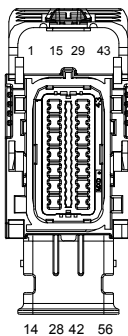
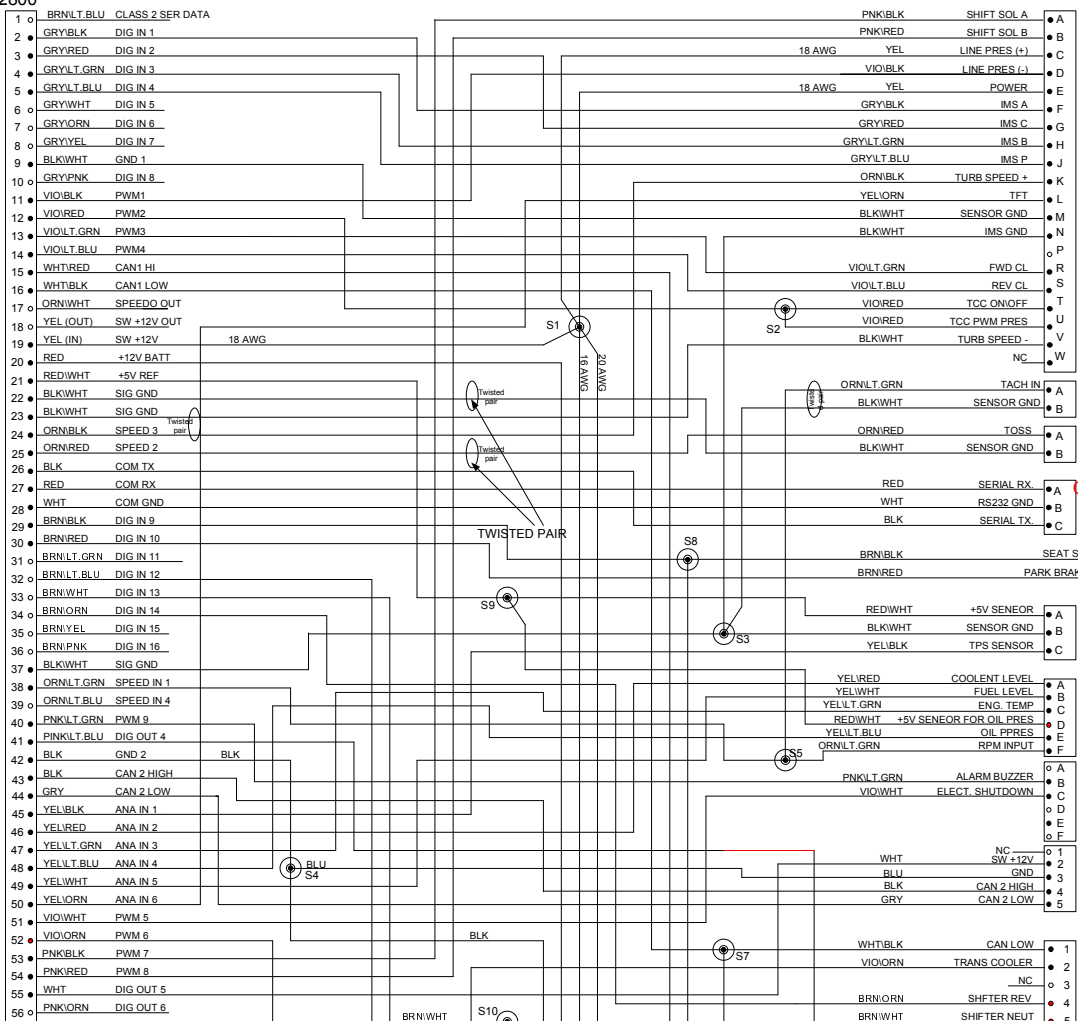


REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	Release	3/21/18	FD	

TCM-2800
C-1



TCU-2800

TCU-2800 Connector	QTY	DESCRIPTION	PCS P/N	NOTES
1 CONNECTOR	1	CONNECTOR	CON-202	M/F
40 TERMINALS	40	TERMINALS	CON-205	
1 CONNECTOR COVER	1	CONNECTOR COVER	CON-203	
16 CAVITY PLUG	16	CAVITY PLUG	CON-204	

