IGNITION AND IQAN MD4

FUSE KEY

Fuse	Amps	Function
0	10 FAST	Seat rotate (ACC/run)
1	10	ECM 1
2	10	ECM 2
3	10	ECM 3
4	10	ECM 4
5	10	Ignition key
6	3	ECM Run
7	10	Unswitched power
8	5	MD4
9	3	Cab XC23
10	20	RH XA2
11	3	Center XC23
12	20	LH XA2
13	20	Carriage XA2
14	3	ZTR
15	5	Strobe light (+)
16	10	Front lights (+)
17	10	Rear lights (+)
18	10	Carriage Lights (+)
19	10	Aux Lights (+)
20	10	Stairway Lights (+)
21	10	Option 1 (+)
22	30	HVAC
23	10	Dash A/C
24	15	Lube System (running)
25	10	Cab Pressureizer (running)
26	10	Spare (running)
27	20	Converter 24v to 12v
28	5	Camera System (ACC/run)
29	15	Seat compressor (ACC/run)
30	10	Wipers (ACC/run)
31	10	Spare
32	5	Spare (ACC/run)
33	3	12V switched radio
34	10	12V switched
35	5	12V switched CB Radio
36	10	12V unswitched RH power
37	10	12V unswitched LH power
38	10	12V unswitched overhead power
39	10	12V unswitched Radio
40	5	12V unswitched CB radio

RELAY KEY

Relays

Description

1 Engine ECM - low side
2 IQAN power (RUN) HS
3 Eng running (Options) - low side
4 Ign switch - ACC
5
6
7 (F wiper) - intermittent
8 (R wiper) - intermittent
9 HVAC
10 Switched 12V

Options Relay Block

11 ether relay
12 LH ACTIVE STEERING STOP
13 RH ACTIVE STEERING STOP
14 Spare - relay 4
15 Spare - relay 5

non-micro relays:

LH seat rotate
RH seat rotate

WAGO KEY

CUMMINS / CAT J1939

36	42	J1939 (CAN) DATA LINK SHIELD
37	34	J1939 (CAN) DATA LINK -
46	50	J1939 (CAN) DATA LINK +

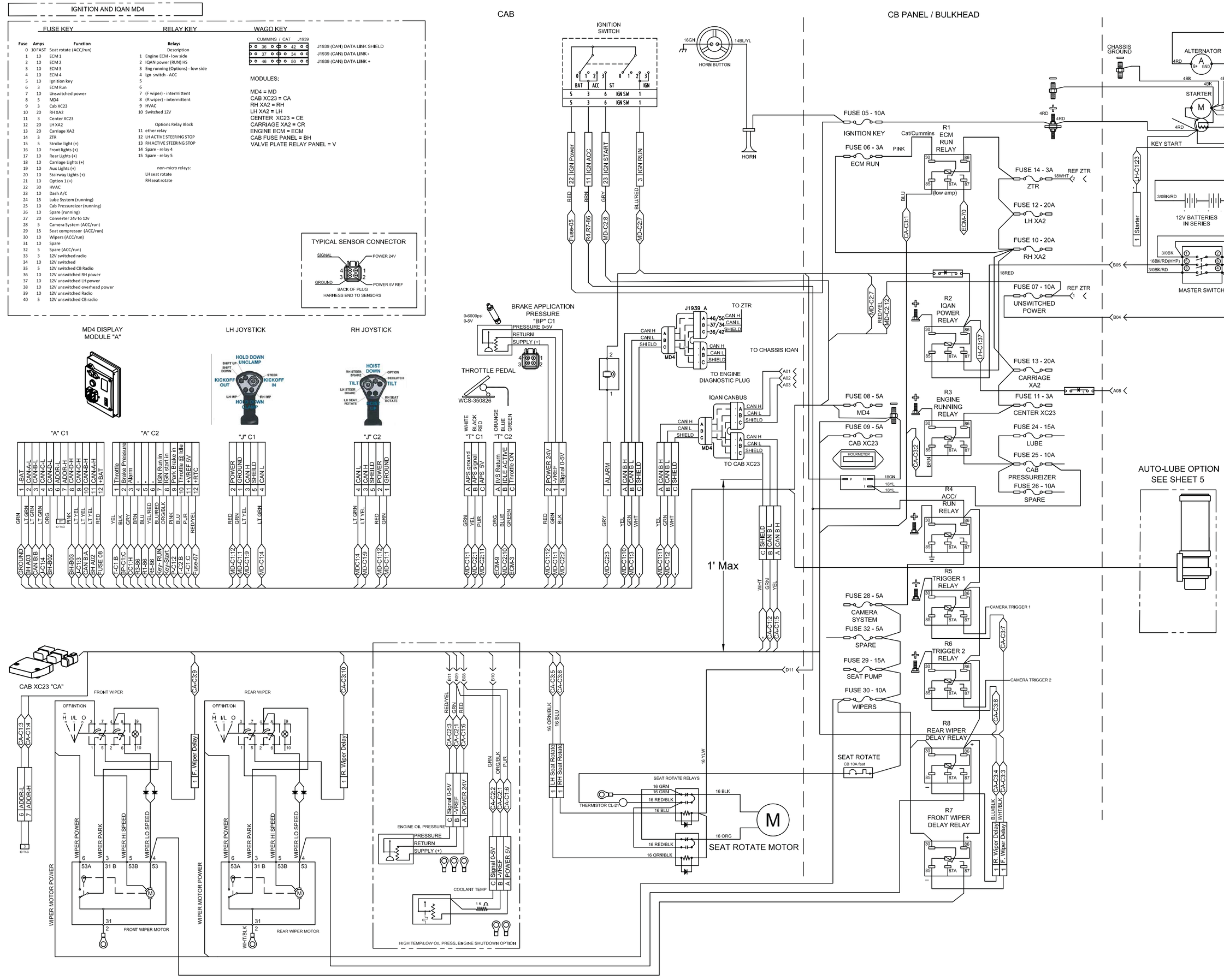
MODULES:

