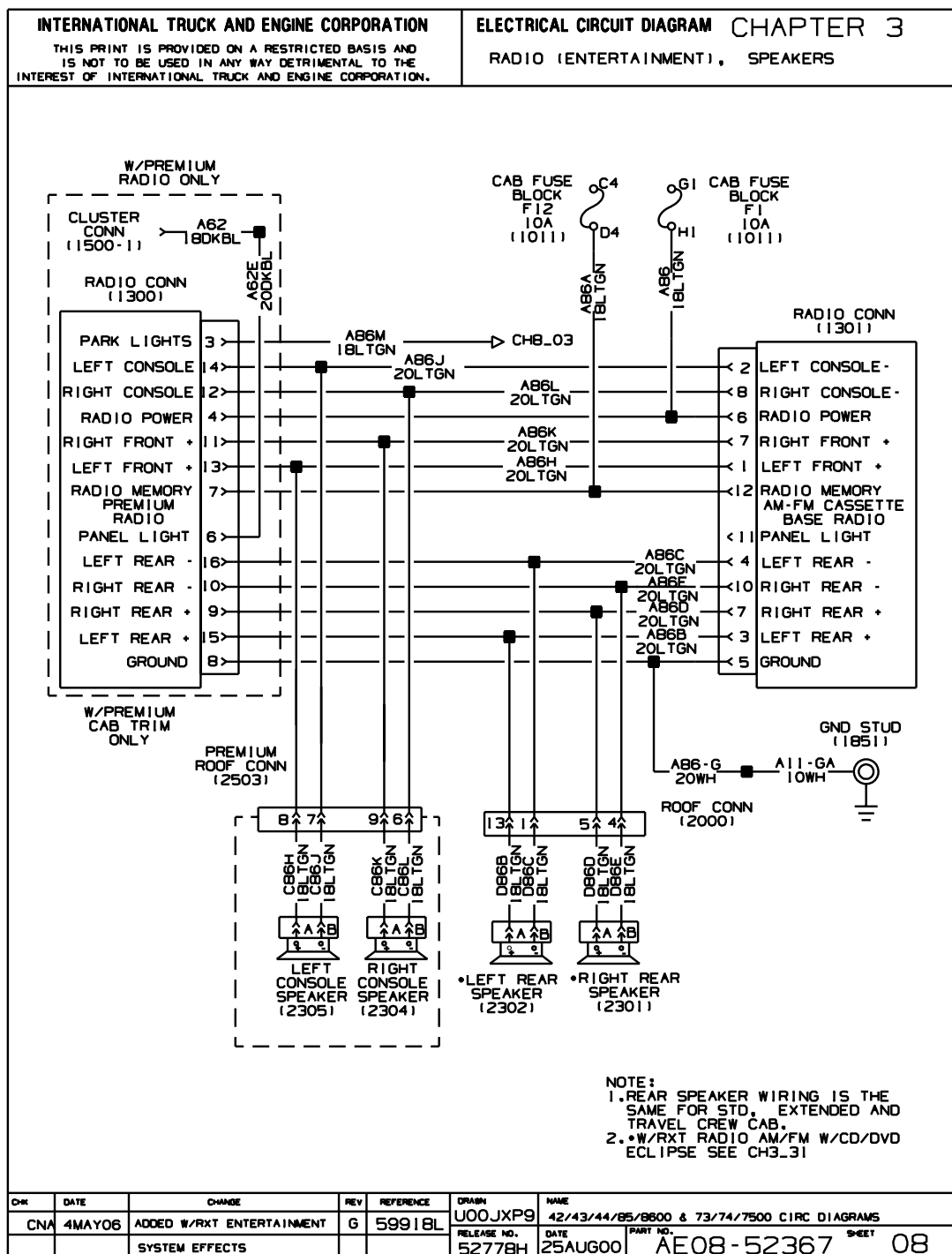


Figure 36 Radio (Entertainment), Speakers

3.9. WINDSHIELD WIPER AND WASHER PUMP, P. 9

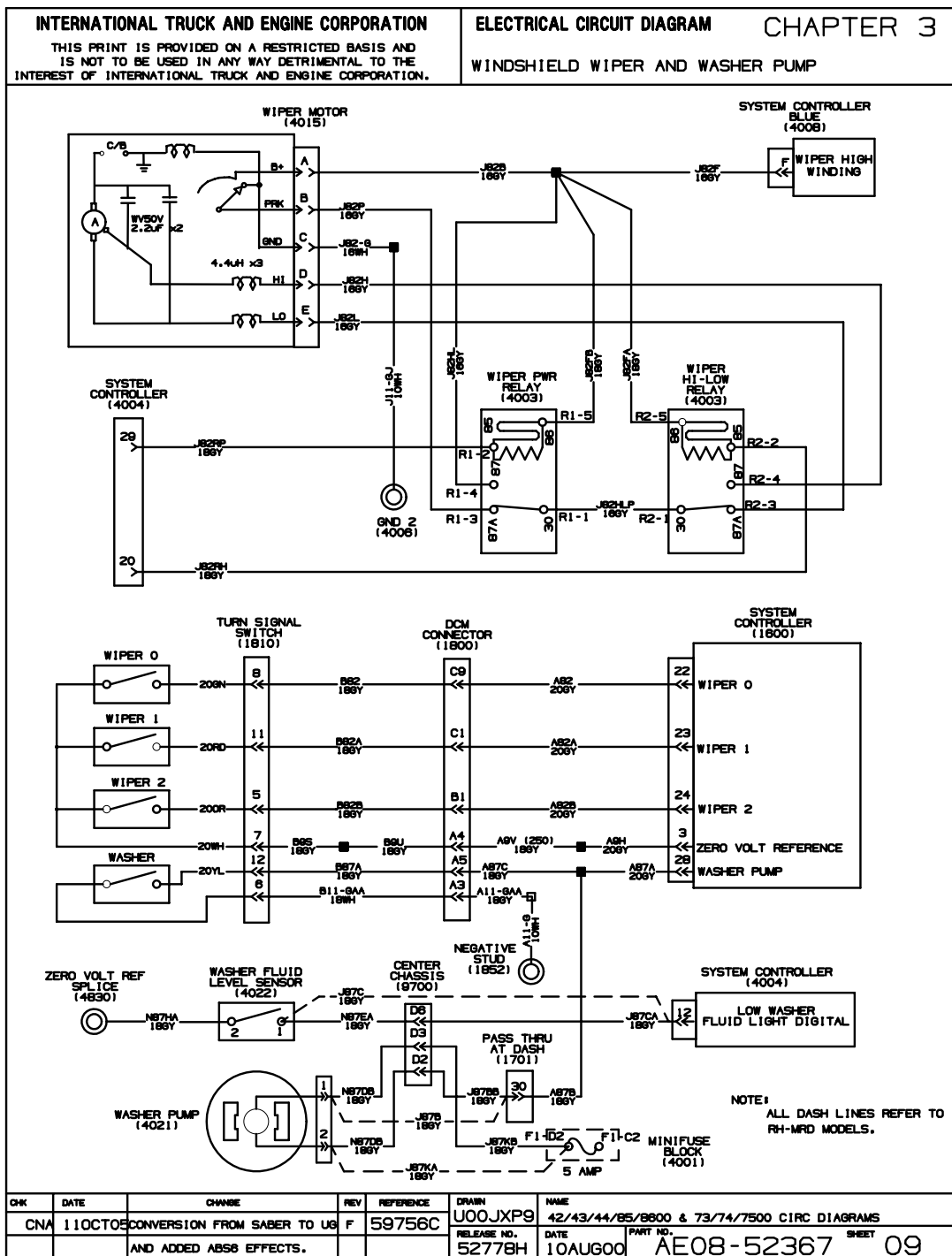


Figure 37 Windshield Wiper and Washer Pump

[illegible]

