

SERVICE MANUAL

SERVICE MANUAL SECTION

**3200, 4100, 4300, 4400, 7300, 7400, 7500, 7600, 7700, 8500, RXT
Models Built March 1, 2007 to March 18, 2008 — ELECTRICAL CIRCUIT
DIAGRAMS**

Model: 3200

Start Date: 03/01/2007 End Date: 03/18/2008

Model: 4100

Start Date: 03/01/2007 End Date: 03/18/2008

Model: 4300

Start Date: 03/01/2007 End Date: 03/18/2008

Model: 4400

Start Date: 03/01/2007 End Date: 03/18/2008

Model: 7300

Start Date: 03/01/2007 End Date: 03/18/2008

Model: 7400

Start Date: 03/01/2007 End Date: 03/18/2008

Model: 7500

Start Date: 03/01/2007 End Date: 03/18/2008

Model: 7600

Start Date: 03/01/2007 End Date: 03/18/2008

Model: 7700

Start Date: 03/01/2007 End Date: 03/18/2008

Model: 8500

Start Date: 03/01/2007 End Date: 03/18/2008

Model: 8600

Start Date: 03/01/2007 End Date: 03/18/2008

Model: RXT

Start Date: 03/01/2007 End Date: 03/18/2008

S08322

03/25/2009

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INTERNATIONAL TRUCK AND ENGINE CORPORATION				ELECTRICAL CIRCUIT 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.				ABBREVIATIONS	
ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
ACCESS	ACCESSORY	CRUS	CRUISE	PWR	POWER
ACCUM	ACCUMULATOR	CUR	CURRENT	PRESS	PRESSURE
AC	AIR CONDITIONING	DPNL	DASHBOARD	RAD	RADIO
AIR CLNR	AIR CLEANER	DFTR	DEFLECTOR	RLY	RELAY
ALT	ALTERNATOR	DFR	DEFROSTER	RES	RESISTOR
ACCEL	ACCELERATOR	DEG	DEGREE	REGEN	REGENERATE
AFTR	AFTERTREATMENT	DIAG	DIAGRAM	R	RIGHT
AMM	AMMETER	DSL	DIESEL	RTR	ROTOR
AMP	AMPERE	DIFF	DIFFERENTIAL	SNR	SENSOR
AMP HR	AMPERE HOUR	DIMR	DIMMER	SHLD	SHIELD
AMPL	AMPLIFIER	ELEC	ELECTRICAL	SHFT	SHIFTER
ARM	ARMATURE	ELEX	ELECTRONIC	SLPR	SLEEPER
ARSR	ARRESTER	ENG	ENGINE	SLV	SLEEVE
ASSY	ASSEMBLY	EXH	EXHAUST	SPKR	SPEAKER
AUX	AUXILIARY	FL	FLUID	SPR	SPRING
B/U	BACK-UP	FWD	FORWARD	STD	STANDARD
BTRY	BATTERY	FR	FRONT	STRG	STEERING
BM	BENCHMARKING	FREQ	FREQUENCY	STLITE	SATELLITE
BLK	BLOCK	GA	GAUGE	SUNSH	SUNSHADE
BOOS	BOOSTER	GEN	GENERATOR	SW	SWITCH
BOT	BOTTOM	GND	GROUND	SYS	SYSTEM
BK	BRAKE	HARN	HARNESS	TACH	TACHOMETER
BRKR	BREAKER	HDLP	HEADLAMP	TEMP	TEMPERATURE
BRTHR	BREATHER	HTD	HEATED	TERM	TERMINAL
BRI	BRIGHT	HT TR	HEAT TREAT	THROT	THROTTLE
BUZ	BUZZER	HTR	HEATER	THRU	THROUGH
CA	CABLE	HP	HORSEPOWER	TRAC	TRACTION
CD	CANDELA	HYD	HYDRAULIC	TRLR	TRAILER
CP	CANDLEPOWER	ID	IDENTIFICATION	XDCR	TRANSDUCER
CAP	CAPACITOR	IGN	IGNITION	XFER	TRANSFER
CAT	CATERPILLAR	ILLUM	ILLUMINATION	XFMR	TRANSFORMER
CHAS	CHASSIS	IND	INDICATOR	XSTR	TRANSISTOR
CH	CHOKE	INST	INSTRUMENT	XMSN	TRANSMISSION
CIRC	CIRCUIT	INT	INTERMITTENT	XMTR	TRANSMITTER
CLK	CLOCK	L	LEFT	TRK	TRUCK
CW	CLOCKWISE	LT	LIGHT	UPR	UPPER
CLSTR	CLUSTER	LTR	LIGHTER	VLV	VALVE
CL	CLUTCH	LWR	LOWER	VERT	VERTICAL
COL	COLUMN	MAG	MAGNET	VM	VOLTMETER
COMM	COMMUTATOR	MOD	MODULATOR	VOL	VOLUME
COMPNT	COMPONENT	MDL	MODULE	WSHR	WASHER
CPRSR	COMPRESSOR	MOT	MOTOR	WHL	WHEEL
CONN	CONNECTOR	MTD	MOUNTED	WDO	WINDOW
CONT	CONTINUE	NEG	NEGATIVE	WSHLD	WINDSHIELD
CSL	CONSOLE	N/	NOT WITH	WPR	WIPER
CONT	CONTACT	NO	NUMBER	W/	WITH
CONT	CONTROL	PASS	PASSENGER	W/O	WITHOUT
CONV	CONVERTER	POSN	POSITION		
CLR	COOLER	POS	POSITIVE		
CTSY	COURTESY	POT	POTENTIOMETER		

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME
RAW6	04DEC07	DELETED AC & RR FROM	B	61000T	U00K640	CIRCUIT DIAGRAM, 42/43/44/85/8600 & 73/74/7500
	ABBREVIATIONS LIST				RELEASE NO.	DATE
					59974G	12SEP06
					PART NO.	SHEET
					AE08056608	001

Figure 1 Abbreviations

2.2. ACRONYMS, P. 2

INTERNATIONAL TRUCK AND ENGINE CORPORATION		ELECTRICAL CIRCUIT DIAGRAM CHAPTER 2																																																																																																																																																																																					
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UNIT</td><td>APU</td><td>INSTRUMENT PANEL</td><td>I/P</td></tr> <tr><td>AMERICAN TRUCKING ASSOCIATION</td><td>ATA</td><td>INDEPENDENT POWER TAKE-OFF</td><td>IPTO</td></tr> <tr><td>AUTOMATIC TRACTION CONTROL</td><td>ATC</td><td>INPUT SPEED SENSOR</td><td>ISS</td></tr> <tr><td>AUDIO VIDEO INTERFACE</td><td>AVI</td><td>LIGHT COMMERCIAL TRANSMISSION</td><td>LCT</td></tr> <tr><td>BAROMETRIC ATMOSPHERE PRESSURE</td><td>BAP</td><td>LOW PRESSURE MODULE</td><td>LPM</td></tr> <tr><td>BRAKE HORSEPOWER</td><td>BHP</td><td>LOW SIDE DRIVE</td><td>LSD</td></tr> <tr><td>BACK OF CAB</td><td>BOC</td><td>MEDIUM DUTY</td><td>MD</td></tr> <tr><td>CITIZEN BAND</td><td>CB</td><td>MOMENTARY ENGINE IGNITION INTERRUPT RELAY</td><td>MEIIR</td></tr> <tr><td>COLD CRANKING AMPERES</td><td>CCA</td><td>MAJFUNCTION INDICATION LAMP</td><td>MIL</td></tr> <tr><td>CLEAN POWER ELECTRICAL CONNECTOR</td><td>CEC</td><td>MULTIPLEX SWITCH MODULE</td><td>MSM</td></tr> <tr><td>CENTRAL JUNCTION BOX</td><td>CJB</td><td>OUTPUT SPEED 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Figure 2 Acronyms

2.3. CIRCUIT DIAGRAM INSTRUCTIONS, P. 3

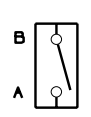
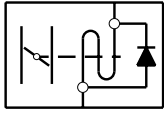
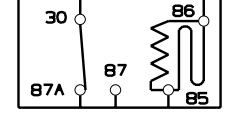
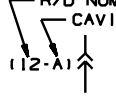
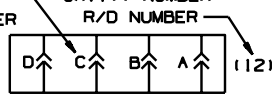
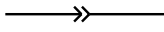
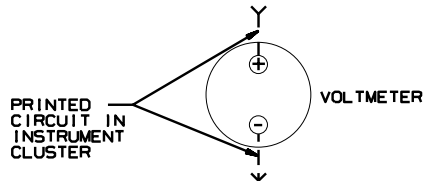
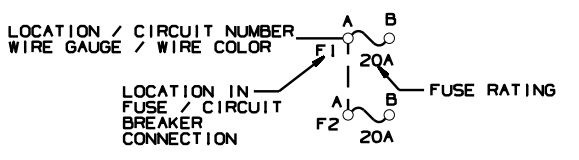
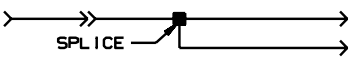
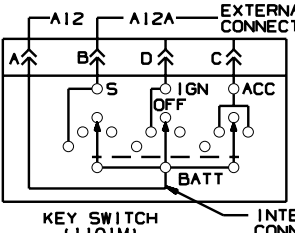
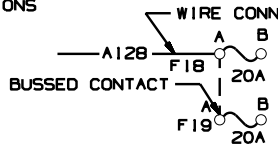
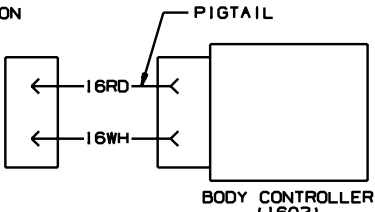
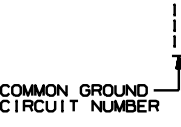
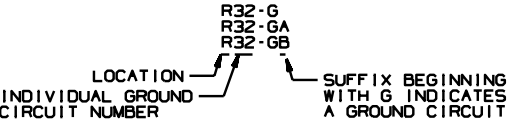
<p>INTERNATIONAL TRUCK AND ENGINE CORPORATION THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.</p>	<p>ELECTRICAL CIRCUIT DIAGRAM CHAPTER 2 CIRCUIT DIAGRAM INSTRUCTIONS</p>																																										
<p>A - SWITCH AND RELAY POSITIONS AS SHOWN ON CIRCUIT DIAGRAMS INDICATE NORMAL POSITION WITH IGNITION OFF UNLESS OTHERWISE NOTED.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>SWITCH, MECHANICAL</p> </div> <div style="text-align: center;">  <p>SOLENOID</p> </div> <div style="text-align: center;">  <p>RELAY - SUPPRESSED</p> </div> </div>	<p>B - MULTIPLE CONNECTIONS ARE DISPLAYED ON SCHEMATIC AS SHOWN WITH R/D NUMBER & CAVITY NUMBER. REFER TO CONNECTOR COMPOSITE FOR MORE INFORMATION</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>R/D NUMBER CAVITY NUMBER</p> </div> <div style="text-align: center;">  <p>CAVITY NUMBER R/D NUMBER</p> </div> </div> <p>SINGLE IN-LINE CONNECTORS DISPLAYED AS SHOWN BELOW WITHOUT R/D NUMBER</p> 																																										
<p>C - PHANTOM LINES INDICATE PRINTED CIRCUITS OR BUSSED CIRCUITS. THESE CIRCUITS EXIST IN THE INSTRUMENT CLUSTER AND FUSE / CIRCUIT BREAKER CONNECTORS.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>PRINTED CIRCUIT IN INSTRUMENT CLUSTER</p> <p>VOLTMETER</p> </div> <div style="text-align: center;">  <p>LOCATION / CIRCUIT NUMBER WIRE GAUGE / WIRE COLOR</p> <p>LOCATION IN FUSE / CIRCUIT BREAKER CONNECTION</p> <p>FUSE RATING</p> </div> </div>																																											
<p>D - MULTIPLE CIRCUIT NUMBERS ON A LINE INDICATE ONE CIRCUIT DISTRIBUTING CURRENT TO TWO CIRCUITS.</p> <div style="text-align: center;">  <p>SPLICE</p> </div>																																											
<p>E - SWITCHES, RELAYS AND COMPONENTS INDICATE EXTERNAL WIRE CONNECTIONS AND / OR INTERNAL CONNECTIONS OR CONTACTS.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>EXTERNAL WIRE CONNECTIONS</p> <p>KEY SWITCH (1101M)</p> <p>INTERNAL CONNECTION</p> </div> <div style="text-align: center;">  <p>WIRE CONNECTION</p> <p>BUSSED CONTACT</p> </div> <div style="text-align: center;">  <p>PIGTAIL</p> <p>BODY CONTROLLER (1602)</p> </div> </div>																																											
<p>F - CIRCUIT "11" DENOTES ANY COMMON GROUND (MORE THAN ONE CIRCUIT). ANY INDIVIDUAL GROUND CIRCUIT IS IDENTIFIED WITH THAT PARTICULAR CIRCUIT NUMBER. I.E.G. CIRCUIT 32 CRUISE CONTROL IS IDENTIFIED AS PER EXAMPLE)</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>COMMON GROUND CIRCUIT NUMBER</p> <p>SUFFIX BEGINNING WITH G INDICATES A GROUND CIRCUIT</p> </div> <div style="text-align: center;">  <p>LOCATION INDIVIDUAL GROUND CIRCUIT NUMBER</p> <p>SUFFIX BEGINNING WITH G INDICATES A GROUND CIRCUIT</p> </div> </div> <p style="text-align: center; margin-top: 10px;">NOTE: FOR CIRCUIT DESCRIPTION OTHER THAN GROUNDS NEITHER THE LETTER "G" NOR THE COLOR WHITE SHALL BE USED</p>																																											
<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <tr> <td>CHK</td> <td>DATE</td> <td>CHANGE</td> <td>REV</td> <td>REFERENCE</td> <td>DRAWN</td> <td>NAME</td> </tr> <tr> <td>CNA</td> <td>05MAY07</td> <td>REVISED & REDRAWN</td> <td>A</td> <td>60782A</td> <td>U00K640</td> <td>42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>RELEASE NO.</td> <td>DATE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>59974G</td> <td>20APR06</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>PART NO.</td> <td>SHEET</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>AE08-56608</td> <td>03</td> </tr> </table>		CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME	CNA	05MAY07	REVISED & REDRAWN	A	60782A	U00K640	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS						RELEASE NO.	DATE						59974G	20APR06						PART NO.	SHEET						AE08-56608	03
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Figure 3 Circuit Diagram Instructions

2.4. CIRCUIT NUMBER IDENTIFICATION AND COLOR, P. 4

INTERNATIONAL TRUCK AND ENGINE CORPORATION <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.</small>		ELECTRICAL CIRCUIT DIAGRAM CHAPTER 2 CIRCUIT NUMBER IDENTIFICATION AND COLOR																																																																																																																																																			
<table border="1" style="width:100%; 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>1</td><td>LTBL</td><td>ALTERNATOR - FIELD</td></tr> <tr><td>2</td><td>RD</td><td>ALTERNATOR - CHARGE</td></tr> <tr><td rowspan="2">3</td><td>DKBL</td><td>SERIAL / DATA COMMUNICATION J1587 / J1708 (+)</td></tr> <tr><td>GY</td><td>SERIAL / DATA COMMUNICATION J1587 / J1708 (-)</td></tr> <tr><td rowspan="2">4</td><td>DKBL</td><td>SERIAL / DATA COMMUNICATION J1922 (+)</td></tr> <tr><td>GY</td><td>SERIAL / DATA COMMUNICATION J1922 (-)</td></tr> <tr><td rowspan="2">5</td><td>YL</td><td>SERIAL / DATA COMMUNICATION J1939 /11 / J1939/15 (+)</td></tr> <tr><td>GN</td><td>SERIAL / DATA COMMUNICATION J1939 /11 / J1939/15 (-)</td></tr> <tr><td>6</td><td>GY</td><td>LOW VOLTAGE ELECTRONIC FEED (LESS THAN 9 VOLTS)</td></tr> <tr><td>7</td><td>RD</td><td>ALTERNATOR - RESISTANCE</td></tr> <tr><td>8</td><td></td><td></td></tr> <tr><td>9</td><td>GY</td><td>LOW VOLTAGE ELECTRONIC GROUND</td></tr> <tr><td>10</td><td>WH</td><td>CHASSIS / ENGINE GROUND</td></tr> <tr><td>11</td><td>WH</td><td>CAB / SLEEPER GROUND</td></tr> <tr><td>12</td><td>LTBL</td><td>ACCESSORY FEED</td></tr> <tr><td rowspan="2">13</td><td>PK</td><td>IGNITION FEED</td></tr> <tr><td>BK</td><td>IGNITION FEED (BODY BUILDER CONNECTOR)</td></tr> <tr><td>14</td><td>RD</td><td>BATTERY FEED</td></tr> <tr><td>15</td><td>RD</td><td>KEY SWITCH FEED</td></tr> <tr><td>16</td><td></td><td></td></tr> <tr><td>17</td><td>PK</td><td>STARTER CONTROL</td></tr> <tr><td>18</td><td>PK</td><td>GLOW PLUG / PRE-HEATER</td></tr> <tr><td>19</td><td>GY</td><td>ENGINE SHUTDOWN</td></tr> <tr><td>20</td><td>LTGN</td><td>REMOTE POWER MODULE</td></tr> <tr><td>21</td><td>TN</td><td>COLD START CONTROLS (ETHER)</td></tr> <tr><td>22</td><td>TN</td><td>TIRE PRESSURE MONITORING / CONTROL</td></tr> <tr><td>23</td><td>TN</td><td>ENGINE FAN / SHUTTERS</td></tr> <tr><td>24</td><td>GY</td><td>ENGINE EXHAUST BRAKE</td></tr> <tr><td>25</td><td>TN</td><td>PYROMETER</td></tr> <tr><td>26</td><td>TN</td><td>AMMETER</td></tr> <tr><td>27</td><td>TN</td><td>VOLTMETER</td></tr> <tr><td>28</td><td>TN</td><td>INSTRUMENTS AND GAUGES</td></tr> <tr><td>29</td><td>TN</td><td>ENGINE WATER TEMPERATURE</td></tr> <tr><td>30</td><td>TN</td><td>ENGINE OIL TEMPERATURE</td></tr> <tr><td>31</td><td>TN</td><td>TRANSMISSION OIL TEMPERATURE</td></tr> <tr><td>32</td><td>TN</td><td>AXLE OIL TEMPERATURE</td></tr> <tr><td>33</td><td>TN</td><td>ENGINE OIL LEVEL</td></tr> <tr><td>34</td><td>TN</td><td>COOLANT LEVEL</td></tr> <tr><td>35</td><td>TN</td><td>ENGINE OIL PRESSURE</td></tr> <tr><td>36</td><td>TN</td><td>FUEL LEVEL</td></tr> <tr><td>37</td><td>TN</td><td>FUEL PUMP</td></tr> <tr><td>38</td><td>GY</td><td>LIFT AXLE</td></tr> <tr><td>39</td><td>GY</td><td>AIR DRYER HEATER</td></tr> <tr><td>40</td><td>GY</td><td>LOW AIR PRESSURE WARNING</td></tr> <tr><td>41</td><td>TN</td><td>AIR TEMPERATURE</td></tr> <tr><td>42</td><td>GY</td><td>FRONT AXLE ENGAGED</td></tr> <tr><td>43</td><td>GY</td><td>POWER DIVIDER LOCK (PDL) WARNING</td></tr> <tr><td>44</td><td>GY</td><td>PARK BRAKE WARNING</td></tr> <tr><td>45</td><td>LTGN</td><td>ANTI-THEFT WARNING</td></tr> </tbody> </table>				CIRCUIT NUMBER	COLOR	DESCRIPTION	1	LTBL	ALTERNATOR - FIELD	2	RD	ALTERNATOR - CHARGE	3	DKBL	SERIAL / DATA COMMUNICATION J1587 / J1708 (+)	GY	SERIAL / DATA COMMUNICATION J1587 / J1708 (-)	4	DKBL	SERIAL / DATA COMMUNICATION J1922 (+)	GY	SERIAL / DATA COMMUNICATION J1922 (-)	5	YL	SERIAL / DATA COMMUNICATION J1939 /11 / J1939/15 (+)	GN	SERIAL / DATA COMMUNICATION J1939 /11 / J1939/15 (-)	6	GY	LOW VOLTAGE ELECTRONIC FEED (LESS THAN 9 VOLTS)	7	RD	ALTERNATOR - RESISTANCE	8			9	GY	LOW VOLTAGE ELECTRONIC GROUND	10	WH	CHASSIS / ENGINE GROUND	11	WH	CAB / SLEEPER GROUND	12	LTBL	ACCESSORY FEED	13	PK	IGNITION FEED	BK	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	TN	TIRE PRESSURE MONITORING / CONTROL	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	33	TN	ENGINE OIL LEVEL	34	TN	COOLANT LEVEL	35	TN	ENGINE OIL PRESSURE	36	TN	FUEL LEVEL	37	TN	FUEL PUMP	38	GY	LIFT AXLE	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
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Figure 4 Circuit Number Identification and Color

2.5. CIRCUIT NUMBER IDENTIFICATION AND COLOR, P. 5

CIRCUIT NUMBER	COLOR	DESCRIPTION
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	TURN SIGNAL LIGHTS - LEFT
	YL	TURN SIGNAL LIGHTS - LEFT (BODY BUILDER CONNECTION)
57	OR	TURN SIGNAL LIGHTS - RIGHT
	LTGN	TURN SIGNAL LIGHTS - RIGHT (BODY BUILDER CONNECTION)
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 LIGHTS
66	YL	DAYTIME RUNNING LIGHTS
67	GY	OBSTACLE AVOIDANCE / REMOTE SENSOR
68	BN	TAIL LIGHTS
69	BN	LICENSE PLATE LIGHT
70	OR	STOP LIGHTS
	RD	STOP LIGHTS (BODY BUILDER CONNECTION)
71	OR	BACK-UP LIGHTS
	LTBL	BACK-UP LIGHTS (BODY BUILDER CONNECTION)
72	OR	TRAILER AUXILIARY FEED - BATTERY
73	LTGN	PWM
74	LTGN	HEATER RECIRCULATION 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
82	GY	WINDSHIELD WIPER
83	LTGN	POWER WINDOWS
84	LTGN	CIGAR LIGHTER
85	GY	HORN

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME
RAW6	04DEC07	REVISED AND REDRAWN	B	61000T	U00K640	CIRCUIT DIAGRAM, 42/43/44/85/8600 & 73/74/7500
					RELEASE NO.	DATE
					59974G	12SEP06
						PART NO.
						AE08056608
						SHEET
						005

Figure 5 Circuit Number Identification and Color (Cont.)

2.6. CIRCUIT NUMBER IDENTIFICATION AND COLOR, P. 6

INTERNATIONAL TRUCK AND ENGINE CORPORATION		ELECTRICAL CIRCUIT DIAGRAM CHAPTER 2																																																																																																																													
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Figure 6 Circuit Number Identification and Color (Cont.)

2.7. LAMP BULB CHART, P. 7

INTERNATIONAL TRUCK AND ENGINE CORPORATION				ELECTRICAL CIRCUIT DIAGRAM		CHAPTER 2																																								
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					RELEASE NO.	DATE	PART NO. SHEET																																							
					59974G	20APR06	AF08-56608 07																																							

Figure 7 Lamp Bulb Chart

2.8. RELAY FUNCTION AND WIRING GUIDE, P. 8

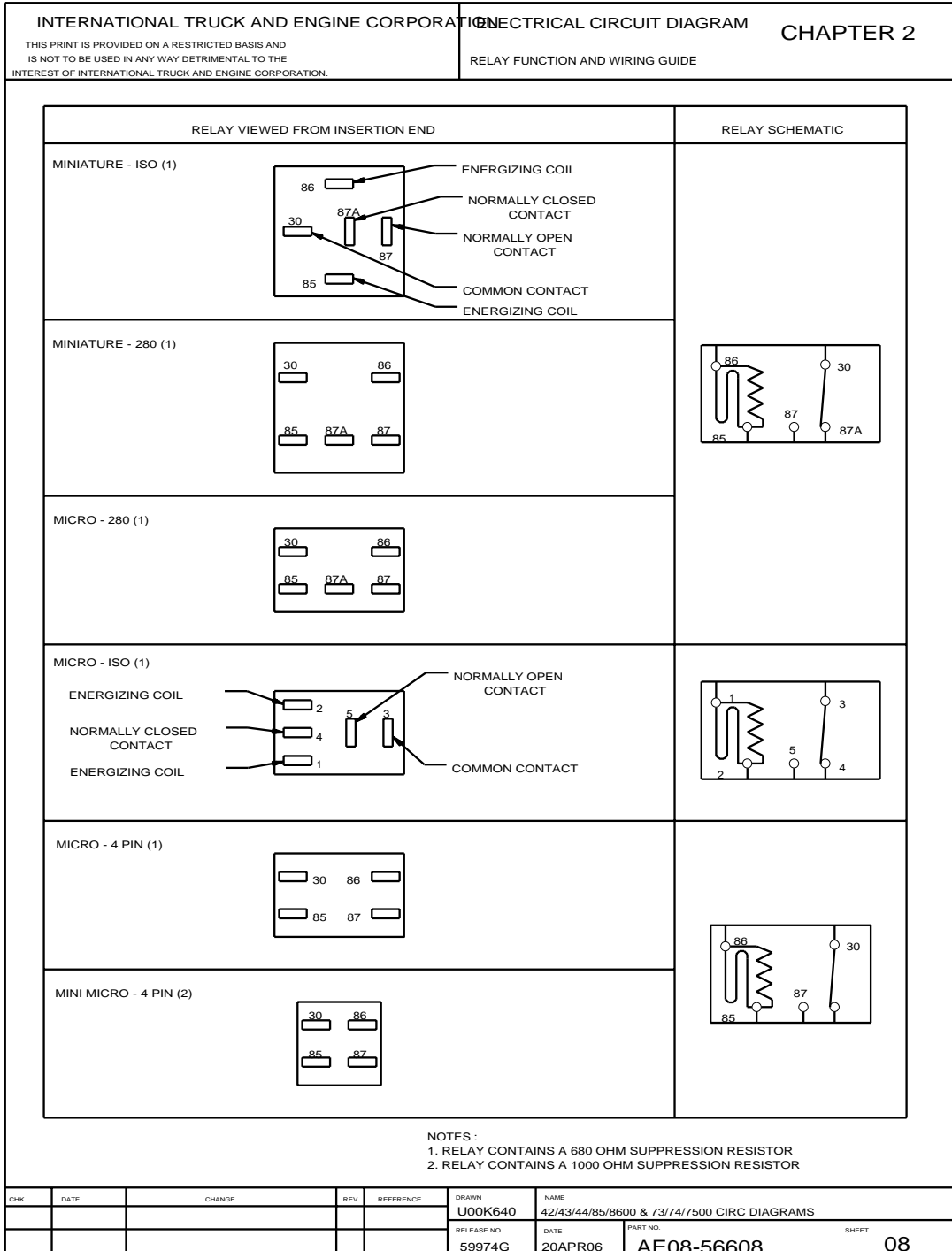
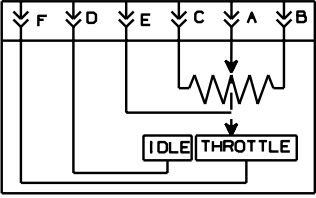
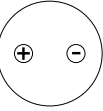
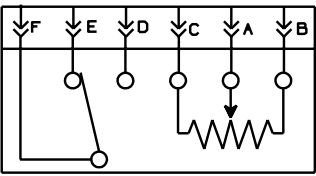
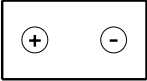
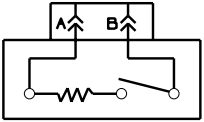
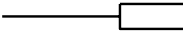
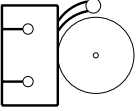
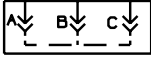
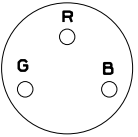

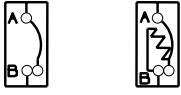



Figure 8 Relay Function and Wiring Guide

2.9. SCHEMATIC SYMBOL CHART, P. 9

INTERNATIONAL TRUCK AND ENGINE CORPORATION				ELECTRICAL CIRCUIT 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.				SCHEMATIC SYMBOL CHART			
SYMBOL		DESCRIPTION		SYMBOL		DESCRIPTION	
		ACCEL PEDAL POSN SENSOR				AMMETER	
		ACCEL PEDAL POSN SENSOR				BATTERY	
		AIR DRYER				BLUNT CUT CIRCUIT	
		ALARM				BUSBAR	
		ALTERNATOR				CIGAR LIGHTER	
				TYPE 1 TYPE 2 OR 3		CIRCUIT BREAKER	
							
						DIODE	

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME
CNA	9MAY07	ADDED SYMBOL FOR	A	60782A	U00K640	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS
		ACCEL PEDAL POSN SNSR			RELEASE NO.	DATE
					59974G	12SEP06
					PART NO.	SHEET
					AE08-56608	09

Figure 9 Schematic Symbol Chart

2.10. SCHEMATIC SYMBOL CHART, P. 10


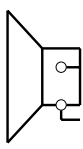
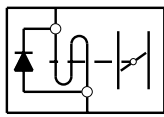
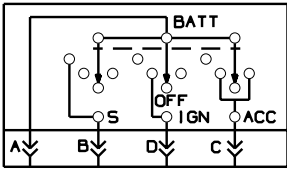

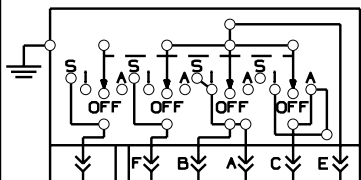

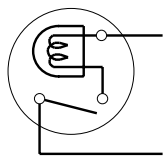

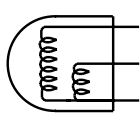
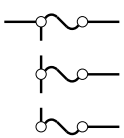


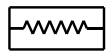
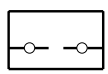
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	FEMALE TERMINAL		KEY SWITCH, COMPLEX																																												
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	FUSIBLE LINK		LIGHT, DOUBLE FILAMENT																																												
	FUSES W/ BUSBAR		LIGHT, SINGLE FILAMENT																																												
	GROUND N/ STUD																																														
	HEATER																																														
	HOLDER, FUSE W/ BUSBAR																																														
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 5%;">CHR</th> <th style="width: 10%;">DATE</th> <th style="width: 25%;">CHANGE</th> <th style="width: 5%;">REV</th> <th style="width: 10%;">REFERENCE</th> <th style="width: 10%;">DRAWN</th> <th style="width: 35%;">NAME</th> </tr> <tr> <td>CNA</td> <td>0MAY07</td> <td>REVISED & REDRAWN</td> <td>A</td> <td>60782A</td> <td>U00K640</td> <td>42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>RELEASE NO.</td> <td>DATE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>59974G</td> <td>12SEP06</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>PART NO.</td> <td>SHEET</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>AE08-56608</td> <td>10</td> </tr> </table>	CHR	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME	CNA	0MAY07	REVISED & REDRAWN	A	60782A	U00K640	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS						RELEASE NO.	DATE						59974G	12SEP06						PART NO.	SHEET						AE08-56608	10					
CHR	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME																																									
CNA	0MAY07	REVISED & REDRAWN	A	60782A	U00K640	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS																																									
					RELEASE NO.	DATE																																									
					59974G	12SEP06																																									
					PART NO.	SHEET																																									
					AE08-56608	10																																									

Figure 10 Schematic Symbol Chart (Cont.)

2.11. SCHEMATIC SYMBOL CHART, P. 11

INTERNATIONAL TRUCK AND ENGINE CORPORATION <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.</small>				ELECTRICAL CIRCUIT DIAGRAM CHAPTER 2 SCHEMATIC SYMBOL CHART (CONT.)	
	SYMBOL	DESCRIPTION			RESISTOR
	SYMBOL	DESCRIPTION		DESCRIPTION	SENDER - FUEL, OIL, TEMP, WATER
	SYMBOL	DESCRIPTION		DESCRIPTION	SENSOR, PRESSURE, ABS 6
	SYMBOL	DESCRIPTION		DESCRIPTION	SENSOR, MAGNETIC
	SYMBOL	DESCRIPTION		DESCRIPTION	SENSOR, YAW
	SYMBOL	DESCRIPTION		DESCRIPTION	SOLENOID
	SYMBOL	DESCRIPTION		DESCRIPTION	SOLENOID W/ DIODE
	SYMBOL	DESCRIPTION			
	SYMBOL	DESCRIPTION			

Figure 11 Schematic Symbol Chart (Cont.)

2.12. SCHEMATIC SYMBOL CHART, P.12

INTERNATIONAL TRUCK AND ENGINE CORPORATION				ELECTRICAL CIRCUIT 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.				SCHEMATIC SYMBOL CHART (CONT)			
SYMBOL		DESCRIPTION		SYMBOL		DESCRIPTION	
		SPEAKER				SWITCH, PUSH BUTTON	
		SPLICE				TERMINATING RESISTOR	
		STUD				THERMISTOR	
		START MOTOR W/ TOCP				THERMOSTAT	
		SWITCH, MECHANICAL (NORMALLY OPEN)				VALVE, ETHER BOTTLE	
		SWITCH, MECHANICAL (NORMALLY CLOSED)				VALVE, MODULATOR	
CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME	
RAW6	04DEC07	REVISED START MOTOR	B	61000T	U00K640	CIRCUIT DIAGRAM, 42/43/44/85/8600 & 73/74/7500	
	SYMBOL				RELEASE NO.	DATE	PART NO. SHEET
					59974G	20APR06	AE08056608 012

Figure 12 Schematic Symbol Chart (Cont.)

3. 12 VOLT POWER DISTRIBUTION, GROUNDS, DATA BUS AND ELECTRICAL SYSTEM CONTROLLER (CHAPTER 3)

3.1. BATTERY FEED, P. 1

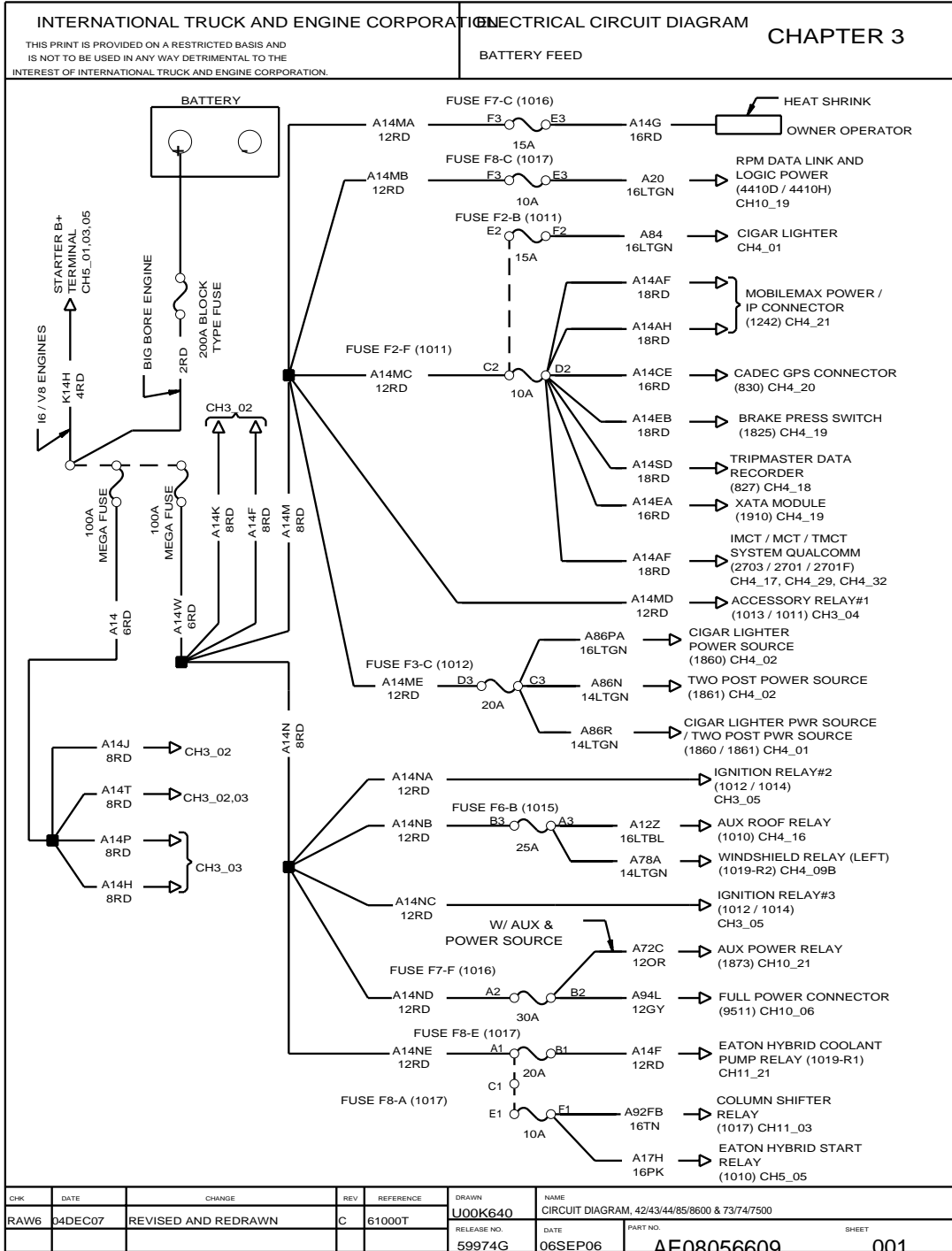


Figure 13 Battery Feed

3.2. BATTERY FEED, P. 2

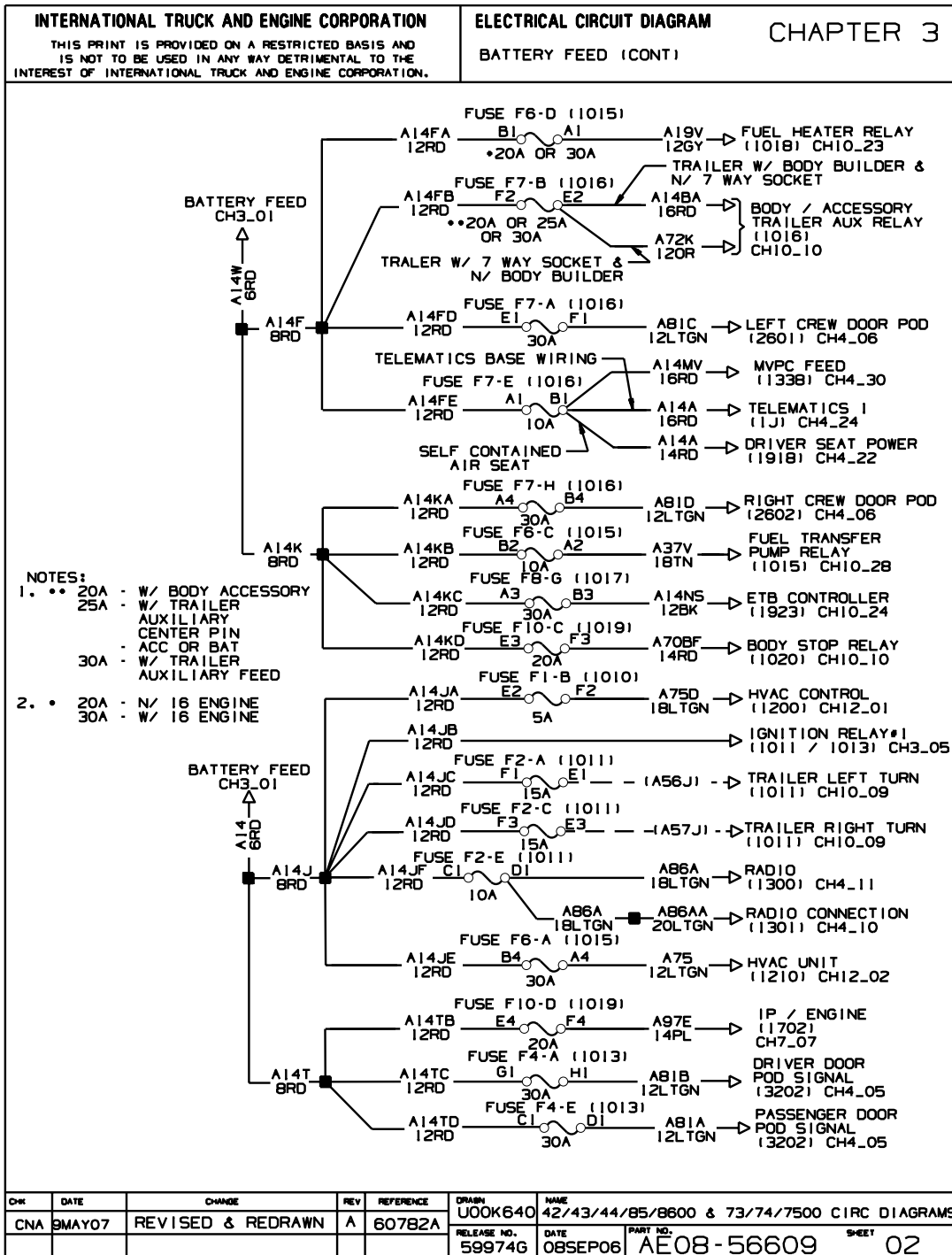


Figure 14 Battery Feeds (Cont.)

3.3. BATTERY FEED, P. 3

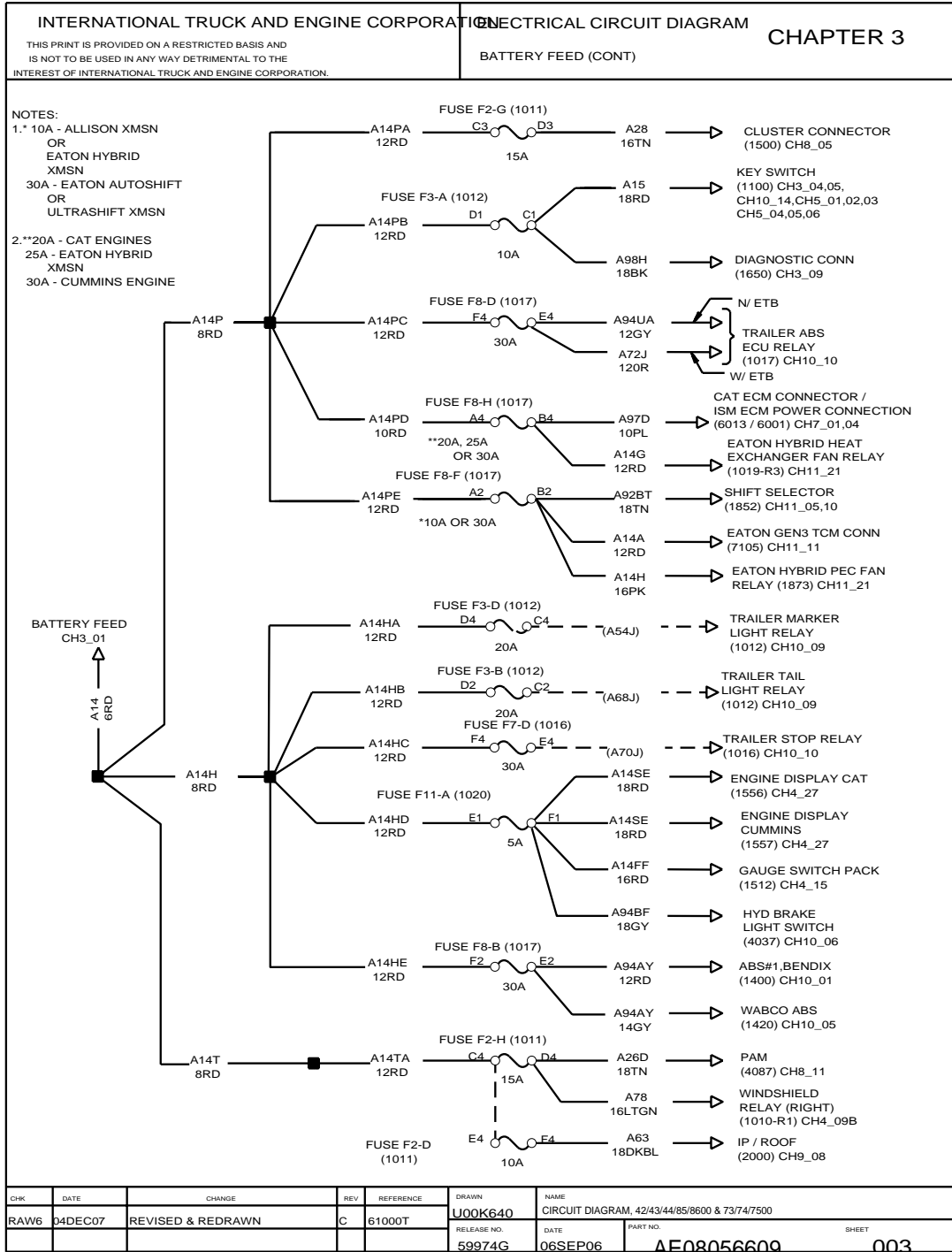


Figure 15 Battery Feed (Cont.)