S#	FUNCTION	COLOR
S1	12 VOLTS SWITCHED	YEL
S2	TCC CONTROL	VIO/RED
S3	SIGNAL GND	BLK/WHT
S4	CHASSIS GND 2	BLK
S5	RPM	ORN/LT.GRN
S6	CAN HIGH	WHT/RED
S7	CAN LOW	WHT/BLK
S8	SEAT SW RELAY	BRN/BLK
S9	+5V REF	RED/WHT
S0	NEUTRAL / SAFETY	BRN/WHT

PROVIDE A LAPTOP CALIBRATION CONNECTOR PROTECTIVE CAP

QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	12129615	
3	CAVITY PLUG	12059168	DK.RED
1	SECONDARY LOCK	12052845	
1	PIN BLOCKING PLUG		

POWERTRAIN CONTROL SOLUTIONS

TITLE: **NEW 4L70E 2010+ TRANSMISSION MOUNTED TO TCU-2801**

SIZE: C	CUSTOMER DRAWING NO. XXXXX-XXXXX	PCS PART NUMBER TCM-4871	REV: 001
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Print Date: **4/6/2018**
1600

APPLICABLE STANDARDS: ASME Y14.100-200, ASME Y14.5M-1994, IPC/WHMA-A-620A-CLASS 2, MARK IAW MIL-STD-130.

NOTES: 1) WIRE LENGTH TOLERANCE +/- .12 INCH, 2) WIRE GAUGE IS 20 AWG UNLESS OTHERWISE STATED, 3) TAPE ALL LOCK JOINTS UNLESS OTHERWISE STATED, 4) TWIST INDICATED WIRES AT LEAST 10-12 TURNS PER FOOT, 5) PLACE TAGS NO MORE THAN 2" FROM CONNECTOR. PLACE TAGS FOR UNTERMINATED WIRES NO MORE THAN 2" FROM UNTERMINATED END, 6) WIRE TYPE IS TXL UNLESS OTHERWISE STATED.

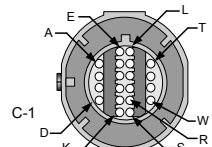
COMPANY: POWERTRAIN CONTROL SOLUTIONS

DATE: 2/21/2018

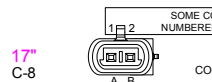
APPROVED BY: XXXXX

DATE: _____

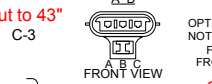
SHEET 2 OF 11



TRANSMISSION CONNECTOR FRONT VIEW



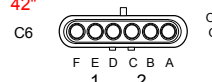
RPM CONNECTOR



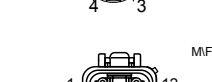
OUTPUT SHAFT SPEED SENSOR FRONT VIEW



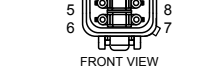
OPTIONAL COM NOT REQUIRED FOR USE FRONT VIEW



THROTTLE POSITION SENSOR



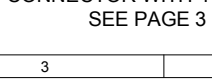
ENGINE GROUP



OUTPUT GROUP



DIGITAL DASH CONNECTOR



BULKHEAD CONNECTOR

QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON-2000	
16	TERMINAL	CON-2804	20-22 AWG.
2	TERMINAL	CON-2805	16-18 AWG
1	BLOCKING PINS	CON-1044	BLUE
1	SEAL	CON-3309	LT.GREEN
1	CONDUIT CLIP	CON-2008	
1	TPA	CON-2003	GRY

QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON-1071	F/M
2	PIN	CON-1088	
1	SEAL	CON-1093	GRN
1	LOCK	CON-1072	

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-1070	M/F
2	TERMINALS	CON-1084	20 AWG
2	CABLE SEAL	CON-1093	GRN
1	TPA	CON-1072	GRY

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-1070	M/F
2	TERMINALS	CON-1084	20 AWG
2	CABLE SEAL	CON-1093	GRN
1	TPA	CON-1072	GRY

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-3416	
3	TERMINALS	CON-1038	
1	TPA	CON-3417	CREAM
3	CABLE SEALS	CON-1027	WHT