Figure 38 2-Way Radio

3.11. SWITCH PACK, OPTIONAL GAUGE PACK, P. 11

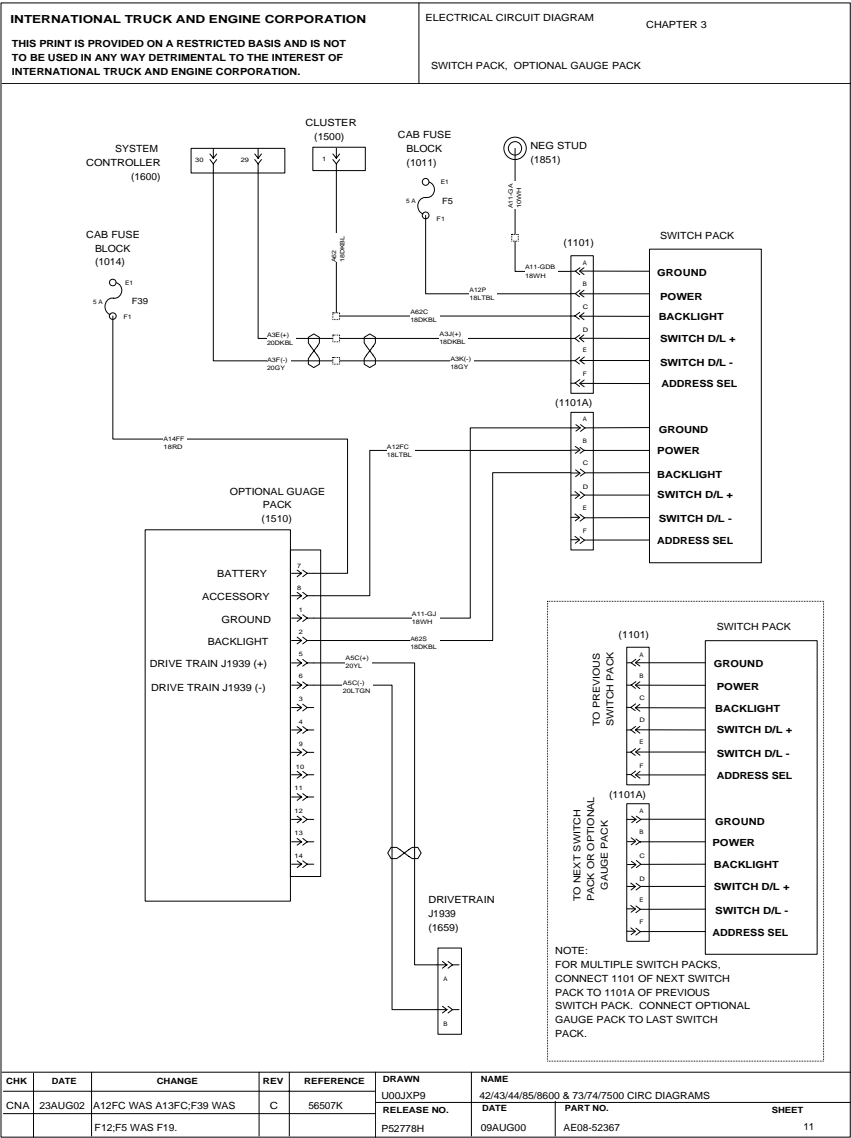


Figure 39 Switch Pack, Optional Gauge Pack

3.12. LIGHTED AIR SHIELD, P. 12

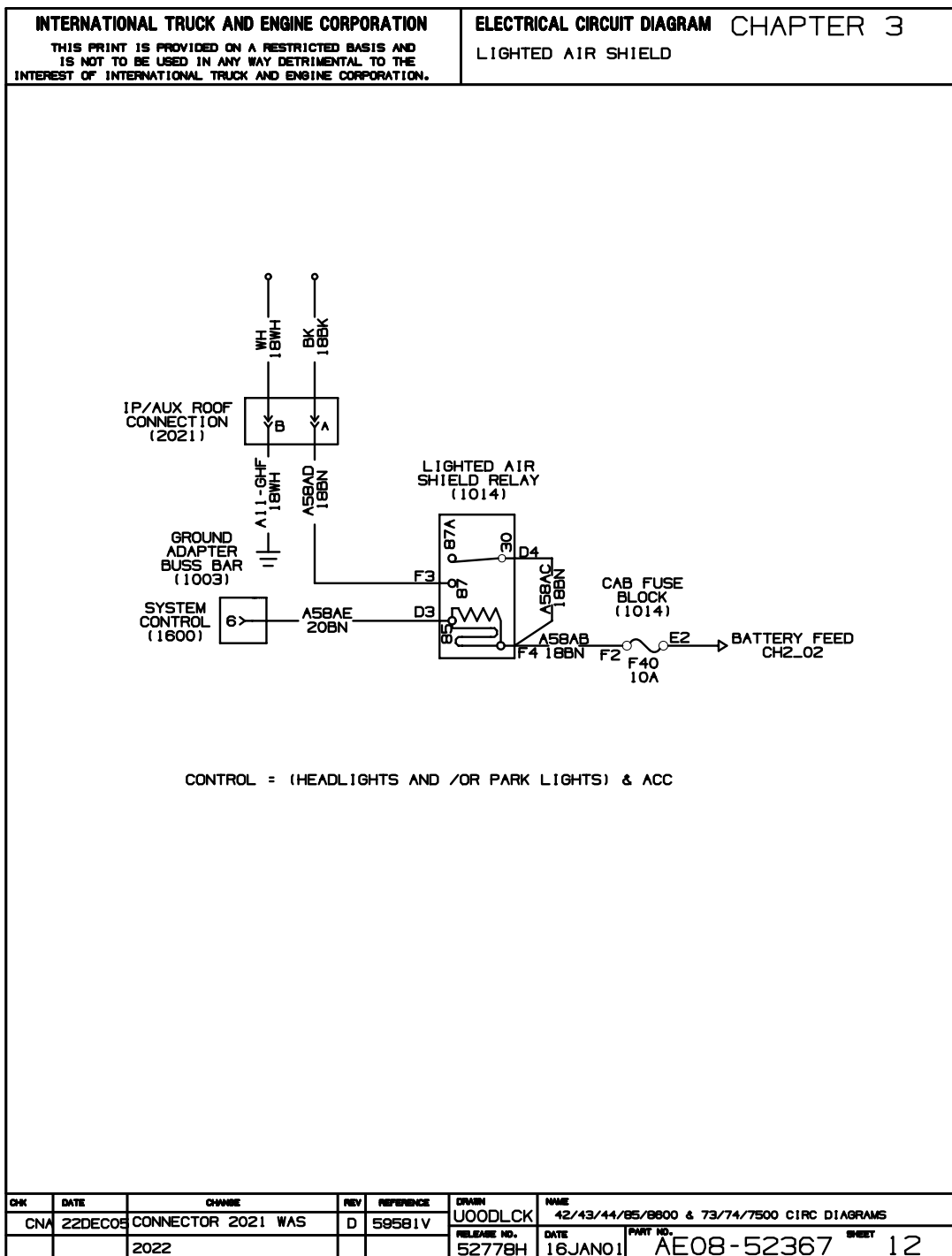


Figure 40 Lighted Air Shield

3.13. ROOF AUX. LOAD, P. 13

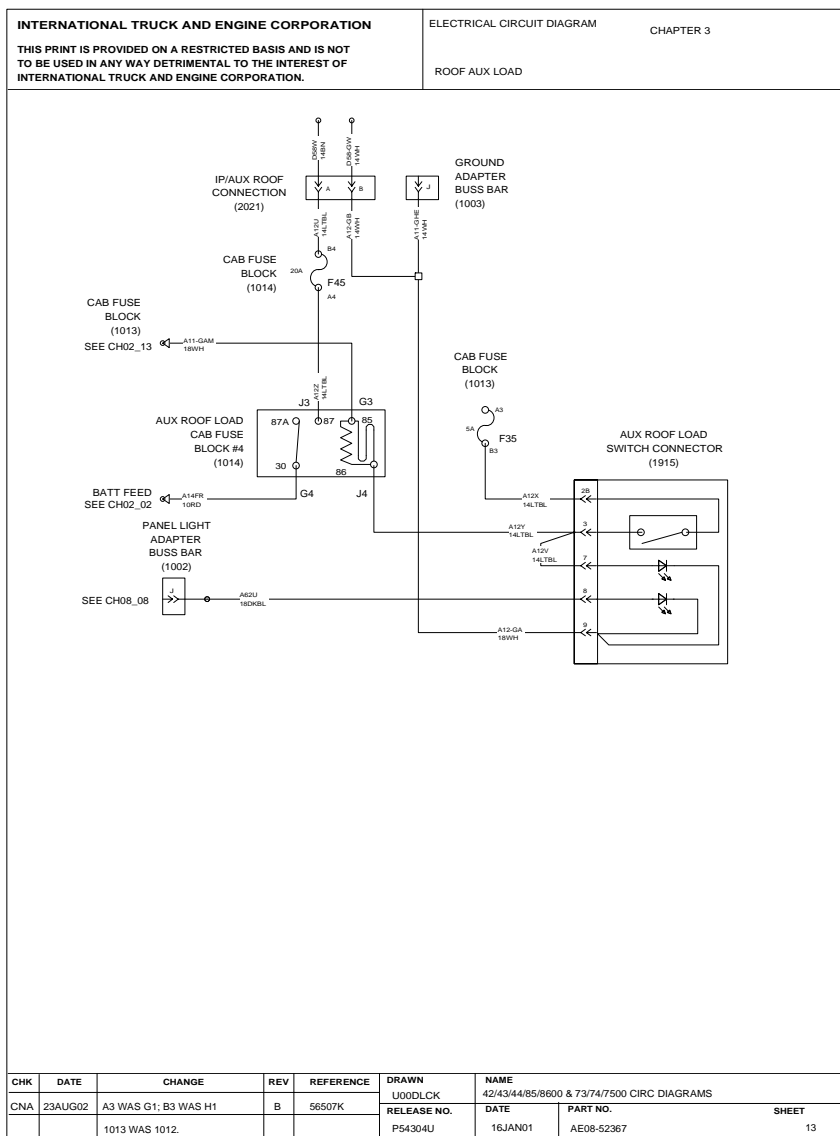


Figure 41 Roof Aux. Load

3.14. SATELLITE COMMUNICATION QUALCOMM-MCT AND IMCT SYSTEMS, P. 14

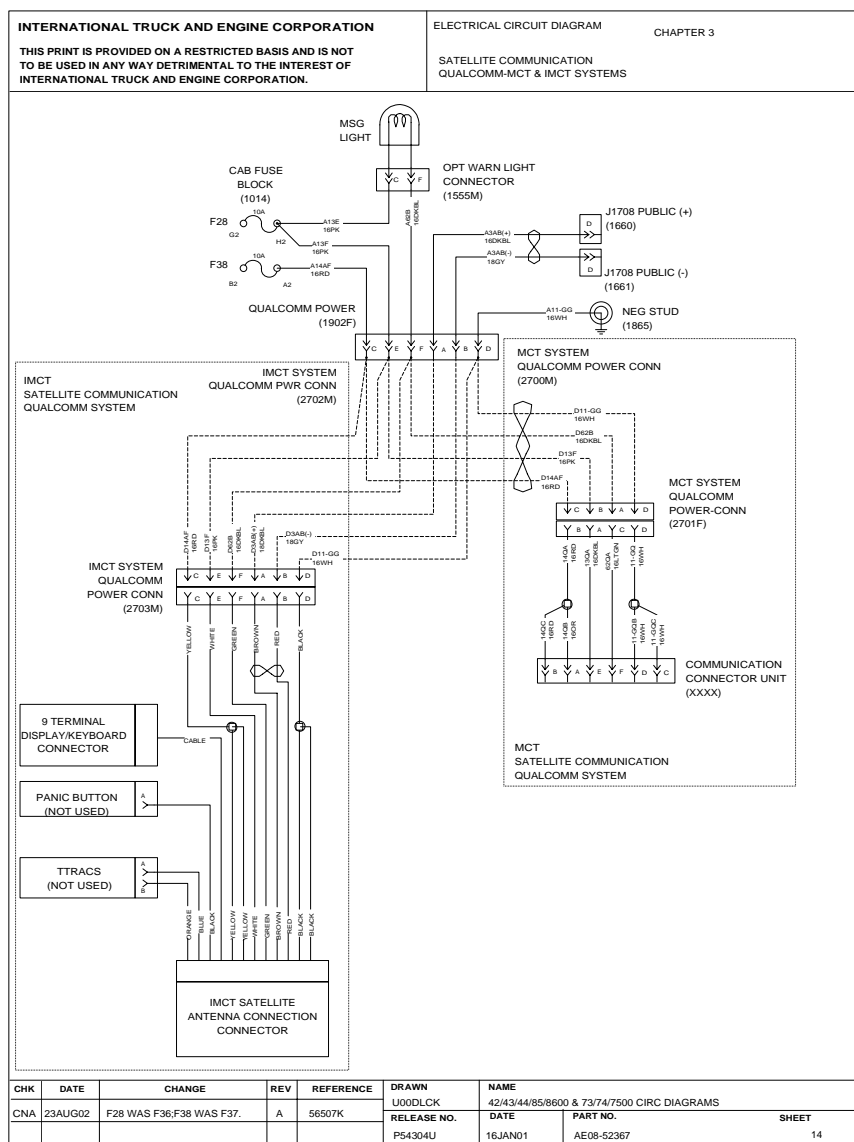


Figure 42 Satellite Communication Qualcomm-MCT and IMCT Systems

3.15. SELF CONTAINED AIR SEAT, P. 15

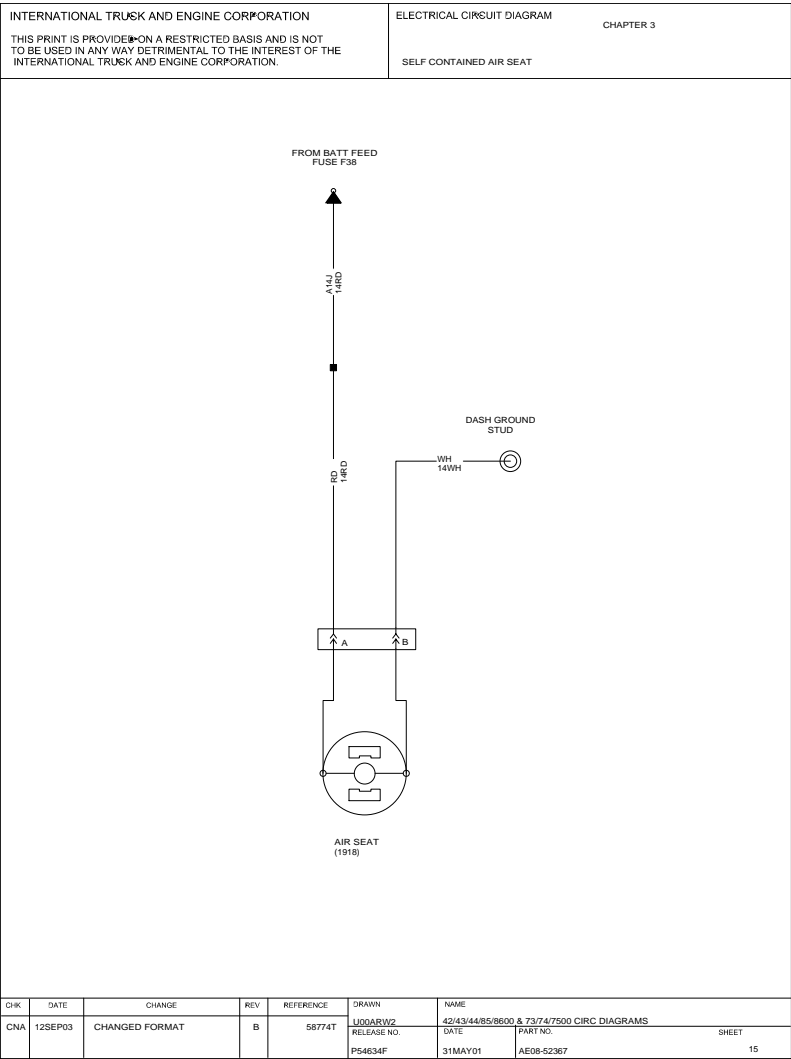


Figure 43 Self Contained Air Seat

3.16. DIGITAL CLOCK PTC, P. 16

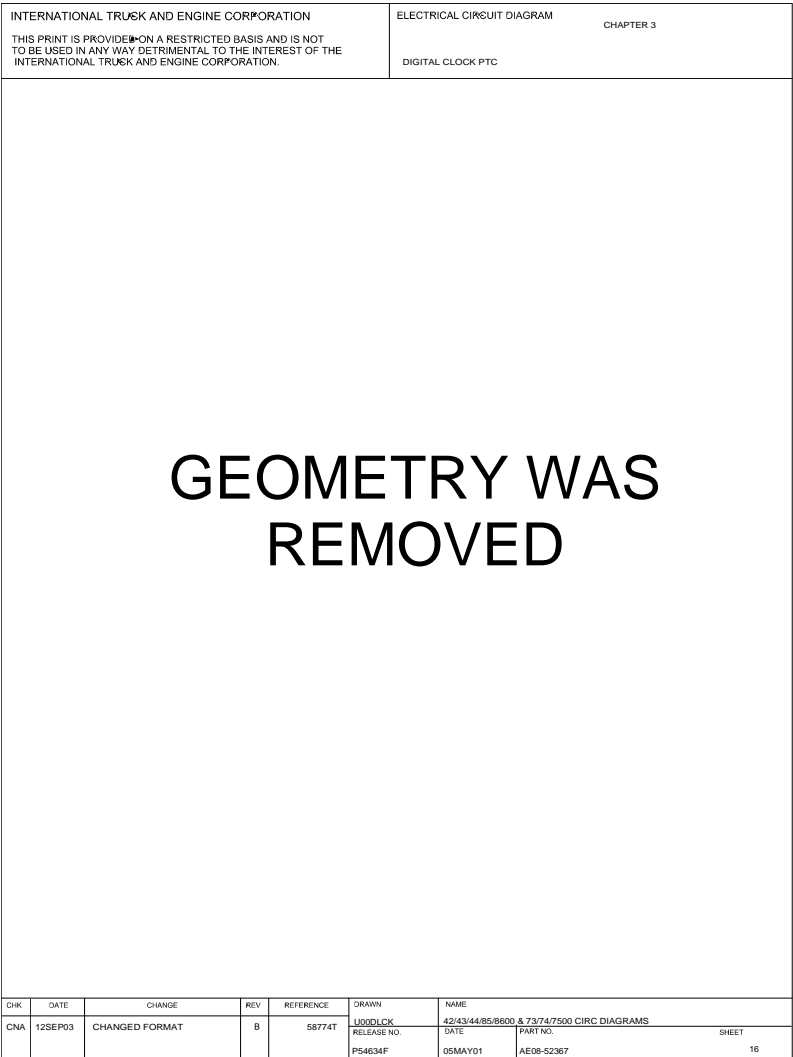
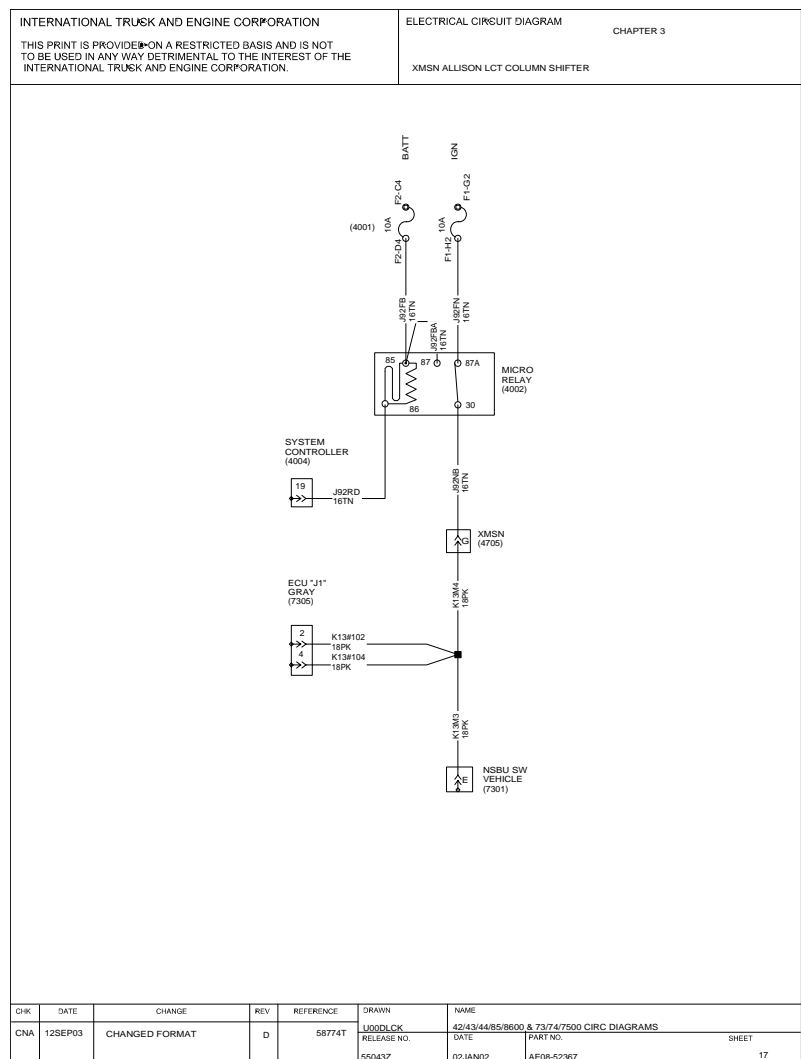
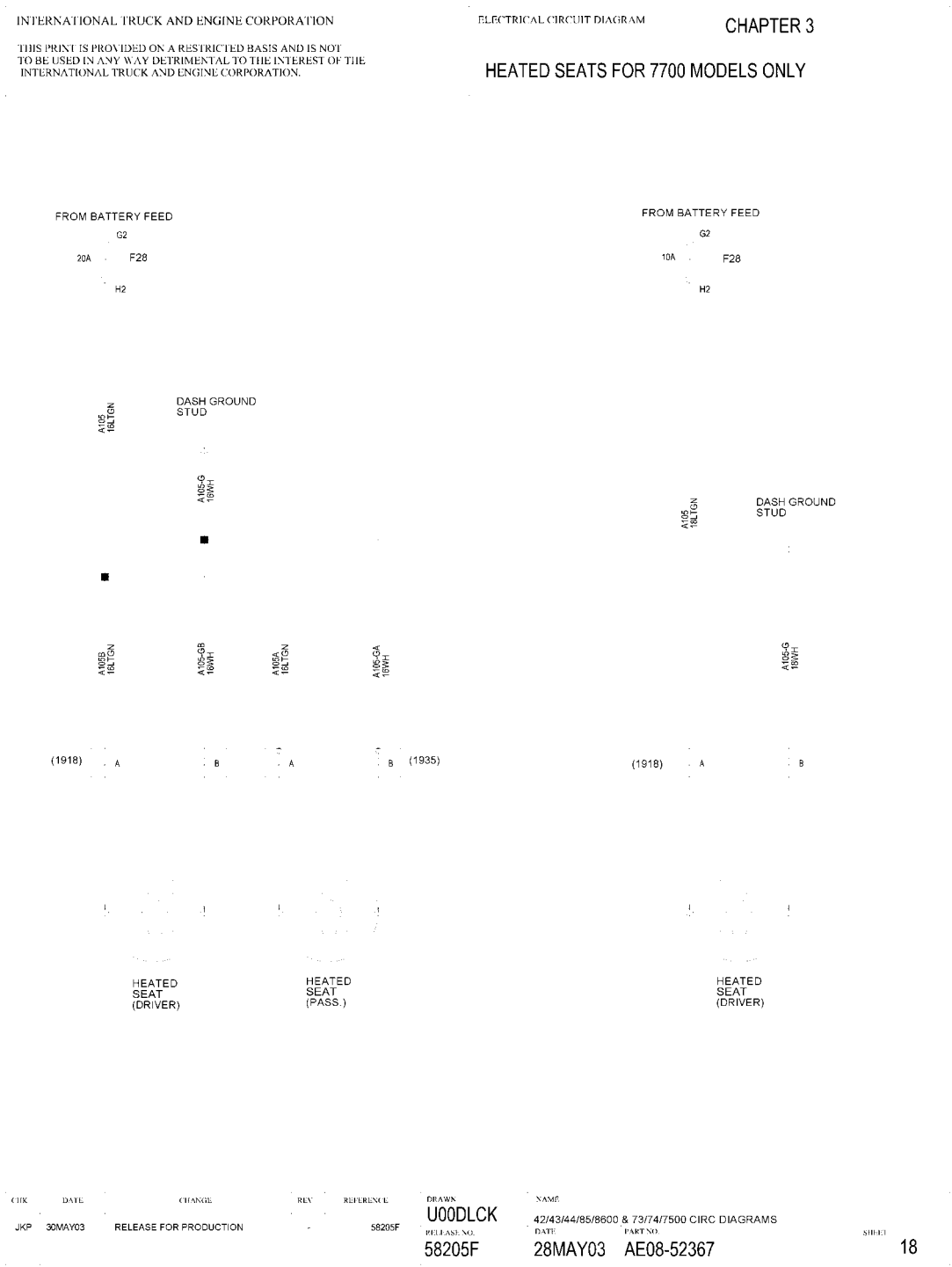


