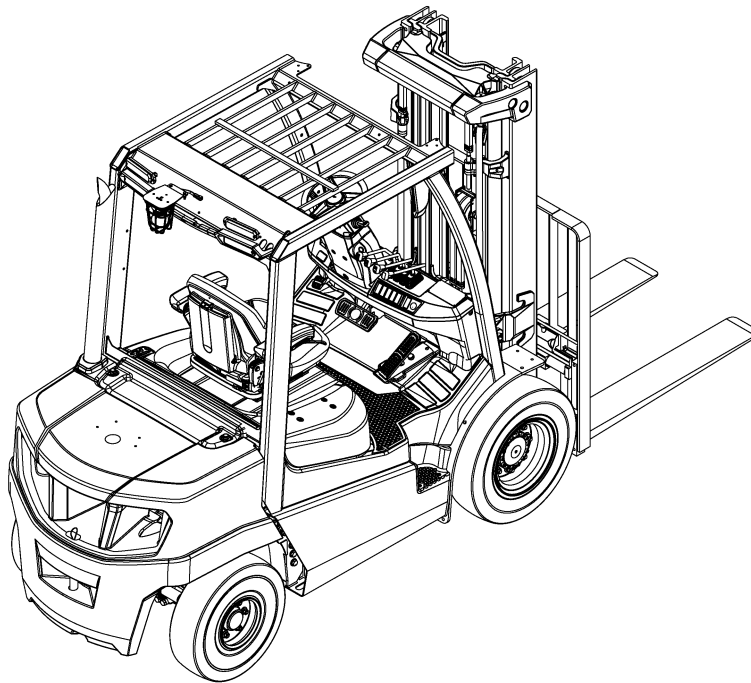


# DIAGRAMS AND SCHEMATICS

H2.0A, H2.5A6, H2.5A, H3.0A, H3.5A (H40A, H50A6,  
H60A, H70A) [R177]; S2.0A, S2.5A, S2.5A6, S3.0A,  
S3.5A (S40A, S50A, S55AS, S60A,  
S70A) [J187]; H1.6A, H1.8A, H2.0AS (H30A, H35A,  
H40AS) [H001]; S30A, S35A, S40AS [G010]



**HYSTER**

# SAFETY PRECAUTIONS

## MAINTENANCE AND REPAIR

- The Service Manuals are updated on a regular basis, but may not reflect recent design changes to the product. Updated technical service information may be available from your local authorized Hyster® dealer. Service Manuals provide general guidelines for maintenance and service and are intended for use by trained and experienced technicians. Failure to properly maintain equipment or to follow instructions contained in the Service Manual could result in damage to the products, personal injury, property damage or death.
- When lifting parts or assemblies, make sure all slings, chains, or cables are correctly fastened, and that the load being lifted is balanced. Make sure the crane, cables, and chains have the capacity to support the weight of the load.
- Do not lift heavy parts by hand; always use a lifting mechanism.
- Wear safety glasses.
- **DISCONNECT THE BATTERY** before doing any maintenance or repair on electric lift trucks. Disconnect the battery ground cable on internal combustion lift trucks.
- Always use correct blocks to prevent the unit from rolling or falling. See **HOW TO PUT THE LIFT TRUCK ON BLOCKS** in the **Operating Manual** or the **Periodic Maintenance** section of the service manual.
- Keep the unit clean and the working area clean and orderly.
- Use the correct tools for the job.
- Keep the tools clean and in good condition.
- Always use **HYSTER® APPROVED** parts when making repairs. Replacement parts must meet or exceed the specifications of the original equipment manufacturer.
- Make sure all nuts, bolts, snap rings, and other fastening devices are removed before using force to remove parts.
- Always fasten a **DO NOT OPERATE** tag to the controls of the unit when making repairs, or if the unit needs repairs.
- Strictly follow all **WARNING** and **CAUTION** notes in the operating manual, safety labels, service manual, and other instructions.
- Gasoline, Liquid Propane Gas (LPG), Compressed Natural Gas (CNG), Hydrogen Gas (H<sub>2</sub>), and Diesel fuels are flammable and potentially explosive. Hydraulic, transmission, and other fluids and oils are also flammable. Be sure to follow the necessary safety precautions when handling these substances or working on systems containing these substances.
- Lead acid batteries generate flammable gas when they are being charged. Keep fire and sparks away from the area. Make sure the area is well ventilated.
- Lithium-ion batteries should only be used in working environments where the temperature is within the recommended operating range (typically between 0 - 40°C (32 - 104°F)). Extreme temperatures, moisture, improper charging or damage to the battery can cause a fire or explosion.
- Whenever Diagnostic tools are needed for engine, only licensed or certified persons can use Diagnostic tools.

**NOTE:** The following symbols and words indicate safety information in this manual:



### **WARNING**

**Indicates a hazardous situation which, if not avoided, could result in death or serious injury.**



### **CAUTION**

**Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury and property damage.**

On the lift truck, the **WARNING** symbol (and word, if present) are on orange background. The **CAUTION** symbol (and word, if present) are on yellow background.



**WARNING**

Installing improper electrical accessories or installing an electrical accessory incorrectly can increase the risk of equipment damage, personal injury and fire. **DO NOT** install electrical accessories to the truck unless you have been trained and authorized to do so. Personnel installing the electrical accessories must document the changes made to the truck. **DO NOT** install accessories which affect the truck's compliance with standard ANSI/ITSDF B56.1, UL 558, or UL 583, or which otherwise affect the safe operation of the truck.



**WARNING**

Installing improper electrical accessories or installing an electrical accessory incorrectly can increase the risk of equipment damage, personal injury and fire. **DO NOT** install electrical accessories to the truck unless you have been trained and authorized to do so. Personnel installing the electrical accessories must document the changes made to the truck. **DO NOT** install accessories which affect the truck's compliance with standard EN 1175:2020.



**WARNING**

California Proposition 65 - Operating, servicing and maintaining a powered industrial truck can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).



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**"THE  
QUALITY  
KEEPERS"**

**HYSTER  
APPROVED  
PARTS**

## Introduction

### GENERAL

#### 202001-001

**NOTE:** For any fasteners in this manual that feature standard torque specifications, please refer to **Metric and Inch (SAE) Fasteners 8000SRM0231** for correct specifications.

### DISCHARGING THE CAPACITORS



#### WARNING

**DO NOT** make repairs or adjustments unless you have been properly trained and authorized to do so. Improper repairs and adjustments can create dangerous operating conditions. **DO NOT** operate a lift truck that needs repairs. Report the need for repairs to your supervisor immediately. If repair is necessary, attach a **DO NOT OPERATE** tag on the steering wheel and disconnect the battery.

Disconnect the battery and discharge the capacitors before opening any compartment covers or inspecting or repairing the electrical system. **DO NOT** place tools on top of the battery. If a tool causes a short circuit, the high current flow from the battery can cause personal injury or property damage.

Some check and adjustments are performed with the battery connected. **DO NOT** connect the battery until the procedure instructs you to do so. Never wear any metallic items on your fingers, arms, or neck. Metal items can accidentally make an electrical connection and cause injury. Before performing any tests or adjustments, block the lift truck to prevent unexpected movement.

The capacitors in the transistor controller(s) can hold an electrical charge for about 10 minutes after the battery is disconnected. To prevent an electrical shock and personal injury, discharge the capacitor(s) before inspecting or repairing any component in the drive unit compartment. Make certain that the battery had been disconnected.

**DO NOT** short across the motor controller terminals with a screwdriver or jumper wire.

**Make certain the Emergency-Stop Switch has not been activated. This will isolate the controller and prevent the capacitors from discharging properly. The proper way to disconnect the battery is by separating the battery connectors.**

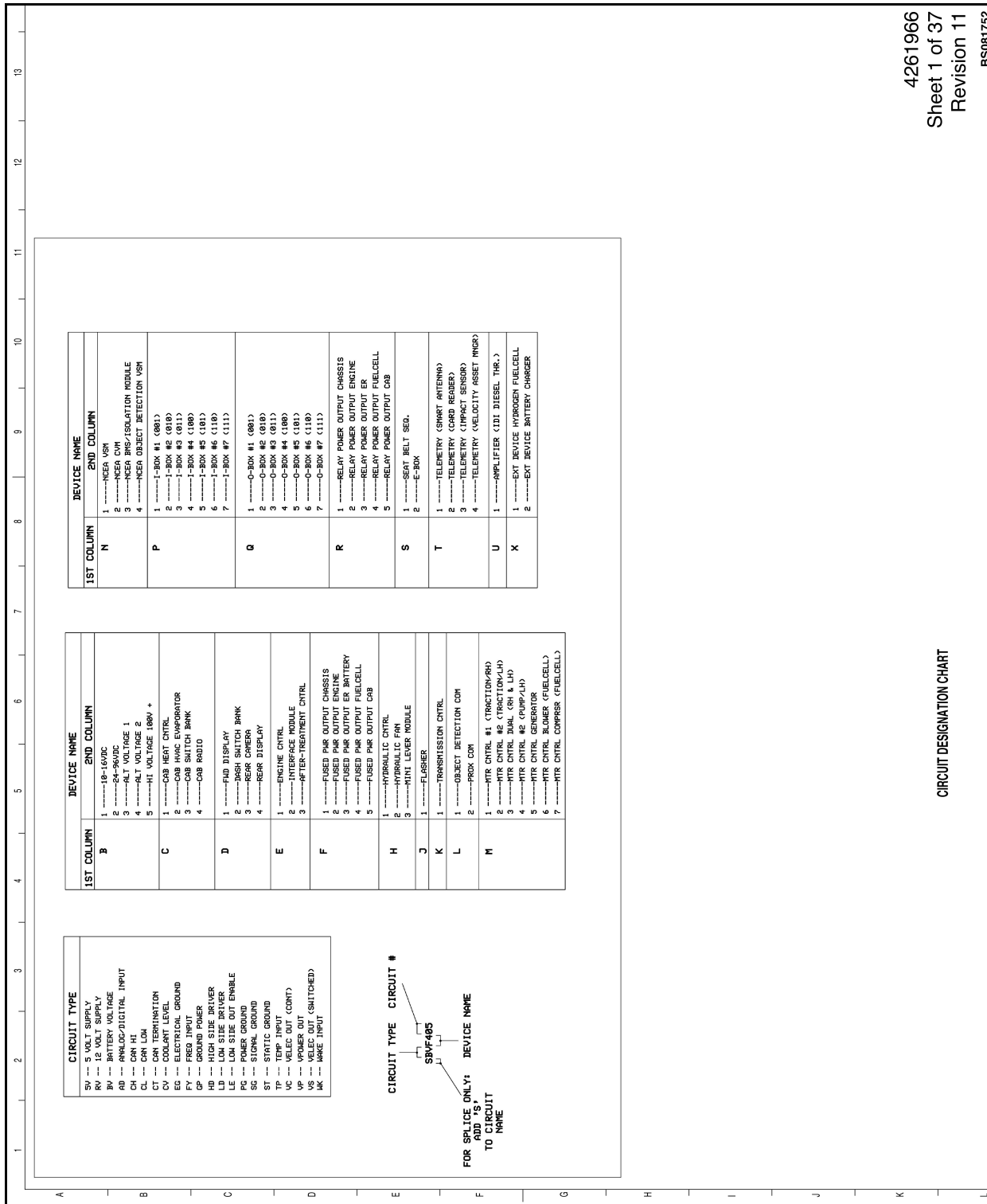
**DISCHARGING THE CAPACITORS:** For trucks with rapid-charge option, the horn cannot be used to discharge capacitors prior to service. Disconnect the battery, then wait five minutes before performing any service on the truck.

1. Ensure the capacitors are discharged by performing Step 2 through Step 6 below.
2. Turn the key or keyless switch to **OFF** position.
3. Disconnect the battery by separating the connector on the battery cable from the connector on the lift truck.
4. Block the drive wheels to prevent the lift truck from moving.
5. Make sure the Emergency-Stop Switch **HAS NOT** been activated. If the Emergency-Stop Switch is activated, rotate the switch to the right until it pops up.
6. Press the horn button on the steering column. Wait 30 seconds to be sure capacitors are fully discharged. If the horn does not sound when the switch is actuated, wait 10 minutes before proceeding with service.  
For lift trucks equipped with rapid-charge option, the horn cannot be used to discharge capacitors prior to service. Disconnect the battery, then wait five minutes before performing any service on the truck.

# Electrical schematics and diagrams

## ELECTRICAL SCHEMATICS

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CIRCUIT DESIGNATION CHART

Figure 1. Schematic - ICE (Sheet 1 of 37)

	1	2	3	4	5	6	7	8	9	10	11	12	13
A	VSM V1		CRS1	X									
	VSM V1		CRS1X	X									
	VSM V1		CPP1	X									
	VSM V2		CRS2	X	X								
	VSM V3		CRS3	X	X								
	VSM V4		CRS4	X	X								
	VSM V4		CRS4X	X	X								
B	VSM V4		CPP4	X	X								
	VSM V5		CRS5	X	X								
	I-Box 1 I1		CRS11	X	X								
	I-Box 1 I1		CRS11X	X	X								
	I-Box 1 I2		CRS12	X	X								
	I-Box 1 I2		CRS12X	X	X								
C	I-Box 1 I2		CPP12X	X	X								
	I-Box 2 I1		CRS13	X	X								
	I-Box 2 I2		CRS14	X	X								
	I-Box 3 I1		CRS15	X	X								
	I-Box 3 I2		CRS16	X	X								
D	O-Box 1 O1		CRS030	X	X								
	O-Box 1 O2		CRS031	X	X								
	Main PDM		CRS52	X	X								
E	Front Display J1		CRS100	X	X								
	Front Display J2		CRS101	X	X								
	Keypad		CRS102	X	X								
	RR Display J1		CRS105	X	X								
	RR Display J2		CRS106	X	X								
	Rear view camera		CRS108	X	X								
	Flasher		CP5161	X	X								
	Steering Wheel Pos Sensor		CP5162	X	X								
	Steer Axle Pos sensor		CP5166	X	X								
	Park brake position sensor (handle)		CP5171	X	X								
	WBA park brake switch		CP5172	X	X								
	WBA PDM		CP5173	X	X								
G	Hazard Lt Switch		CP5218	X	X								
	12V Aux #2		CP5220	X	X								
	Air Ride Jumper W/O Cab		CP5208	X	X								
	12V Aux #1		CP5221	X	X								
H	12V Aux Jumper cable termination		CP5222	X	X								
	Brake Pedal Pos. Sensor Dual		CP5224	X	X								
	Brake Pedal Pos. Sensor Single		CP5225	X	X								
	Accel Pedal Direction Select		CP5226	X	X								
	Accel Pedal position sensor (single)		CP5227	X	X								
	Accel pedal position sensor (Dual)		CP5228	X	X								
	Service brake pressure transducer		CP5230	X	X								
	Brake Fluid level Switch		CP5231	X	X								
I	USB Port		CP5232	X	X								
	12V Power Port Pwr		T233	X	X								
	12V Power Port Gnd		T234	X	X								
	Fork Height Sensor (Stringpot, CAN)		CP5251	X	X								
	Seat Occupancy Sensor/Compressor		CP5252	X	X								
J	Fork Height Sensor (Switch)		CP5253	X	X								
	Back-Up Alarm		CP5254	X	X								
	Steer Column Direction Select		CP5264	X	X								
	Air filter Restriction Sensor		CP5268	X	X								
	Liquid Fuel Level Sensor		CP5269	X	X								
	LPG Fuel Quality Sensor		CP5272	X	X								

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CONNECTOR DESIGNATION/LOCATOR

Figure 1. Schematic - ICE (Sheet 2 of 37)

	2	3	4	5	6	7	8	9	10	11	12	13
A	LPG tank interlock sensor	CPS274										
	Seat Belt switch	CPS275										
	OHG Horn Burton	CPS279										
	Low Coolant Level Sensor	CPS280										
	Horn button (Steering column)	T287/T288										
	Horn	CPS289										
	Mini Lever Module	CPS290										
B	LH Front Work Light	CPS300										
	RH Front Work Light	CPS301										
	Rear Work Light	CPS302										
	LH Lower Mast work light	CPS304										
	RH Lower Mast work light	CPS305										
C	RH front work light w/ Marker	CPS307										
	LH Tail Light	CPS308										
	RH Tail Light	CPS309										
	Amber Strobe Light	CPS310										
	Blue/Red Spot light (Rear)	CPS311										
	LH front work light w/ Marker	CPS312										
D	Fork Laser	CPS313										
	LH Upper Mast work light	CPS314										
	RH Upper Mast work light	CPS315										
	Blue/Red Spot light (Front)	CPS316										
	Pedestrian Awareness light (LH)	CPS317										
E	Pedestrian Awareness light (RH)	CPS318										
	Pedestrian Awareness light (Rear)	CPS319										
	BASE Manual Work Light Switch	CPS320										
	BASE Turn Signal Switch	CPS322										
	Ambient Light Sensor	CPS324										
	Steer Column Turn Signal Lever	CPS325										
F	Wiper control stalk	CPS330										
	Front wiper motor	CPS340										
	Washer fluid pump (top/rear)	CPS341										
	Top wiper motor	CPS342										
	Washer fluid pump (front)	CPS343										
	Rear wiper motor	CPS344										
	HVAC Blower Power Sensor	T346										
G	HVAC Blower Power Sensor	T347										
	Front Heated Screen Pwr	T350										
	Front Heated Screen Gnd	T351										
	Rear Heated Screen Gnd	T352										
	Rear Heated Screen Pwr	T353										
	Dome Light Switch	CPS354										
	Dome Light	CPS355										
H	Operator Fan	CPS356										
	HVAC Blower Power Sensor	T358										
	HVAC Main	CPS359										
	HVAC Control	CRS360										
	AC Condenser	CPS361										
I	Radio	CPS370										
	Right Radio Spkr Input Pos	T371										
	Right Radio Spkr Input Neg	T372										
	Right Radio Spkr Output Pos	T373										
	Right Radio Spkr Output Neg	T374										
	Left Radio Spkr Output Pos	T375										
	Left Radio Spkr Output Neg	T376										
J	Left Radio Spkr Input Pos	T377										
	Left Radio Spkr Input Neg	T378										
	Cab Interconnect.1	CRS380										
	Wiper Contactor Jumper Pwr Input	T383										
	HVAC Contactor Jumper Pwr Input	T384										
K												
L												

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CONNECTOR DESIGNATION/LOCATOR

Figure 1. Schematic - ICE (Sheet 3 of 37)

	1	2	3	4	5	6	7	8	9	10	11	12	13
A	Wiper Contactor Switched Output	T385	X										
	HVAC contactor solenoid connector	CPS386											
	Wiper contactor solenoid connector	CPS387											
	HVAC Contactor Switched Output	T388											
	Cab 12V Negative terminal	T389											
	Cab 12V Negative terminal	T390											
B	Cab switch bank (Inputs)	CPS391											
	Cab switch bank (Outputs)	CPS392											
	CAB PDM 1	CPS393											
	CAB PDM 2	CPS394											
	CAB PDM 3	CPS395											
	AC compressor clutch	CPS396											
	Interconn: Chassis to CAB	CRP397											
C	Key switch	CPS400											
	Push Button Signal Term.	CPS401											
	Remote Key switch	CPS403											
	Extended Storage Mode Switch	CPS410											
	Ext. Storage Mode Switch W/ WBA	CPS410A											
	Ext. Storage Mode Switch W/ WBA	CRP410A											
D	E-Box PWR/JMPR to Chassis	CRP410A											
	E-Box Key Switch/ Push Btn. Jumper	CPS411A/B											
	E-Box	CPS412A											
	12V Battery Pos. to Cab Wiper Cont.	T420											
	Interconn: Type S to Engine	CPS430											
E	Interconn: Type S to Chassis	CPS433											
	Type S Ignition Control Relay	CRP434											
	Bi-Stable Relay (12V Battery)	CRP435											
	Bi-Stable Relay Fuse	CPS436											
	BI-Stable Relay Function Pwr	T437											
	PDM 12V positive lug	T440											
	PDM 12V negative lug	T441											
F	12V Battery Positive lug	T442											
	12V Battery Negative lug	T443											
	12V Battery Negative to Cab Stud	T446											
	Static Ground	T448											
	LH Frame Ground	T449											
G	Engine Block Ground	T450											
	Operator Station Ground	T451											
	RH Frame Ground	T452											
	12V Battery Pwr for Seat Comp	T480											
	12V Battery Gnd for Seat Comp	T481											
	Type S N/O switch	T482/T483											
H	Type S N/C switch	T484/T485											
	Underhood Reset Button	CRP486											
	Bi Stable Relay Batt Pos In	T486											
	Bi Stable Relay Batt Pos Out	T487											
	Telemetry Antenna	CRS500											
I	CAN diagnostic interface	CPS501											
	Telemetry Impact sensor	CPS502											
	Telemetry Card Reader	CPS503											
	CAN4 Term Resistor	CPS504											
	VAM 1	CPS505											
	VAM 2	CPS506											
J	Interconn: Chassis to Engine #1	CRS510											
	Interconn: Chassis to Engine #2	CRS511											
	CAN2 Term Resistor	CPS513											
	Mast Tilt Position Sensor	CPS514											
	Interconn: Chassis to Display	CPS520											
K	Interconn: Chassis to Display	CPS521											

CONNECTOR DESIGNATION/LOCATOR

Figure 1. Schematic - ICE (Sheet 4 of 37)