3.5. IGNITION FEED — STANDARD, THEFT DETERRENT, REMOTE START/STOP, P. 5

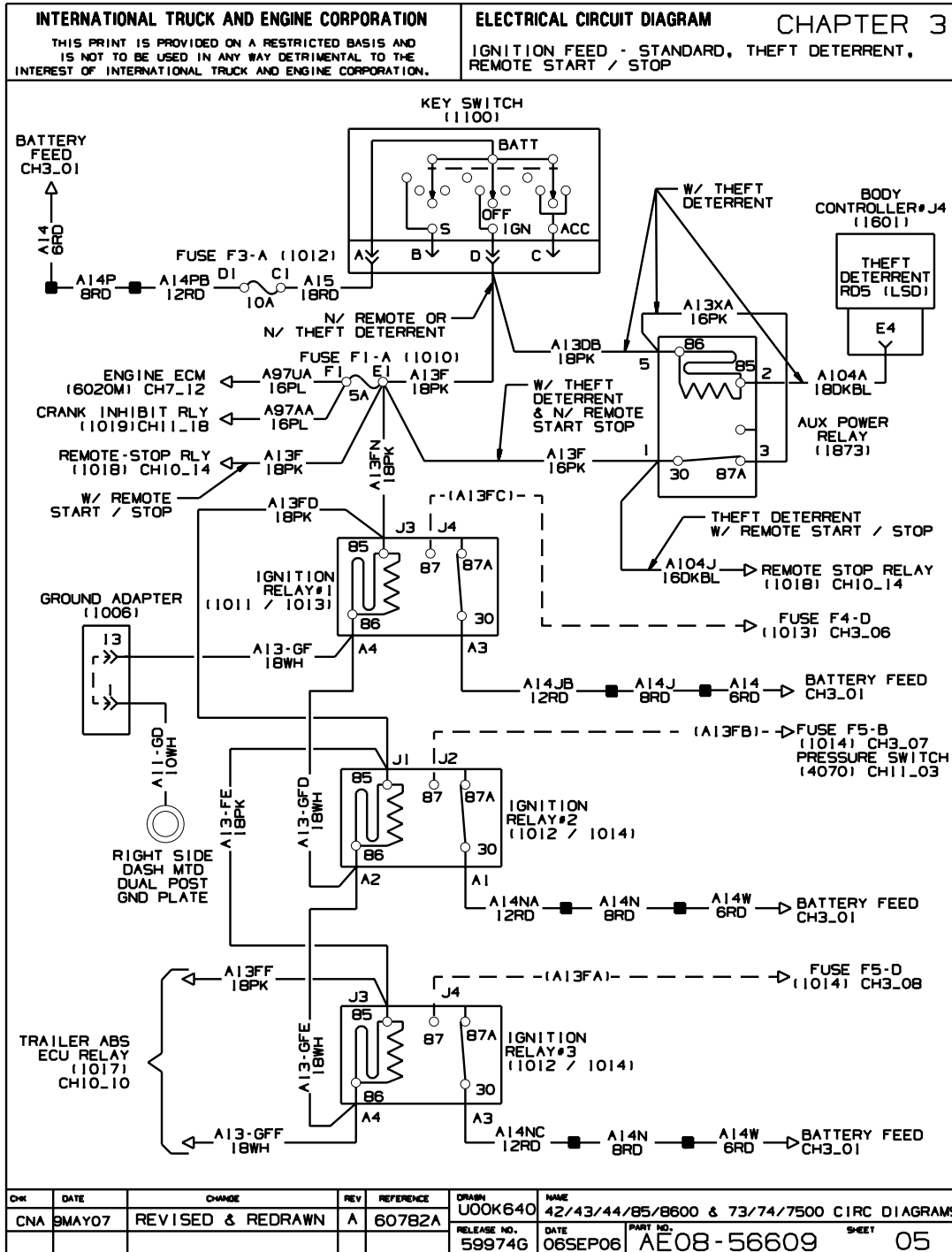


Figure 17 Ignition Feed — Standard, Theft Deterrent, Remote Start/Stop

3.6. IGNITION FEED RELAY 1, P. 6

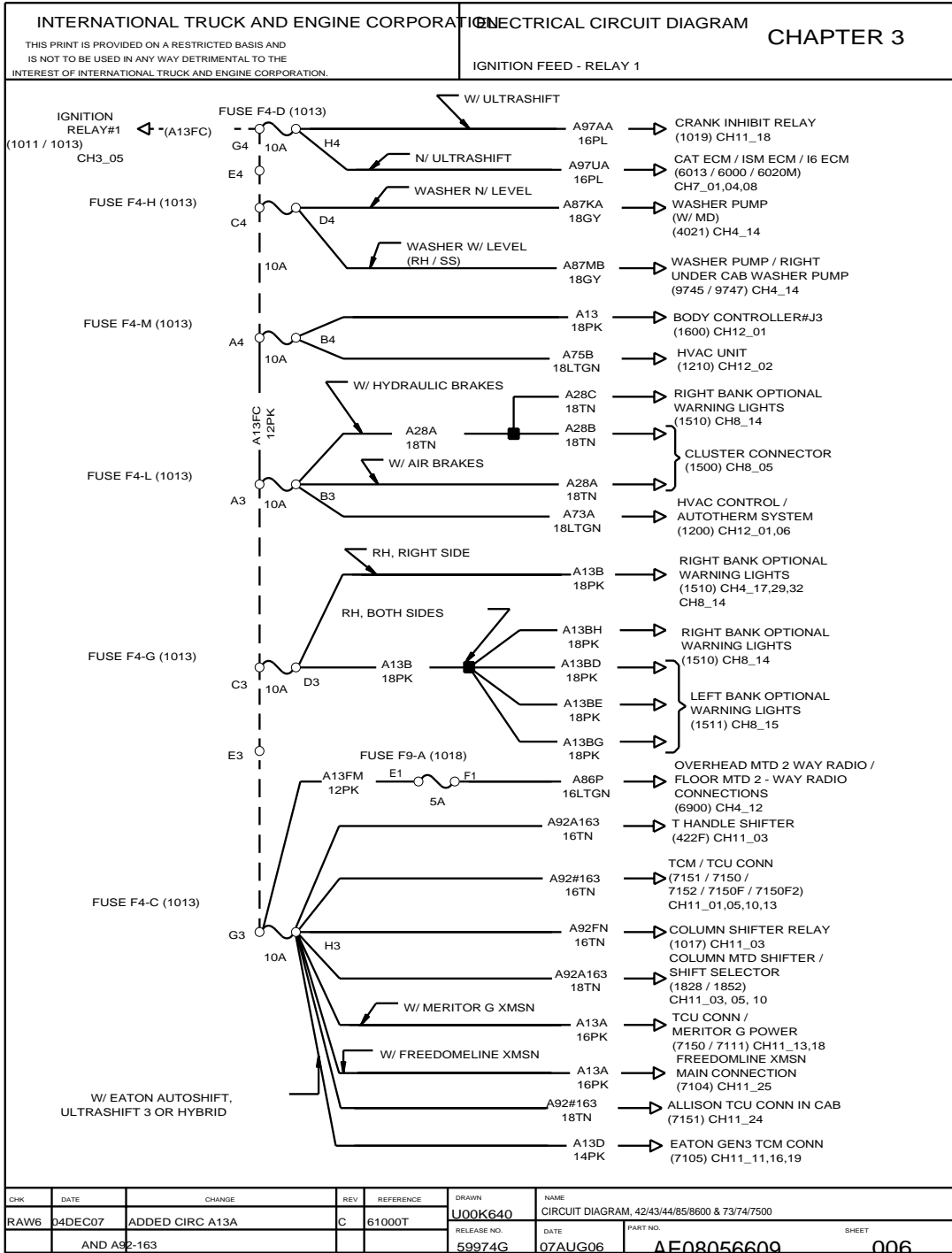


Figure 18 Ignition Feed Relay 1

3.7. IGNITION FEED RELAY 2, P. 7

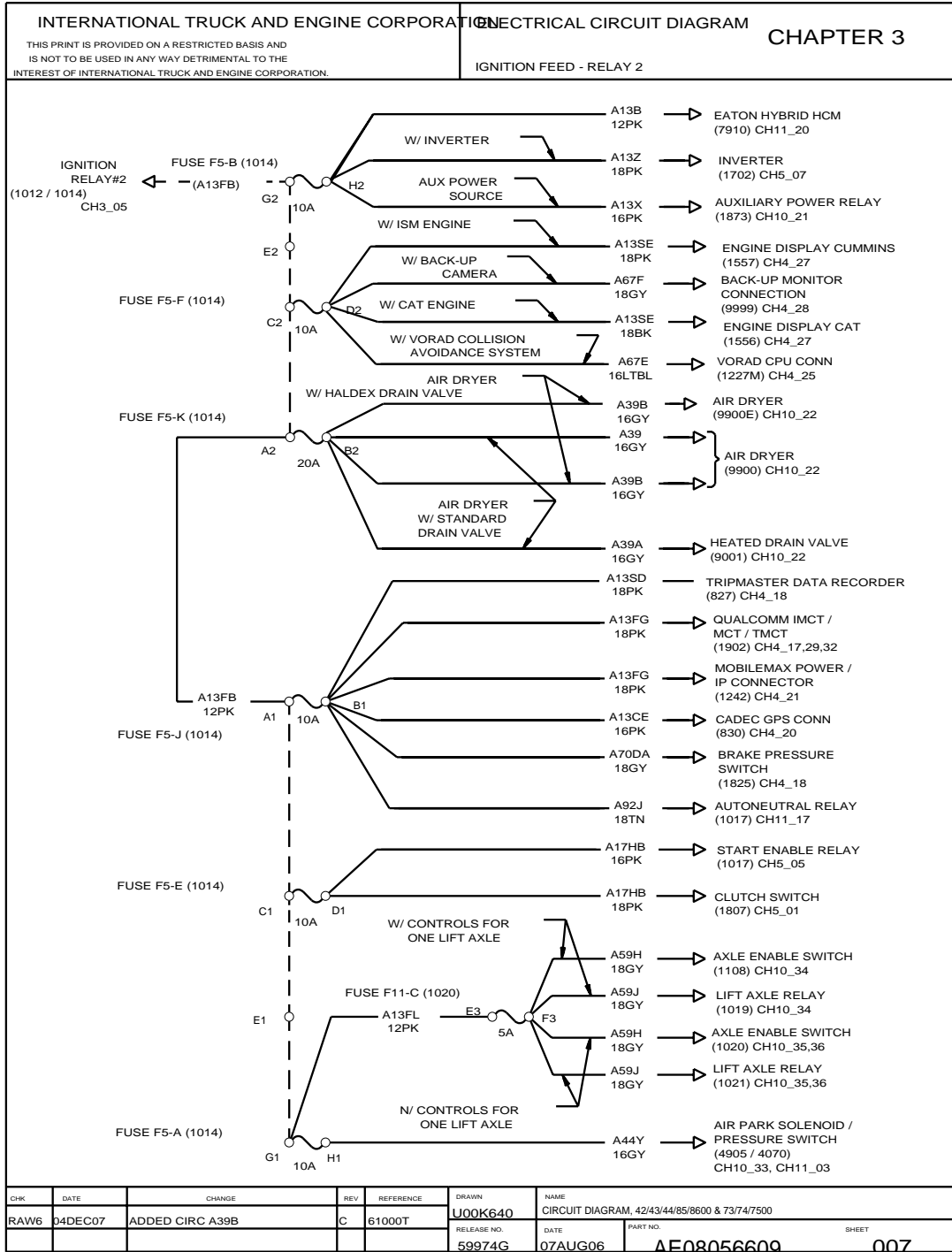


Figure 19 Ignition Feed Relay 2

3.8. IGNITION FEED RELAY 3, P. 8

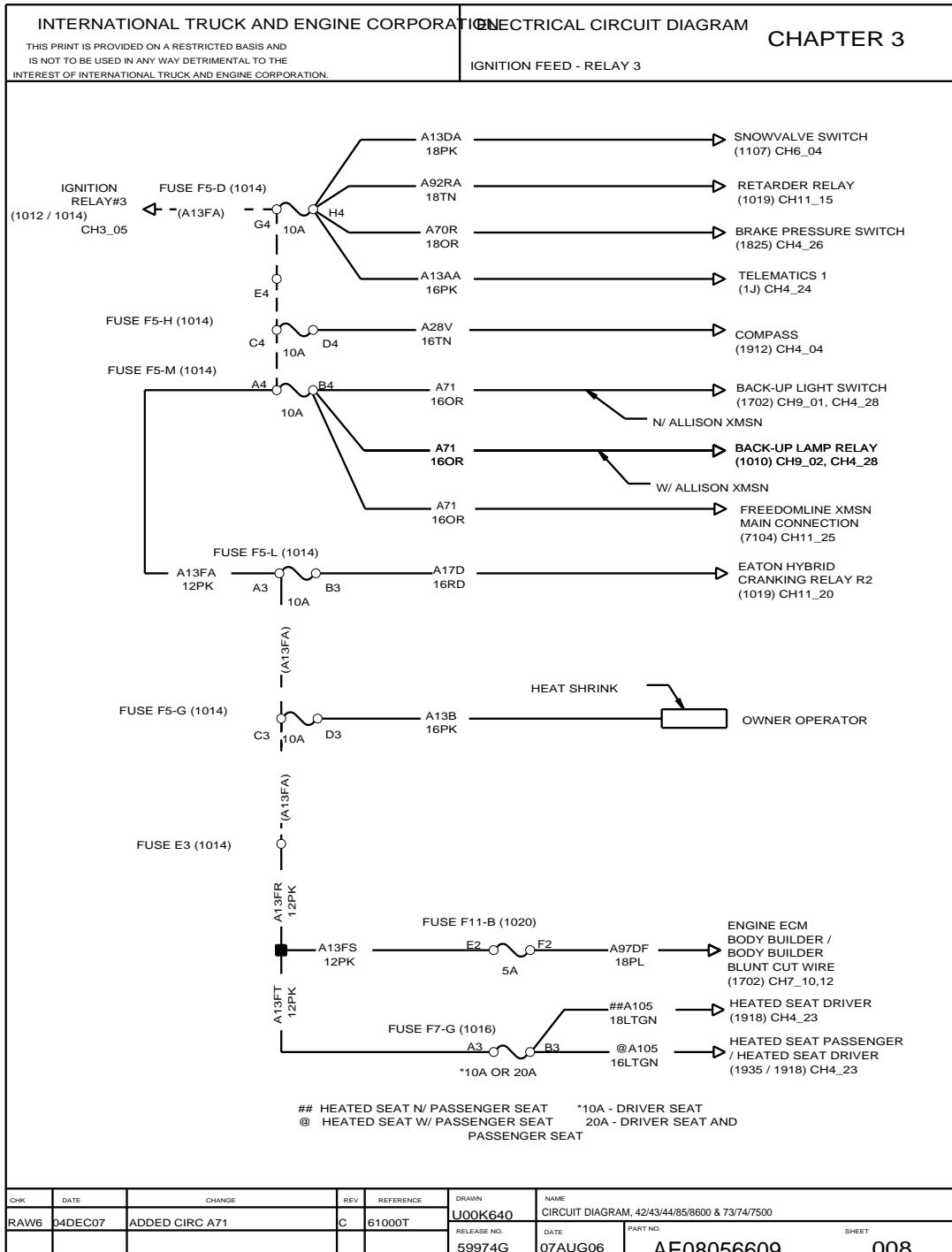


Figure 20 Ignition Feed Relay 3

3.9. J1708 DATA LINK — PUBLIC EFFECTS, P. 9

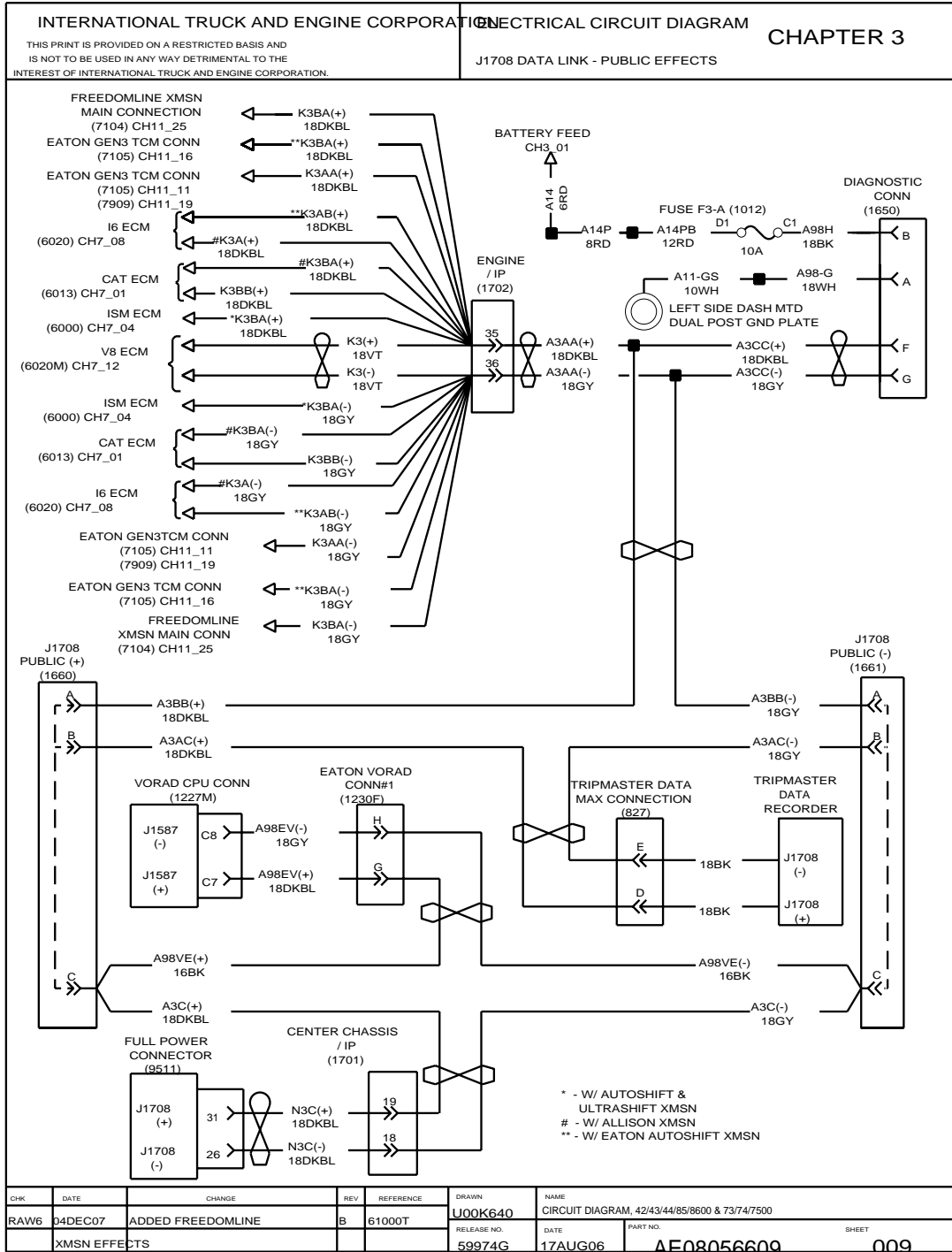


Figure 21 J1708 Data Link — Public Effects

3.10. J1708 DATA LINK — PUBLIC EFFECTS, P. 10

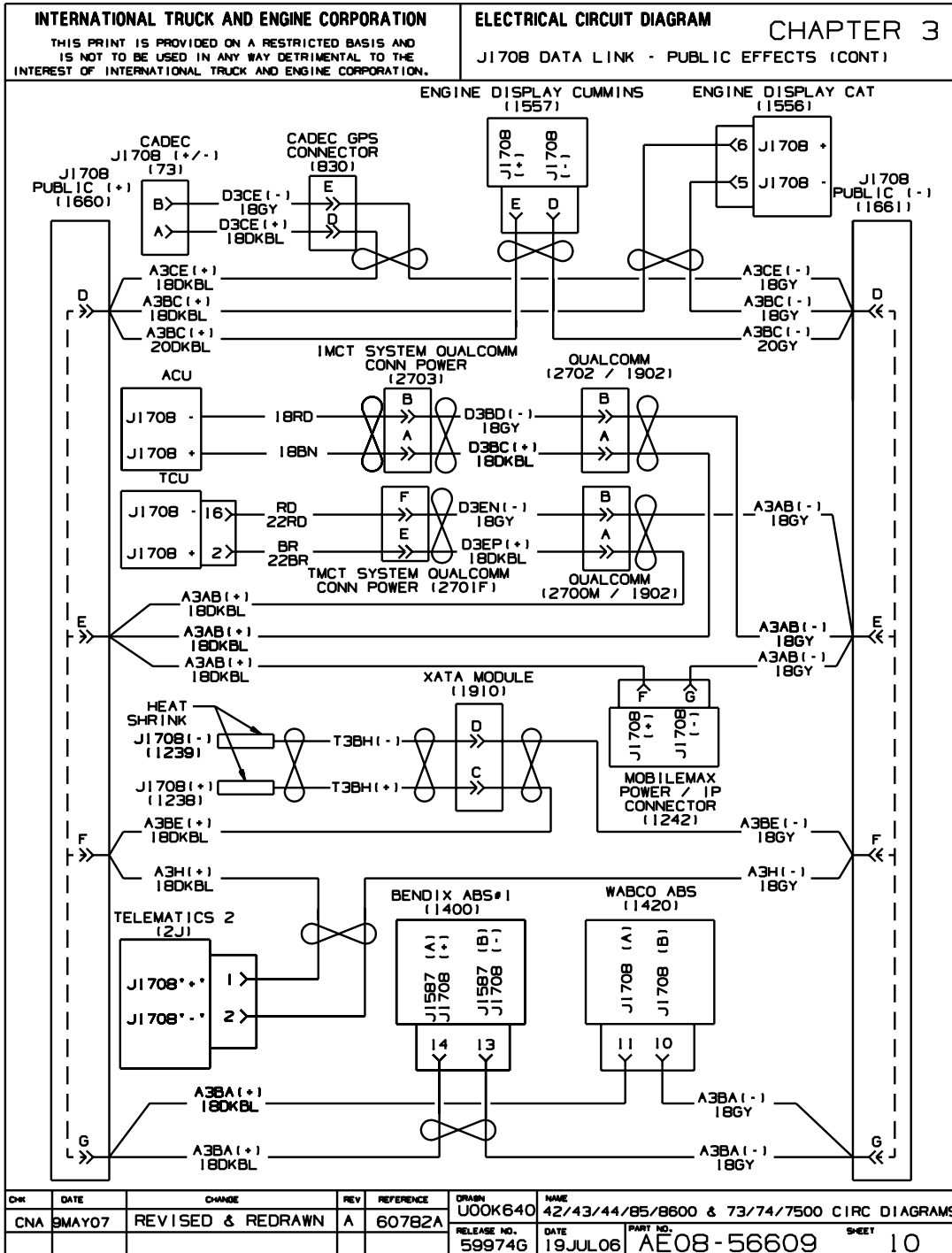


Figure 22 J1708 Data Link — Public Effects (Cont.)