Figure 44 Digital Clock PTC

Figure 45 Transmission Allison LCT Column Shifter



3.18. HEATED SEATS FOR 7700 MODELS ONLY, P. 18



3.19. BACKUP CAMERA, P. 19

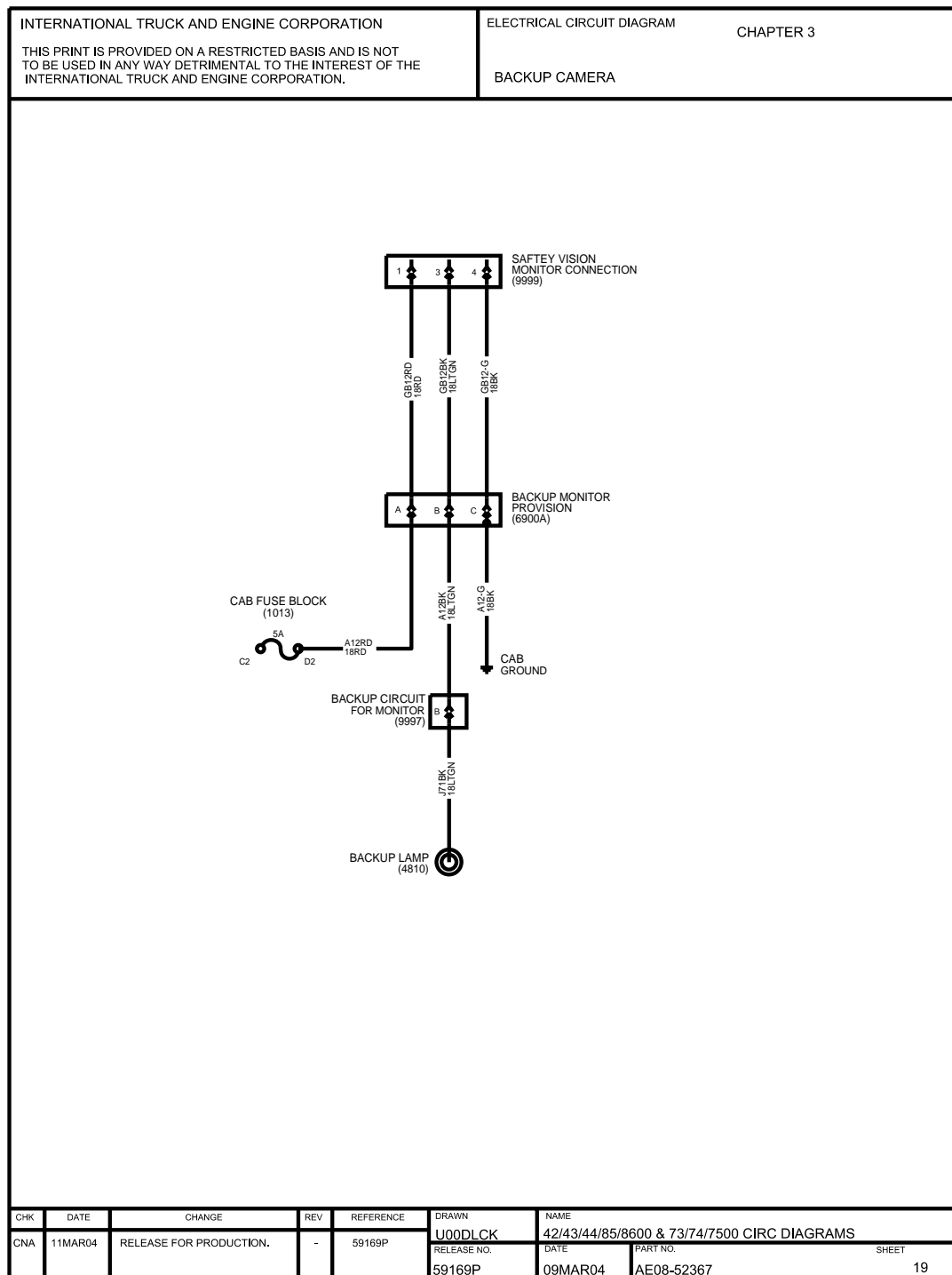


Figure 47 Backup Camera

3.20. XATA COMPUTER, P. 20

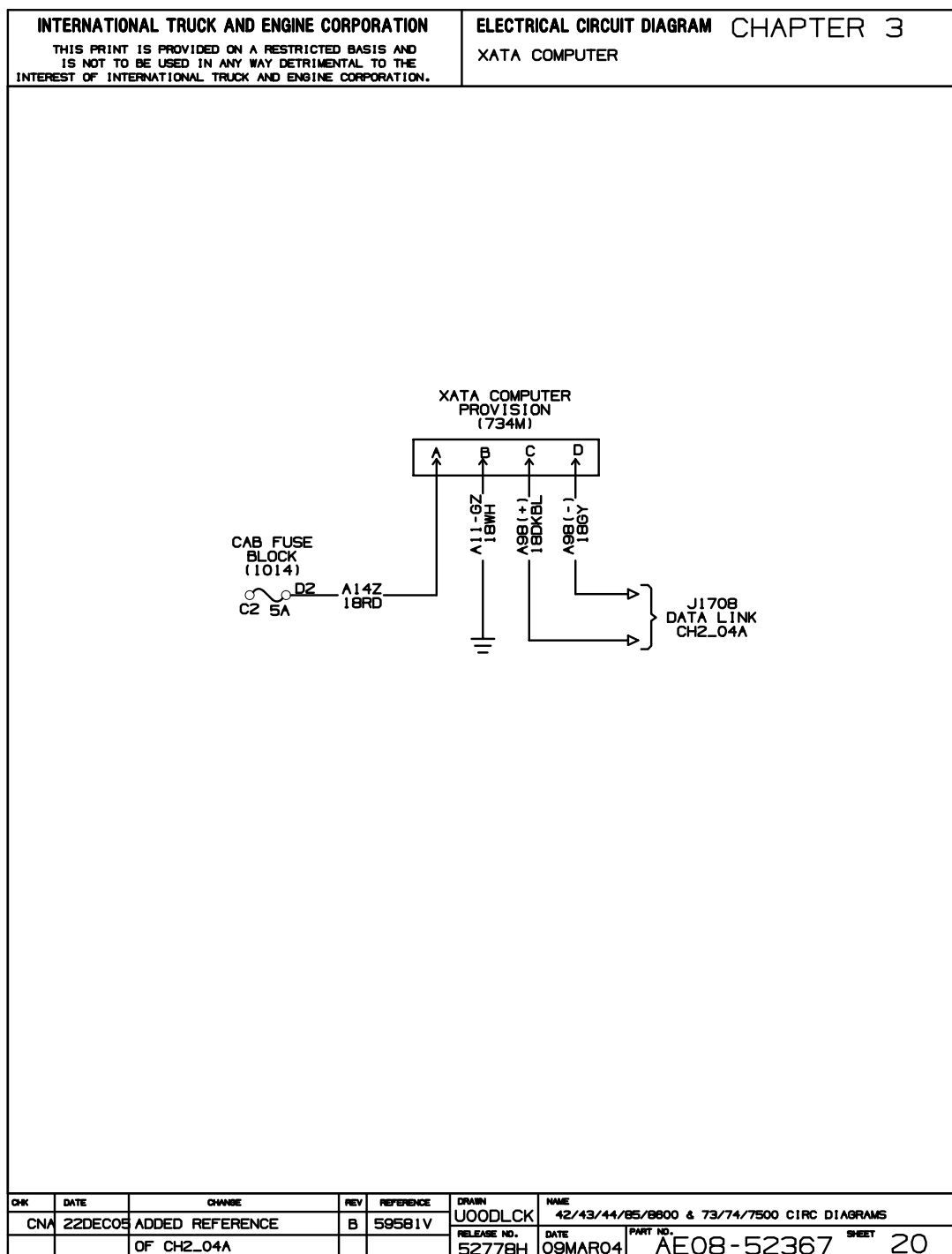


Figure 48 XATA Computer

3.21. KEYLESS IGNITION SYSTEM, P. 21

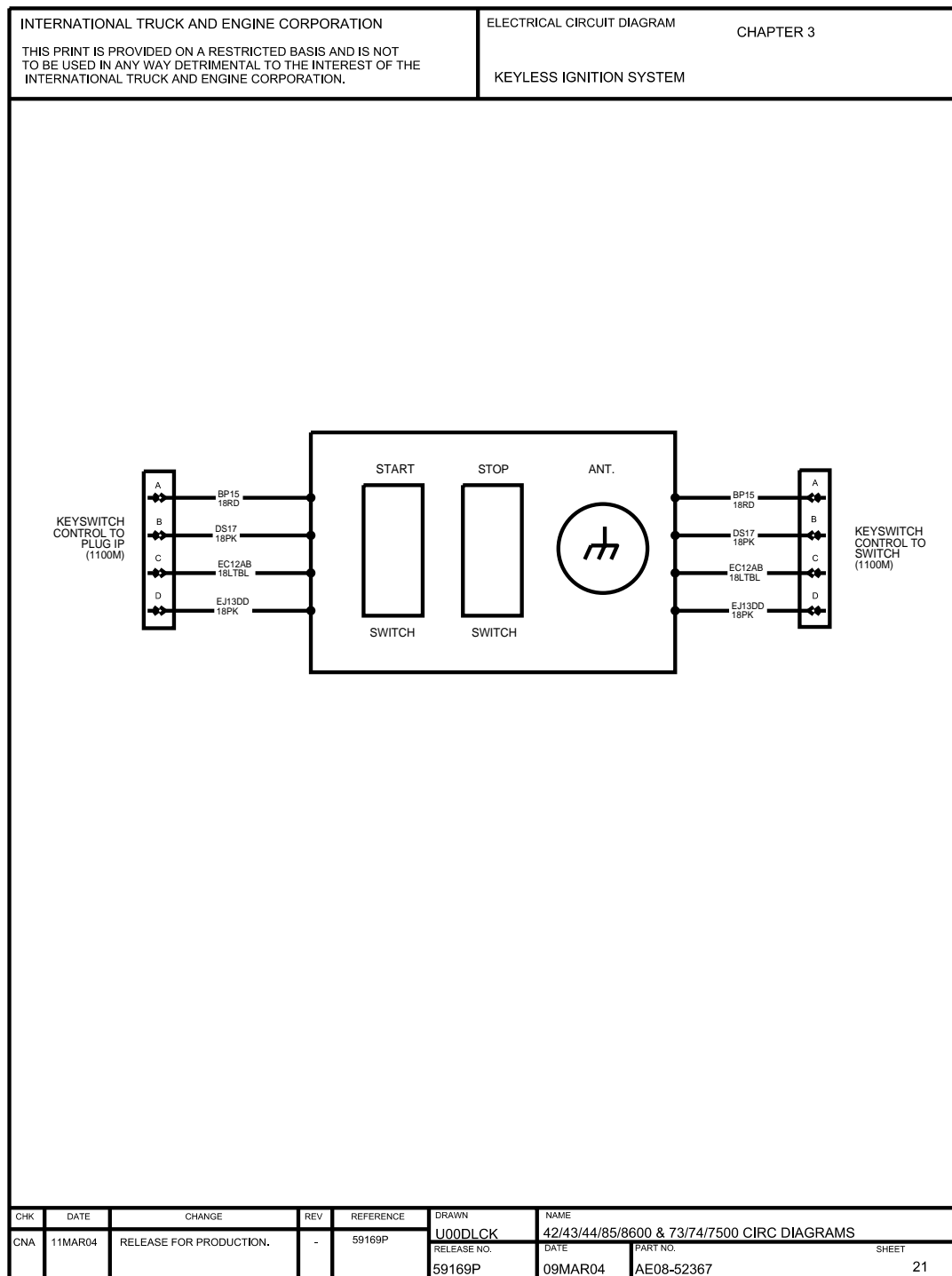


Figure 49 Keyless Ignition System

3.22. TELEMATICS SYSTEM, P. 22

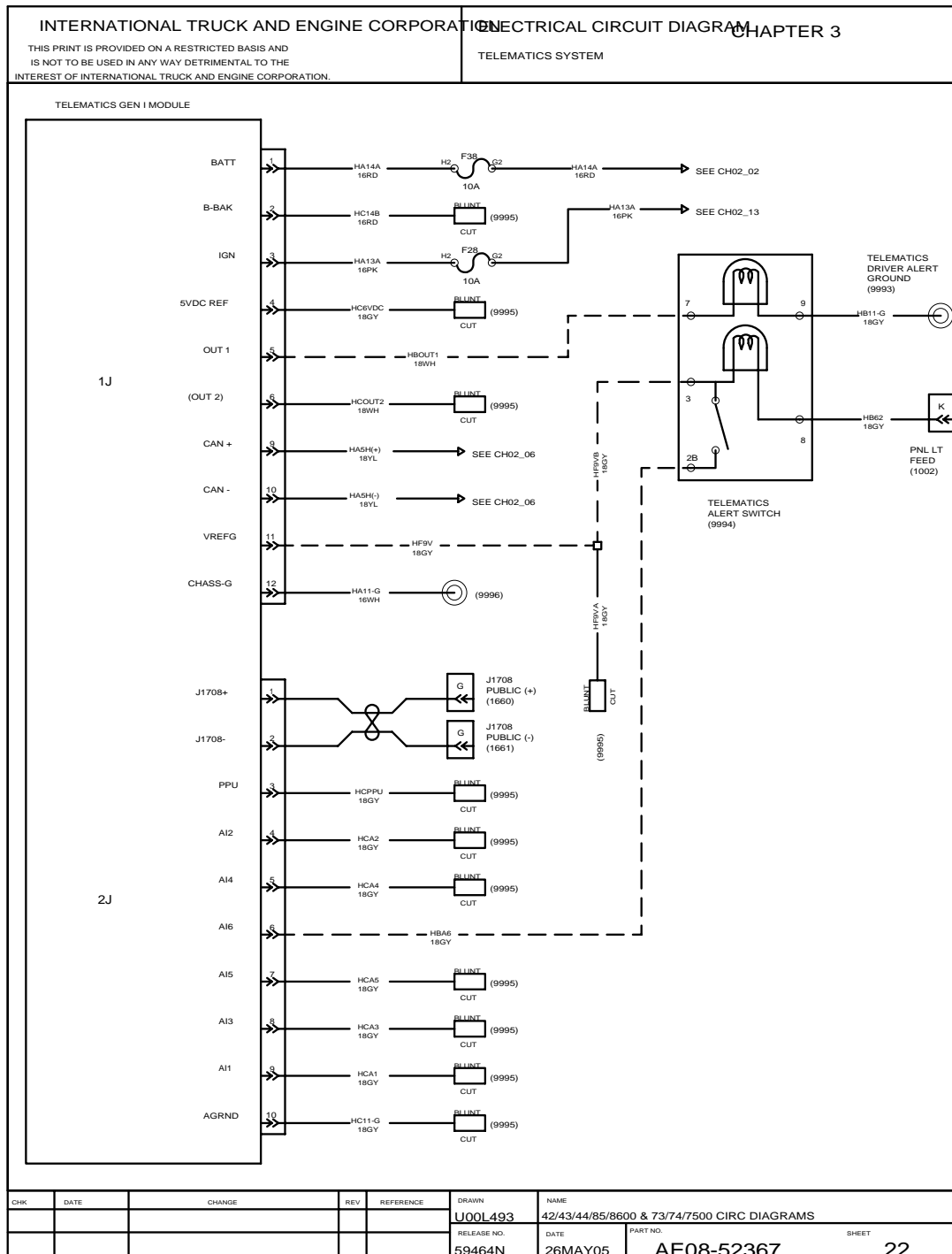


Figure 50 Telematics System

3.23. EATON VORAD COLLISION AVOIDANCE SYSTEM, P. 23

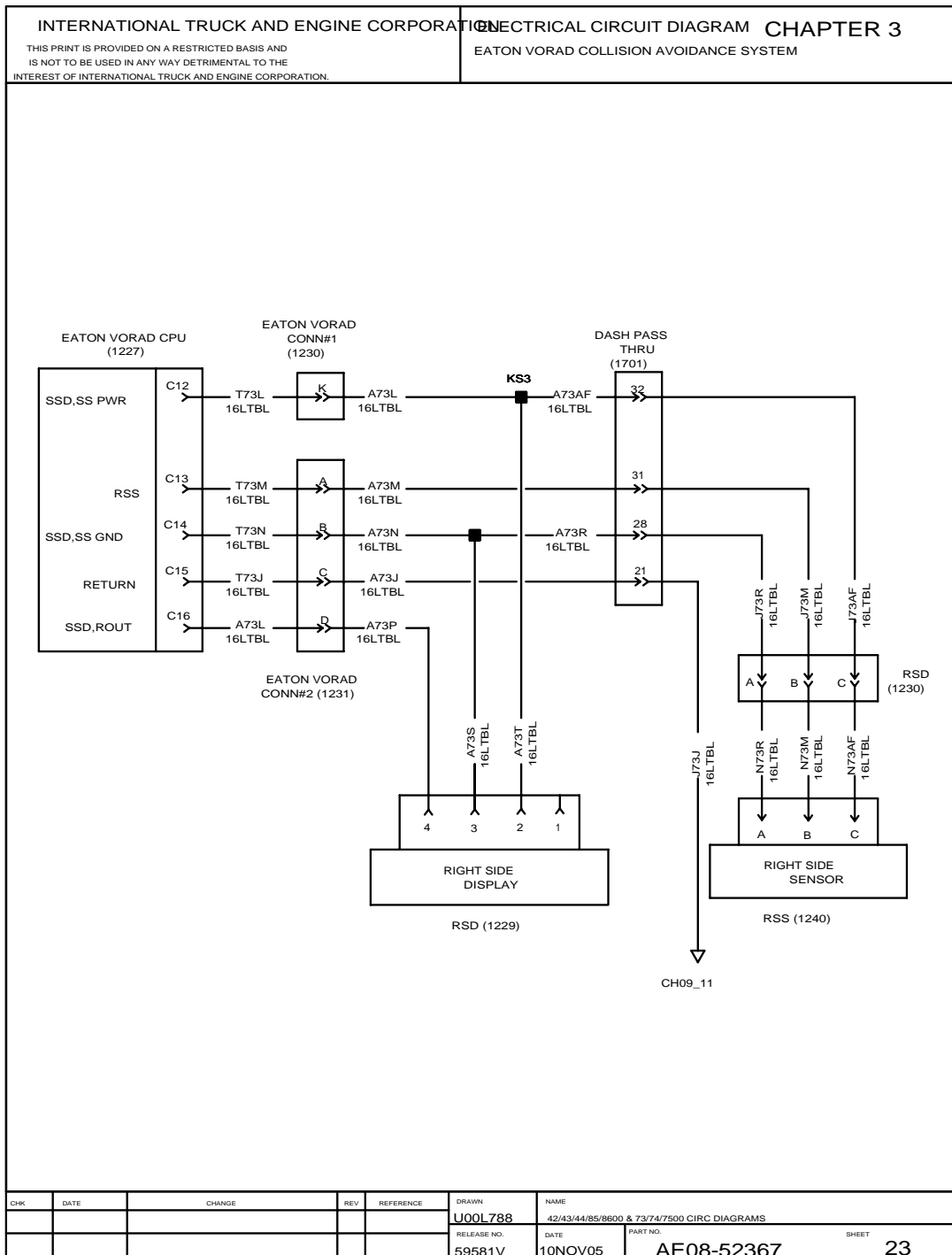


Figure 51 Eaton Vorad Collision Avoidance System

3.24. EATON VORAD COLLISION AVOIDANCE SYSTEM, P. 24

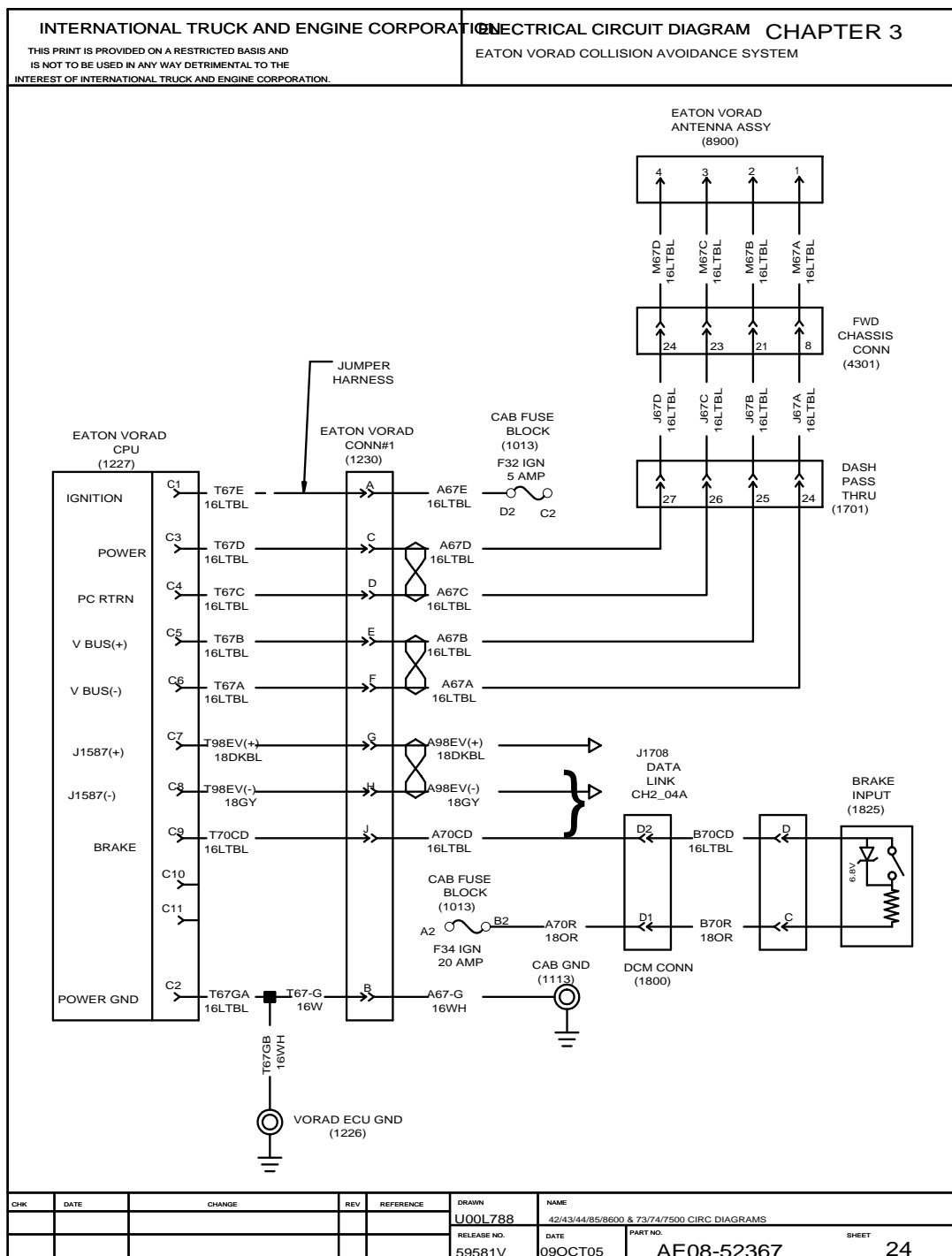


Figure 52 Eaton Vorad Collision Avoidance System

3.25. EATON VORAD COLLISION AVOIDANCE SYSTEM, P. 25

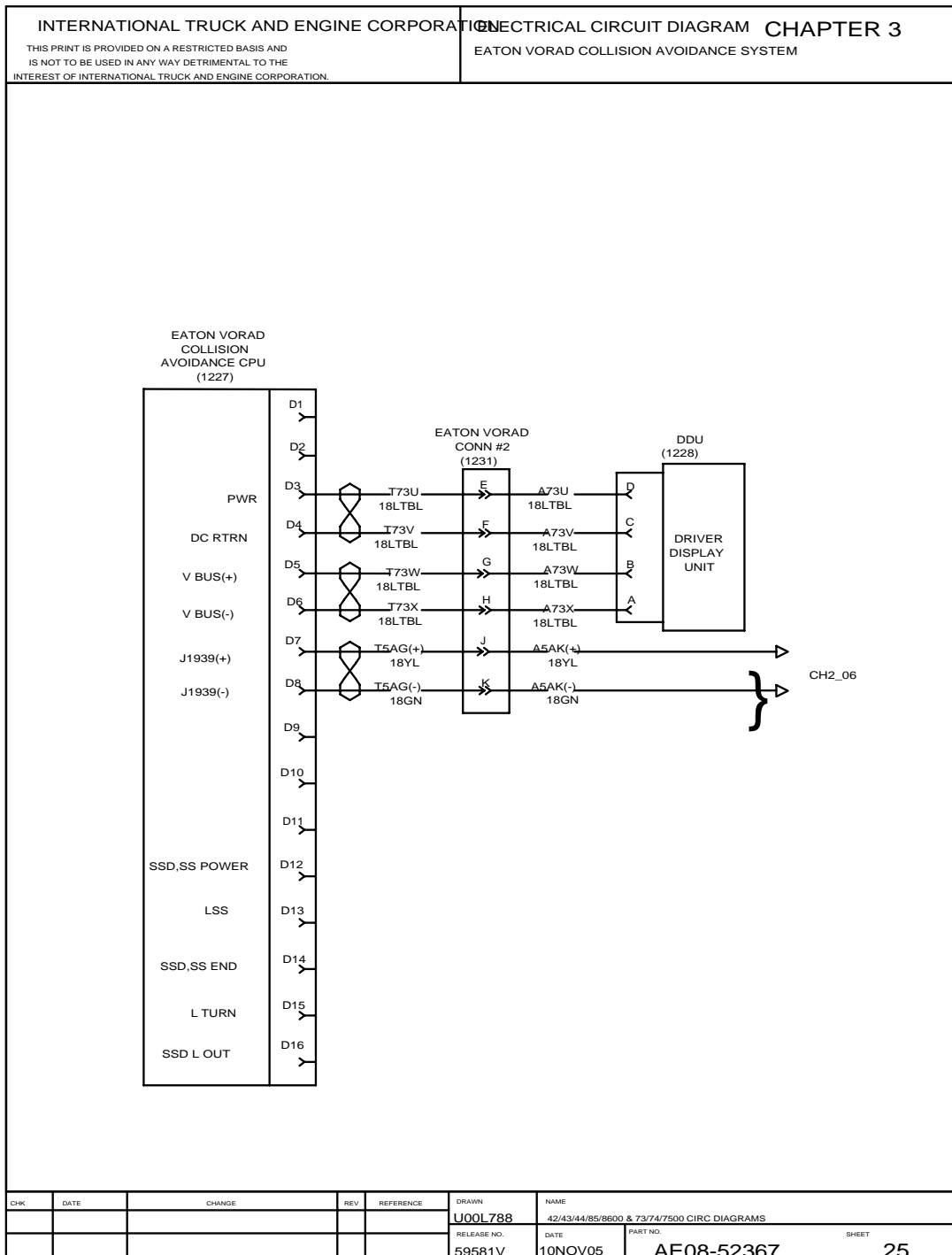


Figure 53 Eaton Vorad Collision Avoidance System

3.26. XATA DATA SYSTEM, P. 26

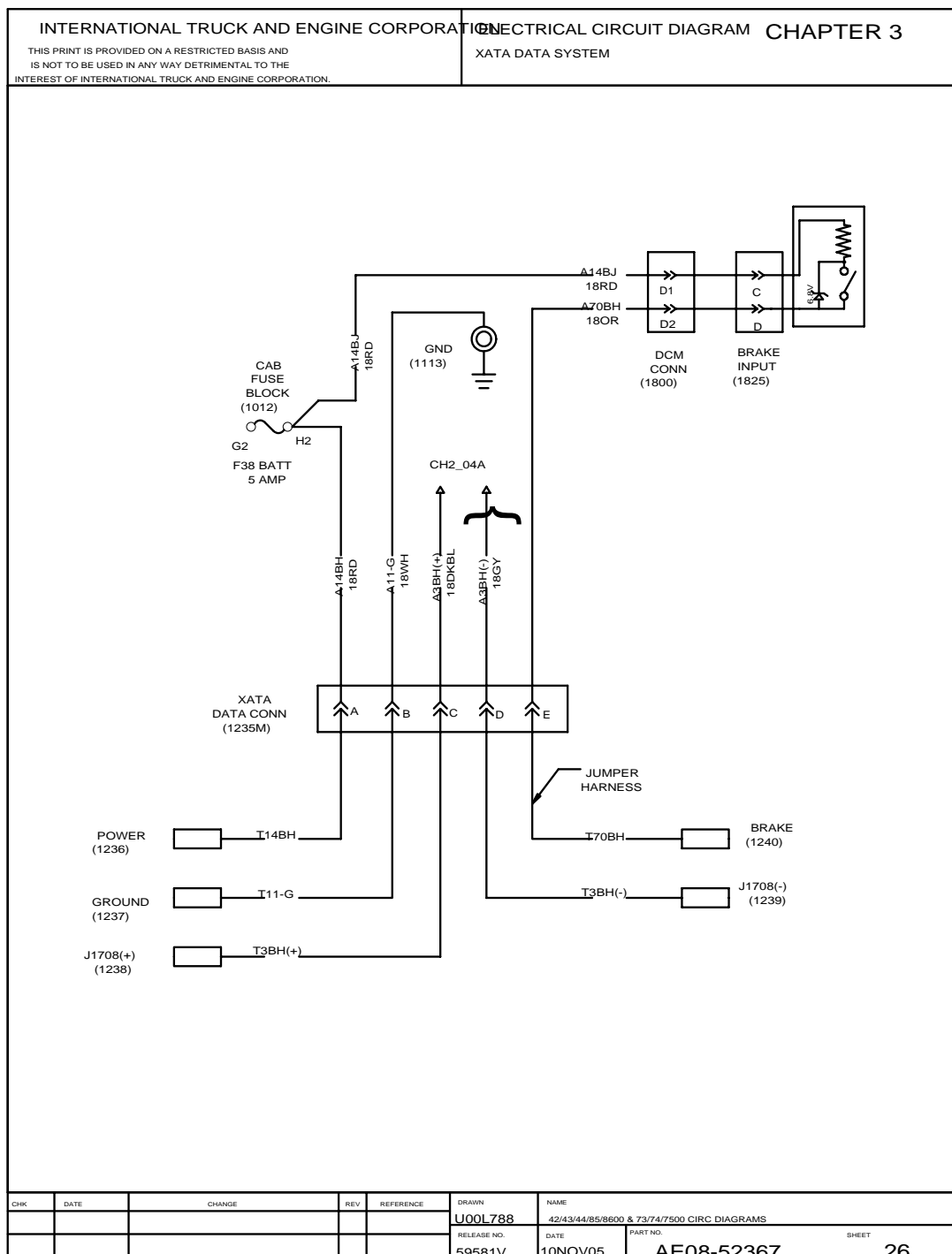


Figure 54 XATA Data System

3.27. CADEC GPS SYSTEM, P. 27

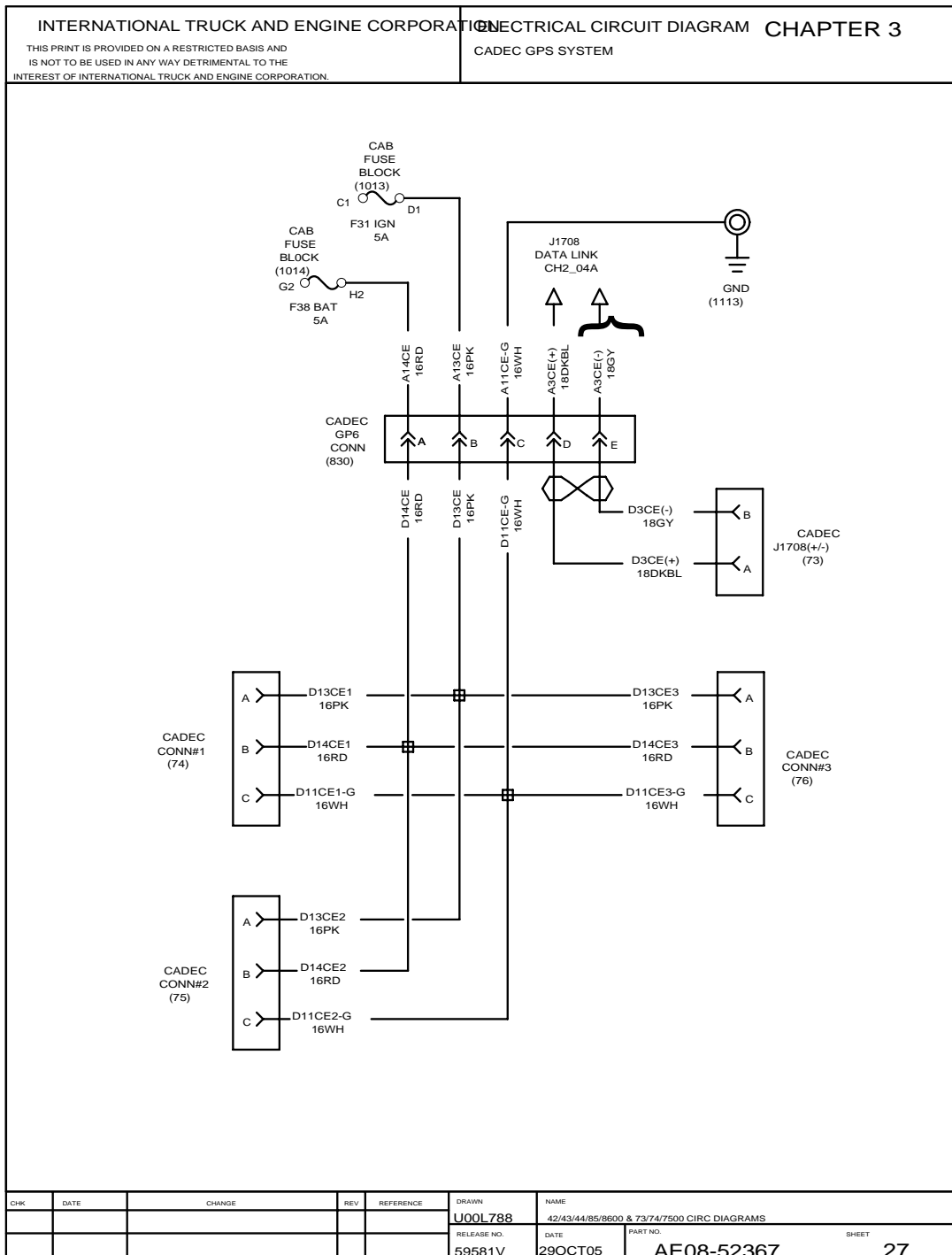


Figure 55 Cadec GPS System

<p style="text-align: center;">INTERNATIONAL TRUCK AND ENGINE CORPORATION</p> <p style="text-align: center; font-size: small;">THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.</p>	<p style="text-align: center;">ELECTRICAL CIRCUIT DIAGRAM</p> <p style="text-align: center; font-size: large;">CHAPTER 3</p> <p style="text-align: center;">TRIP MASTER</p>
--	--

The diagram illustrates the electrical circuit for the Trip Master system. It shows the following components and connections:

- Power Source:** A battery symbol is connected to a **GROUND STUD (4005) (OUTSIDE CAB-BOTTOM DASH)**. The positive terminal is connected to a **53-G 16YL** wire, which goes to the **53DD 16YL** terminal of the **53C 16YL** harness. The negative terminal is connected to a **50S 18YL** wire, which goes to the **50R 18OR** terminal of the **70R 18OR** harness.
- Brake Input Relay (4002):** This relay is connected to the **53DD 16YL** terminal. It has terminals **85**, **86**, **87**, **30**, and **87A**. The **85** terminal is connected to the **53DD 16YL** wire. The **86** terminal is connected to the **53-G 16YL** wire. The **87** terminal is connected to the **53C 16YL** harness. The **30** terminal is connected to the **50S 18YL** wire. The **87A** terminal is connected to the **52B 16YL** terminal of the **53C 16YL** harness.
- Elect Sytem Controller BROWN (4007):** This controller has terminals **G** and **D**. The **G** terminal is connected to the **52E 16YL** terminal of the **53C 16YL** harness. The **D** terminal is connected to the **53DD 16YL** terminal.
- Cab Fuse Blocks:** There are two cab fuse blocks, **F38 10A** (1014) and **F28 10A** (1013). Both are connected to the **52E 16YL** terminal of the **53C 16YL** harness.