	1	2	3	4	5	6	7	8	9	10	11	12	13
A	HYD/VDP Temp Sensor Jumper	CP5528											
	Interconn: Chassis to Steer. Column	CP5529											
	Interconn: Chassis to Mast	CP5530											
	Interconn: Chassis to Seat	CP5531											
	Interconn: Chassis to Hydro. Xmsn	CP5532											
	Interconn: Chassis to E-hyd.	CP5534											
	Interconn: Chassis to Steer Axle	CP5535											
B	Aux. Type 5 Disc. Button Harness	CP5536											
	Seat Compressor Fuse Holder	CR5538											
	Interconn: Chassis to RH Front Light	CP5540											
	Interconn: Chassis to LH Front Light	CP5541											
	Interconn: Chassis to Rear OHG	CP5542											
	Interconn: Chassis to Rear OHG	CP5543											
	Interconn: Chassis to Rear OHG	CP5544											
	Interconn: Pwr - Mast to Mast Lt	CP5545											
	Interconn: Seat Compressor Pwr	TS50/TM550											
	Interconn: Seat Compressor Gnd	TS51/TF551											
	Interconn: Mast LT to RH Extension	CP5566											
	Interconn: Pwr - Mast to Pwr-Crg	CP5567											
	Interconn: Mast LT to LH Extension	CP5569											
	Interconn: Chassis to FWD Spot	CP5570											
	Interconn: Chassis to Ped Aware.	CP5571											
	Interconn: Chassis to Wet Brk Axle	CP5574											
	Interconn: Chassis to Card Reader	CP5575											
	Fork Height Sensor (Stringpot, CAN)	CP5576											
	Interconn: Chassis to Dual Pedal	CP5577											
E	Interconn: Chassis to LPG Tank	CP5582											
	Interconn: Pwr-Mast to Lift Height	CP5586											
	Interconn: Chassis to Rear Aud/Cint	CP5587											
	Cowl switch bank (Inputs)	CP5589											
	Cowl switch bank (Outputs)	CP5590											
	Power to Mast PDM	CP5591											
	Ped. Aware. Lt. PDM	CP5592											
	Interconn: Rr Aud/Cint to B-up Alm	CP5594											
	Rear camera signal connection	CRP595											
	OHG Accessory Pwr/Comm.	CP5596											
	Ambient Light Sensor Harness	CP5597											
	Ambient Light Sensor	CP5598											
	Washer pump jumper	CP5599											
	Lift Solenoid	CP5622											
	Lower Solenoid	CP5623											
	Tilt Back Solenoid	CP5624											
	Tilt FWD Solenoid	CP5625											
	Aux 1A Solenoid	CP5626											
	Aux 1B Solenoid	CP5627											
	Aux 2A Solenoid	CP5628											
	Aux 2B Solenoid	CP5629											
	Park Brake Manifold Press (WBA)	CP5631											
	Park Brake Manifold Sol. (WBA)	CP5632											
	Service Brake Manifold Press (WBA)	CP5633											
	Service Brake Booster Valve Sol.	CP5634											
	Service Brake Valve Solenoid (HST)	CP5635											
	Hyd Fluid/VDP Temp Sensor	CP5636											
	Load Weight pressure sensor	CP5637											
	Axle Sump Temp	CP5640											
	Hyd Fan Drive A Solenoid	CP5645											
	Hyd Fan Drive B Solenoid	CP5646											
	Charge Air Cooler Temp Sensor	CP5647											
	Tilt Proportion Valve Jumper	CP5651											
	RTST Proportional Solenoid	CP5654											

Figure 1. Schematic - ICE (Sheet 5 of 37)

	1	2	3	4	5	6	7	8	9	10	11	12	13
A	RTST Override Button	CPS655											
	HYD Tilt Spool Pos Sensor	CPS656											
	HYD Filter Switch	CPS671											
	Operator Presence Solenoid	CPS678											
	Synchronous Steering Solenoid	CPS680											
	Power Ride Thru Box	CPS690											
	Lift/Lower Spool Pos. Sensor	CPS693											
B	Aux 1 Spool Pos. Sensor	CPS694											
	Aux 2 Spool Pos. Sensor	CPS695											
	ECU Conn (DSL)	CPS1000											
	ECU Conn (DSL)	CPS1001											
C	ECU Conn (LPG)	CPS1005											
	Injector 1 (DSL)	CPS1031											
	Injector 2 (DSL)	CPS1032											
	Injector 3 (DSL)	CPS1033											
	Injector 4 (DSL)	CPS1034											
D	LPG Injector 1	CPS1040											
	LPG Injector 2	CPS1041											
	LPG Injector 3	CPS1042											
	LPG Injector 4	CPS1043											
	Injector 1 (GAS)	CPS1050											
	Injector 2 (GAS)	CPS1051											
	Injector 3 (GAS)	CPS1052											
E	Injector 4 (GAS)	CPS1053											
	Ignition Coil 1	CPS1060											
	Ignition Coil 2	CPS1061											
	Ignition Coil 3	CPS1062											
	Ignition Coil 4	CPS1063											
	LPG Lock-Off Solenoid	CPS1070											
F	LPG TMAP sensor	CPS1076											
	Knock sensor (LPG)	CPS1077											
	Fuel Pump/ Feed Pump	CPS1080											
	Fuel (Gasoline) pressure sensor	CPS1081											
	Rail pressure SENSOR	CPS1084											
	Water-In-Fuel Sensor	CPS1085											
G	Fuel temp sensor	CPS1086											
	Fuel Lift Pump	CPS1087											
	W/F Sensor Pull-up Resistor	CRP1089											
	Intake Throttle (Diesel)	CPS1091											
	Cold Start Aid	CPS1092											
	EGR Valve	CPS1093											
H	EGR Temp Sensor	CRP1094											
	EGR Pressure Sensor	CRS1095											
	Ambient Temp Sensor	CRS1096											
	Intake Throttle (LPG)	CRS1097											
	Intake Gas Pressure Sensor	CRS1098											
I	Coolant temp sensor (DSL)	CRS1110											
	Oil Pressure Switch	TI1111											
	FAP/FRT (Fuel Manifold) sensor	CRP1114											
	Rear O2 Sensor	CRS1122											
	Front O2 Sensor	CRS1123											
J	Crank Speed sensor (DSL)	CPS1130											
	Cam Speed sensor (DSL)	CPS1131											
	Engine RPM	CRS1132											
	Smart Assist-Direct	CRS1135											
	Alternator B+ Output	TI1150											
	Alternator signals	CRS1151											
	Alternator Fuse	CRS1154											
K	Glow Plug Relay Coil Gnd	TI1160											

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CONNECTOR DESIGNATION/LOCATOR

Figure 1. Schematic - ICE (Sheet 6 of 37)

	2	3	4	5	6	7	8	9	10	11	12	13
A	Glow Plug Relay Coil Pwr	T1161										
	Glow Plug Relay Switch Input	T1162	X									
	Glow Plug Relay Switch Output	T1163	X									
	Grid Heater Rail / Glow Plug #1	T1164	X									
	EGR PWR	T1165	X									
	Glow Plug #2	T1166		X								
	Glow Plug Fuse	CRS1168		X								
B	Glow Plug Fuse	TRG1168-1,2	X									
	Glow Plug Jumper	CPS1169		X								
	Glow Plug #3	T1170		X								
	Glow Plug #4	T1171		X								
	Supply pump	CPS1172		X								
	Feed Pump Fuse	CRS1173		X								
C	DPF Intermed. Temp Sensor	CRP1181		X								
	DPF Differential Pressure Sensor	CRS1183		X								
	DOC Outlet Temp Sensor	CRP1184		X								
	DPF Inlet Temp Sensor	CRP1185		X								
	Intake Manifold Temp Sensor	CRP1186		X								
	Exhaust throttle	CRS1187		X								
D	Exhaust Gas temp sensor (DSL)	CRS1188		X								
	Exhaust Gas temp sensor (LPG)	CRS1189		X								
	EGR Valve Relay	CPS1193		X								
	Fuel Lift Pump Fuse	CPS1194		X								
E	Starter Solenoid Pwr	T1220	X									
	Fused 12V+ Output from Alternator	T1221	X									
	Battery 12V+ Supply to Starter B+	T1222	X									
	Glow plug 12V+ Pwr from Starter B+	T1223	X									
F	DSL CAN Term Resistor	CPS1305										
	Breather Hose Heater	CRS1306		X								
	Pull-up Resistor (DSL)	CRP1307		X								
	Pull-up Resistor (LPG)	CRS1308		X								
	Water Temp Sensor	CPS1309										
	Fuel Shutoff Solenoid	CPS1310		X								
	Current Amplifier	CPS1311		X								
	Throttle Actuator	CPS1312		X								
G	Throttle Position Sensor	CPS1313		X								
	F/W Separator Sensor	CRP1314		X								
I	Xmsn Temp Sensor	CPS1400							X			
	Xmsn TISS Sensor	CPS1401							X			
	Xmsn TISS Sensor	CPS1401X							X			
H	TOSS Sensor Filter (single chnl)	CRP1401							X			
	Xmsn TOSS Sensor (dual chnl)	CPS1402							X			
	Xmsn TOSS Sensor (dual chnl)	CPS1402X							X			
	TOSS Sensor Filter (dual chnl)	CRP1402							X			
	Xmsn TOSS Sensor (single chnl)	CPS1403							X			
	Xmsn Fwd Press. Sensor	CPS1410							X			
	Xmsn Rev Press. Sensor	CPS1411							X			
	Xmsn Fwd Valve Solenoid	CPS1415							X			
	Xmsn Rev Valve Solenoid	CPS1416							X			
	Xmsn Enable Valve Solenoid	CPS1419							X			
	Engine Anti-stall Solenoid	CPS1430							X			
J	Xmsn Controller (HST)	CPS1451								X		
	Hydromotor Temp/Speed Sensor	CPS1452							X			
	Hydrostatic Pump Control Sol (C1)	CPS1455							X			
	Hydrostatic Pump Control Sol (C2)	CPS1456							X			
	Hydrostatic Motor Control Solenoid	CPS1457							X			
	Axle Filter Press Switch	CRP1462							X			
K	HST Fuse	CRP1465							X			

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CONNECTOR DESIGNATION LOCATOR

Figure 1. Schematic - ICE (Sheet 7 of 37)

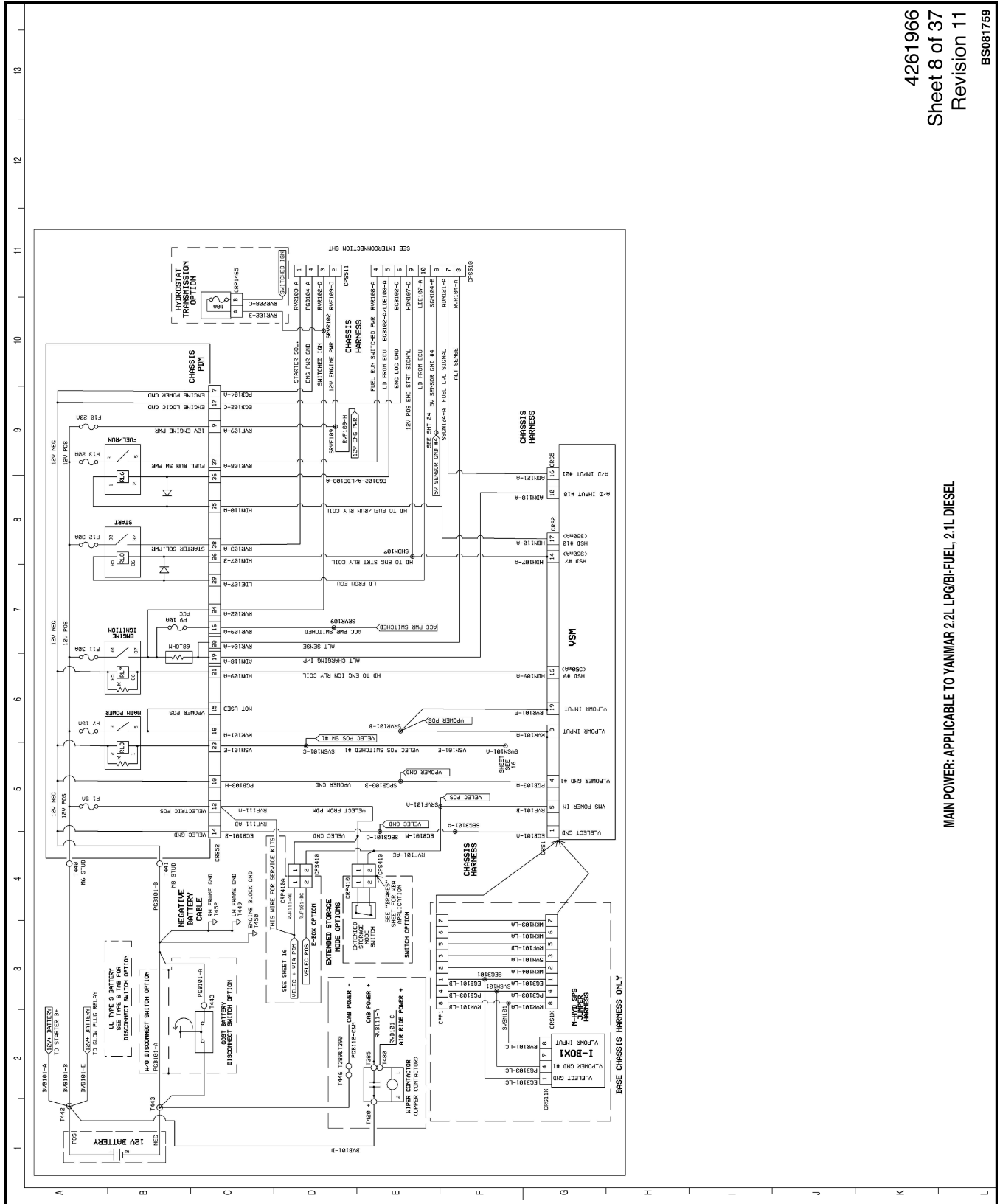


Figure 1. Schematic - ICE (Sheet 8 of 37)



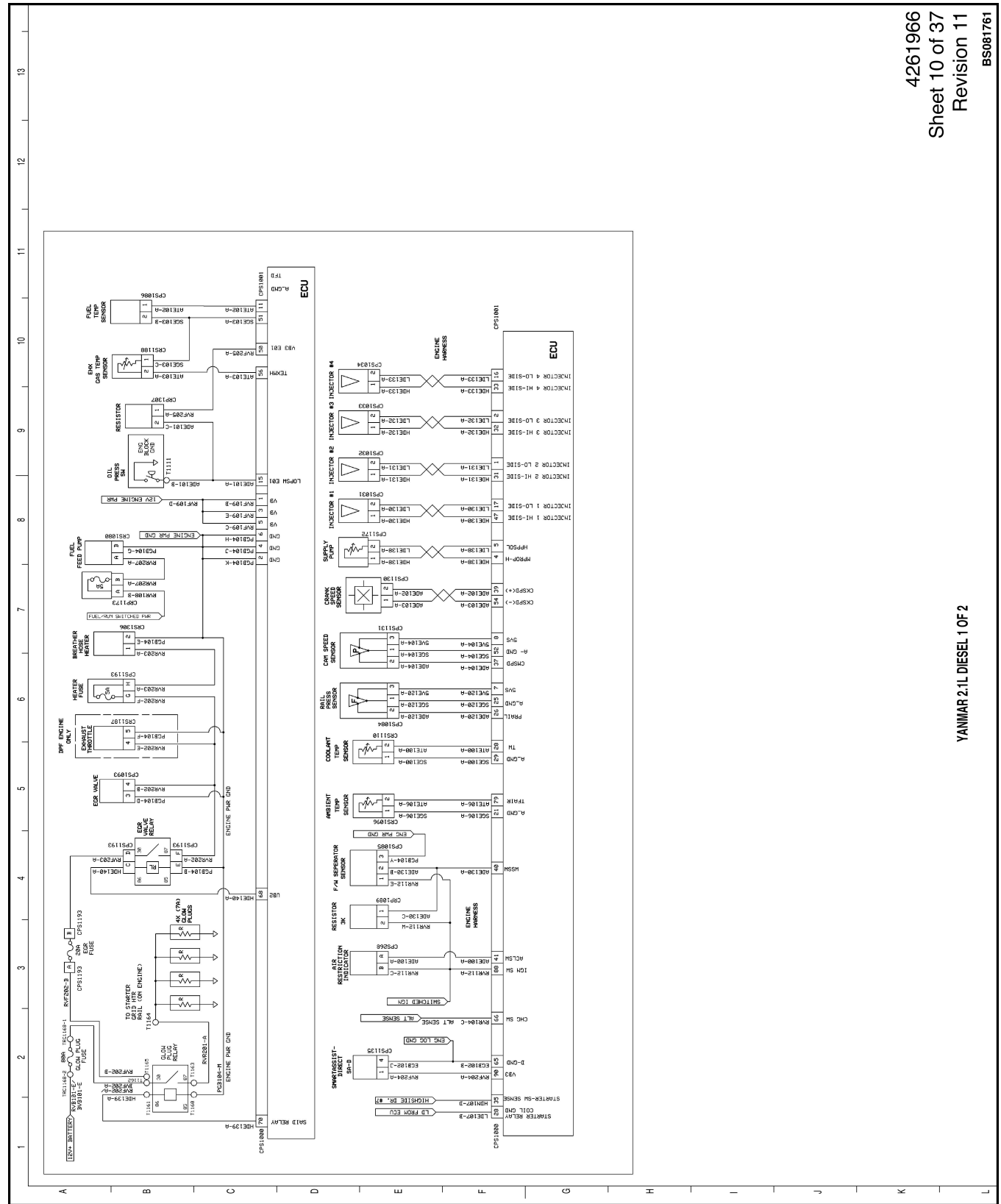
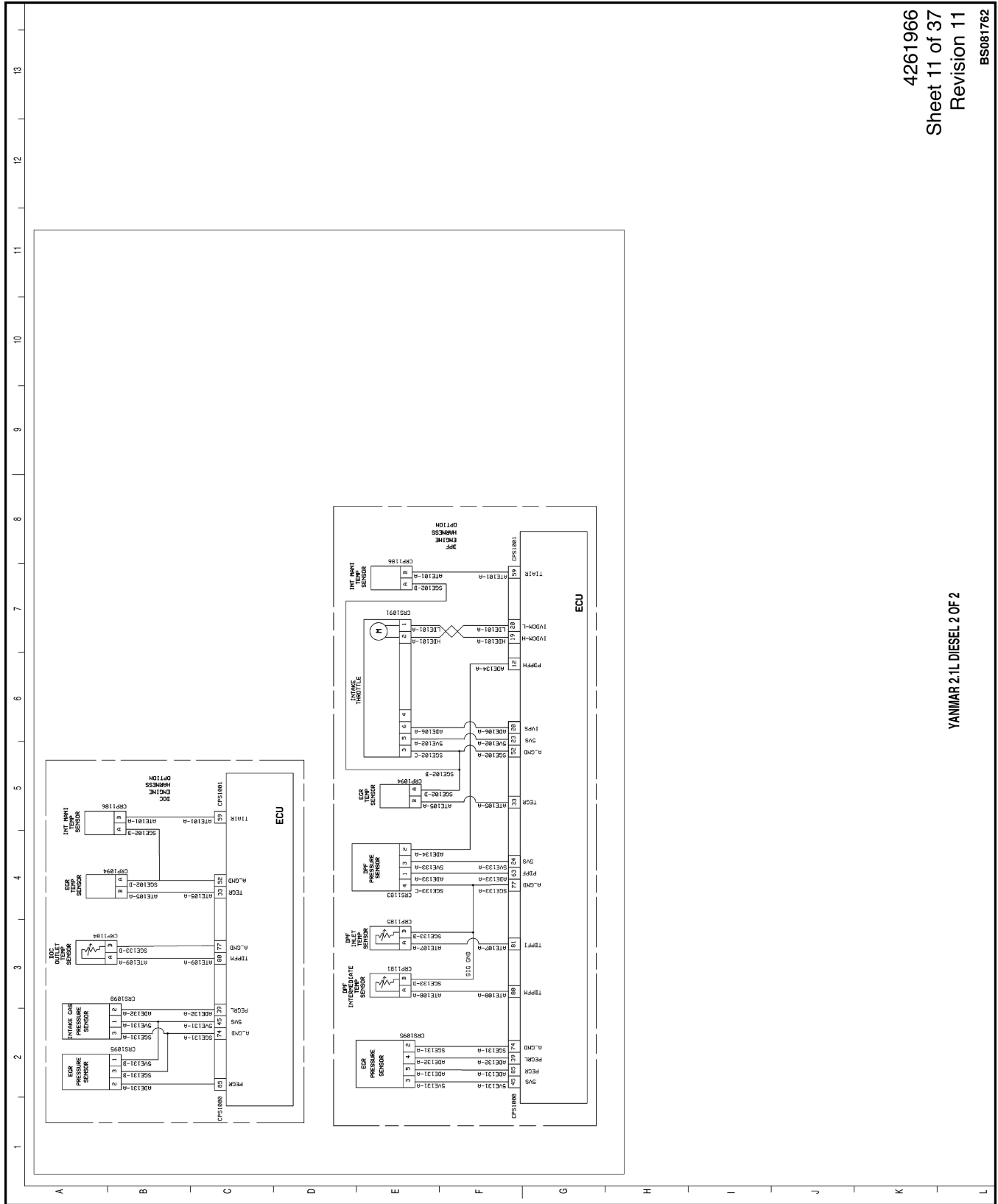


Figure 1. Schematic - ICE (Sheet 10 of 37)