3.11. J1708 DATA LINK — PRIVATE WITH POWER WINDOW AND LOCK, P. 11

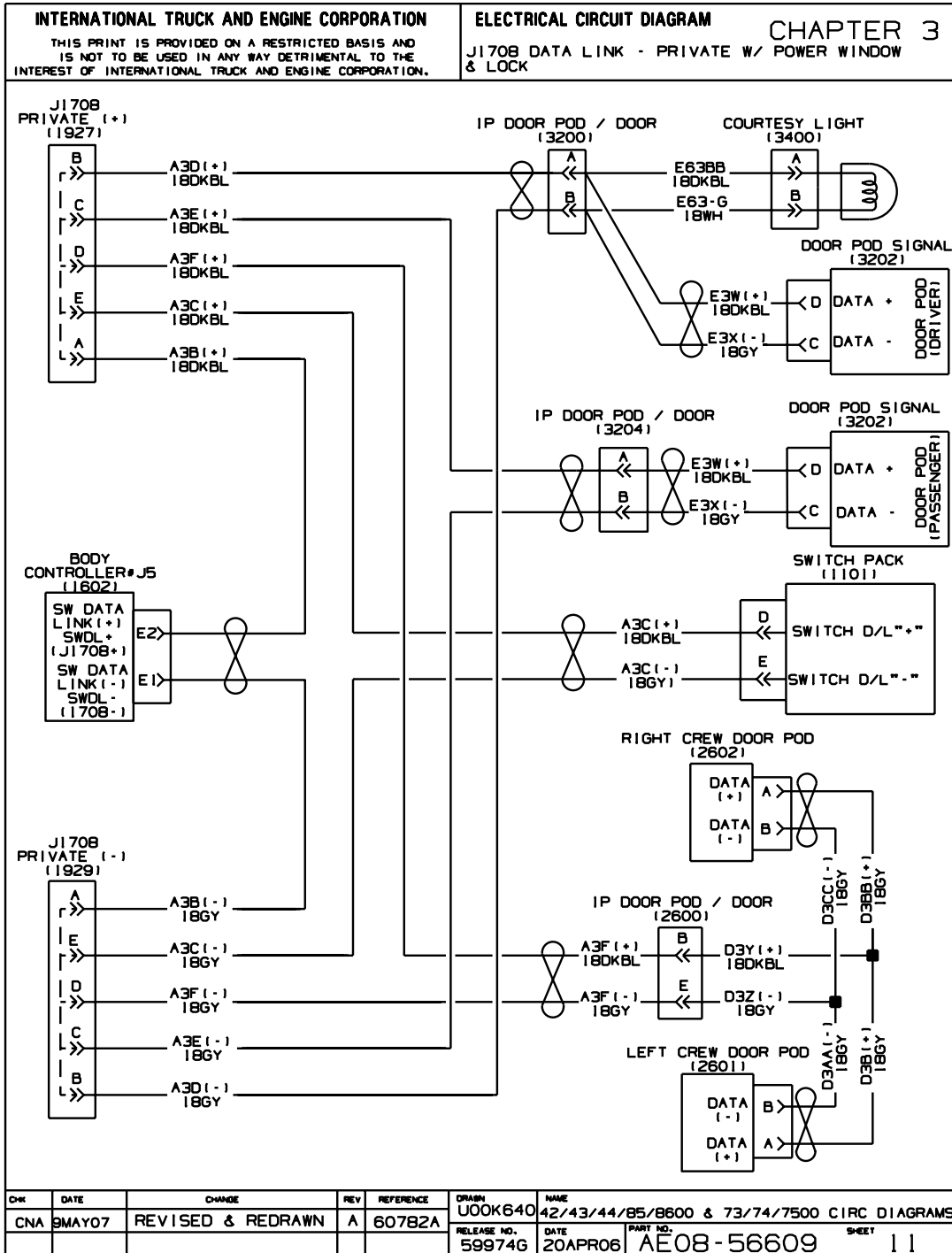


Figure 23 J1708 Data Link — Private with Power Window and Lock

3.12. J1939 DATA LINK, P. 12

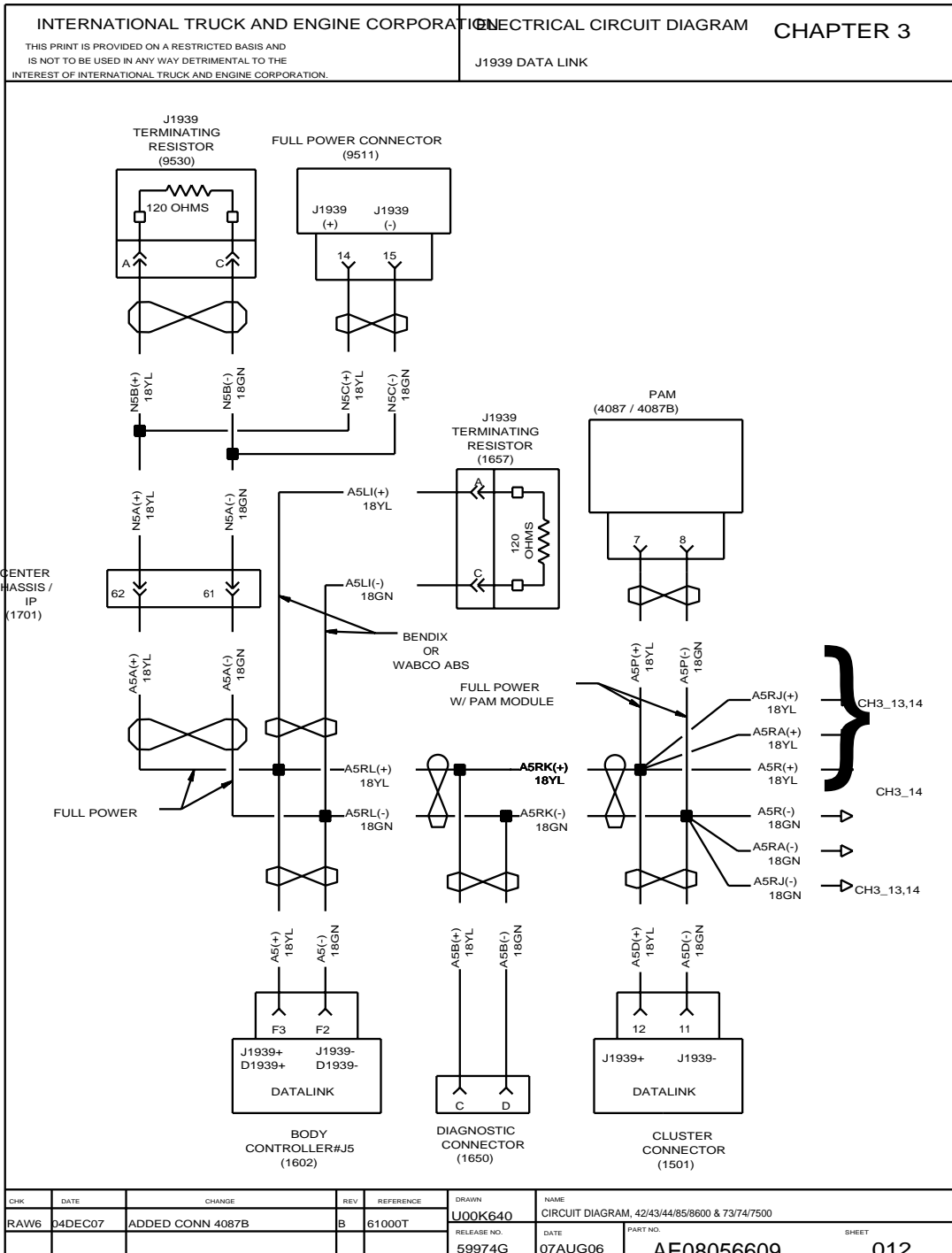


Figure 24 J1939 Data Link

3.13. J1939 DATA LINK WITH OPTIONS, P. 13

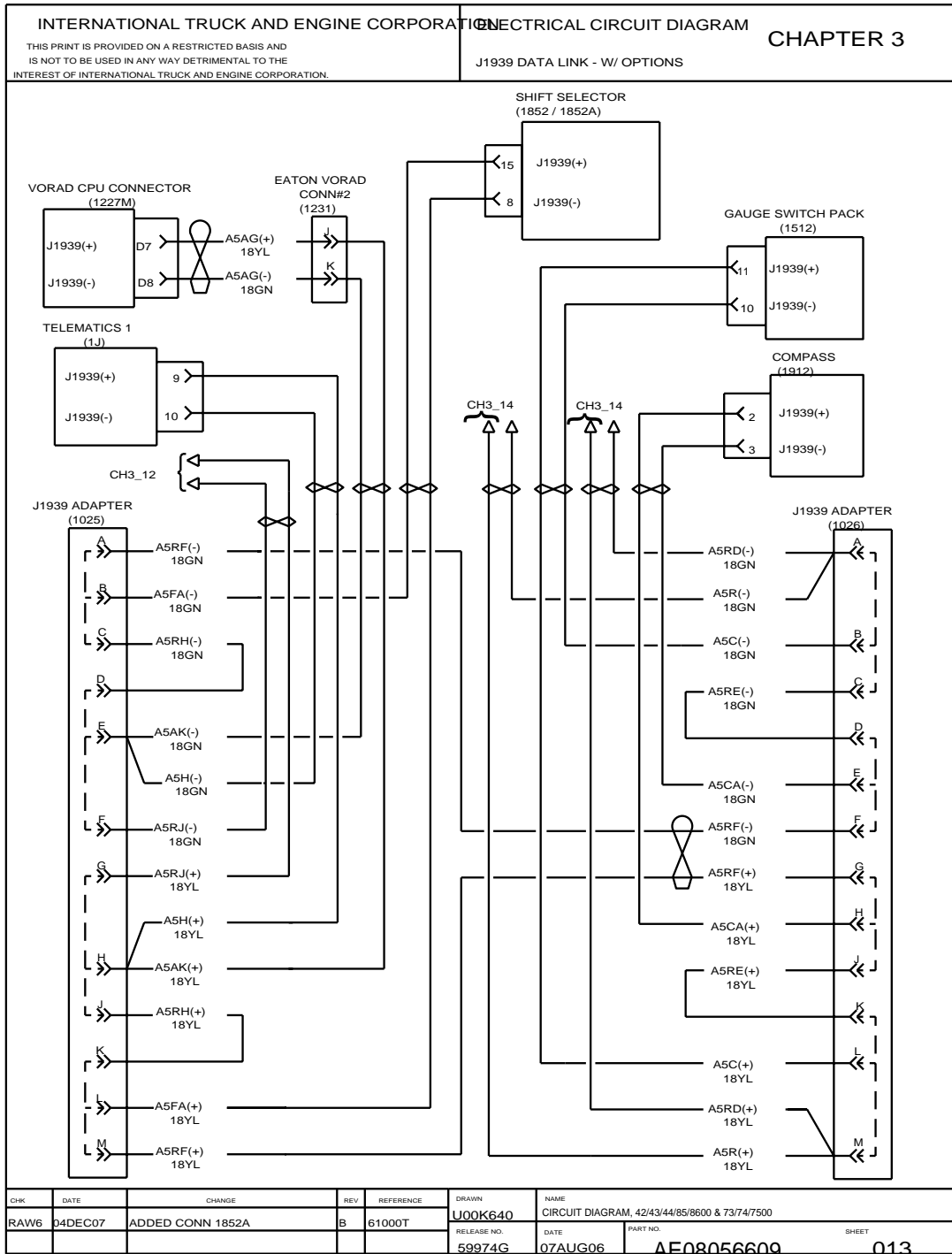


Figure 25 J1939 Data Link with Options

3.14. J1939 DATA LINK WITH OPTIONS, P. 14

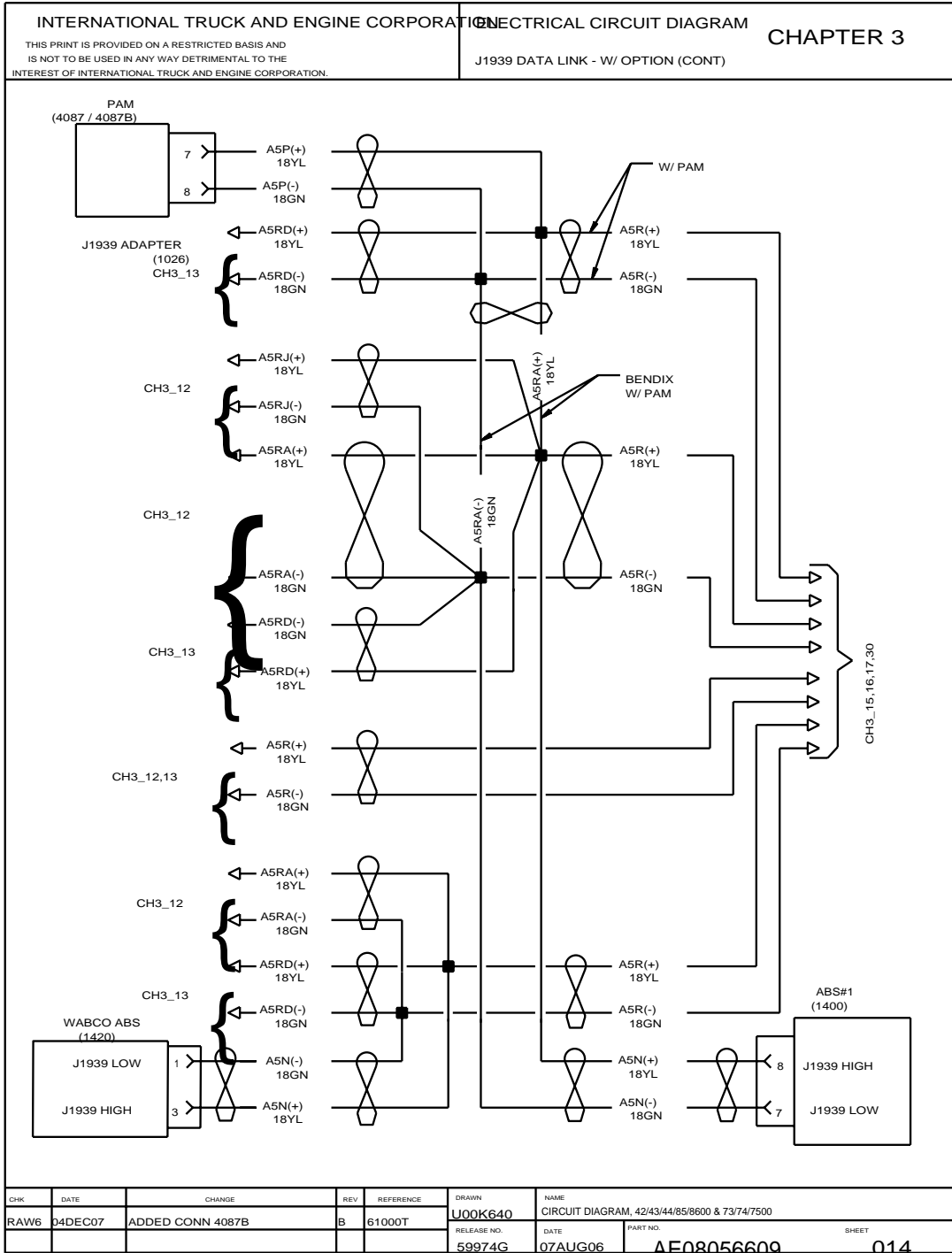


Figure 26 J1939 Data Link with Options

3.15. J1939 DATA LINK — ISM 2007 ENGINE, P. 15

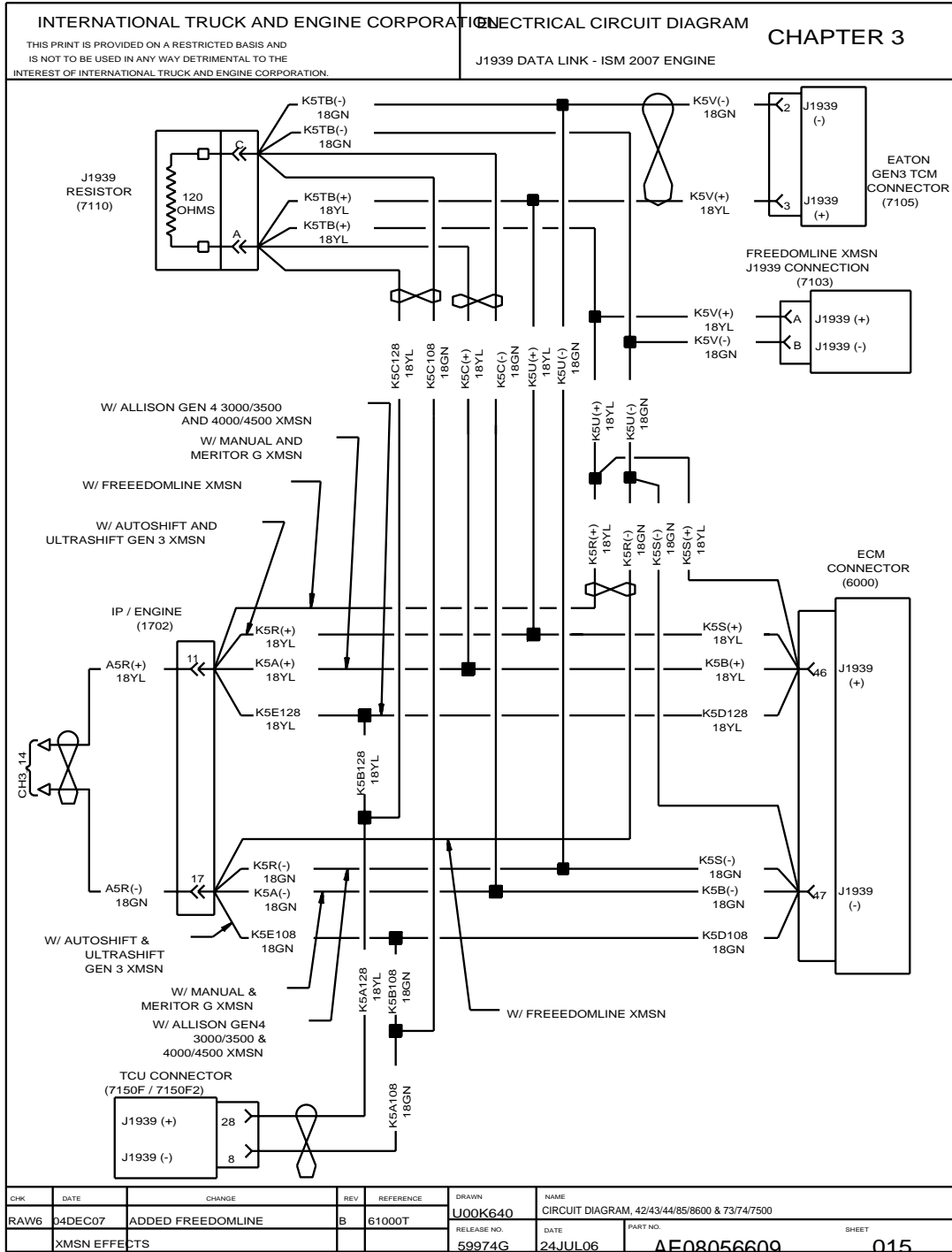


Figure 27 J1939 Data Link — ISM 2007 Engine

3.16. J1939 DATA LINK — I6 2007 ENGINE, P. 16

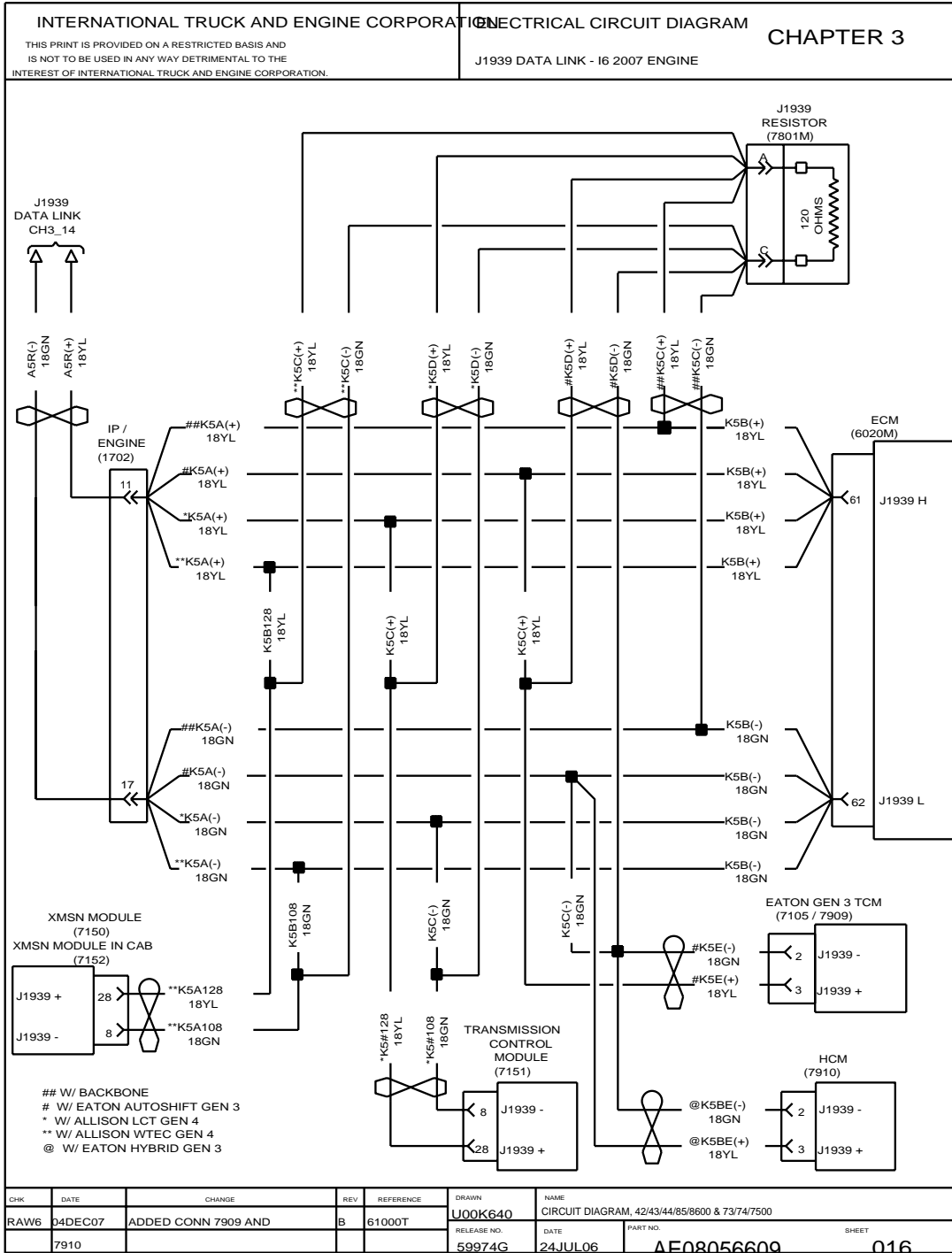


Figure 28 J1939 Data Link — I6 2007 Engine

3.18. GROUND — IP, P. 18

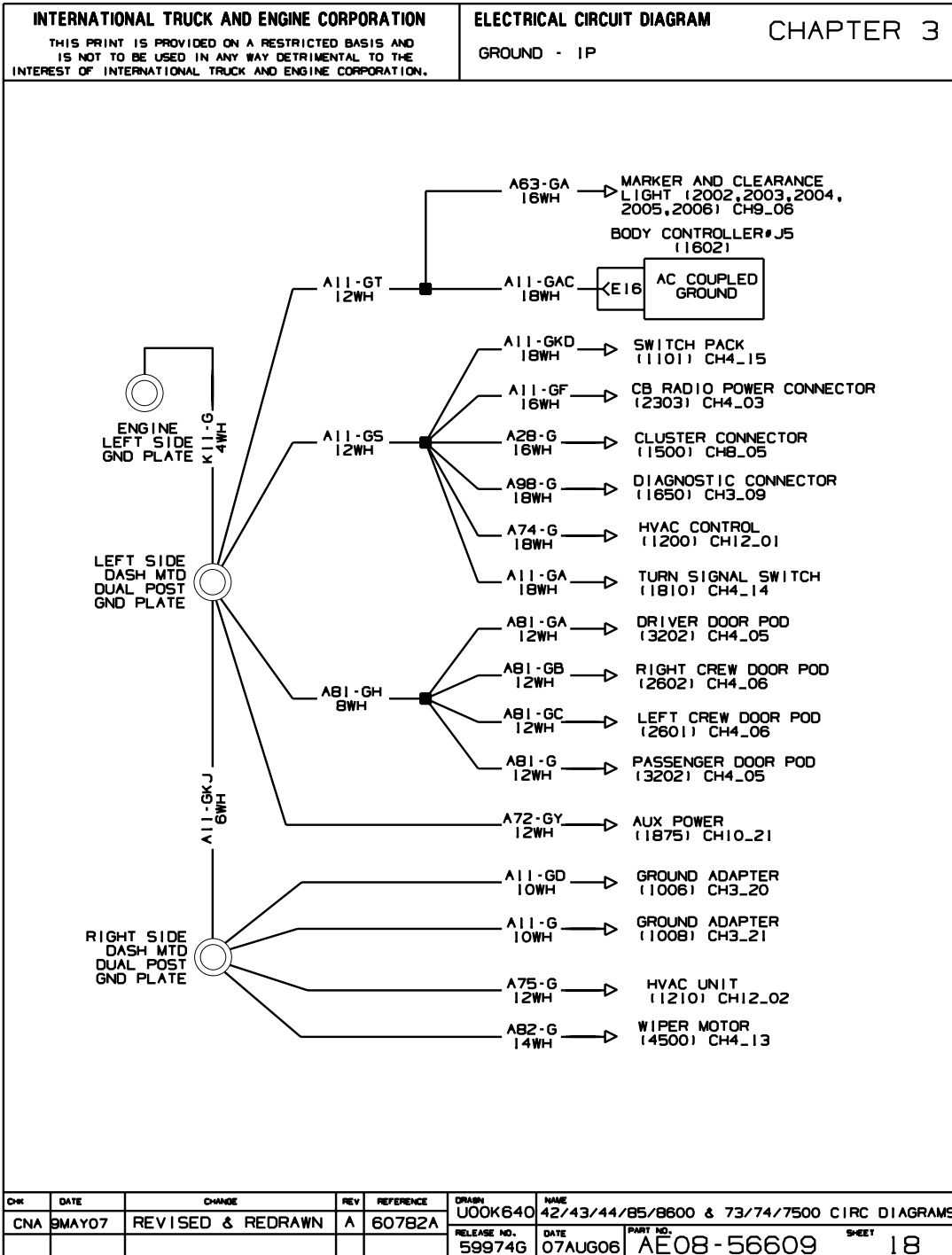


Figure 30 Ground — IP

3.19. GROUND — IP, P. 19

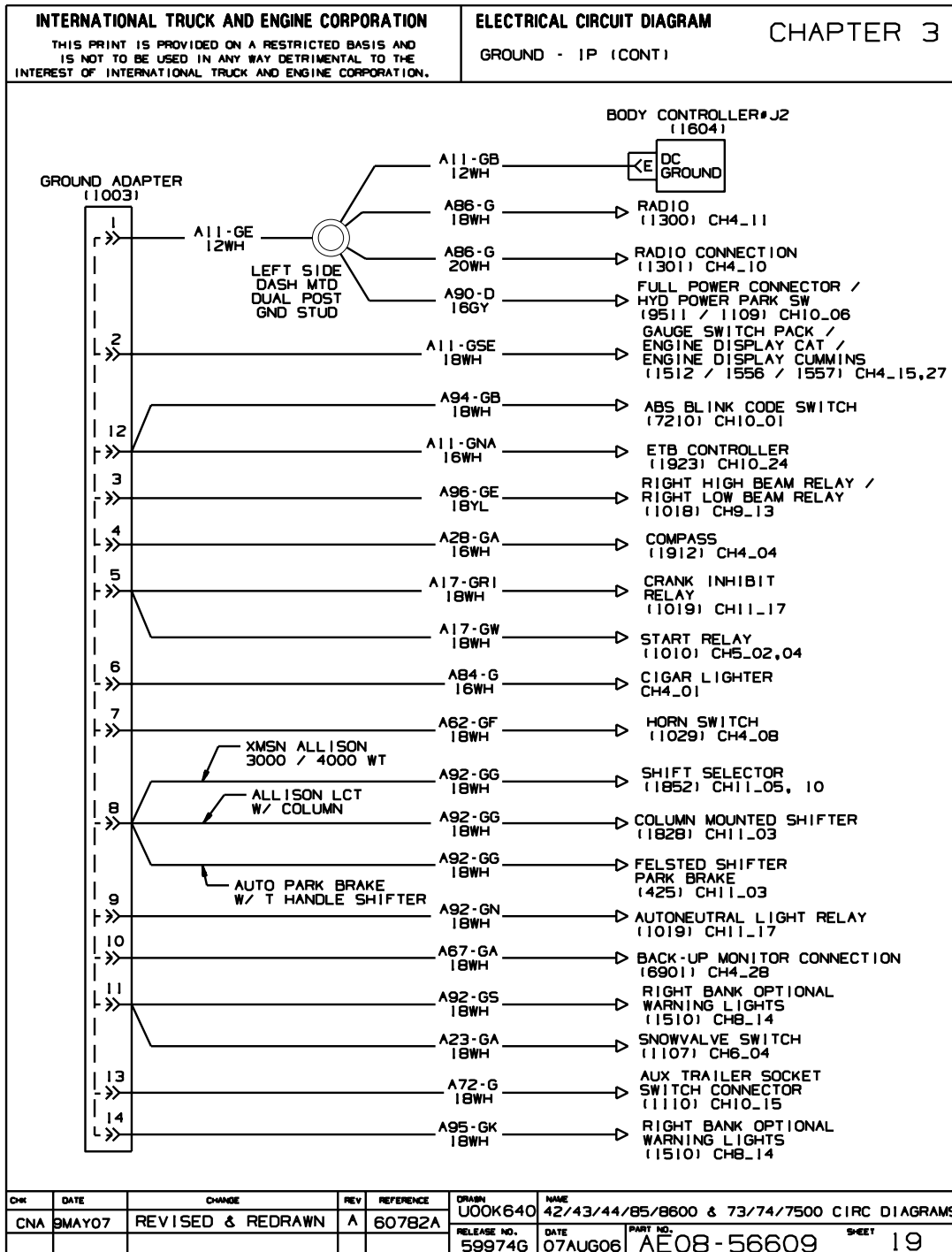


Figure 31 Ground — IP (Cont.)

3.20. GROUND — IP, P. 20

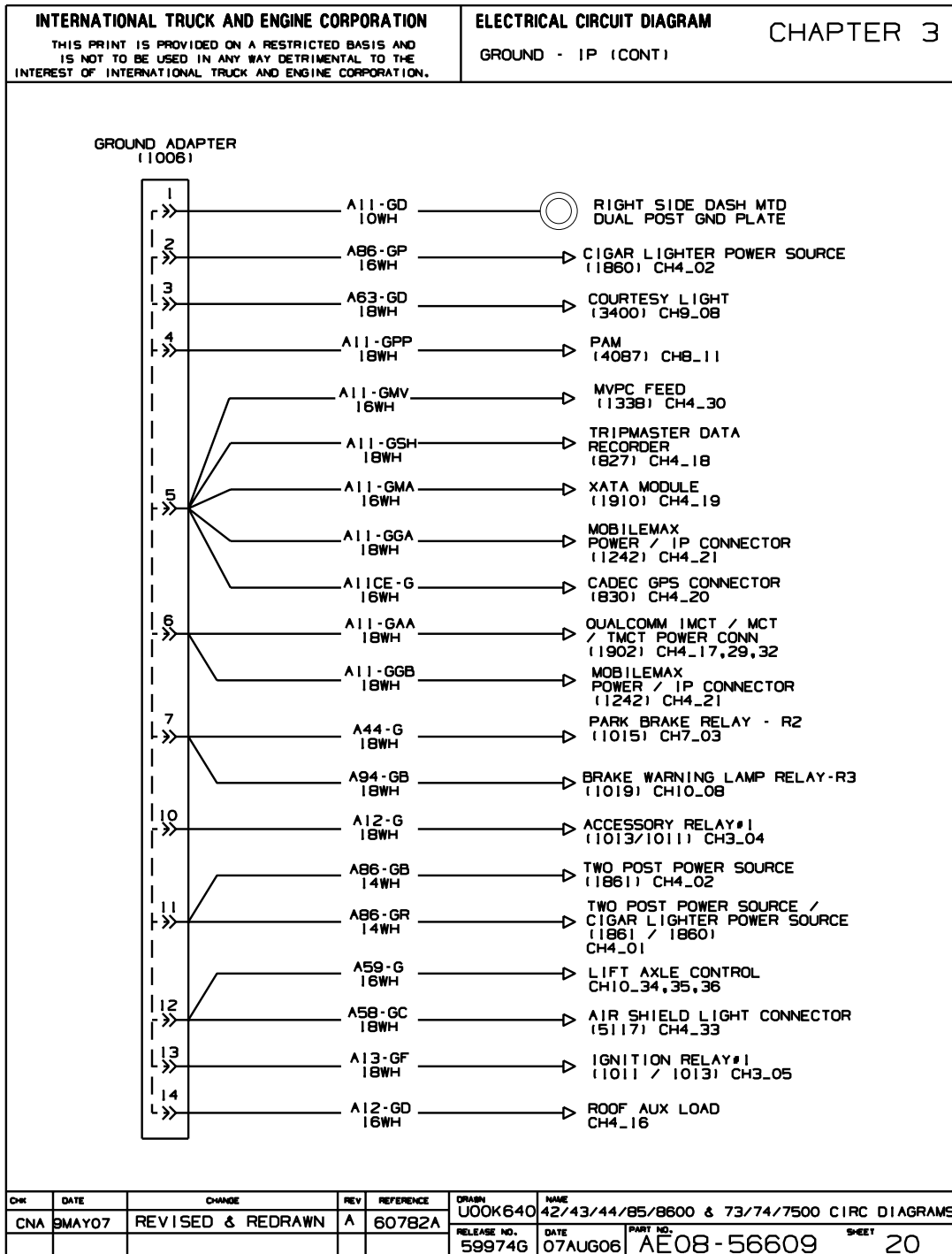


Figure 32 Ground — IP (Cont.)

3.21. GROUND — IP, P. 21

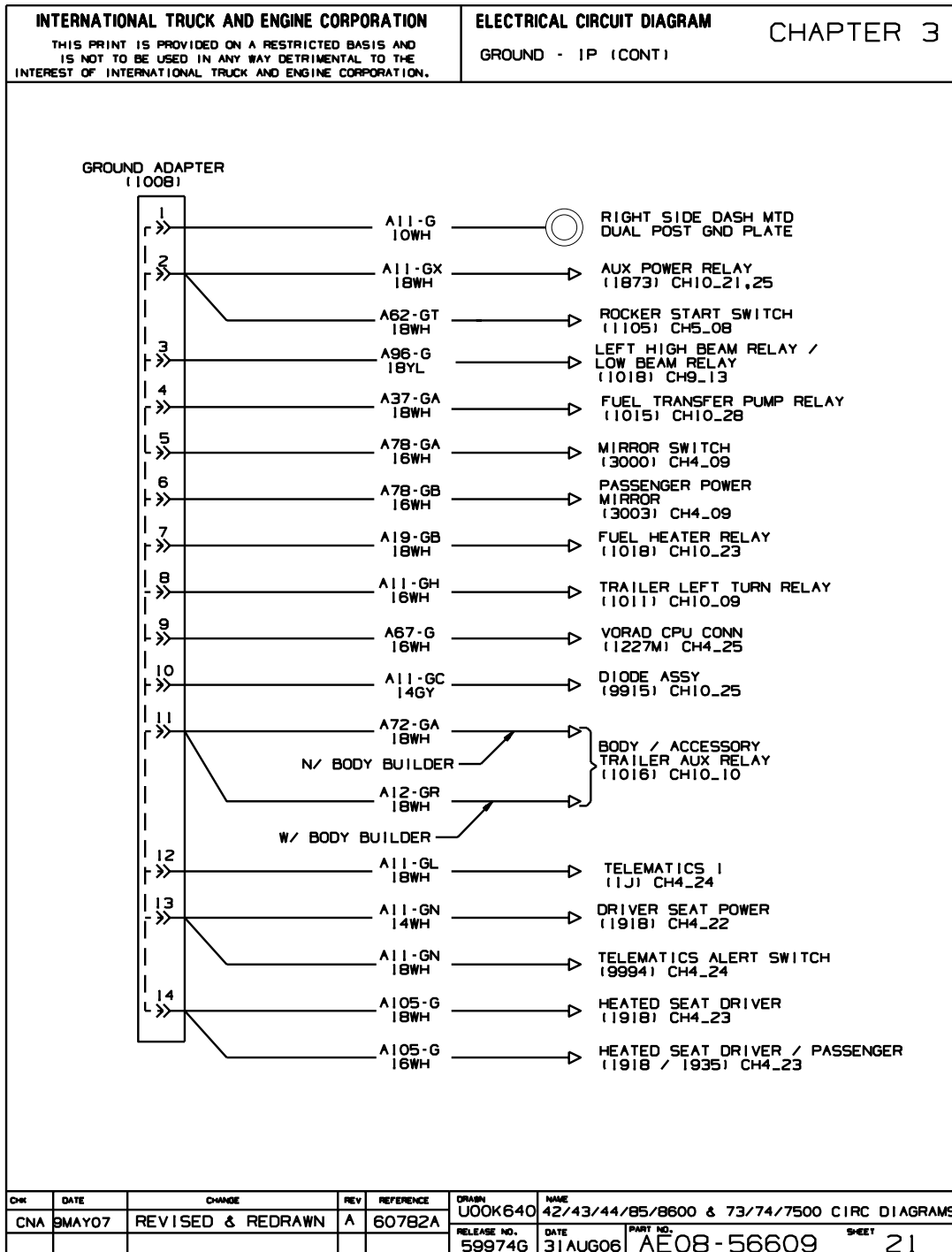


Figure 33 Ground — IP (Cont.)

3.22. ENGINE GROUND, P. 22

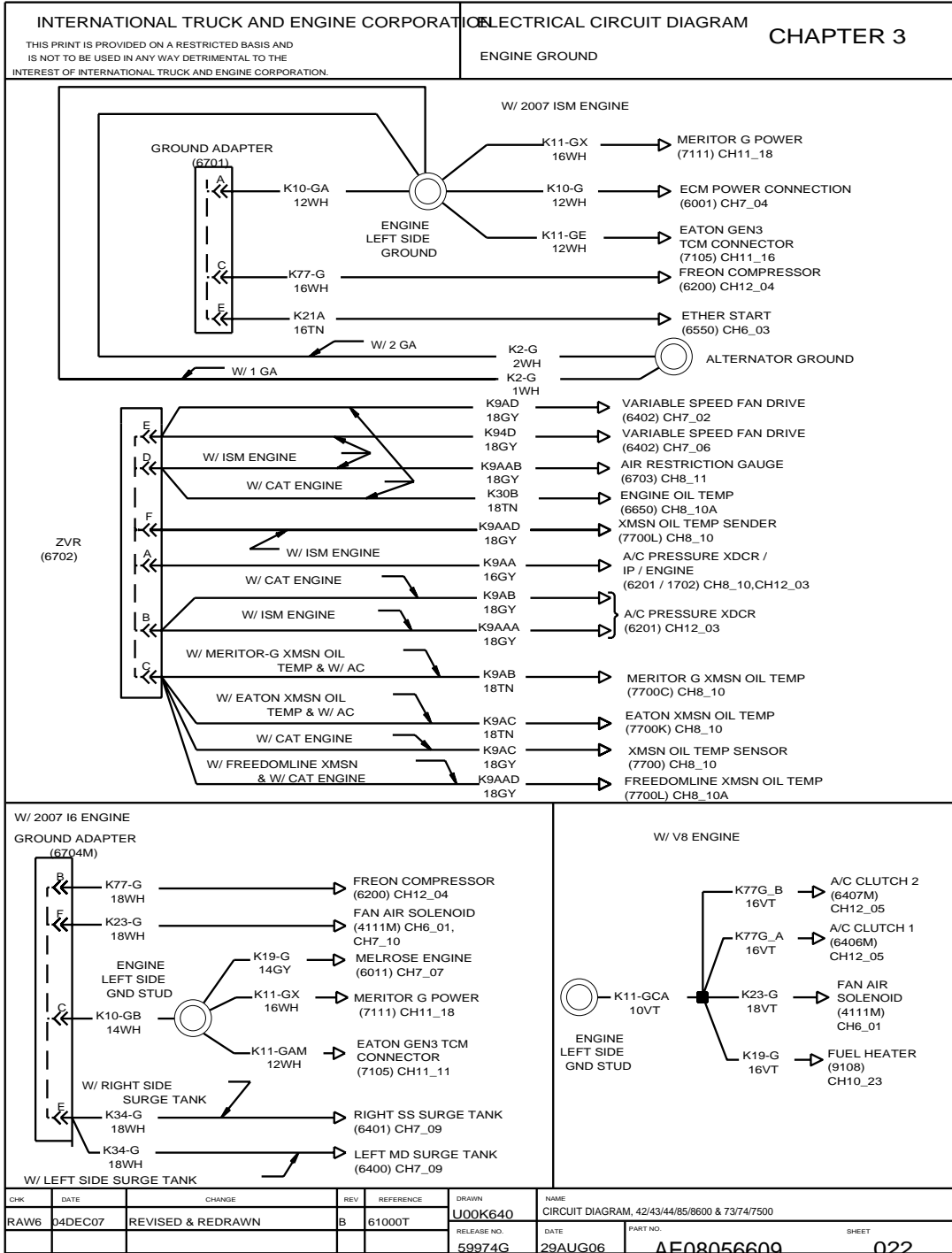


Figure 34 Engine Ground

3.23. ENGINE GROUND, P. 23

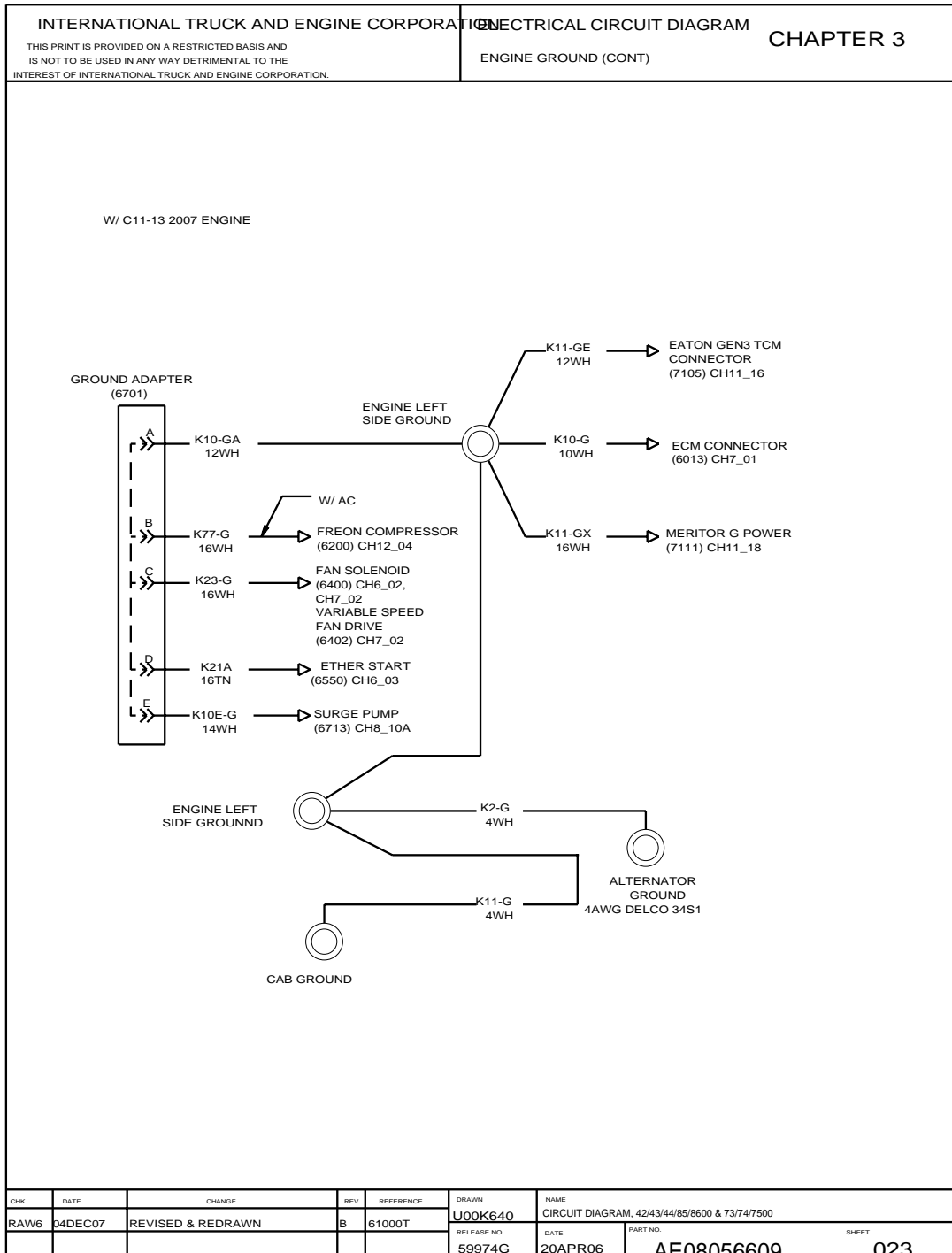


Figure 35 Engine Ground (Cont.)