- Ground Stud (1865) (INSIDE CAB LEFT DASH PANEL):** This stud is connected to the **50S 18YL** wire, which goes to the **50R 18OR** terminal of the **70R 18OR** harness.
- Wiring Harnesses:**
 - 53C 16YL:** Connects the battery, brake input relay, and elect sytem controller to the Trip Master Data Max II.
 - 52B 16YL:** Connects the brake input relay to the Trip Master Data Max II.
 - 50S 18YL:** Connects the battery and brake input relay to the Trip Master Data Max II.
 - 70R 18OR:** Connects the battery and brake input relay to the Trip Master Data Recorder.
 - 70CD 18GY:** Connects the Trip Master Data Recorder to the **DCM CONN (1800)**.
 - 70R 18OR:** Connects the Trip Master Data Recorder to the **DCM CONN (1800)**.
- DCM CONN (1800):** This connector has terminals **D2** and **D1**. The **D2** terminal is connected to the **70CD 18GY** wire. The **D1** terminal is connected to the **70R 18OR** wire.
- Brake Pressure Switch (1825):** This switch has terminals **D** and **C**. The **D** terminal is connected to the **70CD 18GY** wire. The **C** terminal is connected to the **70R 18OR** wire.
- Wiring Labels:** Various labels are present throughout the diagram, including **53C 16YL**, **52B 16YL**, **50S 18YL**, **70R 18OR**, **70CD 18GY**, **53DD 16YL**, **52E 16YL**, **53-G 16YL**, **50S 18YL**, **50R 18OR**, **70R 18OR**, **70CD 18GY**, **53C 16YL**, **52B 16YL**, **50S 18YL**, **50R 18OR**, **70R 18OR**, **70CD 18GY**, **53DD 16YL**, **52E 16YL**, **53-G 16YL**, **50S 18YL**, **50R 18OR**, **70R 18OR**, **70CD 18GY**.

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME	PART NO.	SHEET
					U001788	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS	AE08-52367	28
					RELEASE NO.	DATE		
					59581V	10NOV05		

Figure 56 Trip Master

3.29. ENTERTAINMENT SYSTEM — RXT, P. 29

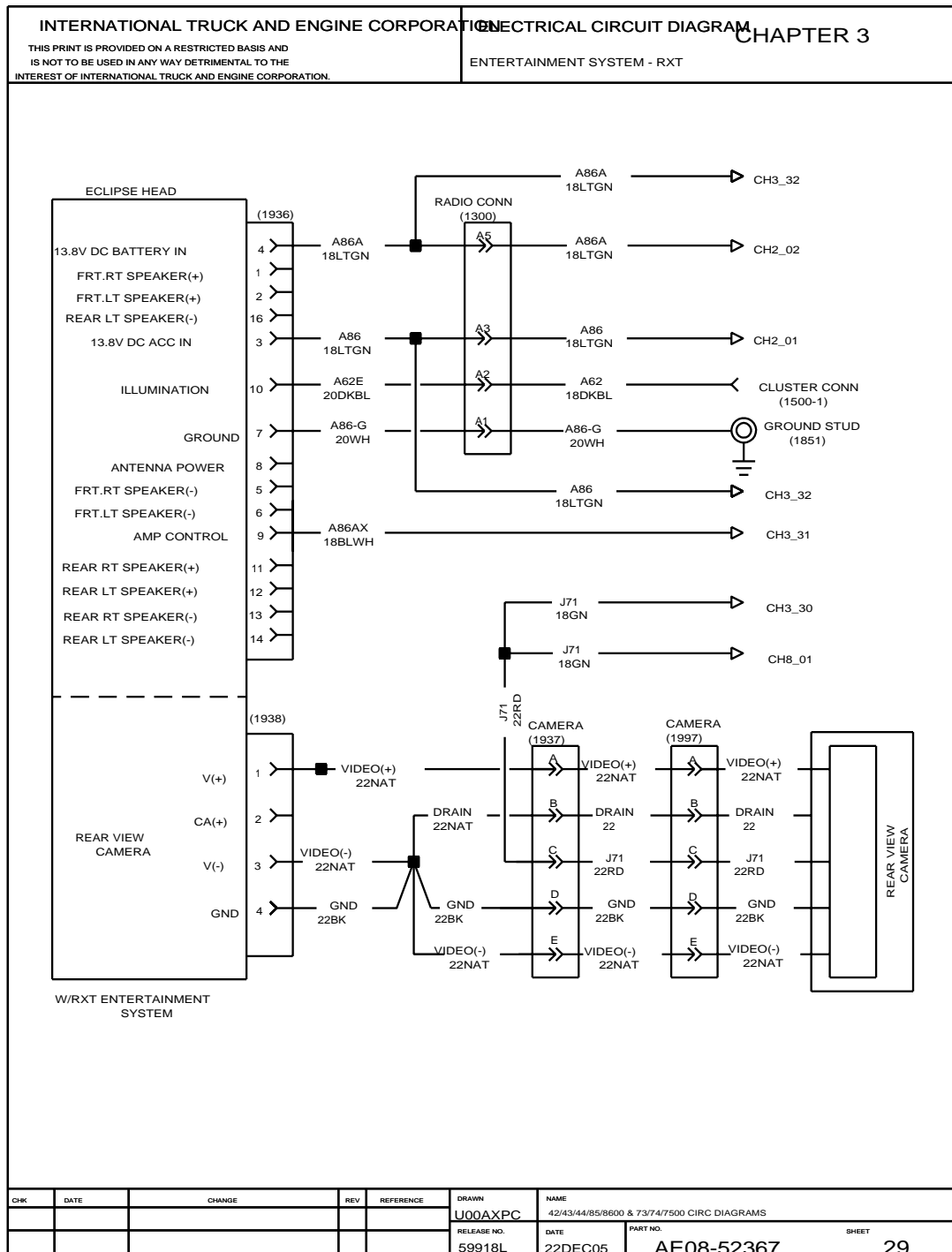


Figure 57 Entertainment System — RXT

INTERNATIONAL TRUCK AND ENGINE CORPORATION

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ELECTRICAL CIRCUIT DIAGRAM CHAPTER 3

ENTERTAINMENT SYSTEM - RX

AVN50D (1940)

24 WAY CONNECTOR

1 VIDEO OUT YELLOW(-)

9 VIDEO OUT YELLOW CENTER

22 R(+)

2 R(-)

4 L(+)

5 L(-)

6 MUTE

7 J71 18GN REVERSE SIGNAL

8 K47B 18GY SPEED PULSE

11 PRE AMP FRONT LEFT CHANNEL

12 PRE AMP FRONT RIGHT CHANNEL

13 S-GND

15 BUS(+)

16 BUS(-)

17 ACC 18LTGN

18 BACKUP(+)

19 A58 18RDWH PARKING BRAKE SIGNAL

23 PRE AMP REAR LEFT CHANNEL

24 PRE AMP REAR RIGHT CHANNEL

GPS ANTENNA (1943)

1 SIGNAL

2 GROUND

AUDIO VIDEO IN G (1944)

7 GND SHIELD

6 AUDIO R(+) 24RD

5 AUDIO L(+) 24WH

3 GND SHIELD

1 VIDEO(+) 24YL

2 GND SHIELD

3W-13 WAY DIN (1949)

5

13

9

6

11

7

10

12

4

2

BODY BUILDER ECM2 (6020-58)

SYSTEM CONTROLLER (1600-4)

GPS

CH3_29

CH3_31

CH3_32

CH3_32

CH3_32

CH3_32

TWISTED CIRCUITS

DATA CONNECTION TO CD CHANGER OR SAT RADIO IF REQUIRED

CH3_32

CHK	DATE	CHANGE	REV	REFERENCE

DRAWN	NAME	RELEASE NO.	DATE	PART NO.	SHEET
U00AXPC	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS	59918L	22DEC05	AE08-52367	30