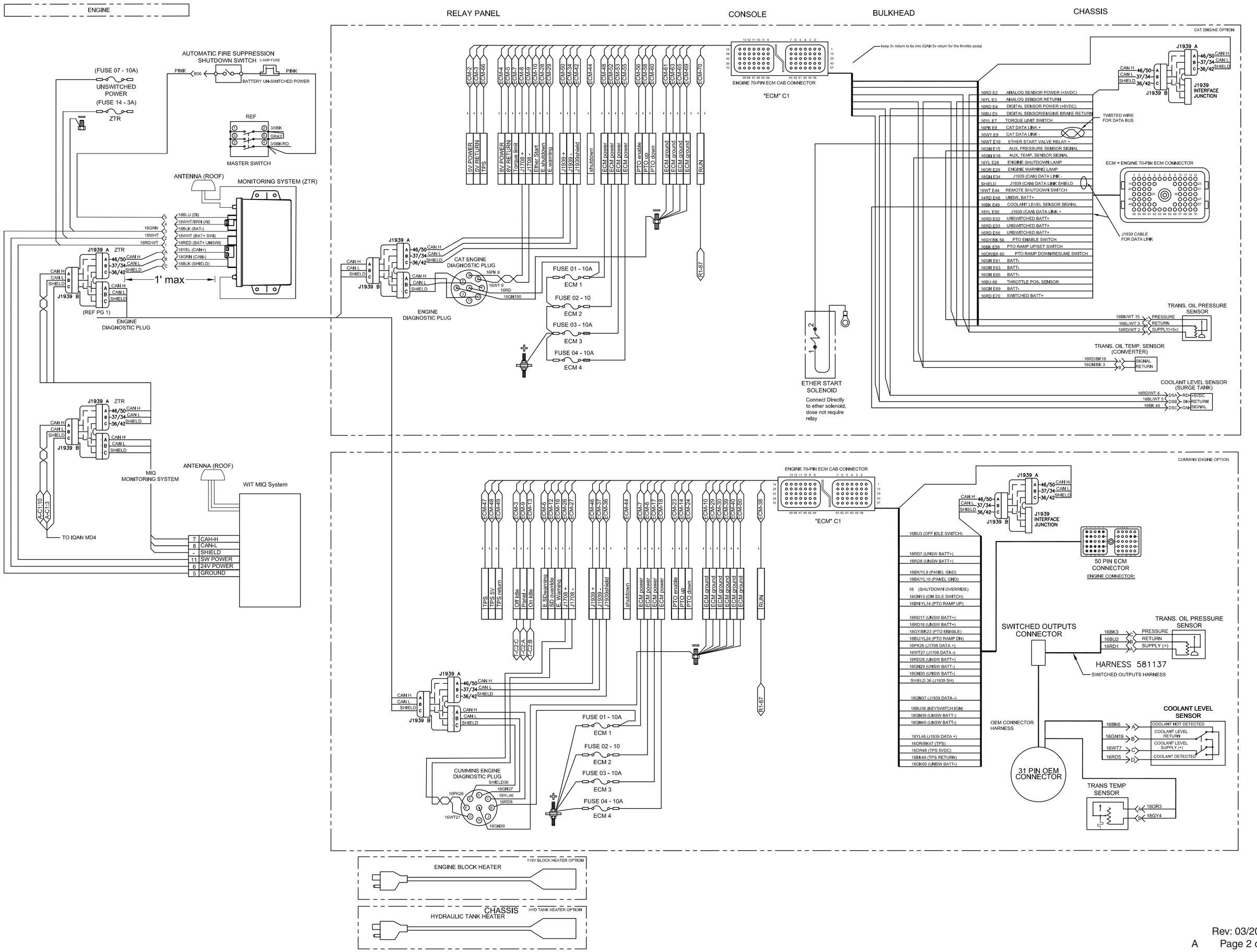
MD4 = MD
CAB XC23 = CA
RH XA2 = RH
LH XA2 = LH
CENTER XC23 = CE
CARRIAGE XA2 = CR
ENGINE ECM = ECM
CAB FUSE PANEL = BH
VALVE PLATE RELAY PANEL = V