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YANMAR 2.1L DIESEL 1 OF 2

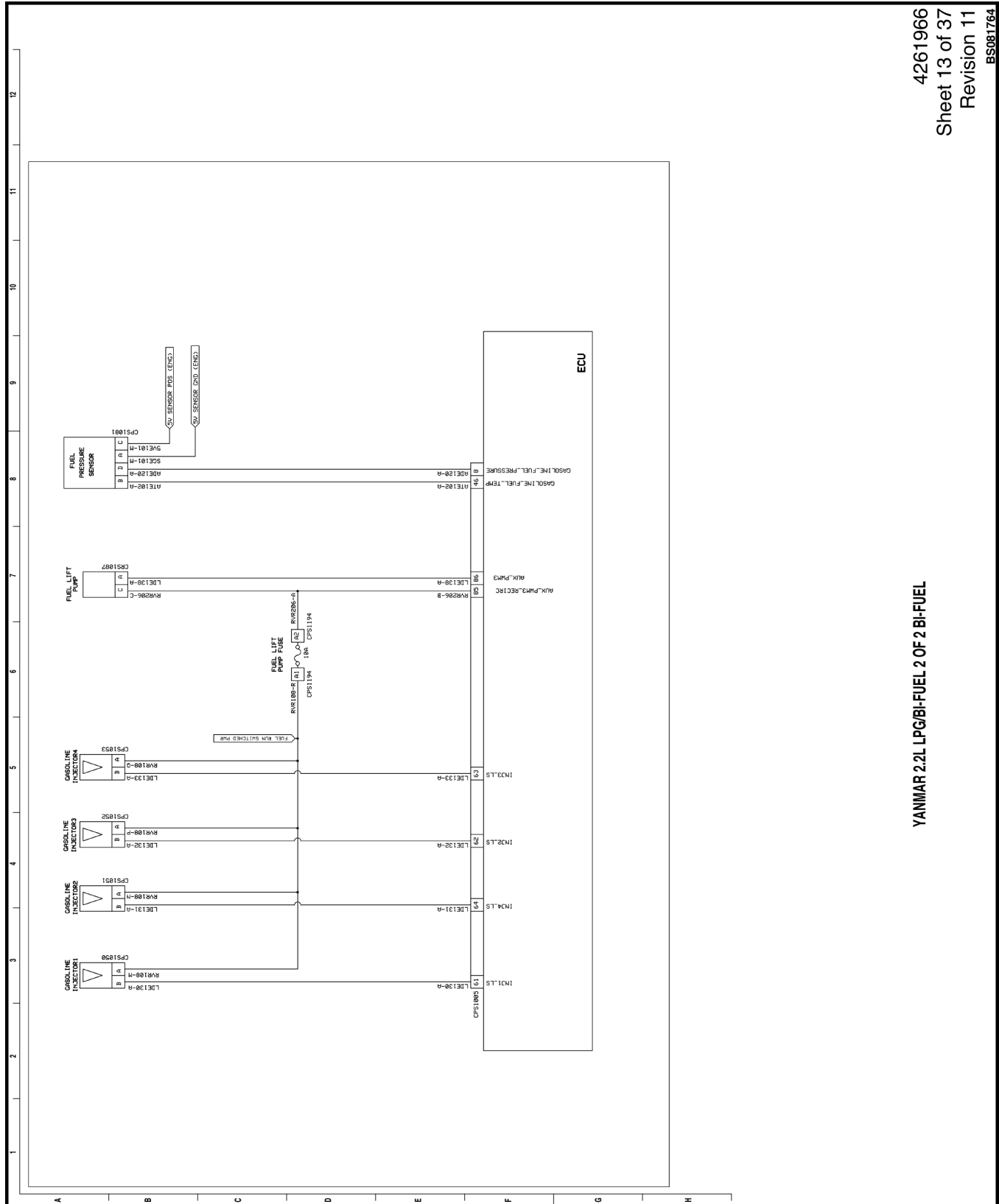


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YANMAR 2.1L DIESEL 2 OF 2

Figure 1. Schematic - ICE (Sheet 11 of 37)

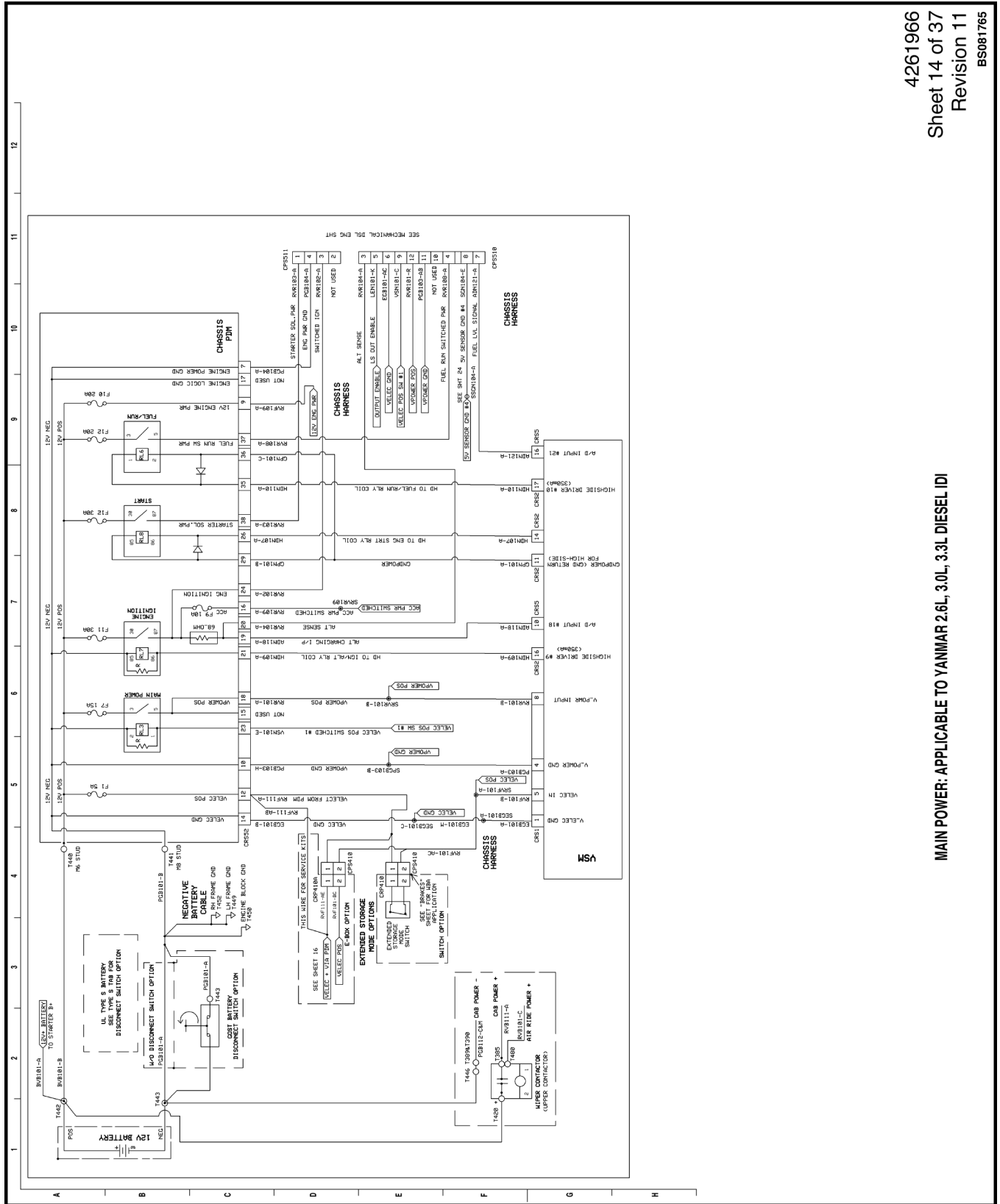




YANMAR 2.2L LPG/Bi-FUEL 2 OF 2 Bi-FUEL

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BS081764

Figure 1. Schematic - ICE (Sheet 13 of 37)



MAIN POWER: APPLICABLE TO YANMAR 2.6L, 3.0L, 3.3L DIESEL IDI

Figure 1. Schematic - ICE (Sheet 14 of 37)

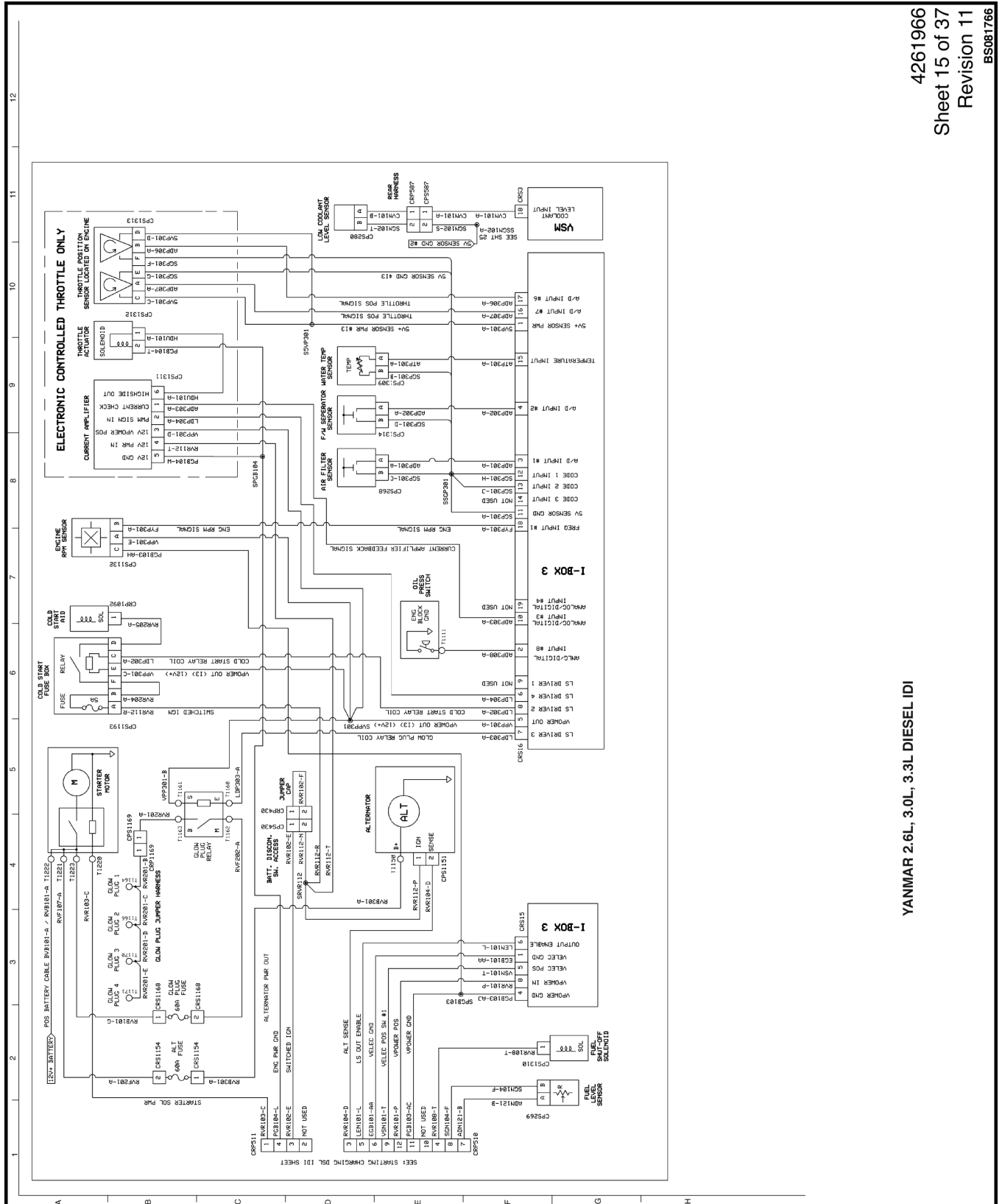
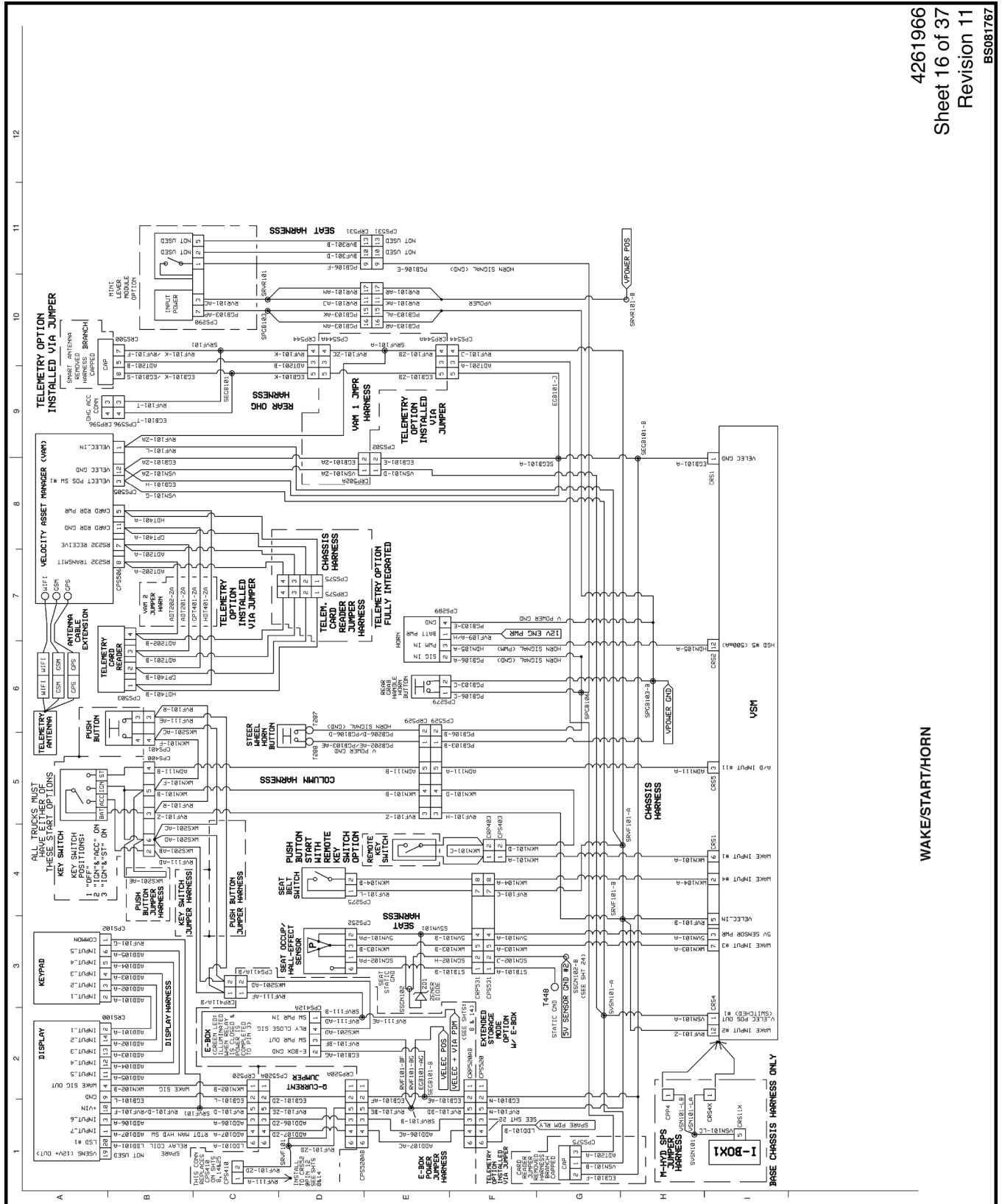
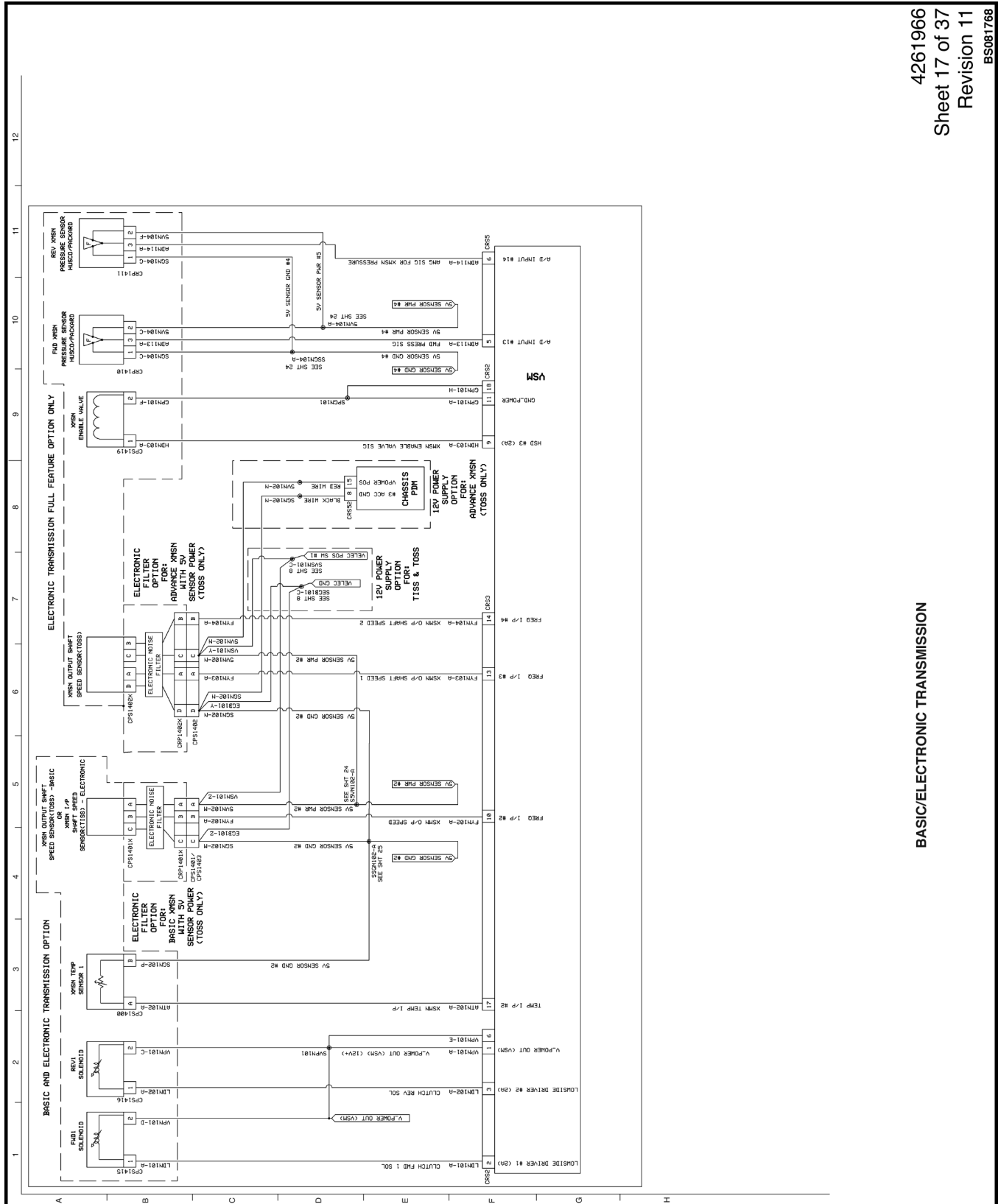


Figure 1. Schematic - ICE (Sheet 15 of 37)



WAKE/START/HORN

Figure 1. Schematic - ICE (Sheet 16 of 37)



BASIC/ELECTRONIC TRANSMISSION

Figure 1. Schematic - ICE (Sheet 17 of 37)