Figure 58 Entertainment System — RXT

3.31. ENTERTAINMENT SYSTEM — RXT, P. 31

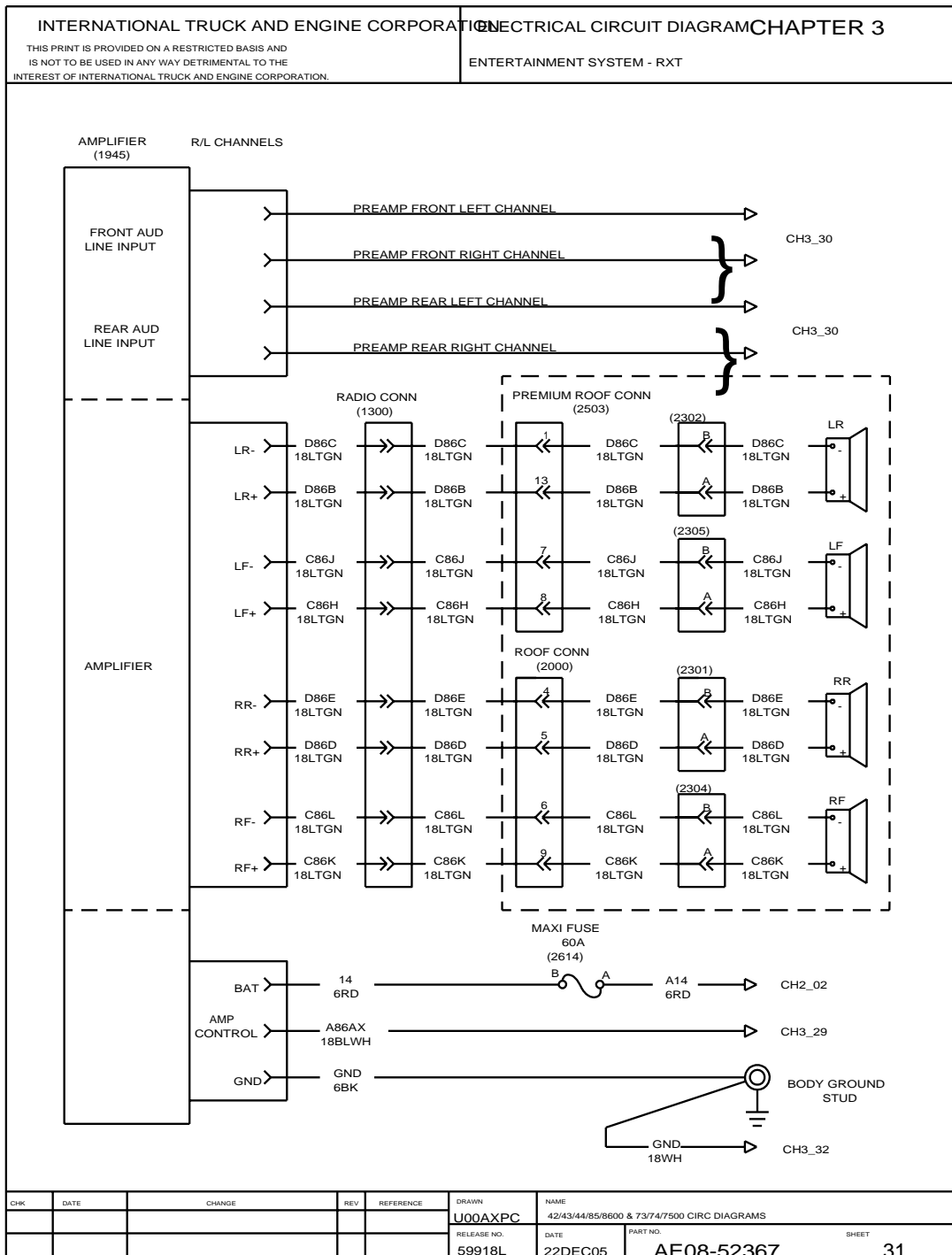


Figure 59 Entertainment System — RXT

INTERNATIONAL TRUCK AND ENGINE CORPORATION ELECTRICAL CIRCUIT DIAGRAM CHAPTER 3

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INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.

ENTERTAINMENT SYSTEM - RXT

ROSEN G10 OVERHEAD A/V (2603)

- (2605) AUDIO VIDEO OUT
 - SIG 1 → AUDIO R(+) 24RD
 - RTN 2 → GND SHIELD
 - SIG 3 → AUDIO L(+) 24WH
 - RTN 4 → GND SHIELD
 - RTN 11 → GND SHIELD
 - VID 12 → VIDEO(+) 24YL

DOME LIGHT BATT IN

- (2604) DM-G 22BK → 1 → A58AB 18BN → CH2_02
- (2604) DM 22WH → 3 → GND 22WH

13.8 V DC ACCY

- (2610) A86A 18LTGN → 1 → [JUNCTION]
- (2610) A86 18LTGN → 3 → [JUNCTION]
- (2610) GND 18WH → 4 → [JUNCTION]

CH3083 CHANGER

- (2608) GROUND B → GND 22WH
- (2608) 13.8 V DC B+ IN A → A86 18LTGN

DATA CONNECTION

- (2609) 13WAY DIN CNTR → W/ TUNER → POWER 4 WAY CNTR

POWER 4 WAY CNTR (2611)

- OPTIONAL SATELLITE RADIO TUNER
- 13WAY DIN → N/ SATELLITE TUNER
- 3 → [JUNCTION]
- 2 → [JUNCTION]
- 13WAY DIN → DATA CONNECTION → CH3_30

IN LINE FUSE FILTER

- A86A 18LTGN → [JUNCTION]

CH3_30

- TWISTED CIRCUITS
- VIDEO OUT YELLOW(-)
- VIDEO OUT YELLOW CENTER

CH3_29

- A86A 18LTGN

CH3_31

- A86A 18LTGN

(1949)

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME	RELEASE NO.	DATE	PART NO.	SHEET
					U00AXPC	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS				
					59918L	22DEC05			AF08-52367	32

Figure 60 Entertainment System — RXT

3.33. RXT — APO_1 AND APO_2 AUXILIARY POWER SOCKET, P. 33

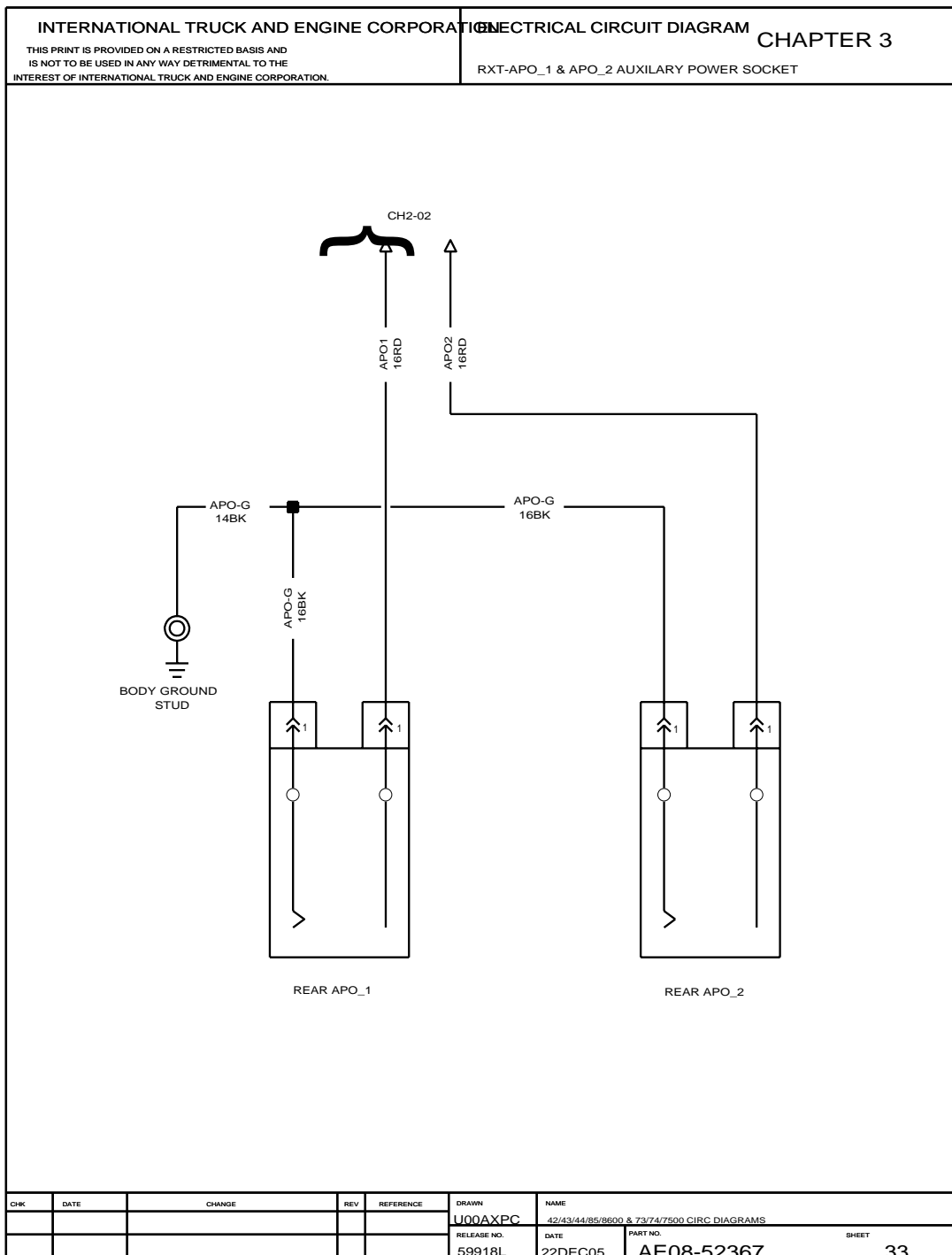


Figure 61 RXT — APO_1 and APO_2 Auxiliary Power Socket

4. 12V CHARGING + CRANKING SYSTEM (CHAPTER 4)