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2328	
3	TERMINALS	CON-2329	

QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON-4150	M
6	TERMINALS	CON-1011	F
6	CABLE SEALS	CON1004	

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-4151	F
4	TERMINALS	CON-1006	M
4	CABLE SEALS	CON-1004	

QTY	DESCRIPTION	PCS P/N	NOTES
1	IFM CABLE	DIS-7001	

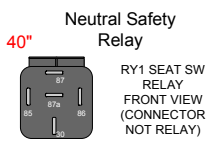
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-5542	GRY M/F
5	TERMINAL	CON-5504	
1	WEDGE	CON-5506	GRN

QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON-5001	F
2	TERMINALS	CON-5201	MALE
1	WEDGE	CON-5003	BLK WEDGE

QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON-5056	

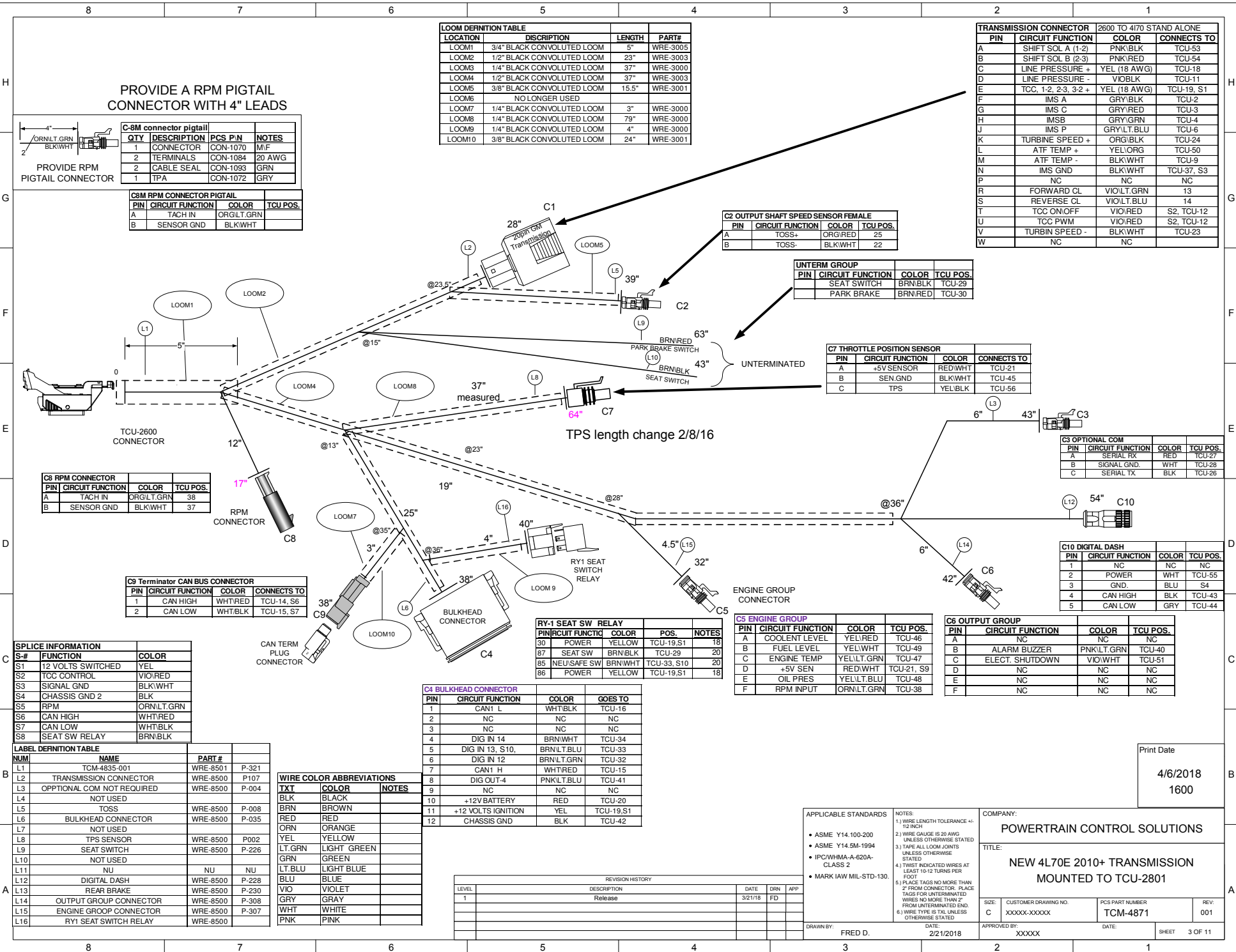
QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON-5542	GRY M/F
1	TPS KIT	TCM-6040	

