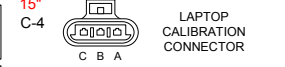
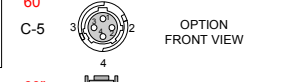
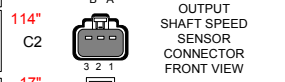
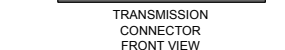
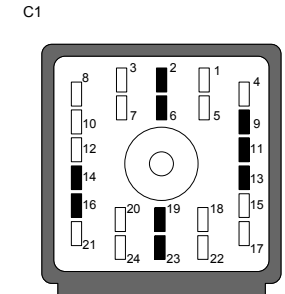
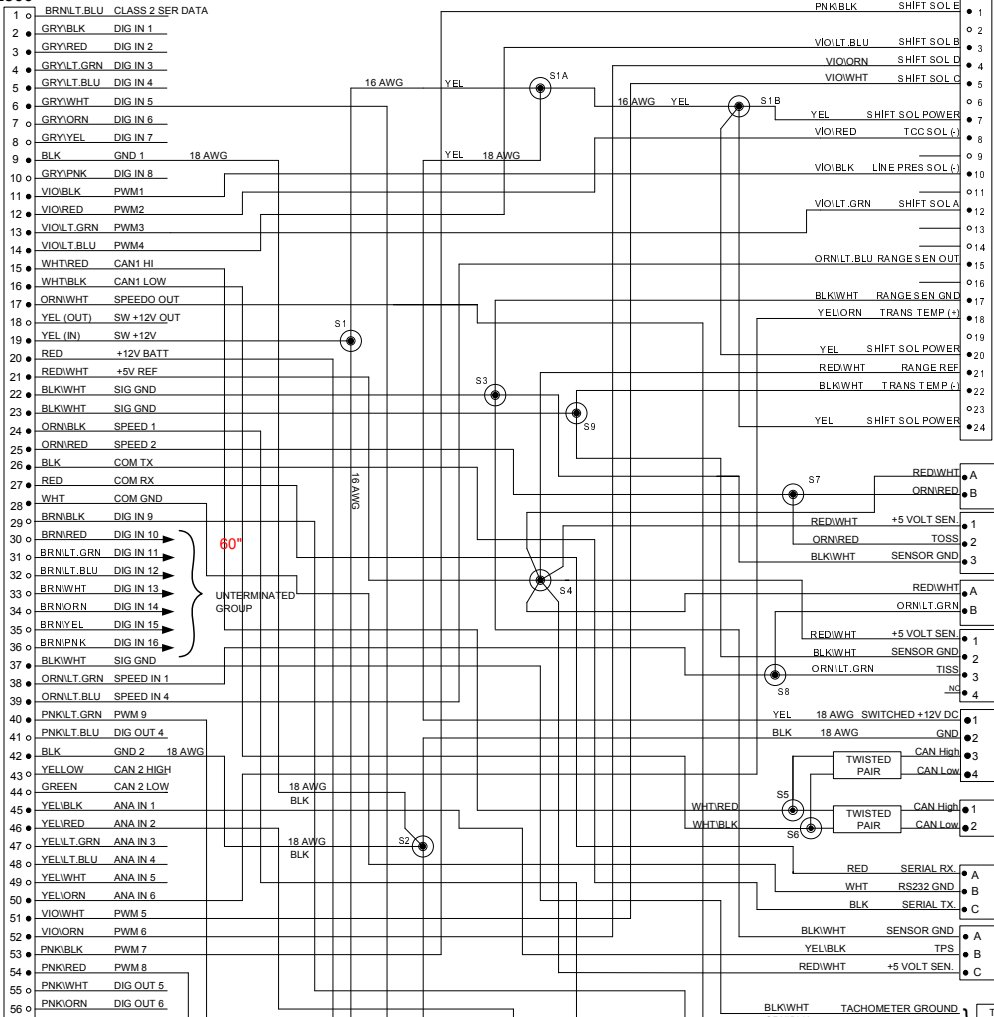


REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	RELEASE	10/20/16	FD	
1A	TCU-40, TCU-53 wire color and name corrections	9/23/17	FD	
2	IPC CHANGES	4/25/18	FD	
3	TEXT UPDATE	1/2/20	FD	

TCM-2800



QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2138	
15	TERMINALS	CON-2140	
1	CONNECTOR COVER	CON-2139	

QTY	DESCRIPTION	PCS P/N	NOTES
2	MOLDED RESISTOR	CON-1079	
2	ATTACH CLIP	WRE-8550	

QTY	DESCRIPTION	PCS P/N	NOTES
2	CONNECTOR	CON-1077	
4	TERMINAL	CON-1082	
2	TPA	CON-1087	
4	CABLE SEALS	CON-1090	

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2136	
3	TERMINALS	CON-2141	
3	CABLE SEALS	CON-2142	

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2137	
3	TERMINALS	CON-2141	
3	CABLE SEALS	CON-2142	
1	CAVITY PLUG	CON-2145	

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-0065	
4	TERMINALS	CON-0051	

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-8050	
2	TERMINALS	CON-8200 (20-18gauge)	
1	WEDGE LOCK	CON-5100	ORN

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-3416	
3	TERMINALS	CON-1039	
1	TPA	CON-3417	CREAM
3	CABLE SEALS	CON-1027	WHT

