

## 7.1. IP/GAUGE LIST, P. 1

### Figure 56 IP/Gauge List

## 7.2. WARNING LIGHT LIST, P. 2



INTERNATIONAL TRUCK AND ENGINE CORPORATION				ELECTRICAL CIRCUIT DIAGRAM		CHAPTER 7	
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.				WARNING LIGHTS LIST			
IP WARNING LIGHTS							
WARNING LIGHT TITLE		SIGNAL PATH				SENSOR LOCATION	
RANGE INHIBITED		TRANS CTRLR/DRIVE TRAIN J1939/CLUSTER					
FUEL FILTER		SYSTEM CTRLR/DRIVE TRAIN J1939/CLUSTER				FUEL FILTER	
ENGINE (YELLOW LED)		ENGINE CTRLR/DRIVE TRAIN J1939/CLUSTER					
ENGINE (RED LED)		ENGINE CTRLR/DRIVE TRAIN J1939/CLUSTER					
BRAKE PRESSURE (  )		SYSTEM CTRLR/DRIVE TRAIN J1939/CLUSTER				SWITCH	
BRAKE FLUID		SYSTEM CTRLR/DRIVE TRAIN J1939/CLUSTER				BRK RESEVOIR	
TRAC CTRL		TRUCK ABS CTRLR/DRIVE TRAIN J1939/CLUSTER					
CHECK TRANS		TRANS CTRLR/DRIVE TRAIN J1939/CLUSTER					
TRAILER ABS		TRLR ABS CTRLR/DRIVE TRAIN J1939/CLUSTER					
WASHER FLUID		SYSTEM CTRLR/DRIVE TRAIN J1939/CLUSTER				WASHER BOTTLE	
(LEFT TURN)		SYSTEM CTRLR/DRIVE TRAIN J1939/CLUSTER				TURN SIG SW	
AIR BAG		DISCRETE NOT ON DATA BUS					
WATER IN FUEL		SYSTEM CTRLR/DRIVE TRAIN J1939/CLUSTER				FUEL FILTER	
COOLANT LEVEL		ENGINE CTRLR/DRIVE TRAIN J1939/CLUSTER				SURGE TANK	
CHECK ELECT SYS		SYSTEM CTRLR/DRIVE TRAIN J1939/CLUSTER					
PARK (  )		SYSTEM CTRLR/DRIVE TRAIN J1939/CLUSTER				SWITCH	
CRUISE		SYSTEM CTRLR/DRIVE TRAIN J1939/CLUSTER					
ABS		TRUCK CTRLR/DRIVE TRAIN J1939/CLUSTER					
(RIGHT TURN)		SYSTEM CTRLR/DRIVE TRAIN J1939/CLUSTER					
WAIT TO START		ENGINE CTRLR/DRIVE TRAIN J1939/CLUSTER					
FASTEN BELTS		SYSTEM CTRLR/DRIVE TRAIN J1939/CLUSTER					
(HIGH BEAM IND)		SYSTEM CTRLR/DRIVE TRAIN J1939/CLUSTER					
COLD AMB PROTEC		SYSTEM CTRLR/DRIVE TRAIN J1939/CLUSTER					
RETARD OVERHEAT		TRANS CTRLR/DRIVE TRAIN J1939/CLUSTER				TRANSMISSION	
CHECK AC		SYSTEM CTRLR/DRIVE TRAIN J1939/CLUSTER					
AUTO NEUTRAL		DISCRETE NOT ON DATA BUS				SWITCH	
ALTERNATOR		DISCRETE NOT ON DATA BUS					
PTO/THROTTLE		SYSTEM CTRLR/DRIVE TRAIN J1939/CLUSTER					
OPTIMIZED IDLE		DISCRETE NOT ON DATA BUS					
SNOW VALVE		DISCRETE NOT ON DATA BUS				SNOW VALVE	
FR AXLE DIFF LOCK		DISCRETE NOT ON DATA BUS				FWD RR AXLE	
RR AXLE DIFF LOCK		DISCRETE NOT ON DATA BUS				RR RR AXLE	
MESSAGE WAIT		DISCRETE NOT ON DATA BUS					
PTO		DISCRETE NOT ON DATA BUS					
CONVERTER TEMP		DISCRETE NOT ON DATA BUS					
TOUCHLOC RELEASE		DISCRETE NOT ON DATA BUS					
PARK FLUID		SYSTEM CTRLR/DRIVE TRAIN					
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.
					P52778H	09AUG00	AE08-52371
						SHEET	
						02	

Figure 57 Warning Light List

7.3. WARNING LIGHTS CONTROLLED BY ENGINE, TRANSMISSION, ABS  
CONTROLLER, P. 3

INTERNATIONAL TRUCK AND ENGINE CORPORATION					ELECTRICAL CIRCUIT DIAGRAM					CHAPTER 7									
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.															WARNING LIGHTS CONTROLLED BY ENGINE, TRANSMISSION, ABS CONTROLLER				
</																			

Figure 58 Warning Lights Controlled by Engine, Transmission, ABS Controller

## 7.4. ENGINE OIL PRESSURE AND TEMP, SPEEDOMETER, TACH, VOLTMETER AND WATER TEMP GAUGE CIRCUITS, P. 4

INTERNATIONAL TRUCK AND ENGINE CORPORATION				ELECTRICAL CIRCUIT DIAGRAM      CHAPTER 7			
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.				ENG OIL PRESS & TEMP, SPEEDOMETER, TACH, VOLTMETER & WATER TEMP GAUGE CIRCUITS			
<p>REFER TO CONSOLIDATED ENGINE/VEHICLE CONTROLLER DIAGNOSTICS MANUAL EGES-175 (DT466), EGES-190 (V8-AVNT), FOR CIRCUIT DIAGRAMS SHOWING INPUT CIRCUITRY FOR THE FOLLOWING DATALINK DRIVEN SYSTEM:</p> <p>ENGINE OIL PRESSURE GAUGE</p> <p>ENGINE OIL TEMPERATURE GAUGE</p> <p>SPEEDOMETER GAUGE</p> <p>TACHOMETER GAUGE</p> <p>WATER TEMPERATURE GAUGE</p>							
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.
					P52778H	20JUN00	AE08-52371
						SHEET	04

**Figure 59** Engine Oil Pressure and Temp, Speedometer, Tach, Voltmeter and Water Temp Gauge  
Circuits

7.5. IP/GAUGES AND WARNING LIGHTS — GAUGE CLUSTER, P. 5

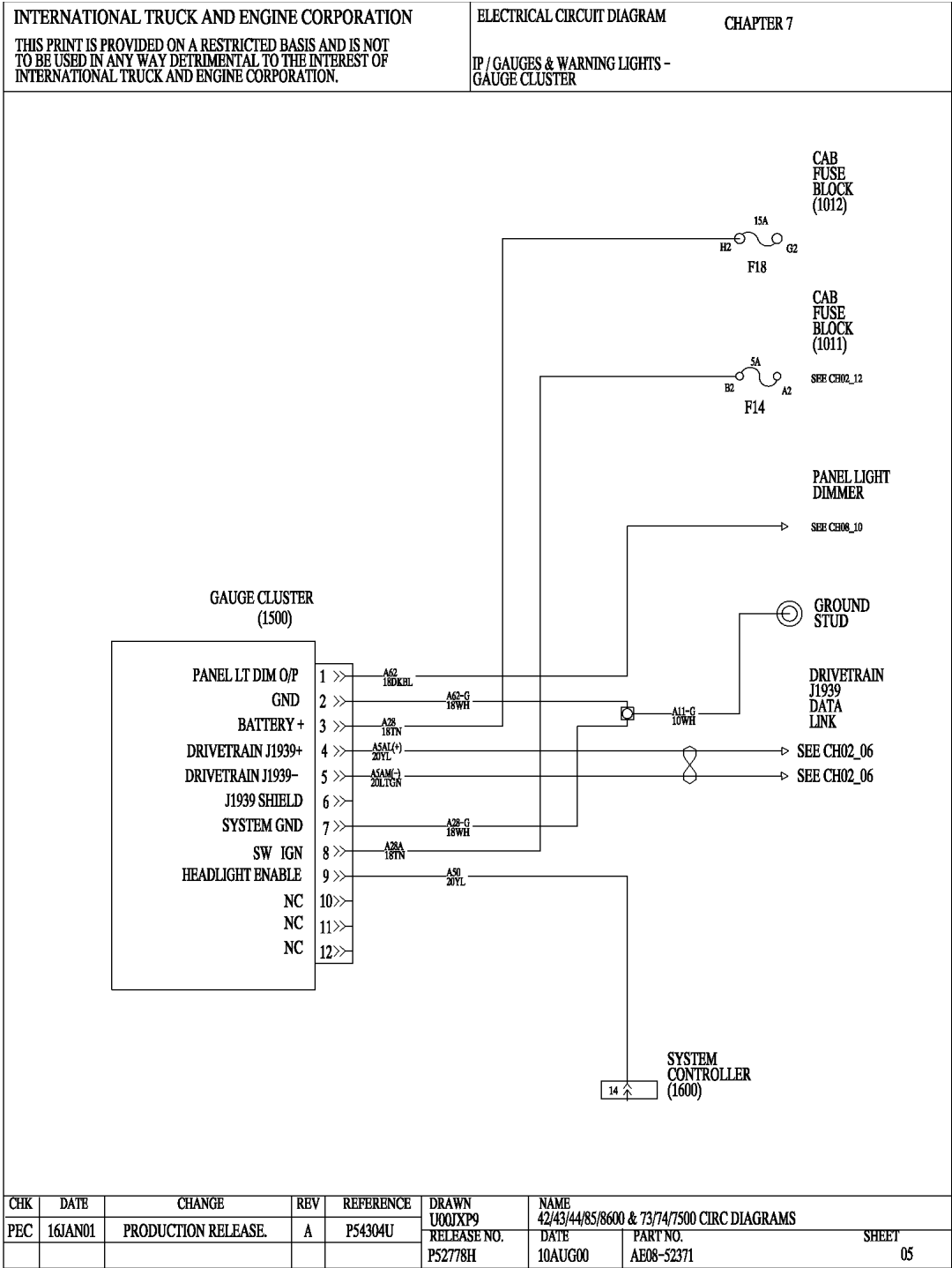


Figure 60 IP/Gauges and Warning Lights — Gauge Cluster

## 7.6. AIR PRESSURE INPUT CIRCUIT, P. 6

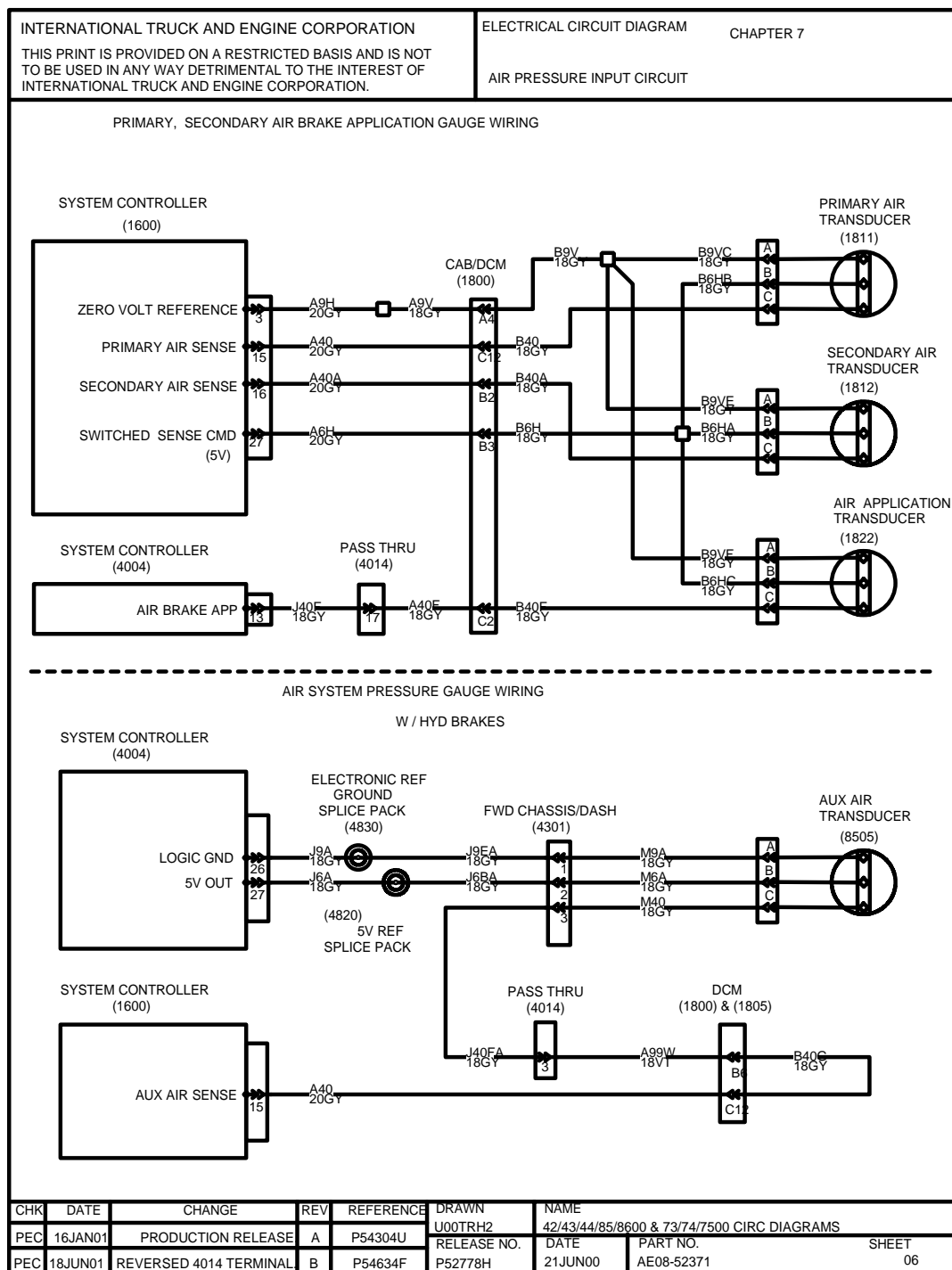


Figure 61 Air Pressure Input Circuit

## 7.7. AXLE TEMPERATURE, FWD REAR AND REAR AXLES, GAUGE INPUT CIRCUIT, P. 7

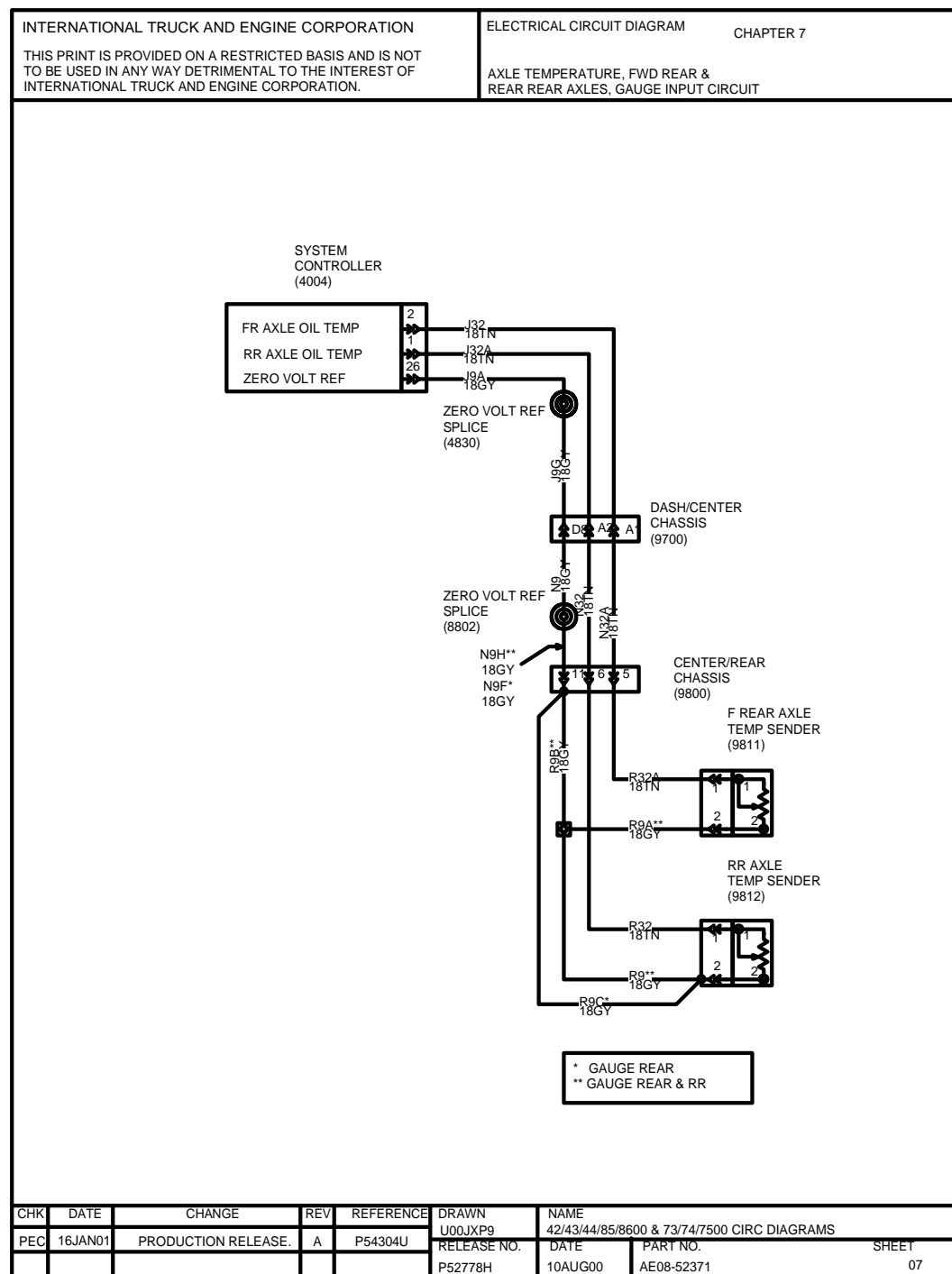


Figure 62 Axle Temperature, FWD Rear and Rear Axles, Gauge Input Circuit

## 7.8. FUEL GAUGE INPUT CIRCUIT (SINGLE TANK) DIFFERENTIAL LOCK WARNING LAMPS, P. 8

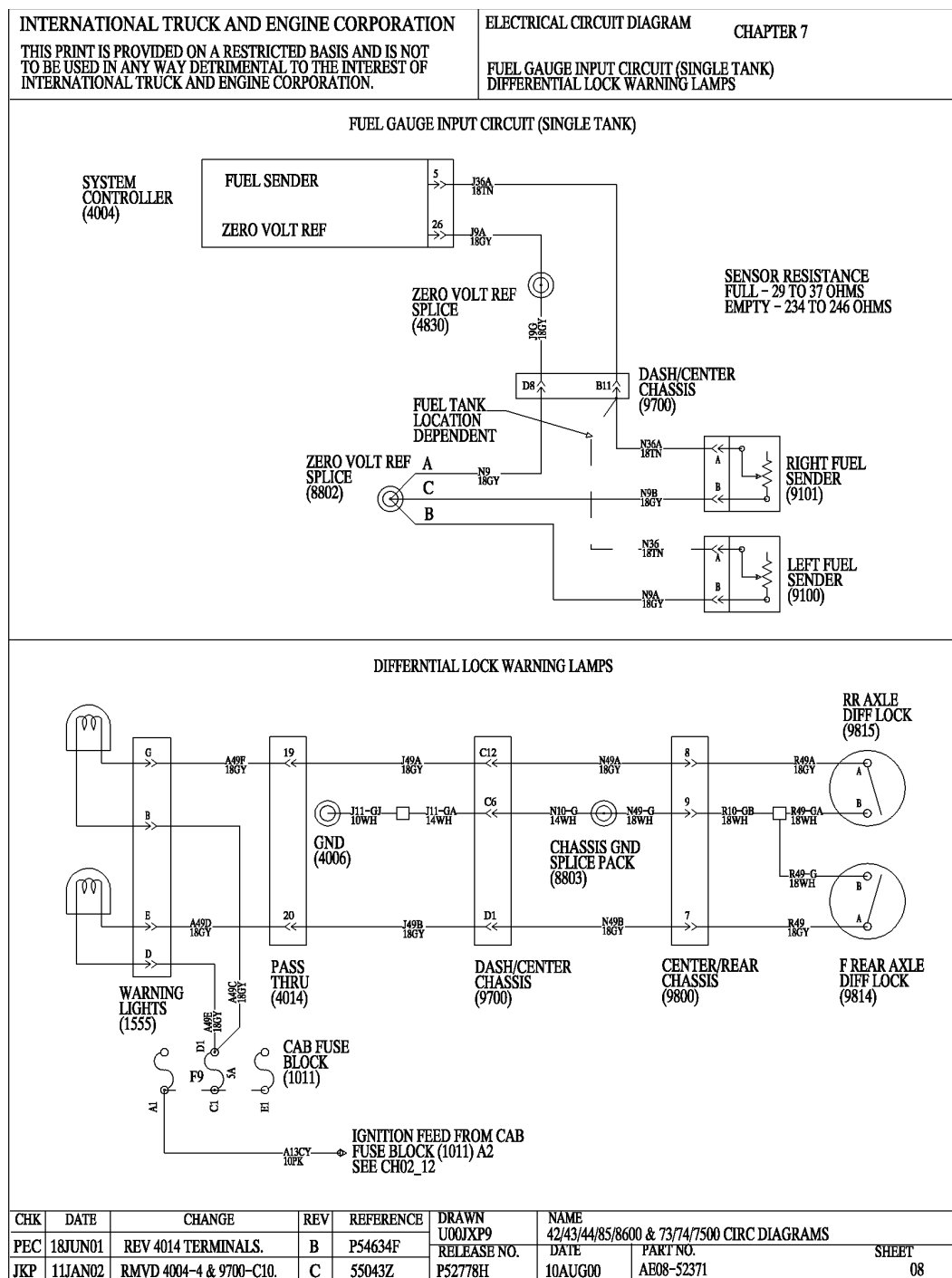
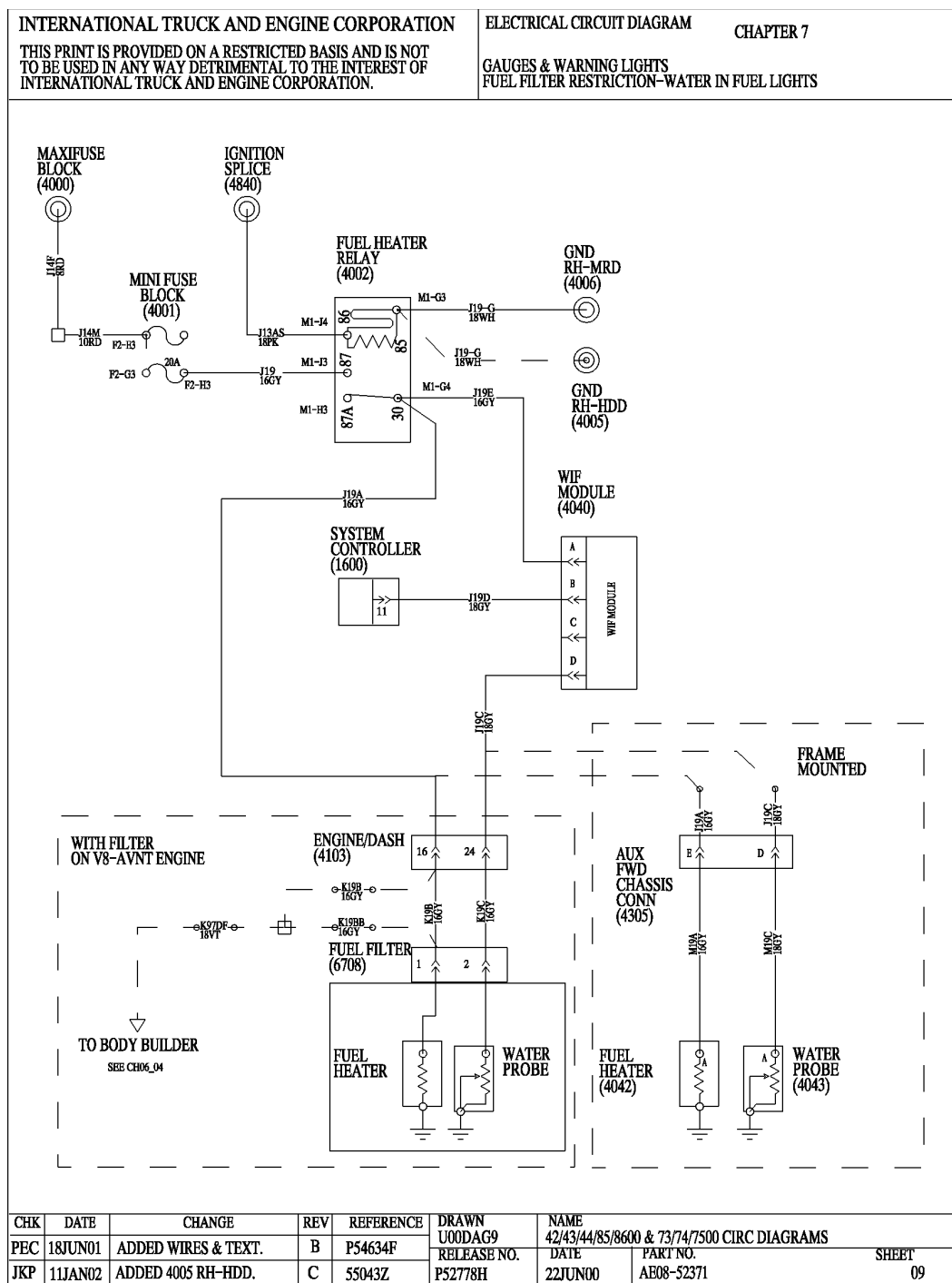