3.24. GROUND — CHASSIS, P. 24

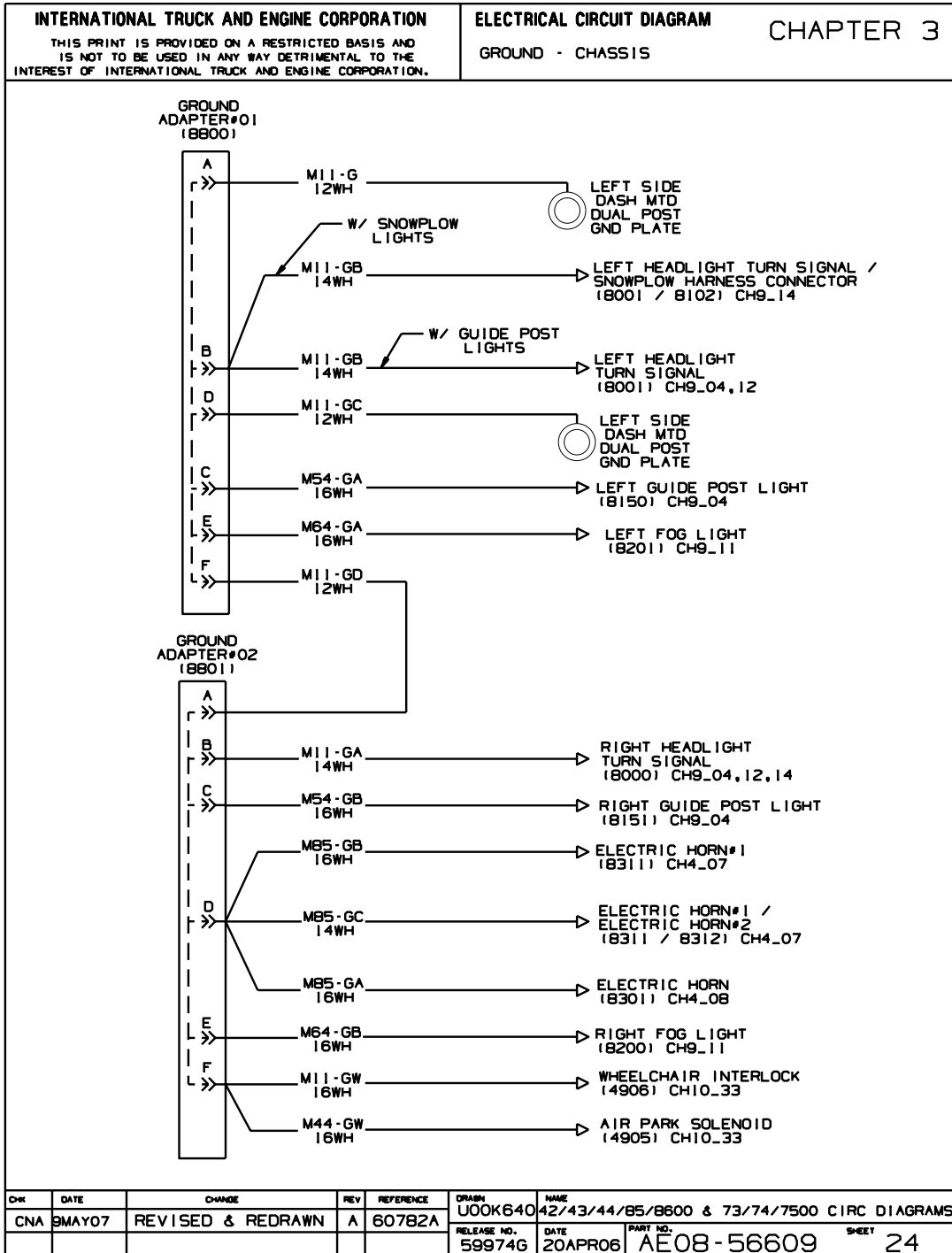


Figure 36 Ground — Chassis

3.25. GROUND — CHASSIS WITH HEAVY DUTY DIESEL, P. 25

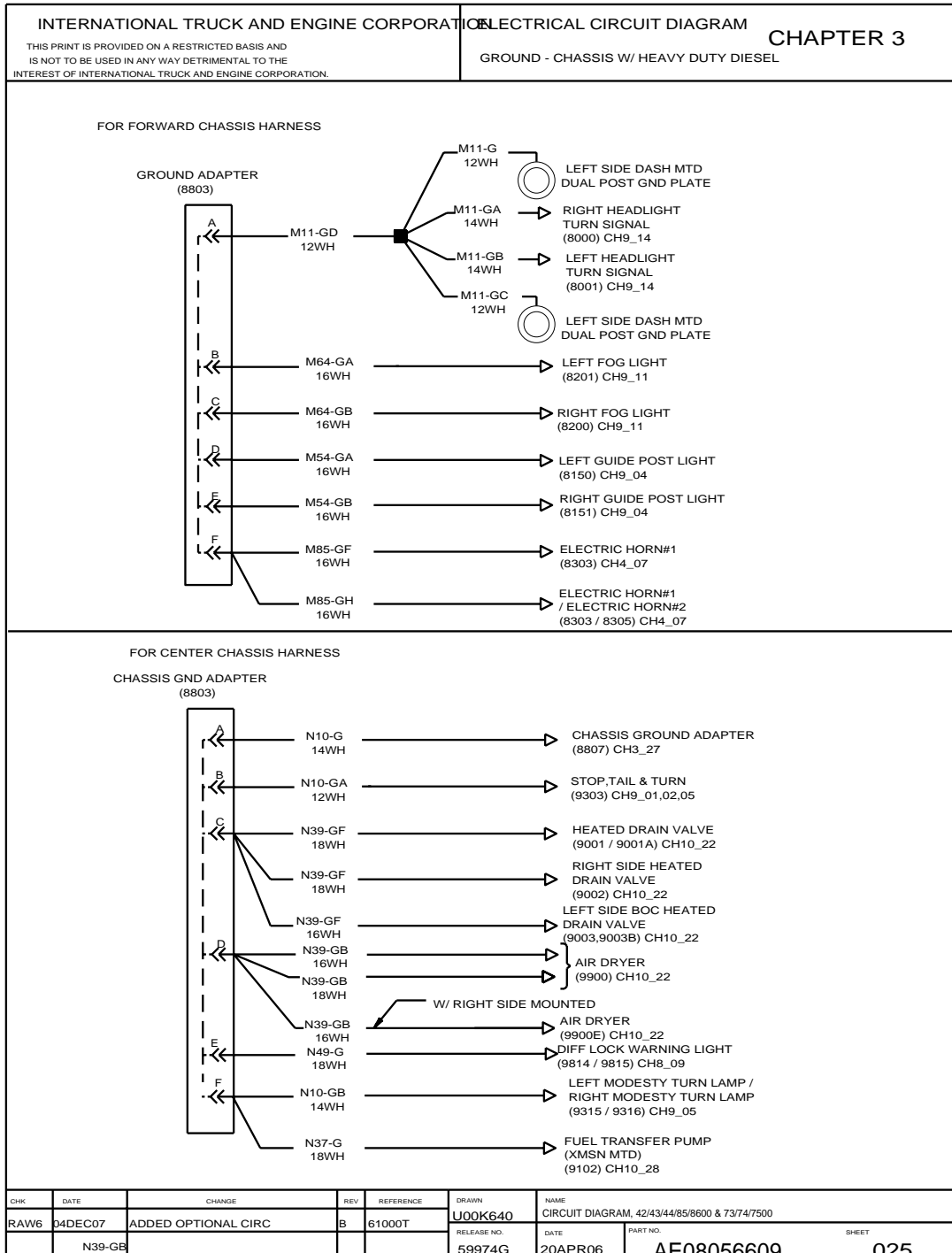


Figure 37 Ground — Chassis with Heavy Duty Diesel

3.26. GROUND — CHASSIS, P. 26

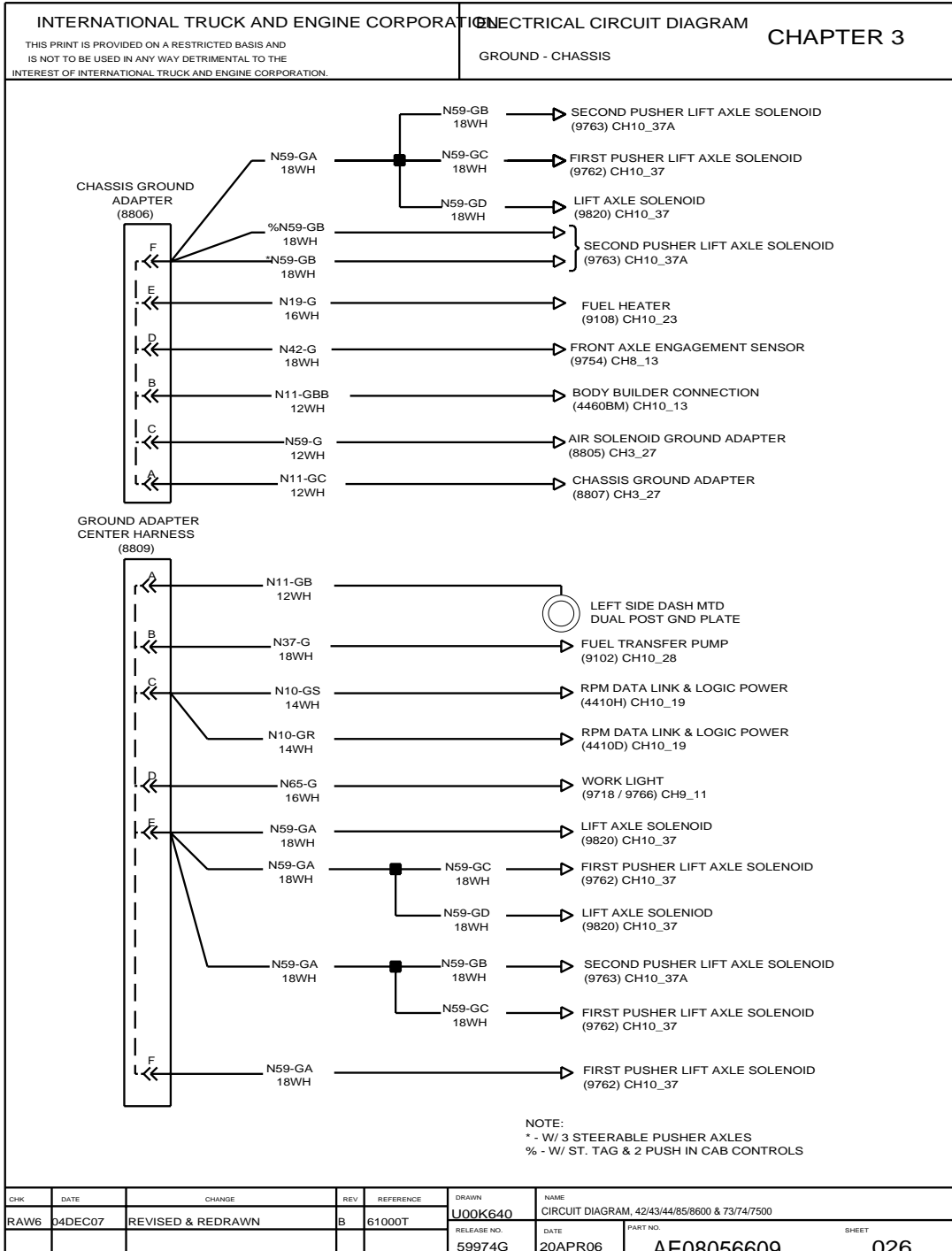


Figure 38 Ground — Chassis

3.27. ZERO VOLT REFERENCE, P. 27

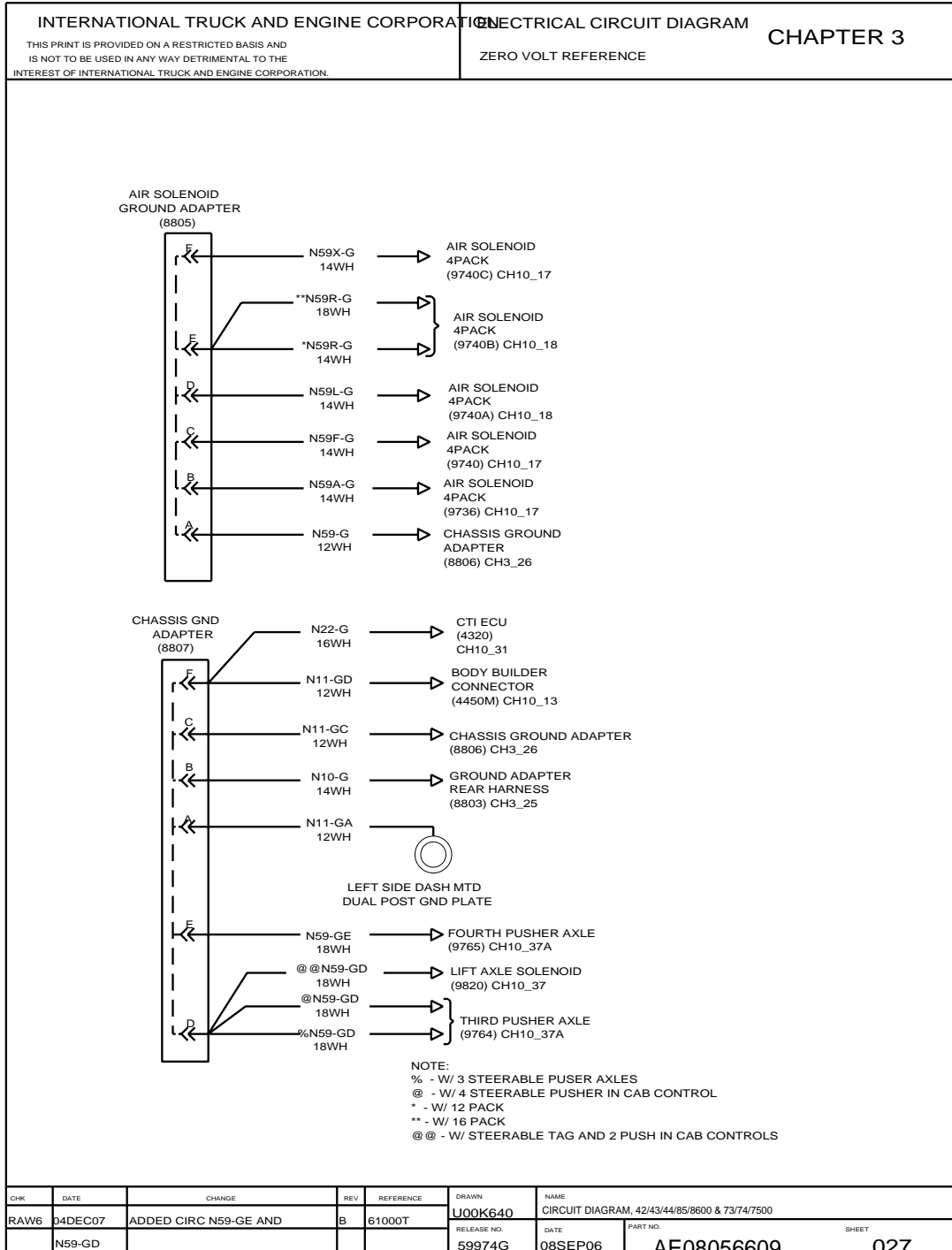


Figure 39 Zero Volt Reference

3.28. ZERO VOLT REFERENCE, P. 28

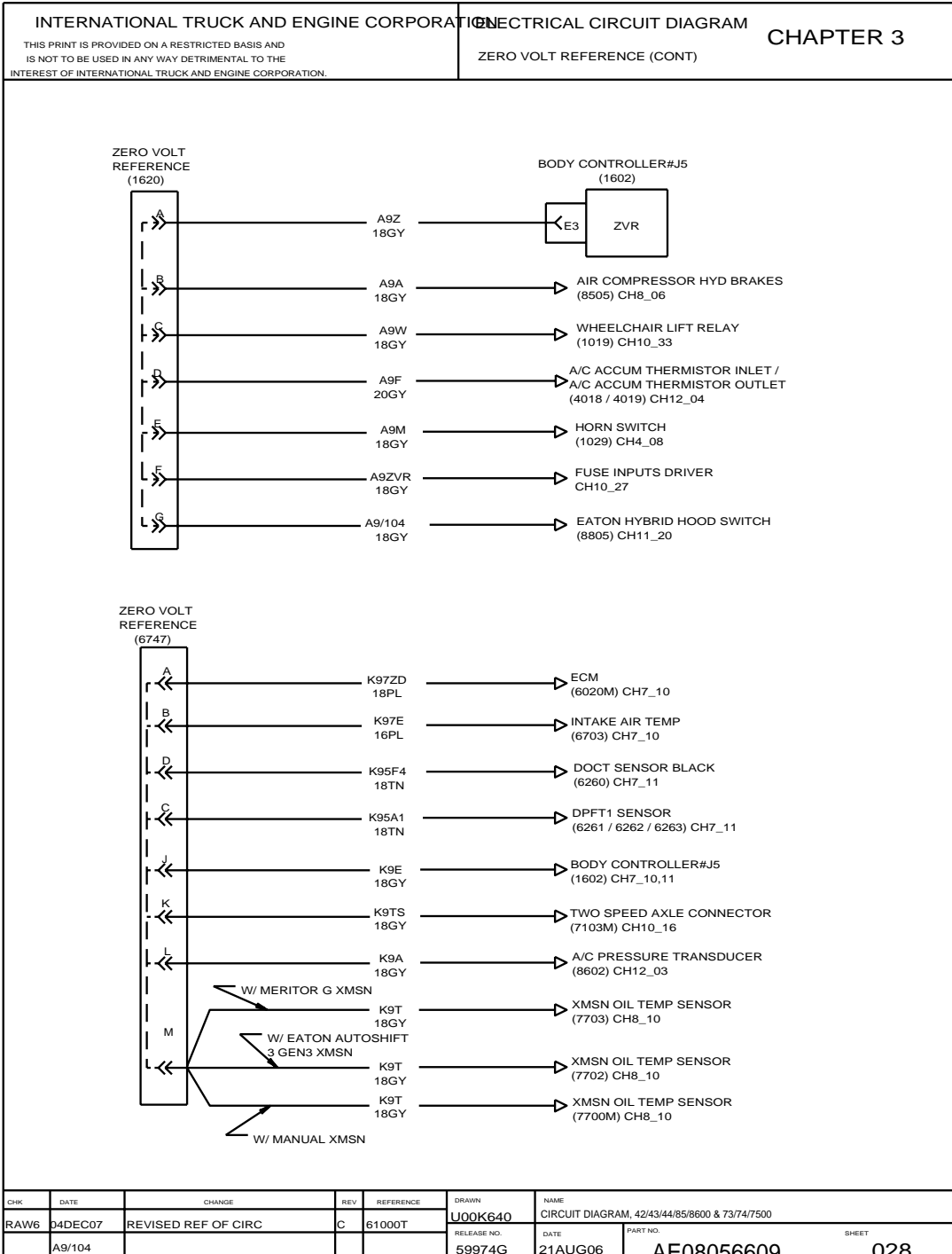


Figure 40 Zero Volt Reference

3.29. GROUND — CHASSIS, P. 29

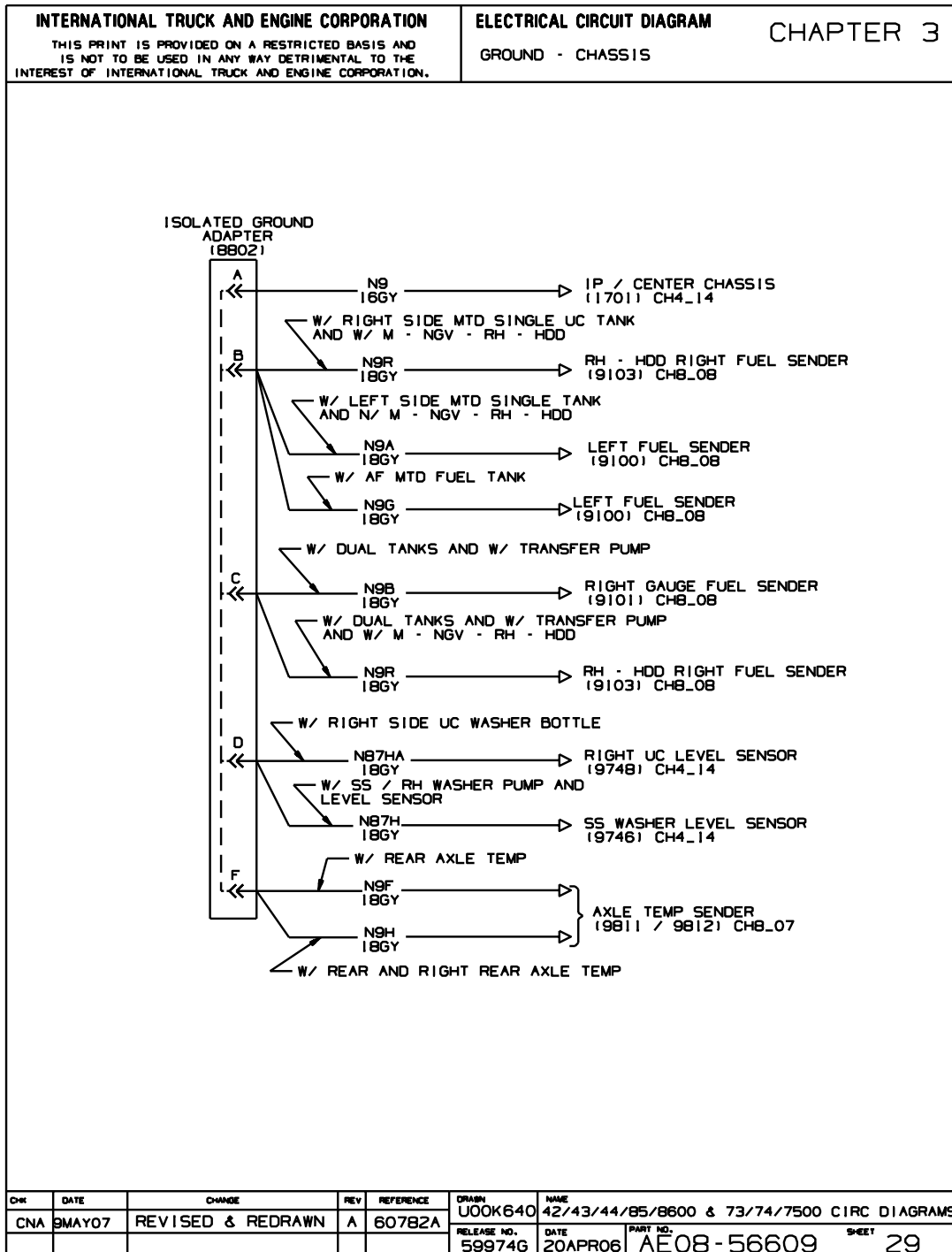


Figure 41 Ground — Chassis

3.30. J1939 DATA LINK WITH V8 ENGINE, P. 30

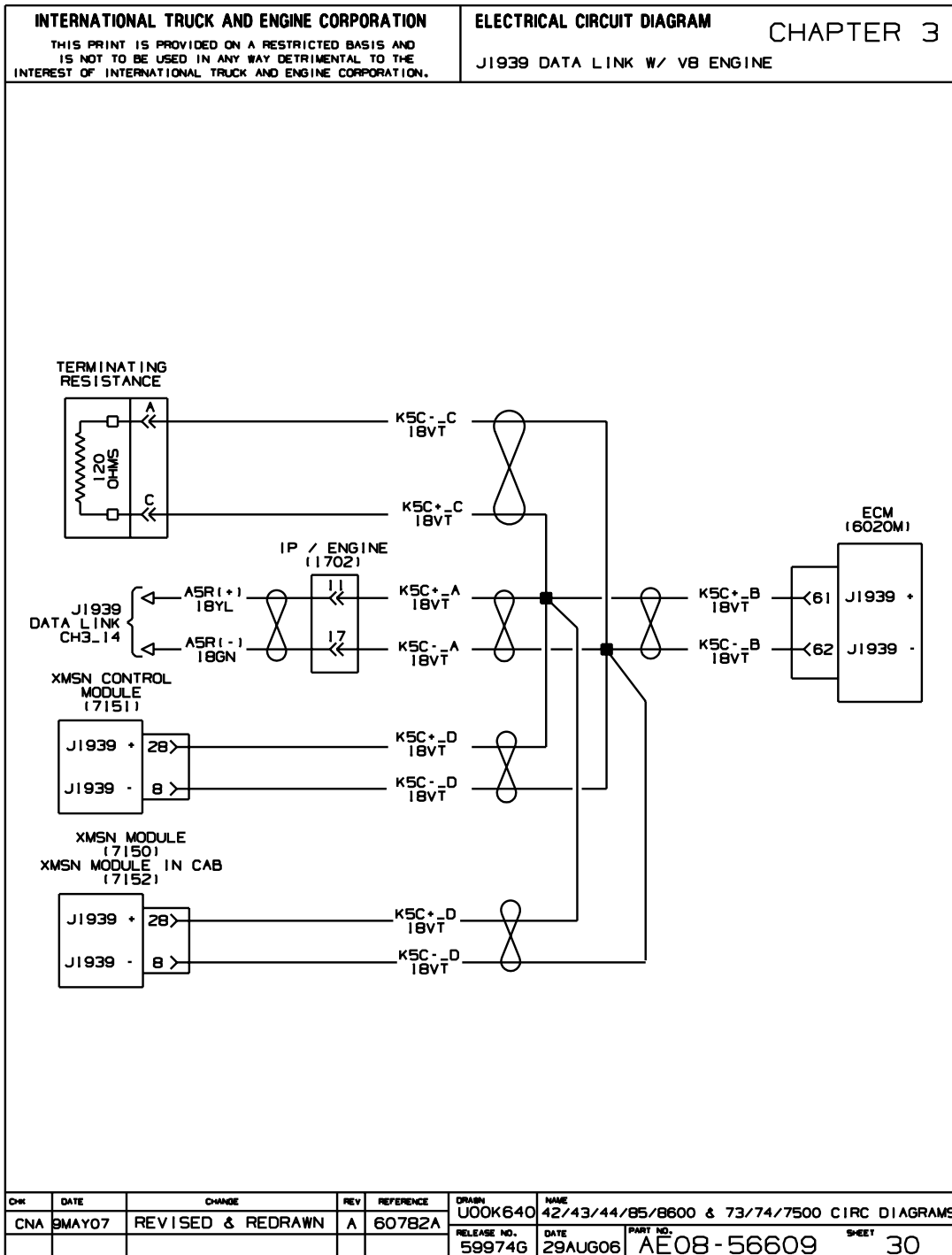


Figure 42 J1939 Data Link with V8 Engine

4. CAB ACCESSORIES (CHAPTER 4)

4.1. CIGAR LIGHTER AND POWER FEED, P. 1

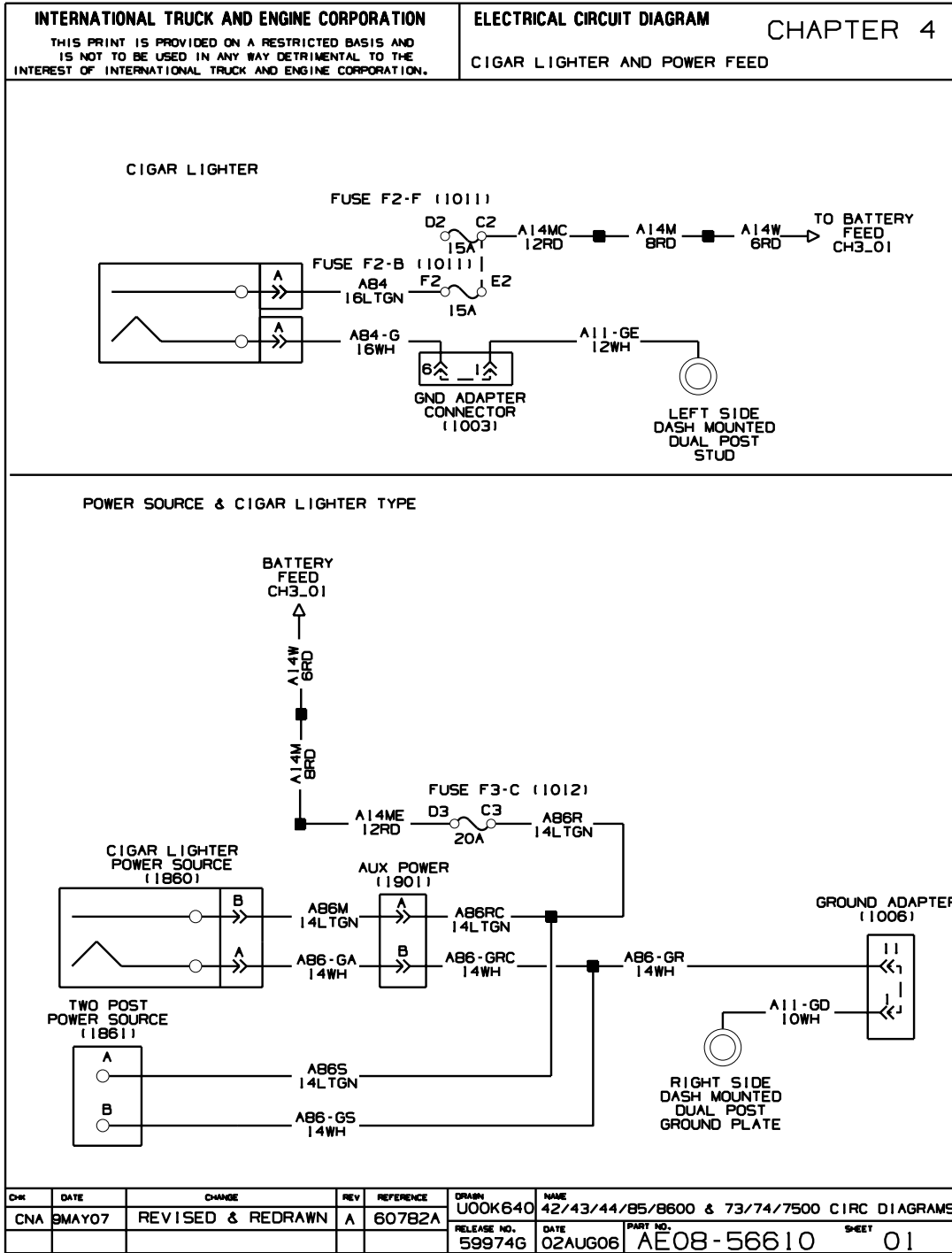


Figure 43 Cigar Lighter and Power Feed

4.2. CIGAR LIGHTER AND POWER FEED, P. 2

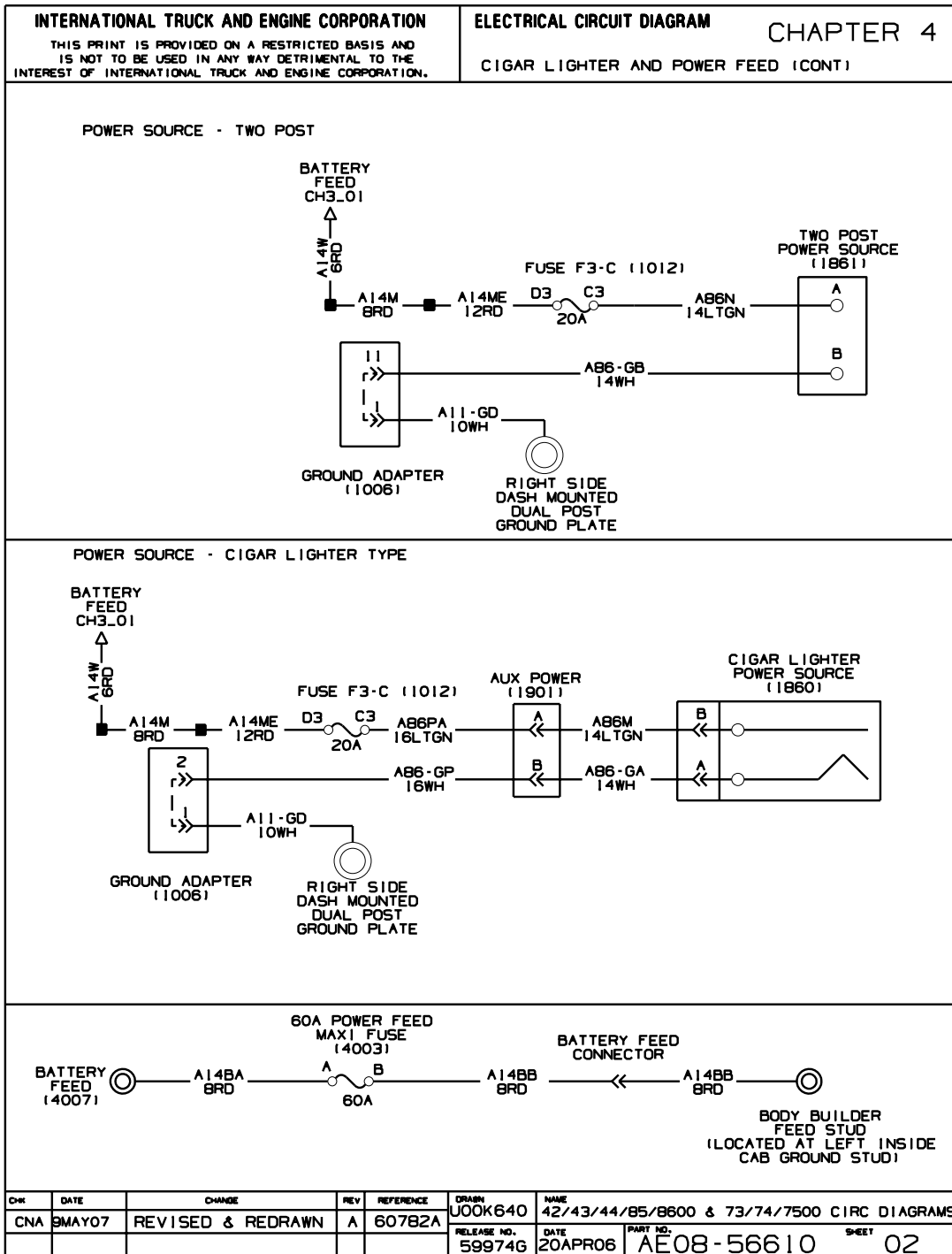


Figure 44 Cigar Lighter and Power Feed

4.3. CB POWER RADIO, P. 3

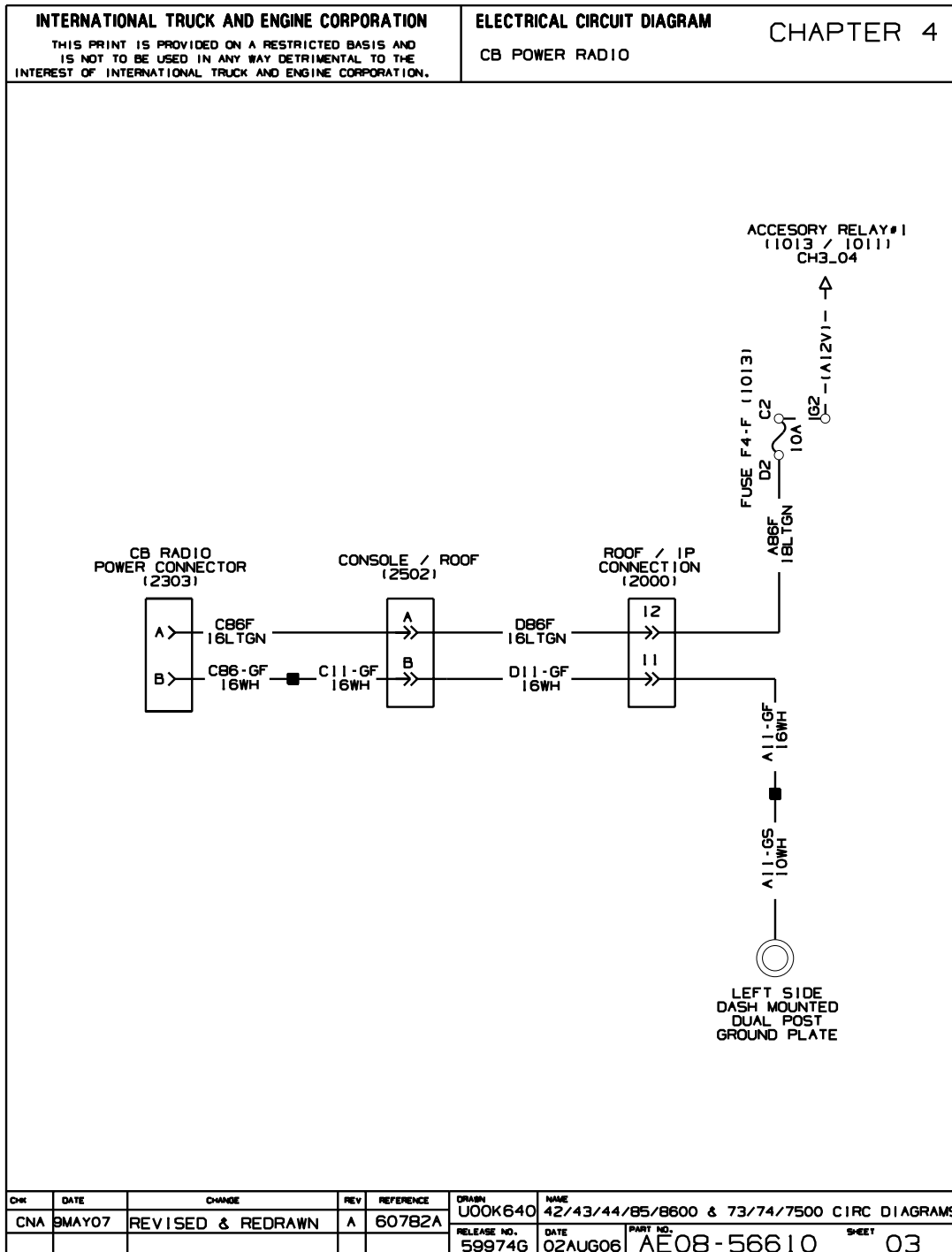


Figure 45 CB Power Radio

4.4. COMPASS AND TEMPERATURE DISPLAY, P. 4

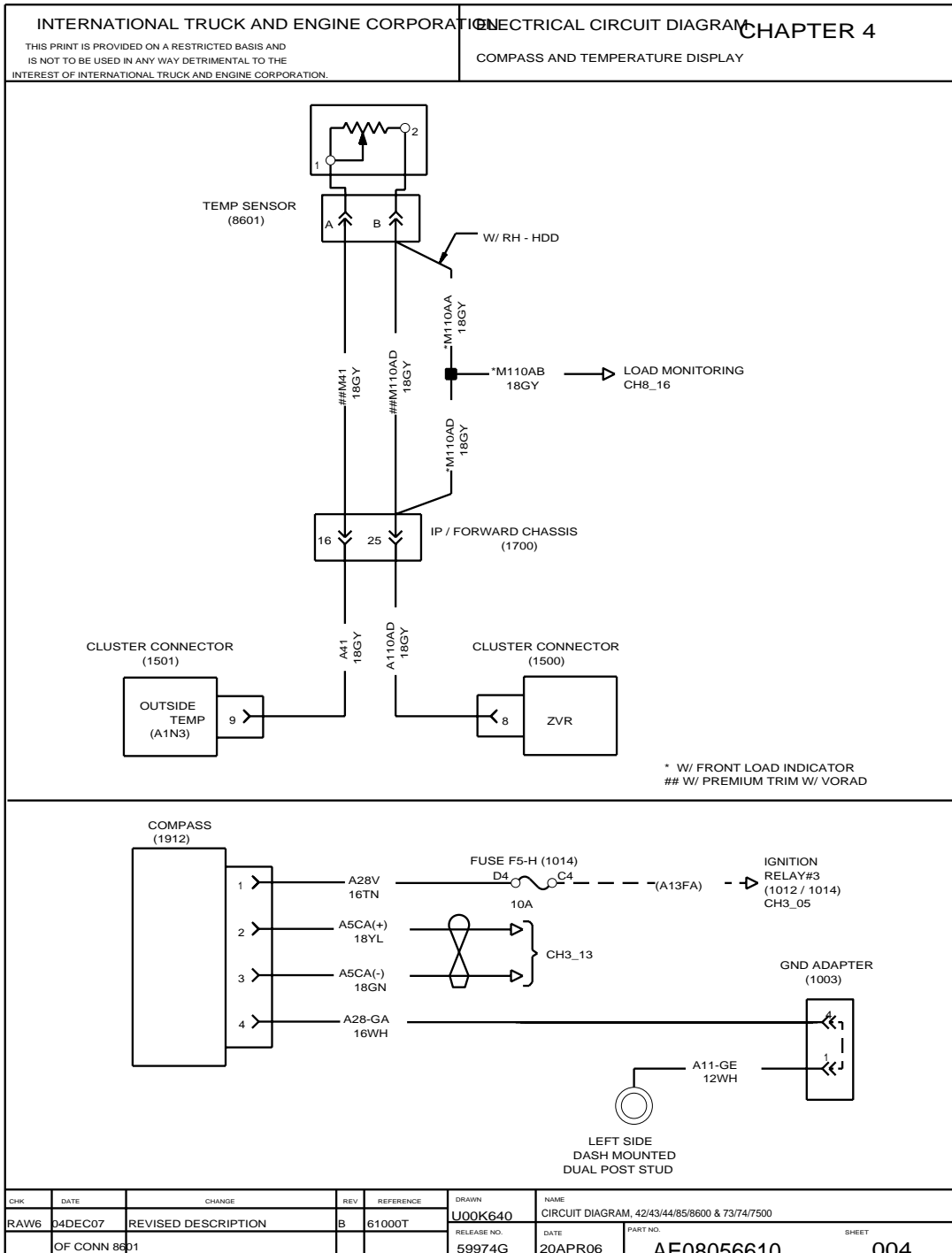


Figure 46 Compass and Temperature Display

4.5. FRONT DOOR WINDOWS AND LOCKS (POWER), P. 5

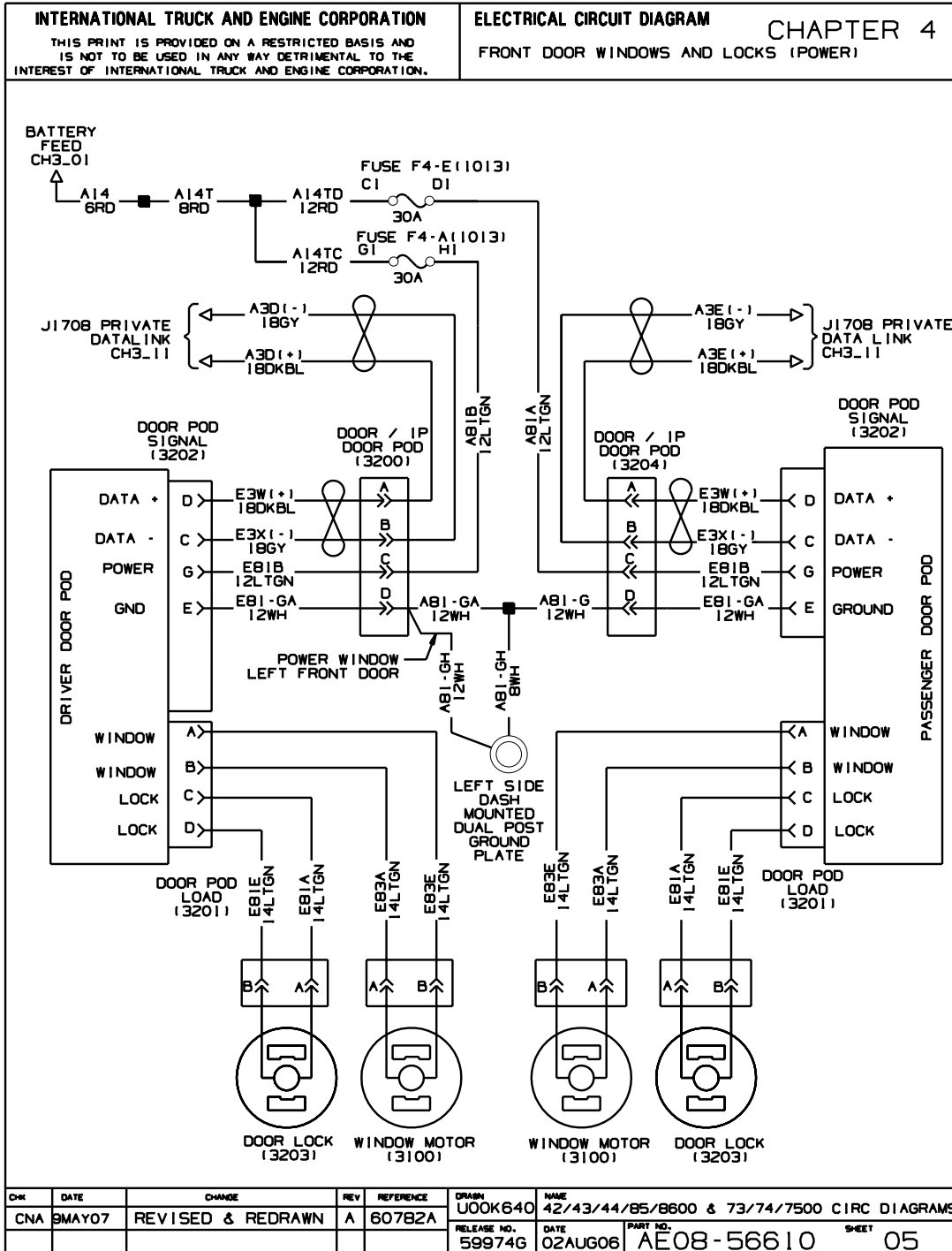


Figure 47 Front Door Windows and Locks (Power)

4.6. FRONT DOOR WINDOWS AND LOCKS (POWER) FOR CREW, P. 6

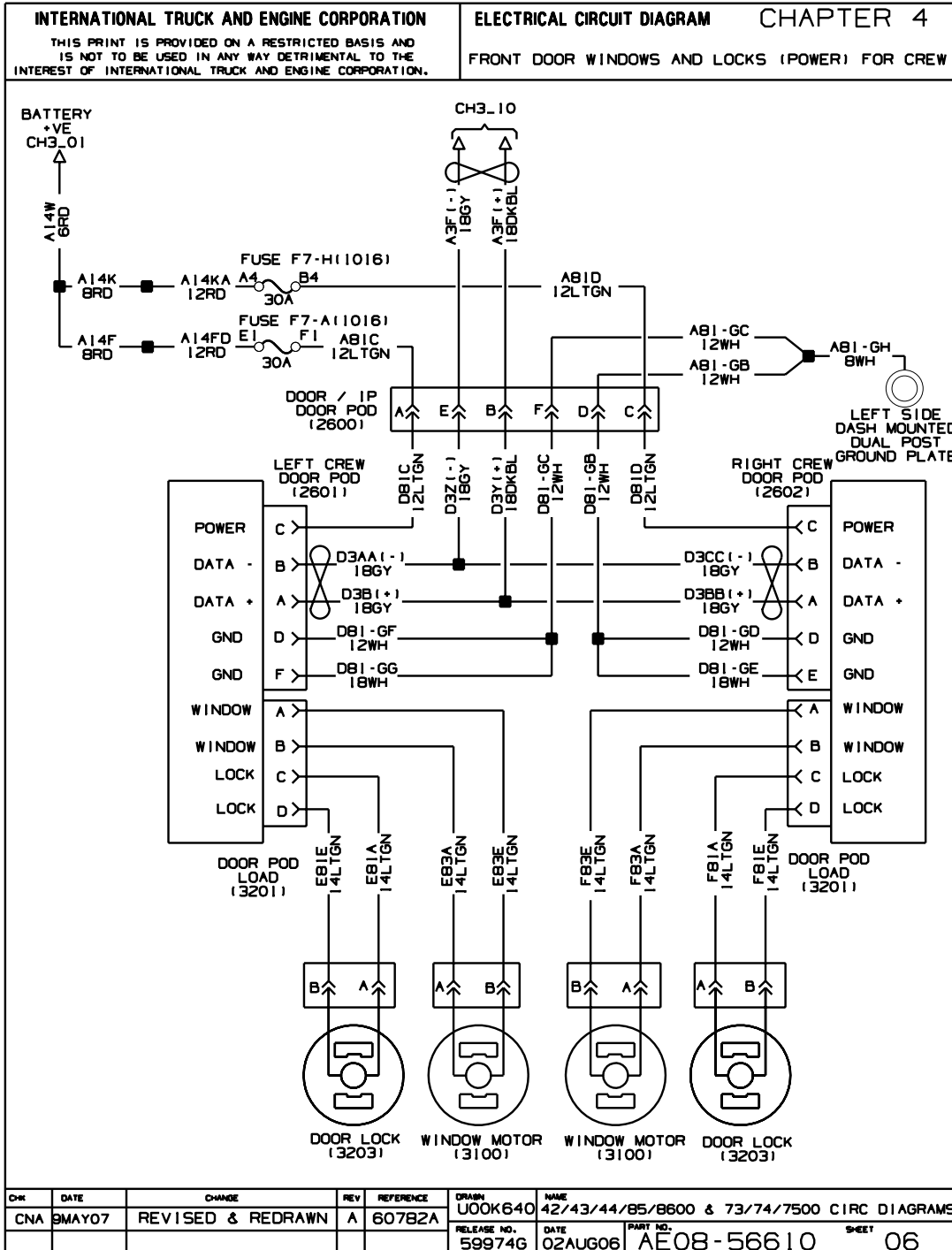


Figure 48 Front Door Windows and Locks (Power) for Crew

4.7. HORN, ELECTRIC AND AIR, P. 7

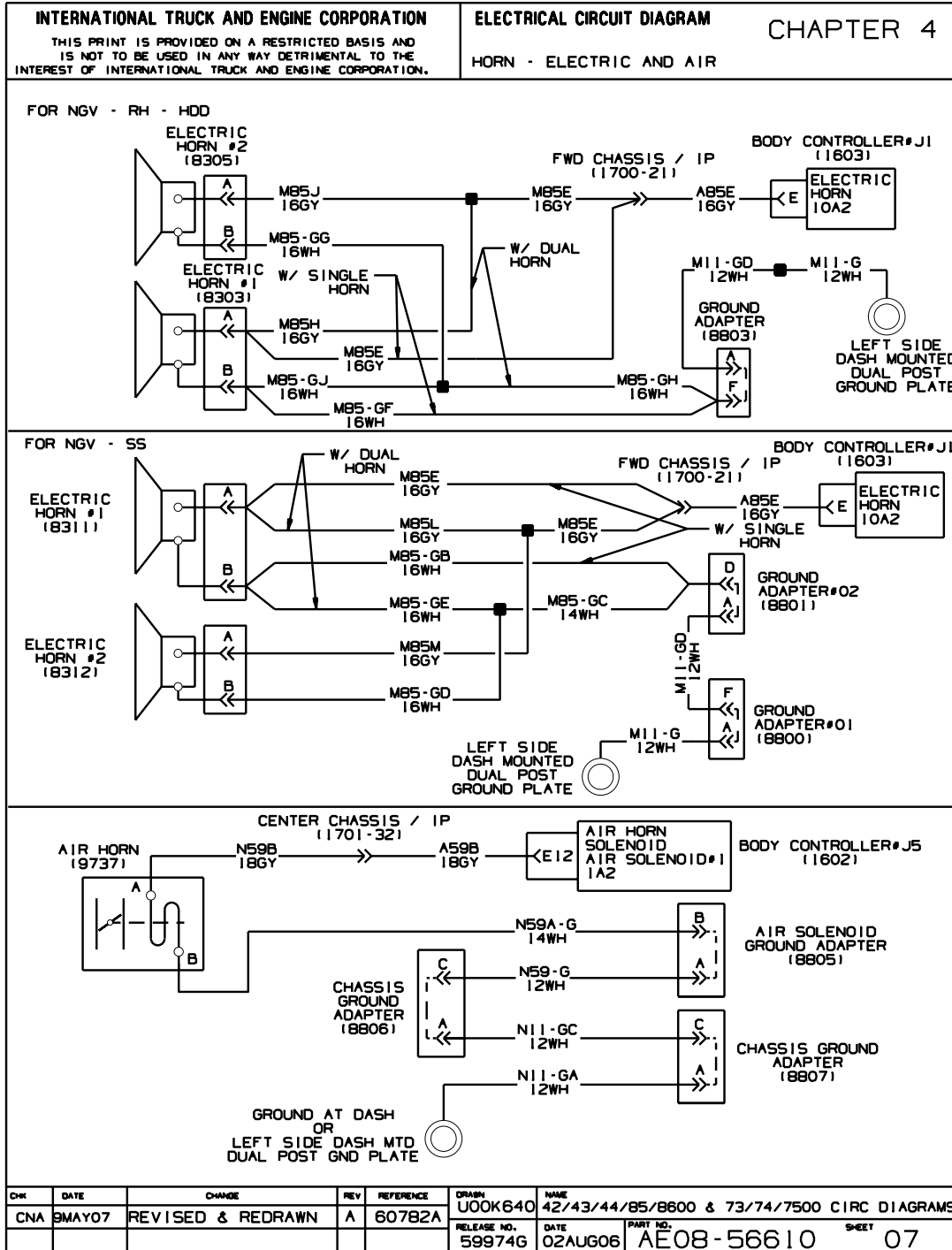


Figure 49 Horn, Electric and Air

4.8. HORN, ELECTRIC AND AIR, P. 8

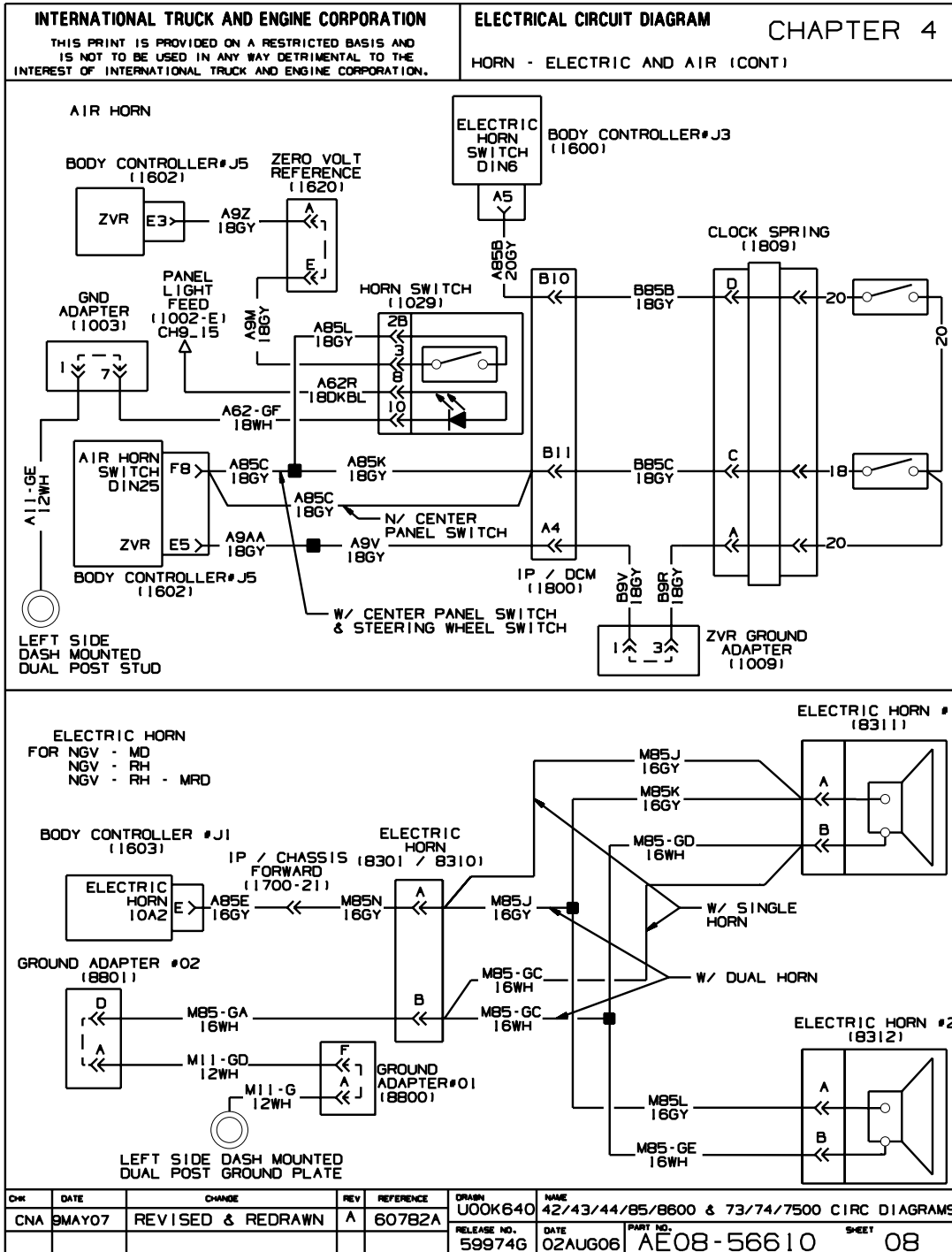


Figure 50 Horn, Electric and Air

4.10. MIRRORS (HEATED, LIGHTED AND POWER), P. 9A

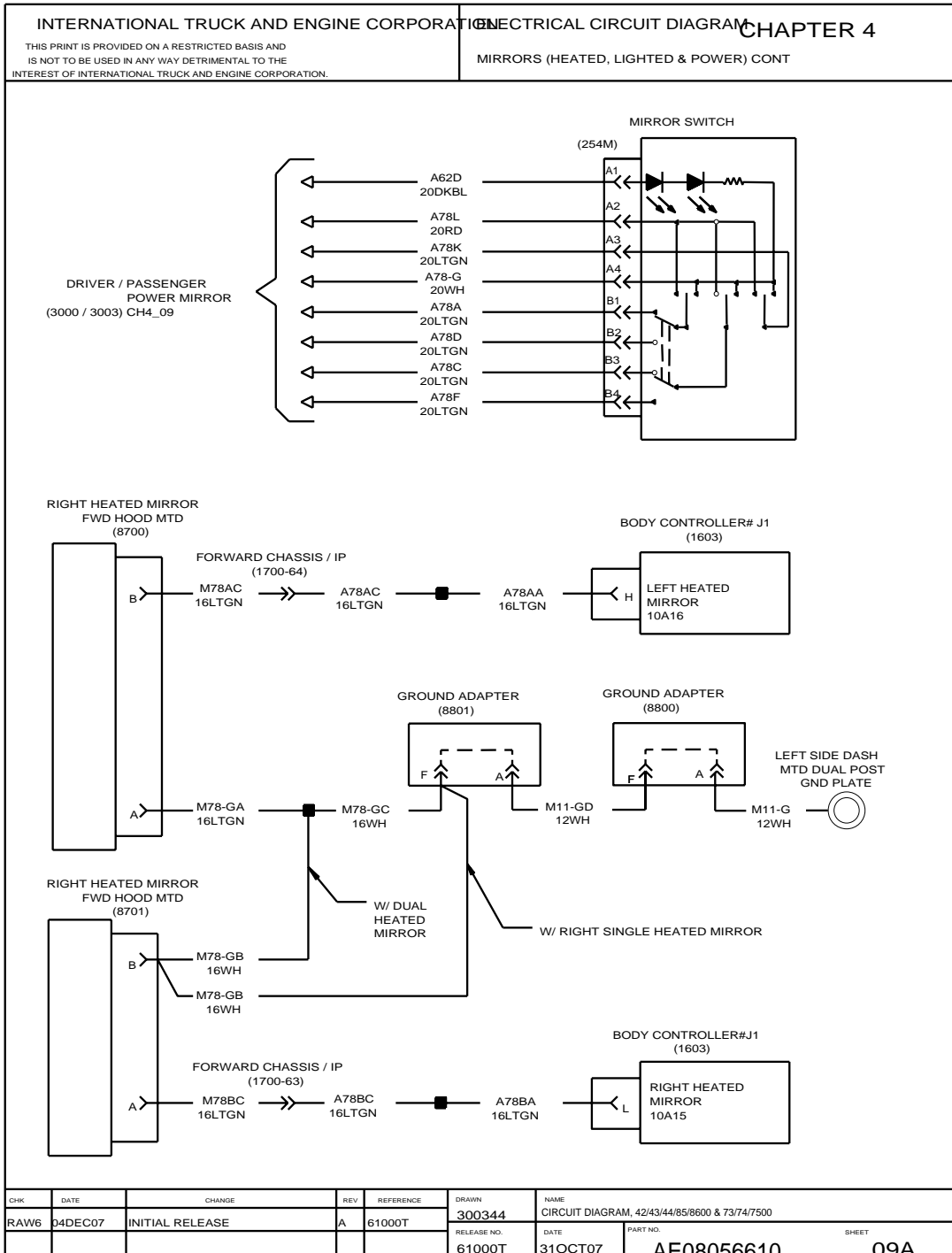


Figure 52 Mirrors (Heated, Lighted and Power)

