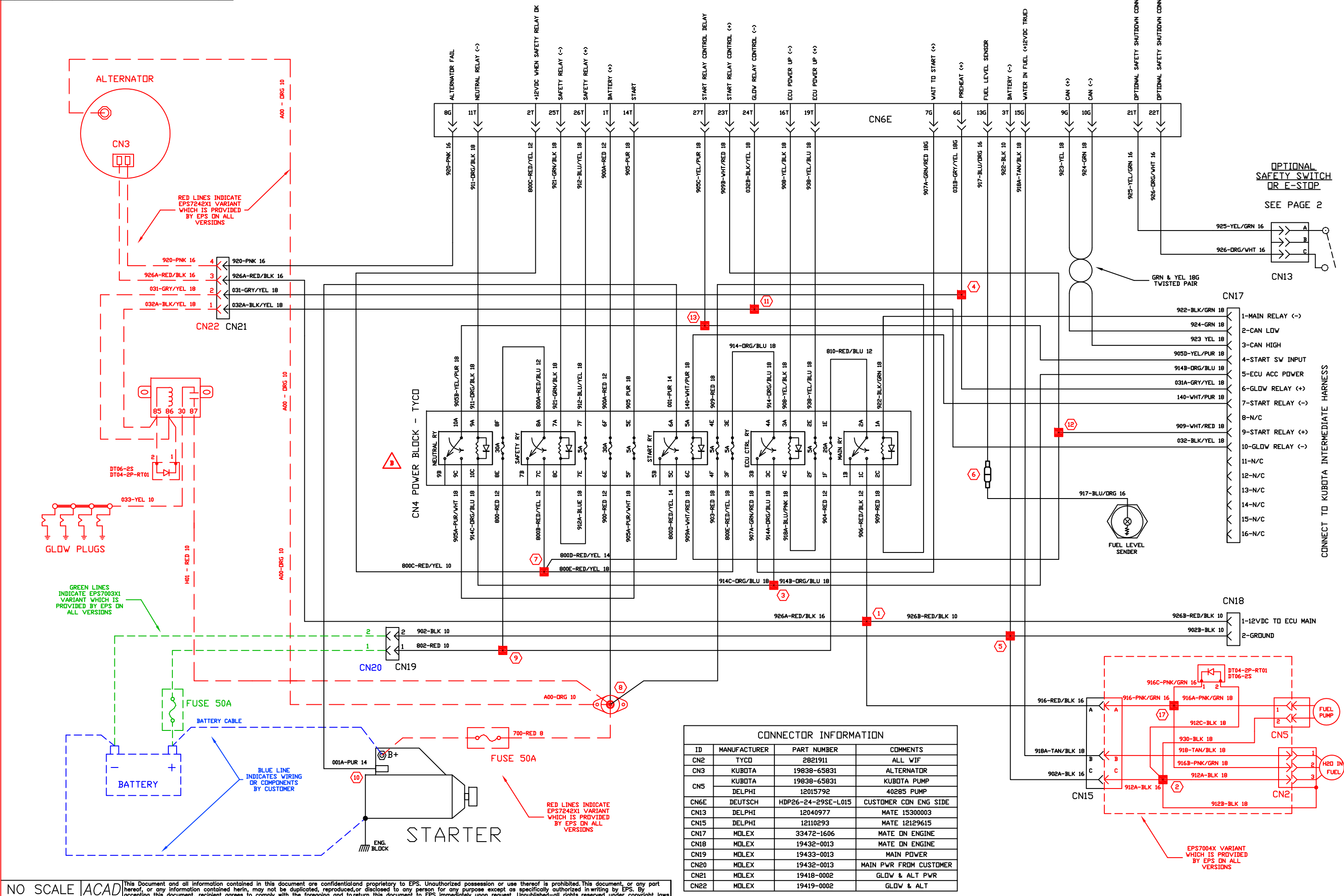
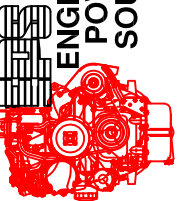