4.1. I6 EGR ENGINES, P. 1

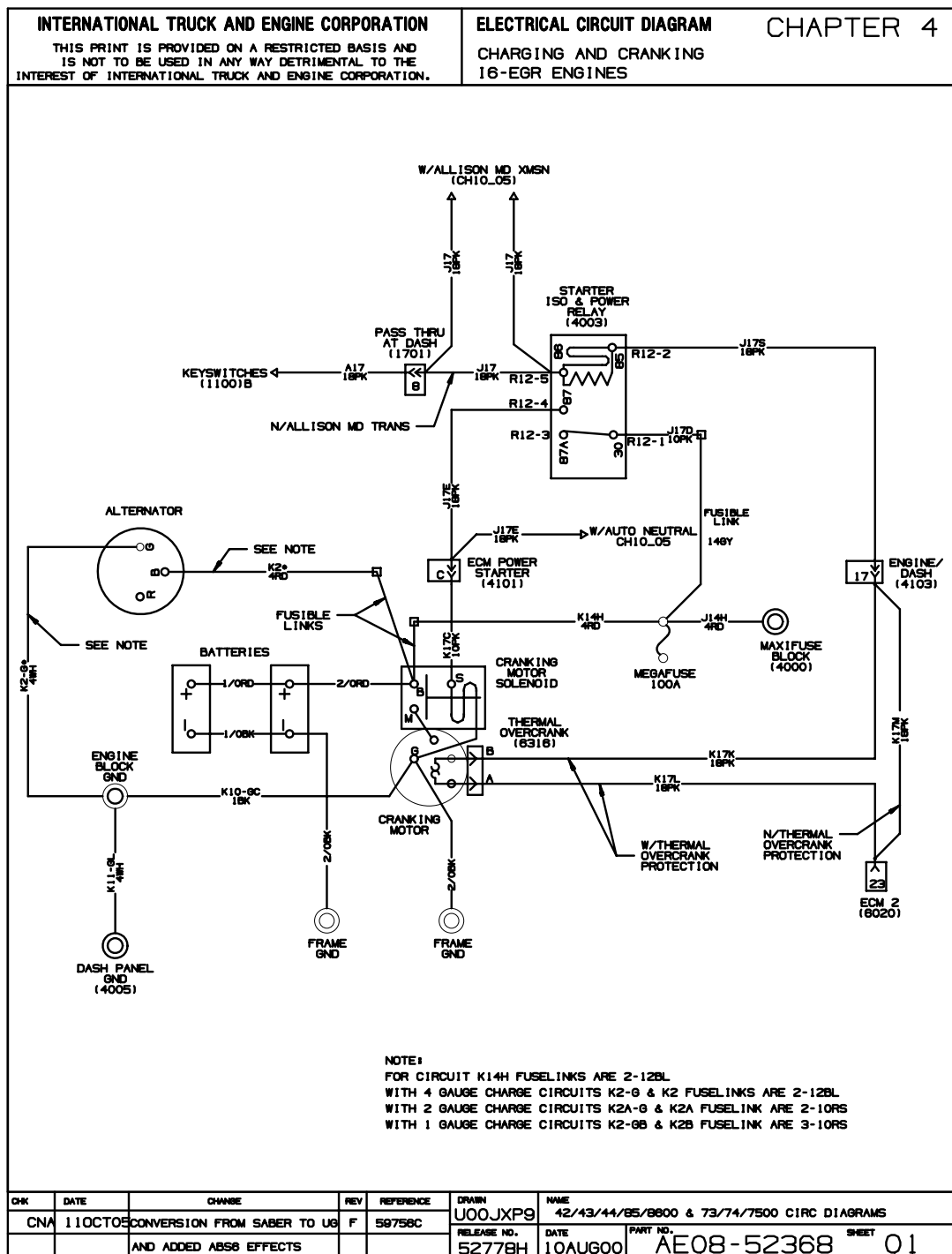


Figure 62 I6 EGR Engines

4.2. V8 AVNT ENGINES, P. 2

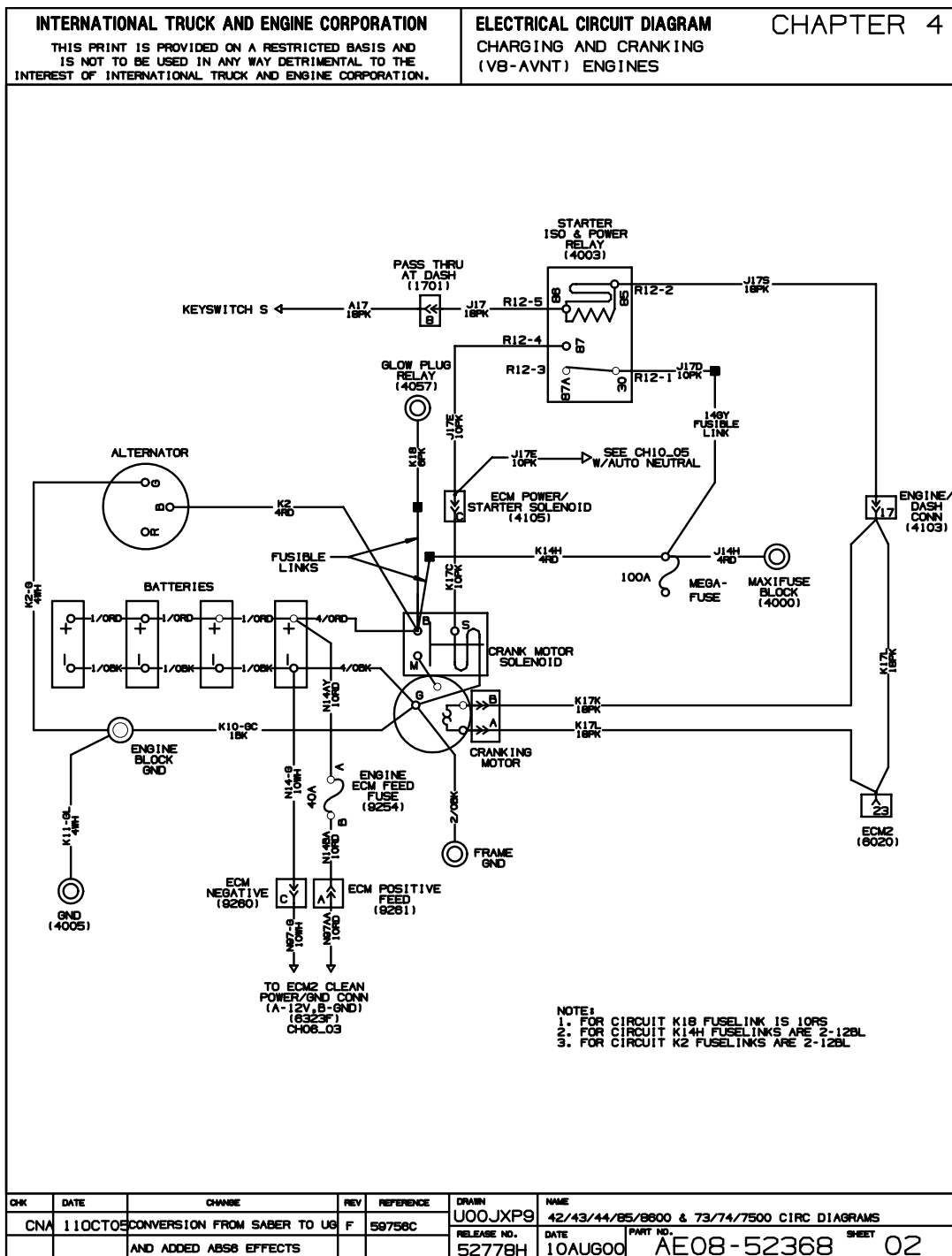


Figure 63 V8 AVNT Engines

4.3. CATERPILLAR, CUMMINS ISM ENGINES, P. 3

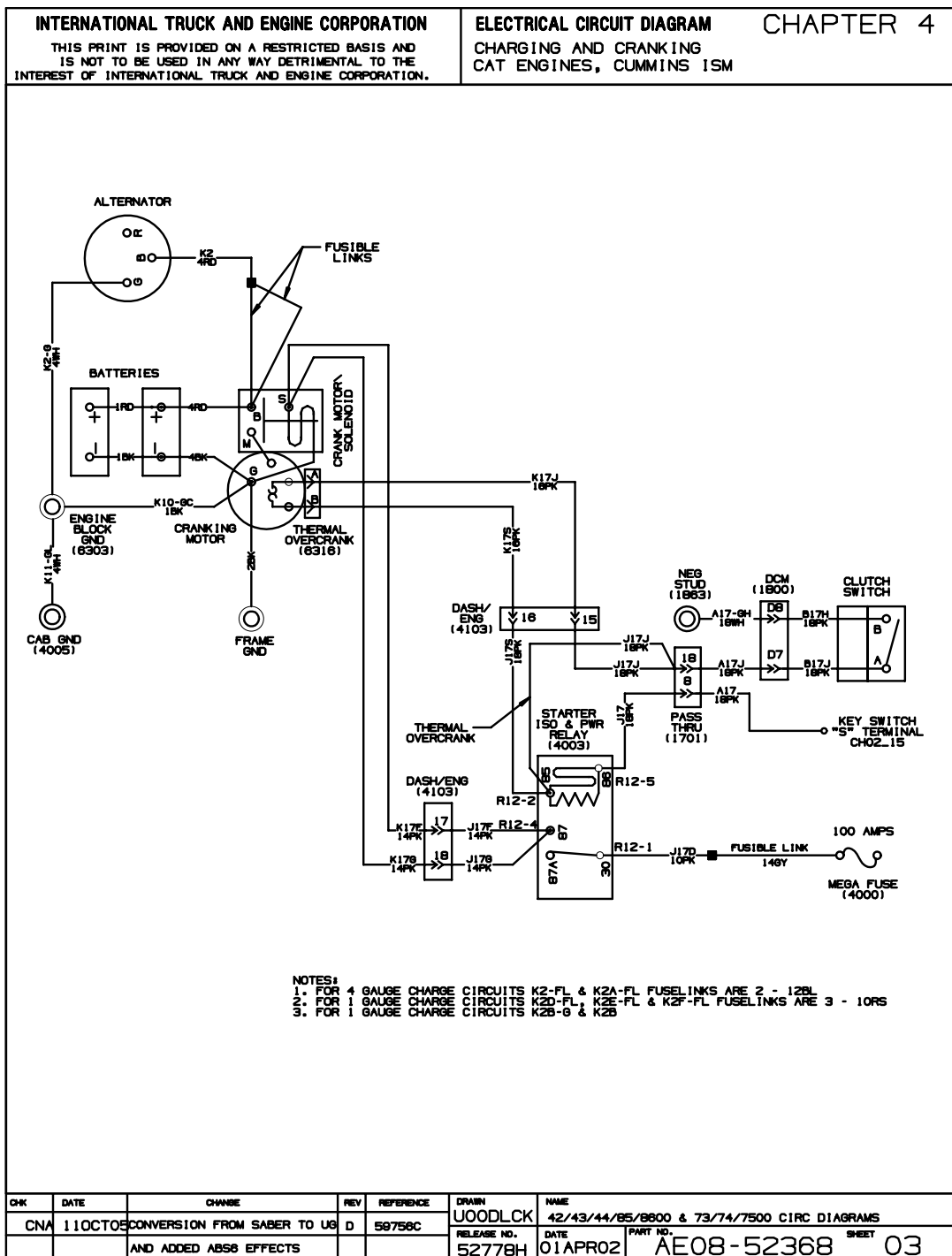


Figure 64 Caterpillar, Cummins ISM Engines

4.4. I6 HEUI ENGINES, P. 4

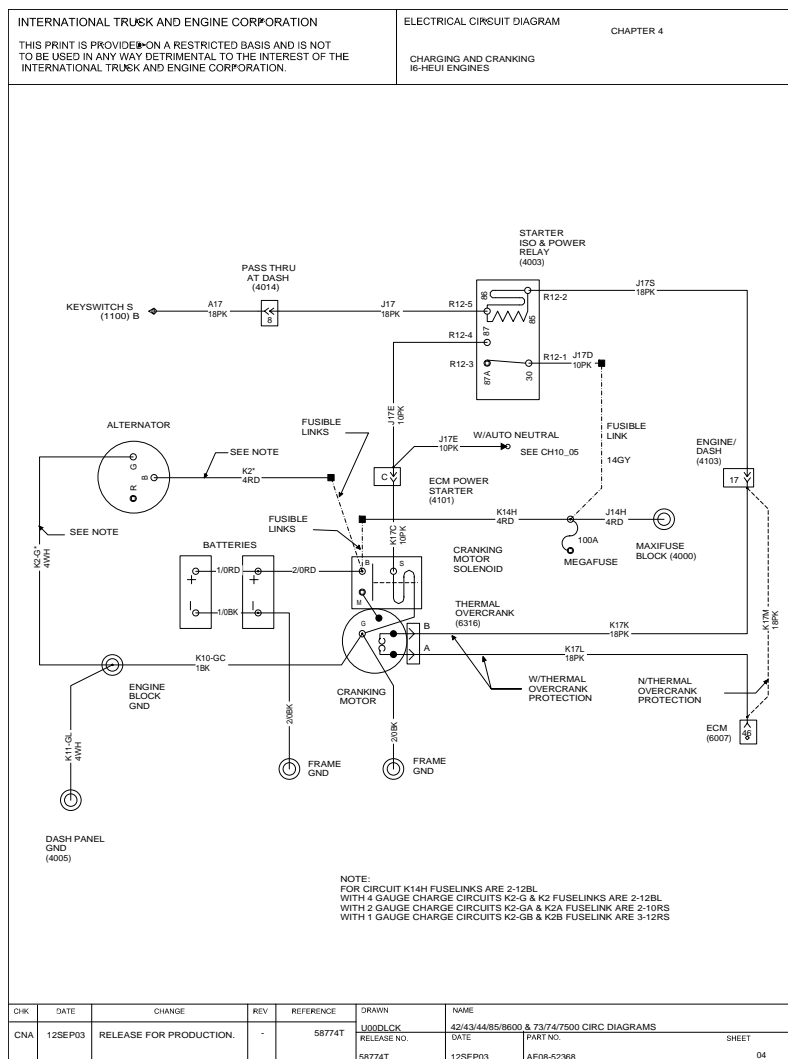


Figure 65 I6 HEUI Engines

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ELECTRICAL CIRCUIT DIAGRAM
CHARGING AND CRANKING
CAT ENGINES, CUMMINS ISM & W/EATON ULTRASHIFT/DM2

CHAPTER 4

NOTES:

- FOR 4 GAUGE CHARGE CIRCUITS K2-FL & K2A-FL FUSELINKS ARE 2 - 12BL
- FOR 1 GAUGE CHARGE CIRCUITS K2D-FL, K2E-FL & K2F-FL FUSELINKS ARE 3 - 10RS
- FOR 1 GAUGE CHARGE CIRCUITS K2B-G & K2B

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME	RELEASE NO.	DATE	PART NO.	SHEET
JKF	18OCT05	ADDED EATON DM3	C	59822S	WOODLCK	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS	52778H	17NOV03	AE08-52368	05

Figure 66 Caterpillar Engines, Cummins ISM and with Eaton Ultrashift/DM2

4.6. I6 EGR ENGINES WITH AIR START, P. 6

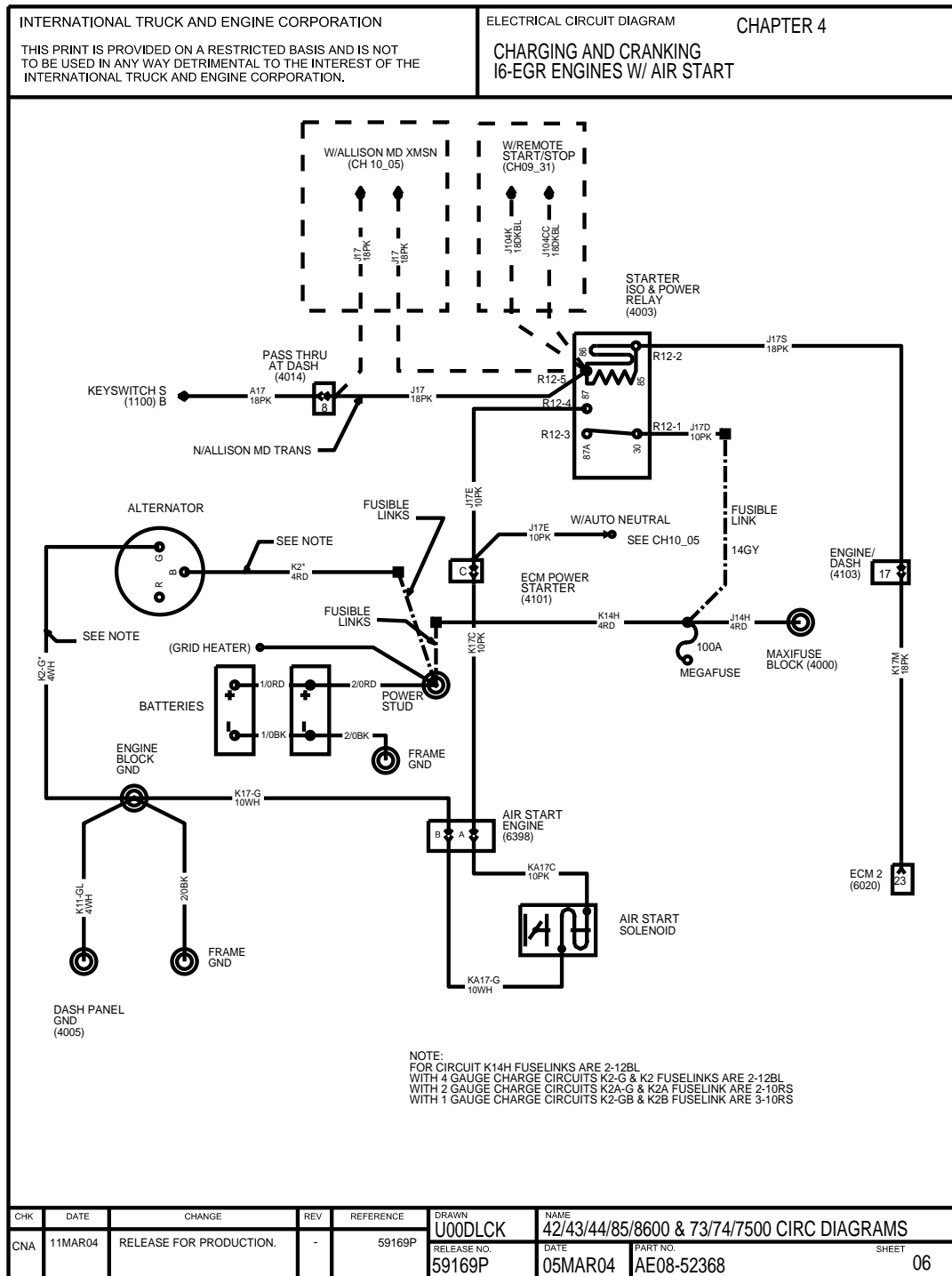


Figure 67 I6 EGR Engines with Air Start

4.7. I6 EGR AND POWER PACK 3KW, P. 7

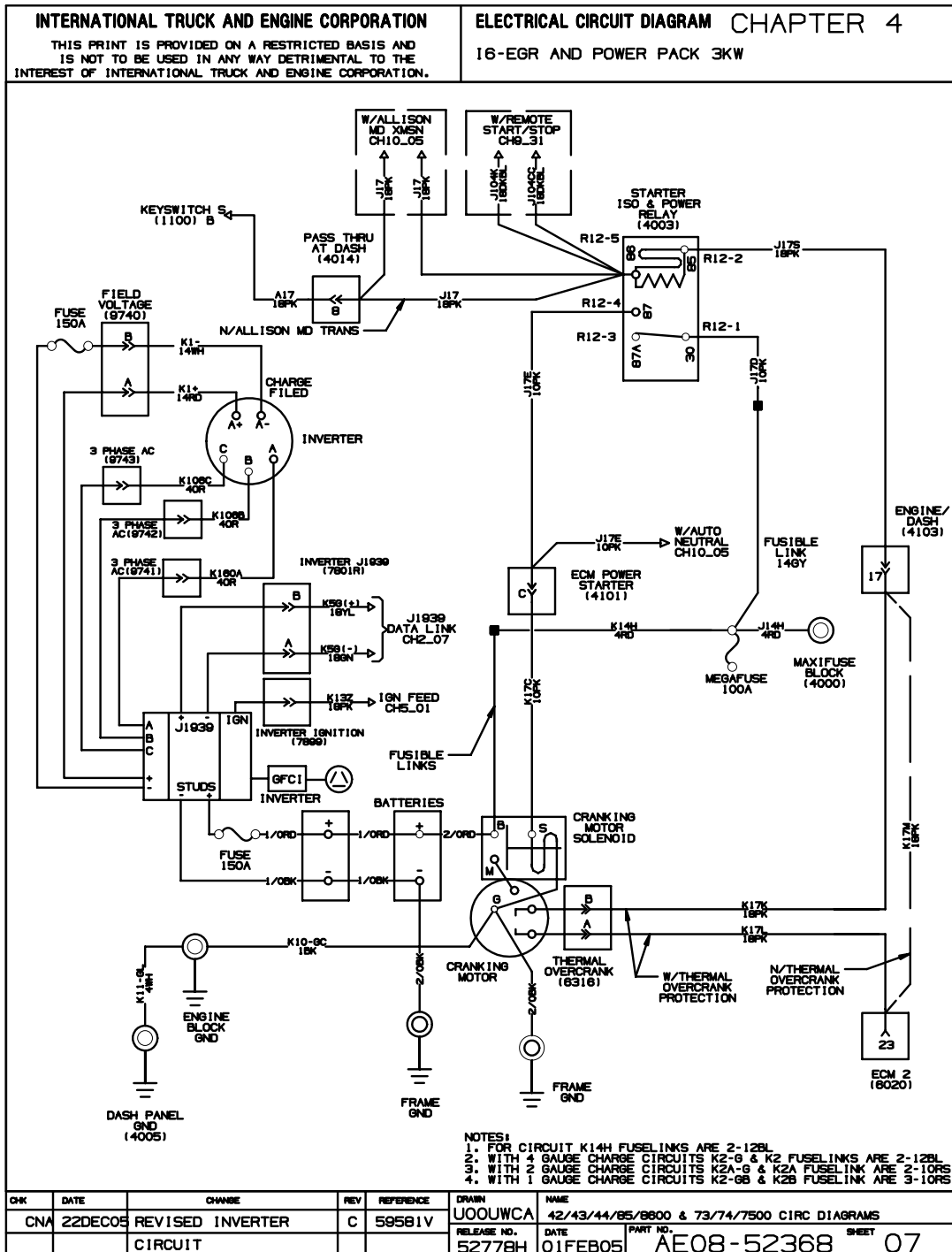


Figure 68 I6 EGR and Power Pack 3KW

5. FANS AND ENGINE ACCESSORIES (CHAPTER 5)

5.1. FAN WIRING, INTERNATIONAL ENGINES, P. 1

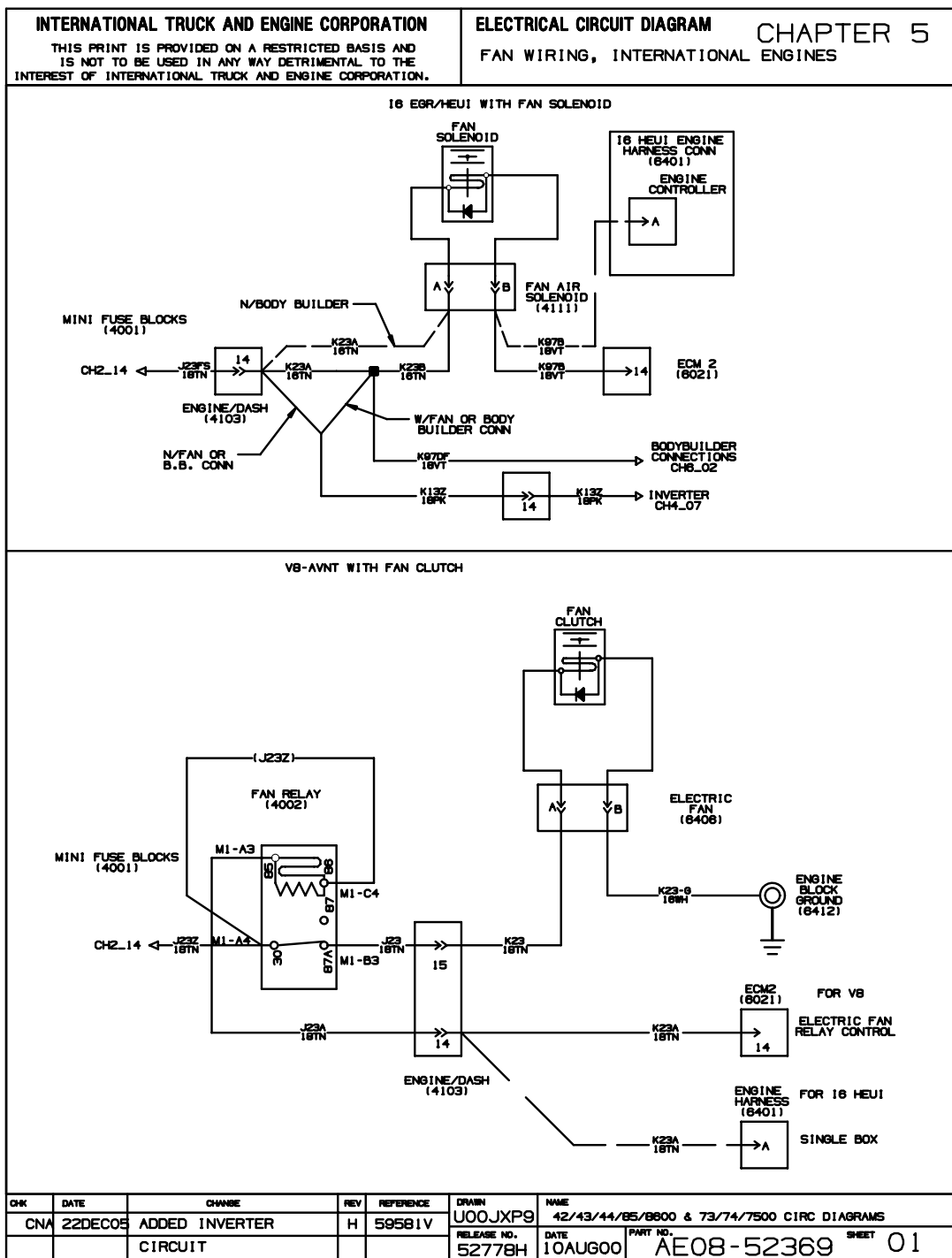


Figure 69 Fan Wiring, International Engines

5.2. ETHER START, P. 2

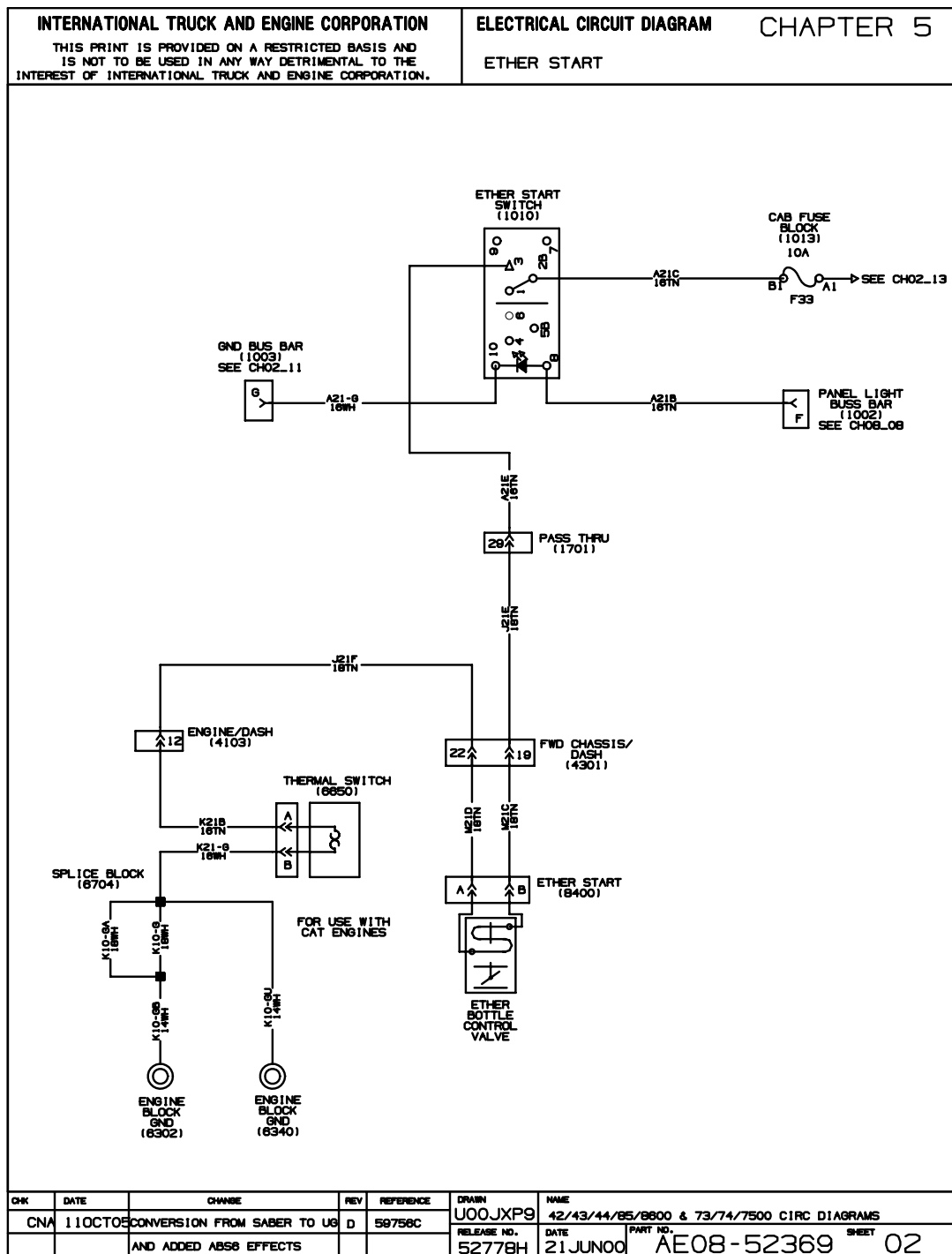


Figure 70 Ether Start

INTERNATIONAL TRUCK AND ENGINE CORPORATION

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SNOW VALVE

SNOW VALVE

CAB FUSE BLOCK
SNOW VALVE
(1013)