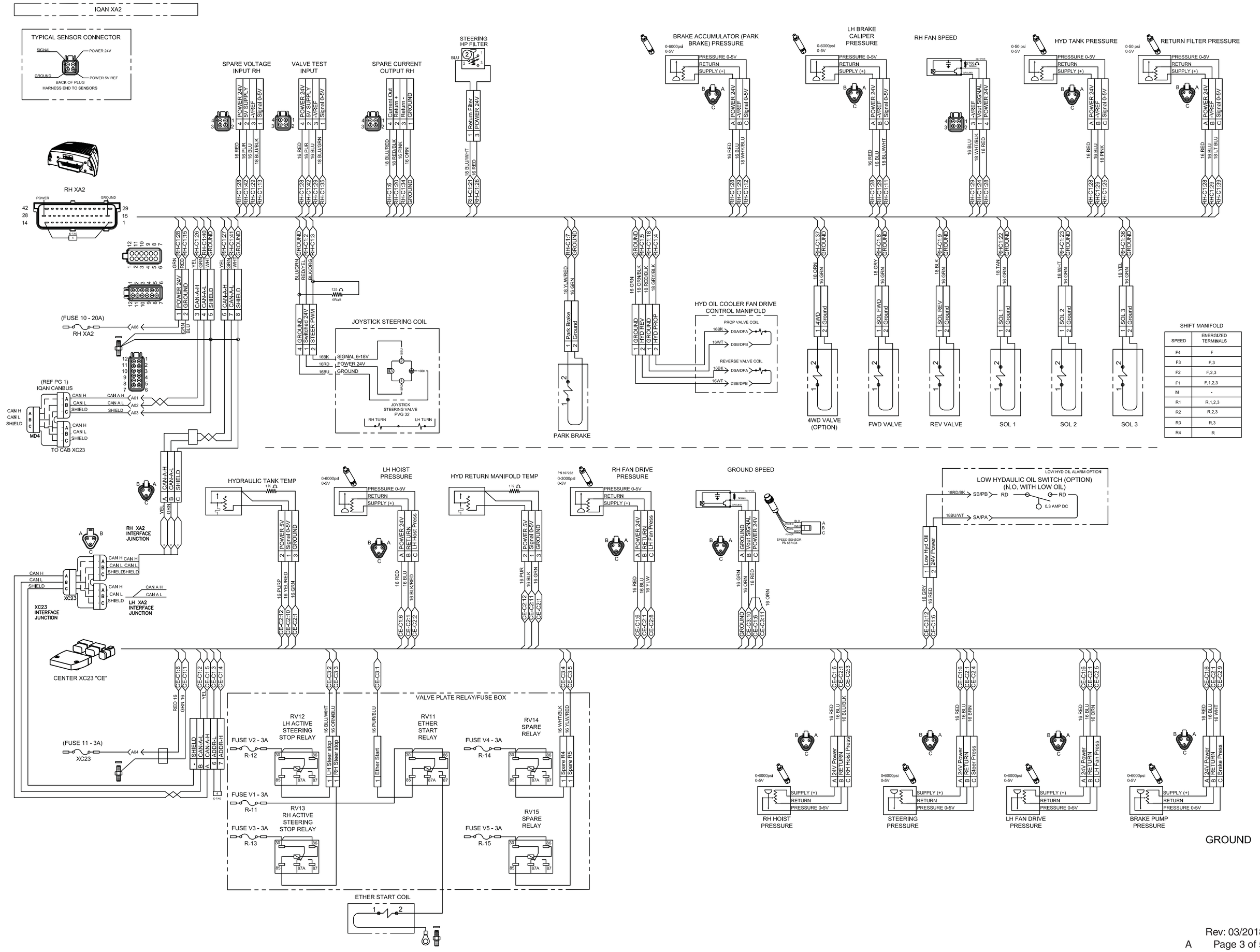
TYPICAL SENSOR CONNECTOR

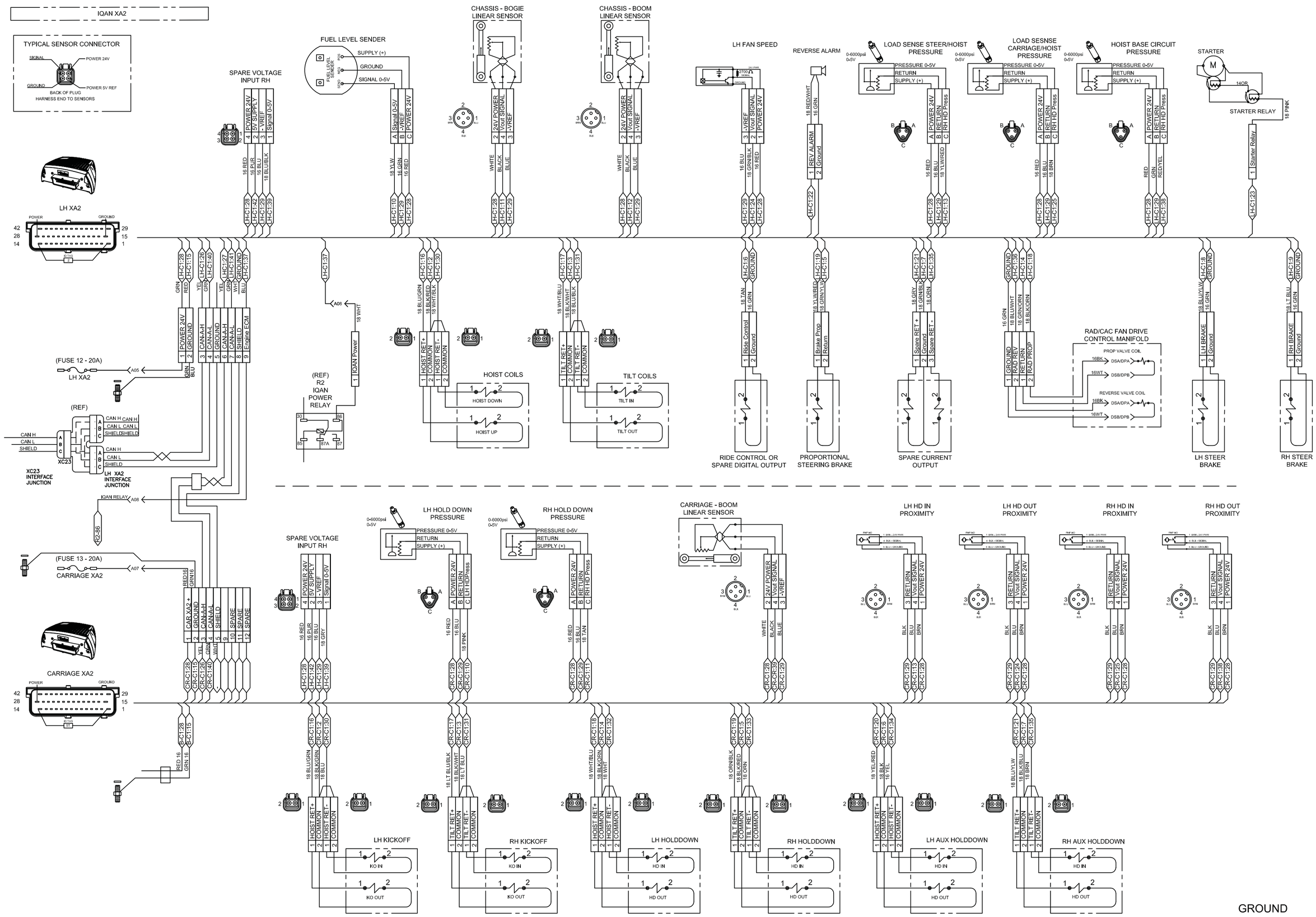
SIGNAL, POWER 24V, GROUND, POWER 5V REF

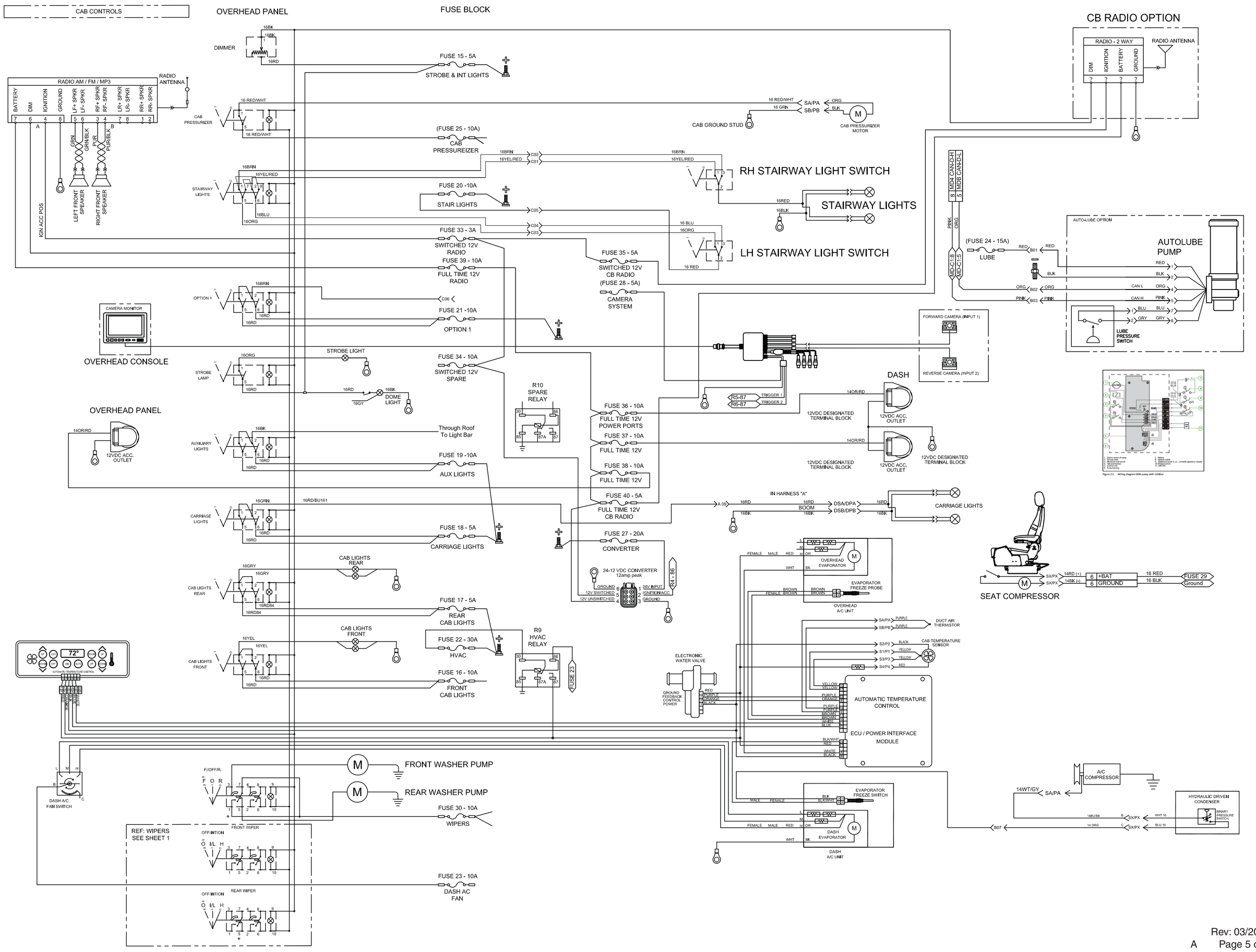
BACK OF PLUG
HARNESS END TO SENSORS




ENGINE
RELAY PANEL
CONSOLE
BULKHEAD
CHASSIS
CAT ENGINE OPTION
CUMMINS ENGINE OPTION
110V BLOCK HEATER OPTION
HYD TANK HEATER OPTION
AUTOMATIC FIRE SUPPRESSION SHUTDOWN SWITCH
5 AMP FUSE
BATTERY UN-SWITCHED POWER
(FUSE 07 - 10A)
UNSWITCHED POWER