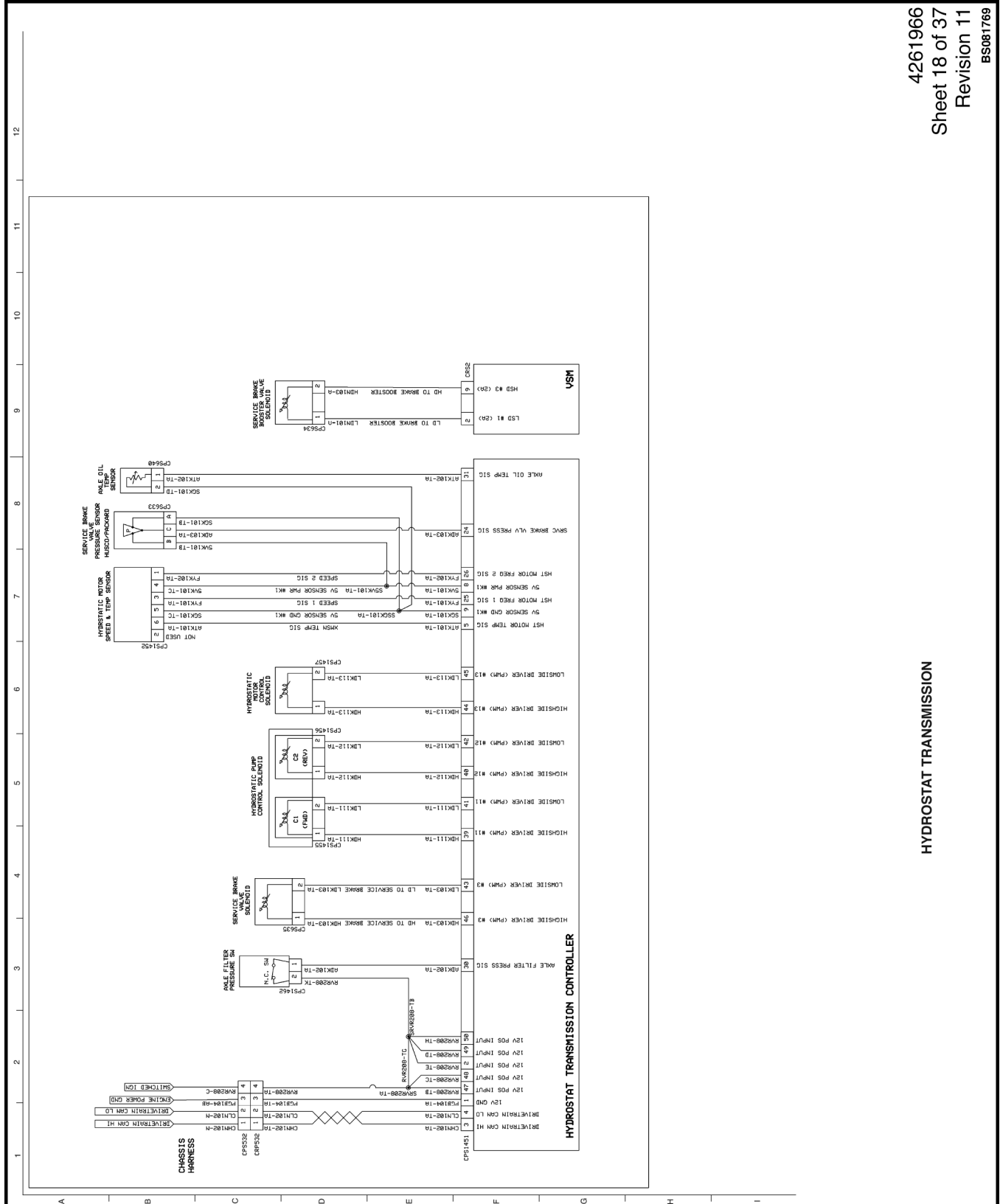
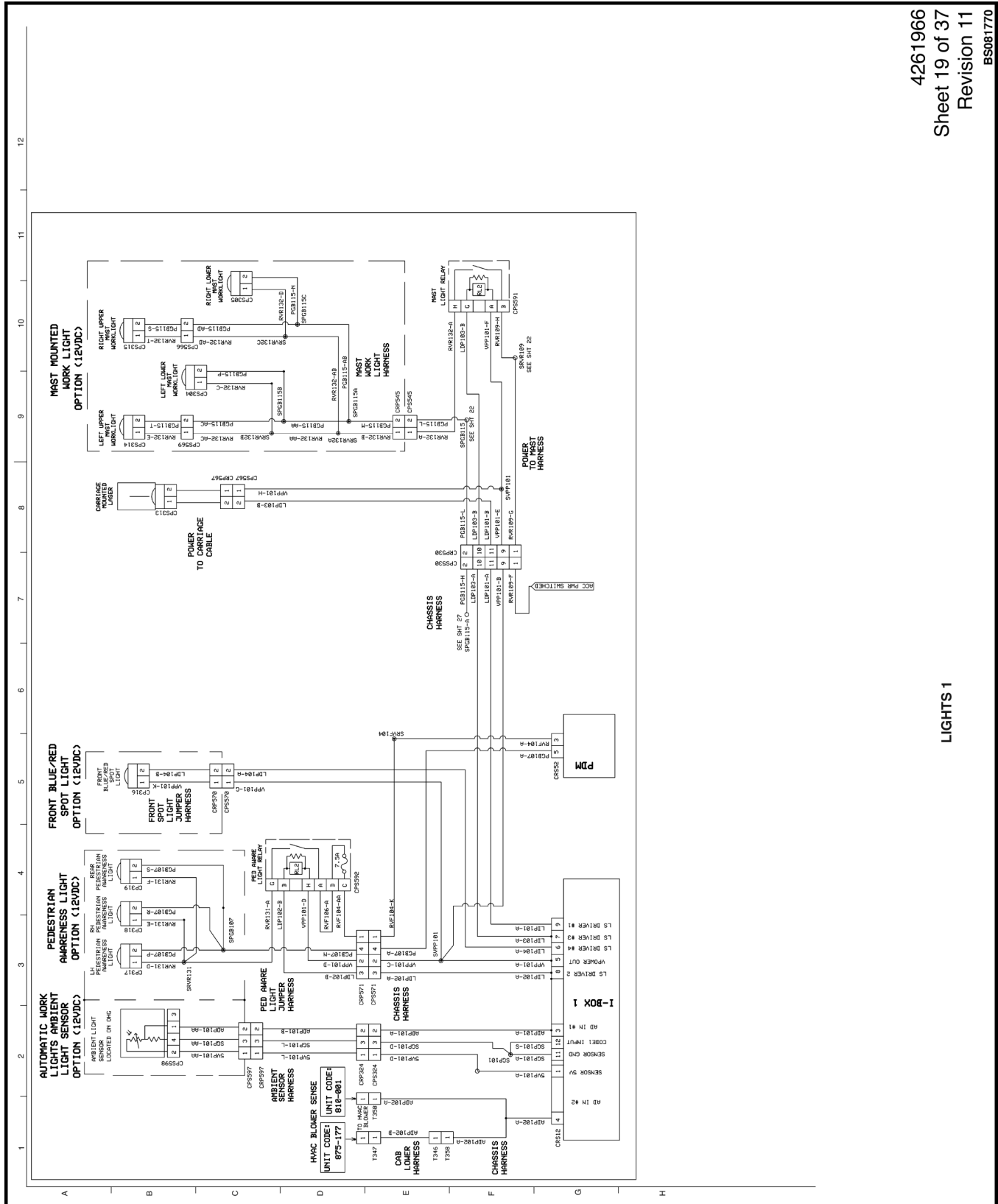


Figure 1. Schematic - ICE (Sheet 18 of 37)



LIGHTS 1

Figure 1. Schematic - ICE (Sheet 19 of 37)

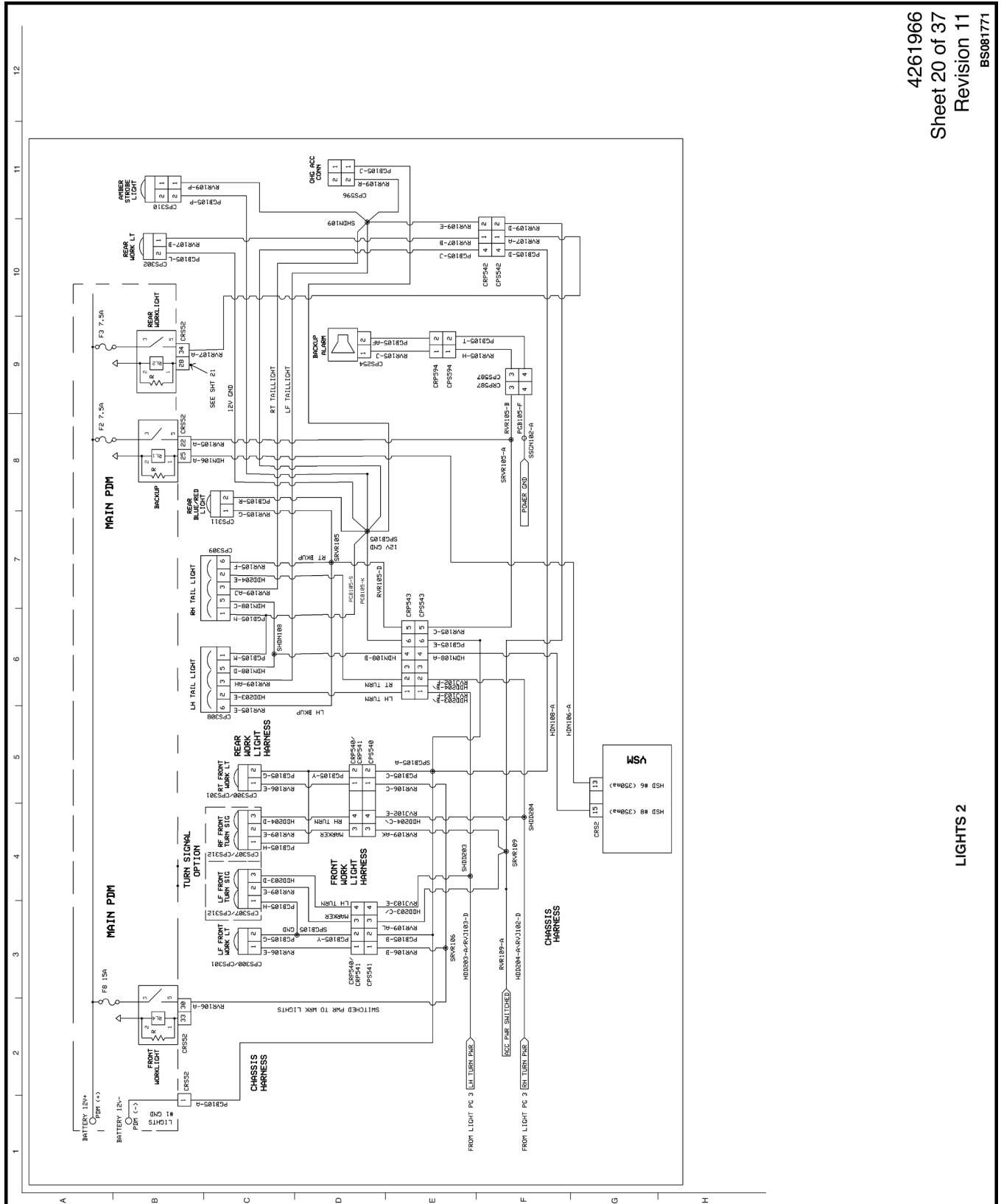


Figure 1. Schematic - ICE (Sheet 20 of 37)

LIGHTS 2

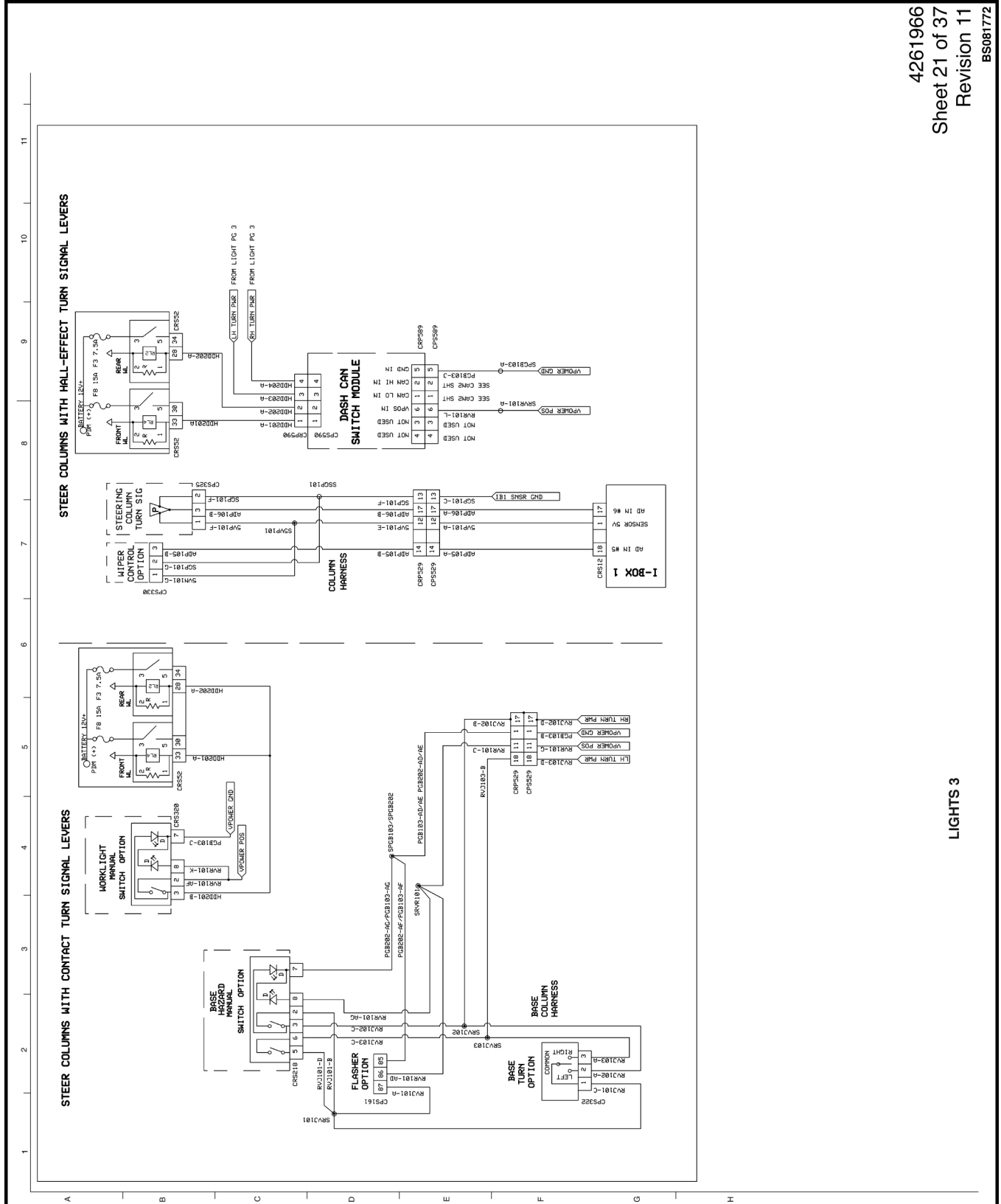
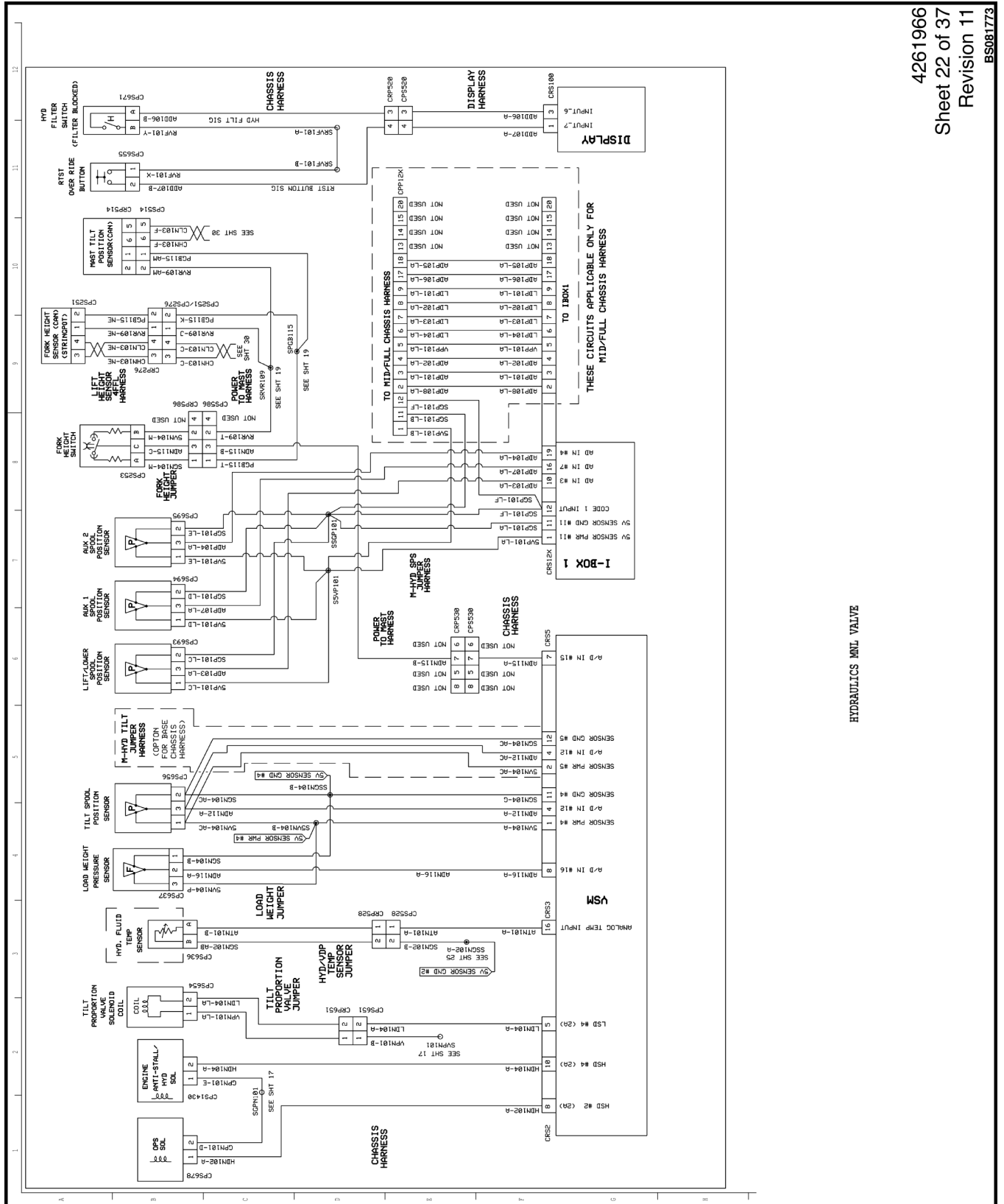
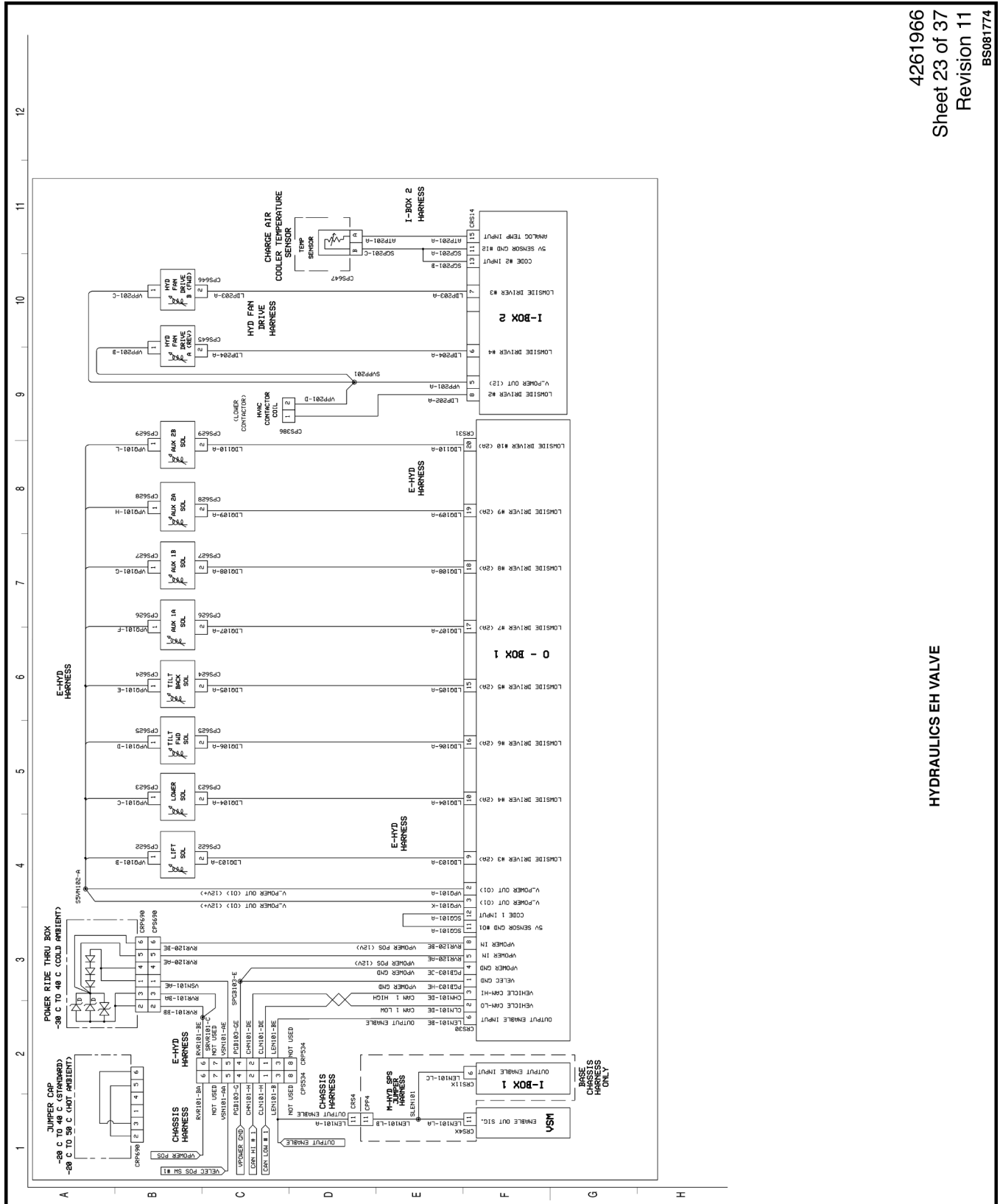


Figure 1. Schematic - ICE (Sheet 21 of 37)



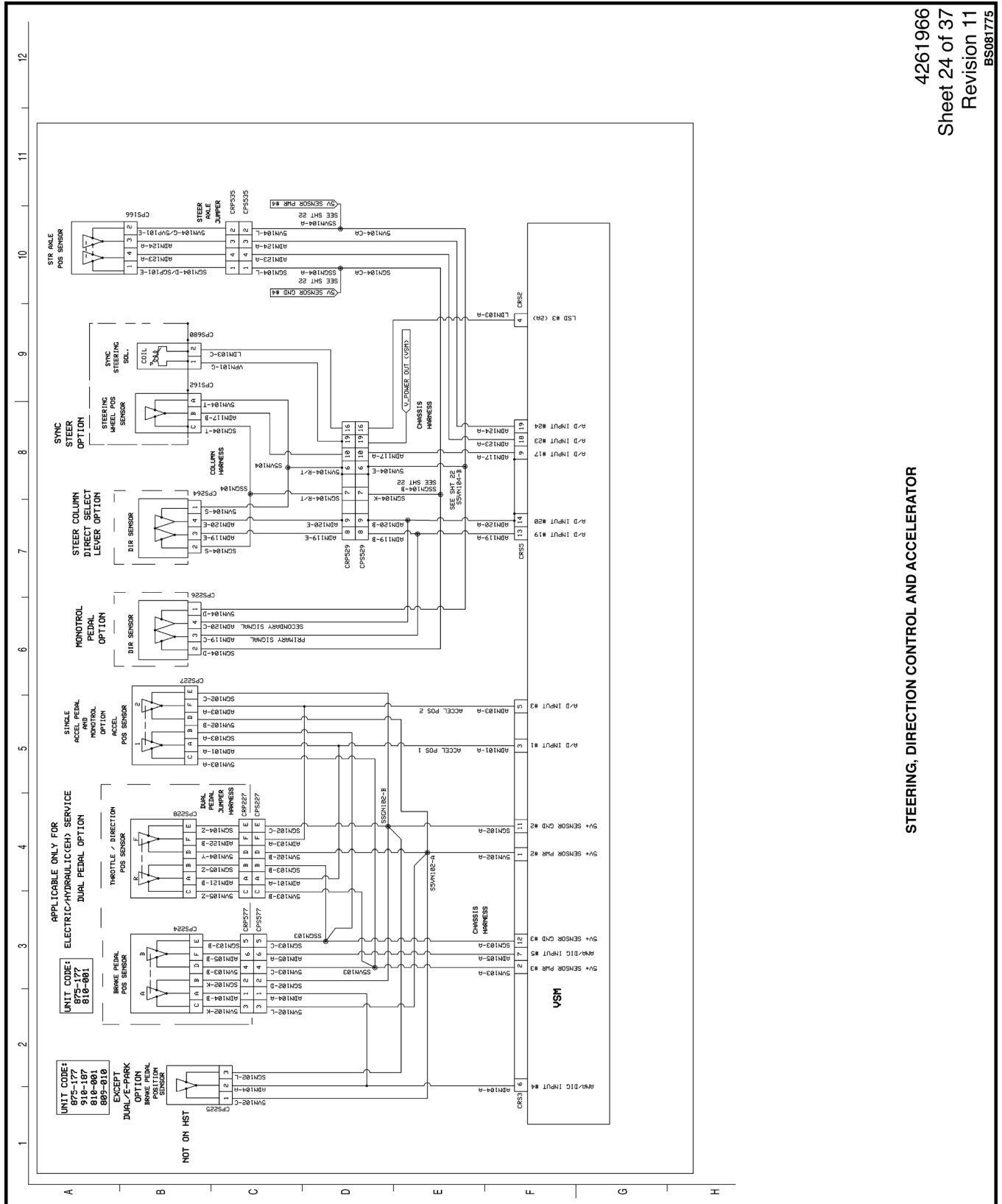
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 BS081773