Figure 63 Fuel Gauge Input Circuit (Single Tank) Differential Lock Warning Lamps



## 7.9. GAUGES AND WARNING LIGHTS — FUEL FILTER RESTRICTION AND WATER IN FUEL LIGHTS, P. 9



**Figure 64 Gauges and Warning Lights — Fuel Filter Restriction and Water in Fuel Lights**

## 7.10. GAUGES AND WARNING LIGHTS — PARK BRAKE LIGHT AND TRANSMISSION OIL TEMP. GAUGE, P. 10

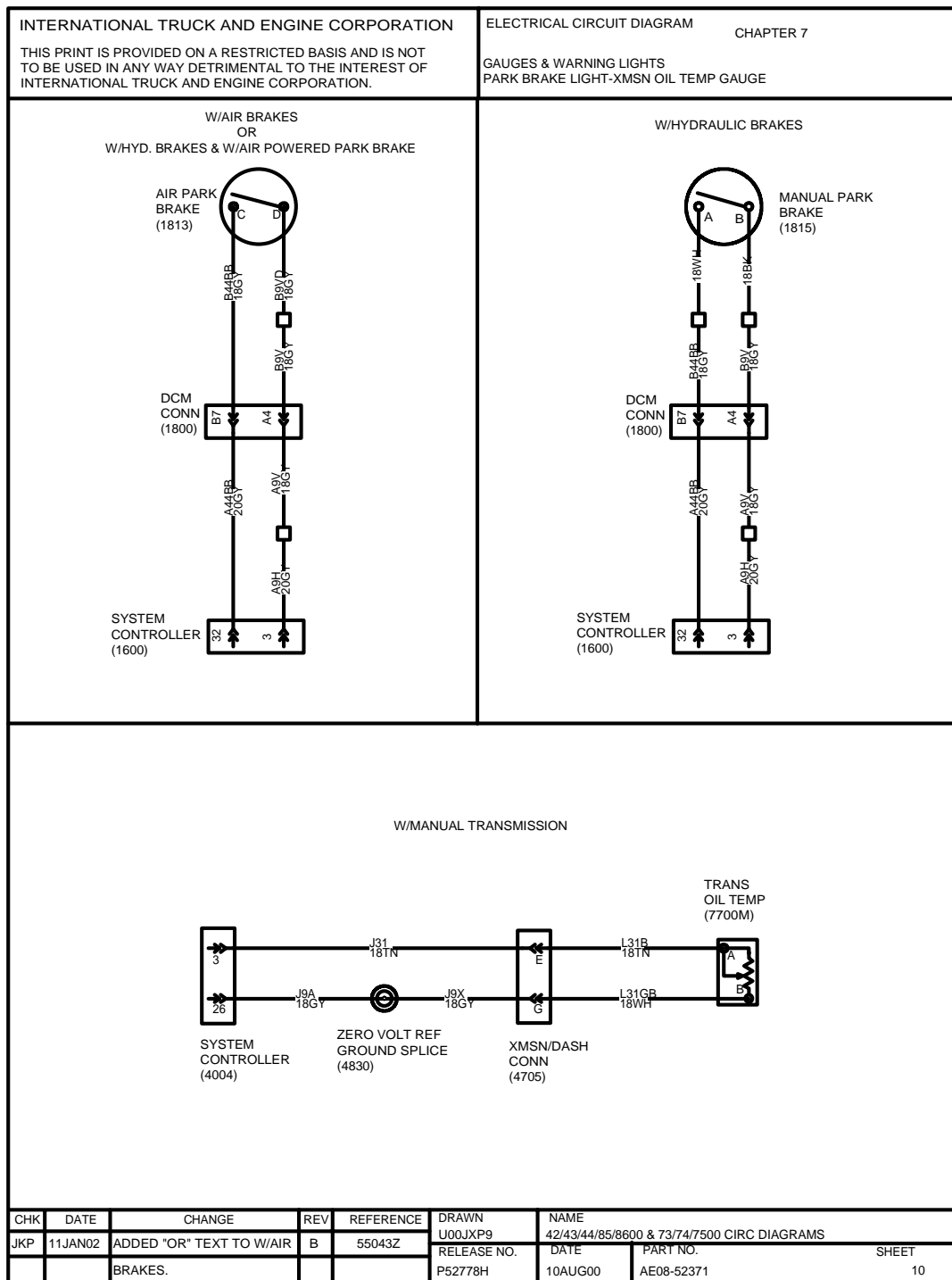


Figure 65 Gauges and Warning Lights — Park Brake Light and Transmission Oil Temp. Gauge

7.11. GAUGES AND WARNING LIGHTS — AMMETER, P. 11

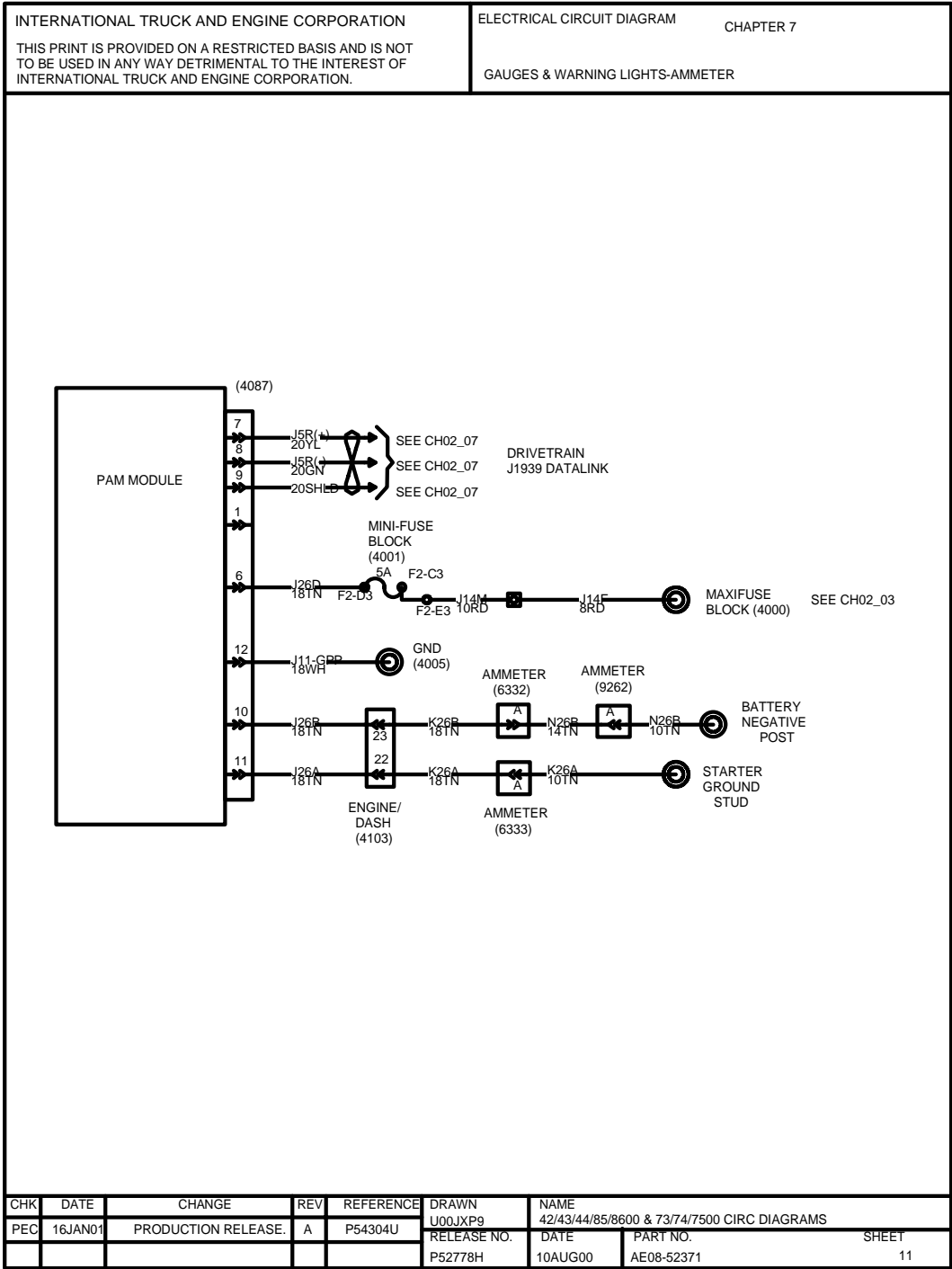


Figure 66    Gauges and Warning Lights — Ammeter

## 8. LIGHTS (CHAPTER 8)

### 8.1. BACK UP LIGHTS, P. 1

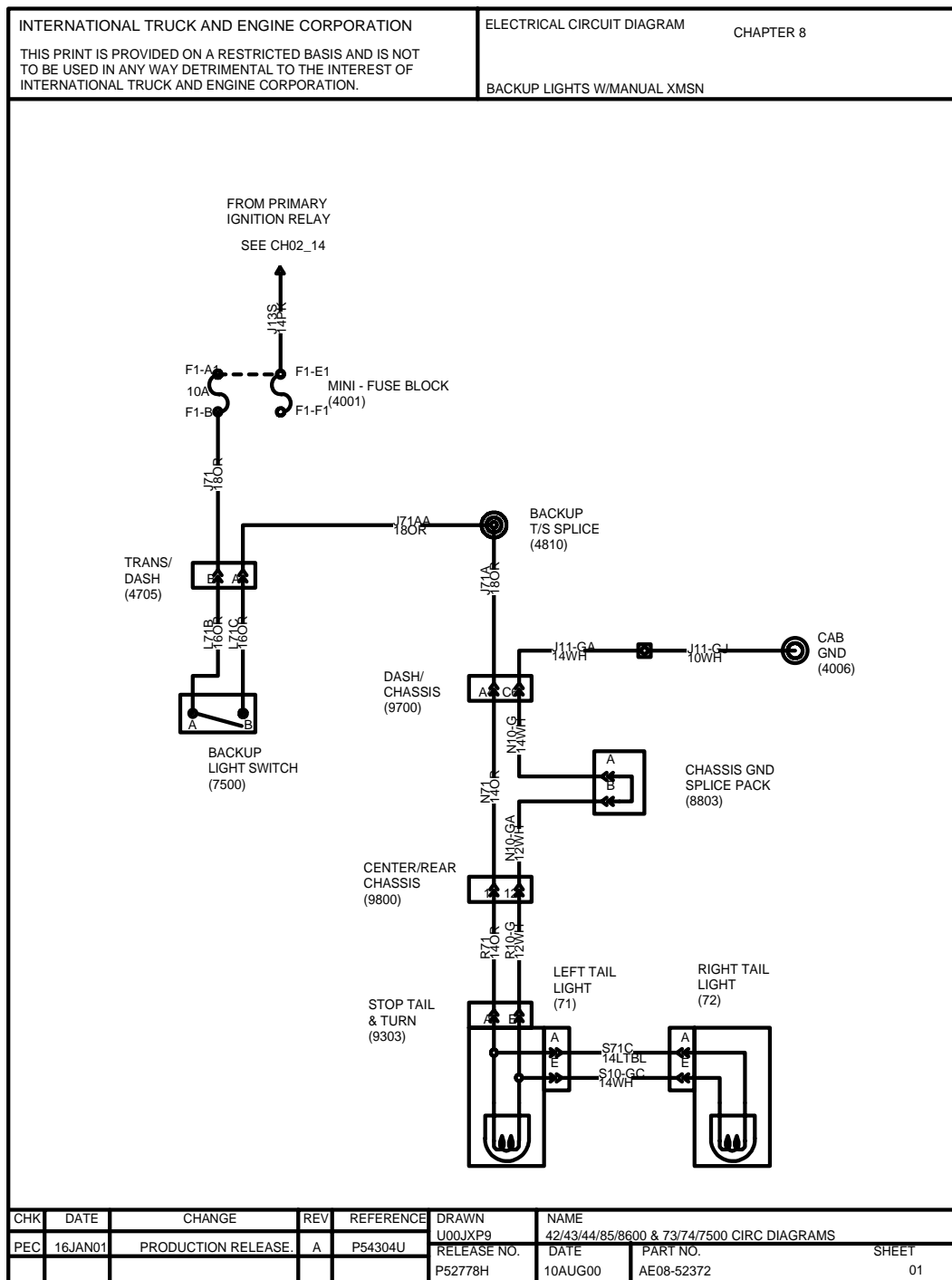


Figure 67 Back Up Lights

[illegible]

**Figure 68 Light Systems — Clearance, Marker, Park, Tail, Turn and Stop Lamps**

## 8.3. LIGHT SYSTEMS — CLEARANCE, MARKER, PARK, TAIL, TURN AND STOP LAMPS (CONT.), P. 3

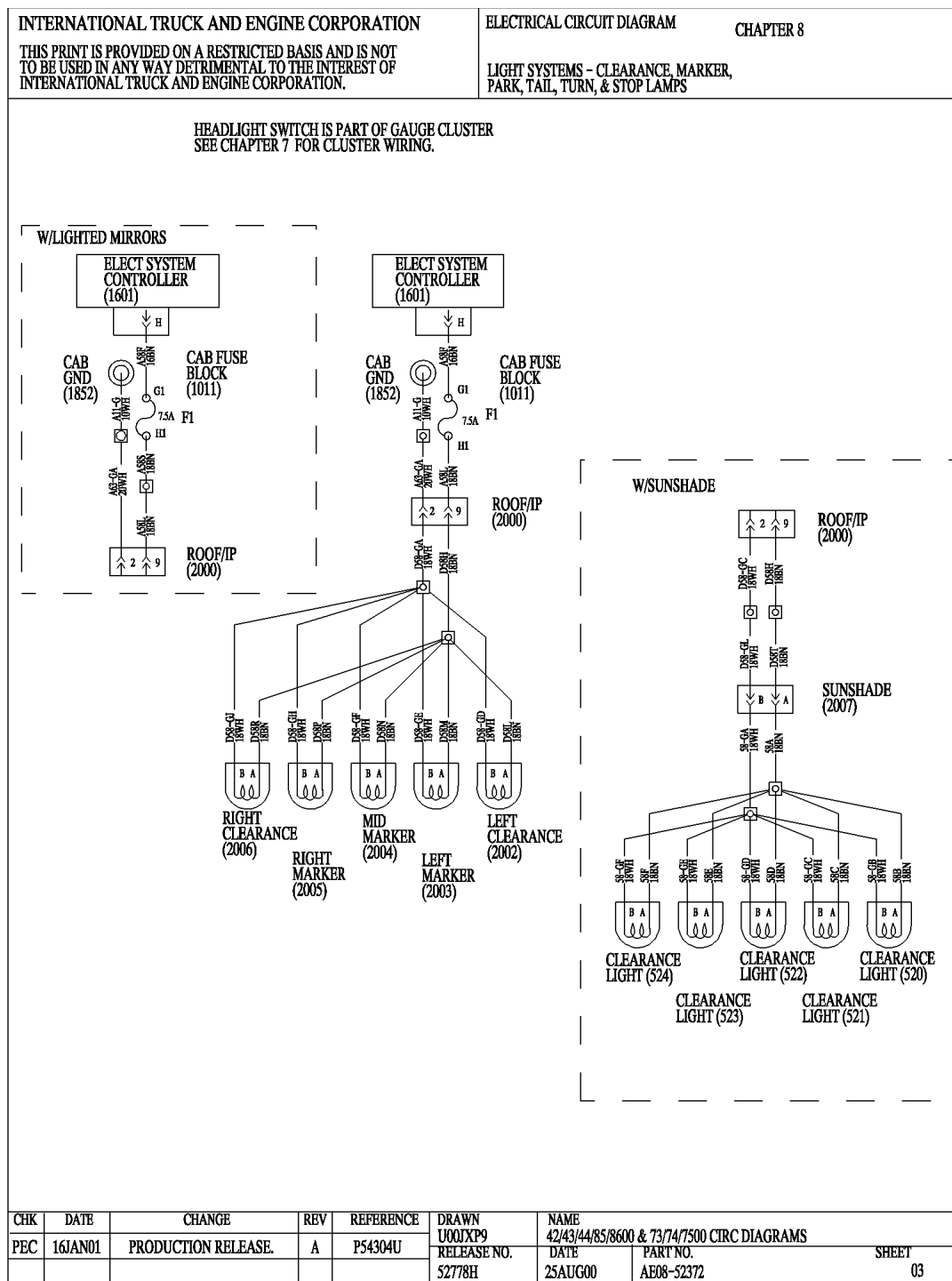


Figure 69 Light Systems — Clearance, Marker, Park, Tail, Turn and Stop Lamps (Cont.)

