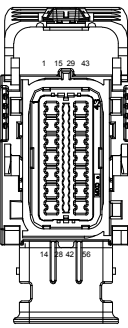
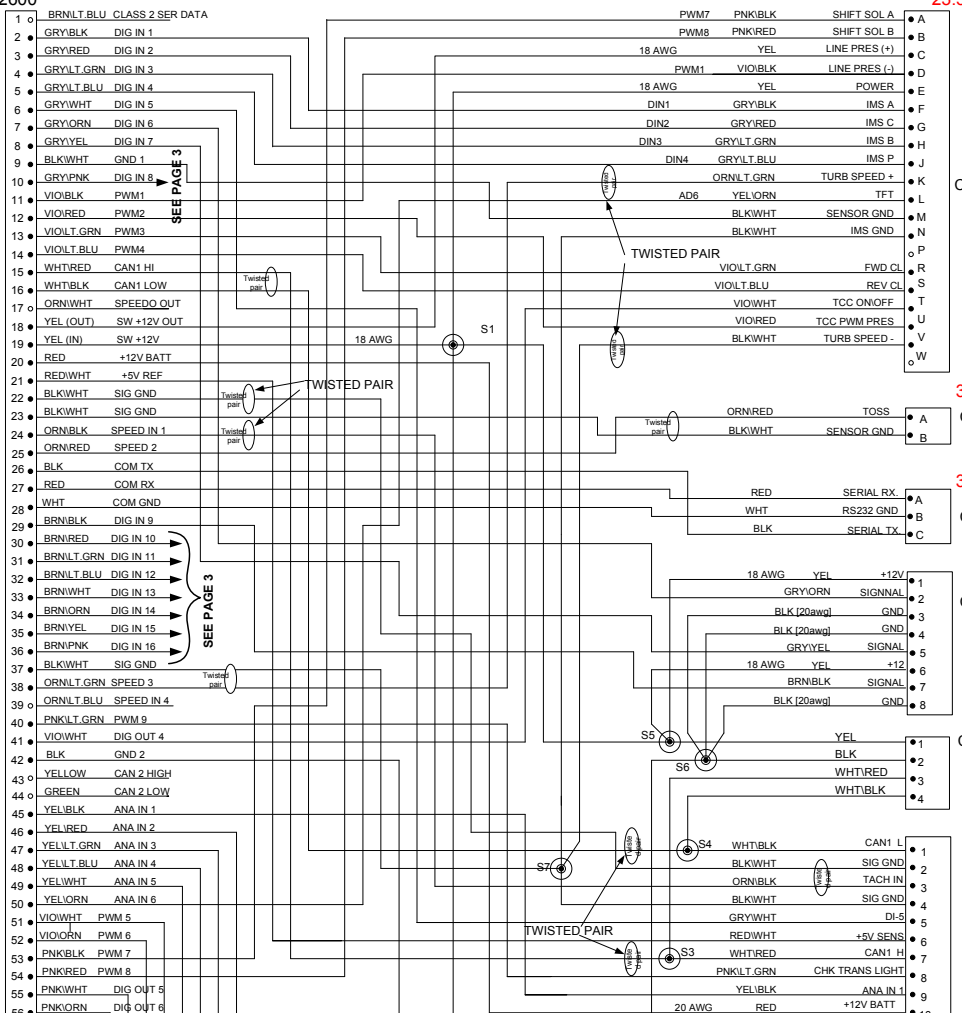


TCM-2600



TCU-2600

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-1202	M/F
34	TERMINALS	CON-1205	
1	CONNECTOR COVER	CON-1203	
22	CAVITY PLUG	CON-1204	

SPLICE INFORMATION

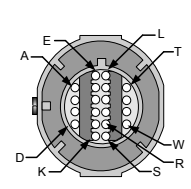
S#	FUNCTION	COLOR
S1	12 VOLTS SWITCHED	YELLOW
S2	GROUND	BLACK
S3	CAN HIGH	WHT/RED
S4	CAN LOW	WHT/BLK
S5	12 VOLTS SWITCHED	YELLOW
S6	GROUND	BLACK
S7	SIGNAL GND	BLK/WHT