Figure 1. Schematic - ICE (Sheet 22 of 37)



HYDRAULICS EH VALVE

Figure 1. Schematic - ICE (Sheet 23 of 37)



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 BS081775

Figure 1. Schematic - ICE (Sheet 24 of 37)

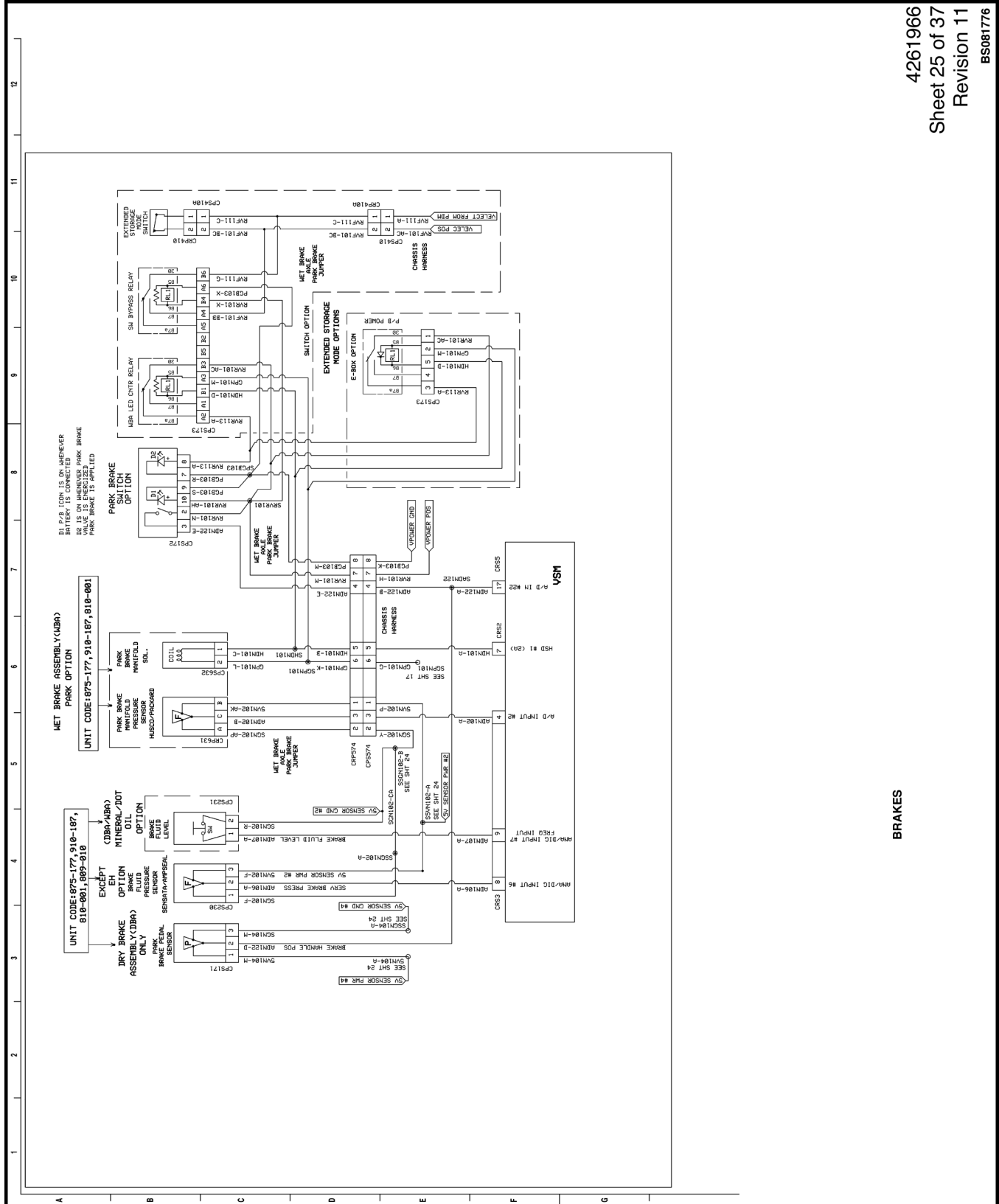


Figure 1. Schematic - ICE (Sheet 25 of 37)

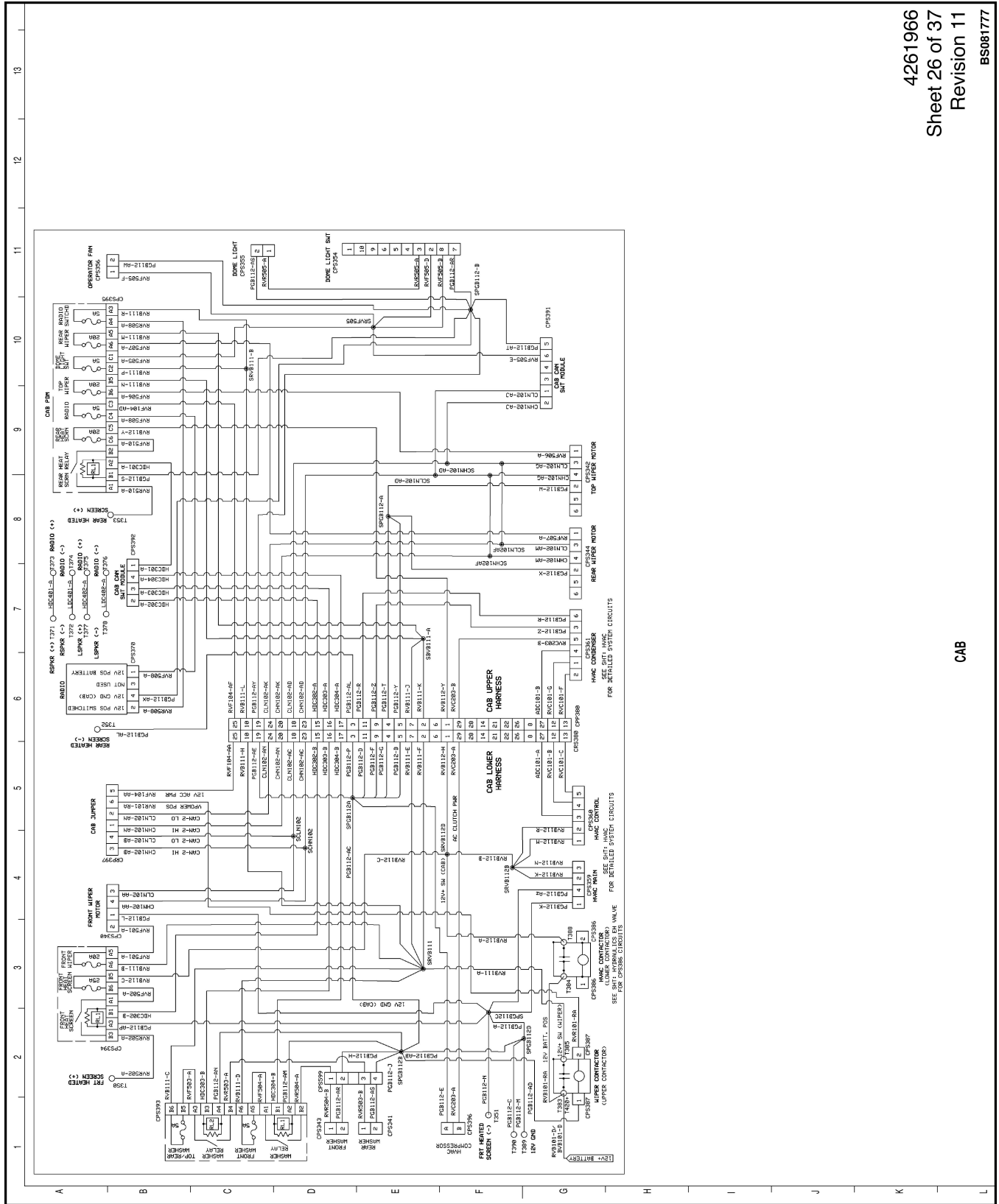


Figure 1. Schematic - ICE (Sheet 26 of 37)

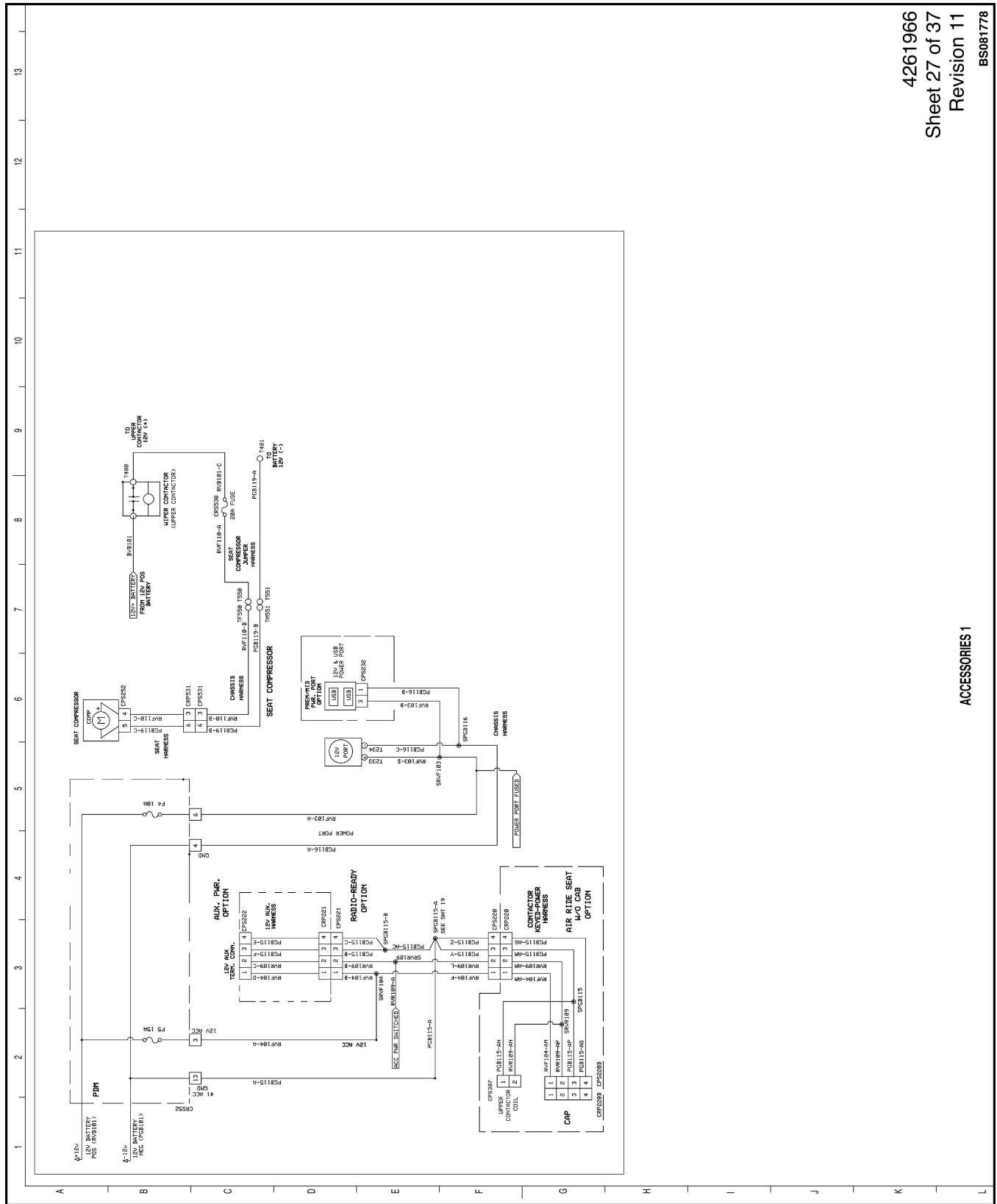


Figure 1. Schematic - ICE (Sheet 27 of 37)

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ACCESSORIES 1

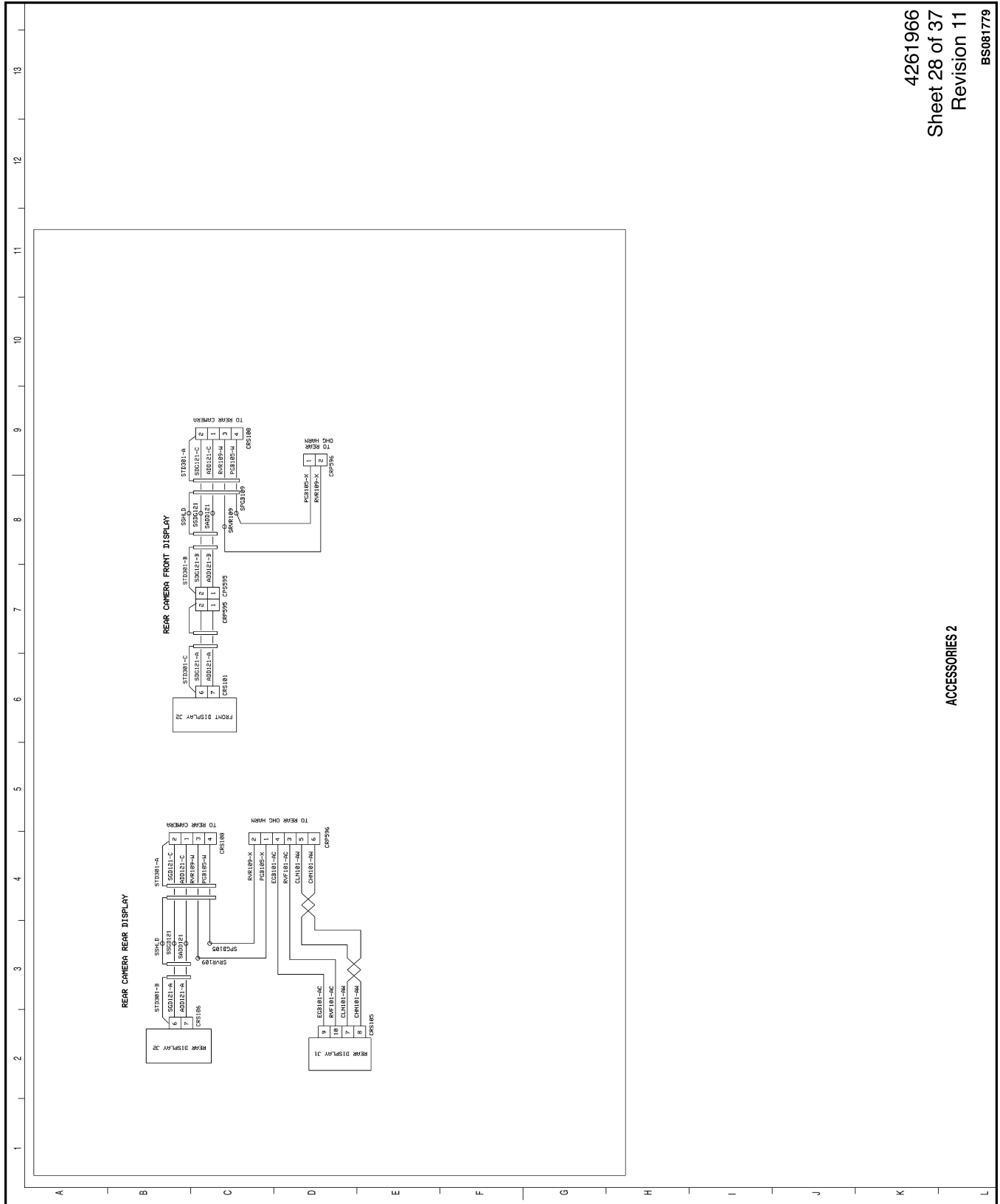


Figure 1. Schematic - ICE (Sheet 28 of 37)

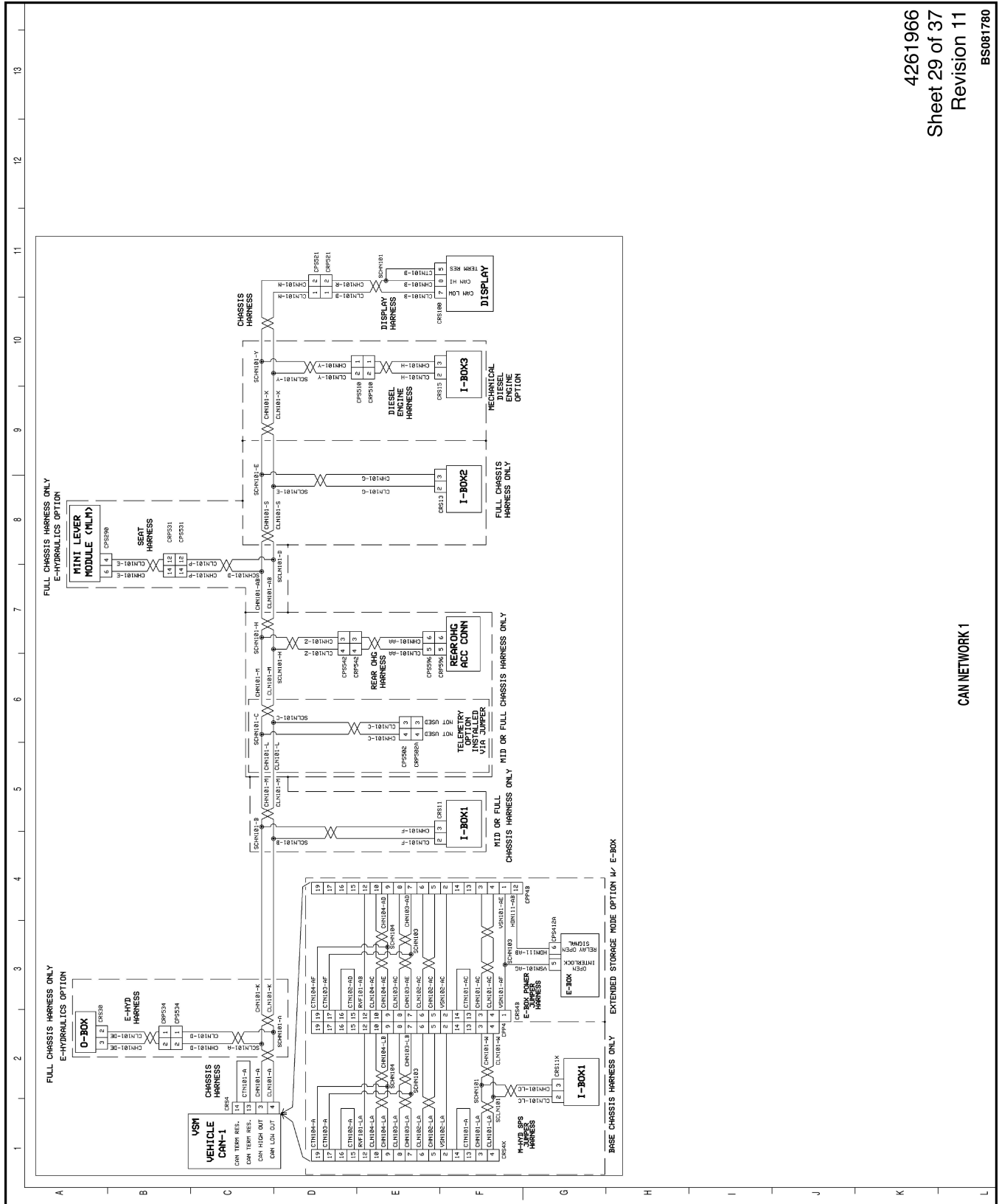


Figure 1. Schematic - ICE (Sheet 29 of 37)