## 8.4. LIGHT SYSTEMS — TURN SIGNAL AND STOP SWITCHES, P. 4

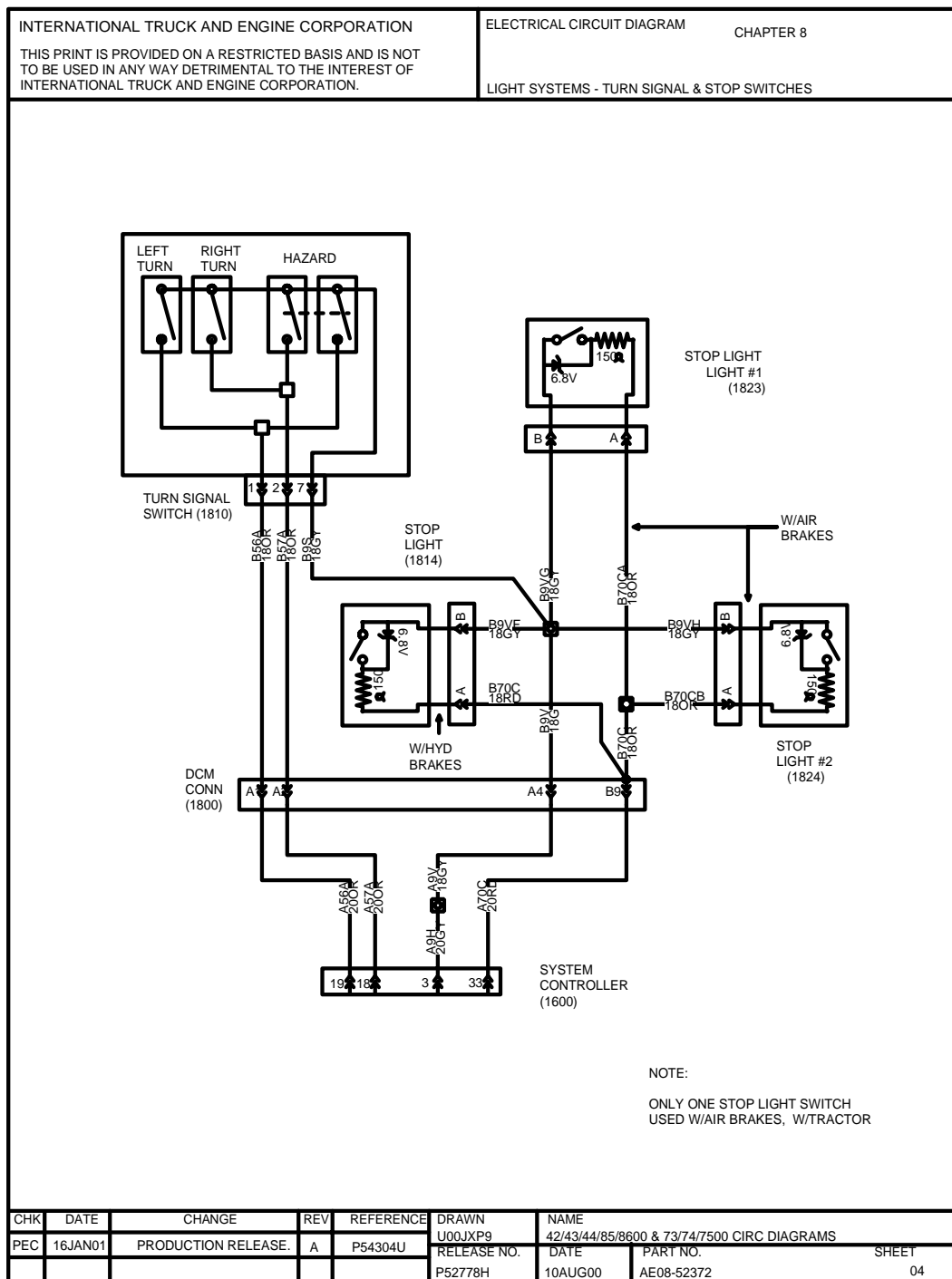


Figure 70 Light Systems — Turn Signal and Stop Switches

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### ELECTRICAL CIRCUIT DIAGRAM