4.11. DUAL HEATED MOTORIZED MIRRORS WITH HEATED WINDSHIELD, P. 9B

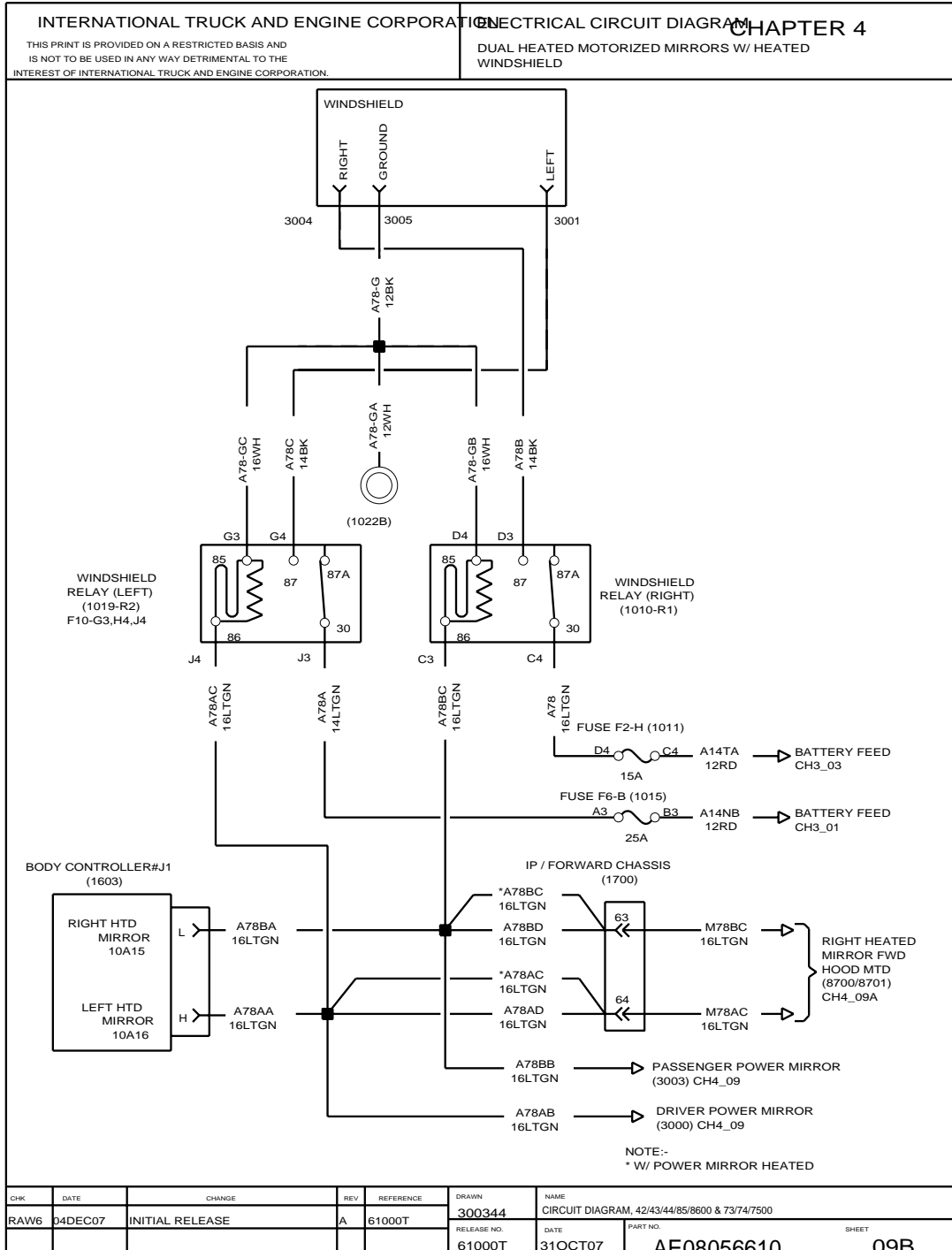


Figure 53 Dual Heated Motorized Mirrors with Heated Windshield

4.12. RADIO (ENTERTAINMENT), SPEAKERS WITH 12 WAY CONN, P. 10

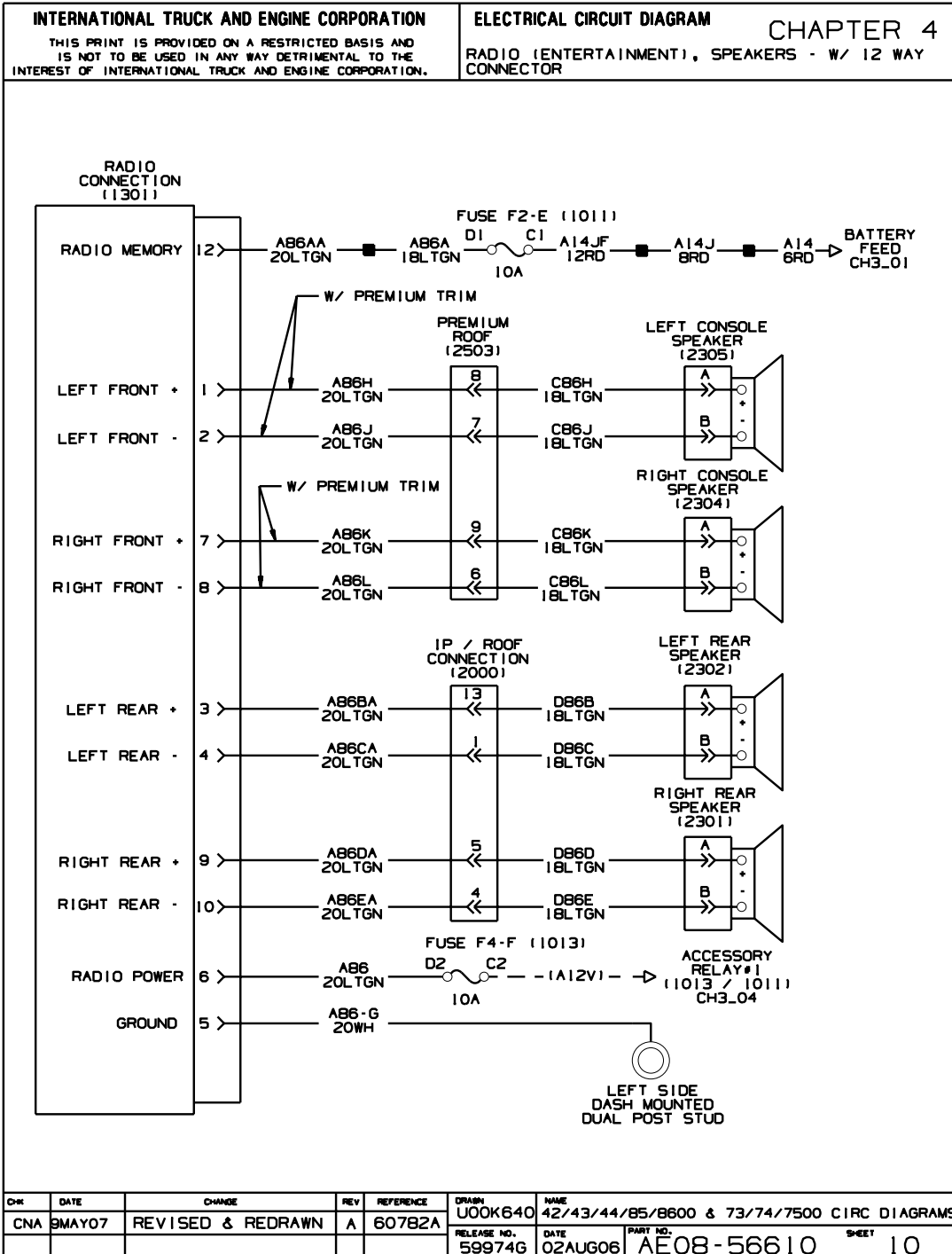


Figure 54 Radio (Entertainment), Speakers with 12 Way Conn

4.13. RADIO (ENTERTAINMENT), SPEAKERS WITH 16 WAY CONN, P. 11

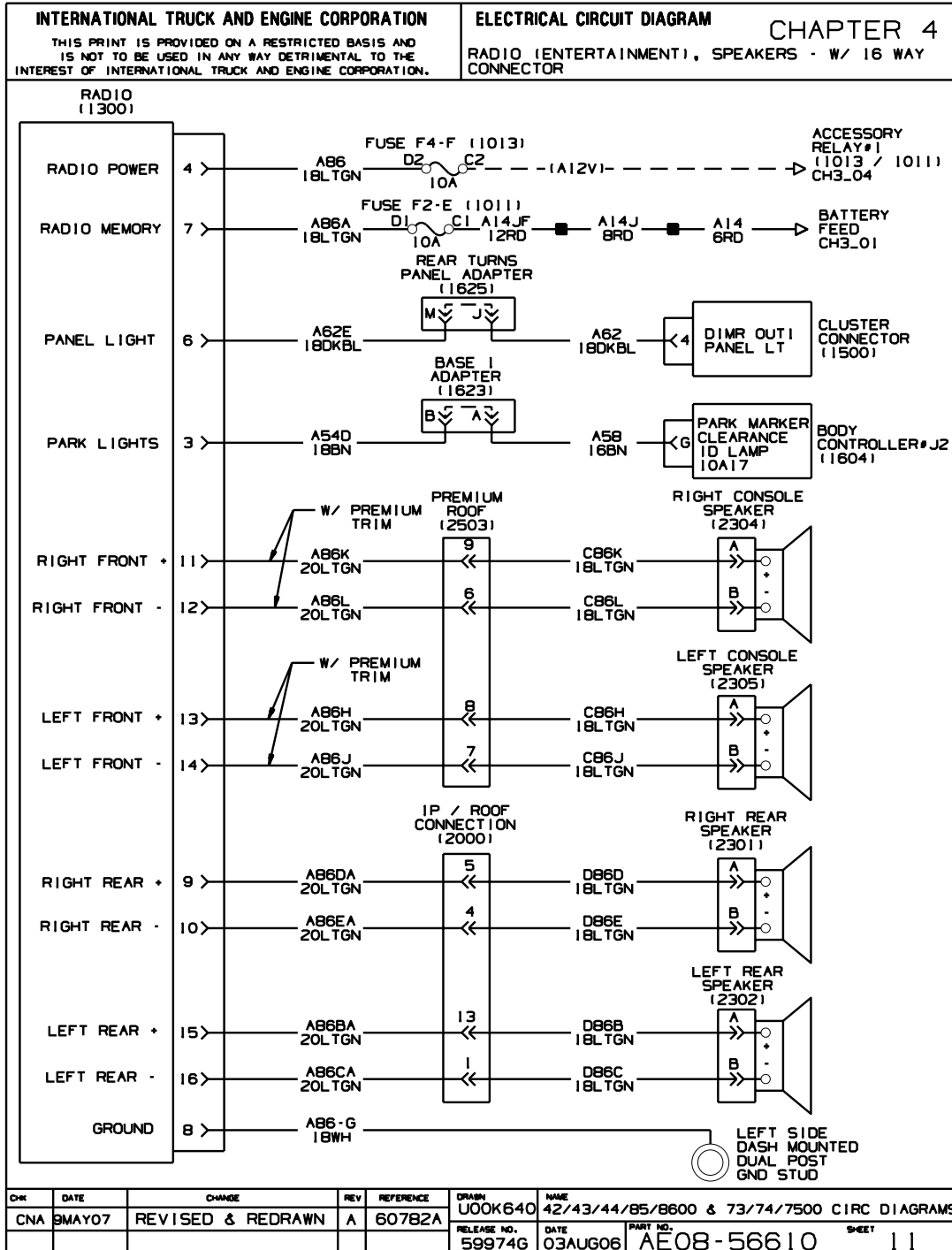


Figure 55 Radio (Entertainment), Speakers with 16 Way Connector

4.14. 2-WAY RADIO, P. 12

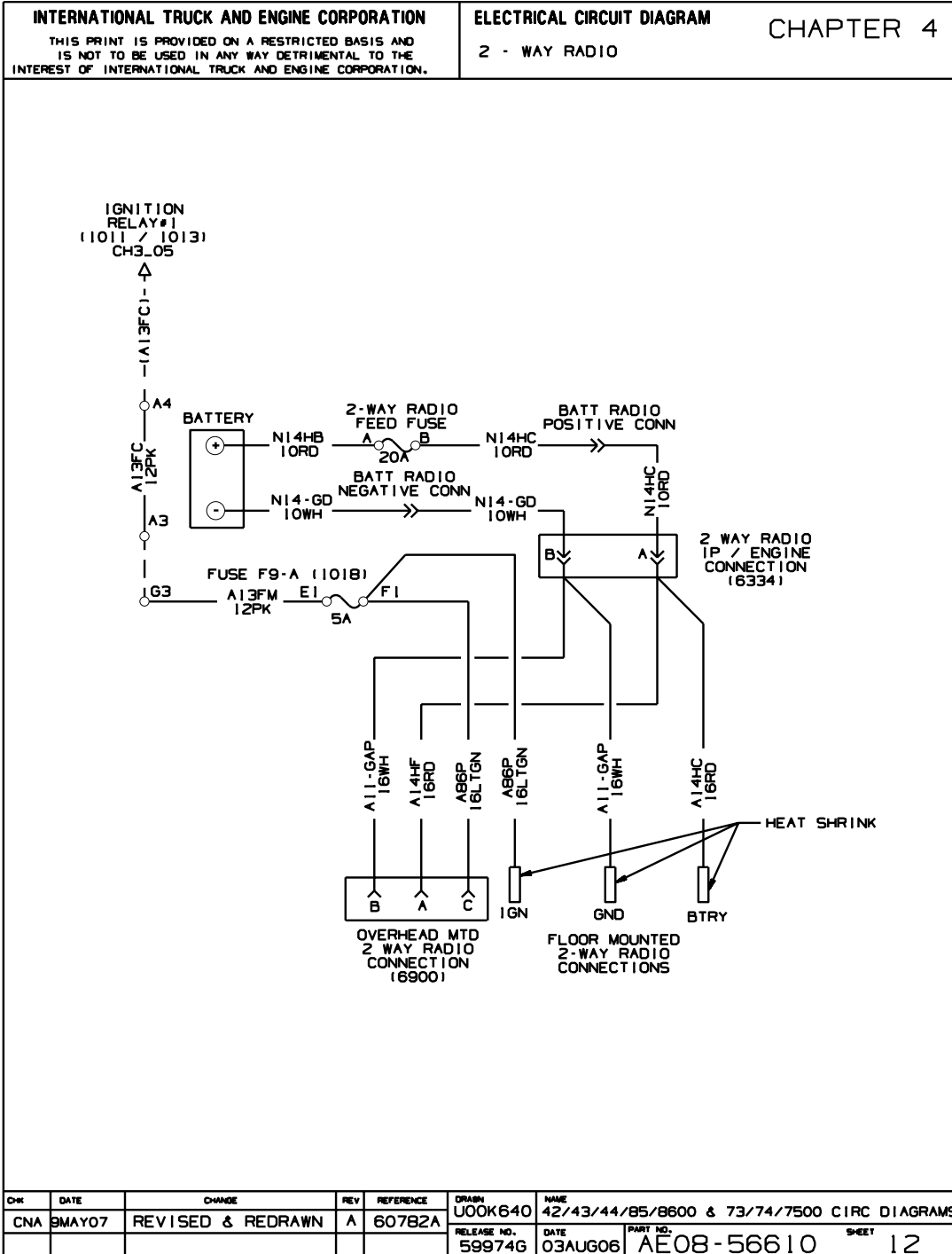


Figure 56 2-Way Radio

4.15. WINDSHIELD WIPER, P. 13

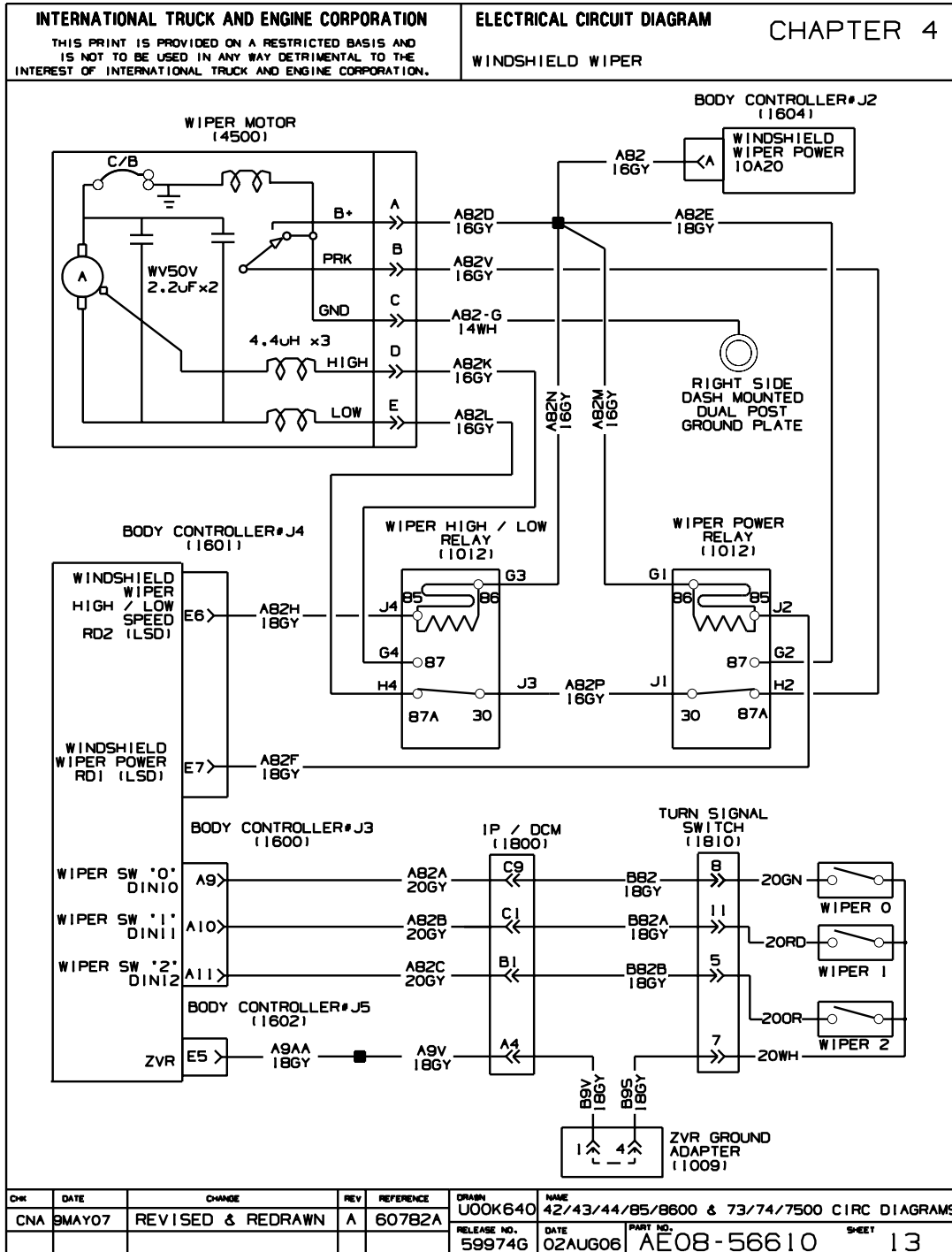


Figure 57 Windshield Wiper

4.16. WASHER PUMP, P. 14

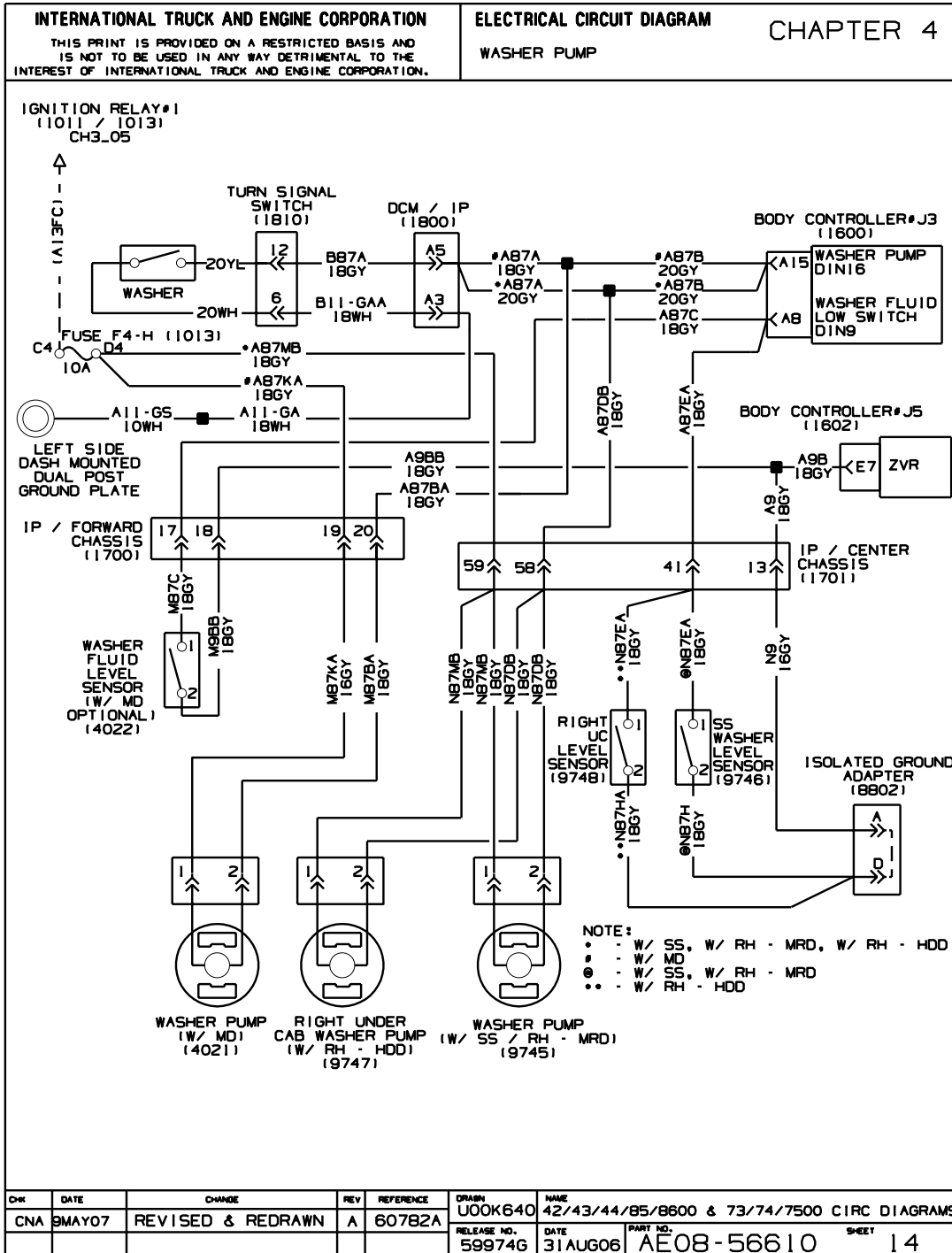


Figure 58 Washer Pump

4.17. SWITCH PACK OPTIONAL GAUGE PACK, P. 15

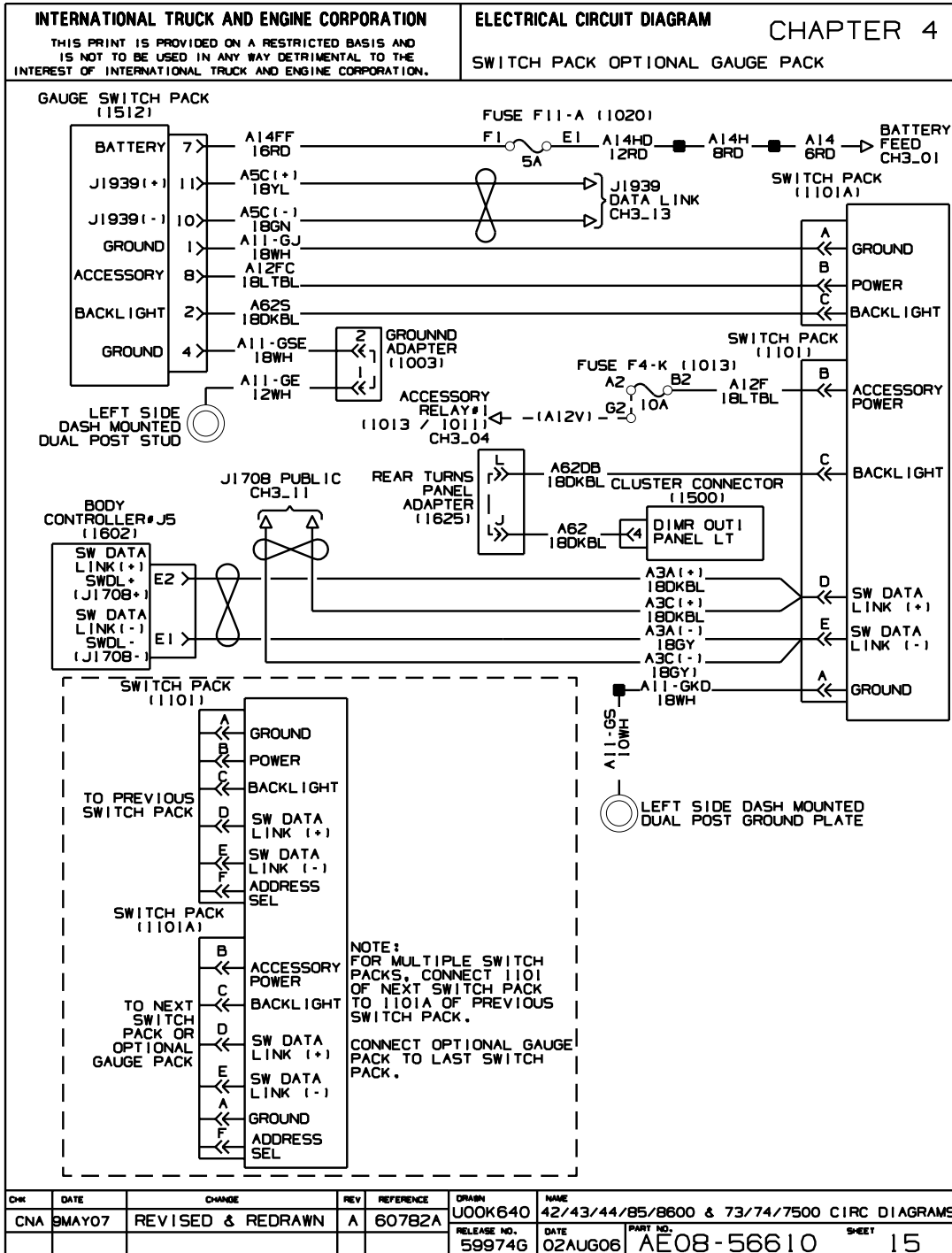


Figure 59 Switch Pack Optional Gauge Pack

4.18. ROOF AUXILIARY LOAD, P. 16

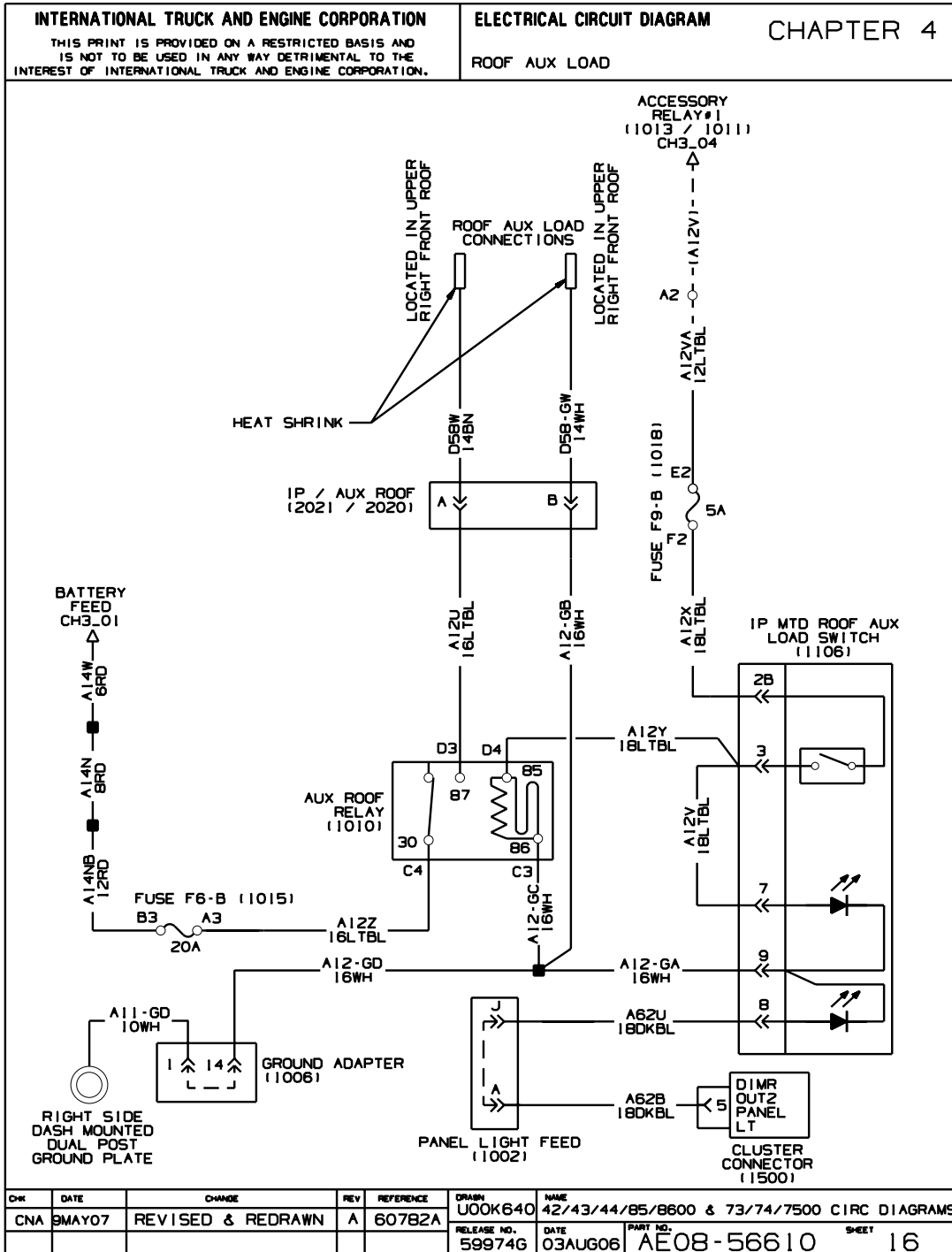


Figure 60 Roof Auxiliary Load

4.19. SATELLITE COMMUNICATION — QUALCOMM IMCT, P. 17

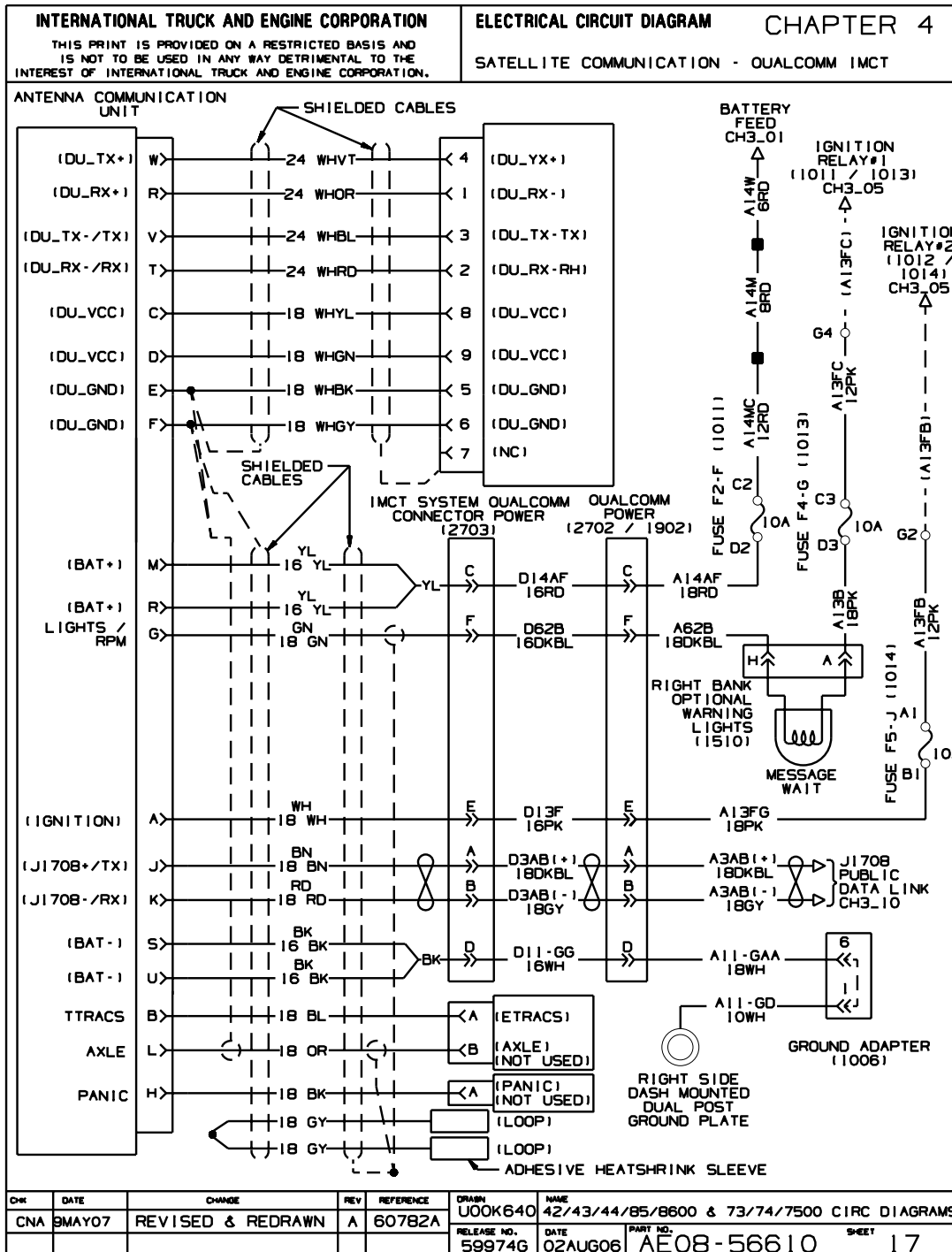


Figure 61 Satellite Communication — Qualcomm IMCT

4.21. COMPUTER PREWIRED — XATA SYSTEM, P. 19

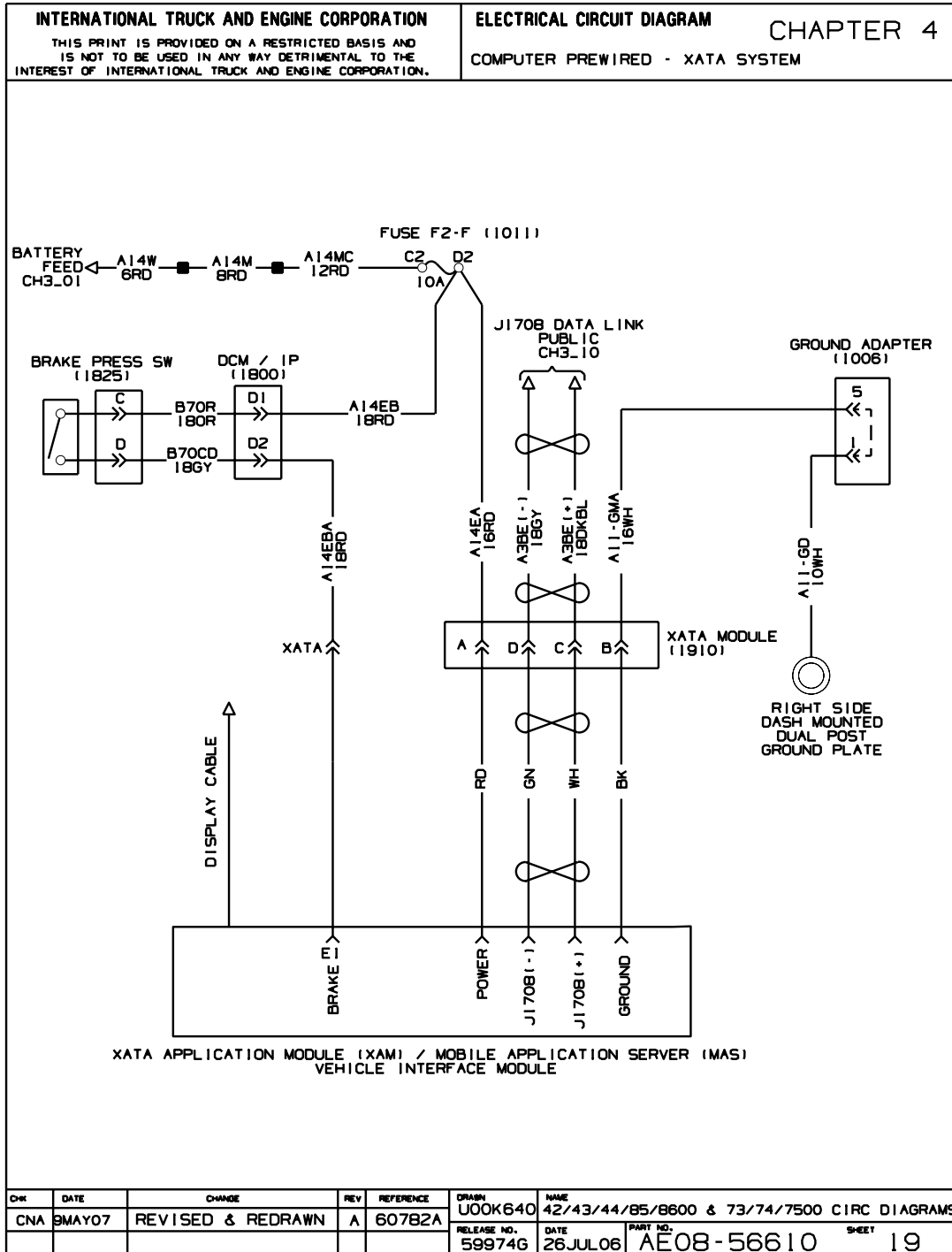


Figure 63 Computer Prewired — XATA System

4.22. CADEC GPS SYSTEM, P. 20

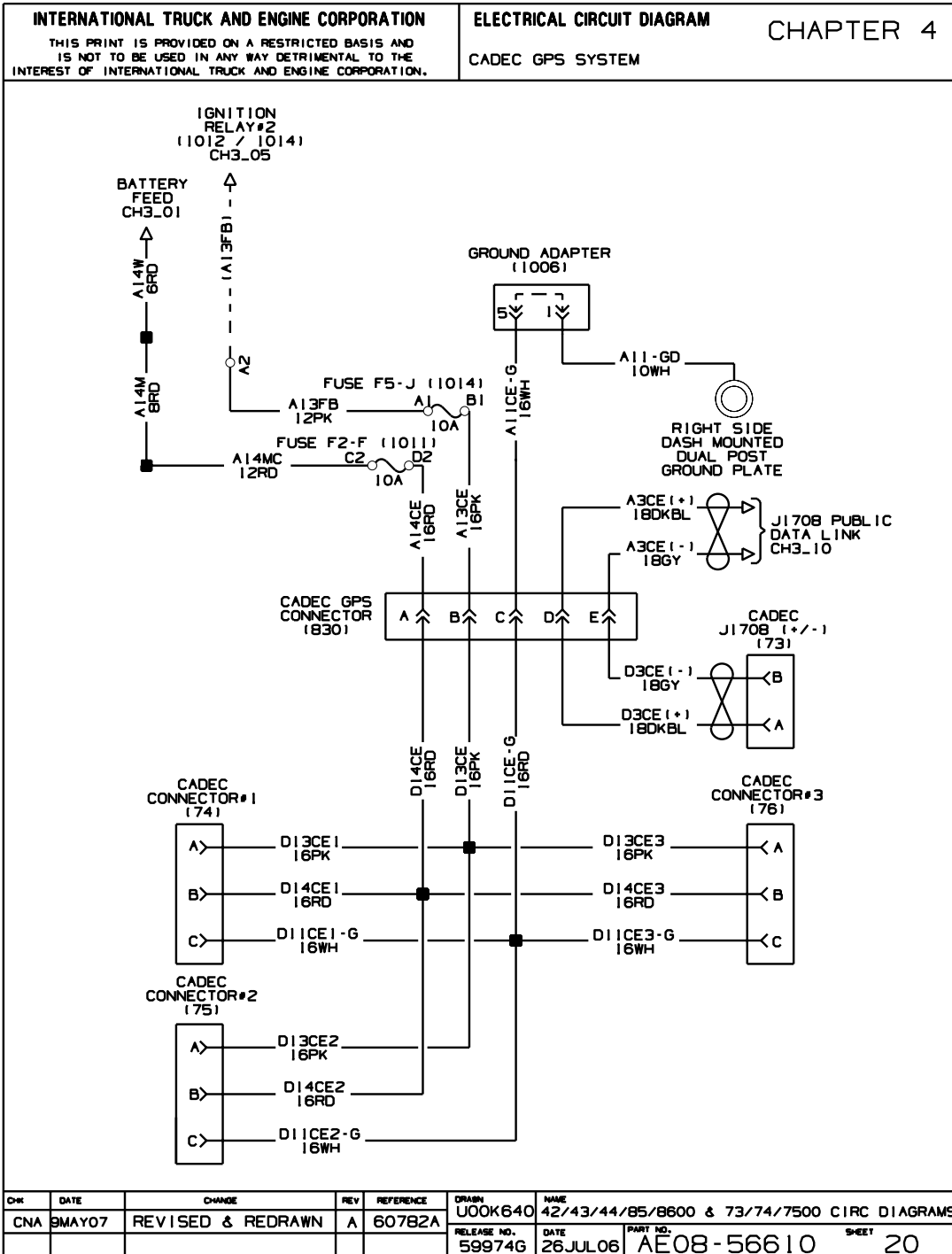


Figure 64 Cadec GPS System

4.23. SATELLITE COMMUNICATION — MOBILEMAX, P. 21

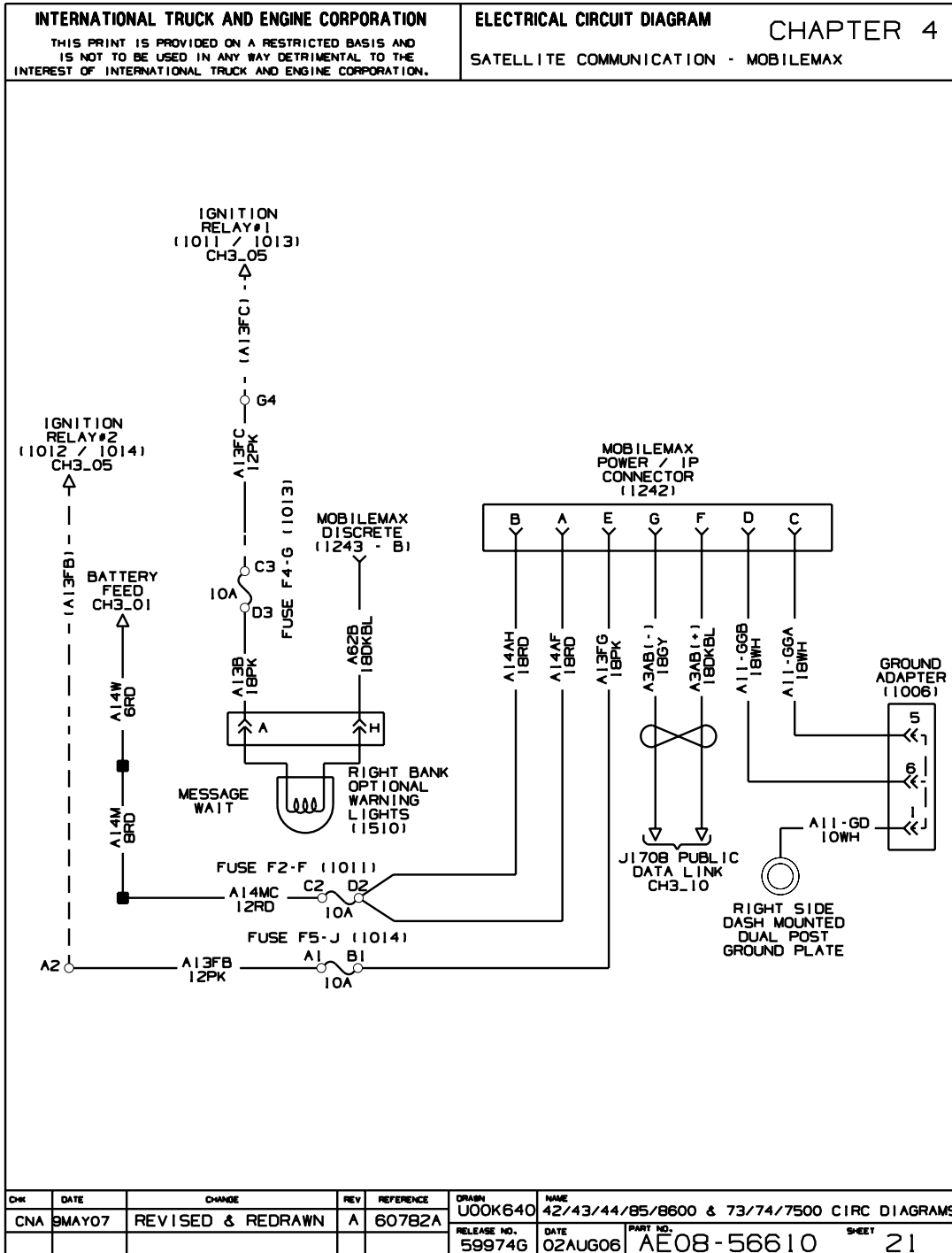


Figure 65 Satellite Communication — MobileMax

4.24. SELF CONTAINED AIR SEAT, P. 22