IGN RELAY
SEE CH02_13

10A

F34

A2

B2

GROUND BUSS BAR
(1003)
SEE CH02_11

D

A23-BA
16RH

PANEL LIGHT
BUSS BAR
(1002)

C

A62P
16LTPH

SNOW VALVE
SWITCH
(1801)

31

27

26

25

24

31

27

26

25

24

SNOW VALVE
(4120)

E

D

C

B

A

CURRENT
PROTECT

NC READ
SWITCH

DUAL FUNCTION
READ SWITCH
(NO & NC)

SNOW VALVE
MODULE

MOTOR

SNOW VALVE WARNING
LIGHT INCLUSTER

H

V

A

OPTIONAL WARNING
LIGHT CONNECTOR
(1555)

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME
CNA	11OCT05	CONVERSION FROM SABER TO UG	C	58758C	U00JXP9	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS
		AND ADDED ABS6 EFFECTS			RELEASE NO.	DATE
					5277RH	21JUN00
					PART NO.	AE08-52369
						SHEET 03

Figure 71 Snow Valve

5.4. FAN WIRING, CATERPILLAR AND CUMMINS, P. 4

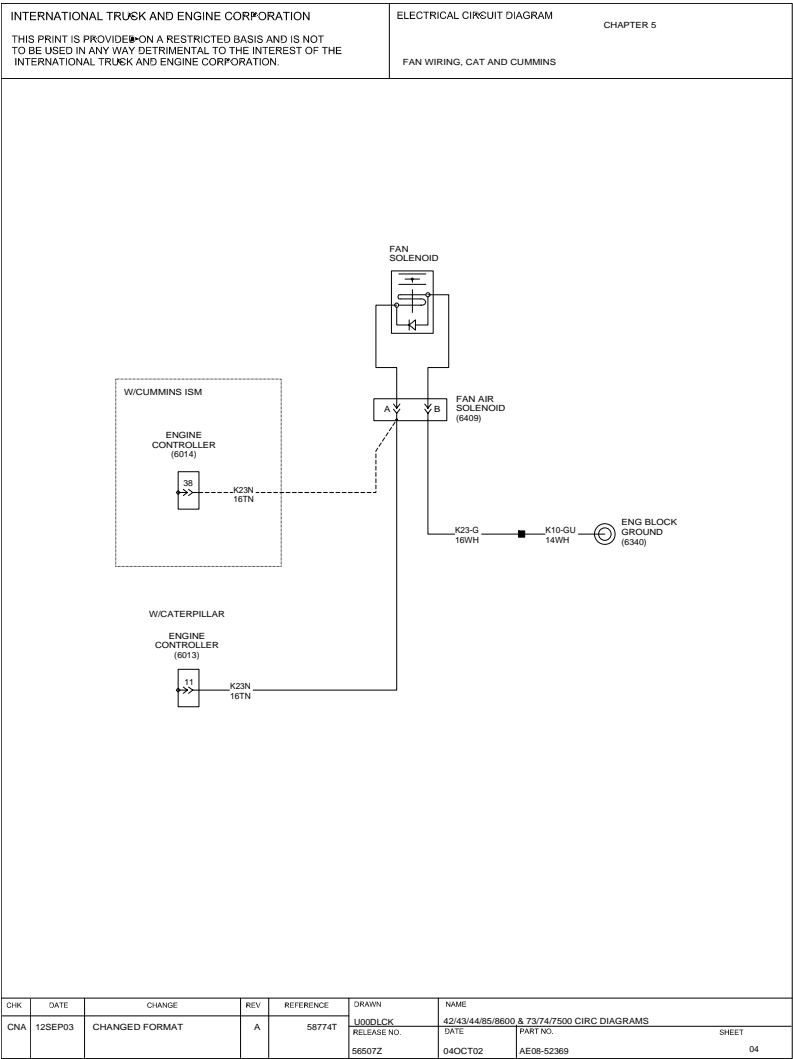


Figure 72 Fan Wiring, Caterpillar and Cummins

6. ELECTRONIC ENGINES (CHAPTER 6)

6.1. ELECTRONIC ENGINE CONTROLS, I6-EGR ENGINES, P. 1

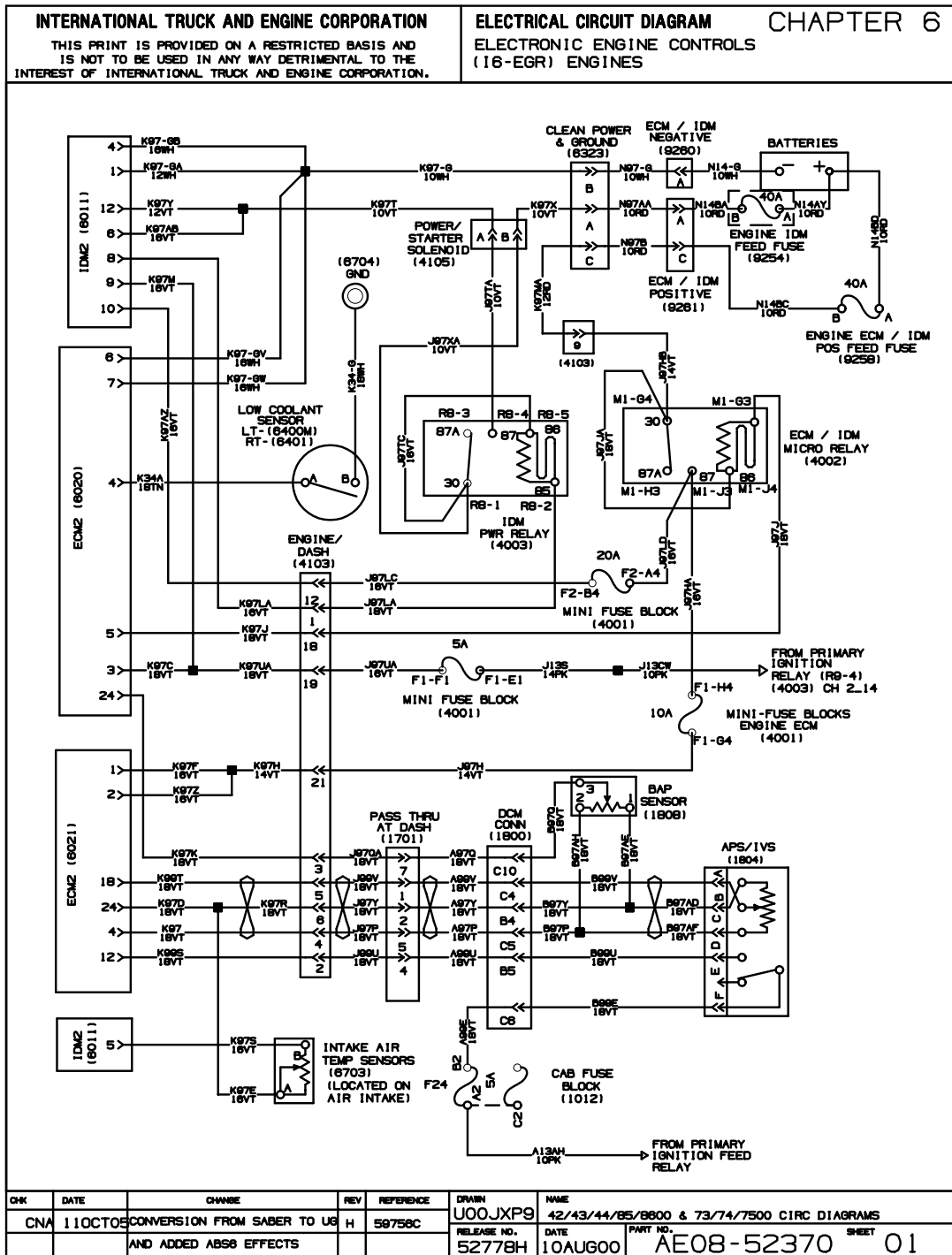


Figure 73 Electronic Engine Controls, I6-EGR Engines

6.2. ELECTRONIC ENGINE CONTROLS, I6-EGR ENGINE CRUISE CONTROL AND BODY BUILDER CONNECTIONS, P. 2

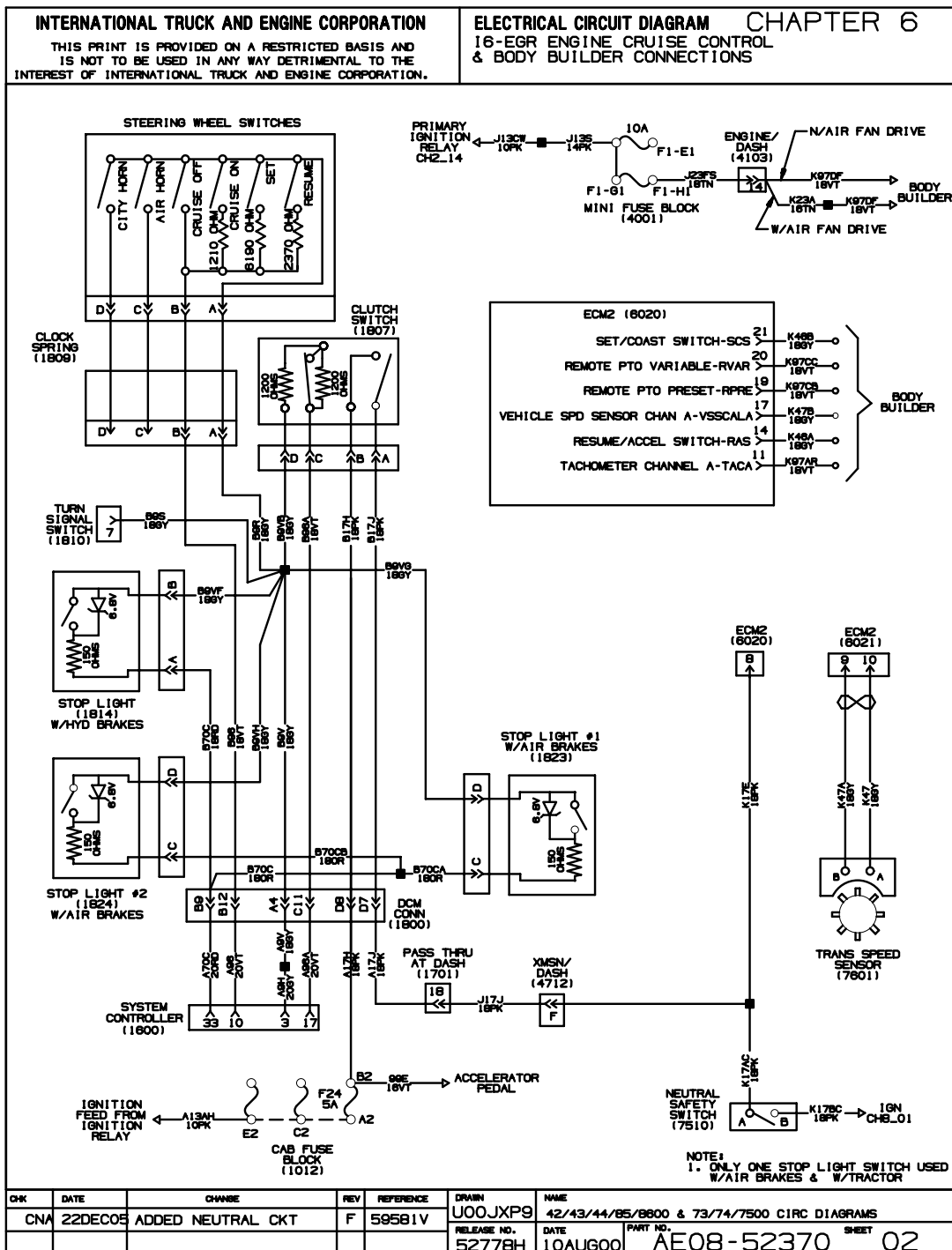


Figure 74 Electronic Engine Controls, I6-EGR Engine Cruise Control and Body Builder Connections

6.3. ELECTRONIC ENGINE CONTROLS, (V8-AVNT) ENGINES, P. 3

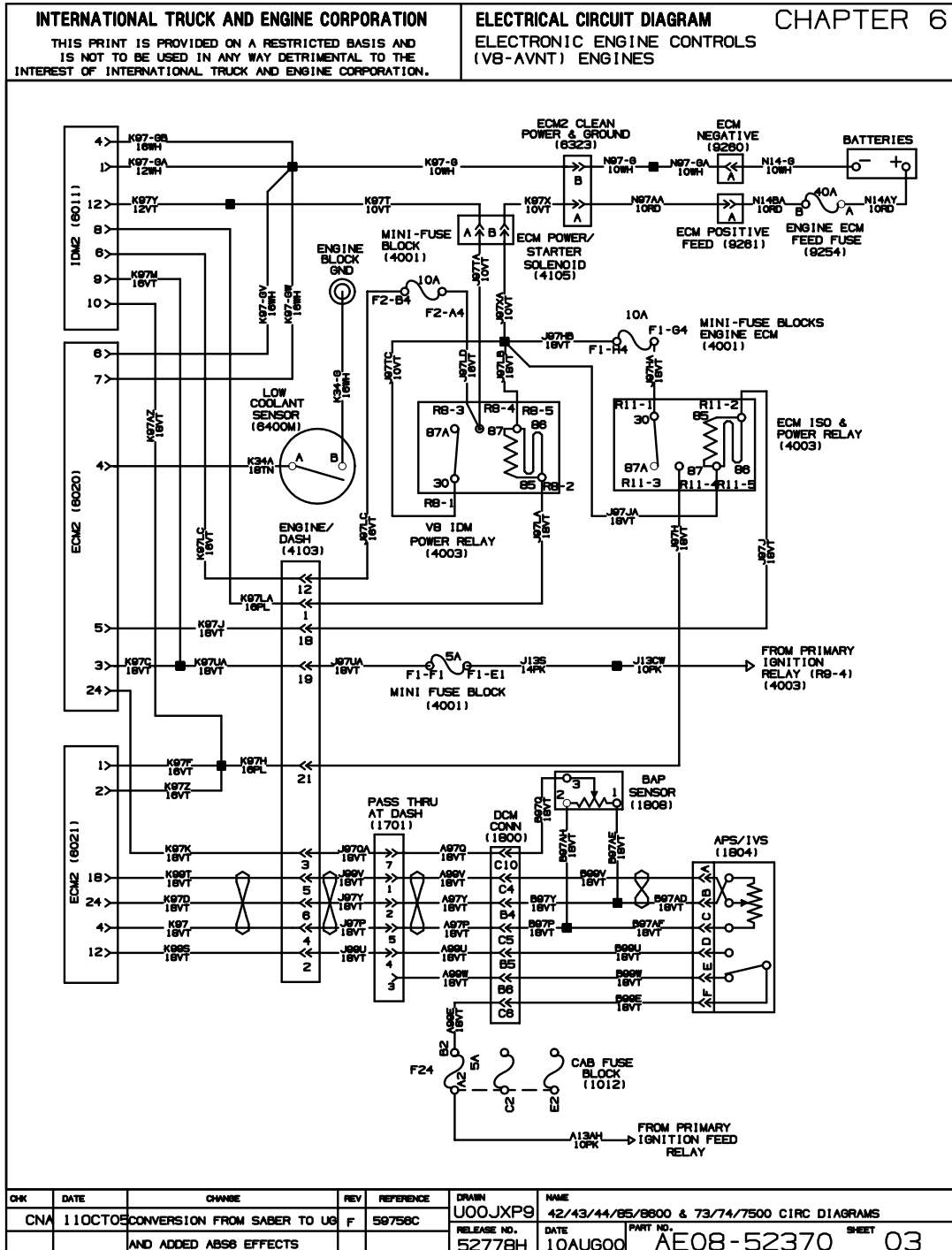


Figure 75 Electronic Engine Controls, (V8-AVNT) Engines

6.4. ELECTRONIC ENGINE CONTROLS, V8-AVNT ENGINE CRUISE CONTROL AND BODY BUILDER CONNECTIONS, P. 4

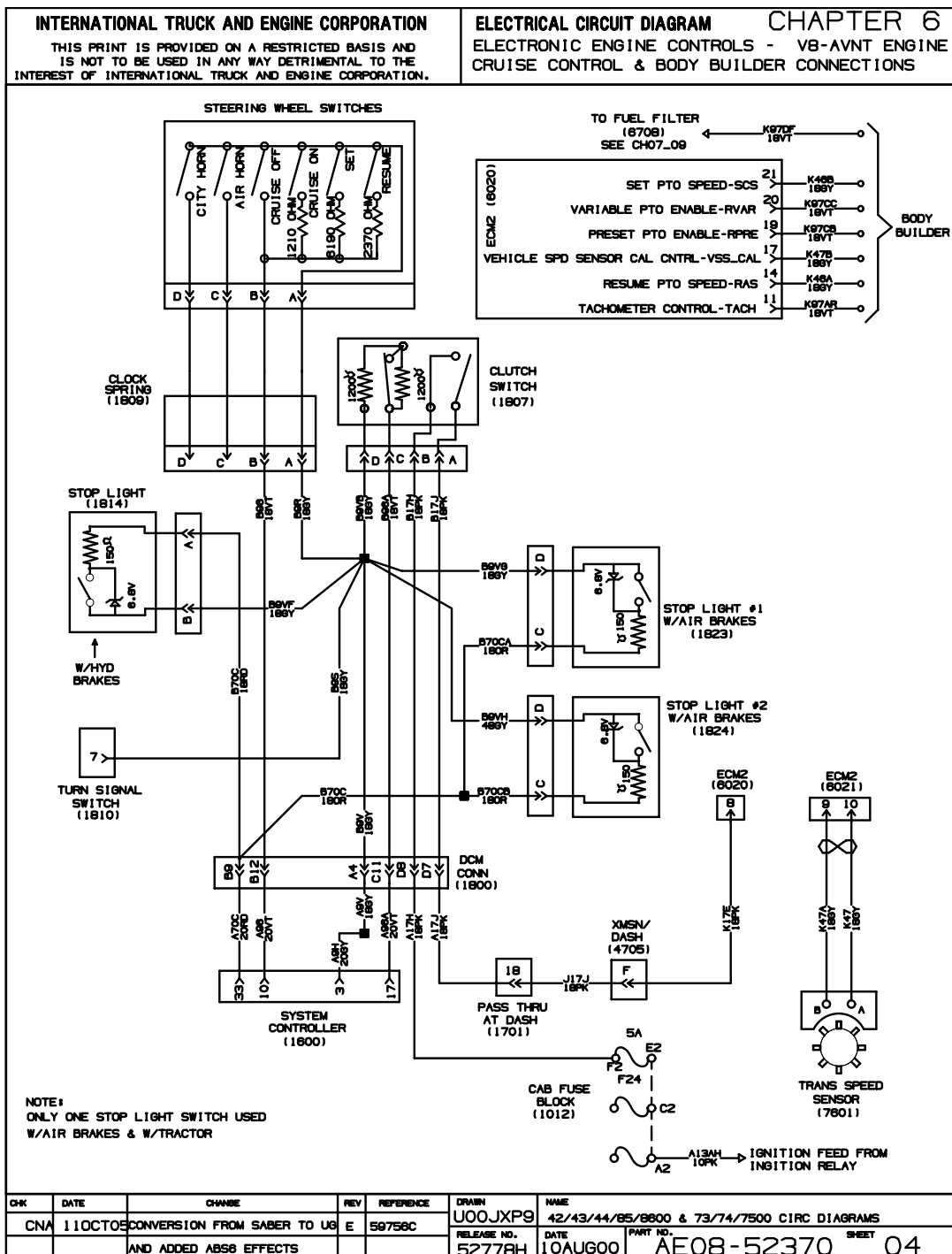


Figure 76 Electronic Engine Controls, V8-AVNT Engine Cruise Control and Body Builder Connections