### CHAPTER 8

## DOME LIGHT, MAP LIGHT

**W/STANDARD TRIM & CB**

**W/STANDARD TRIM & CB**

**W/STANDARD TRIM & CB**

**W/STANDARD TRIM & CB**

**W/STANDARD TRIM & CB**

**W/STANDARD TRIM & CB**

**W/STANDARD TRIM & CB**

**W/STANDARD TRIM & CB**

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
					P52778H	APR08-52372

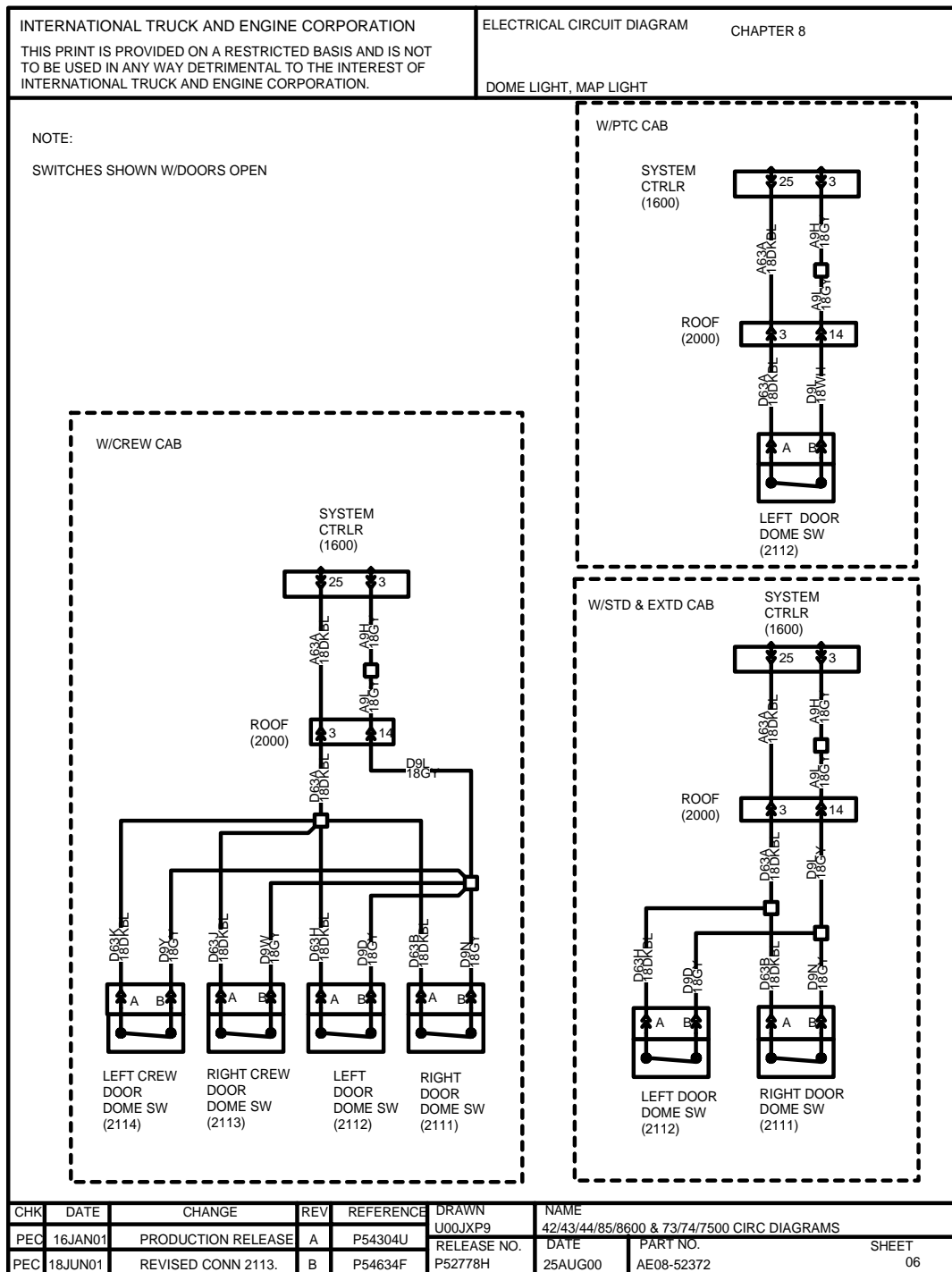
PART NO.	REVISION	DATE	BY
AE08-52372			

SHEET 05

### Figure 71 Dome Light, Map Light



## 8.6. DOME LIGHT, MAP LIGHT (CONT.), P. 6



**Figure 72   Dome Light, Map Light (Cont.)**

## 8.7. FOG LIGHT AND WORK LIGHT, P. 7

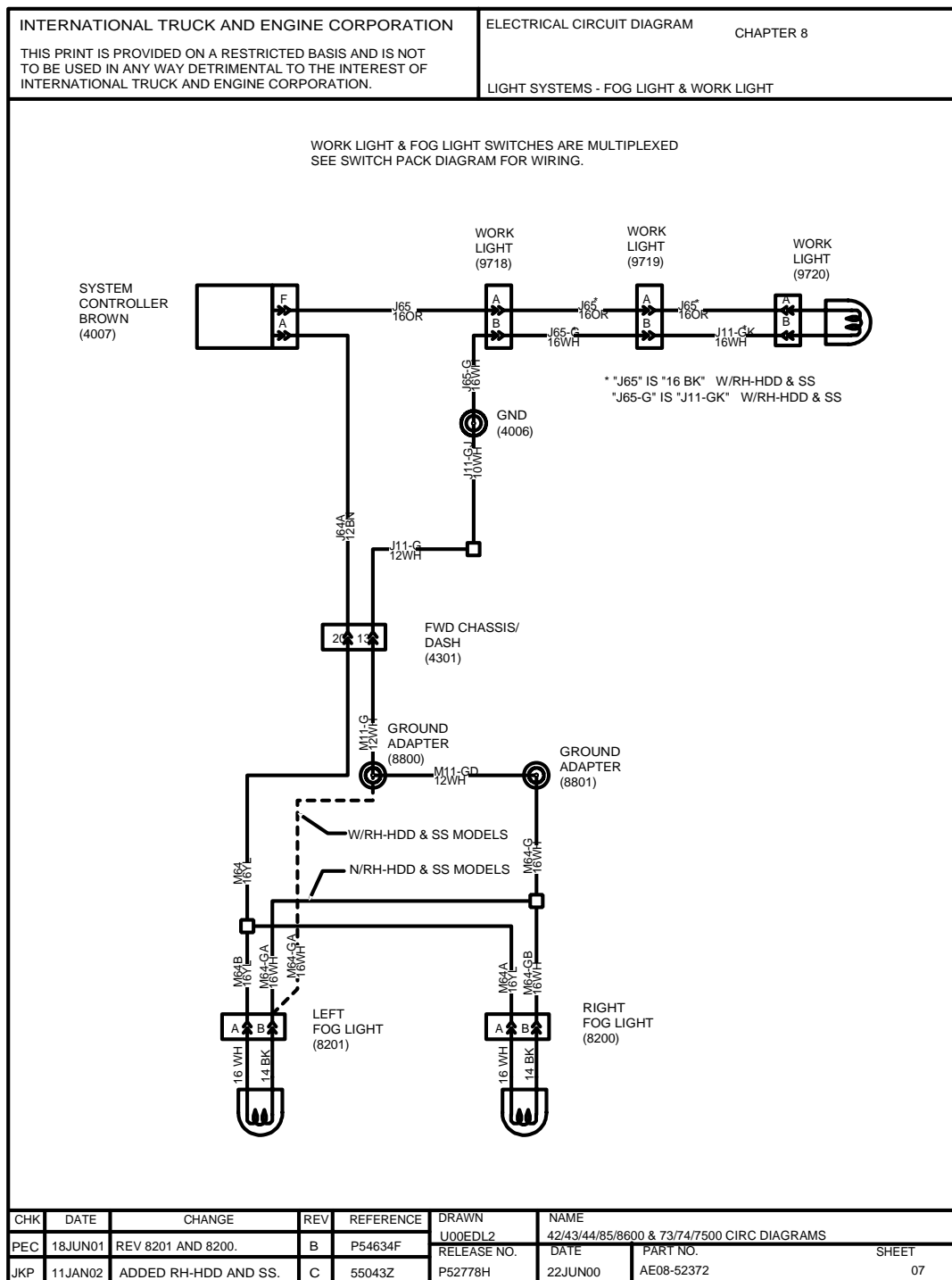


Figure 73 Fog Light and Work Light

8.8. HEADLIGHTS, P. 8

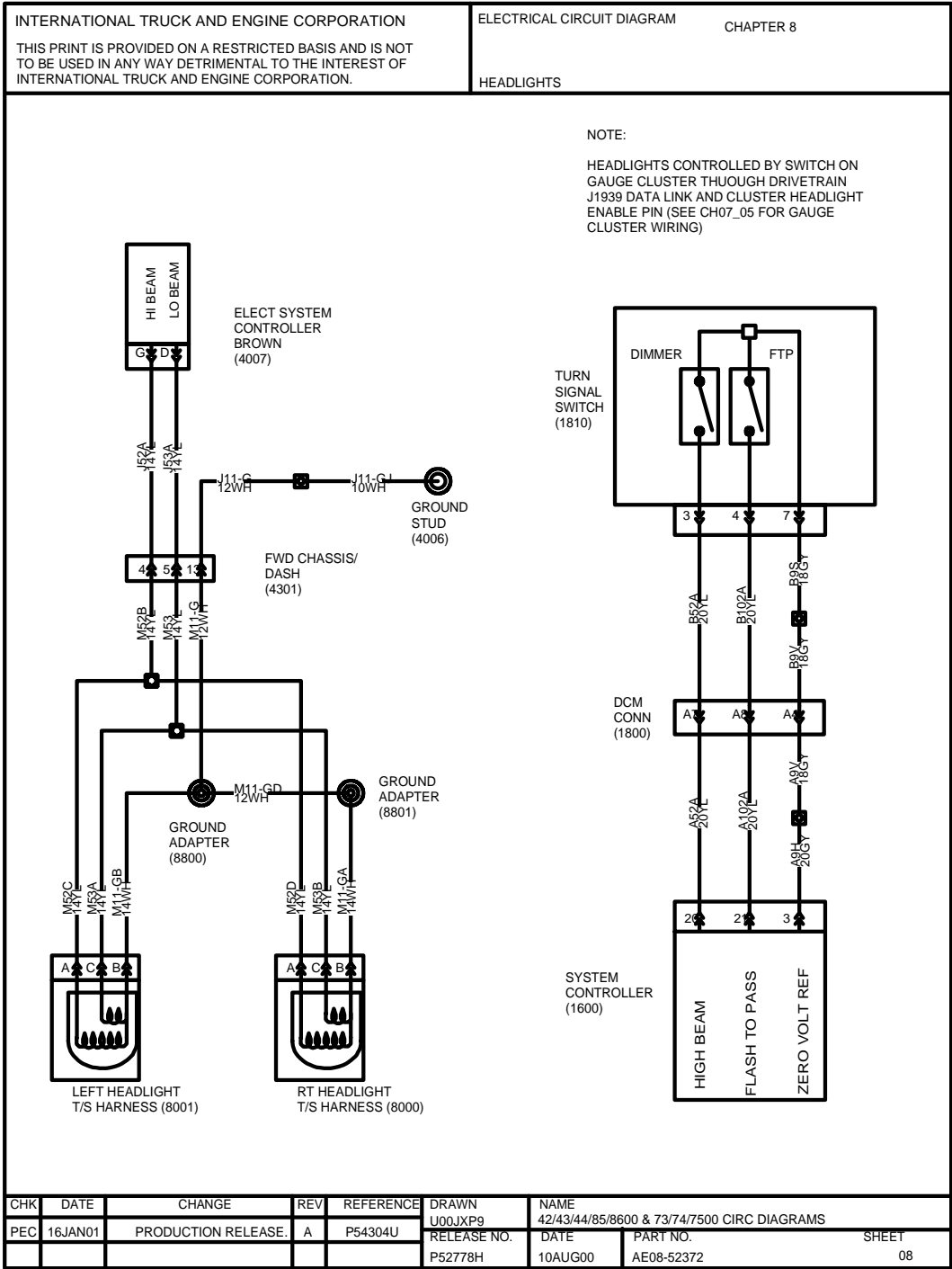


Figure 74 Headlights

## 8.9. AUX. HEADLIGHTS, AUX. PARK, AUX TURN, P. 9

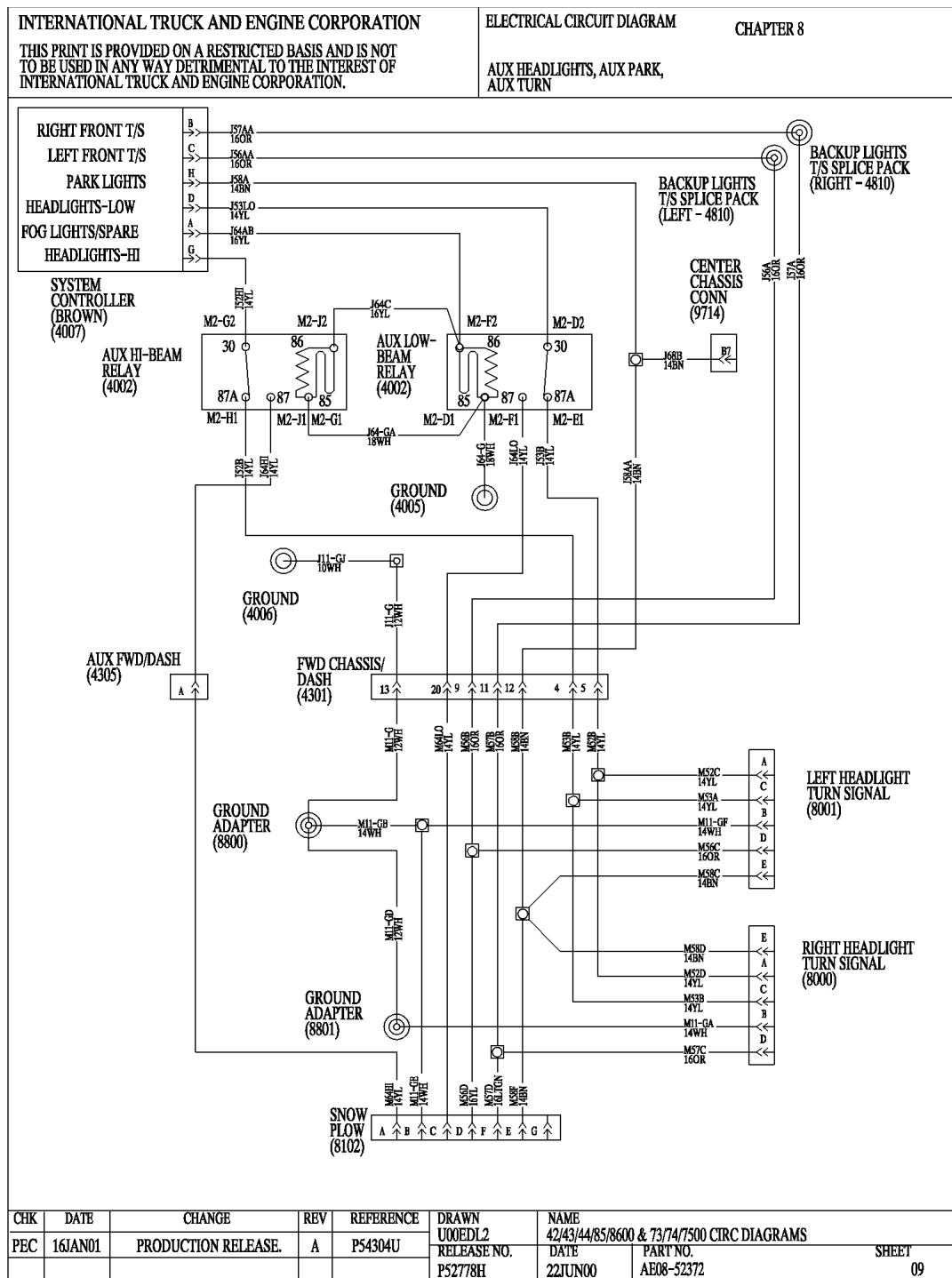


Figure 75 Aux. Headlights, Aux. Park, Aux Turn

8.10. PANEL LIGHTS, P. 10

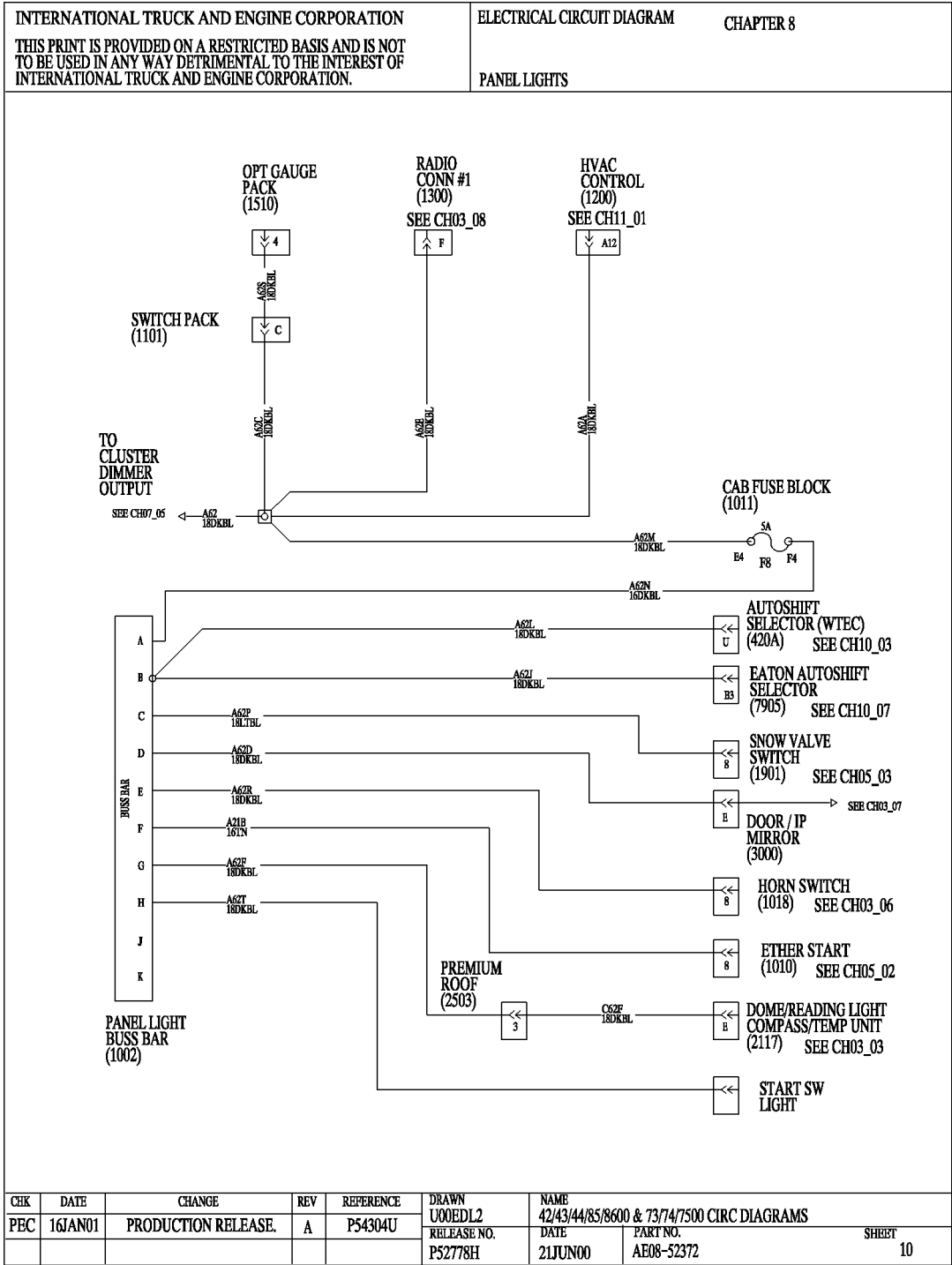


Figure 76 Panel Lights

## 9. CHASSIS ACCESSORIES (CHAPTER 9)

### 9.1. AIR DRYER AND HEATED DRAIN VALVE, P. 1

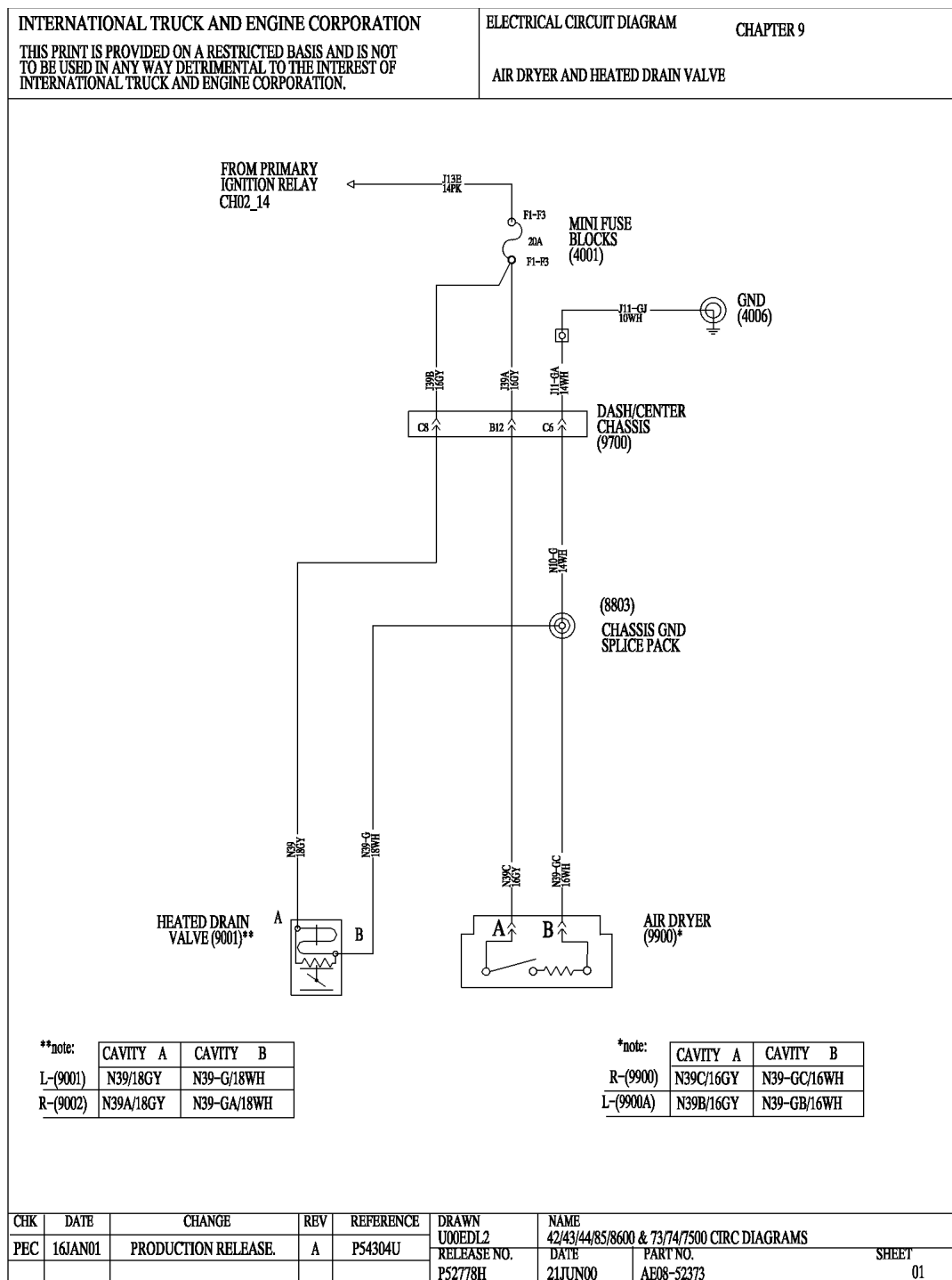
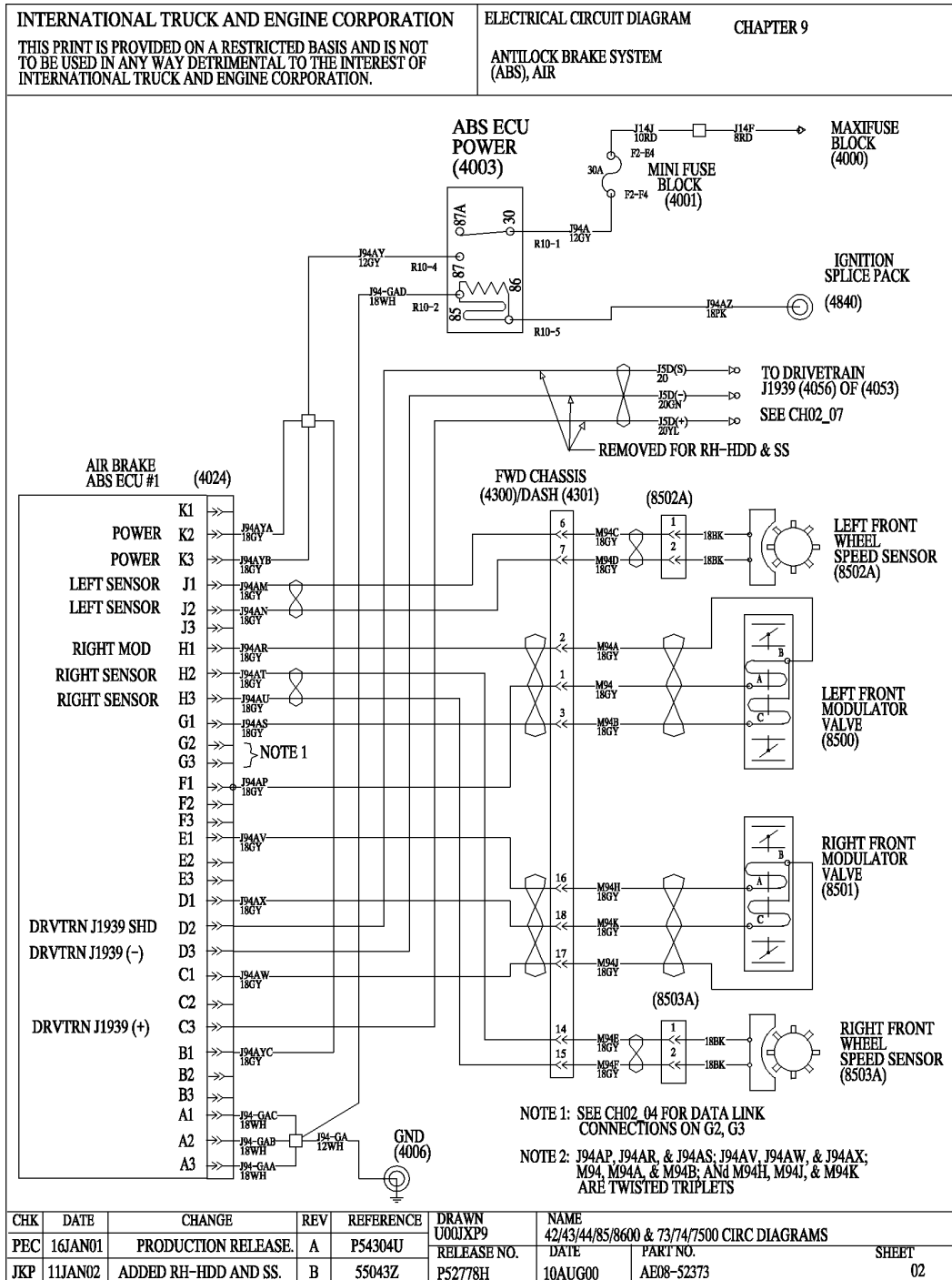


Figure 77 Air Dryer and Heated Drain Valve

## 9.2. ANTILOCK BRAKE SYSTEM (ABS), AIR, P. 2



**Figure 78 Antilock Brake System (ABS), Air**

### 9.3. ANTILOCK BRAKE SYSTEM (ABS), AIR, TRACTION CONTROL, P. 3

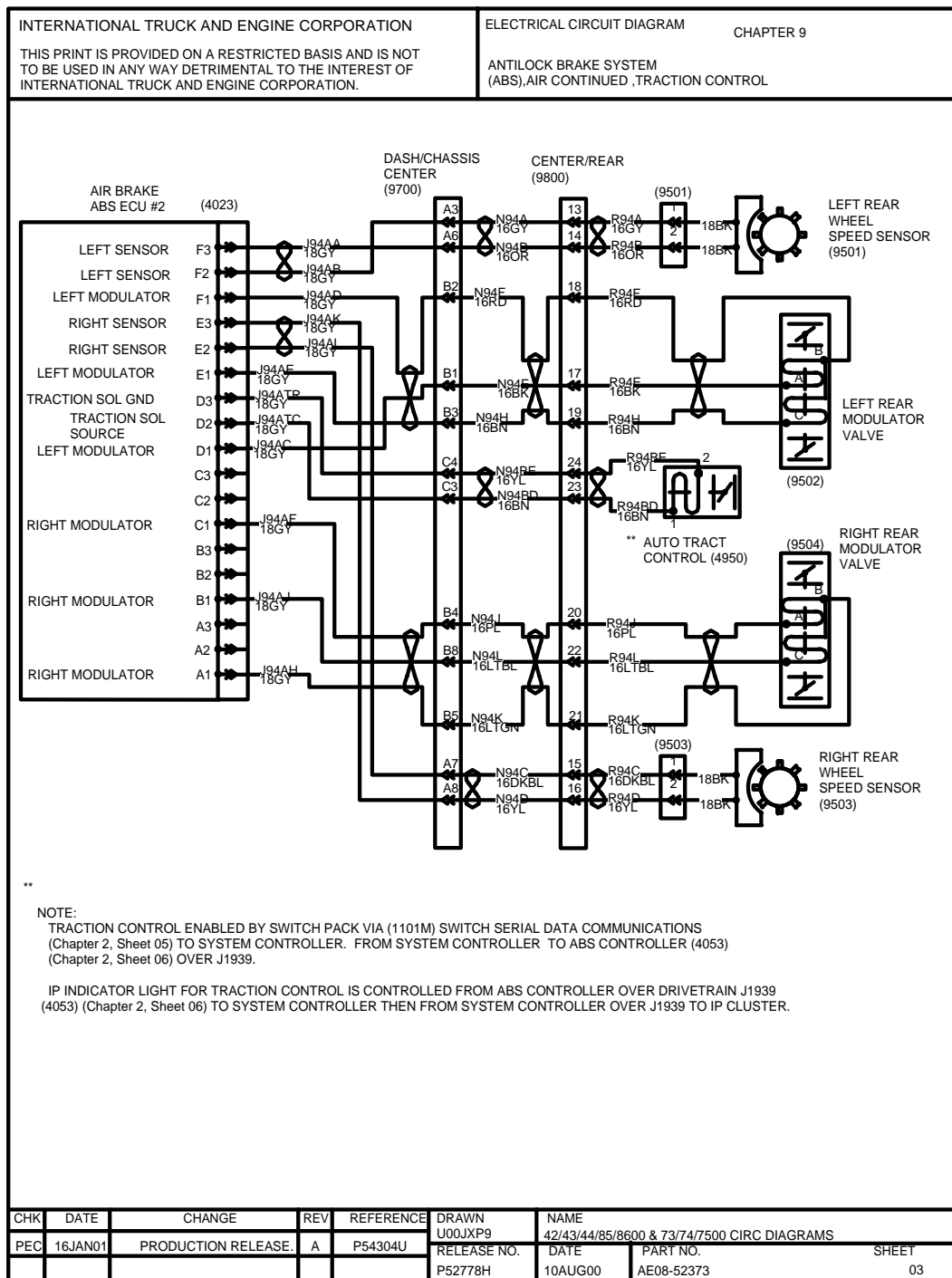


Figure 79 Antilock Brake System (ABS), Air, Traction Control



## 9.4. ANTILOCK BRAKE SYSTEM (ABS), HYDRAULIC, P. 4

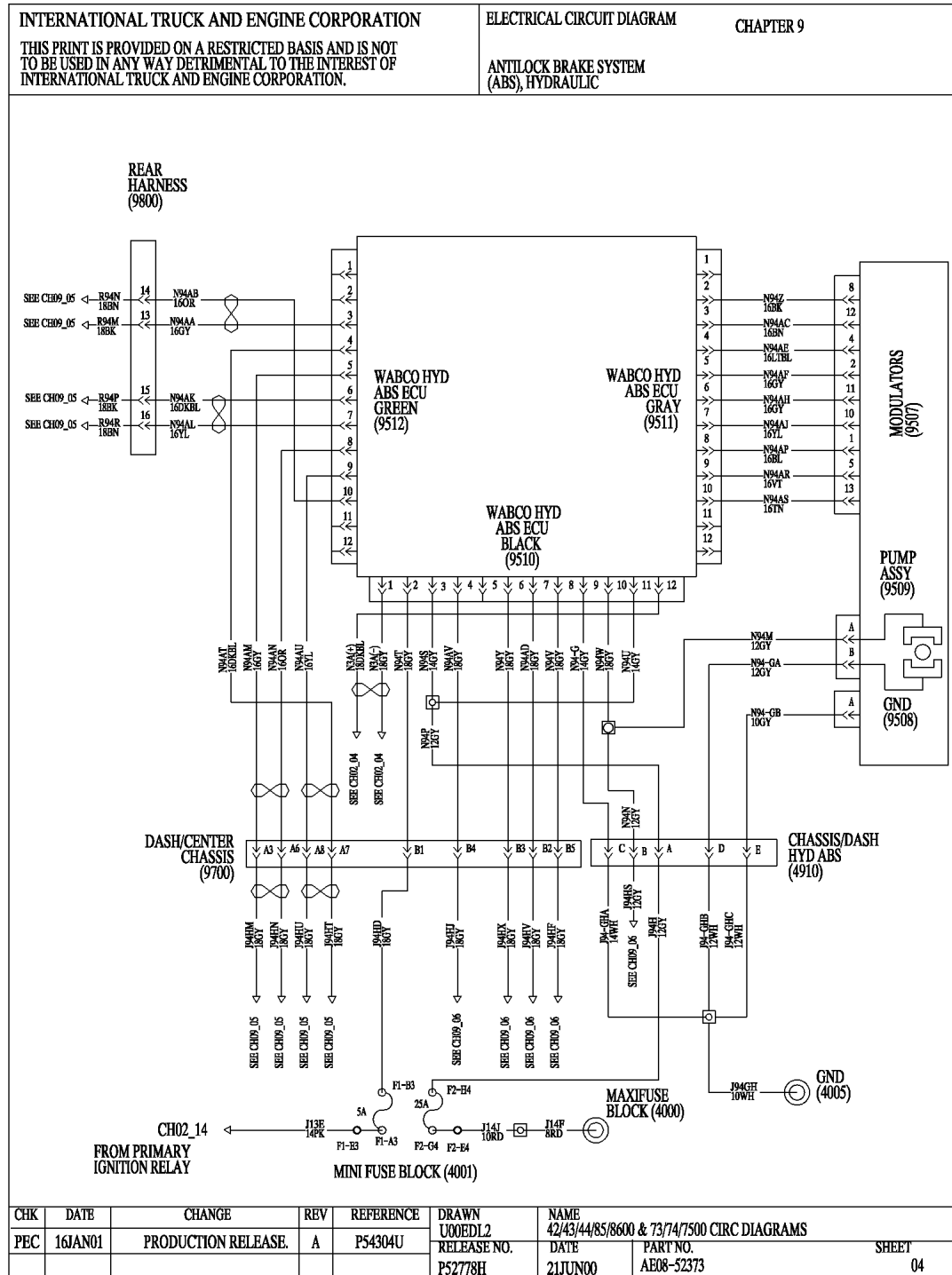


Figure 80 Antilock Brake System (ABS), Hydraulic

## 9.5. ANTILOCK BRAKE SYSTEM (ABS), HYDRAULIC (CONT.), P. 5

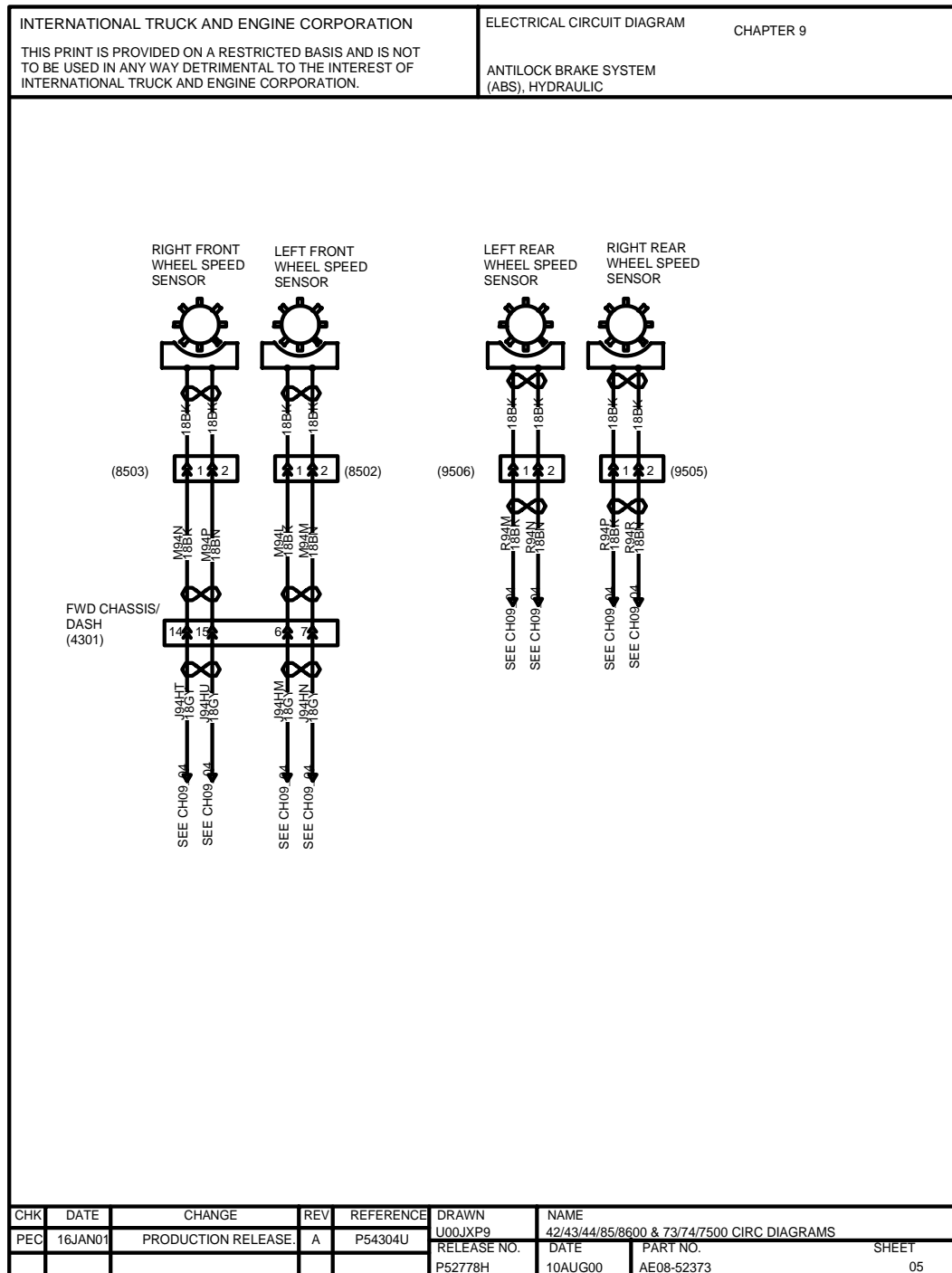


Figure 81 Antilock Brake System (ABS), Hydraulic (Cont.)

[illegible]