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2502	BLACK
1	RELAY	CON-2500	
4	TERMINAL	CON-2503	

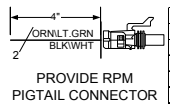


Neutral Safety Relay
RY1 SEAT SW RELAY FRONT VIEW (CONNECTOR NOT RELAY)

PROVIDE A RPM PIGTAIL CONNECTOR WITH 4" LEADS SEE PAGE 3



PROVIDE A RPM PIGTAIL CONNECTOR WITH 4" LEADS



QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-1070	M/F
2	TERMINALS	CON-1084	20 AWG
2	CABLE SEAL	CON-1093	GRN
1	TPA	CON-1072	GRY

LOCATION	DISCRPTION	LENGTH	PART#
LOOM1	3/4" BLACK CONVOLUTED LOOM	5"	WRE-3005
LOOM2	1/2" BLACK CONVOLUTED LOOM	23"	WRE-3003
LOOM3	1/4" BLACK CONVOLUTED LOOM	37"	WRE-3000
LOOM4	1/2" BLACK CONVOLUTED LOOM	37"	WRE-3003
LOOM5	3/8" BLACK CONVOLUTED LOOM	15.5"	WRE-3001
LOOM6	NOLONGER USED		
LOOM7	1/4" BLACK CONVOLUTED LOOM	3"	WRE-3000
LOOM8	1/4" BLACK CONVOLUTED LOOM	79"	WRE-3000
LOOM9	1/4" BLACK CONVOLUTED LOOM	4"	WRE-3000
LOOM10	3/8" BLACK CONVOLUTED LOOM	24"	WRE-3001

PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
A	TACH IN	ORGLT.GRN	
B	SENSOR GND	BLK/WHT	

PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
A	TOSS+	ORGIRED	25
B	TOSS-	BLK/WHT	22

PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
	SEAT SWITCH	BRN/BLK	TCU-29
	PARK BRAKE	BRN/RED	TCU-30

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
A	+5V SENSOR	RED/WHT	TCU-21
B	SEN.GND	BLK/WHT	TCU-45
C	TPS	YEL/BLK	TCU-56

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
A	SHIFT SOL A (1-2)	PNK/BLK	TCU-53
B	SHIFT SOL B (2-3)	PNK/RED	TCU-54
C	LINE PRESSURE +	YEL (18 AWG)	TCU-18
D	LINE PRESSURE -	VOBLK	TCU-11
E	TCC, 1-2, 2-3, 3-2 +	YEL (18 AWG)	TCU-19, S1
F	IMS A	GRY/BLK	TCU-2
G	IMS C	GRY/RED	TCU-3
H	IMS B	GRY/GRN	TCU-4
J	IMS P	GRY/LT.BLU	TCU-6
K	TURBINE SPEED +	ORGI/BLK	TCU-24
L	ATF TEMP +	YEL/ORG	TCU-50
M	ATF TEMP -	BLK/WHT	TCU-9
N	IMS GND	BLK/WHT	TCU-37, S3
P	NC	NC	NC
R	FORWARD CL	VIOLT.GRN	13
S	REVERSE CL	VIOLT.BLU	14
T	TCC ON/OFF	VIOR/RED	S2, TCU-12
U	TCC PWM	VIOR/RED	S2, TCU-12
V	TURBIN SPEED -	BLK/WHT	TCU-23
W	NC	NC	NC

PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
A	TACH IN	ORGLT.GRN	38
B	SENSOR GND	BLK/WHT	37

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	CAN HIGH	WHT/RED	TCU-14, S6
2	CAN LOW	WHT/BLK	TCU-15, S7