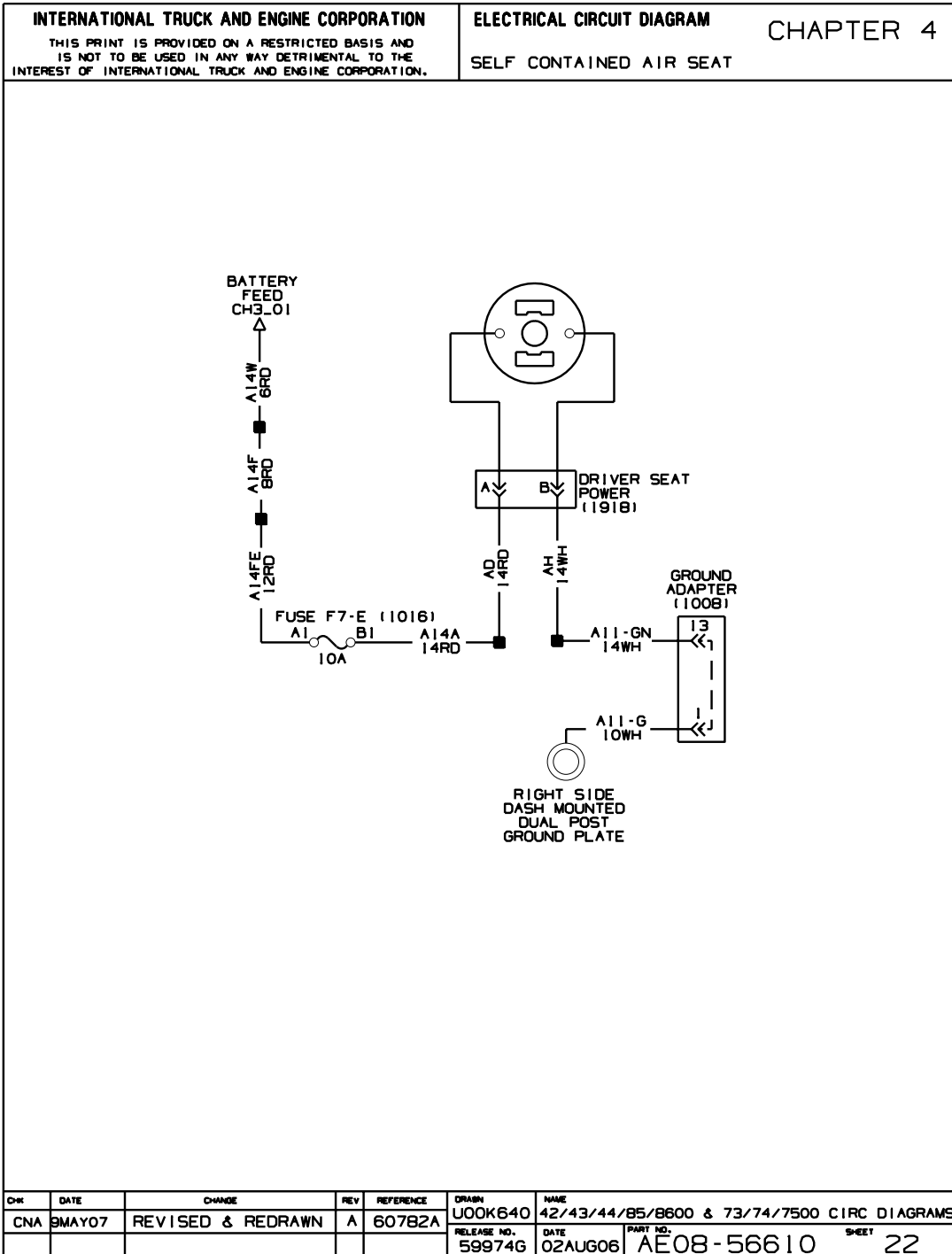


Figure 66 Self Contained Air Seat

4.26. TELEMATICS SYSTEM, P. 24

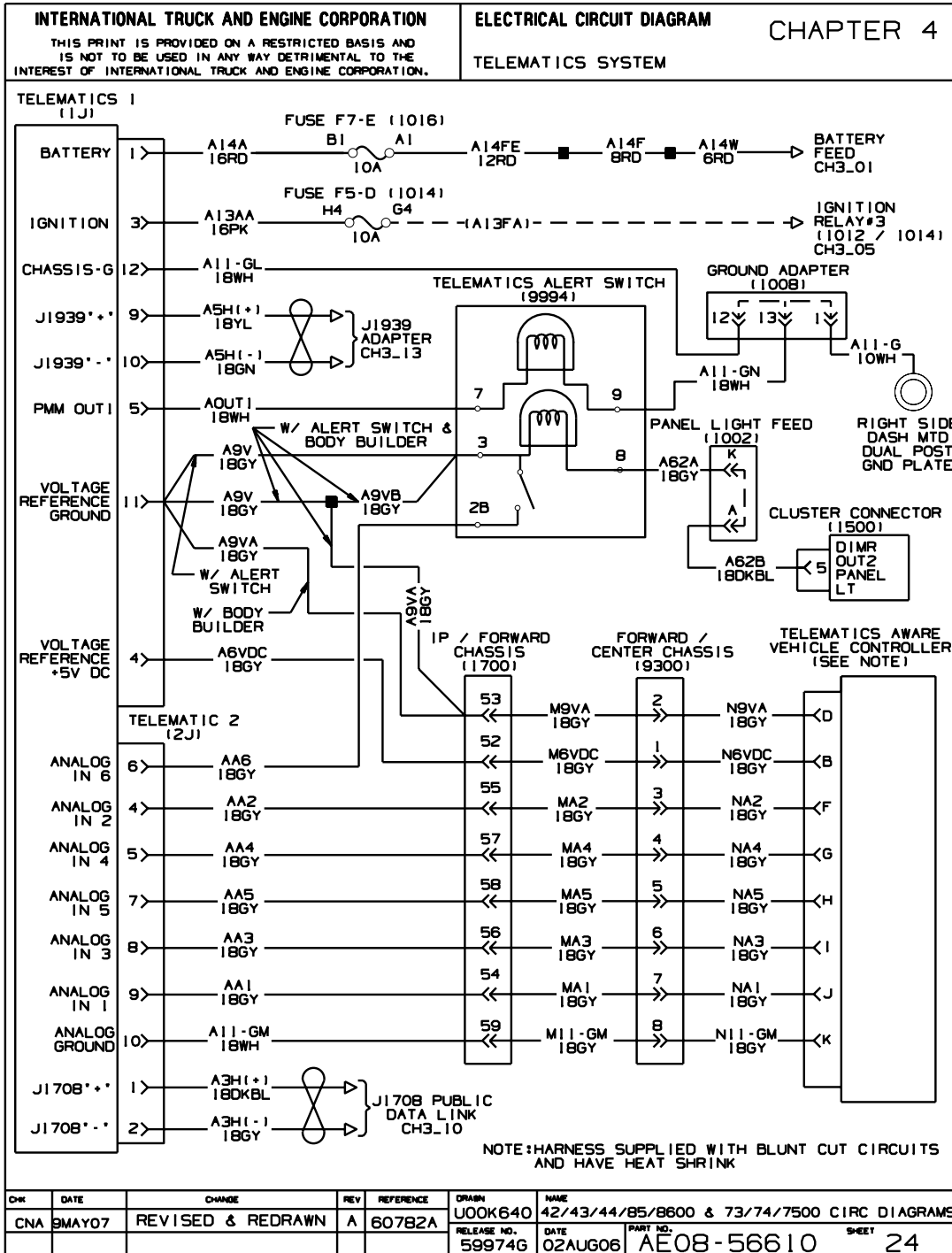


Figure 68 Telematics System

4.27. EATON VORAD COLLISION AVOIDANCE SYSTEM, P. 25

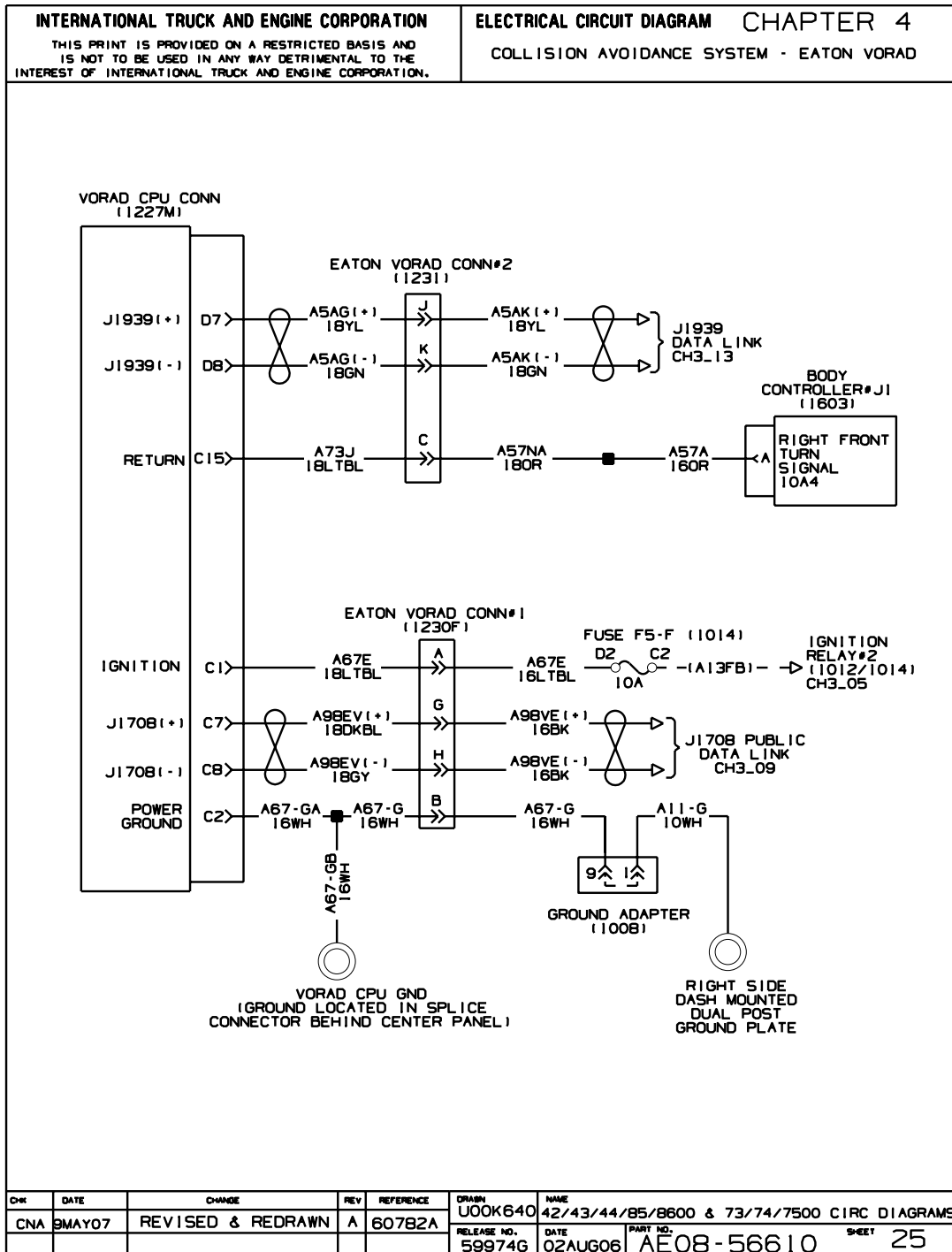


Figure 69 Eaton Vorad Collision Avoidance System

4.28. EATON VORAD COLLISION AVOIDANCE SYSTEM, P. 26

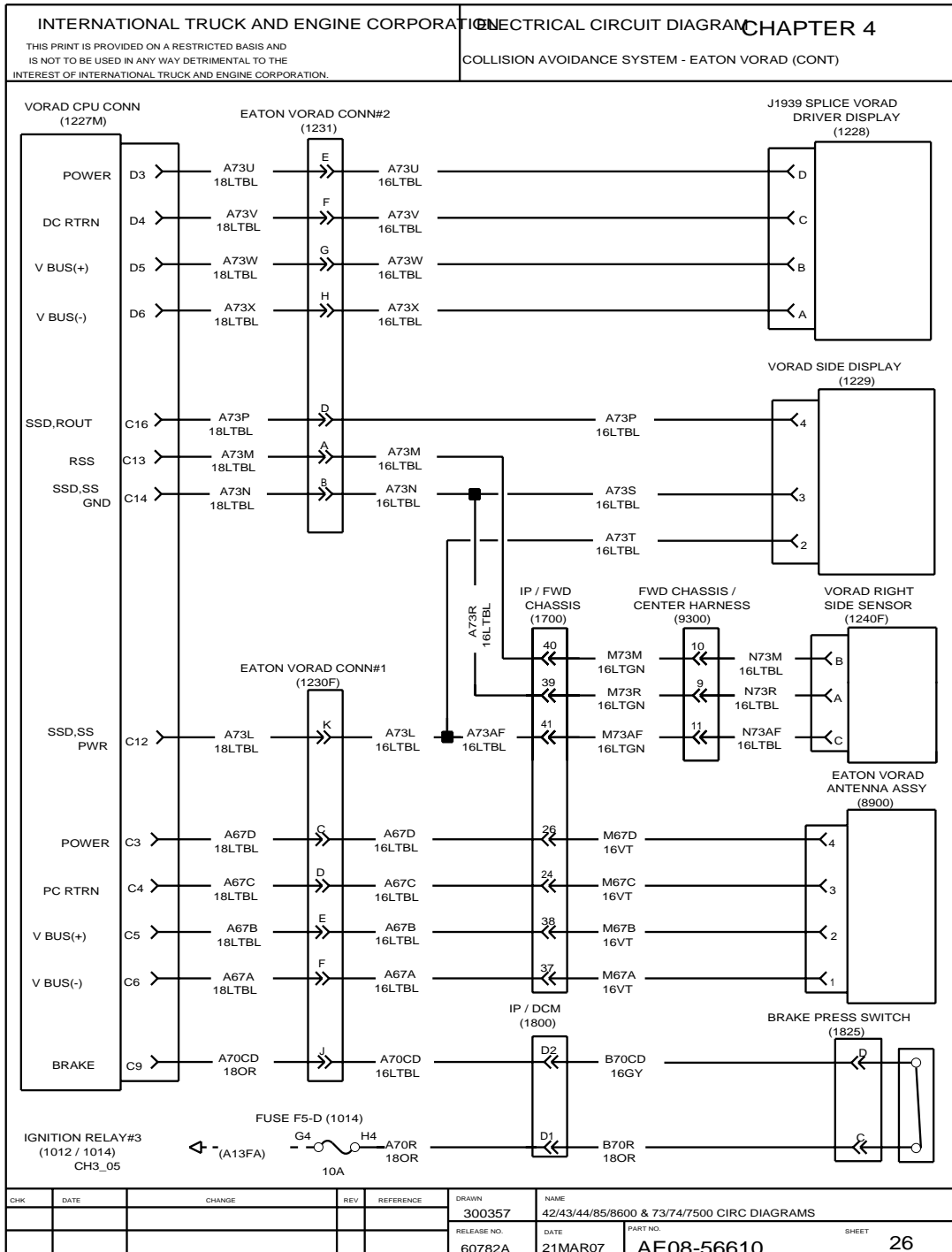


Figure 70 Eaton Vorad Collision Avoidance System

4.29. DRIVER DISPLAY, P. 27

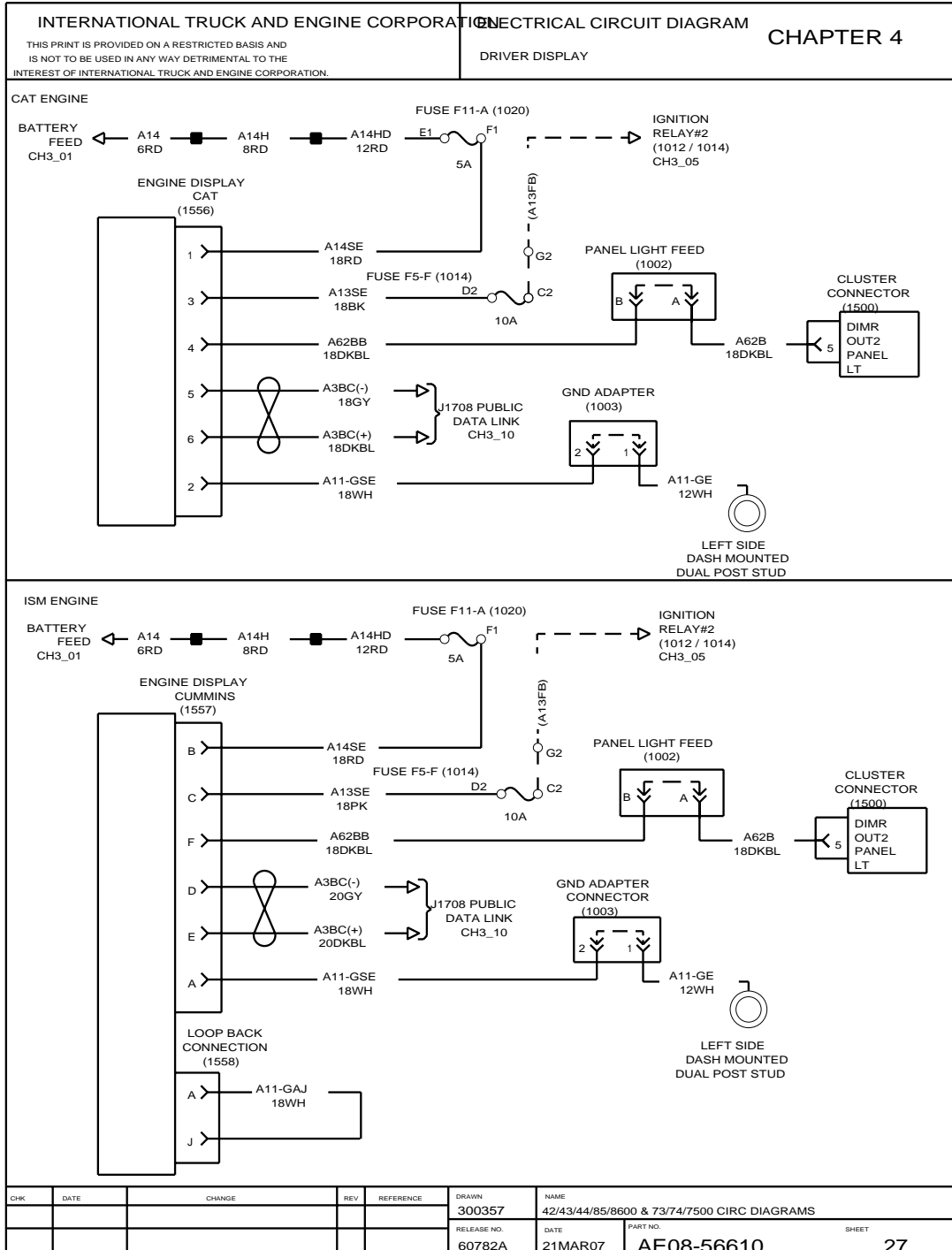


Figure 71 Driver Display

4.30. BACK-UP CAMERA, P. 28

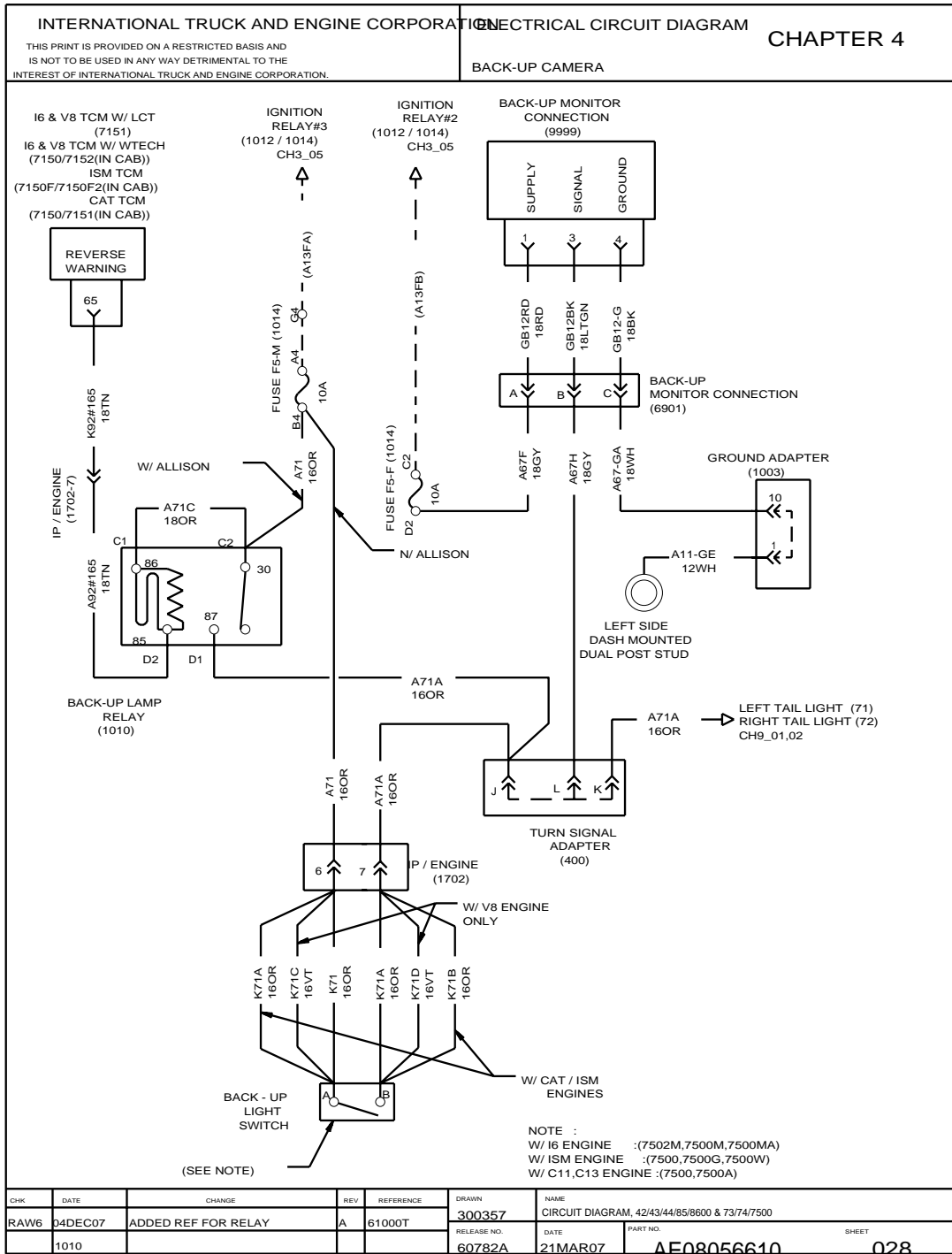


Figure 72 Back-Up Camera

4.31. SATELLITE COMMUNICATION — QUALCOMM MCT, P. 29

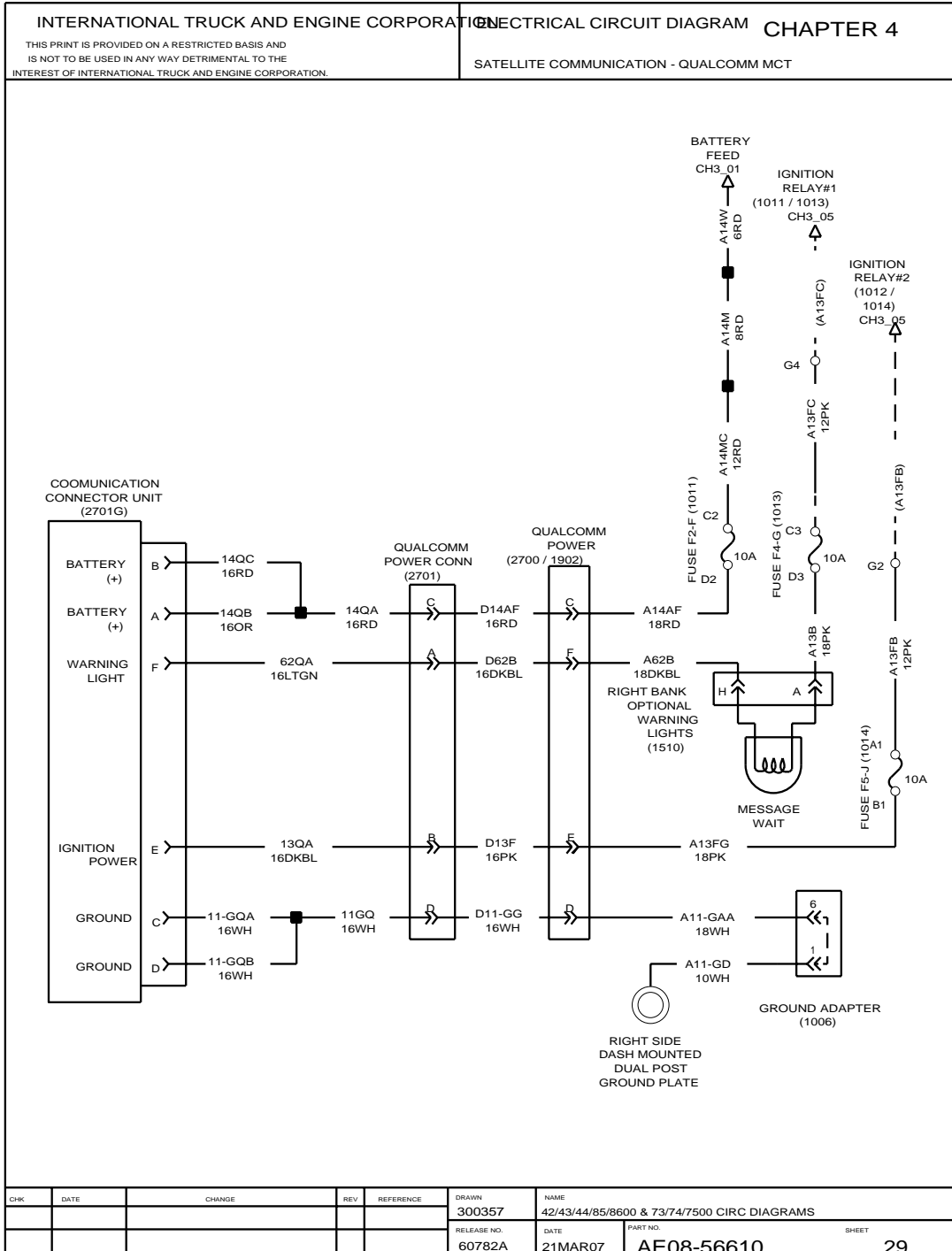


Figure 73 Satellite Communication — Qualcomm MCT

**4.32. SATELLITE COMMUNICATION — QUALCOMM MCT WITH MVPC KEYBOARD,
 P. 30**

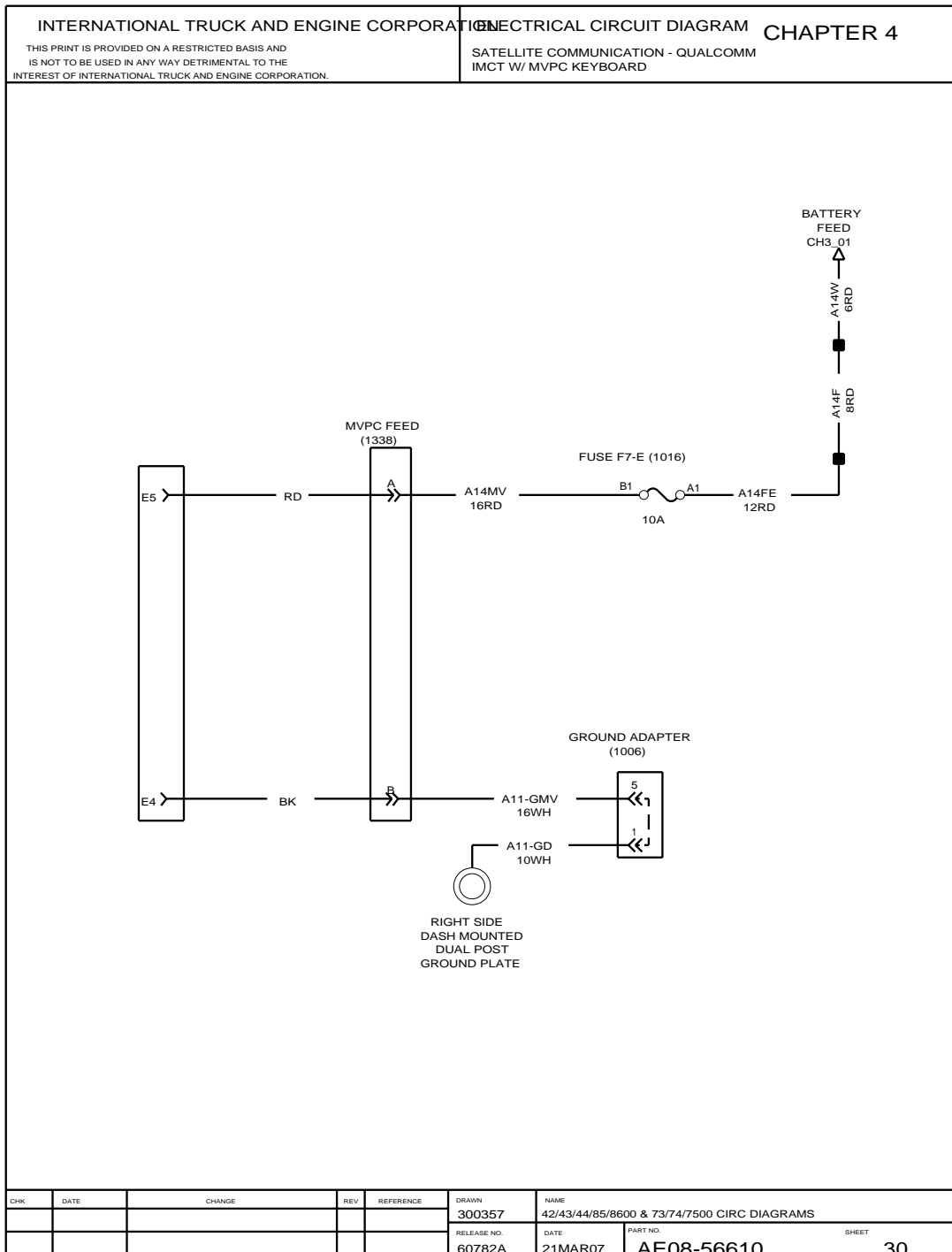


Figure 74 Satellite Communication — Qualcomm MCT with MVPC Keyboard

4.33. SATELLITE COMMUNICATION — QUALCOMM TMCT, P. 31

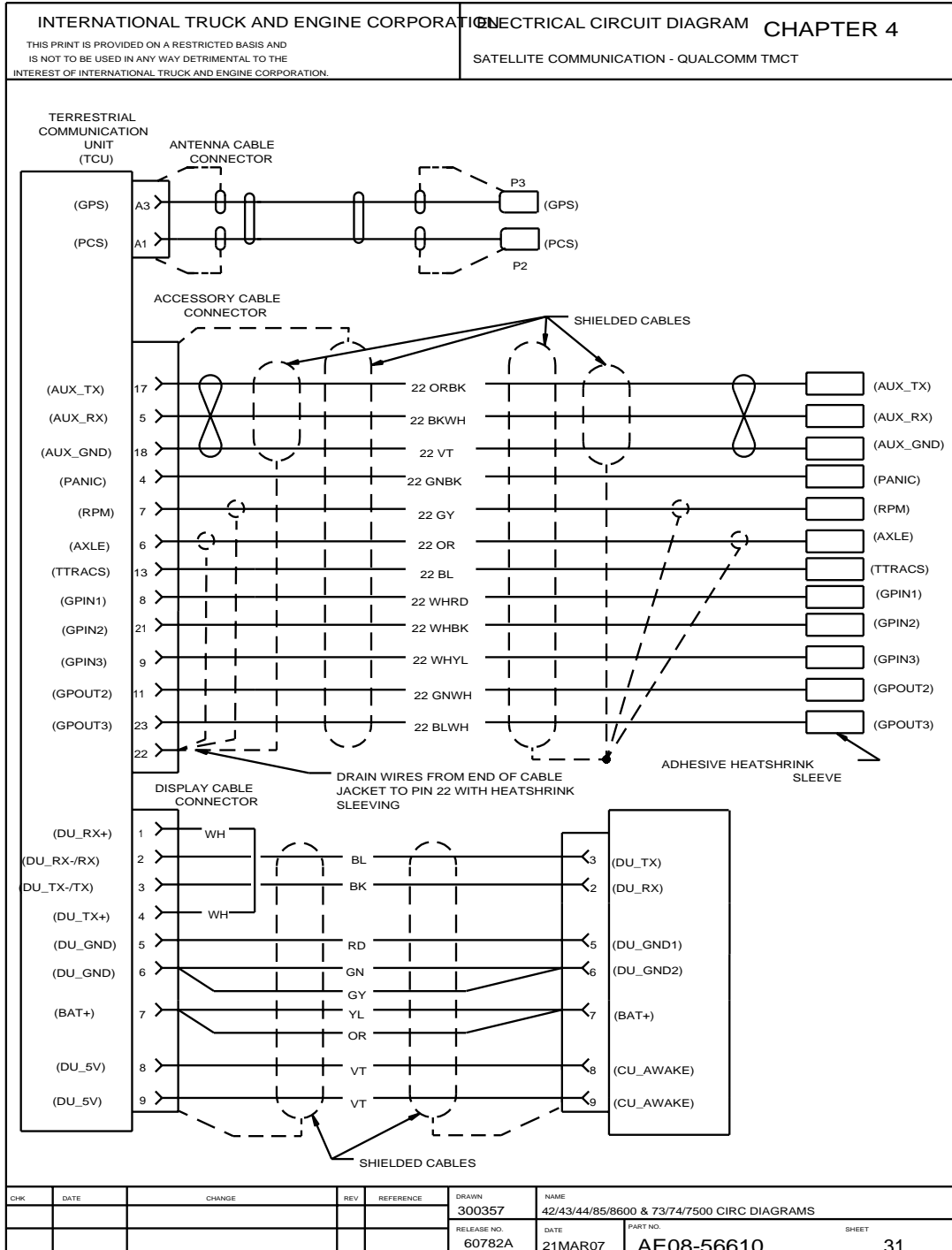


Figure 75 Satellite Communication — Qualcomm TMCT

4.35. AIR SHIELD LIGHT, P. 33

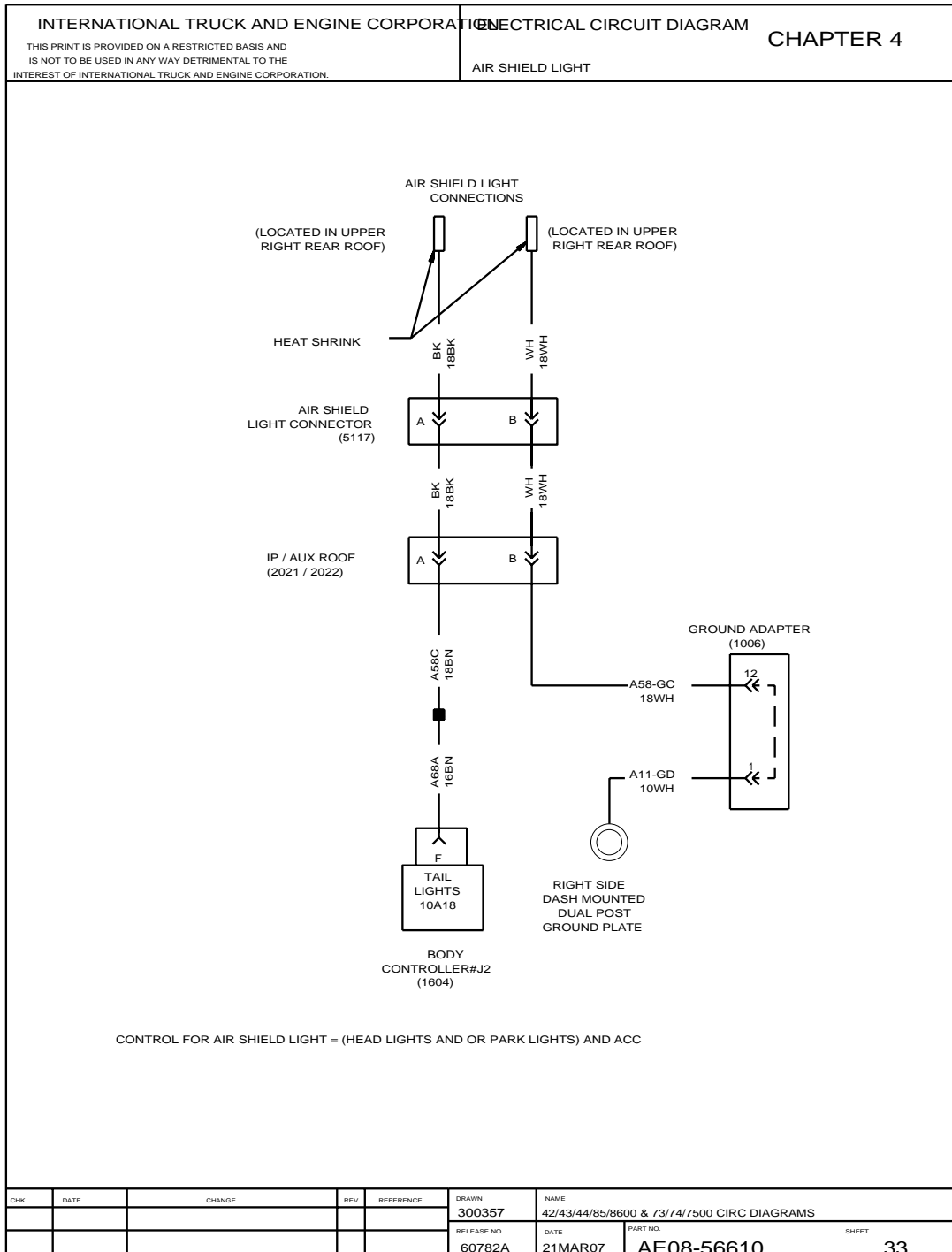


Figure 77 Air Shield Light

5.2. CAT — CUMMINS ENGINES WITH MANUAL TRANSMISSION, P. 2

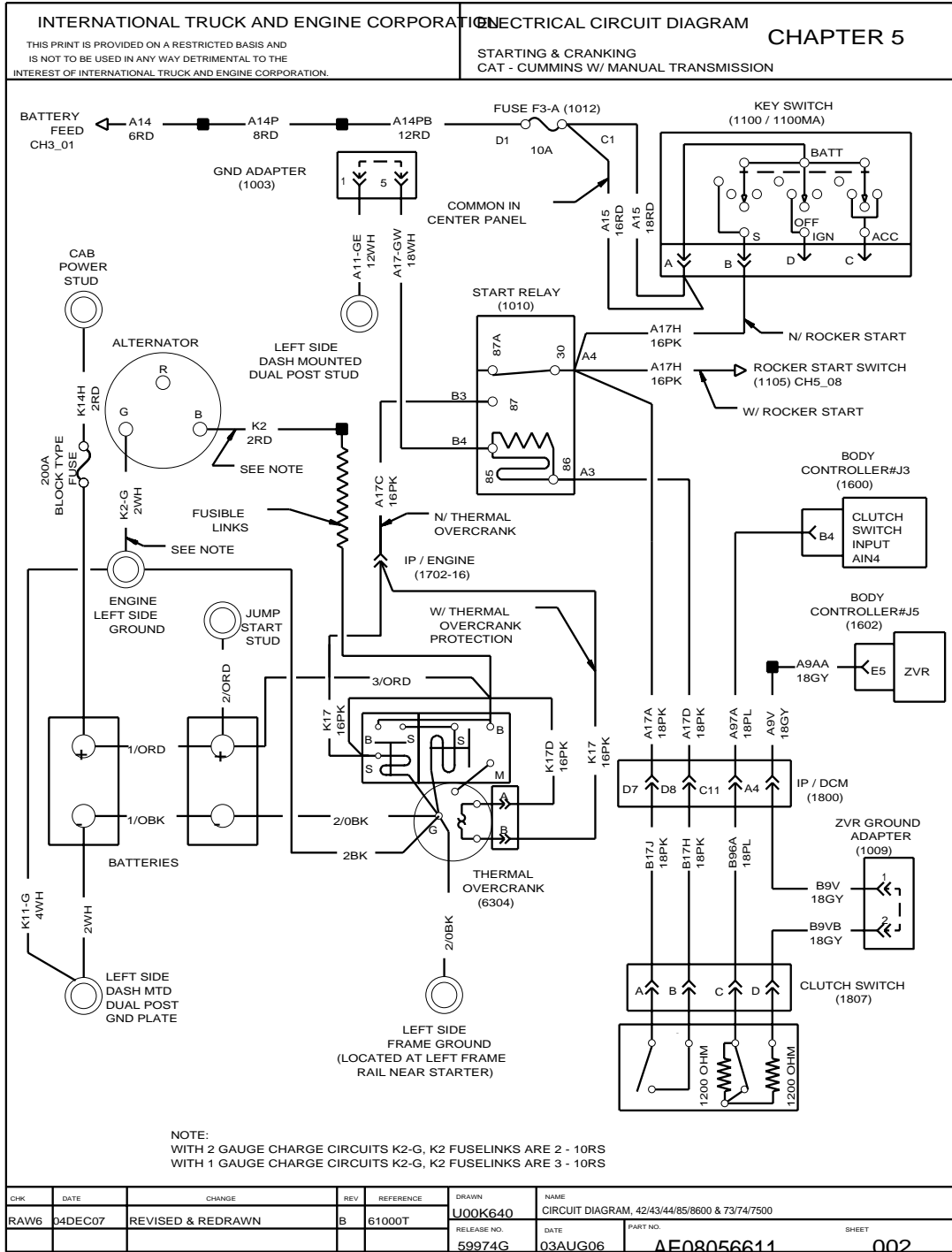


Figure 79 Cat — Cummins Engines with Manual Transmission

5.3. I6 / V8 ENGINES WITH ALLISON TRANSMISSION, P. 3

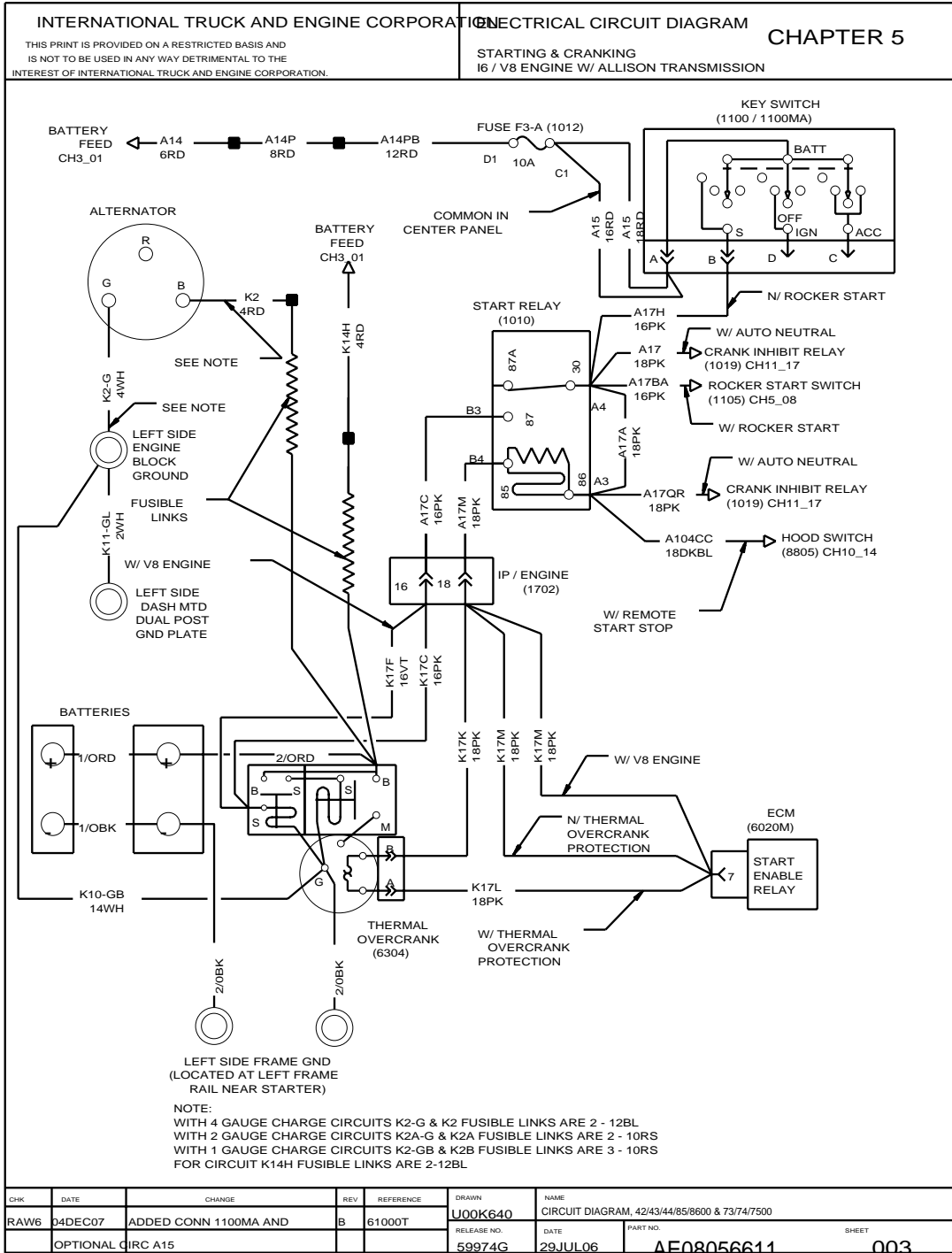


Figure 80 I6 / V8 Engines with Allison Transmission