### Figure 82 Antilock Brake System (ABS), Hydraulic (Cont.)

## 9.7. TWO SPEED AXLE SWITCH W/MANUAL TRANSMISSION FUEL HEATER N/WARN LIGHTS

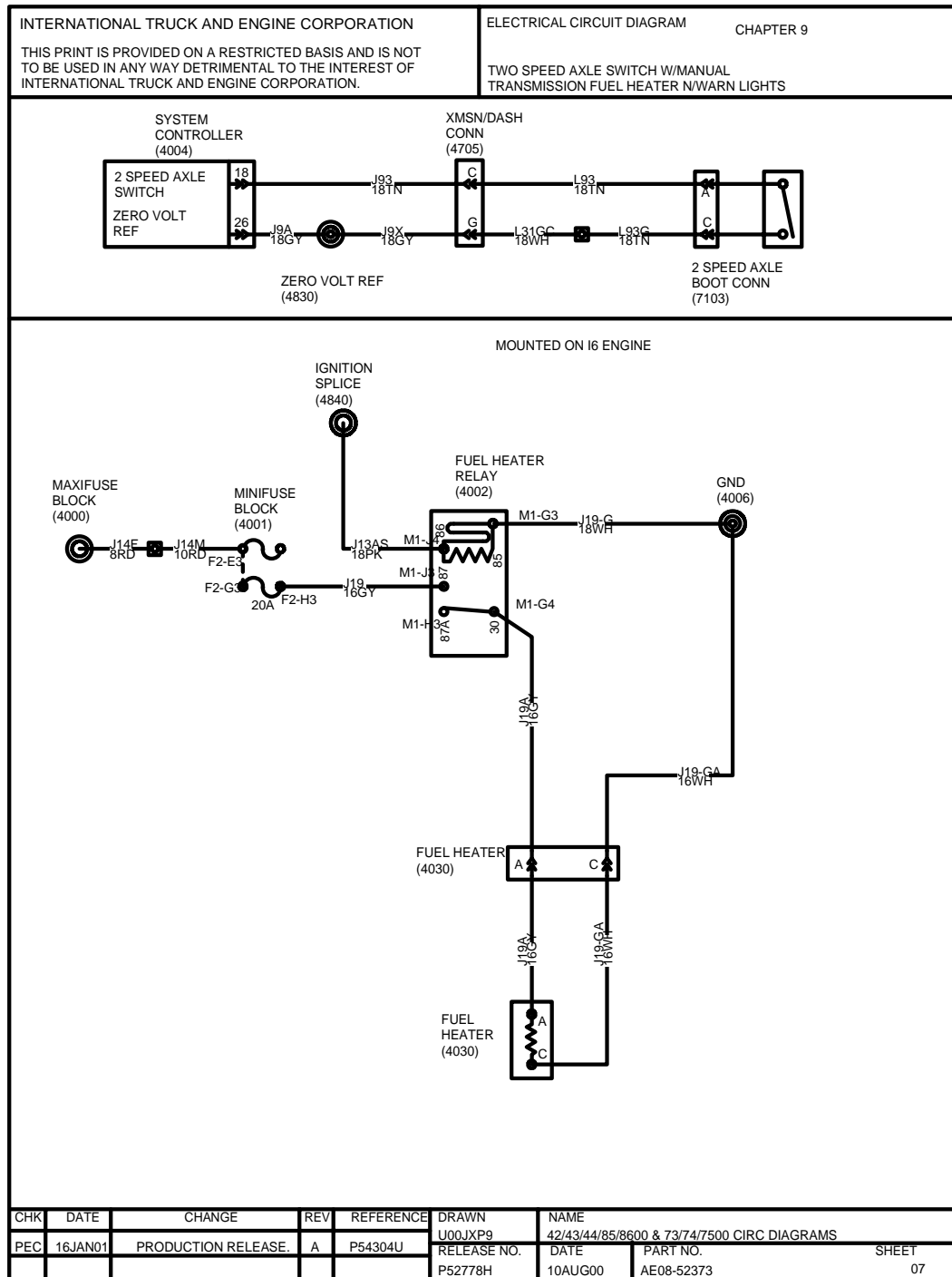


Figure 83 Two Speed Axle Switch W/Manual Transmission Fuel Heater N/Warn Lights

9.8. BRAKE SYSTEM, HYDRAULIC, P. 8

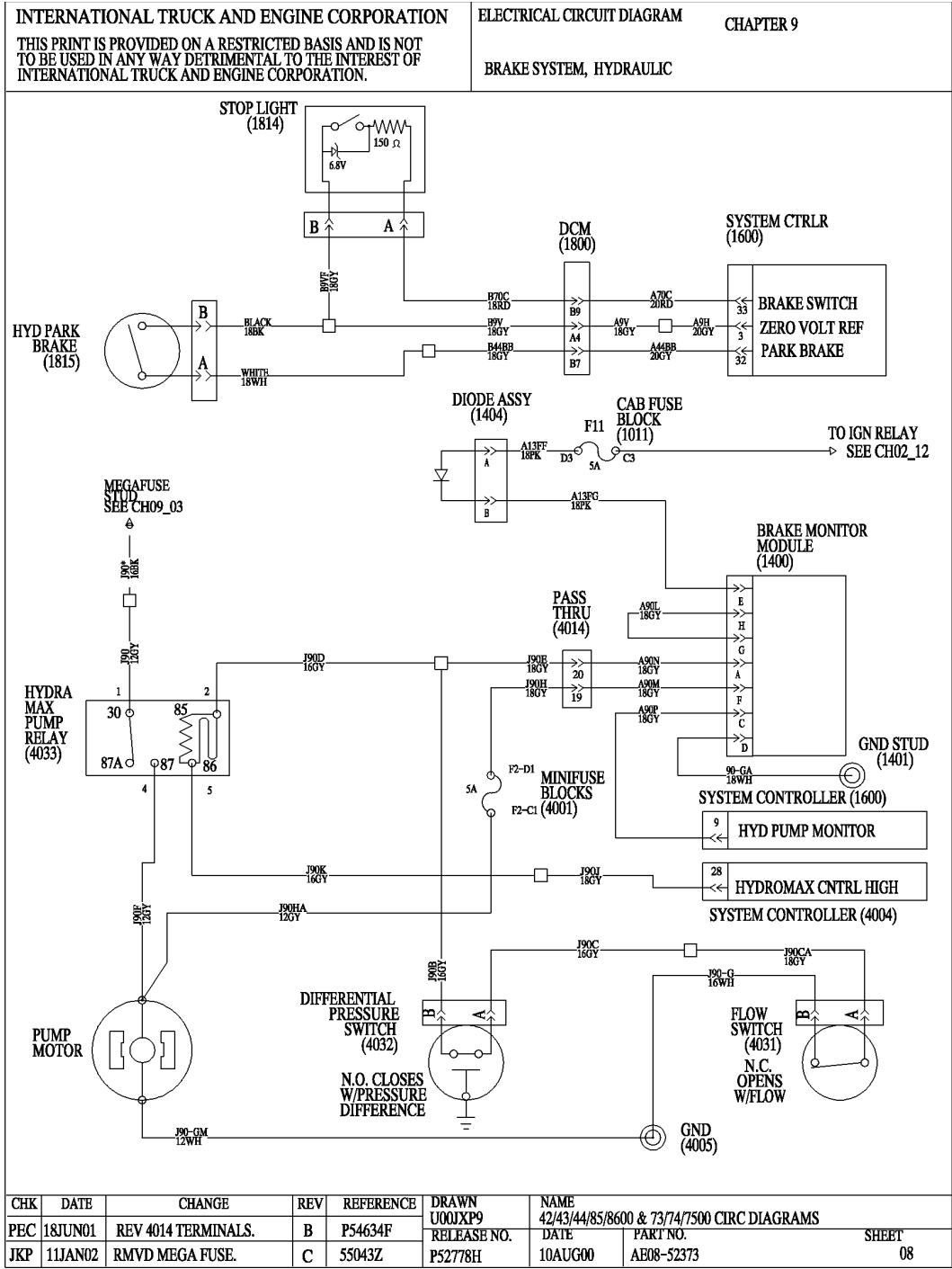


Figure 84 Brake System, Hydraulic

## 9.9. FUEL TRANSFER PUMP, P. 9

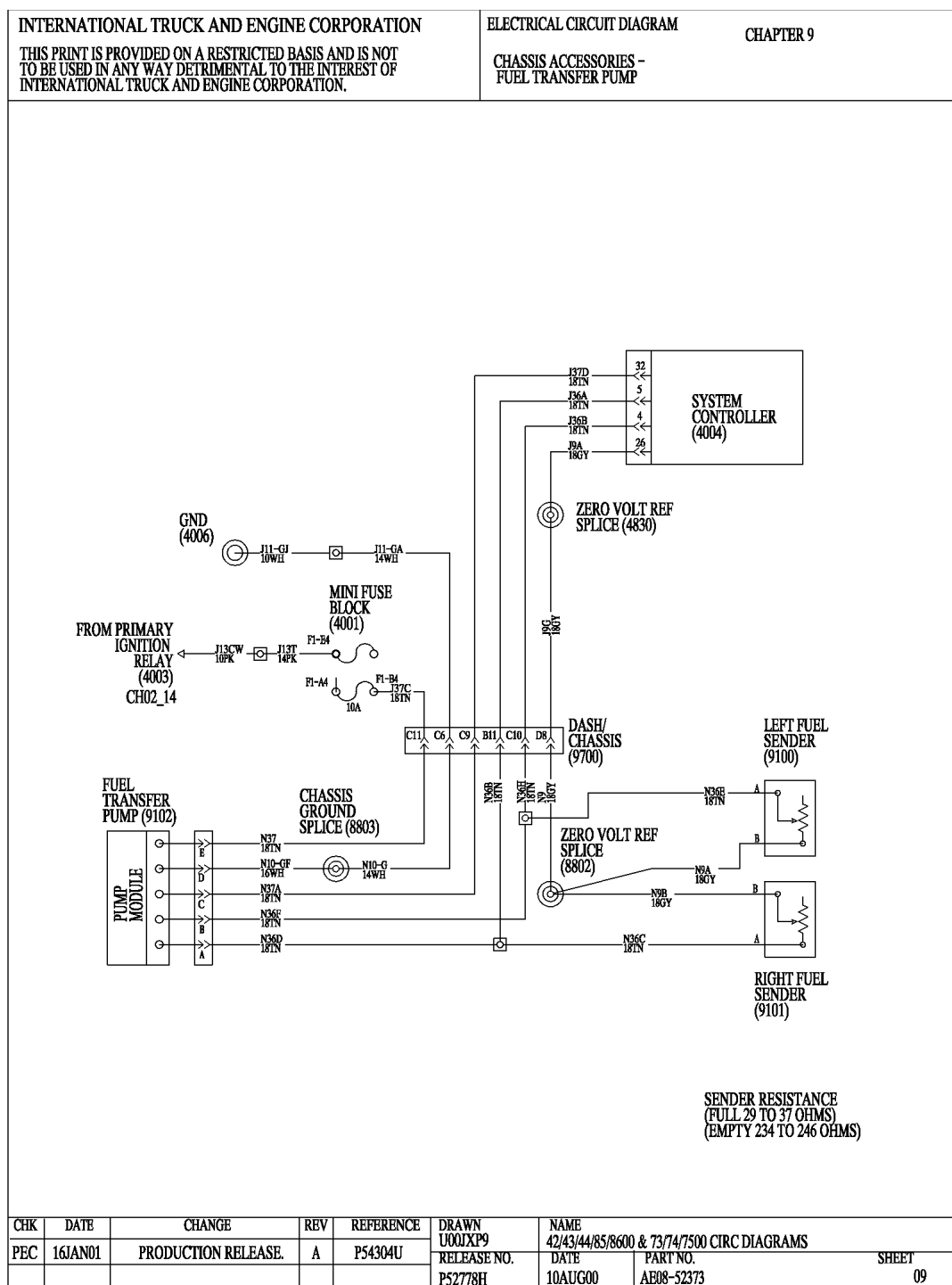
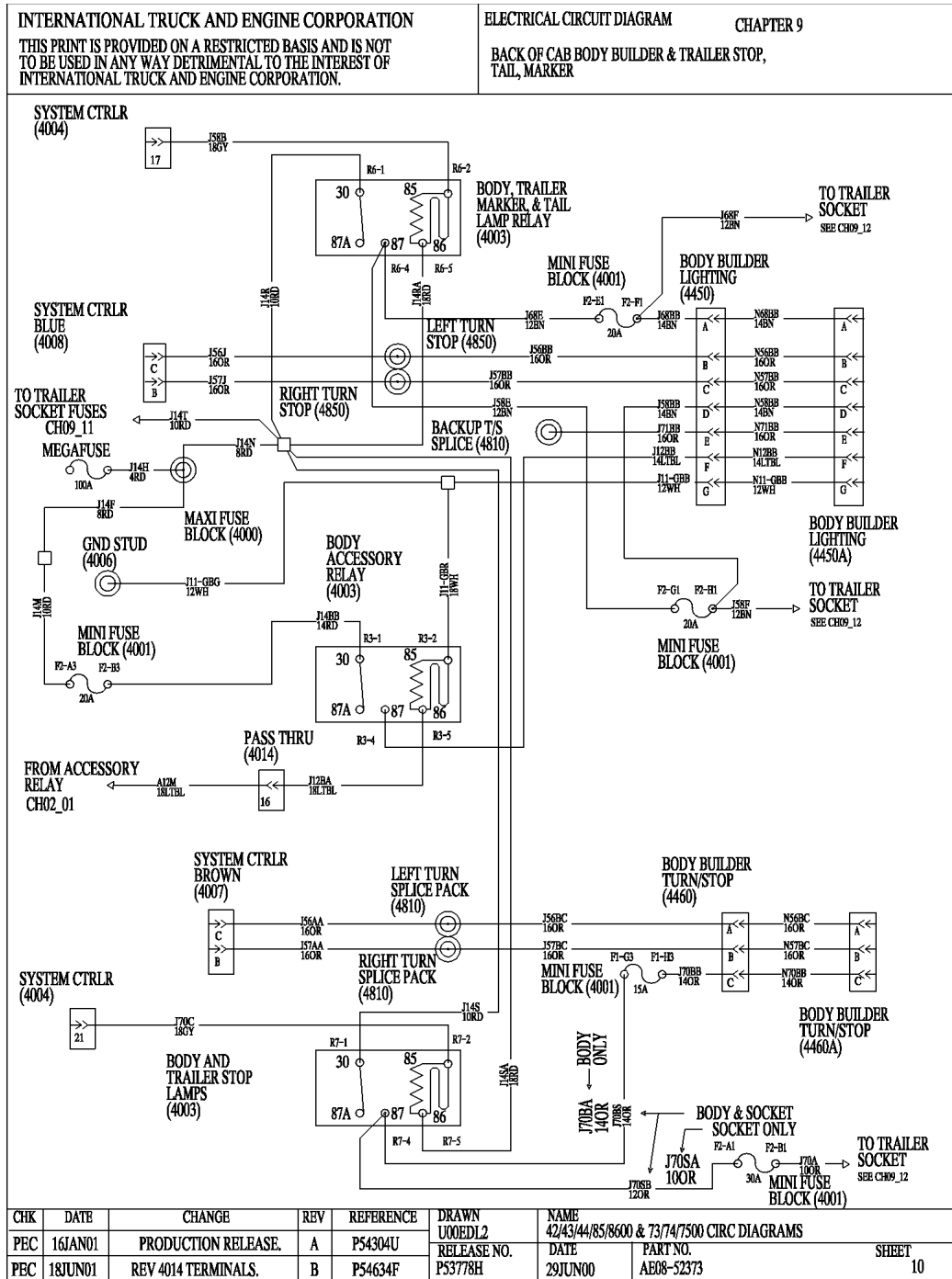


Figure 85 Fuel Transfer Pump

## 9.10. BACK OF CAB BODY BUILDER AND TRAILER STOP, TAIL, MARKER, P. 10



**Figure 86 Back of Cab Body Builder and Trailer Stop, Tail, Marker**

## 9.11. BODY BUILDER AND TRAILER TURNS, CENTER PIN ABS, CENTER PIN AUX, P. 11

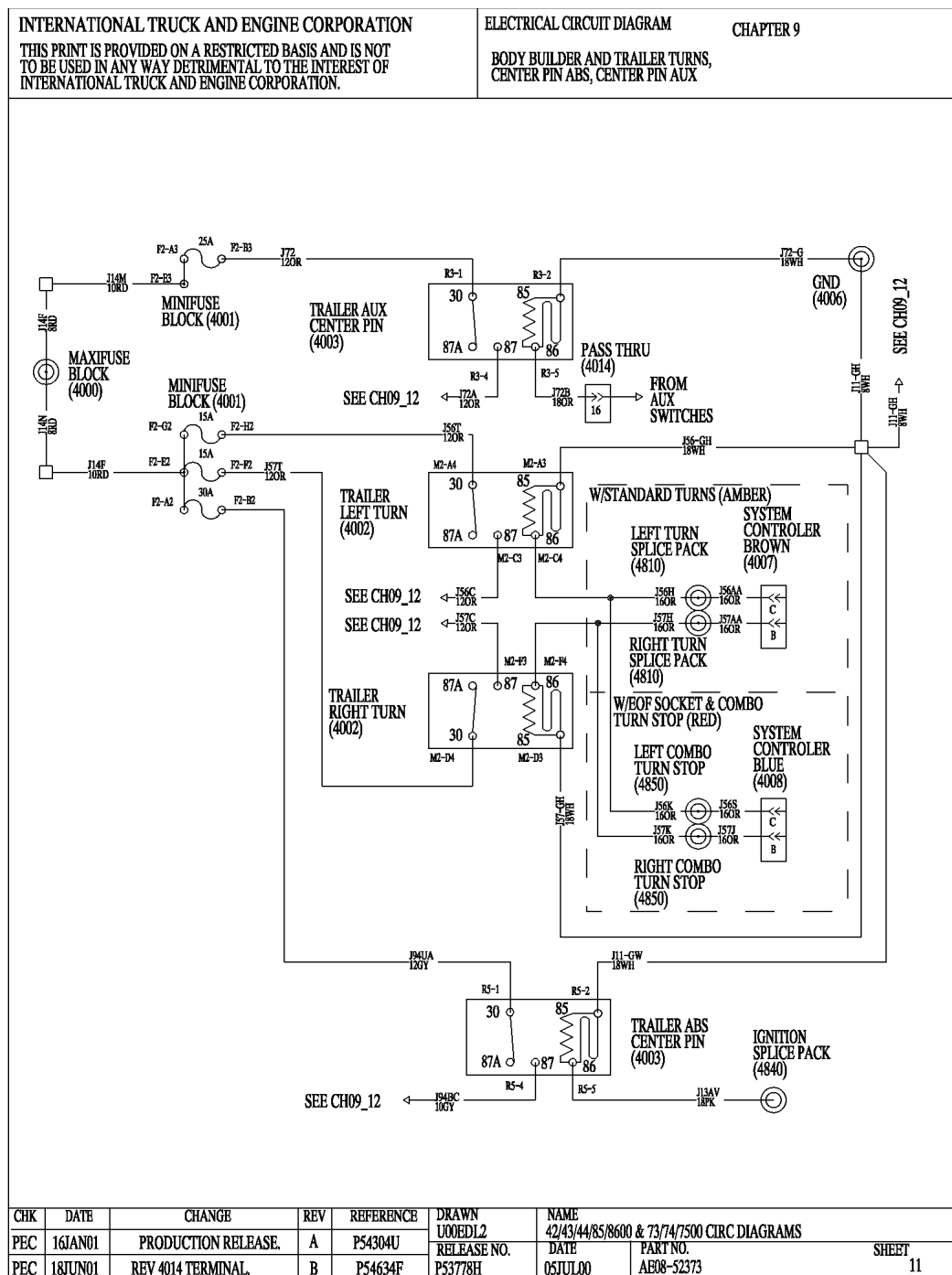
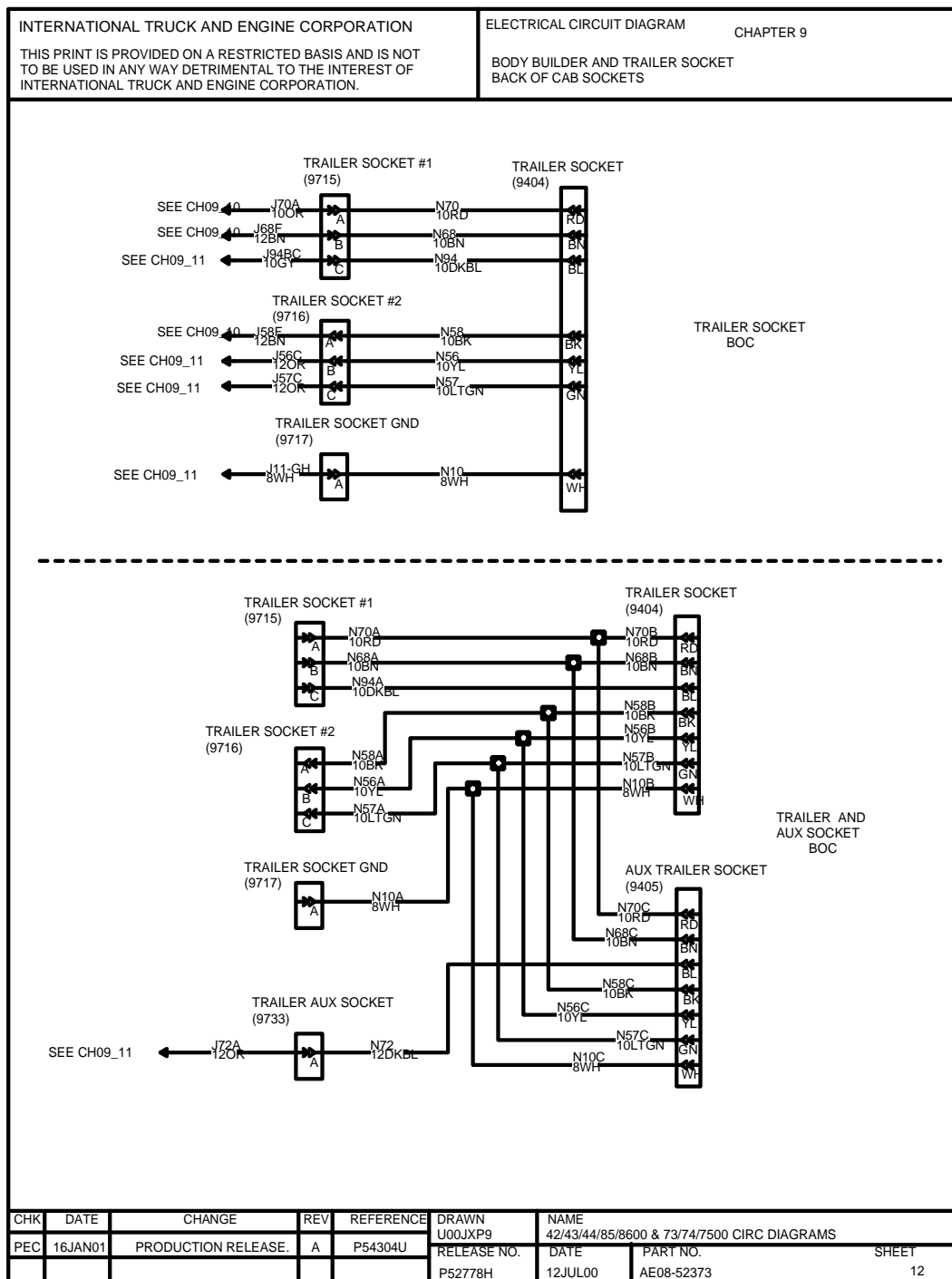


Figure 87 Body Builder and Trailer Turns, Center Pin ABS, Center Pin Aux



## 9.12. BODY BUILDER AND TRAILER SOCKET BACK OF CAB SOCKETS, P. 12



**Figure 88 Body Builder and Trailer Socket Back of Cab Sockets**

## 9.13. BODY BUILDER AND TRAILER SOCKET END OF FRAME (EOF) SOCKET AND BODY BUILDER, P. 13

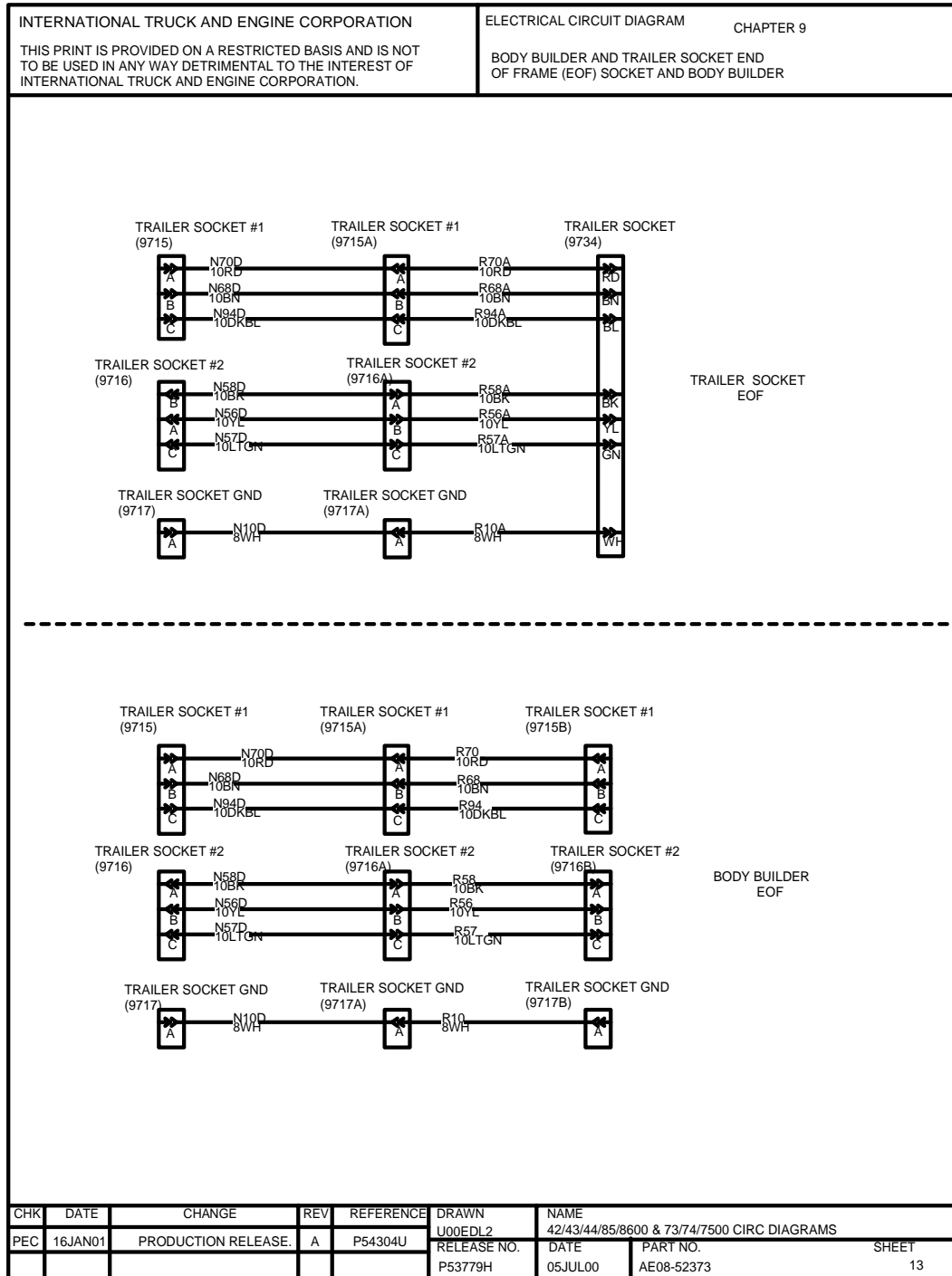


Figure 89 Body Builder and Trailer Socket End of Frame (EOF) Socket and Body Builder