WIRE COLOR ABBREVIATIONS

TX	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	

REVISION HISTORY

LEVEL	DESCRIPTION	DATE	DRN	APP
1	Release	8/14/16	FD	
1A	ADD CT	11/2/16	FD	
2	EXTRA I/O CON CHANGE	1/30/17	FD	
2A	TCU-10 COLOR CHANGE	3/8/17	FD	
2B	CHANGE I/O CONNECTOR	3/8/17	FD	



C-1 TRANSMISSION CONNECTOR FRONT VIEW

C-1 TRANSMISSION CONNECTOR

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



C-2 OUTPUT SHAFT SPEED SENSOR FRONT VIEW

C-2 OUTPUT SHAFT SPEED SENSOR FEMALE

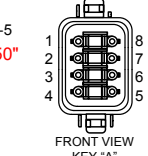
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-1070	
2	TERMINALS	CON-1084	20 AWG
2	CABLE SEAL	CON-1093	GRN
1	TPA	CON-1072	GRY



C-3 OPTIONAL COM NOT REQUIRED FOR USE FRONT VIEW

C-3 OPTIONAL COM NOT REQUIRED FOR USE

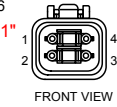
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-3416	M/F
3	TERMINALS	CON-1038	
1	TPA	CON-3417	CREAM
3	CABLE SEALS	CON-1027	WHT



C-5 SENSOR INTERFACE FRONT VIEW KEY 'A'

C-5 SENSOR INTERFACE CONNECTOR

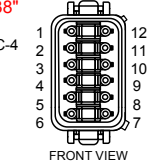
QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON-5532	M/F DT06-08SA
8	TERMINALS	CON-5400	
1	WEDGE	CON-5533	M/F



C-6 POWER AND CAN FRONT VIEW

C-6 POWER AND CAN CONNECTOR

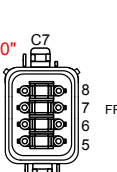
QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	M/F CON-5540	5538 MATE
4	TERMINALS	CON-5400	4 pin
1	WEDGE LOCK	CON-5541	TBD



C-4 BULKHEAD CONNECTOR FRONT VIEW

C-4 BULKHEAD CONNECTOR

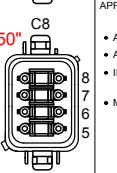
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-5542	M/F
12	TERMINALS	CON-5400	
1	WEDGE	CON-5508	GRN



C-7 SENSOR INTERFACE FRONT VIEW KEY 'B'

C-7 SENSOR INTERFACE CONNECTOR

QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON-5545	M/F DT06-08SB
8	TERMINALS	CON-5400	
1	WEDGE	CON-5533	M/F



C-8 SENSOR INTERFACE FRONT VIEW KEY 'C'

C-8 SENSOR INTERFACE CONNECTOR

QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON-5546	M/F DT06-08SC
8	TERMINALS	CON-5400	
1	WEDGE	CON-5533	M/F