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CAN NETWORK 1

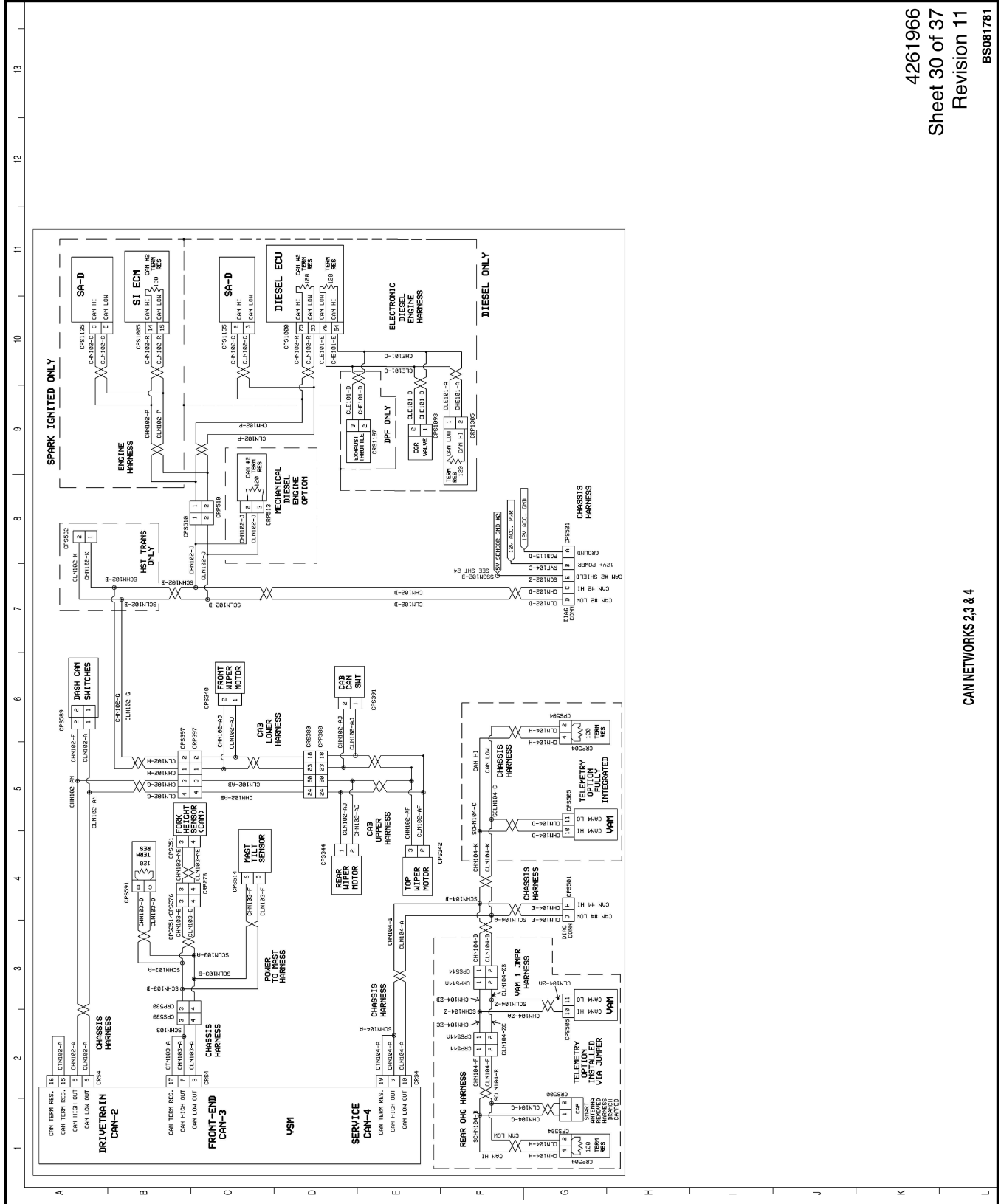


Figure 1. Schematic - ICE (Sheet 30 of 37)

CAN NETWORKS 2,3 & 4

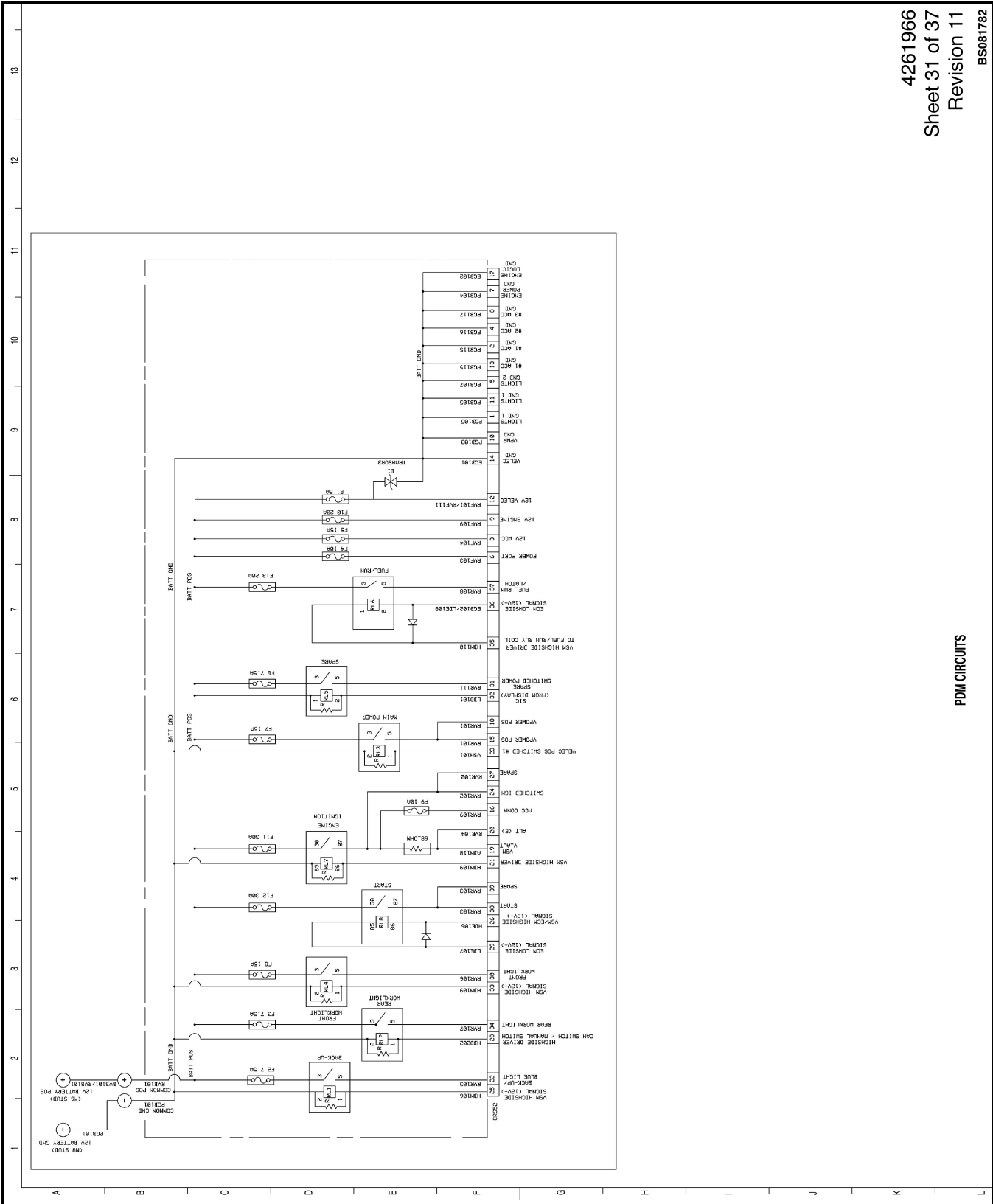
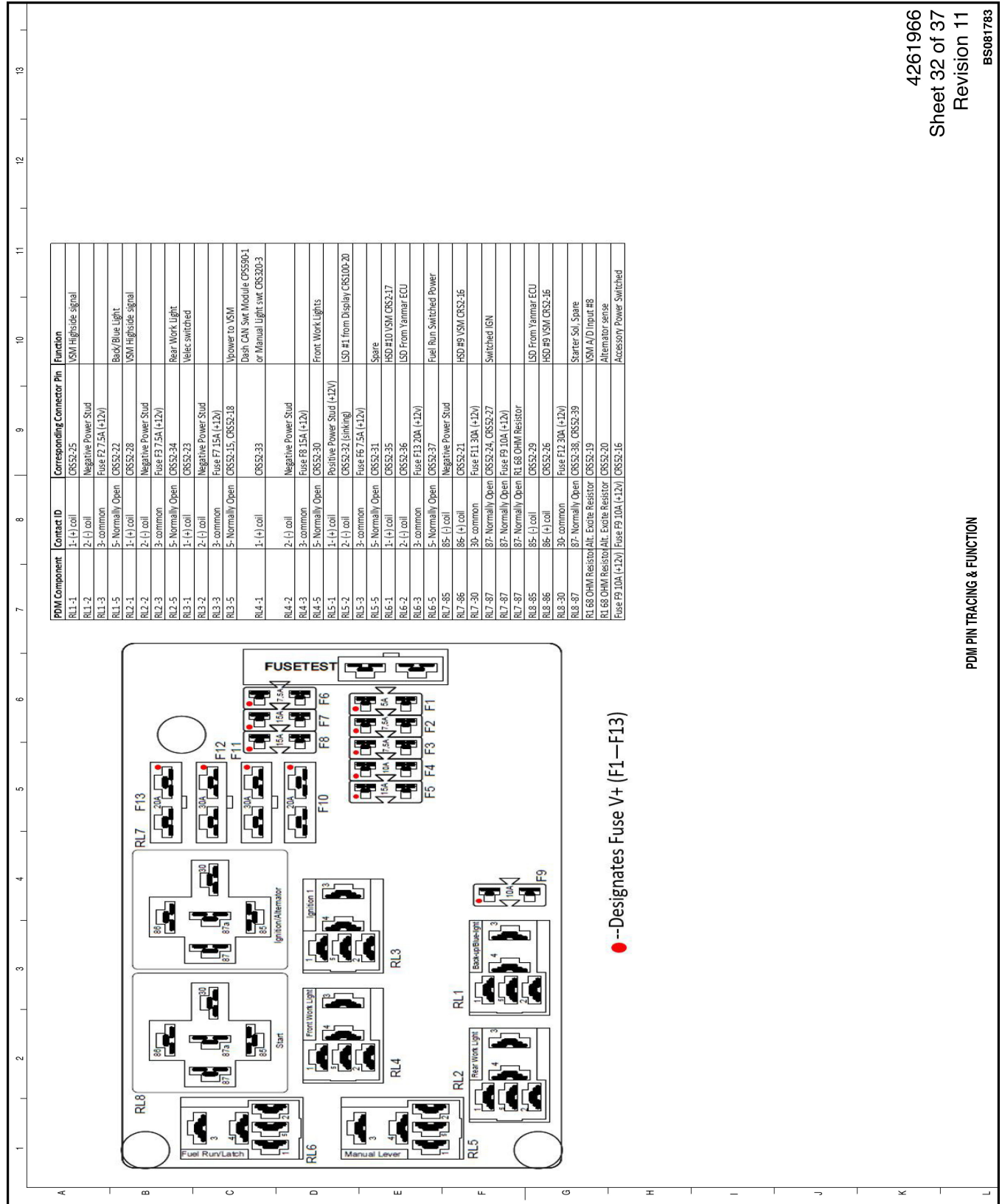


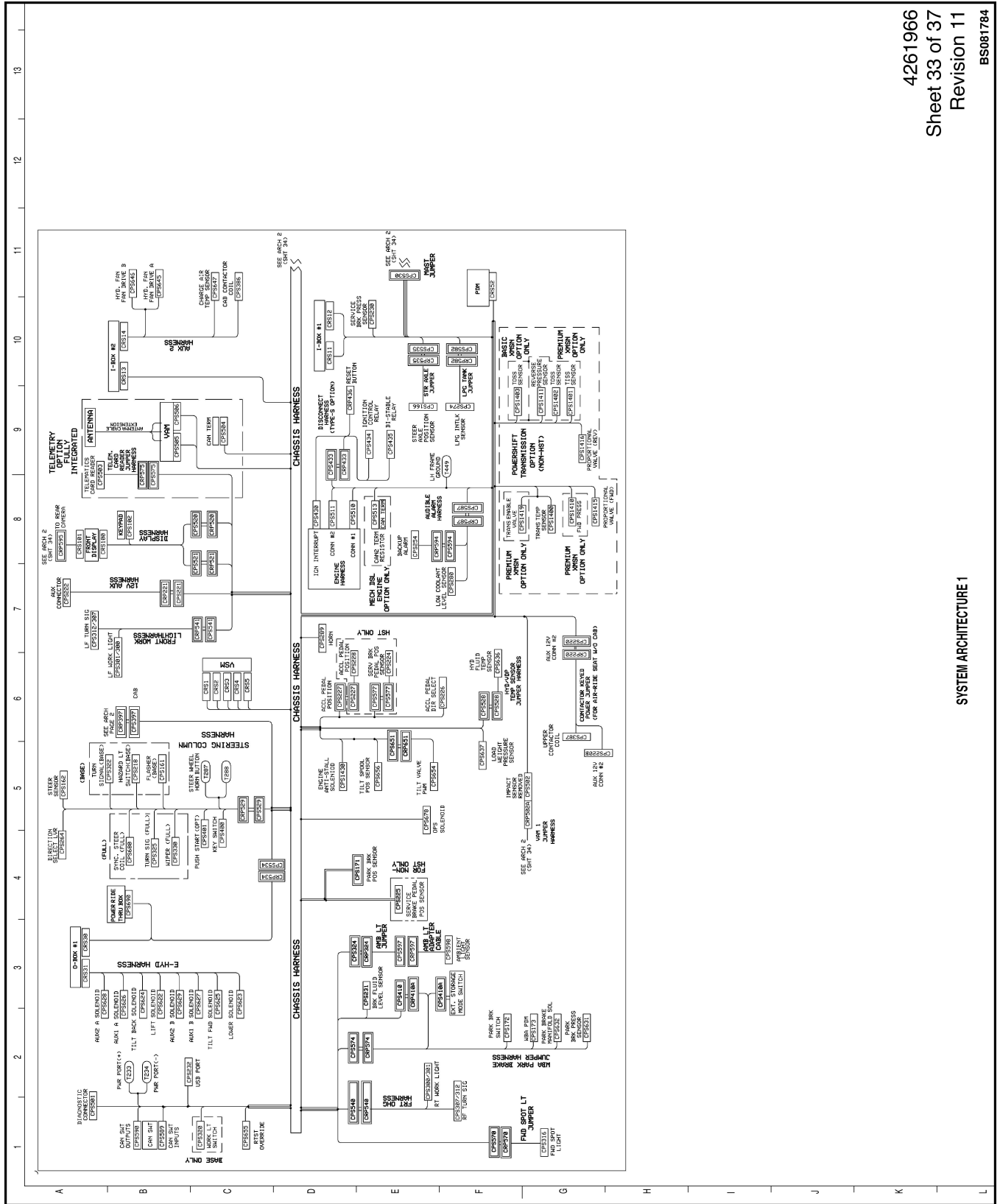
Figure 1. Schematic - ICE (Sheet 31 of 37)



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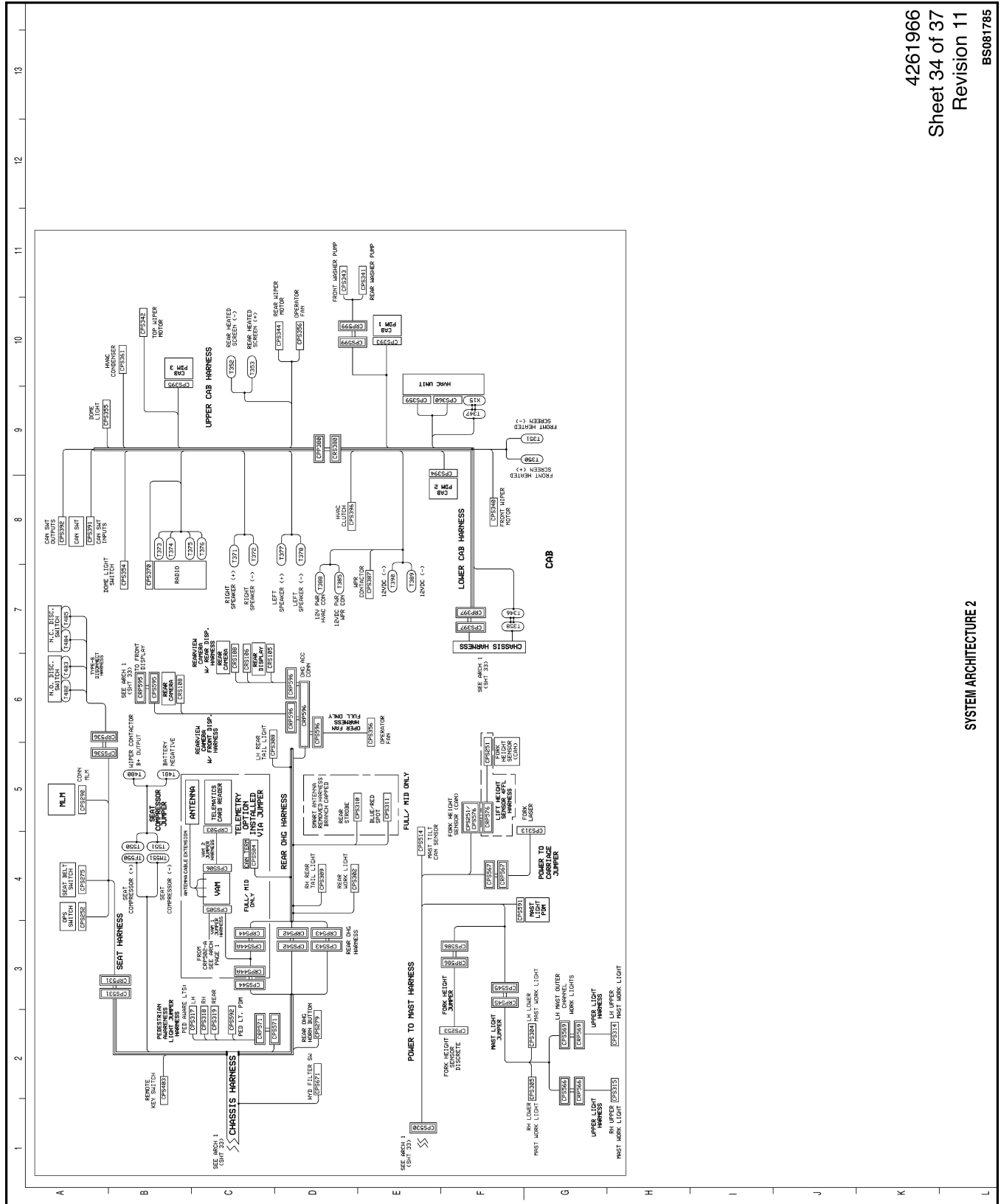
PDM PIN TRACING & FUNCTION

Figure 1. Schematic - ICE (Sheet 32 of 37)



SYSTEM ARCHITECTURE 1

Figure 1. Schematic - ICE (Sheet 33 of 37)



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SYSTEM ARCHITECTURE 2

Figure 1. Schematic - ICE (Sheet 34 of 37)

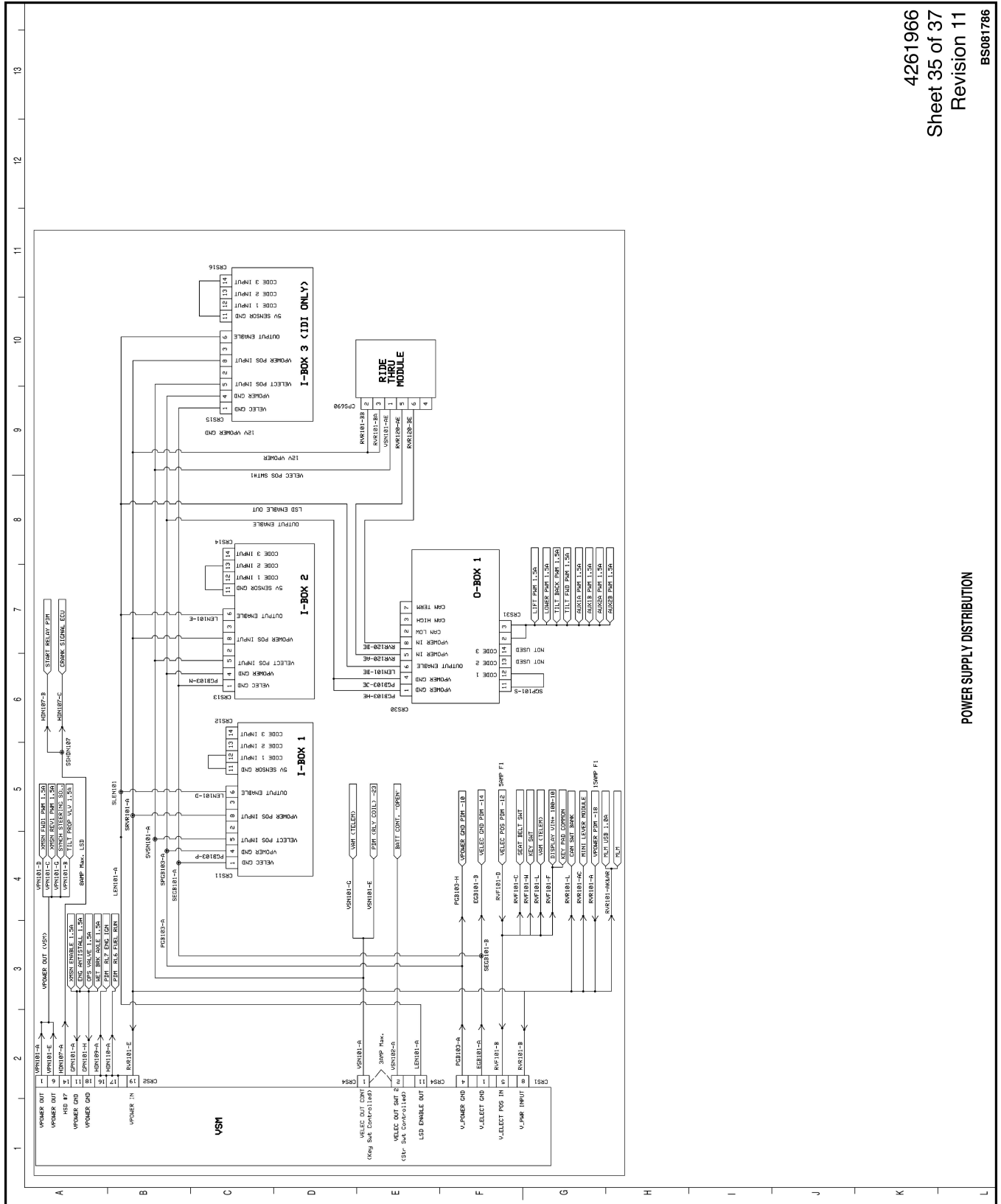


Figure 1. Schematic - ICE (Sheet 35 of 37)