9.14. AIR SOLENOID 4-WAY PACK, P. 14

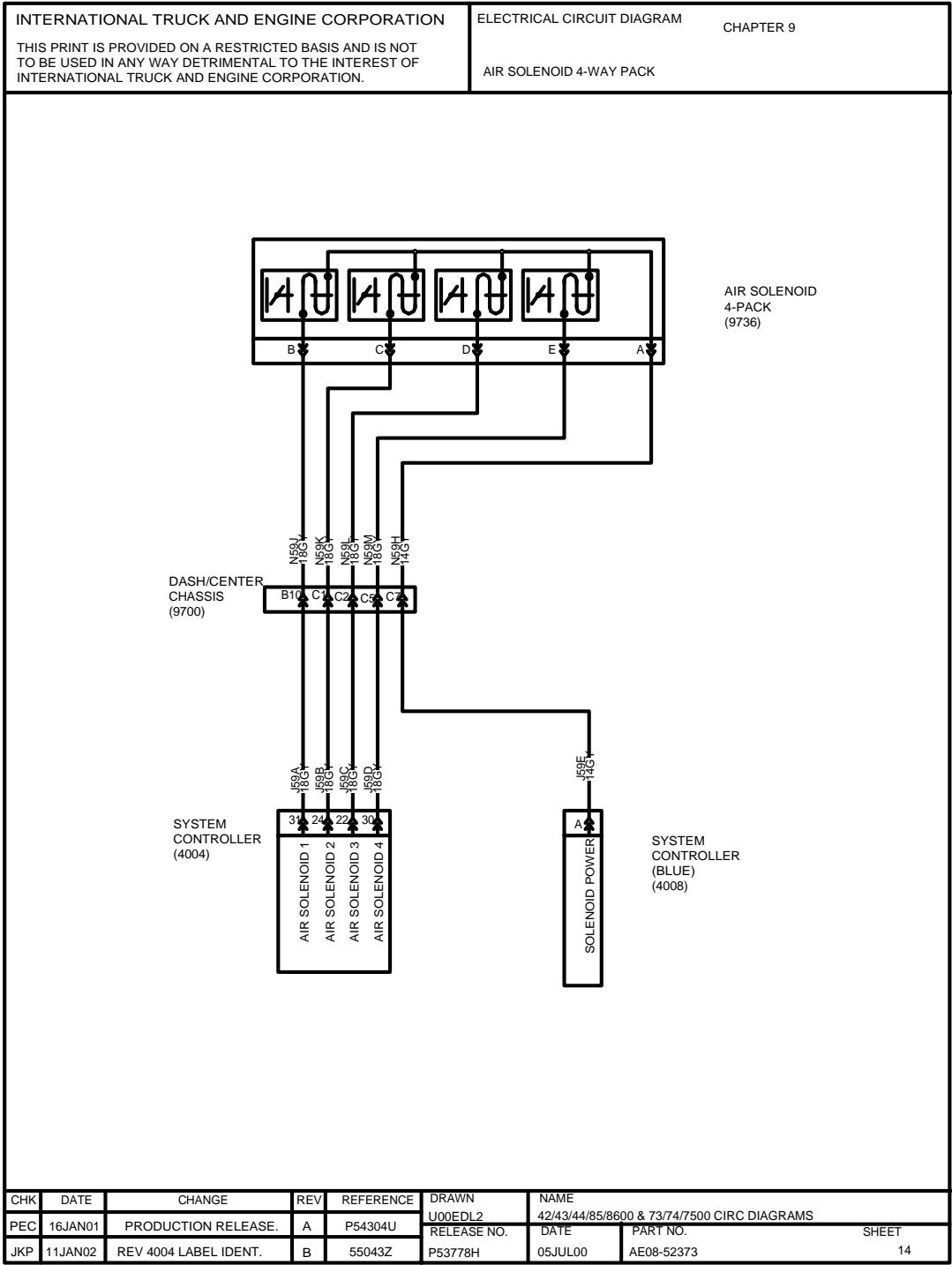


Figure 90 Air Solenoid 4-Way Pack

## 9.15. REMOTE POWER UNITS, SOLENOID PACKS, REMOTE ENGINE SPEED CONTROLLER, P. 15

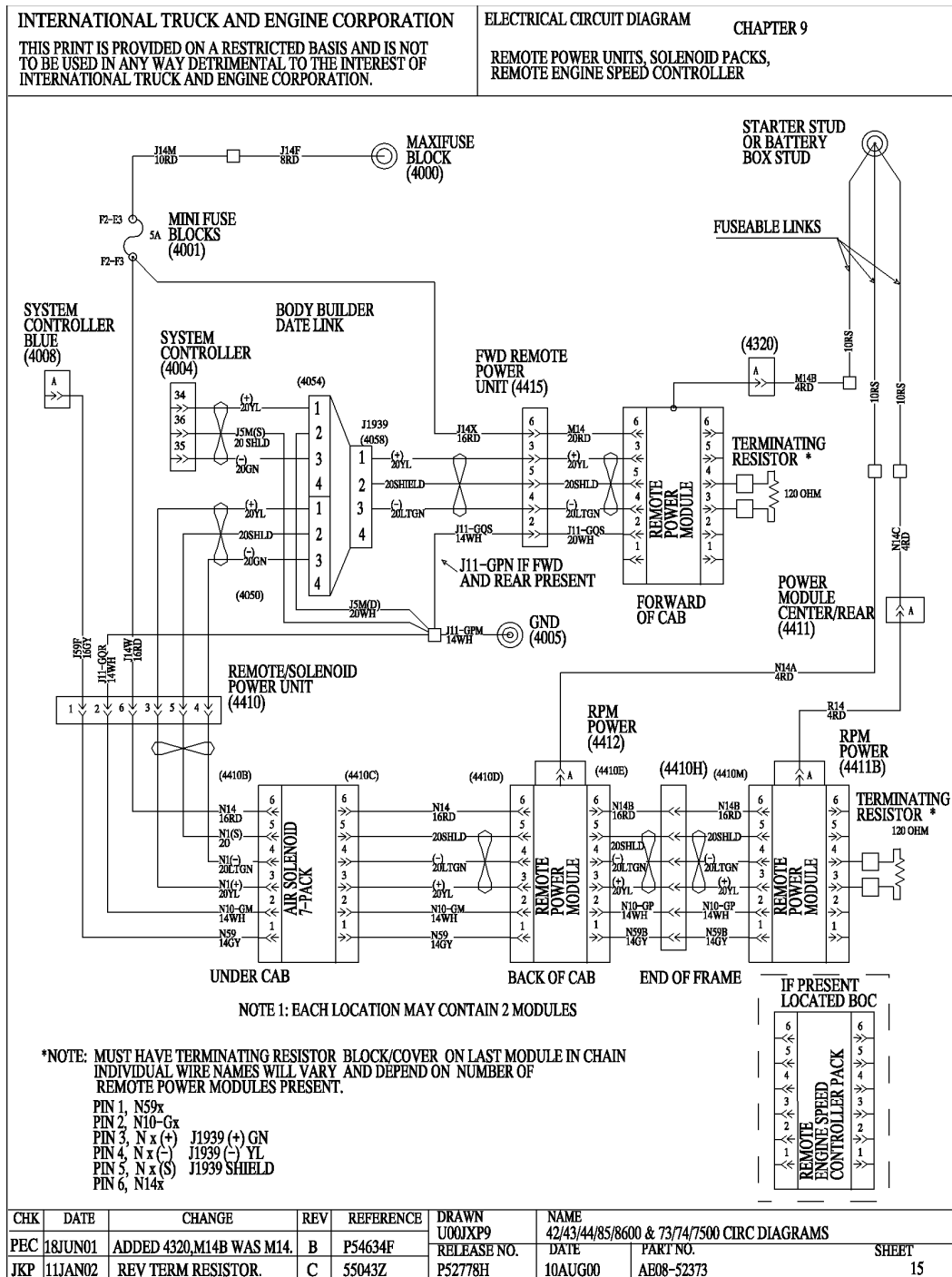


Figure 91 Remote Power Units, Solenoid Packs, Remote Engine Speed Controller

9.16. HYD POWER PARK, P. 16

INTERNATIONAL TRUCK AND ENGINE CORPORATION					ELECTRICAL CIRCUIT DIAGRAM			CHAPTER 9		
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DIAGRAM NOT AVAILABLE										
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	PART NO.	SHEET		
					P52778H	10JUL00	AE08-52373	16		

Figure 92 HYD Power Park

## 9.17. AIR SUSPENSION, P. 17

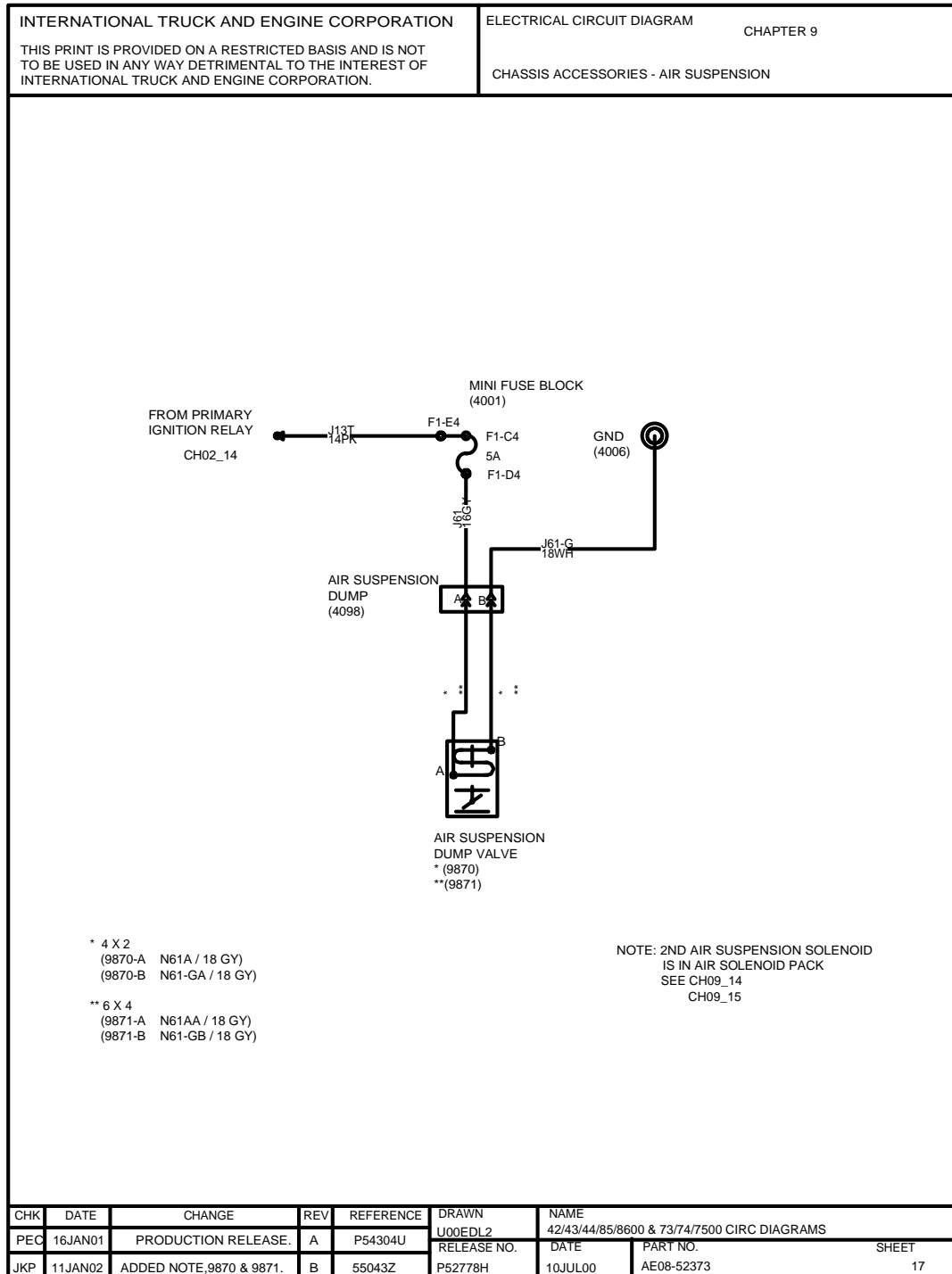


Figure 93 Air Suspension

9.18. AUX. TRAILER, ACC CONTROLLED, P. 18

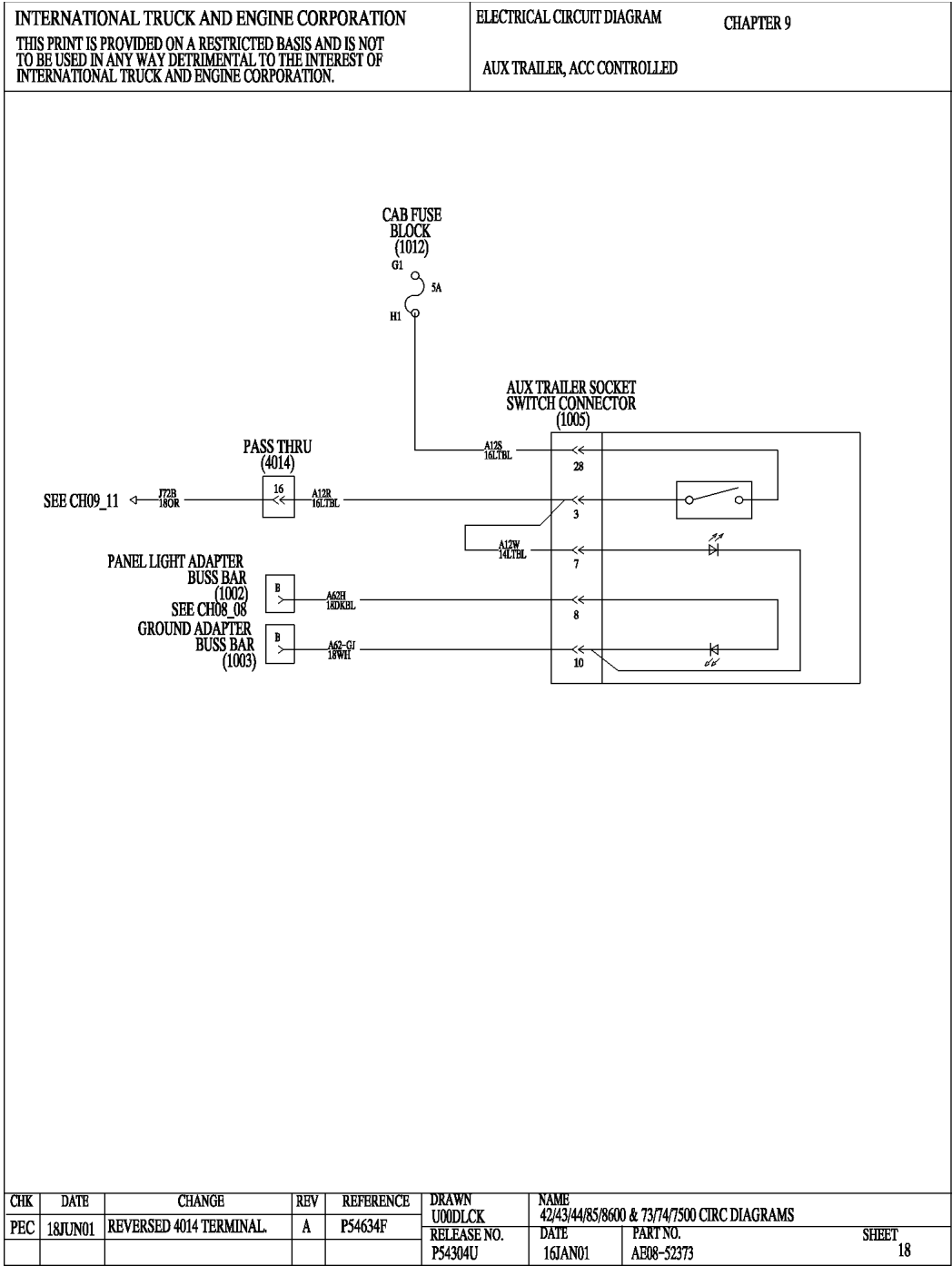


Figure 94 Aux. Trailer, Acc Controlled

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**ELECTRICAL CIRCUIT DIAGRAM**

**CHAPTER 9**

**AUX TRAILER, BTRY CONTROLLED**

**CAB FUSE BLOCK (1014)**

**PASS THRU (4014)**

**AUX TRAILER SOCKET SWITCH CONNECTOR (1006)**

**PANEL LIGHT ADAPTER BUSS BAR (1002)**

**GROUND ADAPTER BUSS BAR (1003)**

SEE CH09\_11

17B 160R

16

A14HD 16RD

A14HE 16RD

A14HF 16RD

B

A6H 16DKBL

B

A62-GU 16WH

28

3

7

8

10

5A

A2

B2

14

14

**Figure 95 Aux. Trailer, Btry Controlled**



CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME	PART NO.	SHEET
					U00DLCK	42/43/44/85/8500 & 73/74/7500 CIRC DIAGRAMS		
					RELEASE NO.	DATE		
					P54634F	20MAY01	AE08-52373	20

**Figure 96 Lift Axles (Non-Steerable)**

## 9.21. LIFT AXLES (STEERABLE), P. 21

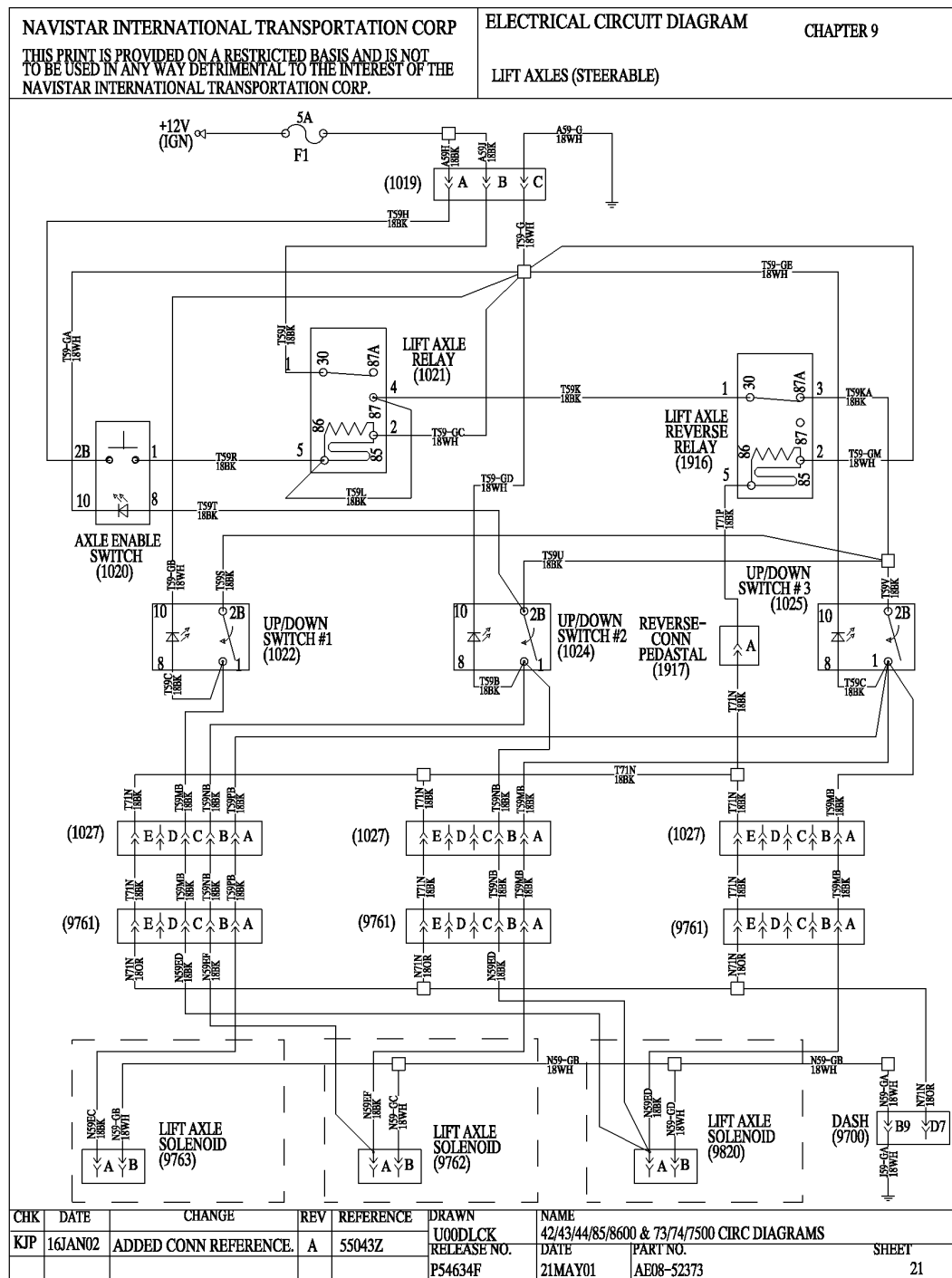


Figure 97 Lift Axles (Non-Steerable)