PROVIDE A LAPTOP CALIBRATION CONNECT PROTECTIVE CAP

C-3 LAPTOP CALIBRATION CONNECT CAP

QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON-3415	
3	CAVITY PLUG	CON-1021	PK/RED
1	SECONDARY LOCK	CON-3417	

Print Date
5/12/17
1700

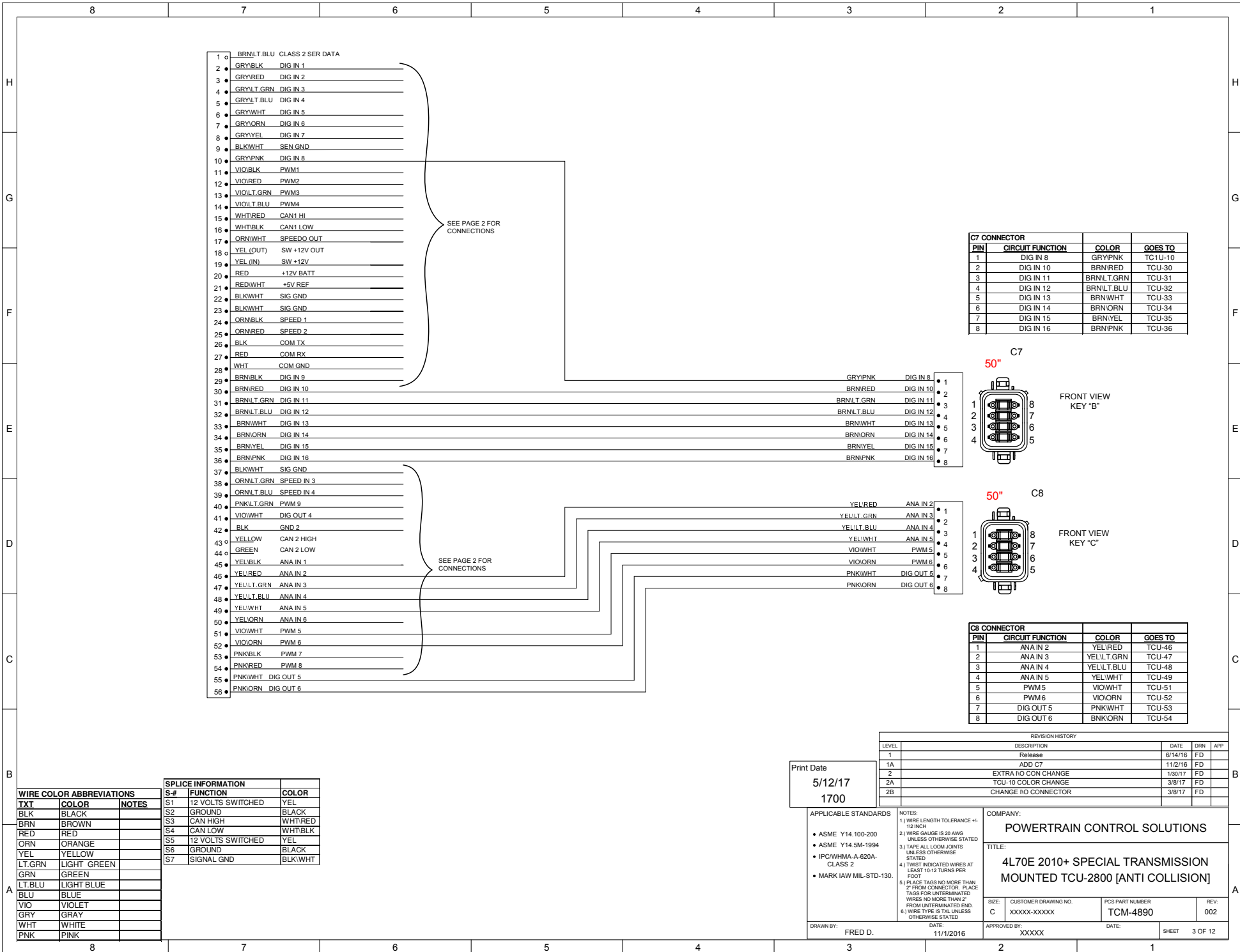
APPLICABLE STANDARDS
 • ASME Y14.100-200
 • ASME Y14.5M-1994
 • IPC/WHMA-A-620A-CLASS 2
 • MARK IAW MIL-STD-130.

NOTES:
 1.) WIRE LENGTH TOLERANCE +/- .12 INCH
 2.) WIRE GAUGE IS 20 AWG UNLESS OTHERWISE STATED
 3.) TAP 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 TX UNLESS OTHERWISE STATED

COMPANY:
POWERTRAIN CONTROL SOLUTIONS

TITLE:
4L70E 2010+ SPECIAL TRANSMISSION MOUNTED TCU-2800 [ANTI COLLISION]

SIZE: C CUSTOMER DRAWING NO: XXXXX-XXXXX PCS PART NUMBER: TCM-4890
 DATE: 11/1/2016 APPROVED BY: XXXXX DATE: SHEET 2 OF 12