6.5. CATERPILLAR C10, C11, C12, AND C13 ENGINES, P. 5

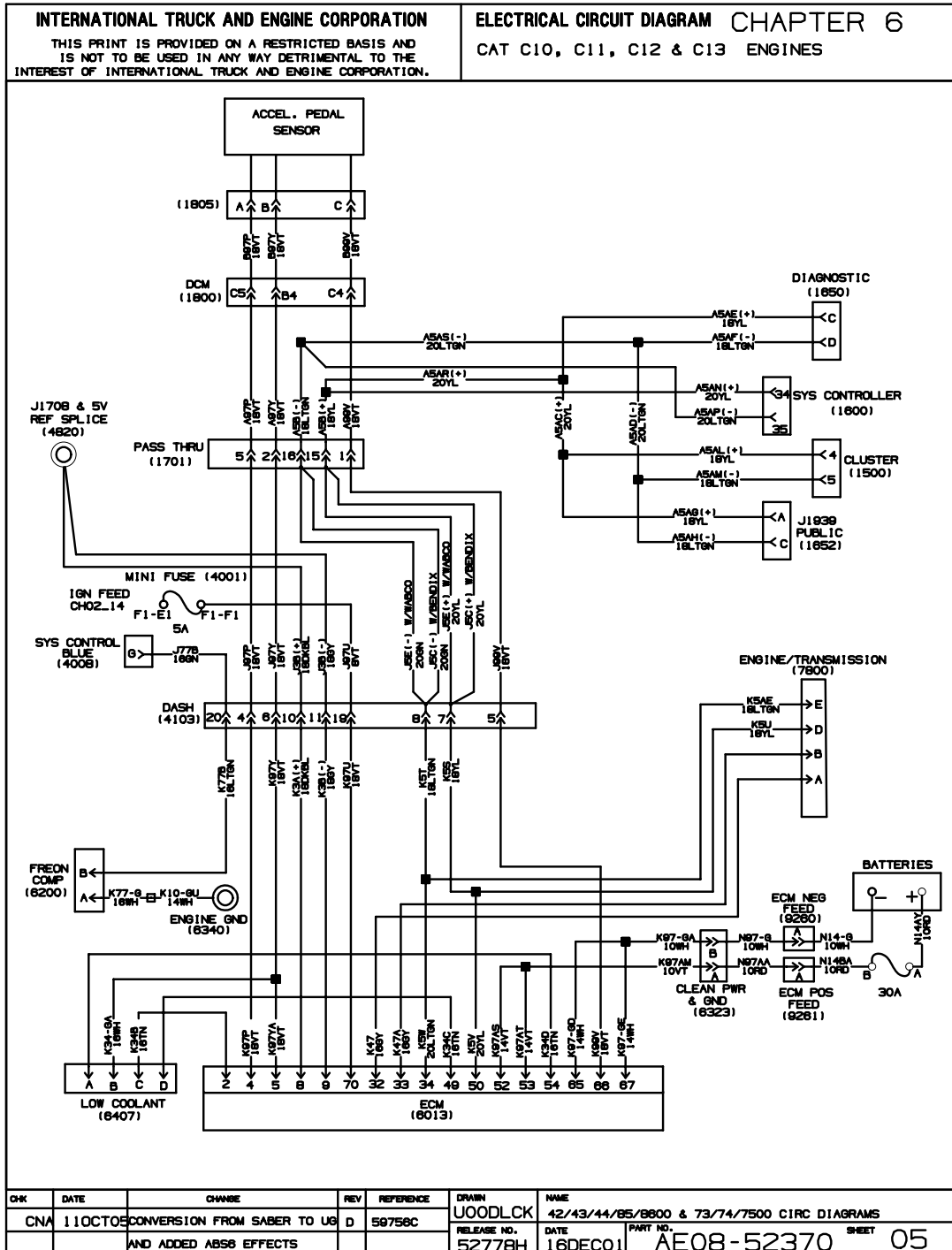


Figure 77 Caterpillar C10, C11, C12, and C13 Engines

6.6. CUMMINS ISM ENGINE, P. 6

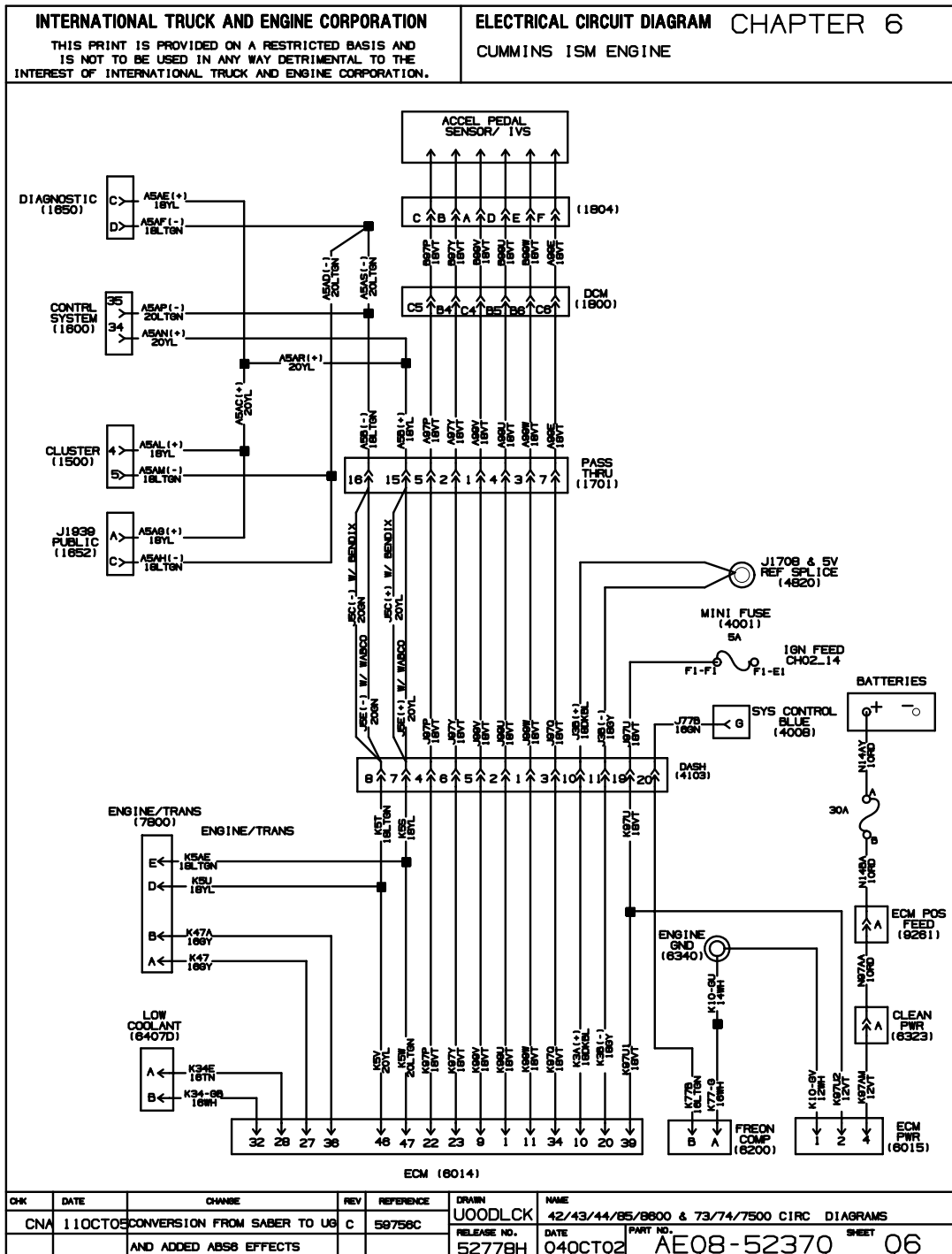


Figure 78 Cummins ISM Engine

6.7. I6 HEUI ENGINE, P. 7

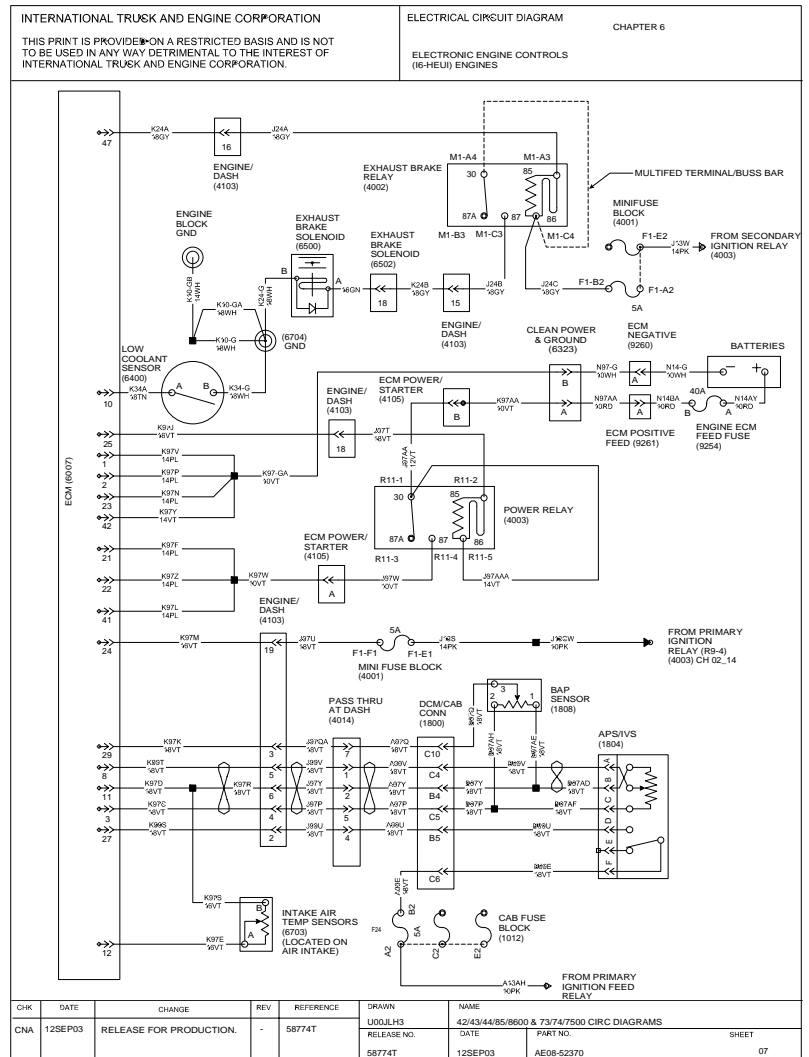
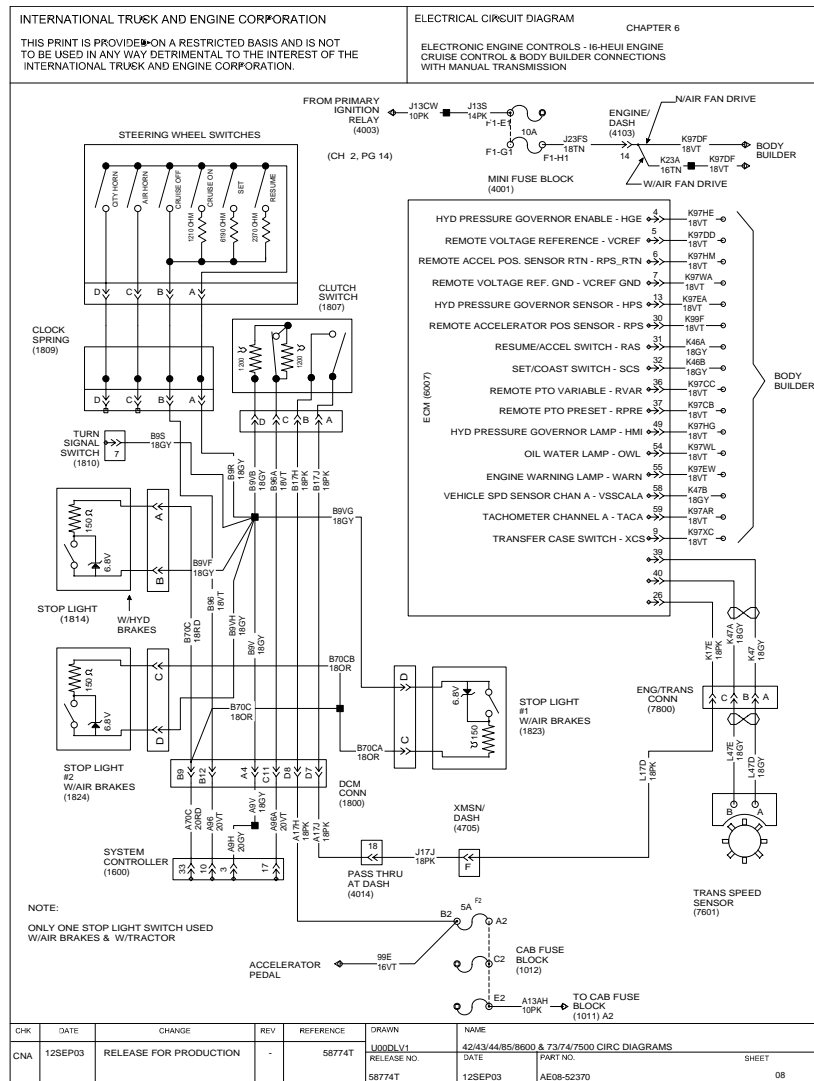


Figure 79 I6 HEUI Engine

6.8. I6 HEUI ENGINE CRUISE CONTROL AND BODY BUILDER CONNECTIONS WITH MANUAL TRANSMISSION, P. 8



6.9. CATERPILLAR ACERT SPEEDOMETER SIGNAL, P. 9

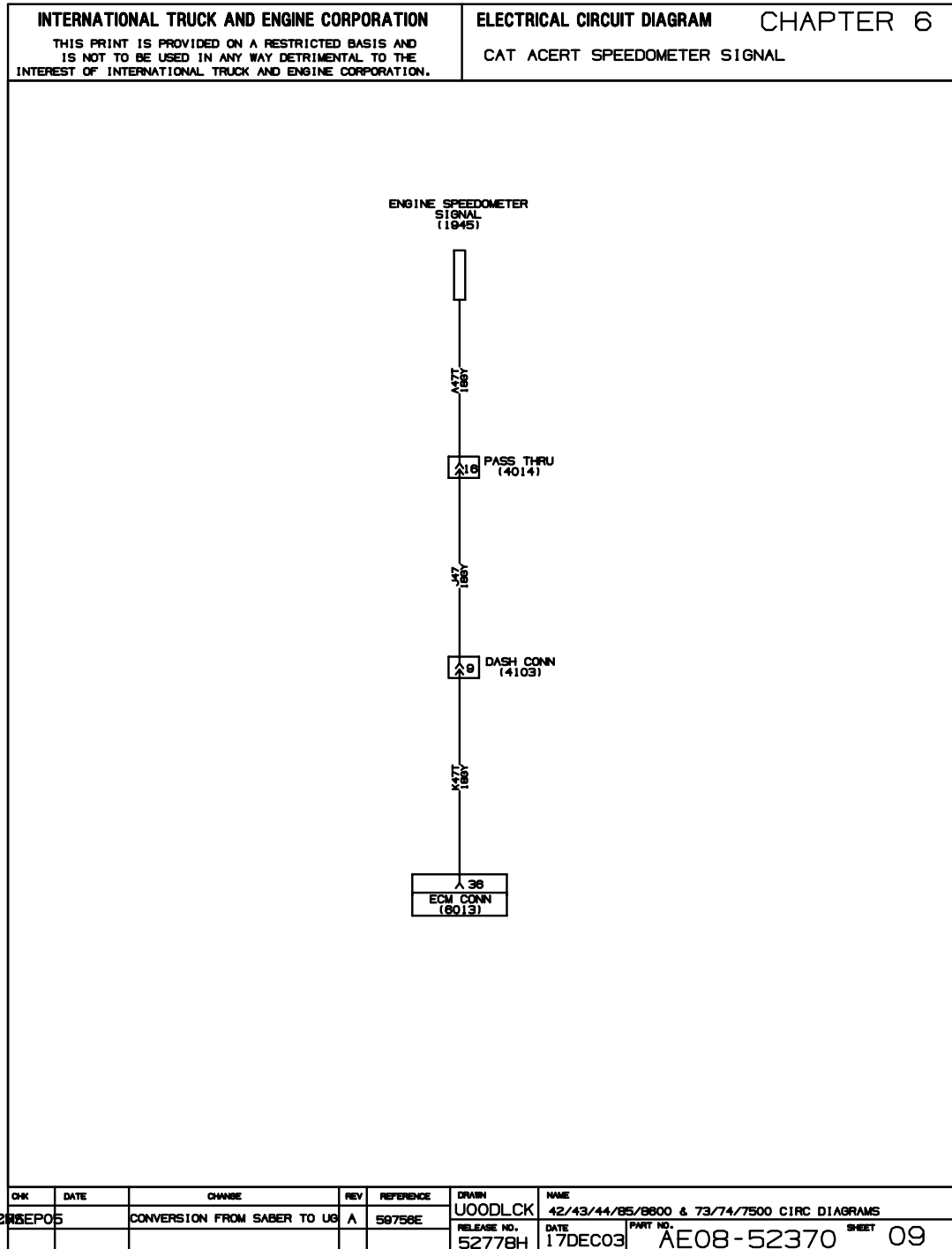


Figure 81 Caterpillar ACERT Speedometer Signal