POWER SUPPLY DISTRIBUTION



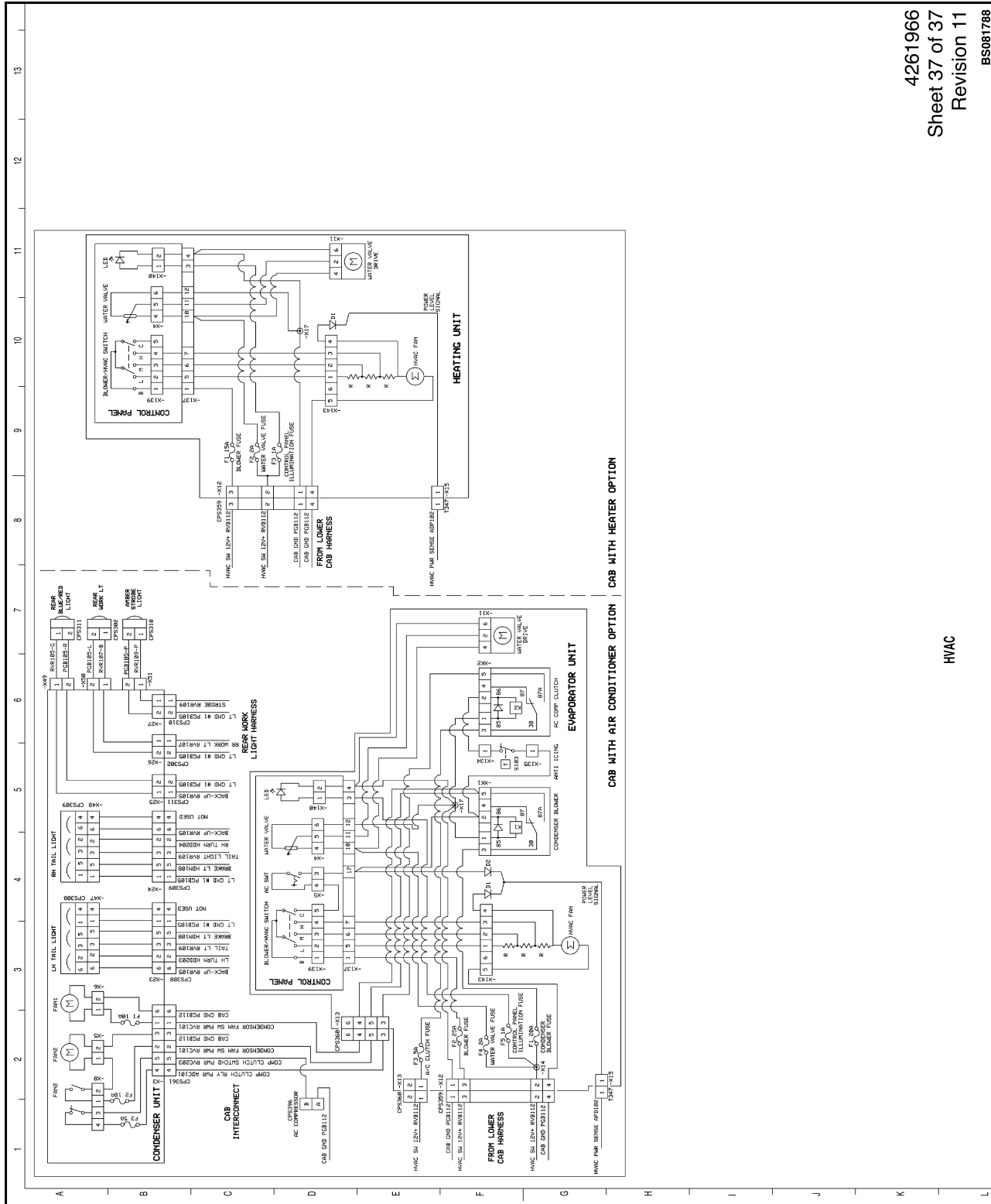
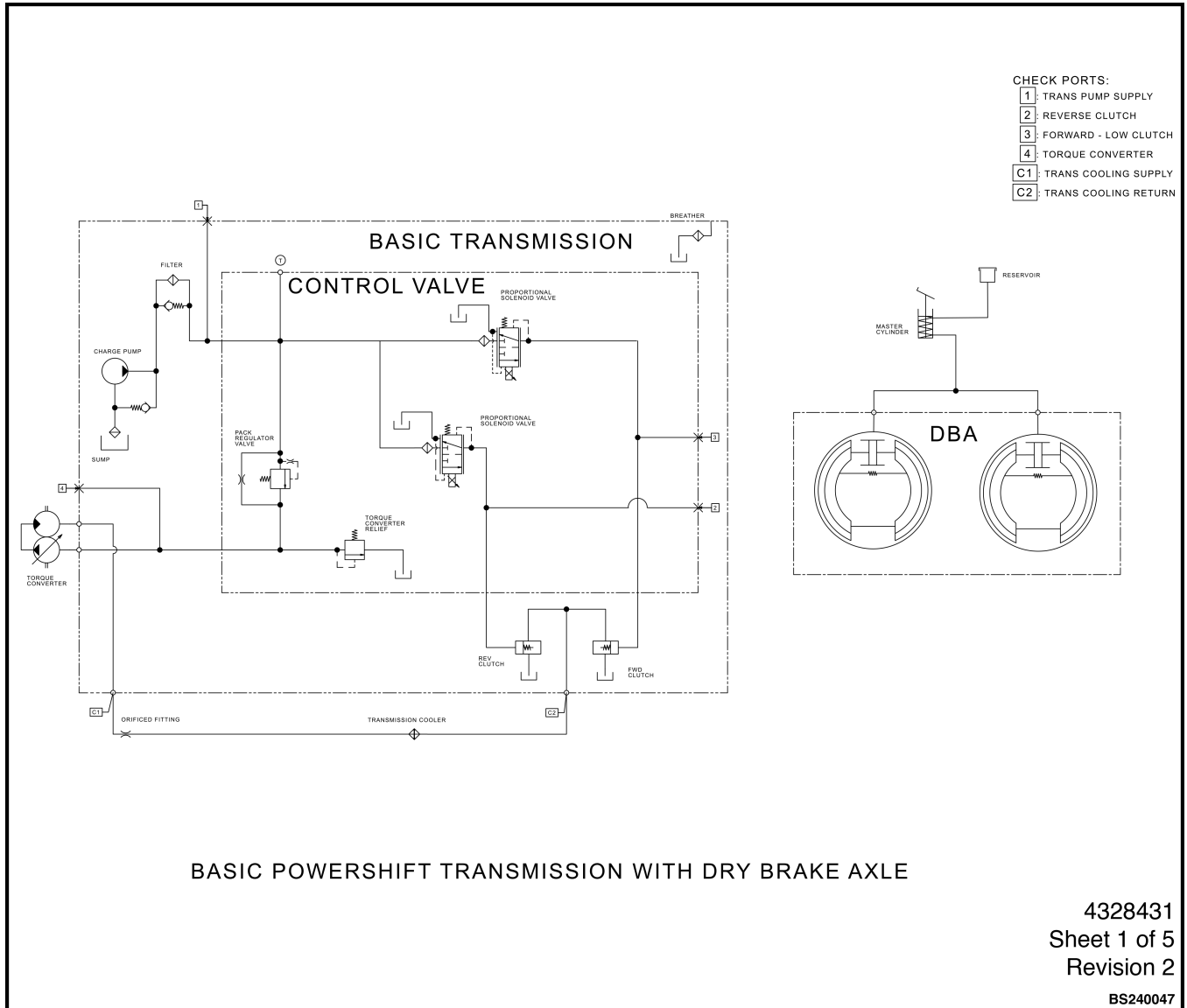


Figure 1. Schematic - ICE (Sheet 37 of 37)

# Hydraulic schematics

## HYDRAULIC SCHEMATICS - TRANSMISSION

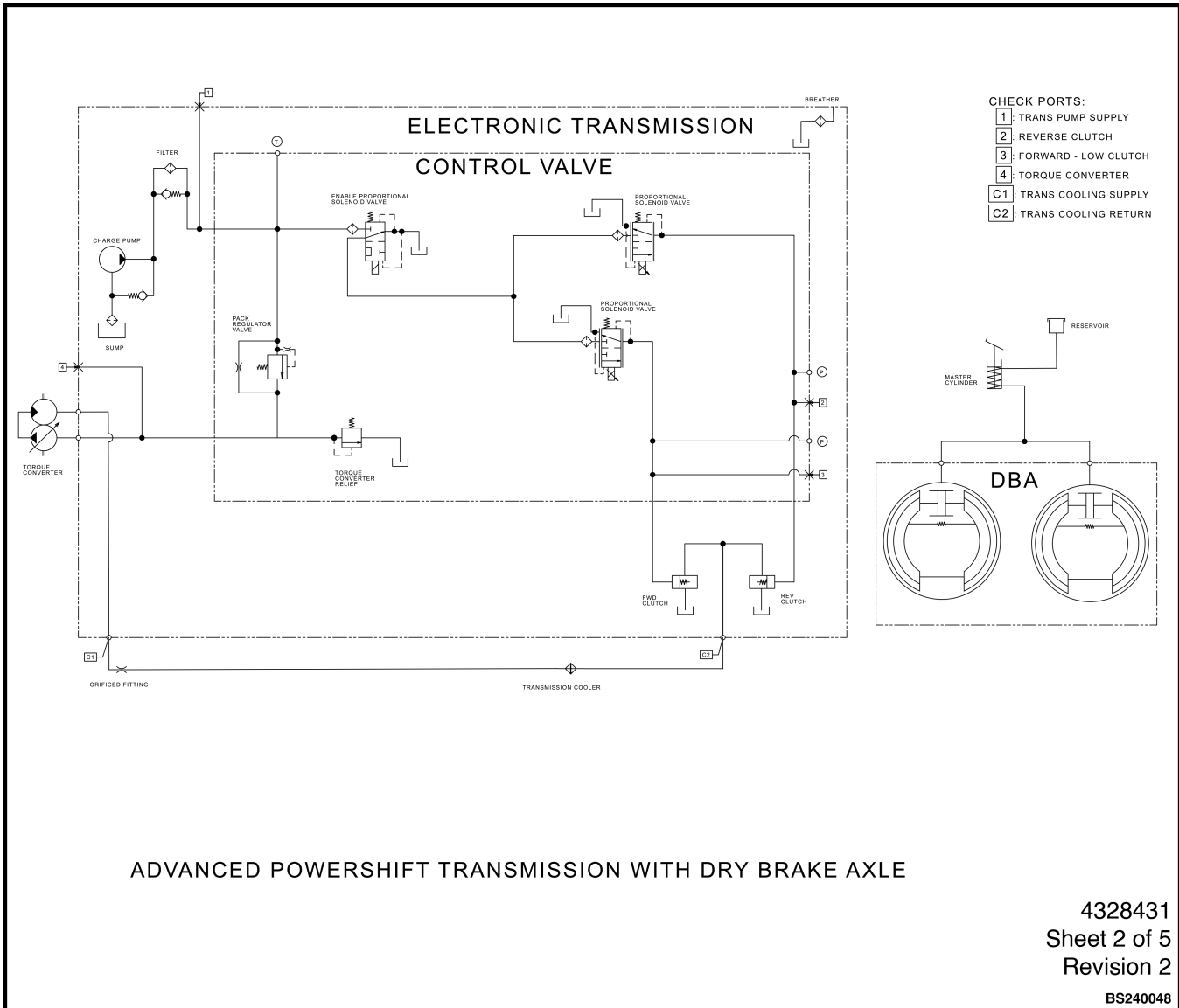
202001-280



4328431  
Sheet 1 of 5  
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BS240047

Figure 2. Hydraulic Schematics - Transmission (Sheet 1 of 5)



- CHECK PORTS:
- 1 TRANS PUMP SUPPLY
  - 2 REVERSE CLUTCH
  - 3 FORWARD - LOW CLUTCH
  - 4 TORQUE CONVERTER
  - C1 TRANS COOLING SUPPLY
  - C2 TRANS COOLING RETURN

Figure 2. Hydraulic Schematics - Transmission (Sheet 2 of 5)

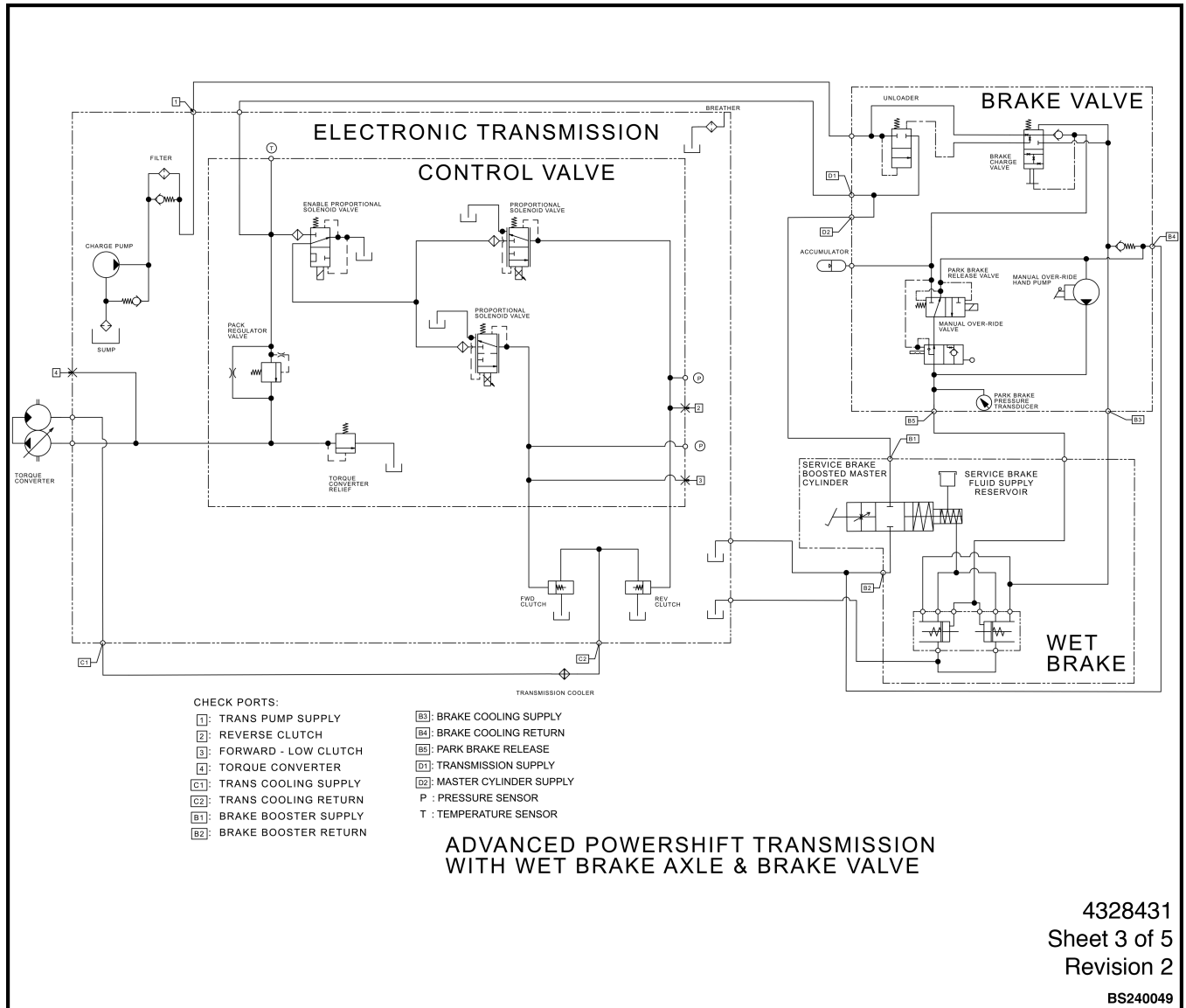


Figure 2. Hydraulic Schematics - Transmission (Sheet 3 of 5)

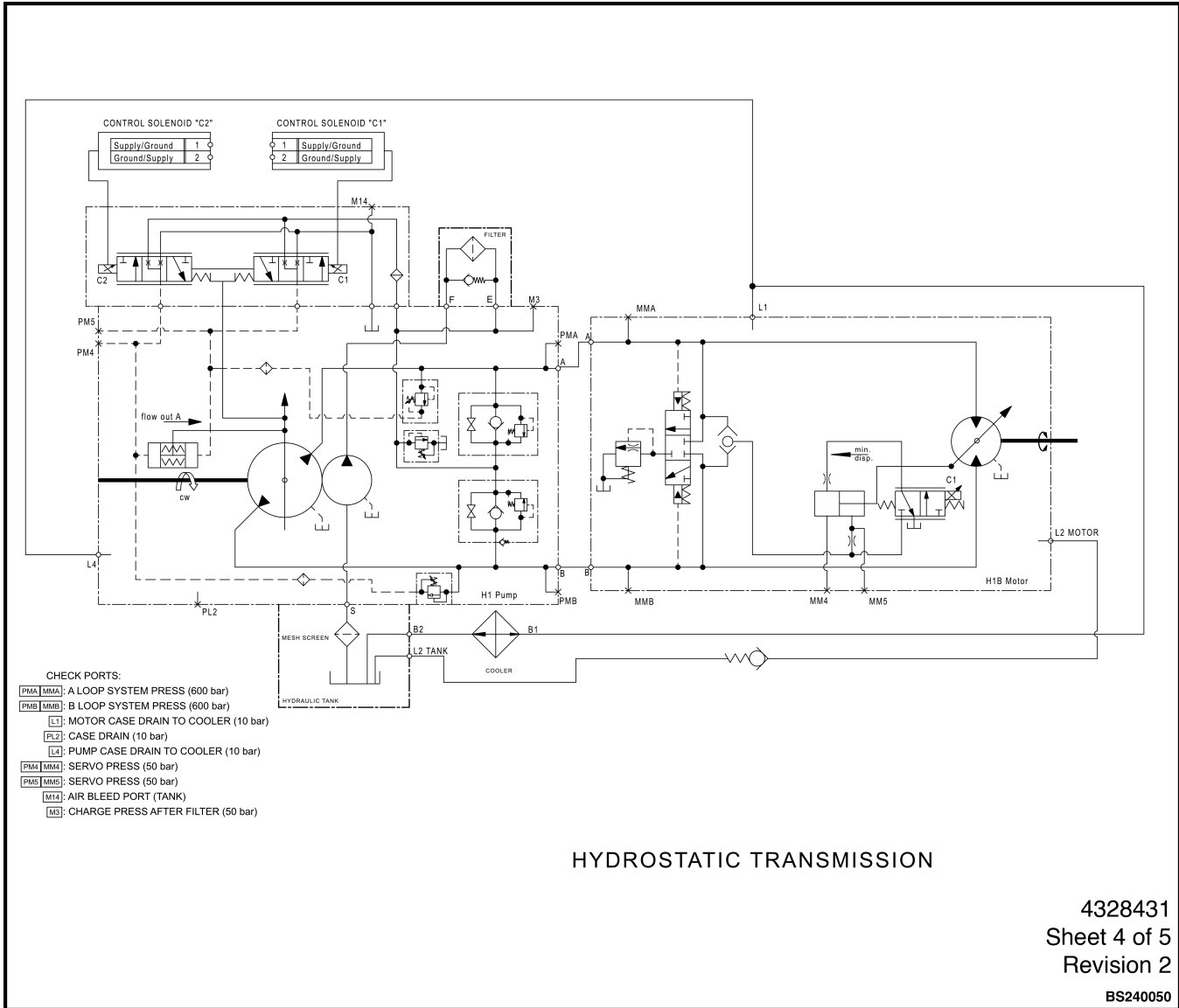


Figure 2. Hydraulic Schematics - Transmission (Sheet 4 of 5)