- 1 BRN/BLU CLASS 2 SER DATA
- 2 GRV/BLK DIG IN 1
- 3 GRV/RED DIG IN 2
- 4 GRV/LT.GRN DIG IN 3
- 5 GRV/LT.BLU DIG IN 4
- 6 GRV/WHT DIG IN 5
- 7 GRV/ORN DIG IN 6
- 8 GRV/YEL DIG IN 7
- 9 BLK/WHT SEN GND
- 10 GRV/PNK DIG IN 8
- 11 VIO/BLK PWM1
- 12 VIO/RED PWM2
- 13 VIO/LT.GRN PWM3
- 14 VIO/LT.BLU PWM4
- 15 WHT/RED CAN1 HI
- 16 WHT/BLK CAN1 LOW
- 17 ORN/WHT SPEEDO OUT
- 18 YEL (OUT) SW +12V OUT
- 19 YEL (IN) SW +12V
- 20 RED +12V BATT
- 21 RED/WHT +5V REF
- 22 BLK/WHT SIG GND
- 23 BLK/WHT SIG GND
- 24 ORN/BLK SPEED 1
- 25 ORN/RED SPEED 2
- 26 BLK COM TX
- 27 RED COM RX
- 28 WHT COM GND
- 29 BRN/BLK DIG IN 9
- 30 BRN/RED DIG IN 10
- 31 BRN/LT.GRN DIG IN 11
- 32 BRN/LT.BLU DIG IN 12
- 33 BRN/WHT DIG IN 13
- 34 BRN/ORN DIG IN 14
- 35 BRN/YEL DIG IN 15
- 36 BRN/PNK DIG IN 16
- 37 BLK/WHT SIG GND
- 38 ORN/LT.GRN SPEED IN 3
- 39 ORN/LT.BLU SPEED IN 4
- 40 PNK/LT.GRN PWM 9
- 41 VIO/WHT DIG OUT 4
- 42 BLK GND 2
- 43 YELLOW CAN 2 HIGH
- 44 GREEN CAN 2 LOW
- 45 YEL/BLK ANA IN 1
- 46 YEL/RED ANA IN 2
- 47 YEL/LT.GRN ANA IN 3
- 48 YEL/LT.BLU ANA IN 4
- 49 YEL/WHT ANA IN 5
- 50 YEL/ORN ANA IN 6
- 51 VIO/WHT PWM 5
- 52 VIO/ORN PWM 6
- 53 PNK/BLK PWM 7
- 54 PNK/RED PWM 8
- 55 PNK/WHT DIG OUT 5
- 56 PNK/ORN DIG OUT 6

SEE PAGE 2 FOR CONNECTIONS

SEE PAGE 2 FOR CONNECTIONS

- 1 GRV/PNK DIG IN 8
- 2 BRN/RED DIG IN 10
- 3 BRN/LT.GRN DIG IN 11
- 4 BRN/LT.BLU DIG IN 12
- 5 BRN/WHT DIG IN 13
- 6 BRN/ORN DIG IN 14
- 7 BRN/YEL DIG IN 15
- 8 BRN/PNK DIG IN 16

- 1 YEL/RED ANA IN 2
- 2 YEL/LT.GRN ANA IN 3
- 3 YEL/LT.BLU ANA IN 4
- 4 YEL/WHT ANA IN 5
- 5 VIO/WHT PWM 5
- 6 VIO/ORN PWM 6
- 7 PNK/WHT DIG OUT 5
- 8 PNK/ORN DIG OUT 6

C7 CONNECTOR			
PIN	CIRCUIT FUNCTION	COLOR	GOES TO
1	DIG IN 8	GRV/PNK	TCU-10
2	DIG IN 10	BRN/RED	TCU-30
3	DIG IN 11	BRN/LT.GRN	TCU-31
4	DIG IN 12	BRN/LT.BLU	TCU-32
5	DIG IN 13	BRN/WHT	TCU-33
6	DIG IN 14	BRN/ORN	TCU-34
7	DIG IN 15	BRN/YEL	TCU-35
8	DIG IN 16	BRN/PNK	TCU-36

C8 CONNECTOR			
PIN	CIRCUIT FUNCTION	COLOR	GOES TO
1	ANA IN 2	YEL/RED	TCU-46
2	ANA IN 3	YEL/LT.GRN	TCU-47
3	ANA IN 4	YEL/LT.BLU	TCU-48
4	ANA IN 5	YEL/WHT	TCU-49
5	PWM 5	VIO/WHT	TCU-51
6	PWM 6	VIO/ORN	TCU-52
7	DIG OUT 5	PNK/WHT	TCU-53
8	DIG OUT 6	BNK/ORN	TCU-54