S-#	FUNCTION	COLOR
S1	12 VOLTS SWITCHED	YEL
S2	TCC CONTROL	VIOR/RED
S3	SIGNAL GND	BLK/WHT
S4	CHASSIS GND 2	BLK
S5	RPM	ORN/LT.GRN
S6	CAN HIGH	WHT/RED
S7	CAN LOW	WHT/BLK
S8	SEAT SW RELAY	BRN/BLK

NUM	NAME	PART #
L1	TCM-4835-001	WRE-8501 P-321
L2	TRANSMISSION CONNECTOR	WRE-8500 P107
L3	OPTIONAL COM NOT REQUIRED	WRE-8500 P-004
L4	NOT USED	
L5	TOSS	WRE-8500 P-008
L6	BULKHEAD CONNECTOR	WRE-8500 P-035
L7	NOT USED	
L8	TPS SENSOR	WRE-8500 P002
L9	SEAT SWITCH	WRE-8500 P-226
L10	NOT USED	
L11	NU	NU NU
L12	DIGITAL DASH	WRE-8500 P-228
L13	REAR BRAKE	WRE-8500 P-230
L14	OUTPUT GROUP CONNECTOR	WRE-8500 P-308
L15	ENGINE GROUP CONNECTOR	WRE-8500 P-307
L16	RY1 SEAT SWITCH RELAY	WRE-8500

TXI	COLOR	NOTES
BLK	BLACK	
BRN	BROWN	
RED	RED	
ORN	ORANGE	
YEL	YELLOW	
LT.GRN	LIGHT GREEN	
GRN	GREEN	
LT.BLU	LIGHT BLUE	
BLU	BLUE	
VIO	VIOLET	
GRY	GRAY	
WHT	WHITE	
PNK	PINK	

PIN	CIRCUIT FUNCTION	COLOR	GOES TO
1	CAN1 L	WHT/BLK	TCU-16
2	NC	NC	NC
3	NC	NC	NC
4	DIG IN 14	BRN/WHT	TCU-34
5	DIG IN 13, S10,	BRN/LT.BLU	TCU-33
6	DIG IN 12	BRN/LT.GRN	TCU-32
7	CAN1 H	WHT/RED	TCU-15
8	DIG OUT-4	PNK/LT.BLU	TCU-41
9	NC	NC	NC
10	+12V BATTERY	RED	TCU-20
11	+12 VOLTS IGNITION	YEL	TCU-19,S1
12	CHASSIS GND	BLK	TCU-42

PIN	CIRCUIT FUNCTIC	COLOR	POS.	NOTES
30	POWER	YELLOW	TCU-19,S1	18
87	SEAT SW	BRN/BLK	TCU-29	20
85	NEUSAFE SW	BRN/WHT	TCU-33, S10	20
86	POWER	YELLOW	TCU-19,S1	18

LEVEL	DESCRIPTION	DATE	DRN	APP
1	Release	3/21/18	FD	

APPLICABLE STANDARDS
 • ASME Y14.100-200
 • ASME Y14.5M-1994
 • IPC/WHMA-A-620A-CLASS 2
 • MARK IAW MIL-STD-130.

NOTES:
 1.) WIRE LENGTH TOLERANCE +/- .12 INCH
 2.) WIRE GAUGE IS 20 AWG UNLESS OTHERWISE STATED
 3.) TAPE ALL LOOM JOINTS UNLESS OTHERWISE STATED
 4.) TWIST INDICATED WIRES AT LEAST 10-12 TURNS PER FOOT
 5.) PLACE TAGS NO MORE THAN 2" FROM CONNECTOR. PLACE TAGS FOR UNTERMINATED WIRES NO MORE THAN 2" FROM UNTERMINATED END.
 6.) WIRE TYPE IS TXL UNLESS OTHERWISE STATED

COMPANY:
POWERTRAIN CONTROL SOLUTIONS

TITLE:
NEW 4L70E 2010+ TRANSMISSION MOUNTED TO TCU-2801

SIZE: CUSTOMER DRAWING NO. PCS PART NUMBER
 C XXXXX-XXXXX TCM-4871

DATE: 2/21/2018

APPROVED BY: XXXXX

REVISION HISTORY

Print Date
4/6/2018
1600

SHEET 3 OF 11