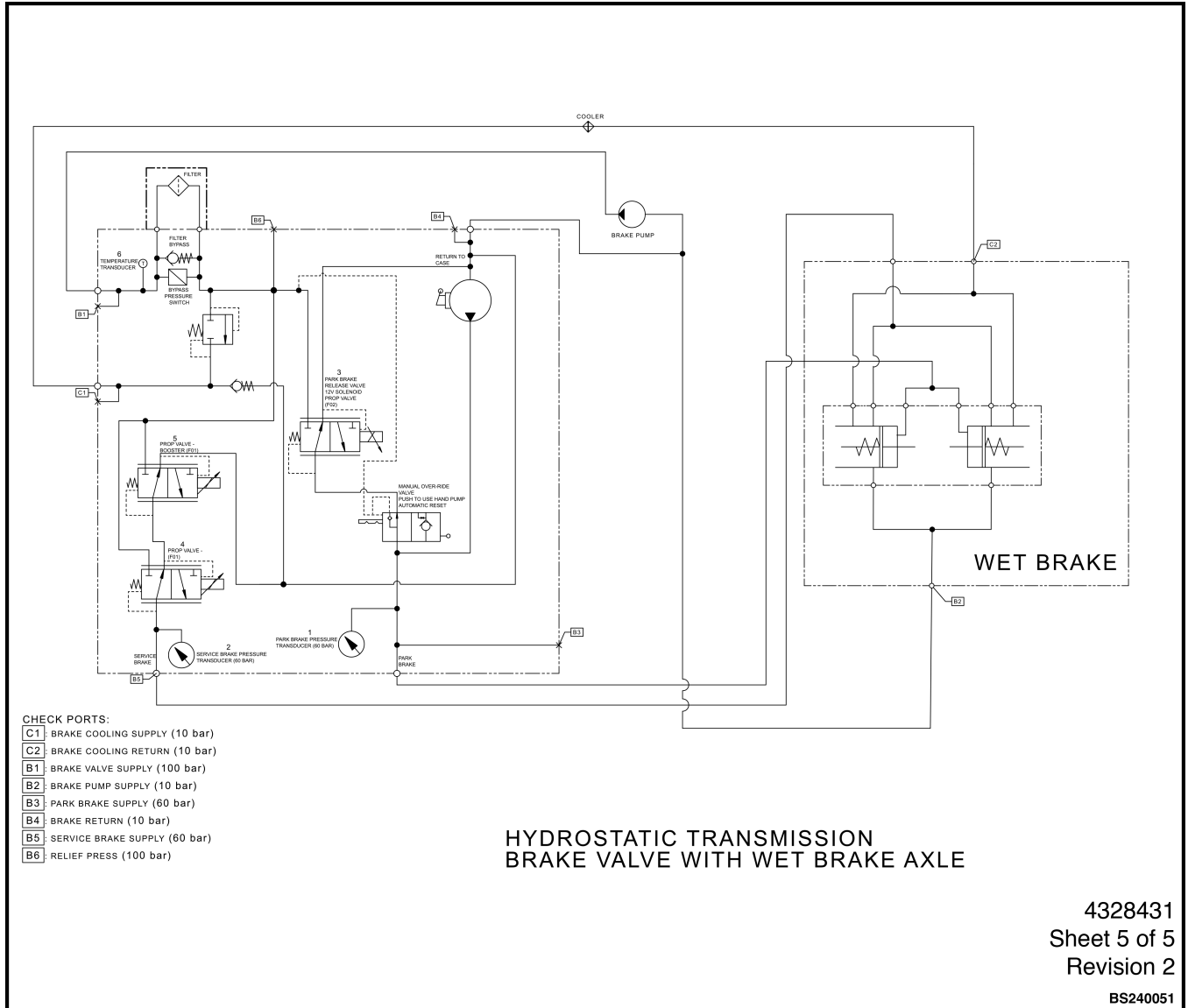
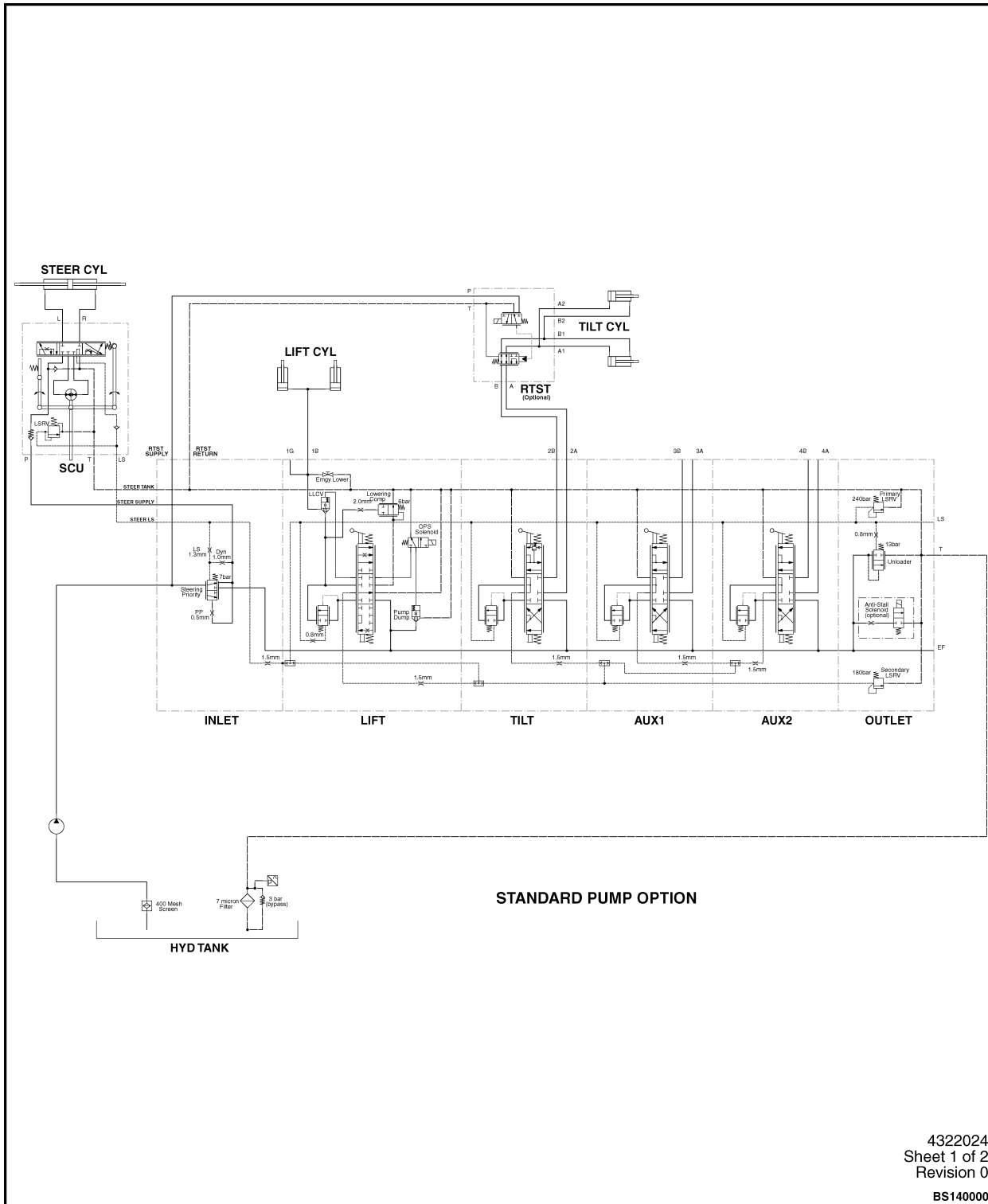


Figure 2. Hydraulic Schematics - Transmission (Sheet 5 of 5)

**HYDRAULIC SCHEMATICS - MANUAL  
HYDRAULICS WITH POWERSHIFT  
TRANSMISSION**

**202001-133**



4322024  
Sheet 1 of 2  
Revision 0  
BS140000

**Figure 3. Manual control valve-hydraulic schematic (Sheet 1 of 2)**

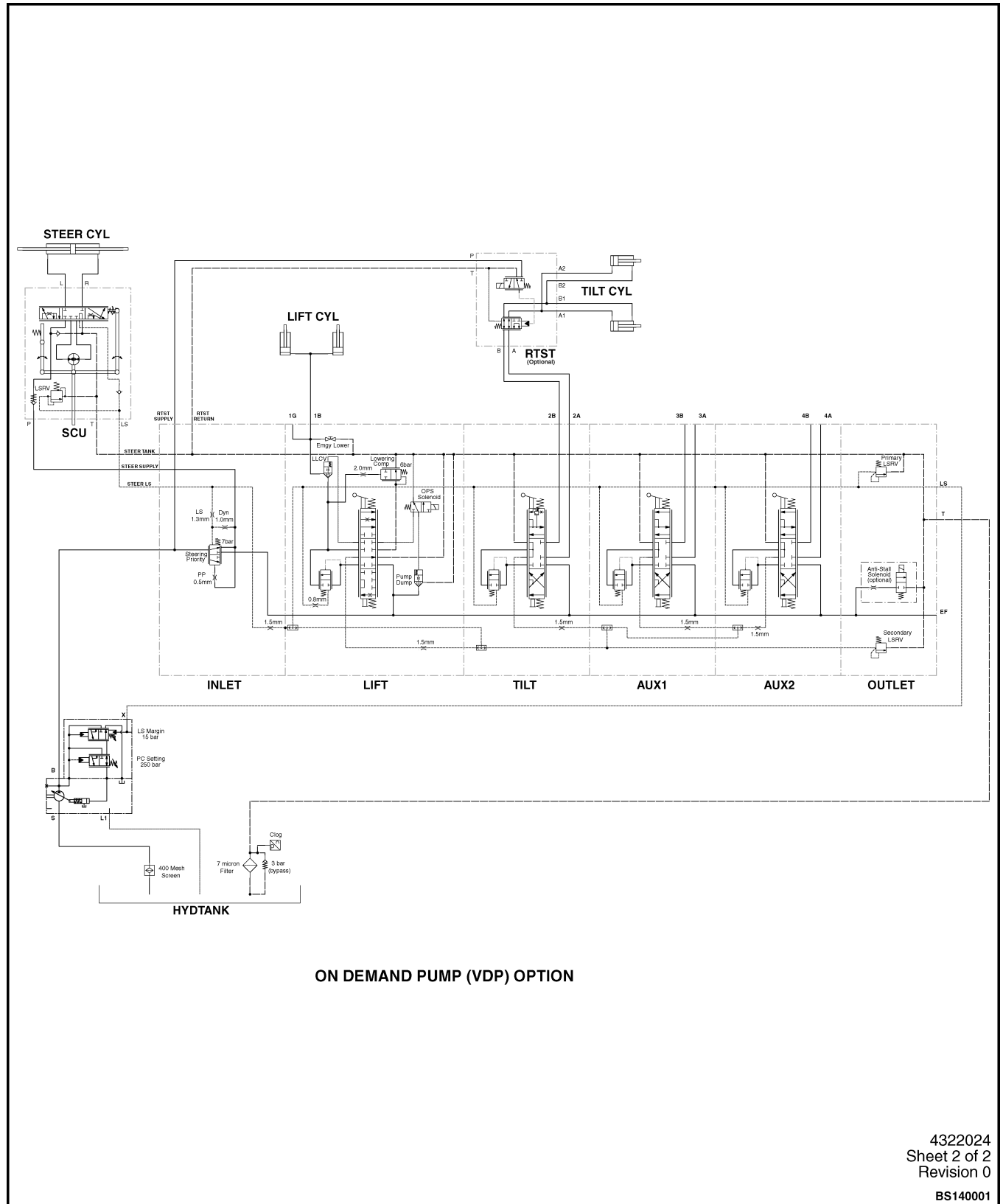
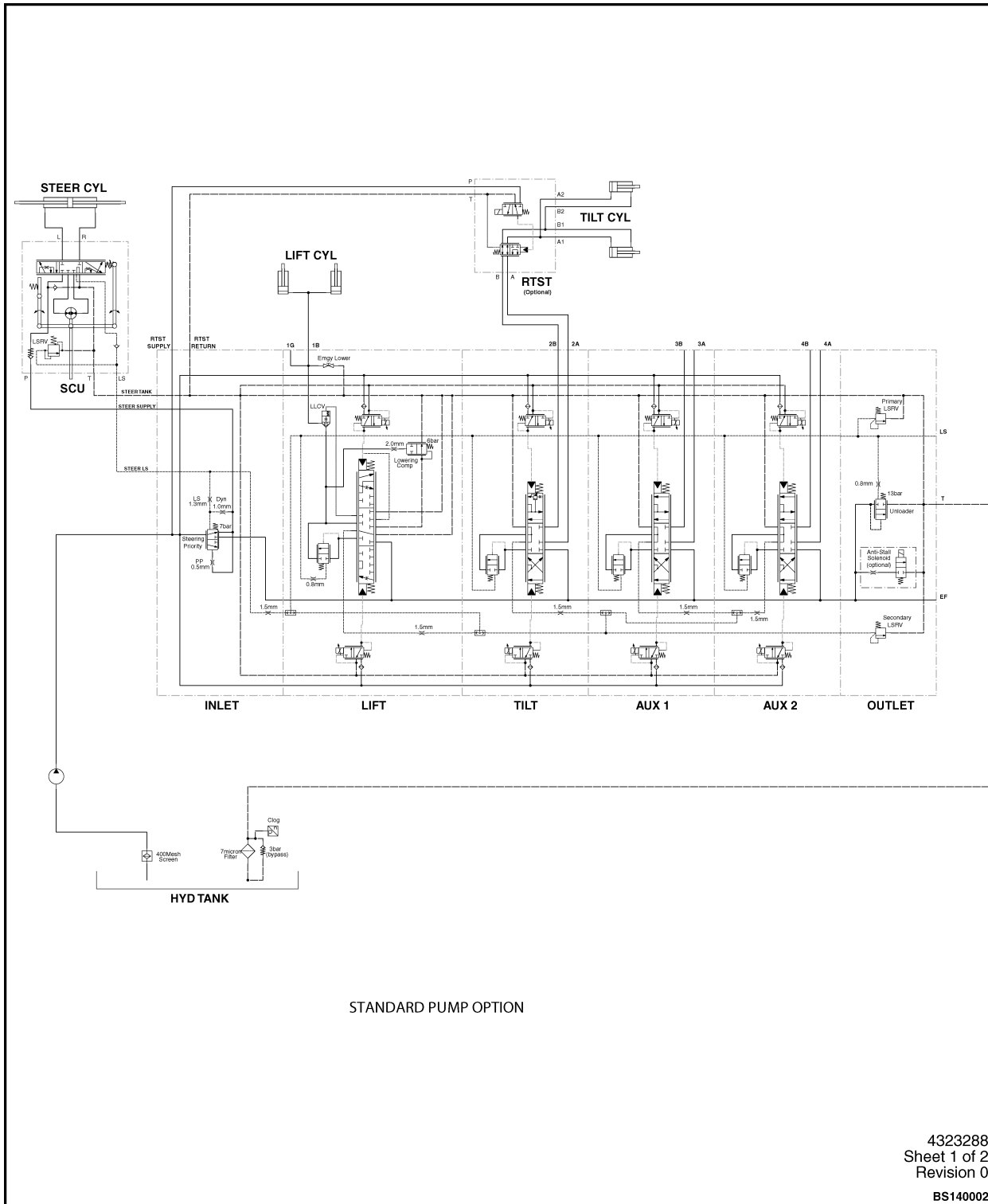


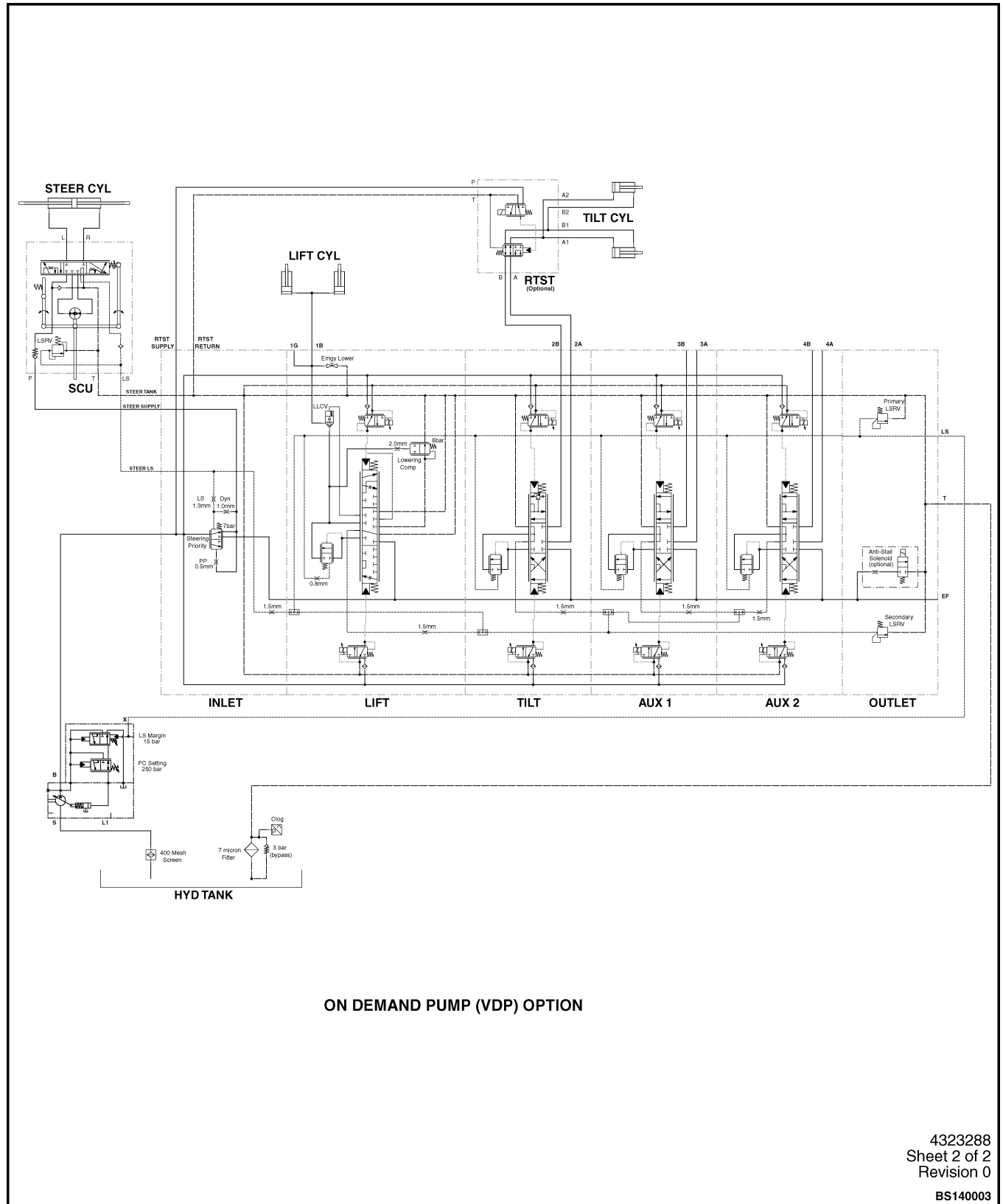
Figure 4. Manual control valve-hydraulic schematic (Sheet 2 of 2)

**HYDRAULIC SCHEMATICS - E-  
HYDRAULICS WITH POWERSHIFT  
TRANSMISSION**

**202001-135**



**Figure 5. E-hydraulic control valve schematic (sheet 1 of 2)**



4323288  
 Sheet 2 of 2  
 Revision 0  
 BS140003

Figure 6. E-hydraulic control valve schematic (sheet 2 of 2)

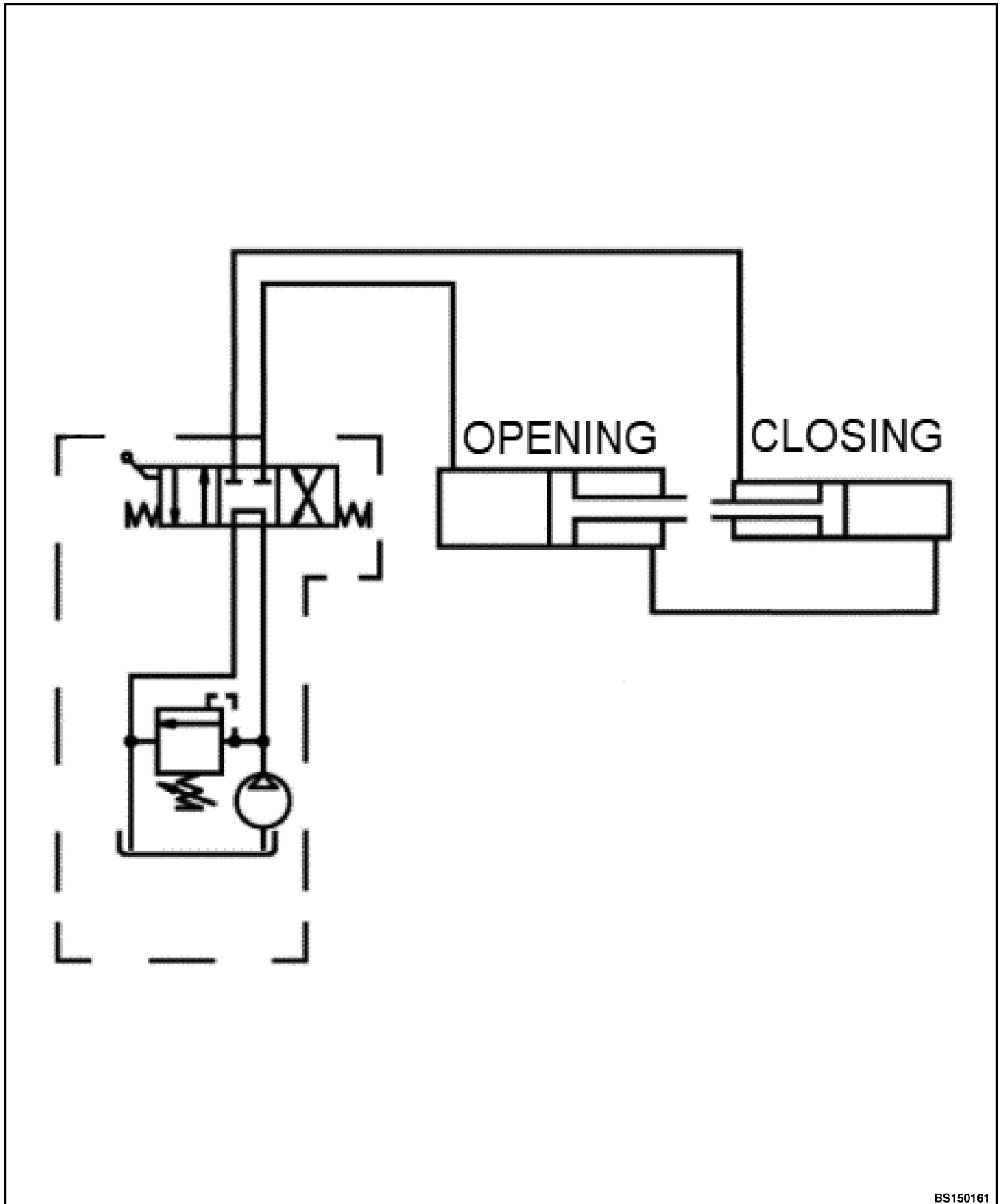
**HYDRAULIC SCHEMATICS - MANUAL  
HYDRAULICS WITH HYDROSTATIC  
TRANSMISSION  
202001-134**

This content is under development and will be released when available.

**HYDRAULIC SCHEMATICS - E-  
HYDRAULICS WITH HYDROSTATIC  
TRANSMISSION  
202001-136**

This content is under development and will be released when available.

HYDRAULIC SCHEMATICS - BOLZONI FORK POSITIONER



BS150161

Figure 7. Hydraulic schematic - Bolzoni fork positioner







**TECHNICAL PUBLICATIONS**