C8 CONNECTOR			
PIN	CIRCUIT FUNCTION	COLOR	GOES TO
1	ANA IN 2	YEL/RED	TCU-46
2	ANA IN 3	YEL/LT.GRN	TCU-47
3	ANA IN 4	YEL/LT.BLU	TCU-48
4	ANA IN 5	YEL/WHT	TCU-49
5	PWM 5	VIO/WHT	TCU-51
6	PWM 6	VIO/ORN	TCU-52
7	DIG OUT 5	PNK/WHT	TCU-53
8	DIG OUT 6	BNK/ORN	TCU-54

REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	Release	6/14/16	FD	
1A	ADD C7	11/2/16	FD	
2	EXTRA I/O CON CHANGE	1/20/17	FD	
2A	TCU-10 COLOR CHANGE	3/8/17	FD	
2B	CHANGE I/O CONNECTOR	3/8/17	FD	

Print Date
5/12/17
1700

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 UNTERMINATED END.
- 6.) WIRE TYPE IS TX UNLESS OTHERWISE STATED

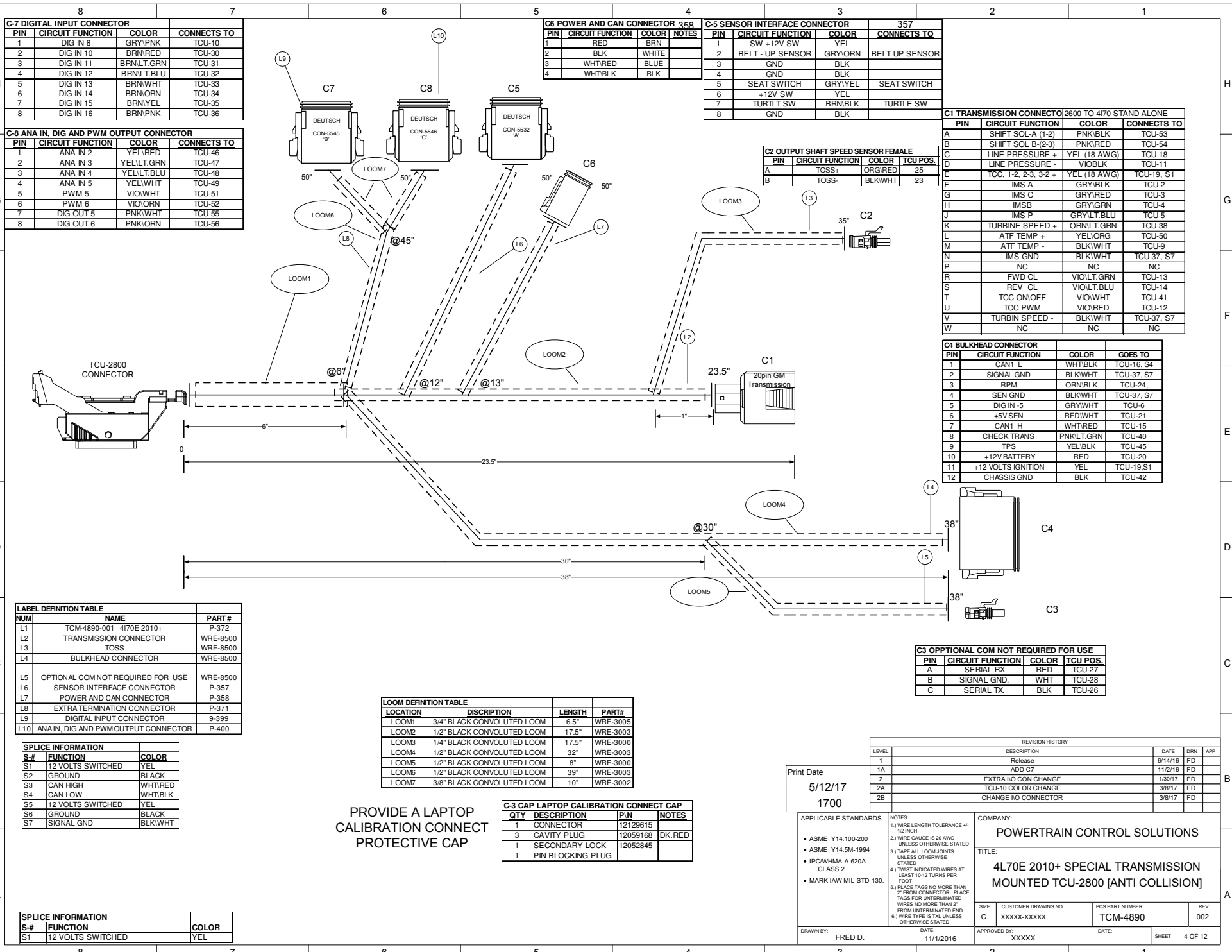
COMPANY:
POWERTRAIN CONTROL SOLUTIONS

TITLE:
4L70E 2010+ SPECIAL TRANSMISSION MOUNTED TCU-2800 [ANTI COLLISION]

SIZE: C CUSTOMER DRAWING NO. XXXXX-XXXXX PCS PART NUMBER TCM-4890 REV: 002

DRAWN BY: FRED D. DATE: 11/1/2016 APPROVED BY: XXXXX DATE: SHEET 3 OF 12

WIRE COLOR ABBREVIATIONS	SPLICE INFORMATION		
TXI	S#	FUNCTION	COLOR
BLK	S1	12 VOLTS SWITCHED	YEL
BLK	S2	GROUND	BLACK
BRN	S3	CAN HIGH	WHT/RED
RED	S4	CAN LOW	WHT/BLK
ORN	S5	12 VOLTS SWITCHED	YEL
YEL	S6	GROUND	BLACK
LT.GRN	S7	SIGNAL GND	BLK/WHT
GRN			
LT.BLU			
BLU			
VIO			
GRY			
WHT			
PNK			



C-7 DIGITAL INPUT CONNECTOR			
PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	DIG IN 8	GRY/PNK	TCU-10
2	DIG IN 10	BRN/RED	TCU-30