9.22. AIR ACTUATED PARK BRAKE, P. 22

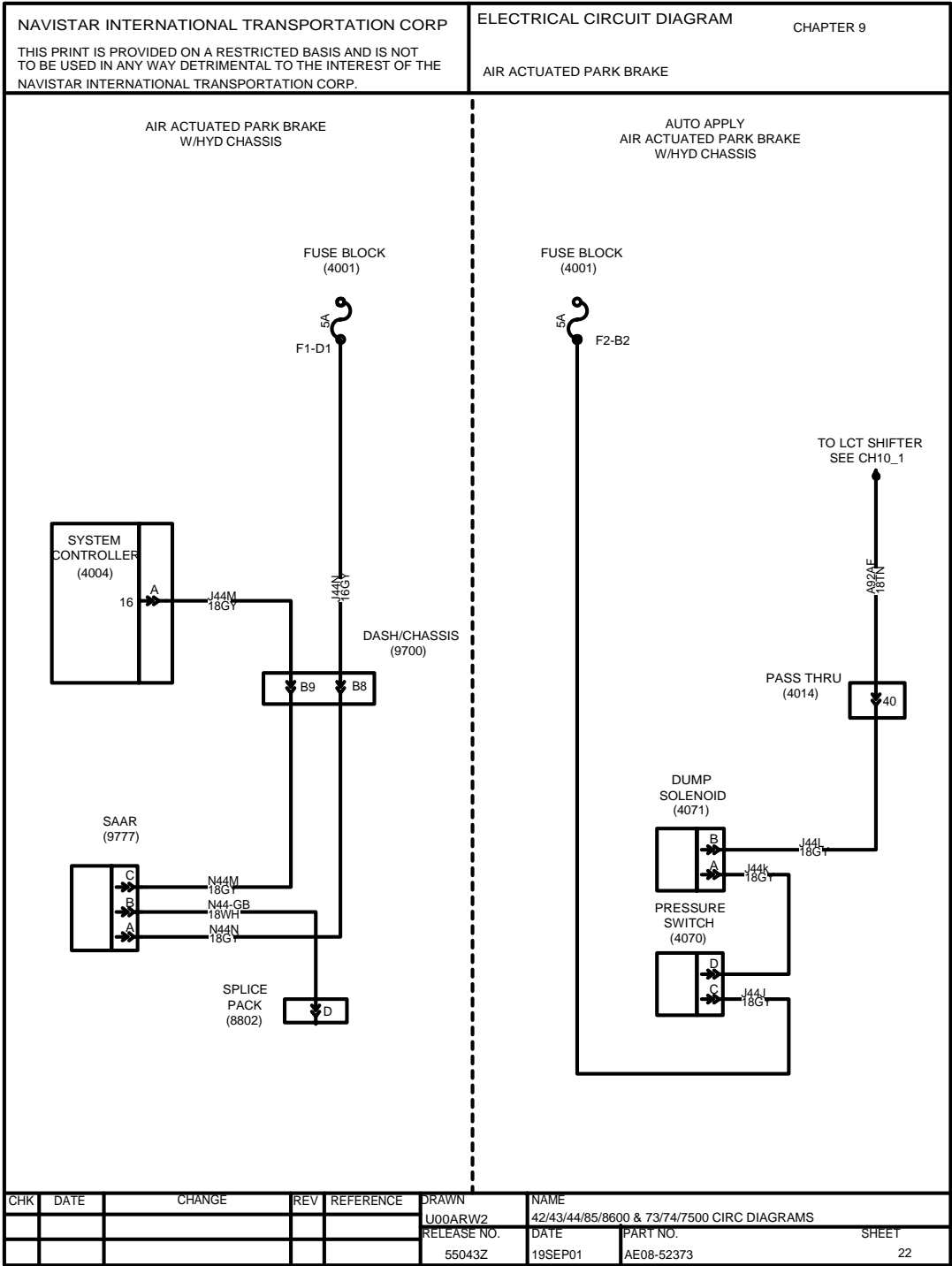
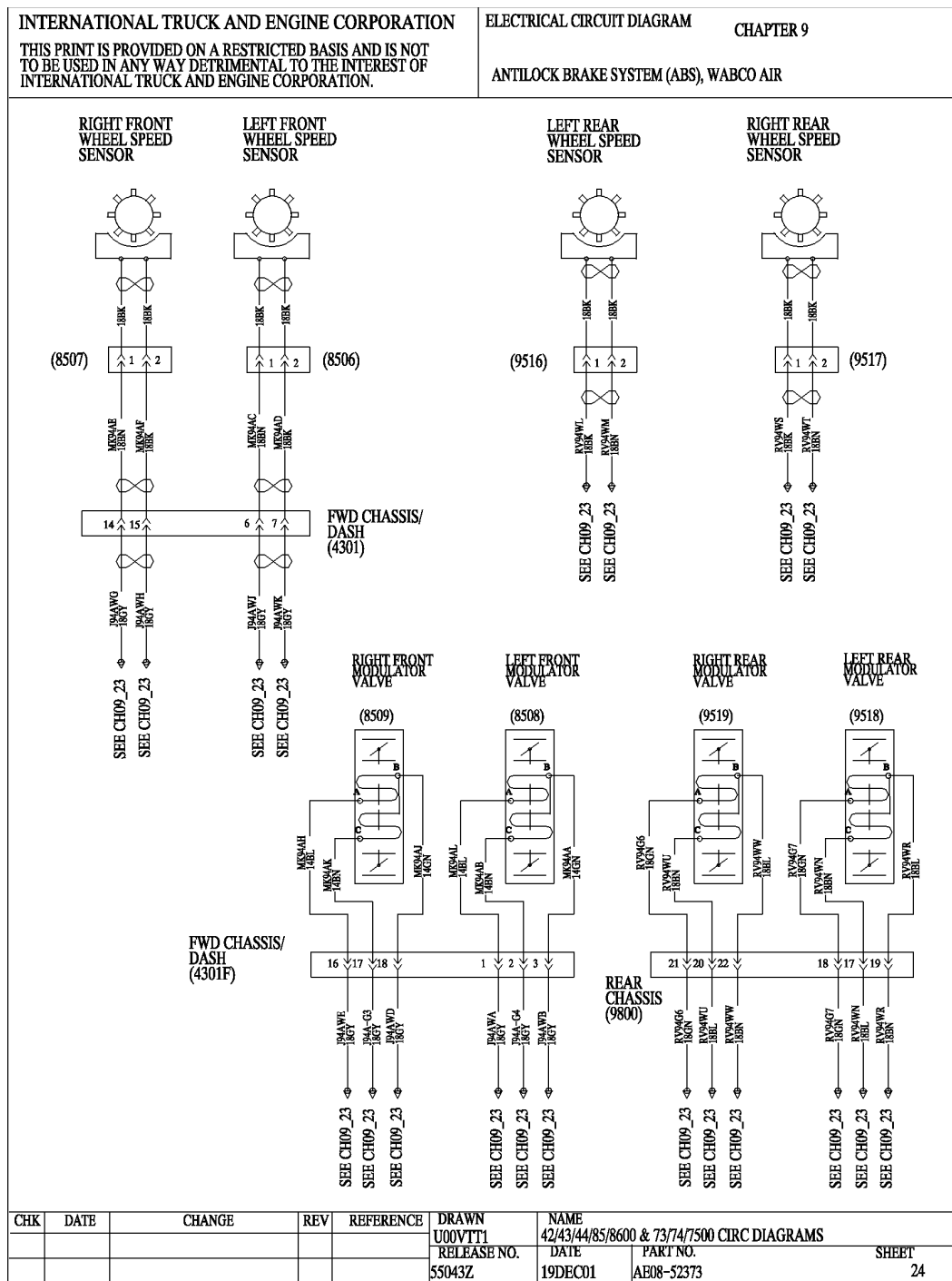


Figure 98 Air Actuated Park Brake

[illegible]

**Figure 99 Antilock Brake System, WABCO Air**

## 9.24. ANTILOCK BRAKE SYSTEM, WABCO AIR, P. 24



**Figure 100 Antilock Brake System, WABCO Air**

## 9.25. LIFT AXLES, WITH MULTIPLES FOR SS MODELS, P. 25

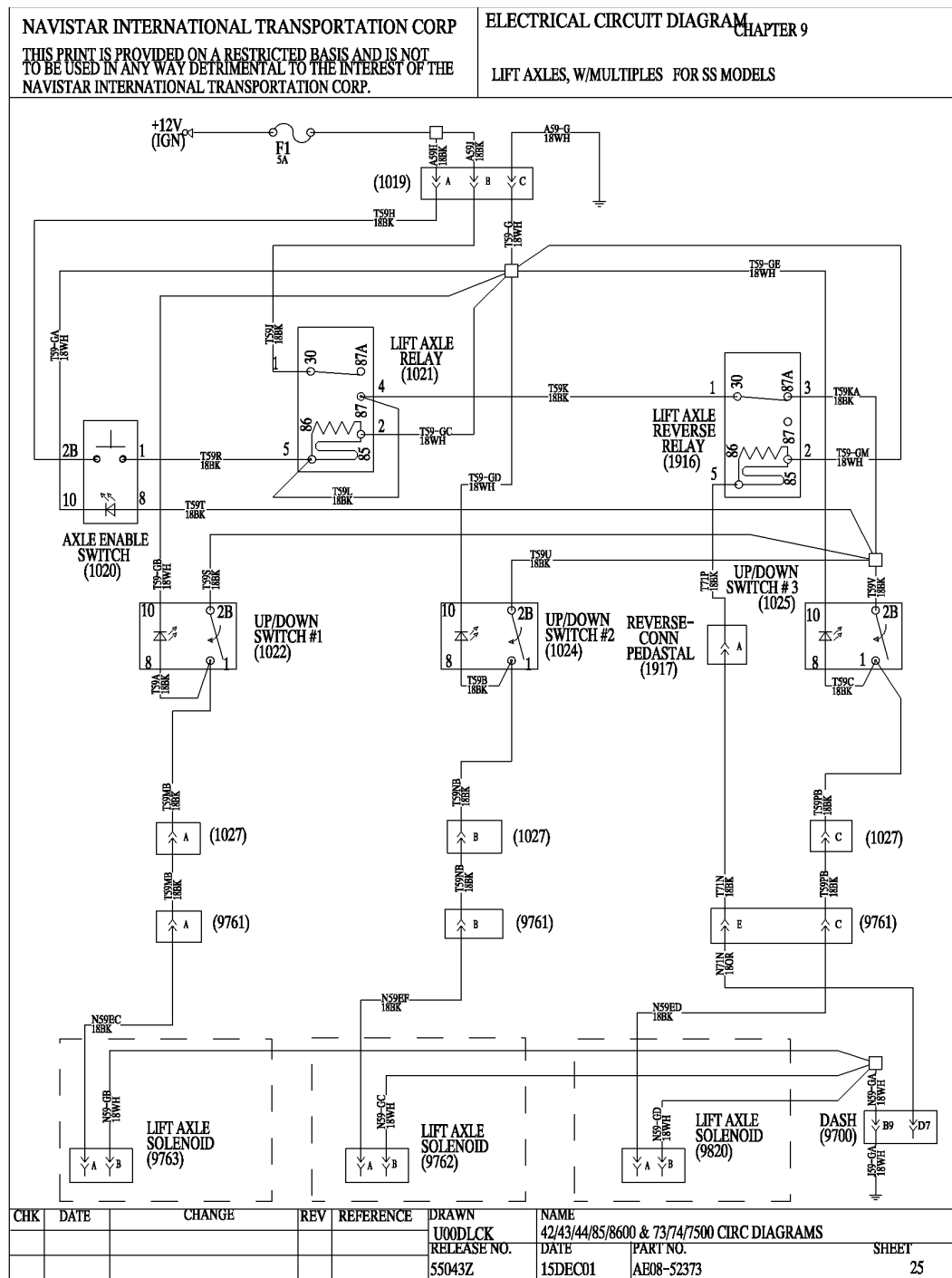


Figure 101 Lift Axles, With Multiples for SS Models

9.26. FUEL / WATER SEPARATOR WITH 12VDC FUEL PREHEATER, P. 26

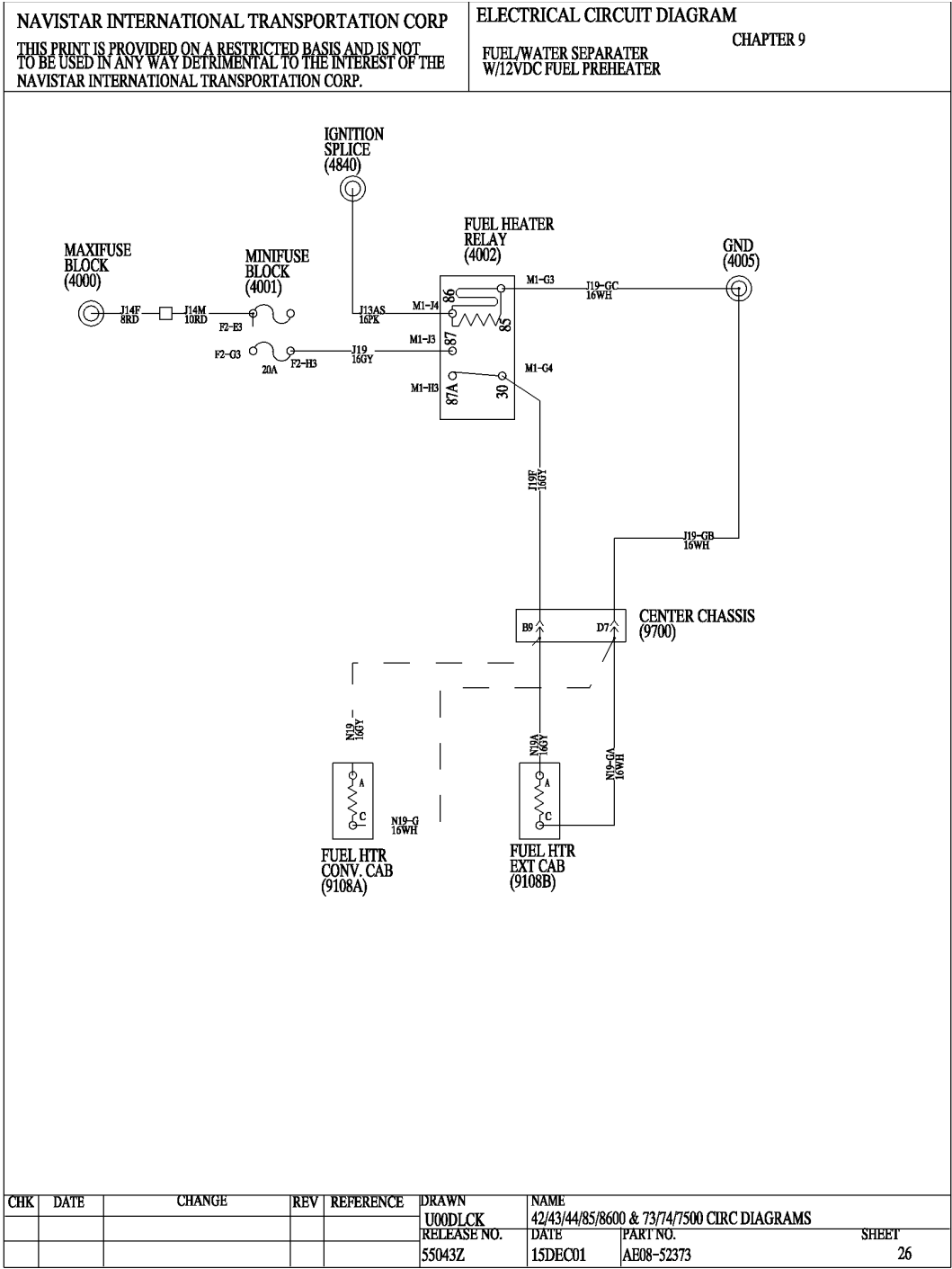


Figure 102 Fuel / Water Separator With 12VDC Fuel Preheater

## 10. TRANSMISSIONS (CHAPTER 10)

### 10.1. ALLISON LCT TRANSMISSION, P. 1

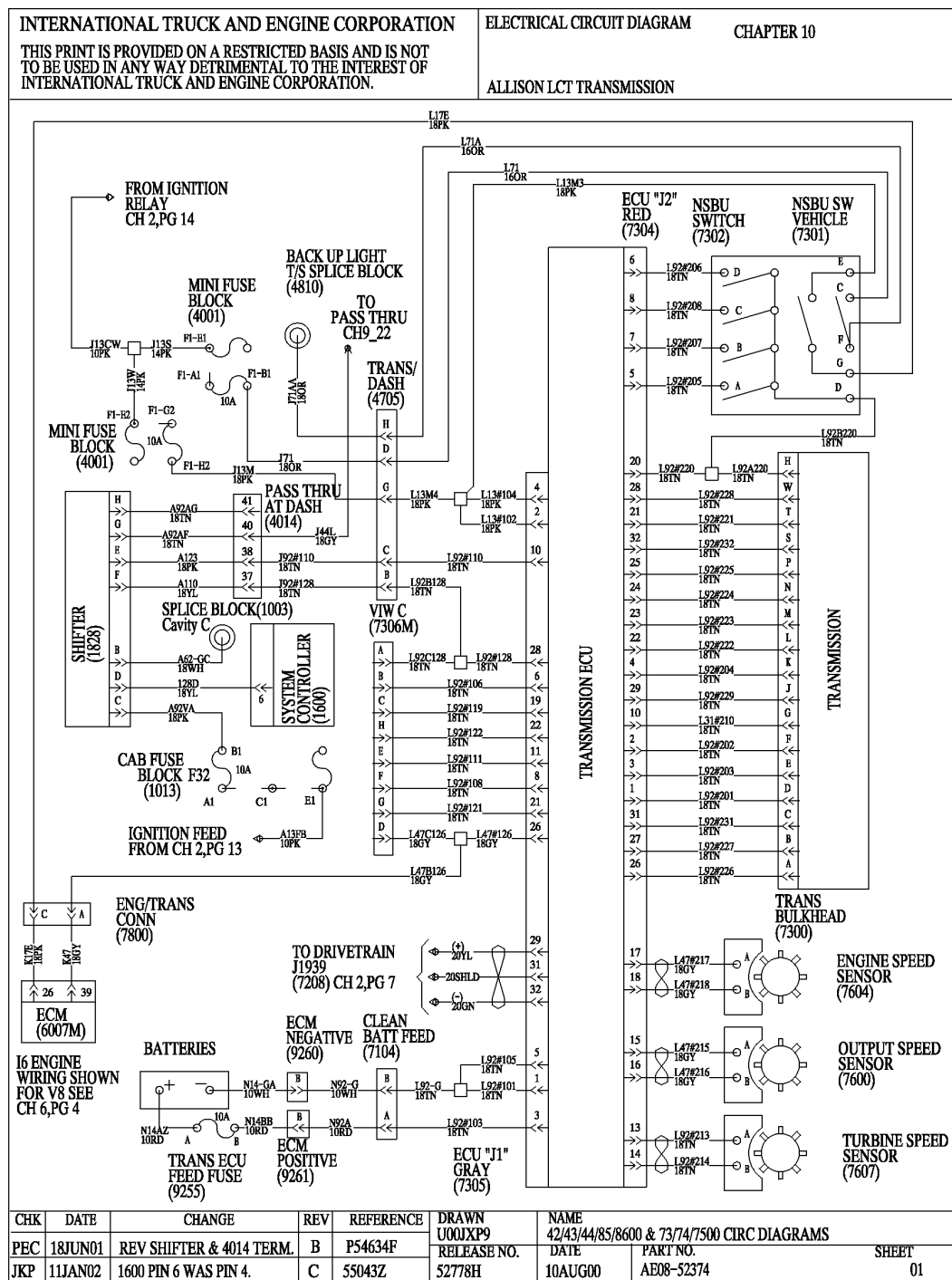
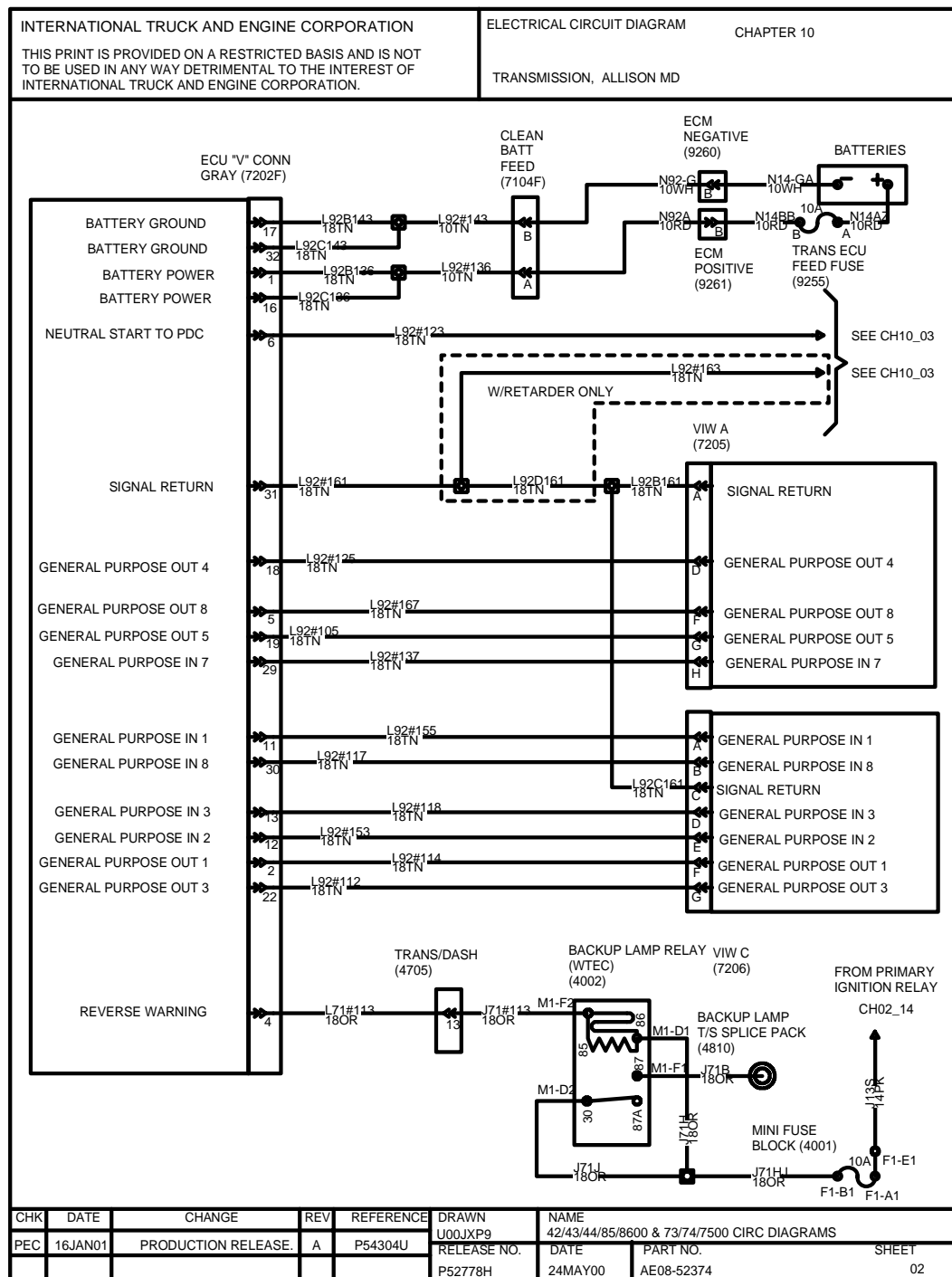


Figure 103 Allison LCT Transmission



## 10.2. ALLISON MD TRANSMISSION, P. 2



**Figure 104 Allison MD Transmission**

### 10.3. ALLISON MD TRANSMISSION (CONT.), P. 3

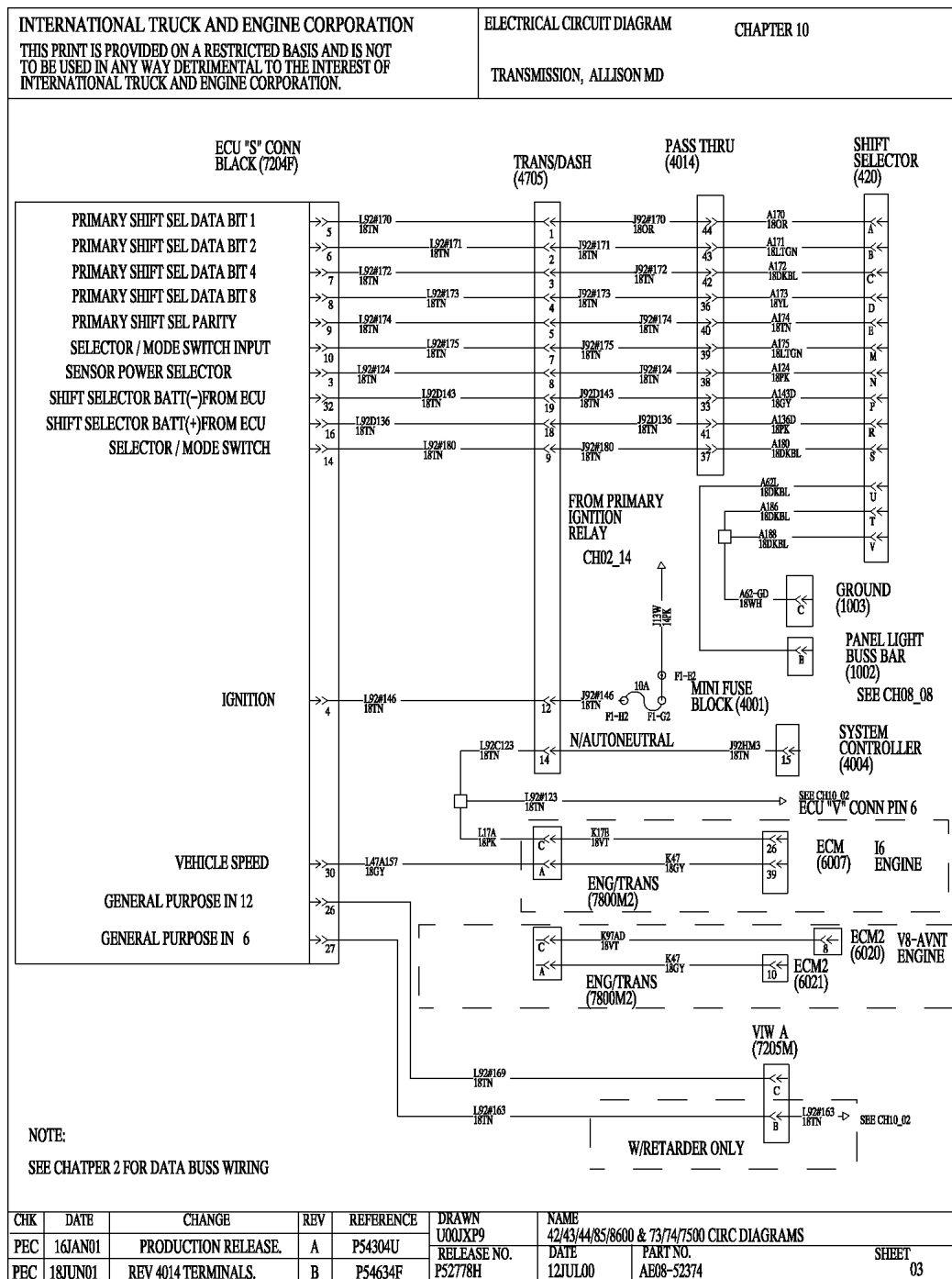


Figure 105 Allison MD Transmission (Cont.)