5.4. CAT — CUMMINS ENGINES WITH ALLISON TRANSMISSION, P. 4

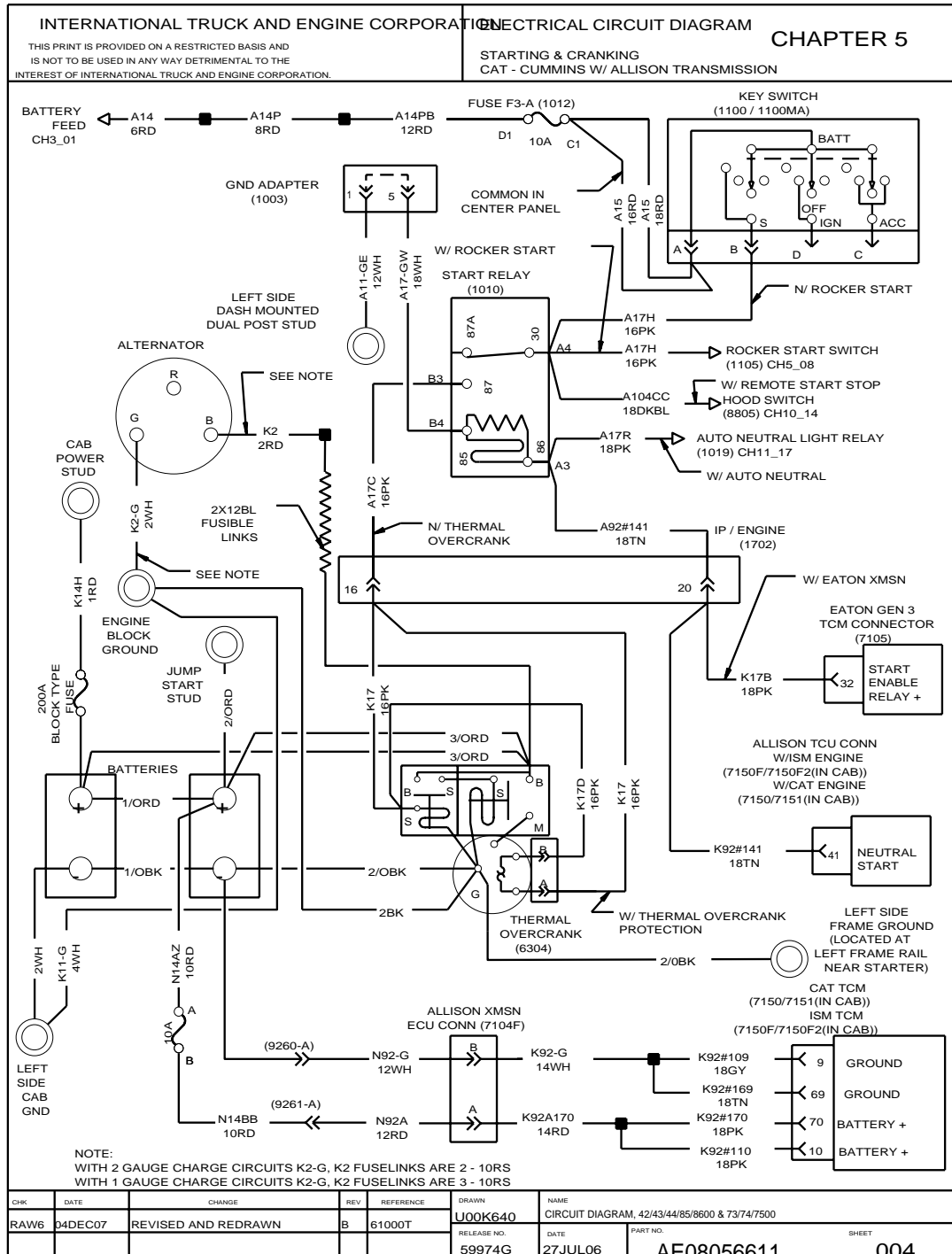


Figure 81 Cat — Cummins Engines with Allison Transmission

5.5. I6 ENGINE WITH AUTOSHIFT, ULTRASHIFT AND EATON HYBRID TRANSMISSION, P. 5

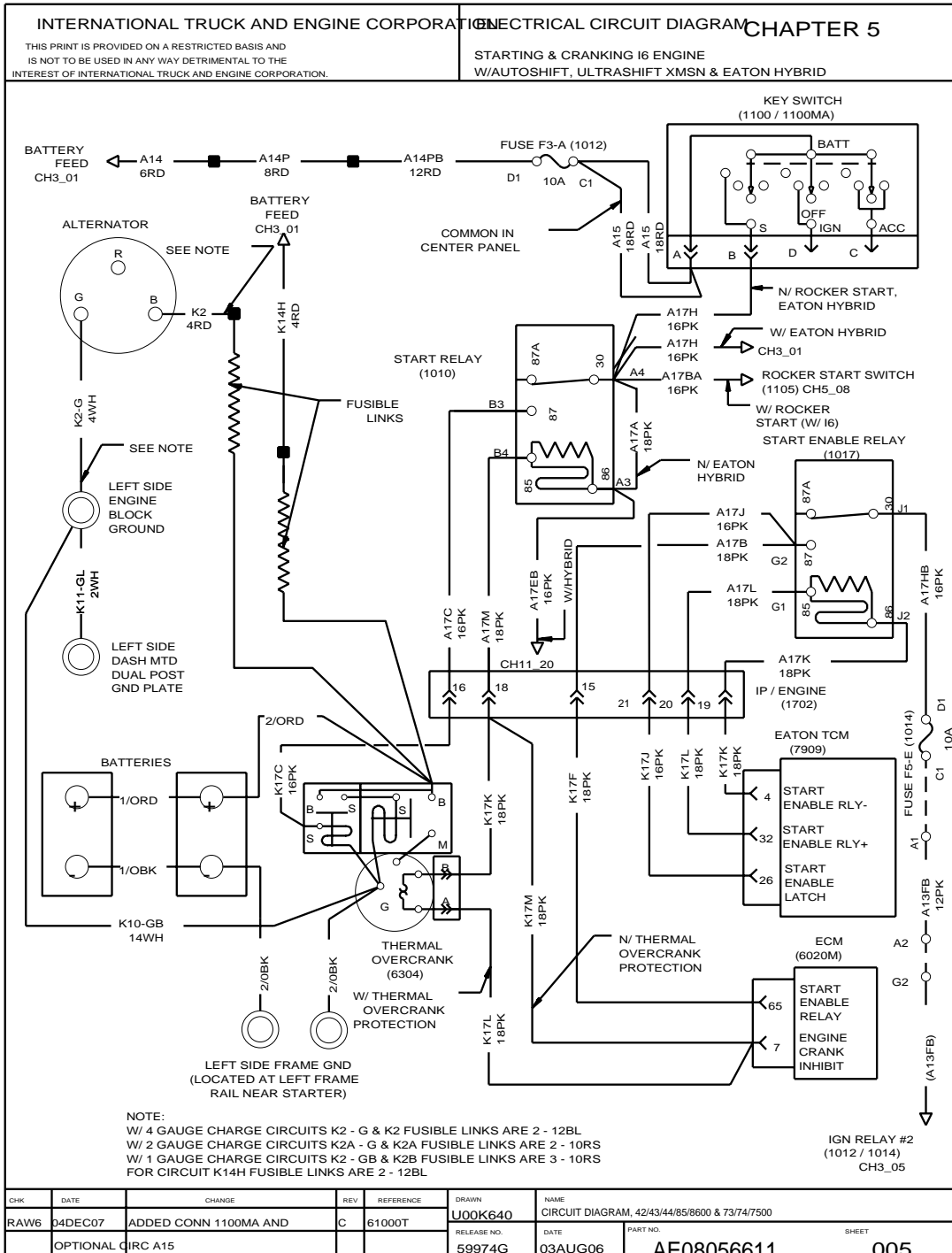


Figure 82 I6 Engine with Autoshift, Ultrashift, and Eaton Hybrid Transmission

5.6. CAT — CUMMINS ENGINES WITH AUTOSHIFT AND ULTRASHIFT TRANSMISSION,
 P. 6

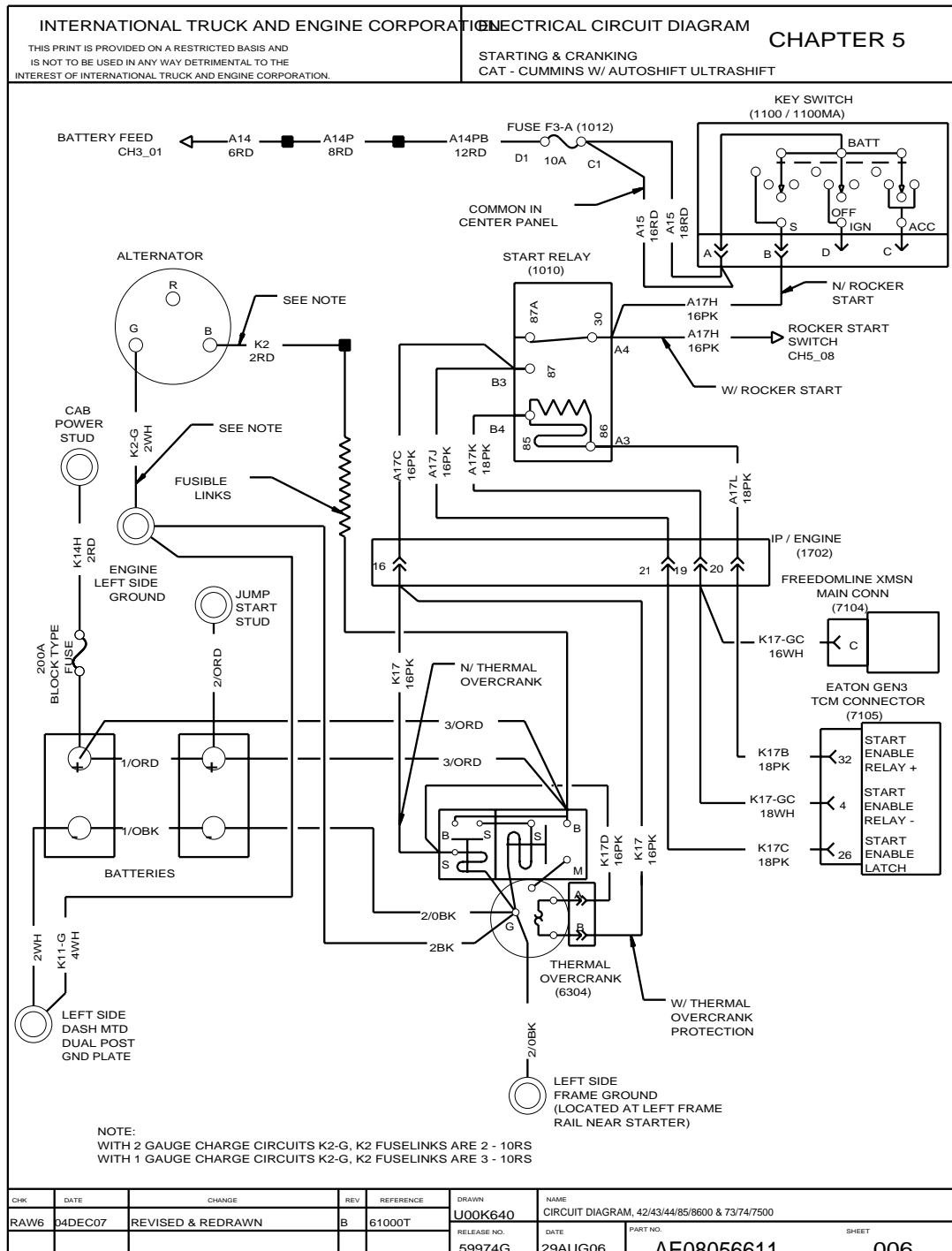


Figure 83 Cat — Cummins Engines with Autoshift and Ultrashift Transmission

5.7. I6 POWER PACK, P. 7

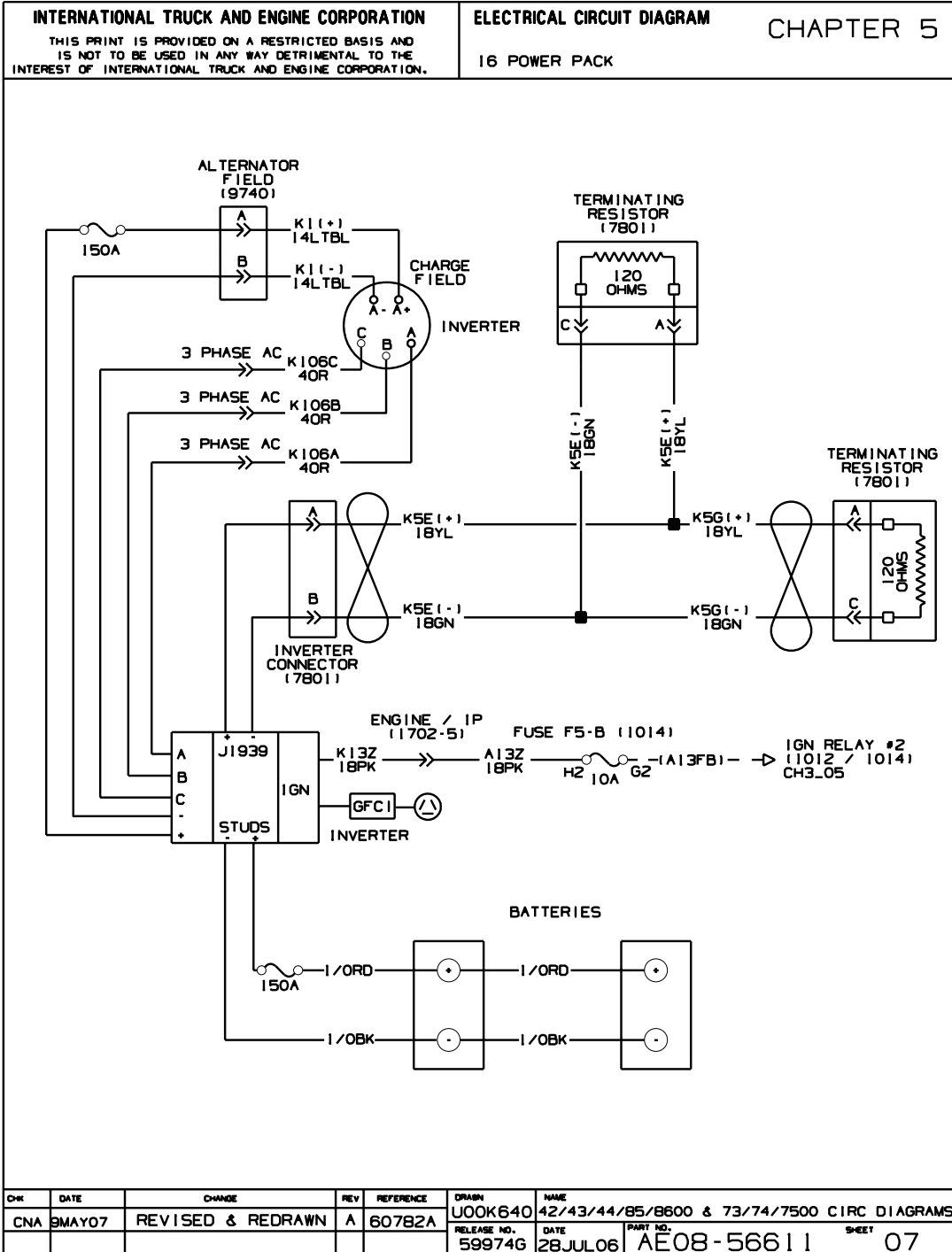


Figure 84 I6 Power Pack

5.8. ROCKER START, P. 8

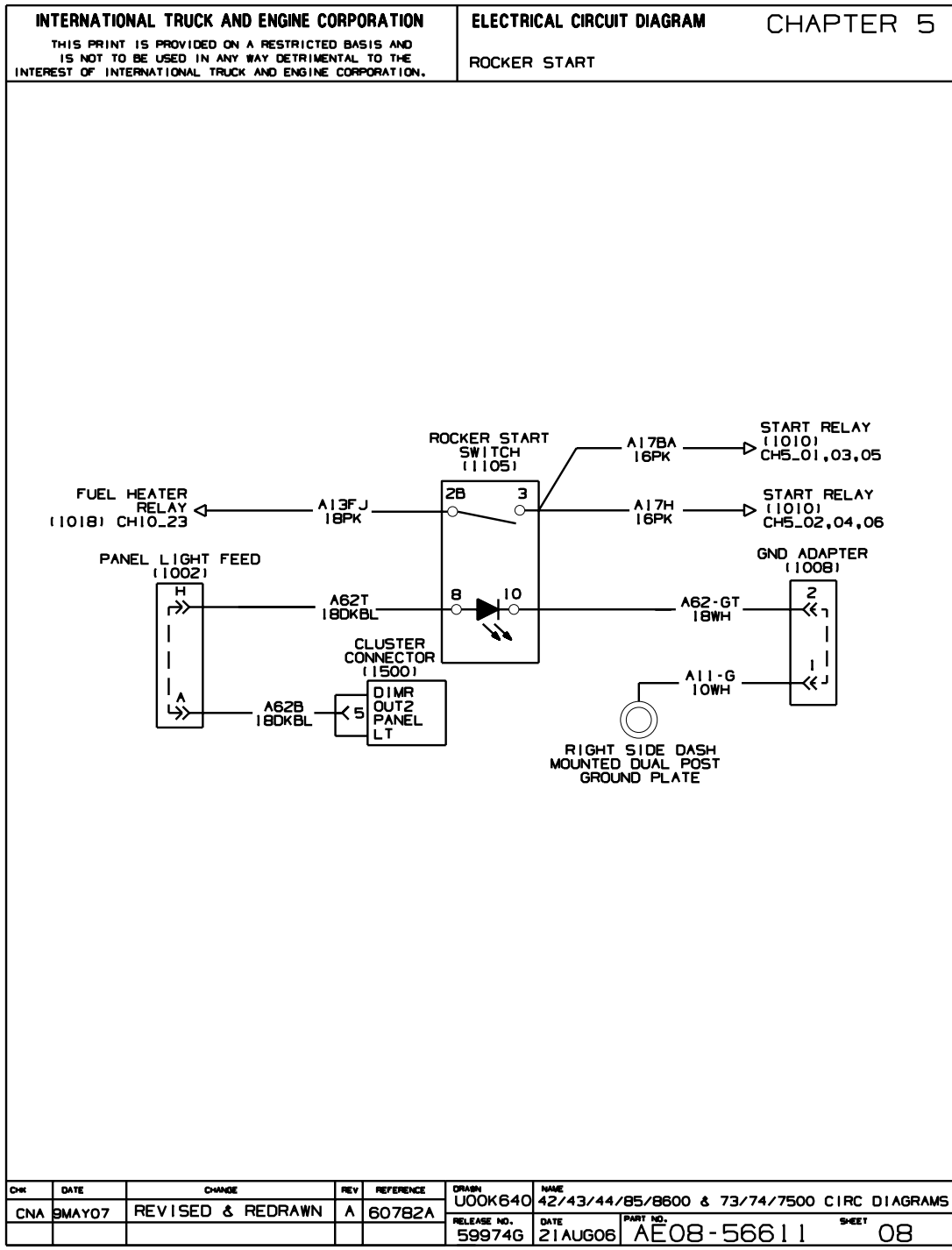


Figure 85 Rocker Start

6. FANS AND ENGINE ACCESSORIES (CHAPTER 6)

6.1. FAN WIRING, I6 / V8 2007 ENGINES, P. 1

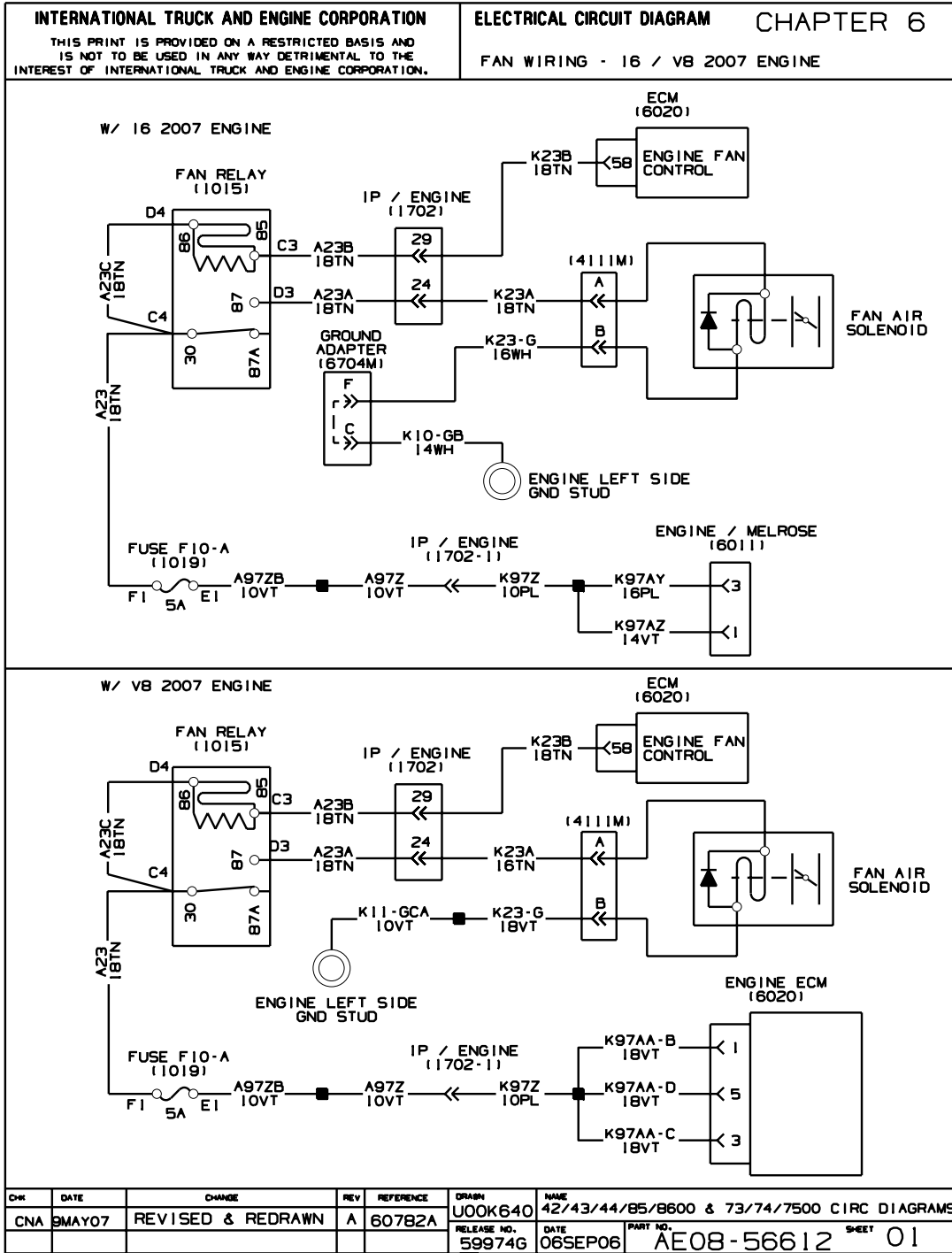


Figure 86 Fan Wiring, I6 / V8 2007 Engines

6.2. FAN WIRING, ISM, C11-C13 2007 ENGINES, P. 2

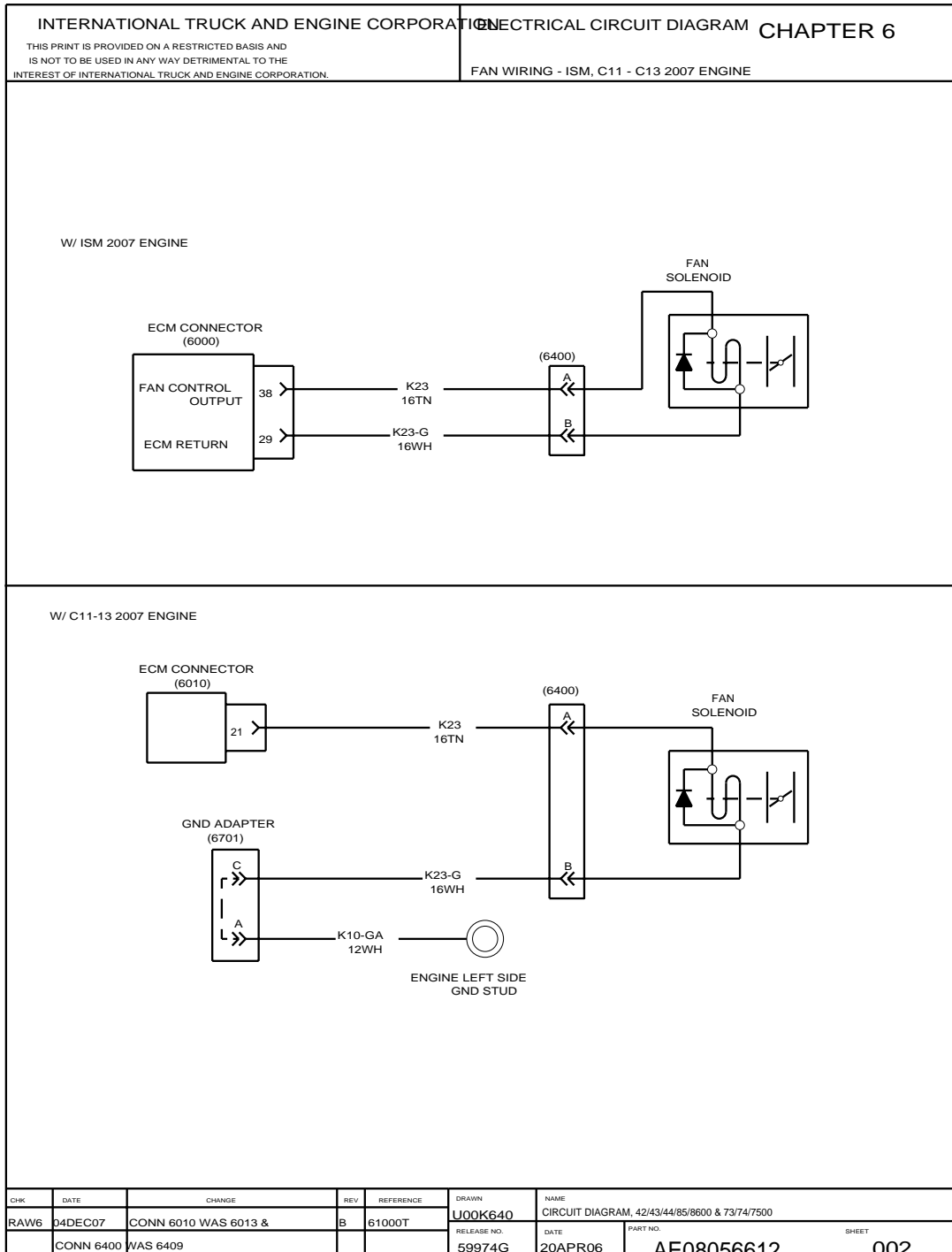


Figure 87 Fan Wiring, ISM, C11-C13 2007 Engines

6.3. STARTING AID — ETHER START, P. 3

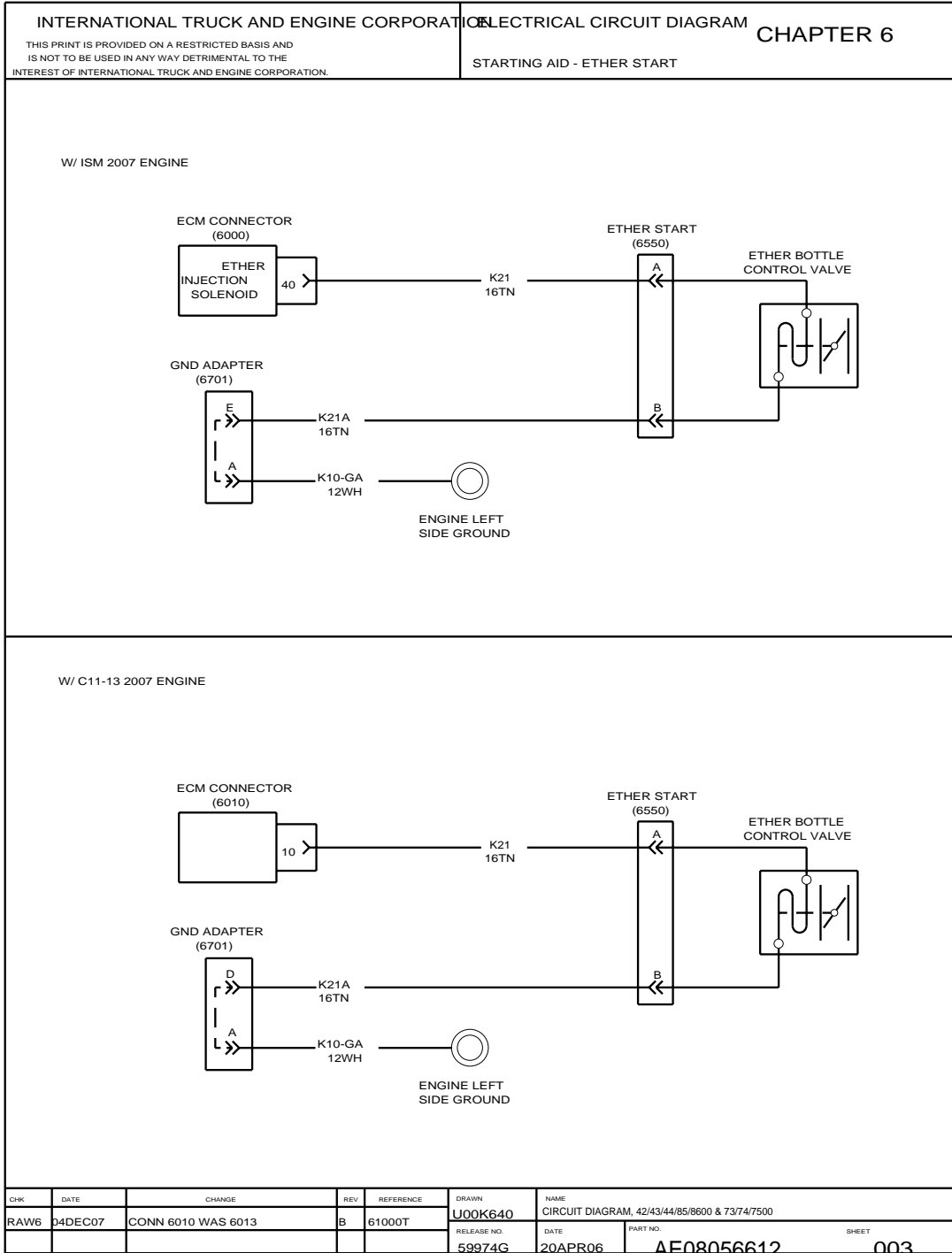


Figure 88 Starting Aid — Ether Start

6.4. SNOW VALVE, P. 4

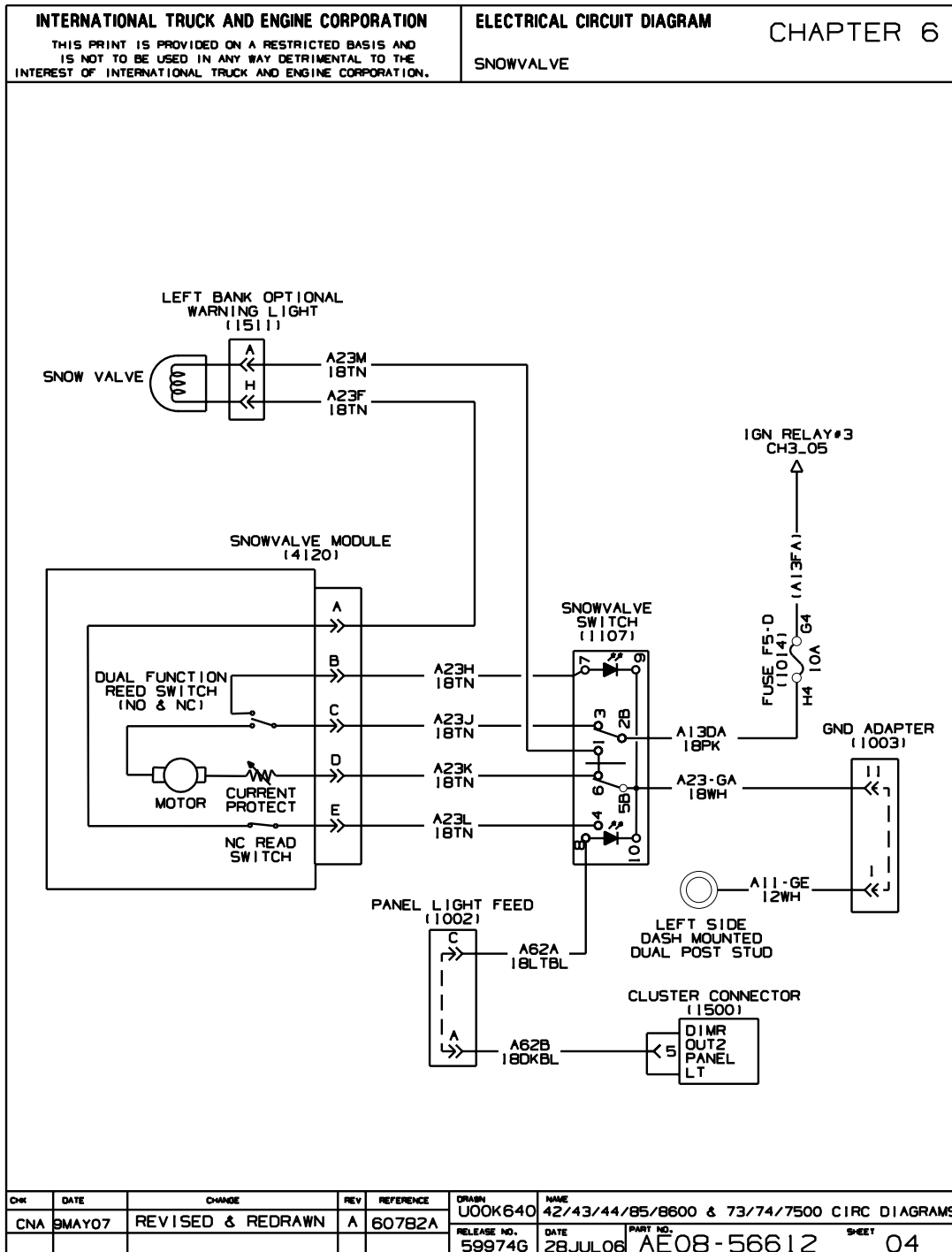


Figure 89 Snow Valve

7. ELECTRONIC ENGINES (CHAPTER 7)

7.1. ELECTRONIC ENGINE CONTROLS, CAT ENGINES, P. 1

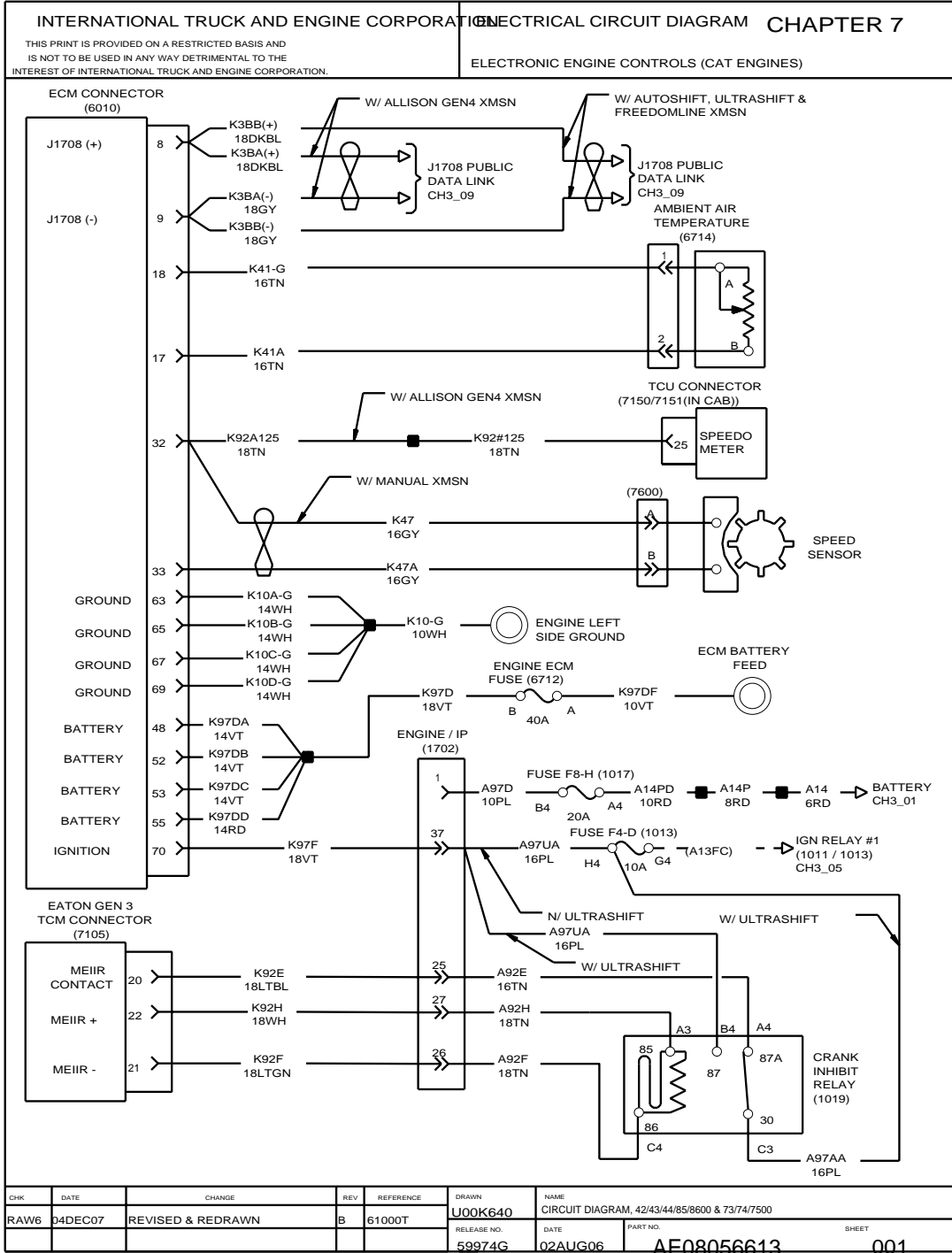


Figure 90 Electronic Engine Controls, Cat Engines

7.2. ELECTRONIC ENGINE CONTROLS, CAT ENGINES, P. 2

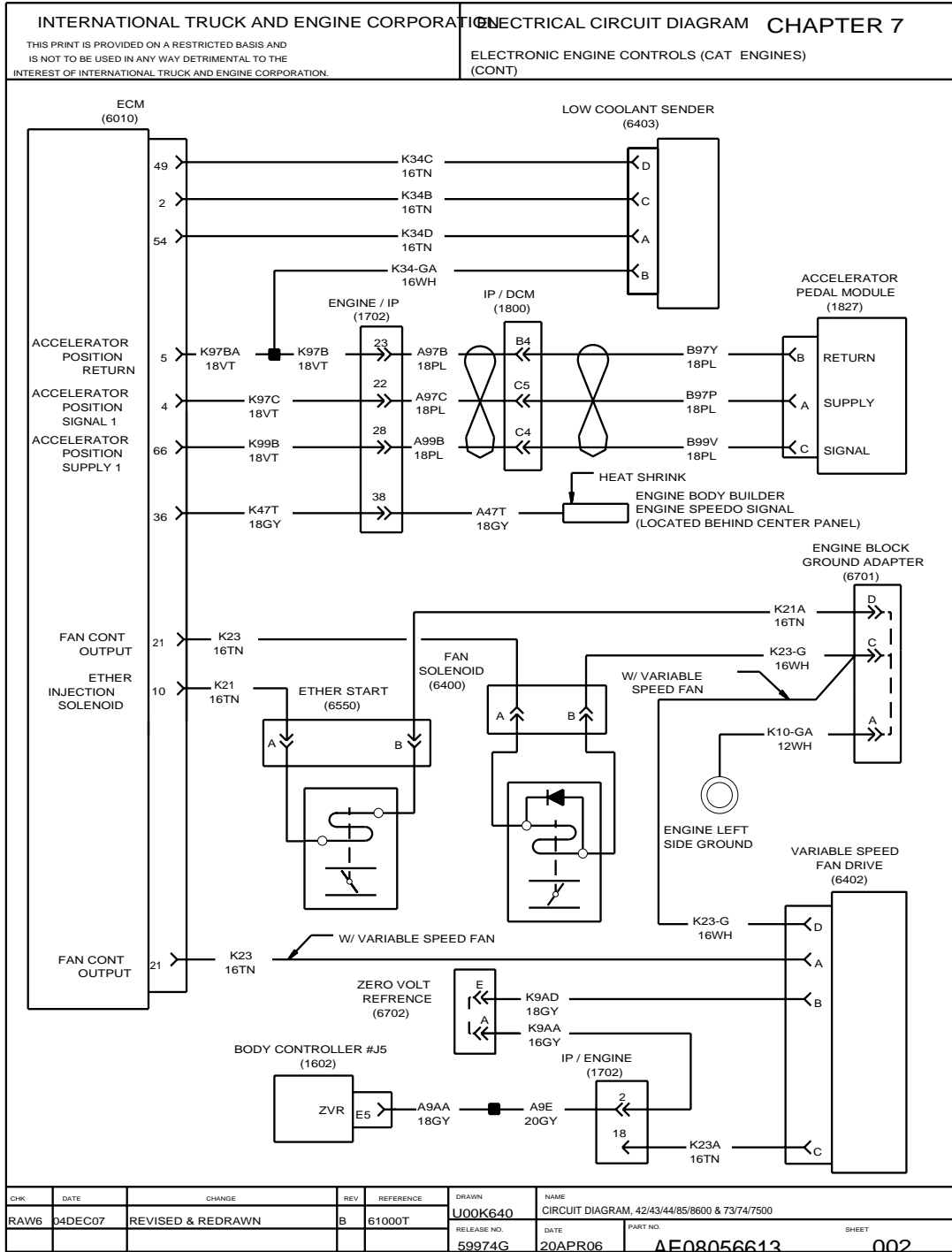


Figure 91 Electronic Engine Controls, Cat Engines (Cont.)