3	DIG IN 11	BRN/LT.GRN	TCU-31
4	DIG IN 12	BRN/LT.BLU	TCU-32
5	DIG IN 13	BRN/WHT	TCU-33
6	DIG IN 14	BRN/ORN	TCU-34
7	DIG IN 15	BRN/YEL	TCU-35
8	DIG IN 16	BRN/PNK	TCU-36

C-8 ANA IN, DIG AND PWM OUTPUT CONNECTOR			
PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	ANA IN 2	YEL/RED	TCU-46
2	ANA IN 3	YEL/LT.GRN	TCU-47
3	ANA IN 4	YEL/LT.BLU	TCU-48
4	ANA IN 5	YEL/WHT	TCU-49
5	PWM 5	VIO/WHT	TCU-51
6	PWM 6	VIO/ORN	TCU-52
7	DIG OUT 5	PNK/WHT	TCU-55
8	DIG OUT 6	PNK/ORN	TCU-56

C6 POWER AND CAN CONNECTOR 358			
PIN	CIRCUIT FUNCTION	COLOR	NOTES
1	RED	BRN	
2	BLK	WHITE	
3	WHT/RED	BLU	
4	WHT/BLK	BLK	

C-5 SENSOR INTERFACE CONNECTOR 357			
PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	SW +12V SW	YEL	
2	BELT -UP SENSOR	GRY/ORN	BELT UP SENSOR
3	GND	BLK	
4	GND	BLK	
5	SEAT SWITCH	GRY/YEL	SEAT SWITCH
6	+12V SW	YEL	
7	TURTLE SW	BRN/BLK	TURTLE SW
8	GND	BLK	

C1 TRANSMISSION CONNECTOR 2600 TO 4170 STAND ALONE			
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 -	VIO/BLK	TCU-11
E	TCC, T-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-5
K	TURBINE SPEED +	ORN/LT.GRN	TCU-38
L	ATF TEMP +	YEL/ORG	TCU-50
M	ATF TEMP -	BLK/WHT	TCU-9
N	IMS GND	BLK/WHT	TCU-37, S7
P	NC	NC	NC
R	FWD CL	VIO/LT.GRN	TCU-13
S	REV CL	VIO/LT.BLU	TCU-14
T	TCC ON/OFF	VIO/WHT	TCU-41
U	TCC PWM	VIO/RED	TCU-12
V	TURBIN SPEED -	BLK/WHT	TCU-37, S7
W	NC	NC	NC