REV	DATE	REVISION	BY
A	-	RELEASED FOR PRODUCTION	-
B	11-20-15	CORRECTED 12G FROM 10G WIRE ON CN4	MCD



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ENGINE POWER SOURCE

348 Bryant Blvd, Rock Hill, SC, 29732
Phone: 704-944-1999 Fax: 704-944-1873

ENGINE POWER SOURCE

PART NUMBER EPS7003X-TY-S

DESCRIPTION Schematic, Power Block for use with KEA Intermediate Harness, TYCO Block

REVISION B

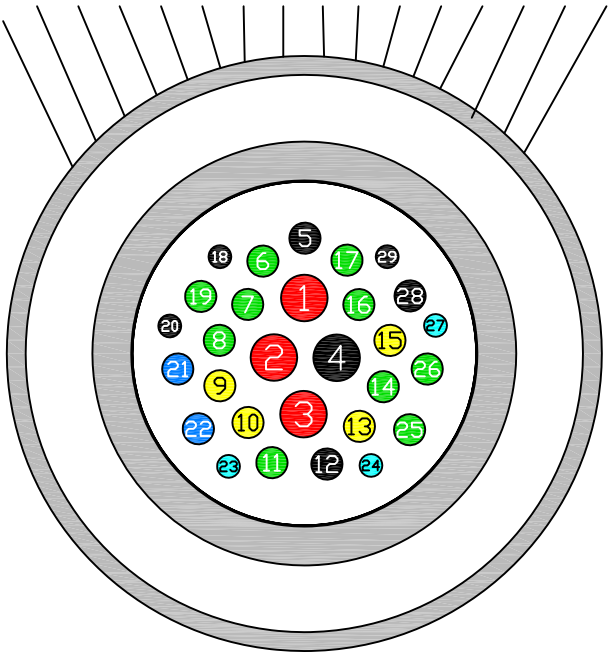
SHEET NUMBER 1 OF 3

DATE 11-06-2015

CAD BY MCD

REV	DATE	REVISION	BY
A	-	RELEASED FOR PRODUCTION	-
B	11-20-15	CHANGES SHEET 1	MCD

CN6C
CUSTOMER INTERFACE
HDP24-24-29PE-L015



SAFETY RELAY TABLE (NOTE 3)						
CUST CONN TERM NO						Description of Control
CS1	CS2	21	22	25	26	
N/C	N/C	+12V	26	GND	22	Break (+) of Safety Relay Through Safety Switch
N/C	N/C	GND	25	22	+12V	Break (-) of Safety Relay Through Safety Switch
+12V	26	N/C	N/C	GND	CS2	Break (+) of Safety Relay directly by customer switch.
GND	25	N/C	N/C	CS2	+12V	Break (-) of Safety Relay directly by customer switch.
Make connections as shown to operate Safety Relay by breaking +12VDC or Ground either through Customer Switch (CS1 & CS2) or through Safety Switch						
For example, connect +12V to 21, Ground to 25, and 22-26 to control Safety Relay by Breaking +12VDC through Safety Switch.						