7.3. ENGINE BODY BUILDER — REMOTE ENGINE CONTROL (CAT/IBBE ENGINE), P. 3

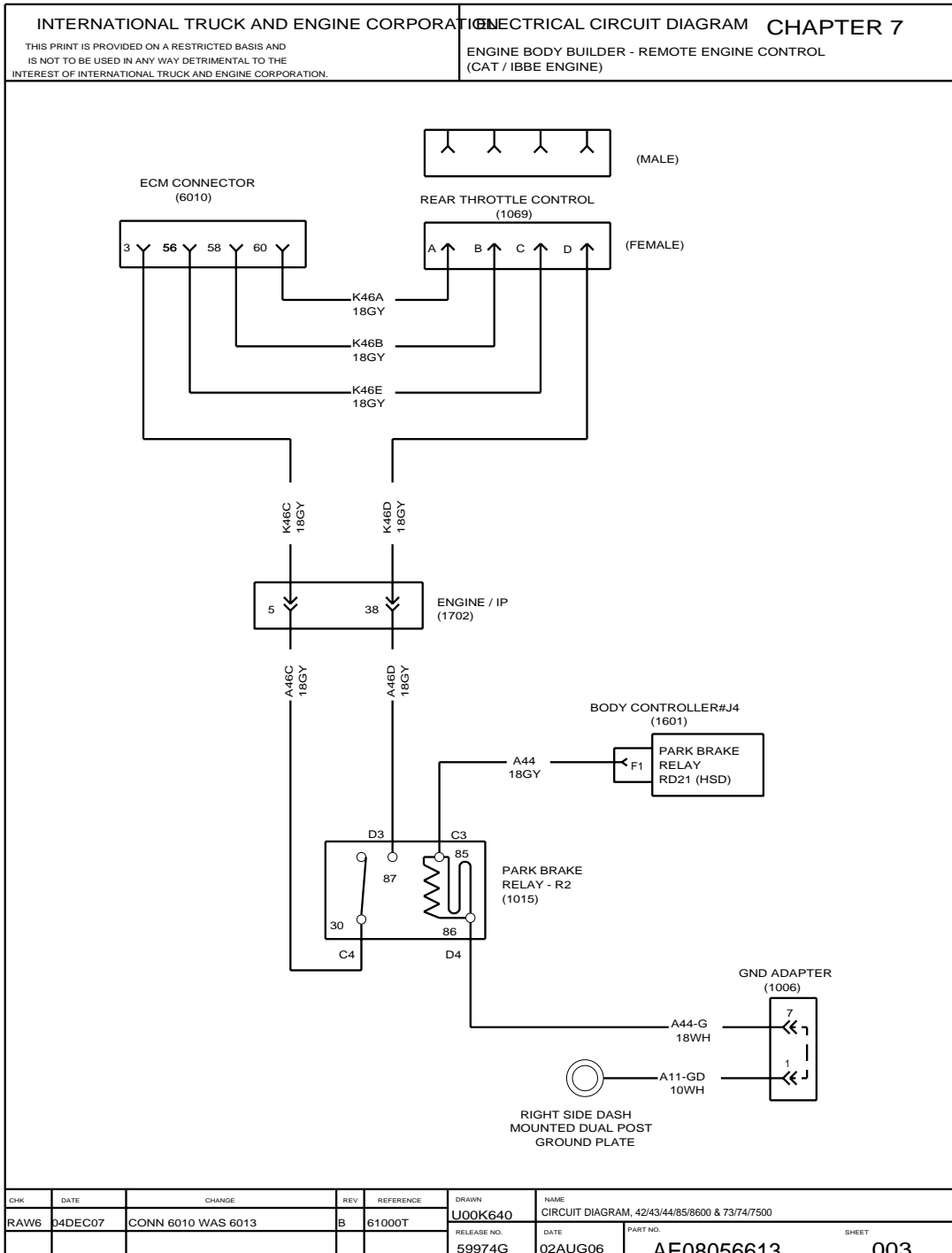


Figure 92 Engine Body Builder — Remote Engine Control (Cat/IBBE Engine)

7.4. ELECTRONIC ENGINE CONTROLS, ISM ENGINES, P. 4

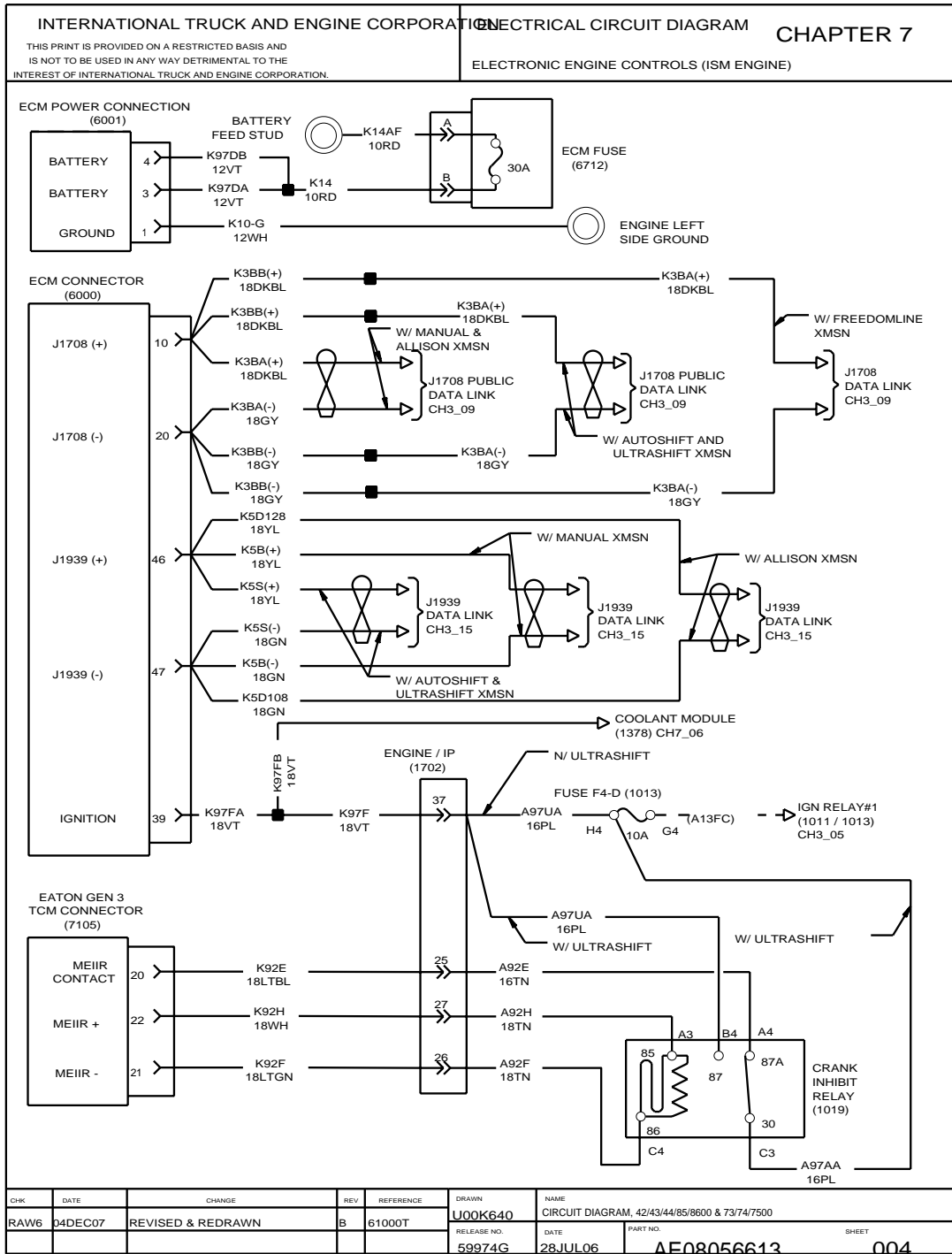


Figure 93 Electronic Engine Controls, ISM Engines

7.5. ELECTRONIC ENGINE CONTROLS, ISM ENGINES, P. 5

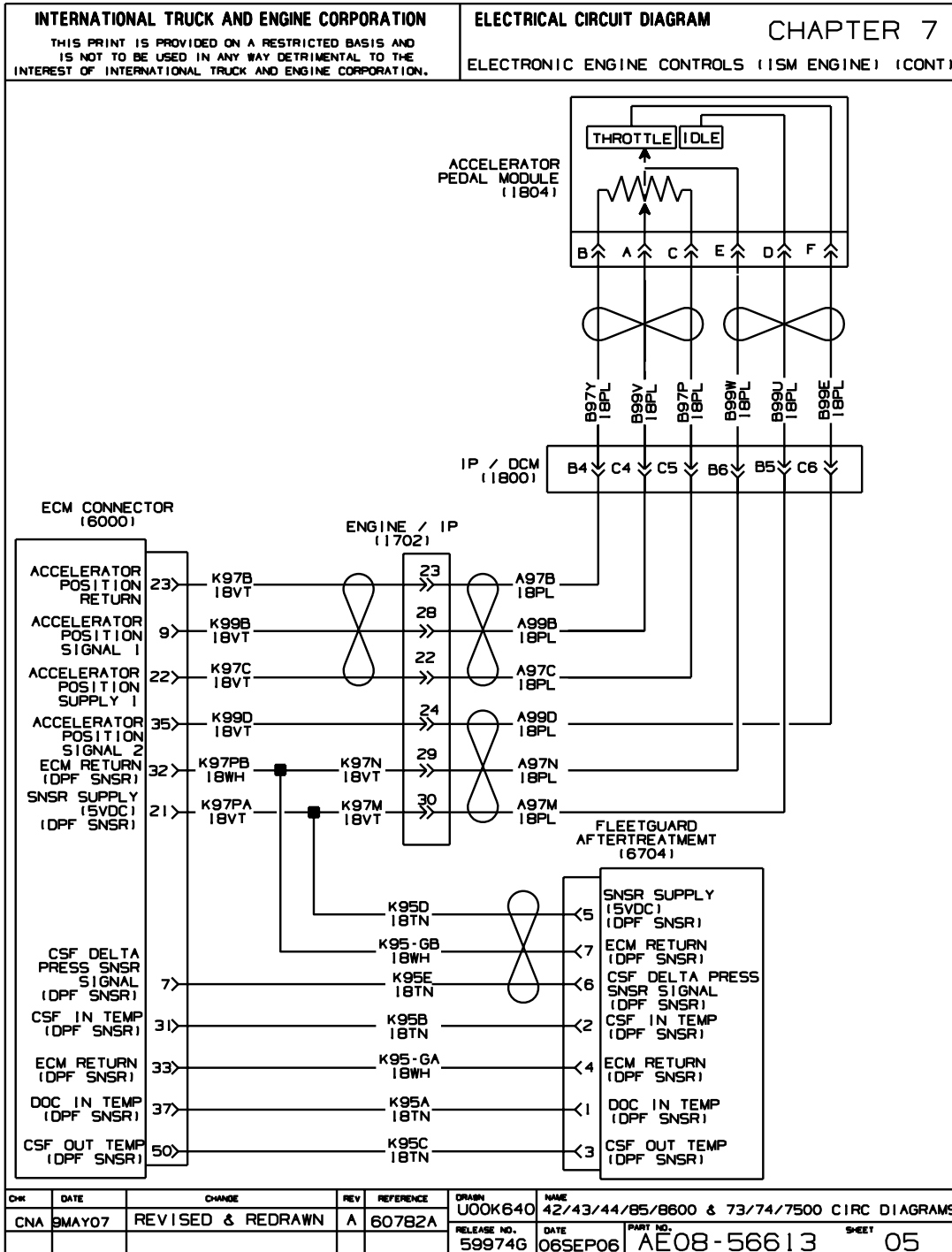


Figure 94 Electronic Engine Controls, ISM Engines (Cont.)

7.6. ELECTRONIC ENGINE CONTROLS, ISM ENGINES, P. 6

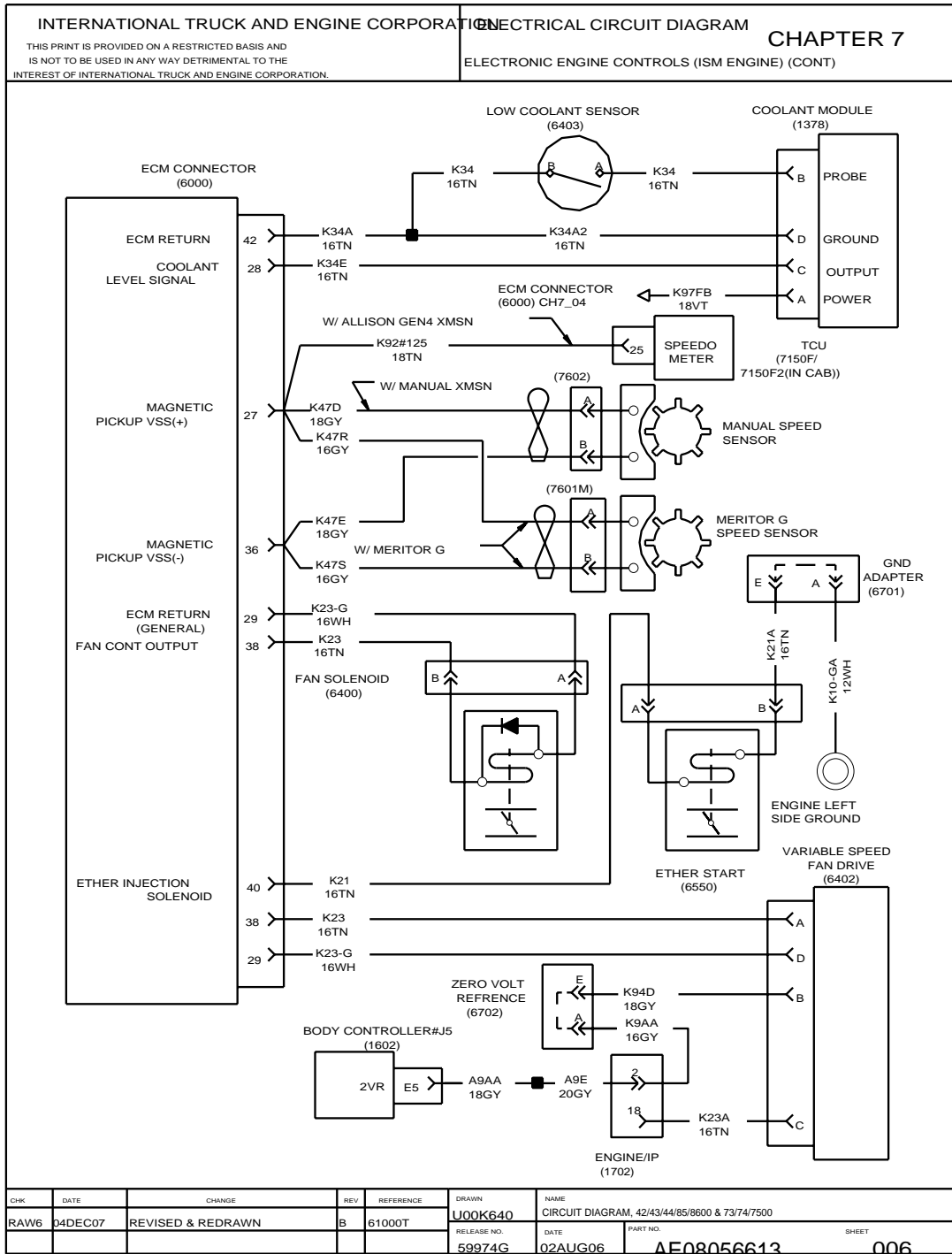


Figure 95 Electronic Engine Controls, ISM Engines (Cont.)

7.7. ELECTRONIC ENGINE CONTROLS, I6 ENGINES, P. 7

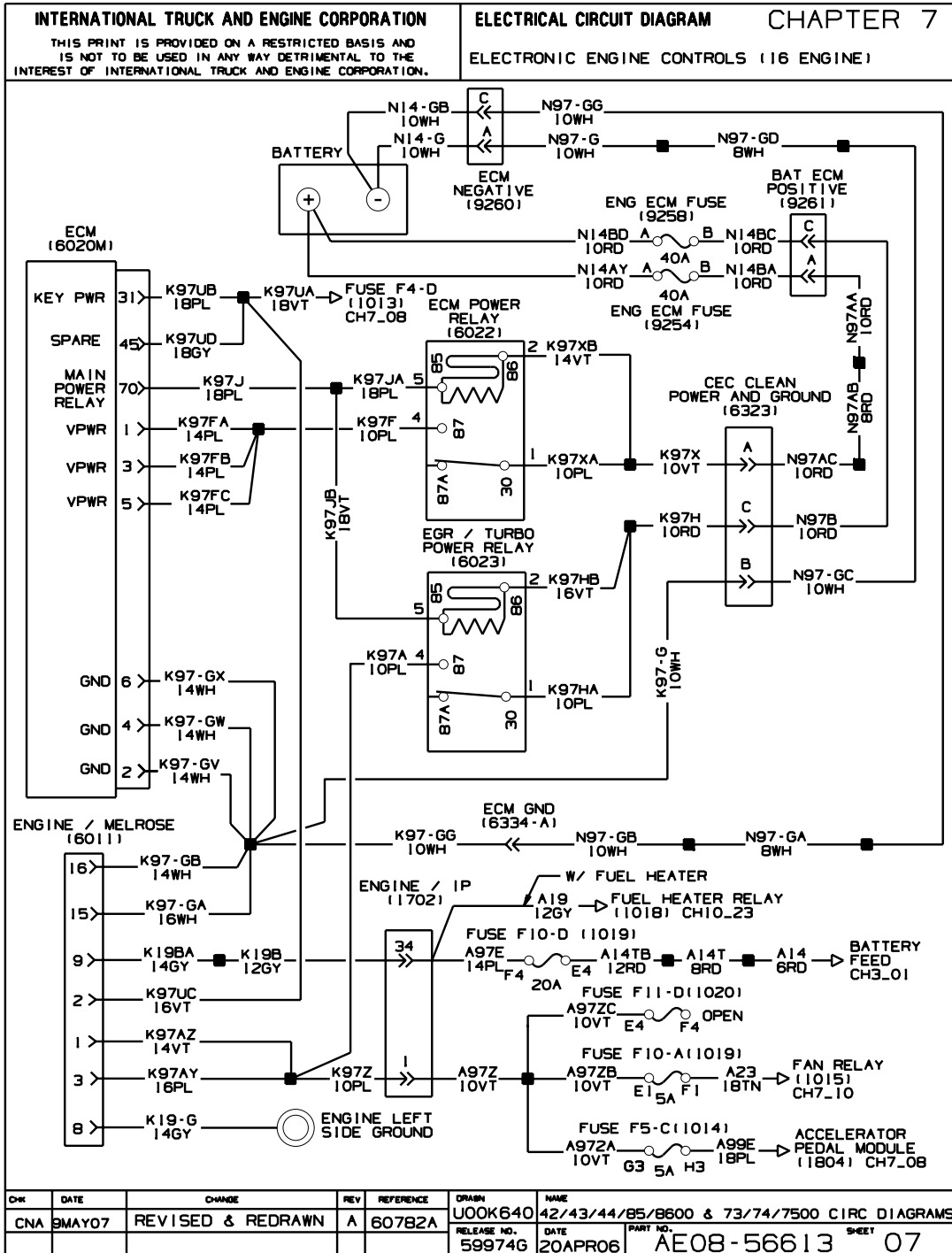


Figure 96 Electronic Engine Controls, I6 Engines

7.8. ELECTRONIC ENGINE CONTROLS, I6 ENGINES, P. 8

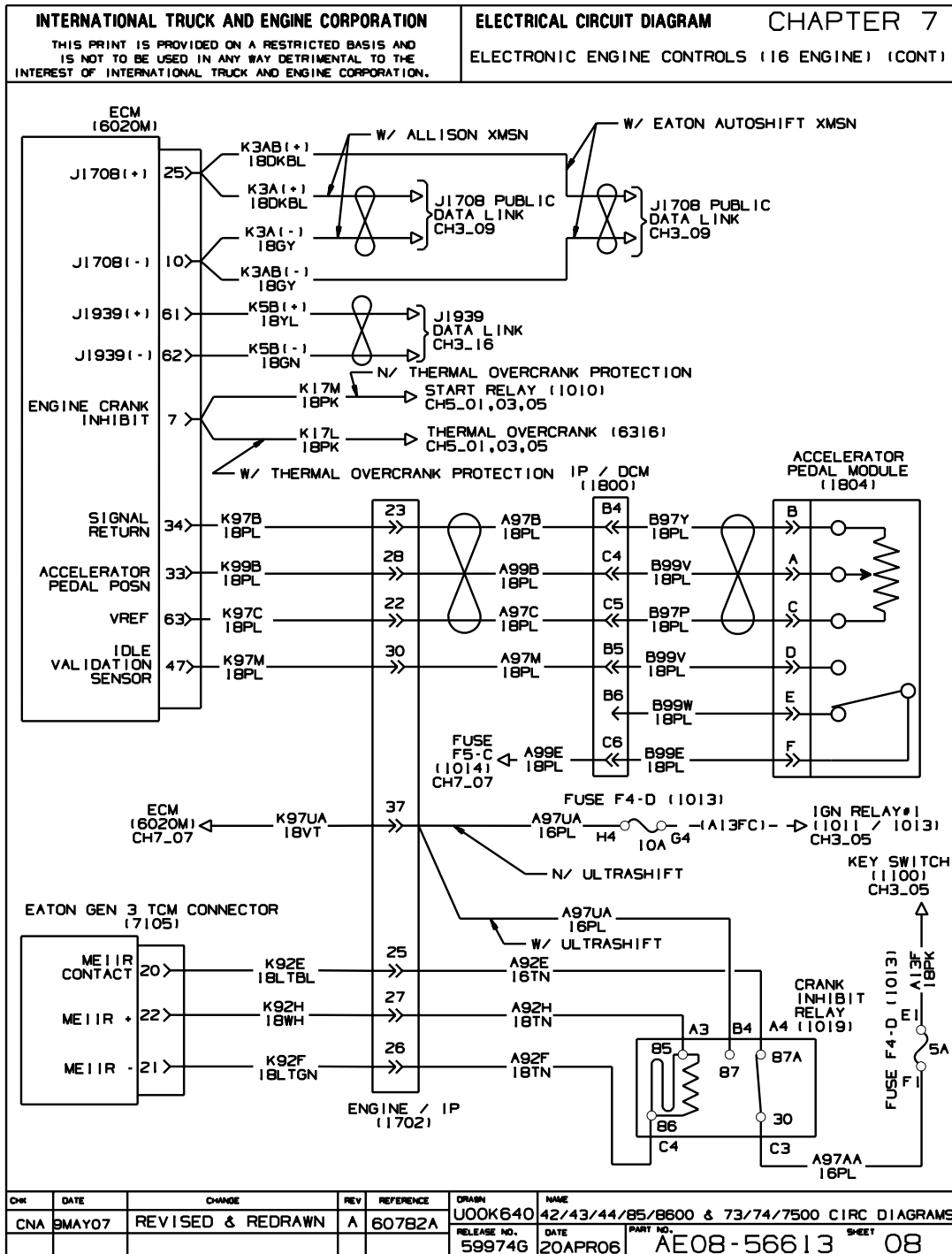


Figure 97 Electronic Engine Controls, I6 Engines (Cont.)

7.9. ELECTRONIC ENGINE CONTROLS, I6 ENGINES, P. 9

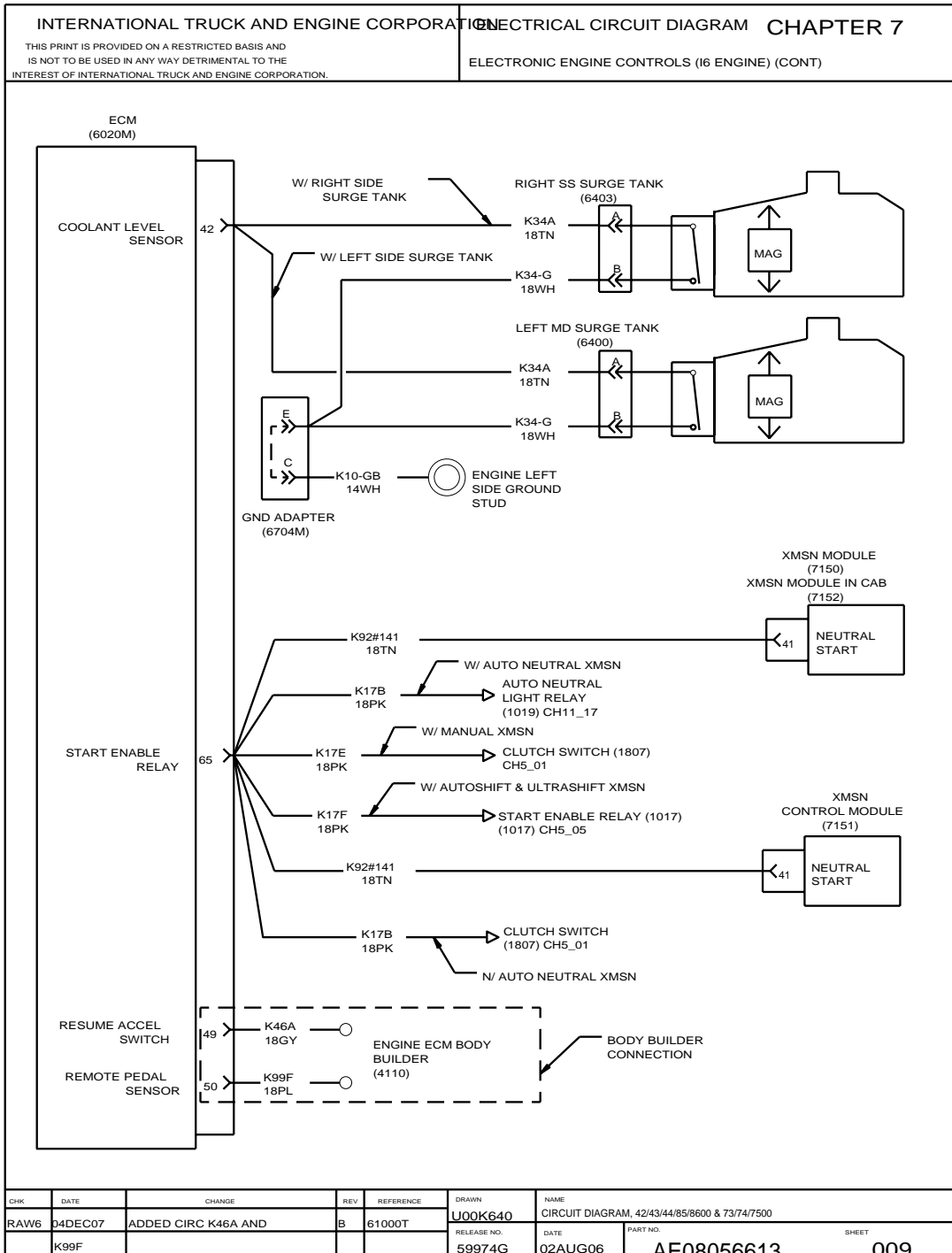


Figure 98 Electronic Engine Controls, I6 Engines (Cont.)

7.10. ELECTRONIC ENGINE CONTROLS, I6 ENGINES, P. 10

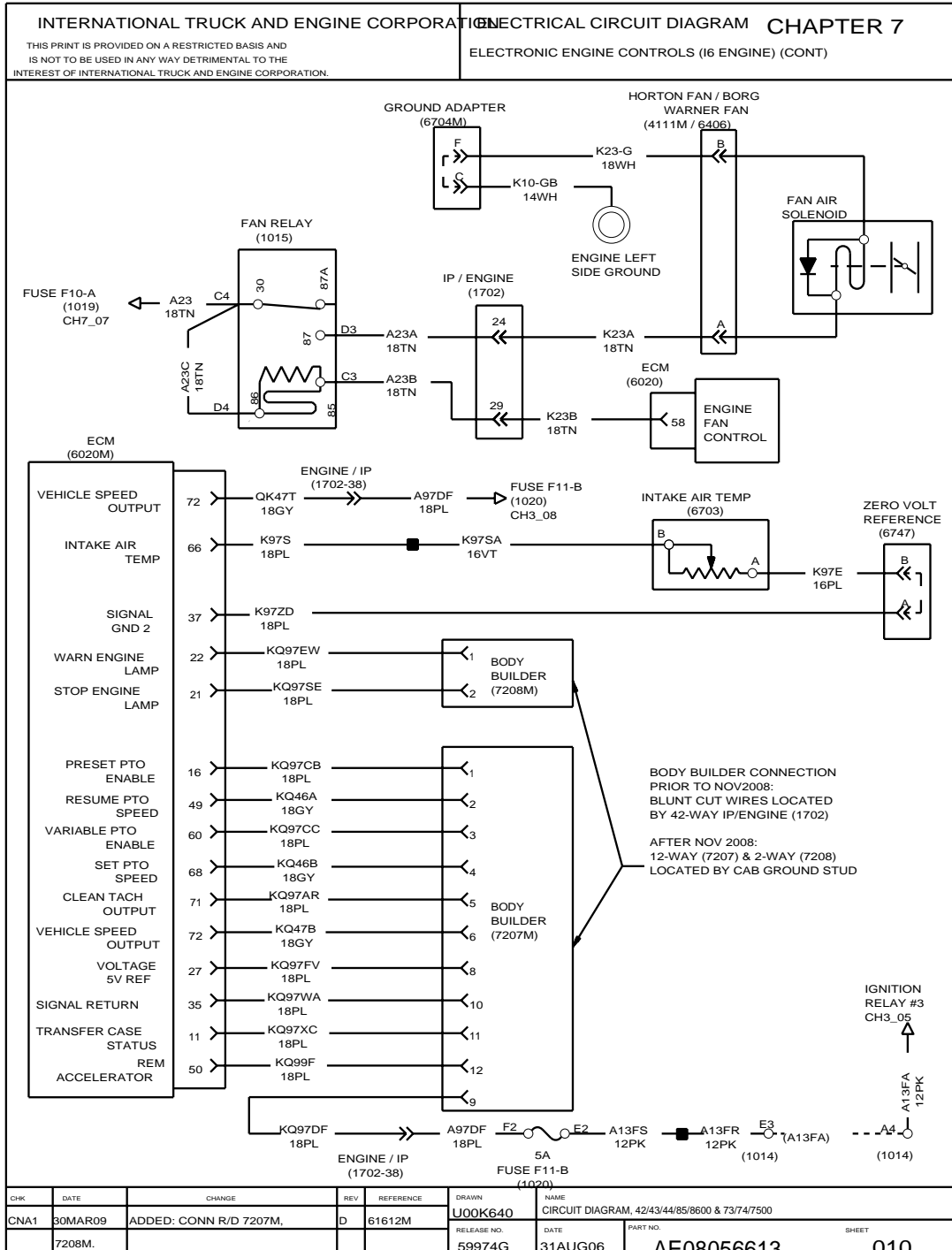


Figure 99 Electronic Engine Controls, I6 Engines (Cont.)

7.11. ELECTRONIC ENGINE CONTROLS, I6 ENGINES, P. 11

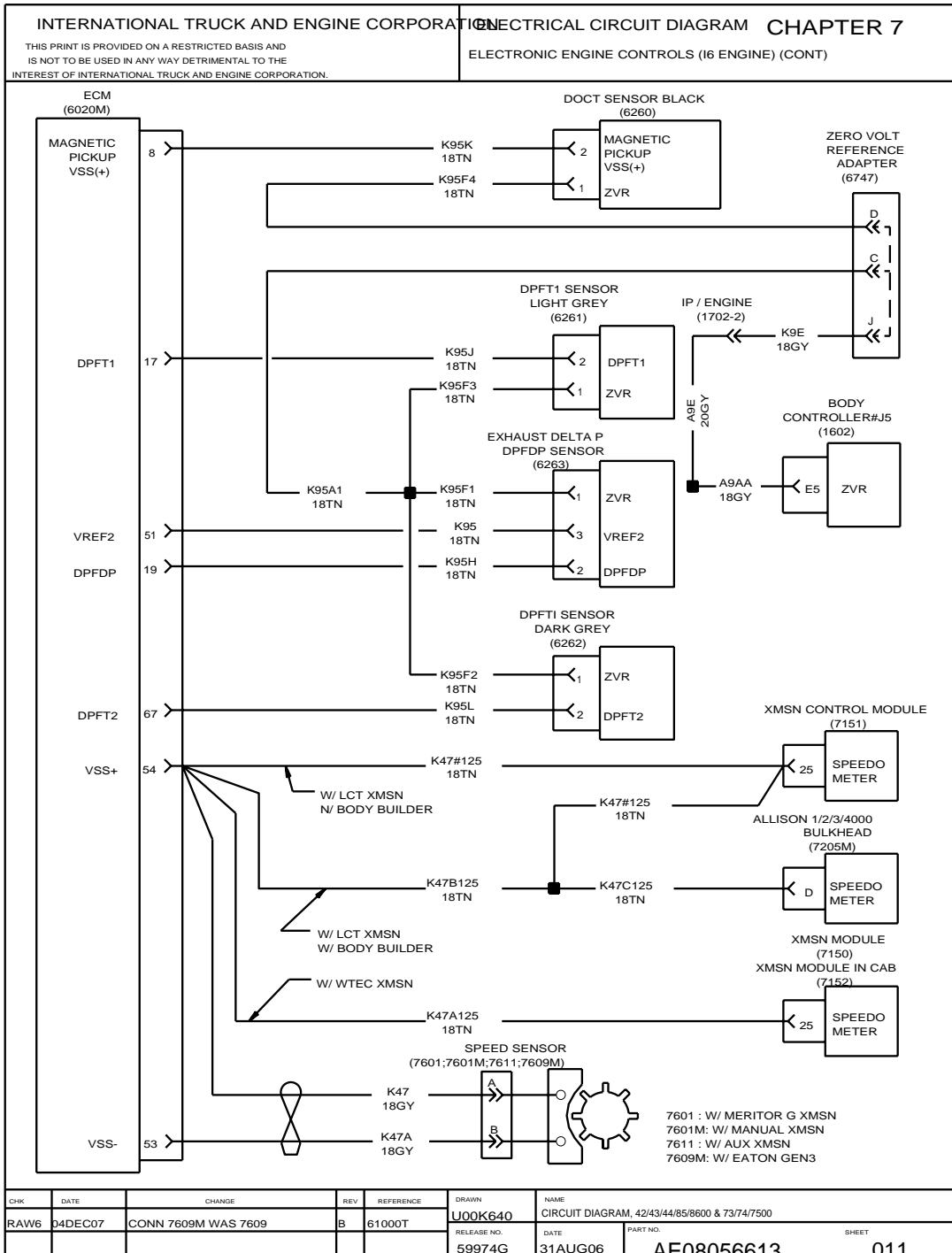


Figure 100 Electronic Engine Controls, I6 Engines (Cont.)

7.12. ELECTRONIC ENGINE CONTROLS — V8 ENGINES, P. 12

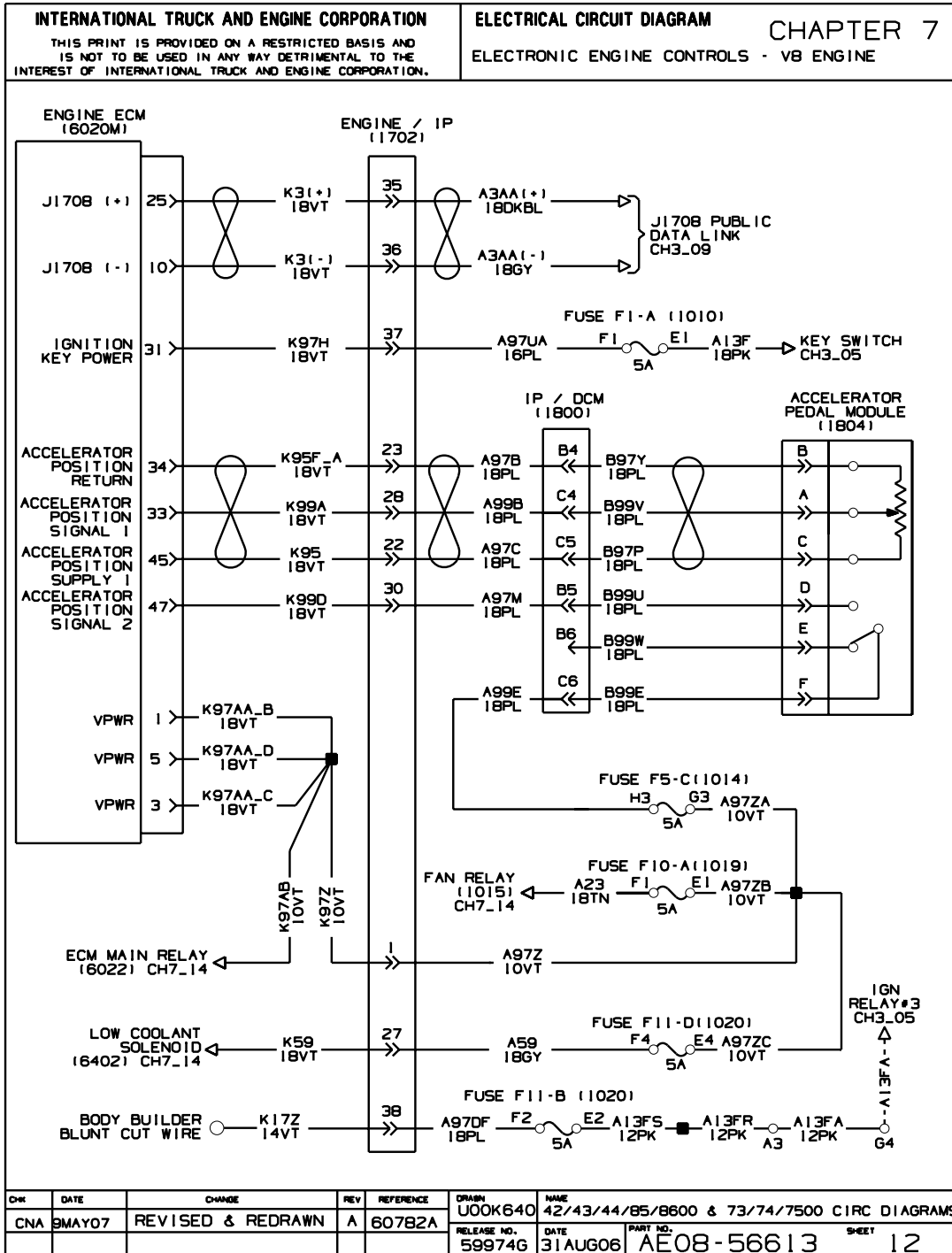


Figure 101 Electronic Engine Controls — V8 Engines

7.13. ELECTRONIC ENGINE CONTROLS — V8 ENGINES, P. 13

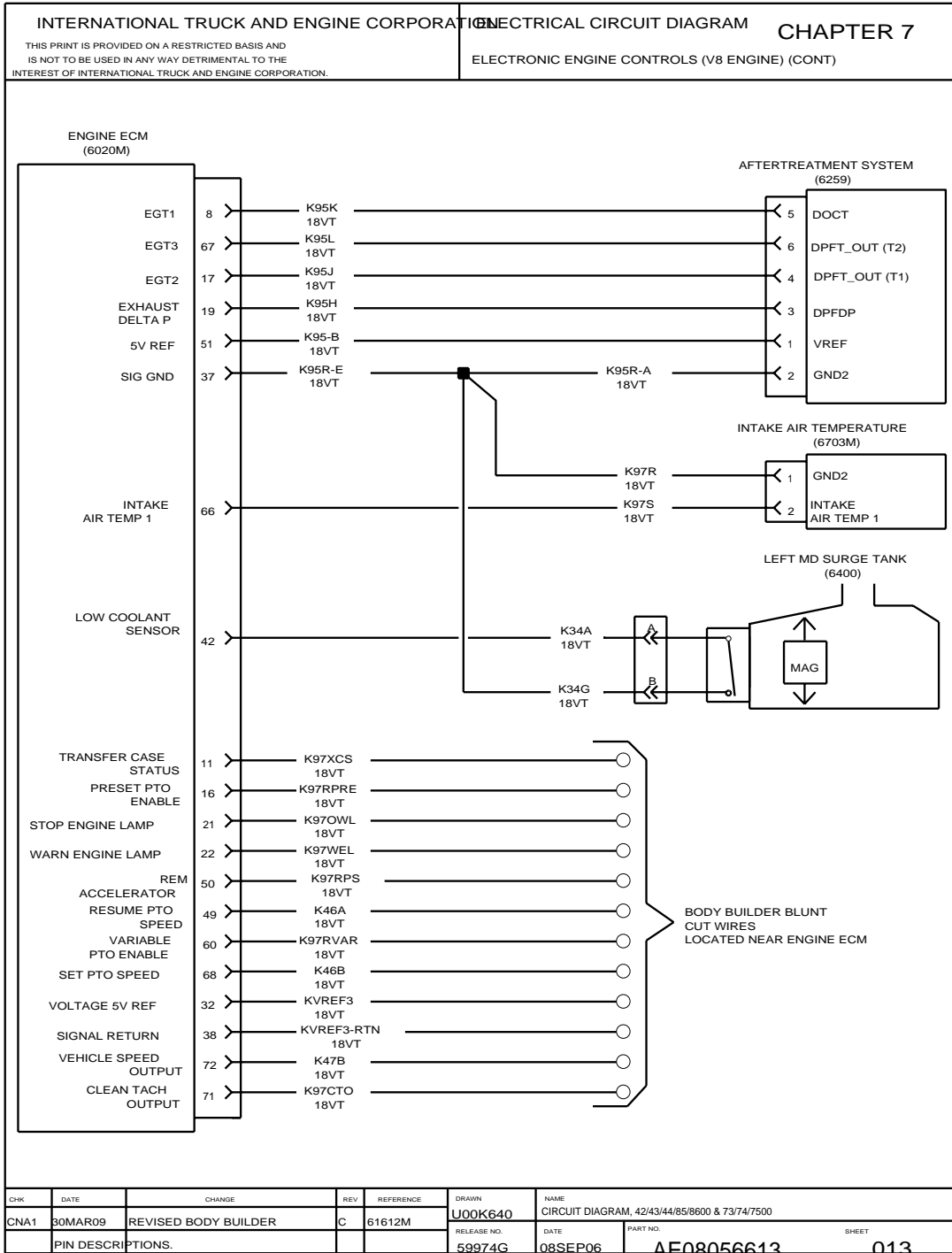


Figure 102 Electronic Engine Controls — V8 Engines

7.14. ELECTRONIC ENGINE CONTROLS — V8 ENGINES, P. 14

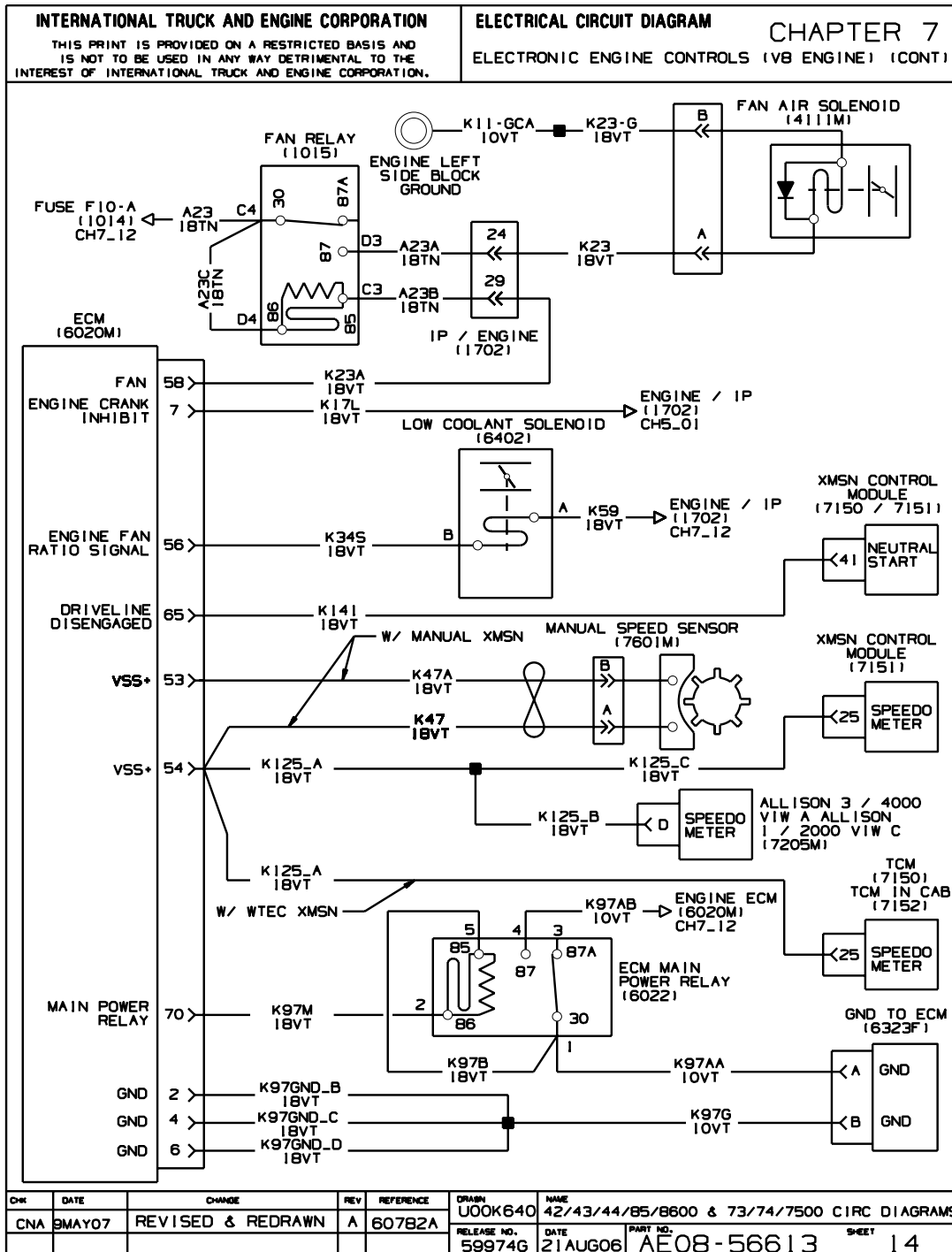


Figure 103 Electronic Engine Controls — V8 Engines

7.15. CRUISE CONTROL, P. 15

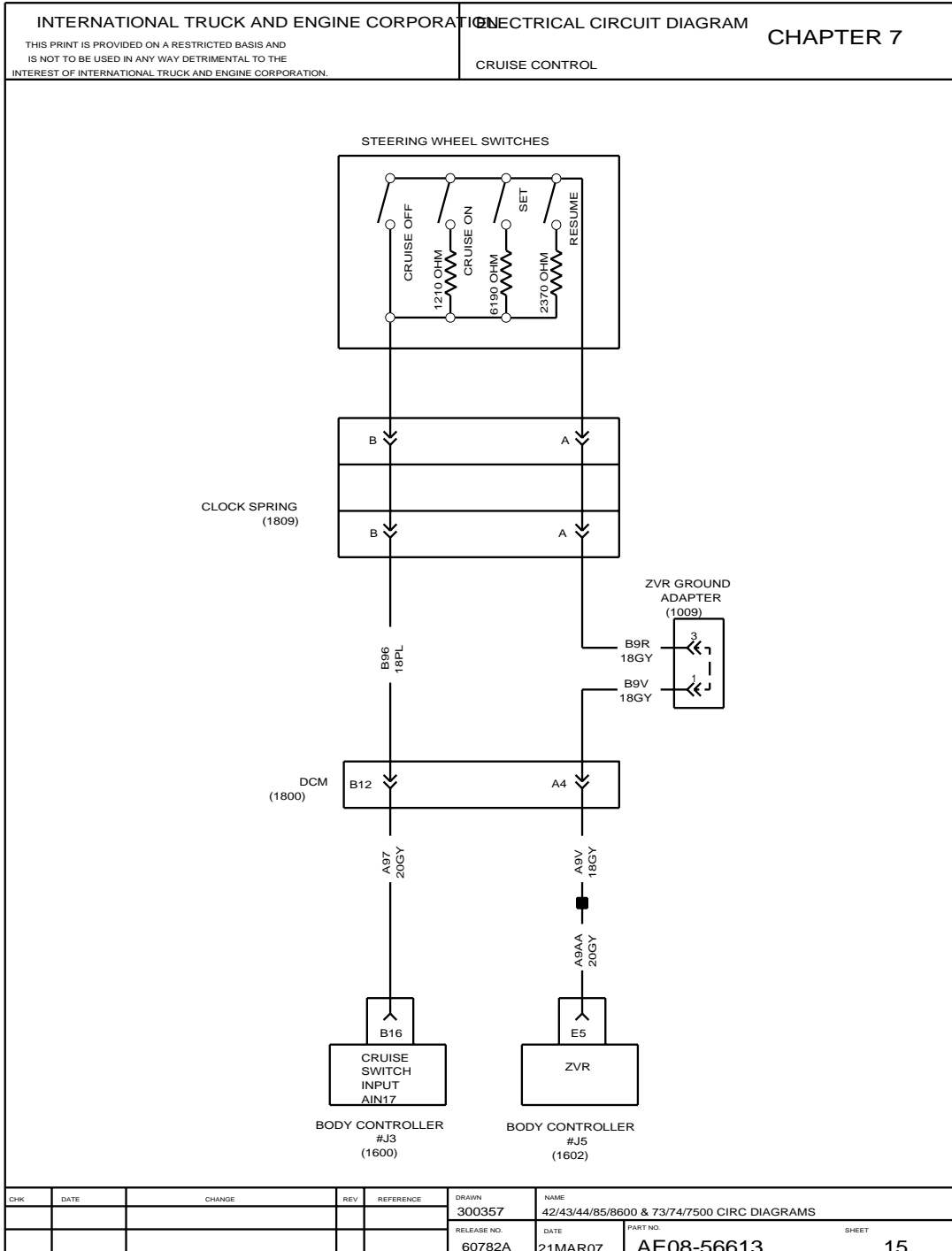


Figure 104 Cruise Control