(FUSE 14 - 3A)
ZTR
REF
MASTER SWITCH
ANTENNA (ROOF)
MONITORING SYSTEM (ZTR)
1' max
(REF PG 1)
ENGINE DIAGNOSTIC PLUG
CAT ENGINE DIAGNOSTIC PLUG
ENGINE DIAGNOSTIC PLUG
ENGINE 70-PIN ECM CAB CONNECTOR
"ECM" C1
keep 5v return to tie into IQAN 5v return for the throttle pedal
J1939 INTERFACE JUNCTION
TWISTED WIRE FOR DATA BUS
ECM = ENGINE 70-PIN ECM CONNECTOR
J1939 CABLE FOR DATA LINK
FUSE 01 - 10A
ECM 1
FUSE 02 - 10
ECM 2
FUSE 03 - 10A
ECM 3
FUSE 04 - 10A
ECM 4
ETHER START SOLENOID
Connect Directly to ether solenoid, dose not require relay
TRANS. OIL PRESSURE SENSOR
TRANS. OIL TEMP. SENSOR (CONVERTER)
COOLANT LEVEL SENSOR (SURGE TANK)
MIQ MONITORING SYSTEM
WIT MIQ System
TO IQAN MD4
50 PIN ECM CONNECTOR
ENGINE CONNECTOR:
SWITCHED OUTPUTS CONNECTOR
HARNESS 581137
SWITCHED OUTPUTS HARNESS
OEM CONNECTOR HARNESS
31 PIN OEM CONNECTOR
COOLANT LEVEL SENSOR
TRANS TEMP SENSOR
CUMMINS ENGINE DIAGNOSTIC PLUG
ENGINE BLOCK HEATER
HYDRAULIC TANK HEATER