10.4. ALLISON MD TRANSMISSION (CONT.), P. 4

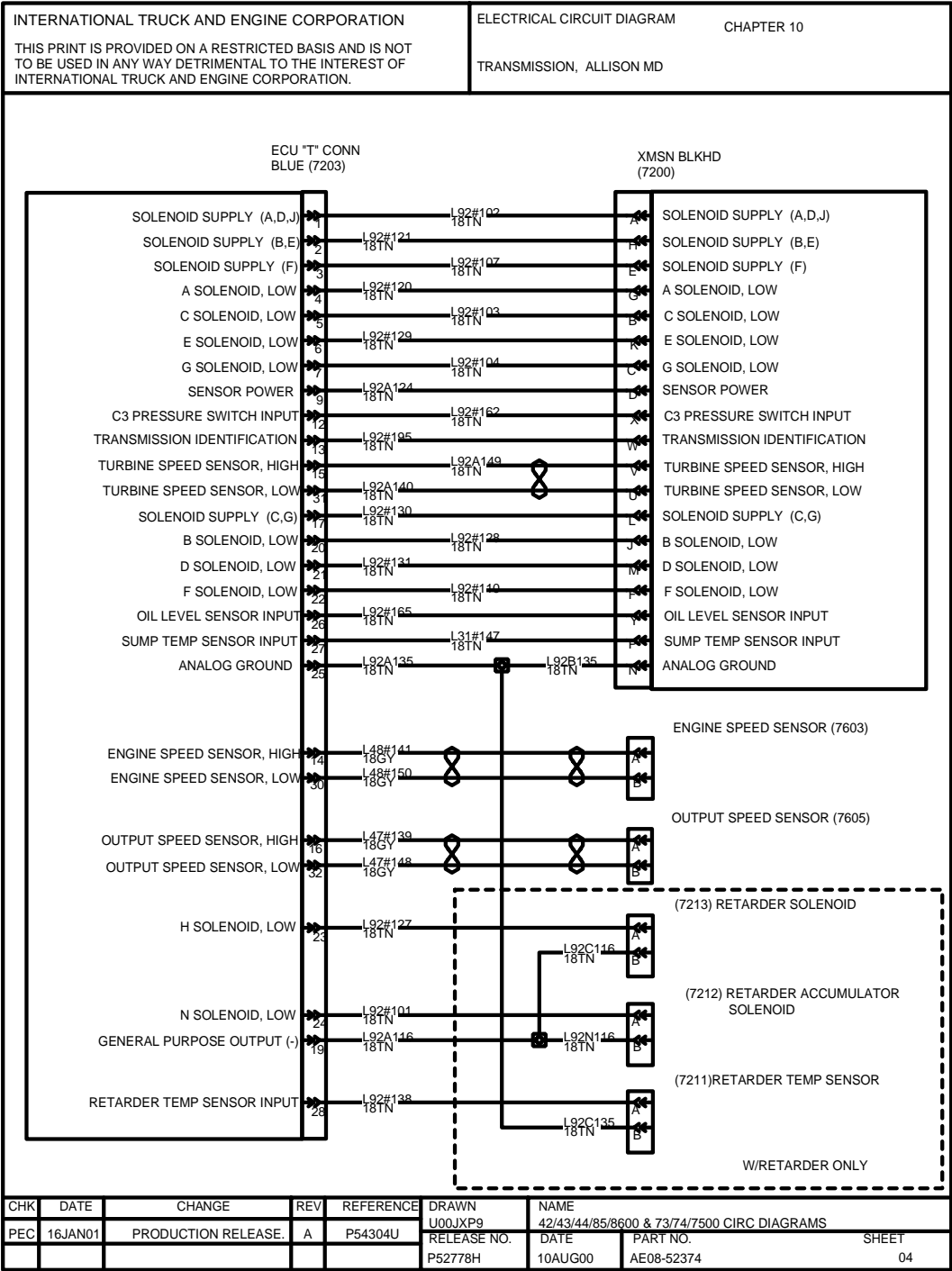


Figure 106 Allison MD Transmission (Cont.)

## 10.5. TRANSMISSION, WTEC MD W/AUTO NEUTRAL, P. 5

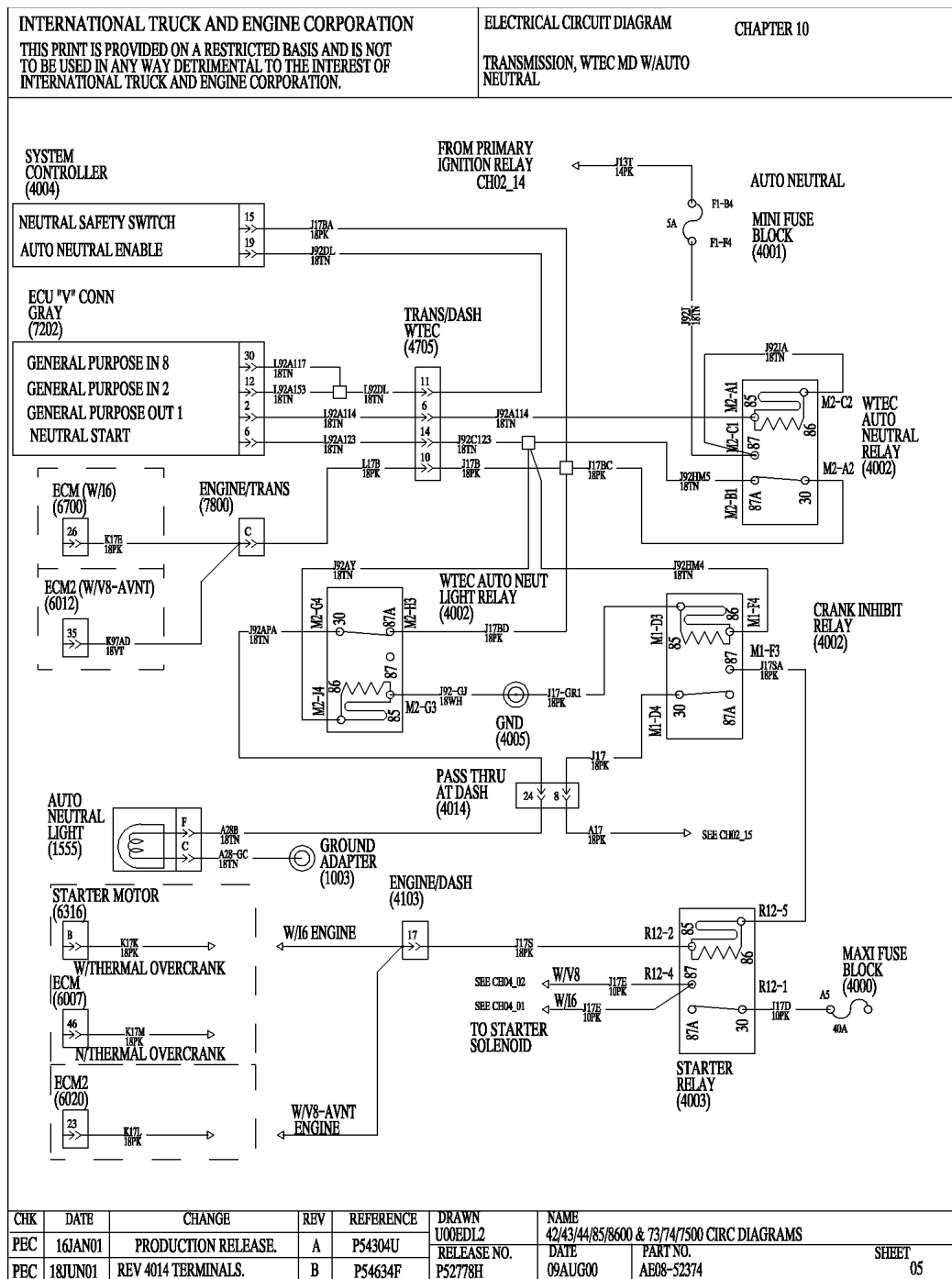


Figure 107 Transmission, WTEC MD W/Auto Neutral

10.6. EATON AUTOSHIFT TRANSMISSION, P. 6

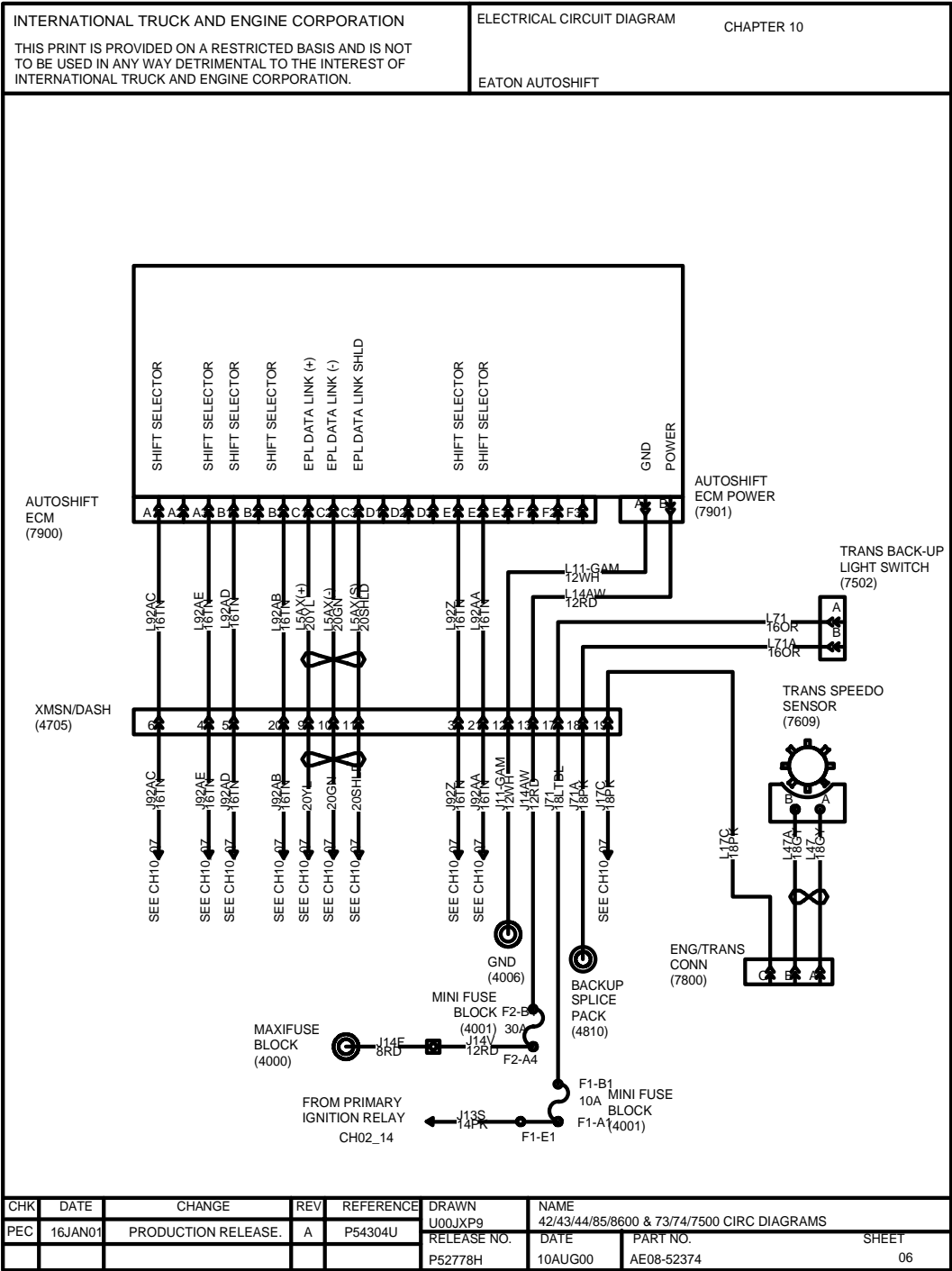


Figure 108 Eaton Autoshift Transmission

## 10.7. EATON AUTOSHIFT TRANSMISSION (CONT.), P. 7

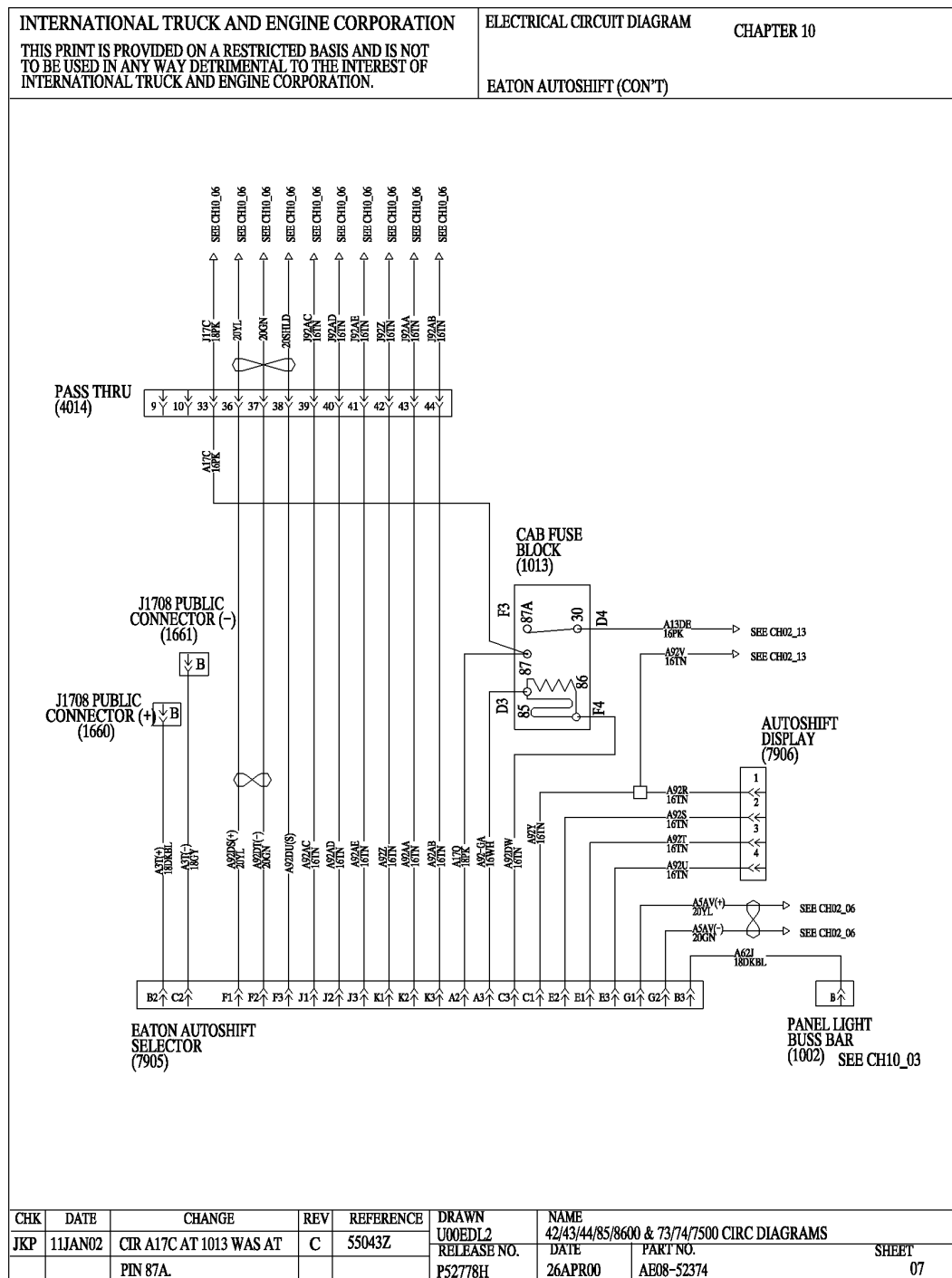


Figure 109 Eaton Autoshift Transmission (Cont.)

## 10.8. EATON LIGHTNING TRANSMISSION, P. 8

Figure 110 Eaton Autoshift Transmission (Cont.)

## 11.1. HVAC SYSTEMS, P. 1



## 11.2. AIR CONDITIONING (ONLY), P. 2

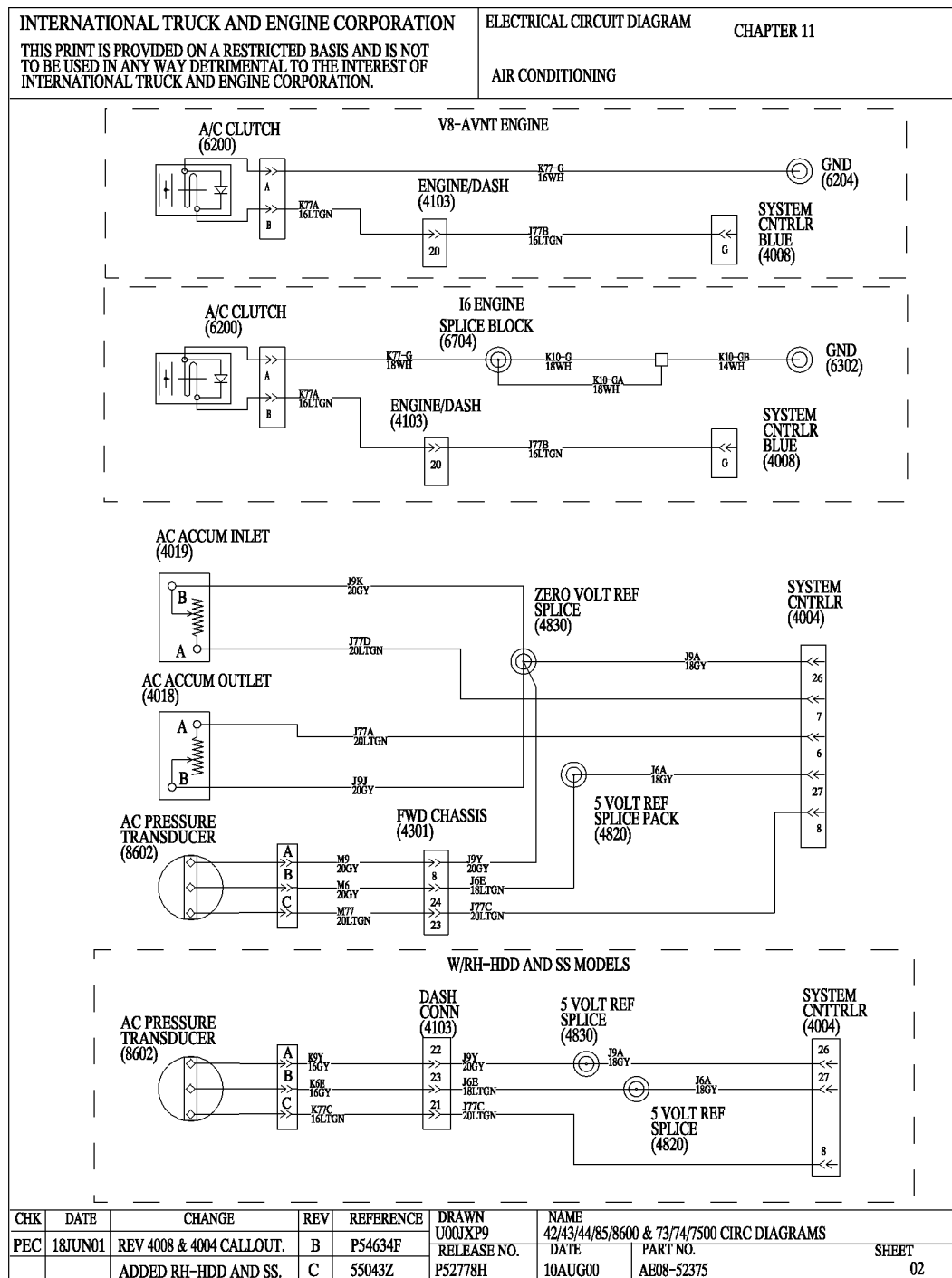


Figure 112 Air Conditioning (Only)