CUSTOMER CONNECTOR DETAILS (USED TO INTERFACE TO EPS7003X-TY)					
CIRCUIT	PIN	TERMINAL	WIRE	FUNCTION	EXPLANATION
900A	1	1060-12-0222	RED 10G	BATTERY (+)	+12VDC AT ALL TIMES
800C	2	1060-12-0222	RED/YEL 10G	+12VDC AFTER SAFETY RELAY OK	+12VDC ONCE SAFETY RELAY ENERGIZES
922	3	1060-12-0222	BLK 10G	BATTERY (-)	GROUND AT ALL TIMES
031B	6	0460-202-16141	GRY/YEL 18G	PREHEAT LAMP (+) NOTE 4	SIGNAL IS AT 12VDC WHEN GLOW PLUGS ACTIVATED
907A	7	0460-202-16141	GRN/RED 18G	WAIT TO START LAMP (+)	SIGNAL IS AT 12VDC AFTER KEY ON UNTIL ECU RELAY ENERGIZED
920	8	0460-202-16141	PNK 18G	ALTERNATOR FAIL LAMP (-) NOTE 4	SIGNAL GOES TO GROUND ON ALTERNATOR FAILURE
923	9	0460-202-1631	YEL 18G	CANBUS (+)	CANBUS COMMUNICATION POSITIVE
924	10	0460-202-1631	GRN 18G	CANBUS (-)	CANBUS COMMUNICATION NEGATIVE
911	11	0460-202-16141	ORG/BLK 18G	NEUTRAL SAFETY SWITCH (-)	MUST SEND GROUND SIGNAL WHEN OK TO START ENGINE
917	13	0460-202-1631	BLU/ORG 18G	FUEL LEVEL SENSOR (ANALOG)	CONNECTED TO RESISTIVE FUEL SENSOR (OPTIONAL)
905	14	0460-202-16141	PUR 18G	ECU STARTER INPUT (+)	FROM 50 ON KEYSWITCH THRU SAFETY RELAY TO ECU
918A	15	0460-202-1631	TAN/BLK 18G	WATER IN FUEL SENSOR (+)	+12VDC WHEN WATER IN FUEL DETECTED
908	16	0460-202-16141	YEL/BLK 18G	ECU POWER UP SIGNAL (-) NOTE 1	SEND GROUND TO ENERGIZE ECU RELAY
938	19	0460-202-16141	YEL/BLU 18G	ECU POWER UP SIGNAL (+) NOTE 1	SEND +12VDC TO ENERGIZE ECU RELAY
925	21	0460-202-16141	YEL/GRN 18G	E-STOP SWITCH TERMINAL 1 NOTE 2	OPTIONAL CONNECTION FOR SAFETY SHUTDOWN
926	22	0460-202-16141	ORG/WHT 18G	E-STOP SWITCH TERMINAL 2 NOTE 2	OPTIONAL CONNECTION FOR SAFETY SHUTDOWN
909B	23	0460-202-20141	WHT/RED 18G	START RELAY (+) CONTROL NOTE 5	CONNECT TO +12VDC FOR DENSO ECU. FOR BOSCH ECU, N/C
032B	24	0460-202-20141	BLK/YEL 18G	GLOW RELAY (-) CONTROL NOTE 5	CONNECT TO GND FOR DENSO ECU. FOR BOSCH ECU, N/C
921	25	0460-202-16141	GRN/BLK 18G	SAFETY RELAY (-) NOTE 3	SEND GROUND TO ENERGIZE SAFETY RELAY
912	26	0460-202-16141	BLU/YEL 18G	SAFETY RELAY (+) NOTE 3	SEND +12VDC TO ENERGIZE SAFETY RELAY
905C	27	0460-202-20141	PUR/YEL 18G	START RELAY CONTROL DELAY NOTE 5	ON DENSO ECU, INHIBITS STARTER UNTIL ECU RELAY ON
-	-	M902-2244	-	CONNECTOR BACKSHELL	-
-	-	M902-2054	-	CONNECTOR BACKSHELL LOCK	-
-	-	114017	-	SEALING PLUG 12G	-
-	-	0413-204-2005	-	SEALING PLUG 18G	-

- NOTES:
1. The ECU Relay can NOT be energized until Customer equipment is actively communicating on J1939 CANbus. Customer may energize this relay by switching +12VDC or GROUND signal to the ECU Relay while holding the other signal constant.
 2. Optional E-STOP switch may be used by Customer to break the signal used to energize the SAFETY Relay.
 3. The SAFETY Relay MUST be energized for engine to operate. Customer may energize this relay by switching +12VDC or GROUND signal to the ECU relay while holding the other signal constant (see Safety Relay Table). Removing power from this relay at any time will result in immediate engine shutdown.
 4. Lamps for these functions are optional when using PV480. Preheat and Alternator Fail messages displayed by PV480.
 5. When using engine with DENSO ECU, connect Pin 23 to Pin 27 and Pin 24 to GND. When using engine with BOSCH ECU, make no connections to Pins 23, 24 and 27.

ENGINE POWER SOURCE

ENGINE POWER SOURCE

SHEET NUMBER

2 OF 3

DATE

11-10-15

CAD BY

MCD

348 Bryant Blvd, Rock Hill, SC, 29732

Phone: 704-944-1999 Fax: 704-9441873

DESCRIPTION

Customer Connector, Power Block for use with KEA Intermediate Harness

REVISION

B

PART NUMBER

EPS7003X-TY-S

REV	DATE	REVISION	BY
A	-	RELEASED FOR PRODUCTION	-
B	11-20-15	CHANGES TO SHEET 1	MCD