IQAN XA2
TYPICAL SENSOR CONNECTOR
SIGNAL
POWER 24V
GROUND
POWER 5V REF
BACK OF PLUG
HARNESS END TO SENSORS
SPARE VOLTAGE INPUT RH
VALVE TEST INPUT
SPARE CURRENT OUTPUT RH
STEERING HP FILTER
BRAKE ACCUMULATOR (PARK BRAKE) PRESSURE
LH BRAKE CALIPER PRESSURE
RH FAN SPEED
HYD TANK PRESSURE
RETURN FILTER PRESSURE
PRESSURE 0-5V
RETURN
SUPPLY (+)
RH XA2
POWER
GROUND
(FUSE 10 - 20A)
RH XA2
(REF PG 1)
IQAN CANBUS
CAN H
CAN L
SHIELD
MD4
TO CAB XC23
JOYSTICK STEERING COIL
SIGNAL 6-18V
POWER 24V
GROUND
JOYSTICK STEERING VALVE PVG 32
RH TURN
LH TURN
PARK BRAKE
HYD OIL COOLER FAN DRIVE CONTROL MANIFOLD
PROP VALVE COIL
REVERSE VALVE COIL
DSA/DPA
DSB/DPB
4WD VALVE (OPTION)
FWD VALVE
REV VALVE
SOL 1
SOL 2
SOL 3
SHIFT MANIFOLD
SPEED
ENERGIZED TERMINALS
F4 F
F3 F,3
F2 F,2,3
F1 F,1,2,3
N -
R1 R,1,2,3
R2 R,2,3
R3 R,3
R4 R
HYDRAULIC TANK TEMP
LH HOIST PRESSURE
HYD RETURN MANIFOLD TEMP
RH FAN DRIVE PRESSURE
GROUND SPEED
SPEED SENSOR PN 587434
LOW HYD OIL ALARM OPTION
LOW HYDAULIC OIL SWITCH (OPTION)
(N.O. WITH LOW OIL)
0.3 AMP DC
RH XA2 INTERFACE JUNCTION
XC23 INTERFACE JUNCTION
LH XA2 INTERFACE JUNCTION
XC23
CENTER XC23 "CE"
(FUSE 11 - 3A)
VALVE PLATE RELAY/FUSE BOX
RV12 LH ACTIVE STEERING STOP RELAY
RV11 ETHER START RELAY
RV14 SPARE RELAY
RV13 RH ACTIVE STEERING STOP RELAY
RV15 SPARE RELAY
FUSE V2 - 3A
FUSE V1 - 3A
FUSE V3 - 3A
FUSE V4 - 3A
FUSE V5 - 3A
R-12
R-11
R-13
R-14
R-15
ETHER START COIL
RH HOIST PRESSURE
STEERING PRESSURE
LH FAN DRIVE PRESSURE
BRAKE PUMP PRESSURE
GROUND


IQAN XA2
TYPICAL SENSOR CONNECTOR
SIGNAL
POWER 24V
GROUND
POWER 5V REF
BACK OF PLUG
HARNESS END TO SENSORS
LH XA2
POWER
GROUND
FUEL LEVEL SENDER
SUPPLY (+)
GROUND
SIGNAL 0-5V
SPARE VOLTAGE INPUT RH
CHASSIS - BOGIE LINEAR SENSOR
CHASSIS - BOOM LINEAR SENSOR
LH FAN SPEED
REVERSE ALARM
LOAD SENSE STEER/HOIST PRESSURE
LOAD SESNSE CARRIAGE/HOIST PRESSURE
HOIST BASE CIRCUIT PRESSURE
STARTER
STARTER RELAY
(FUSE 12 - 20A)
LH XA2
(REF)
CAN H
CAN L
SHIELD
XC23
XC23 INTERFACE JUNCTION
LH XA2 INTERFACE JUNCTION
(REF) R2 IQAN POWER RELAY
IQAN Power
HOIST COILS
HOIST DOWN
HOIST UP
TILT COILS
TILT IN
TILT OUT
RAD/CAC FAN DRIVE CONTROL MANIFOLD
PROP VALVE COIL
REVERSE VALVE COIL
RIDE CONTROL OR SPARE DIGITAL OUTPUT
PROPORTIONAL STEERING BRAKE
SPARE CURRENT OUTPUT
LH STEER BRAKE
RH STEER BRAKE
IQAN RELAY
(FUSE 13 - 20A)
CARRIAGE XA2
LH HOLD DOWN PRESSURE
RH HOLD DOWN PRESSURE
CARRIAGE - BOOM LINEAR SENSOR
LH HD IN PROXIMITY
LH HD OUT PROXIMITY
RH HD IN PROXIMITY
RH HD OUT PROXIMITY
LH KICKOFF
RH KICKOFF
LH HOLDDOWN
RH HOLDDOWN
LH AUX HOLDDOWN
RH AUX HOLDDOWN
KO IN
KO OUT
HD IN
HD OUT
GROUND



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