C4 BULKHEAD CONNECTOR			
PIN	CIRCUIT FUNCTION	COLOR	GOES TO
1	CAN1 L	WHT/BLK	TCU-16, S4
2	SIGNAL GND	BLK/WHT	TCU-37, S7
3	RPM	ORN/BLK	TCU-24,
4	SEN GND	BLK/WHT	TCU-37, S7
5	DIG IN -5	GRY/WHT	TCU-6
6	+5V SEN	RED/WHT	TCU-21
7	CAN1 H	WHT/RED	TCU-15
8	CHECK TRANS	PNK/LT.GRN	TCU-40
9	TPS	YEL/BLK	TCU-45
10	+12V BATTERY	RED	TCU-20
11	+12 VOLTS IGNITION	YEL	TCU-19,S1
12	CHASSIS GND	BLK	TCU-42

C3 OPPTIONAL COM NOT REQUIRED FOR USE			
PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
A	SERIAL RX	RED	TCU-27
B	SIGNAL GND.	WHT	TCU-28
C	SERIAL TX	BLK	TCU-26

LABEL DEFINITION TABLE		
NUM	NAME	PART #
L1	TCM-4890-001 4170E 2010+	P-372
L2	TRANSMISSION CONNECTOR	WRE-8500
L3	TOSS	WRE-8500
L4	BULKHEAD CONNECTOR	WRE-8500
L5	OPTIONAL COM NOT REQUIRED FOR USE	WRE-8500
L6	SENSOR INTERFACE CONNECTOR	P-357
L7	POWER AND CAN CONNECTOR	P-358
L8	EXTRA TERMINATION CONNECTOR	P-371
L9	DIGITAL INPUT CONNECTOR	9-399
L10	ANA IN, DIG AND PWM OUTPUT CONNECTOR	P-400

LOOM DEFINITION TABLE			
LOCATION	DISCRPTION	LENGTH	PART#
LOOM1	3/4" BLACK CONVOLUTED LOOM	6.5"	WRE-3005
LOOM2	1/2" BLACK CONVOLUTED LOOM	17.5"	WRE-3003
LOOM3	1/4" BLACK CONVOLUTED LOOM	17.5"	WRE-3000
LOOM4	1/2" BLACK CONVOLUTED LOOM	32"	WRE-3003
LOOM5	1/2" BLACK CONVOLUTED LOOM	8"	WRE-3000
LOOM6	1/2" BLACK CONVOLUTED LOOM	39"	WRE-3003
LOOM7	3/8" BLACK CONVOLUTED LOOM	10"	WRE-3002

C-3 CAP LAPTOP CALIBRATION CONNECT CAP			
QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	12129615	
3	CAVITY PLUG	12059168	DK.RED
1	SECONDARY LOCK	12052845	
1	PIN BLOCKING PLUG		

PROVIDE A LAPTOP CALIBRATION CONNECT PROTECTIVE CAP

SPLICE INFORMATION		
S-#	FUNCTION	COLOR
S1	12 VOLTS SWITCHED	BLACK
S2	GROUND	YELLOW
S3	CAN HIGH	WHT/RED
S4	CAN LOW	WHT/BLK
S5	12 VOLTS SWITCHED	YELLOW
S6	GROUND	BLACK
S7	SIGNAL GND	BLK/WHT

SPLICE INFORMATION		
S-#	FUNCTION	COLOR
S1	12 VOLTS SWITCHED	YEL

REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	Release	6/14/16	FD	
1A	ADD C7	11/2/16	FD	
2A	EXTRA I/O CON CHANGE	1/30/17	FD	
2B	TCU-10 COLOR CHANGE	3/8/17	FD	
2B	CHANGE I/O CONNECTOR	3/8/17	FD	

Print Date
5/12/17
1700

- 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 +/- 1/2 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:
4L70E 2010+ SPECIAL TRANSMISSION MOUNTED TCU-2800 [ANTI COLLISION]

SIZE: C	CUSTOMER DRAWING NO. XXXXXX-XXXXX	PCS PART NUMBER TCM-4890	REV: 002
DRAWN BY: FRED D.	DATE: 11/1/2016	APPROVED BY: XXXXX	DATE: SHEET 4 OF 12