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2302	
3	TERMINALS	CON-1006	
3	CABLE SEALS	CON-1004	VIO

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2307	
2	TERMINALS	CON-1011	20 AWG
2	CABLE SEALS	CON-1004	VIO
1	PLUG	CON-0999	GRN



QTY	DESCRIPTION	PCS P/N	NOTES
1	RING TERM.	CON-0350	

APPLICABLE STANDARDS

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

COMPANY: **POWERTRAIN CONTROL SOLUTIONS**

TITLE: **FORD 5R110 TO TCM2800 HARNESS**

SIZE	CUSTOMER DRAWING NO	PCS PART NUMBER	REV:
C		TCM-4819	003

F1	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2200	
1	FUSE CAP:	CON-2201	BLK
1	TPA	CON-2202	BLU
2	TERMINAL	CON-1020 (18-16 AWG)	2
1	FUSE	CON-2221	10A
2	CABLE SEAL	CON-1001	GRN

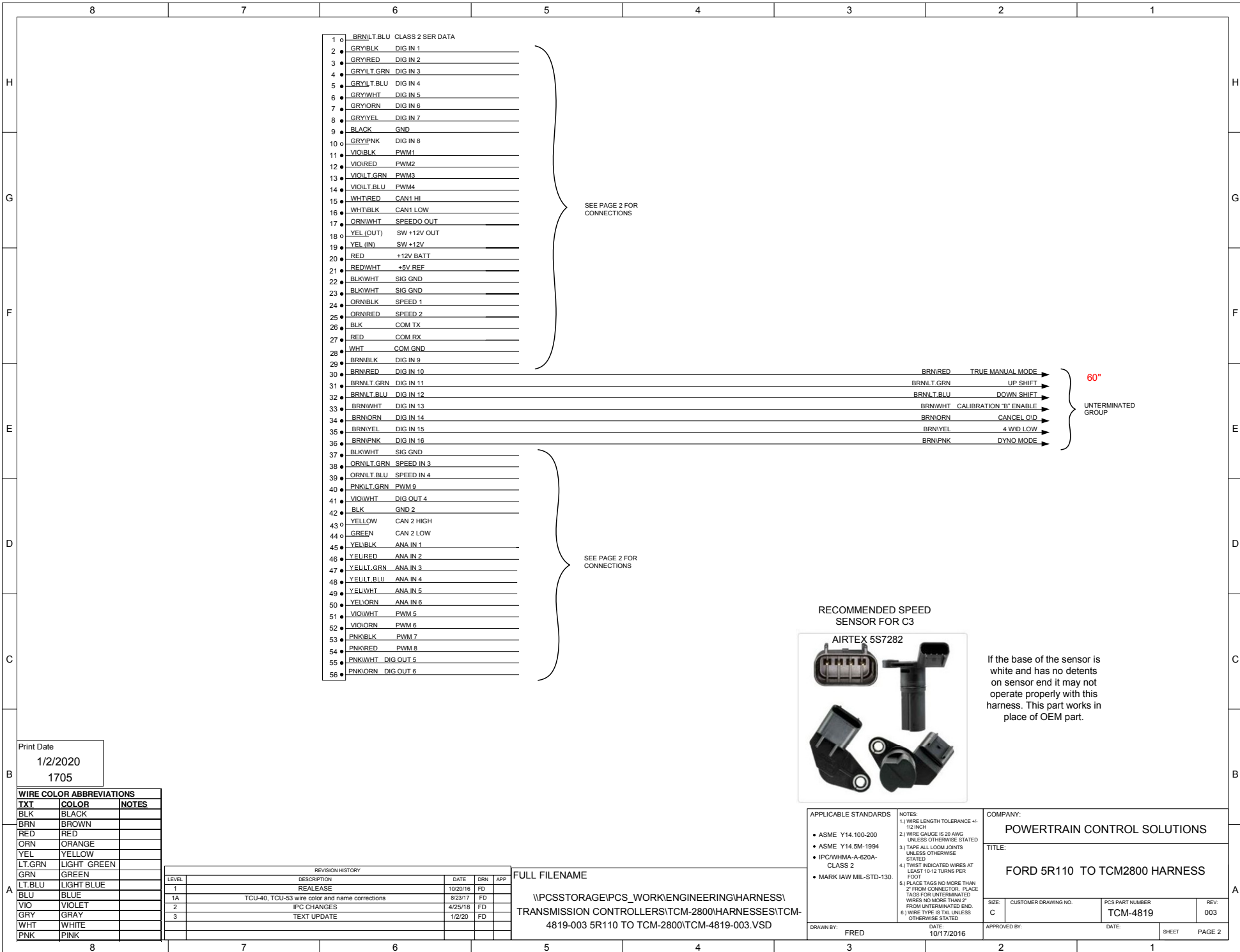
F2	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2200	
1	FUSE CAP:	CON-2201	BLK
1	TPA	CON-2202	BLU
2	TERMINAL	CON-1020 (18-16 AWG)	2
1	FUSE	CON-222X	3A
2	CABLE SEAL	CON-1001	GRN

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DRAWN BY: **FRED** DATE: **10/17/2016**

APPROVED BY: DATE: SHEET **1** PAGE **1**



- 1 0 BRNLT.BLU CLASS 2 SER DATA
- 2 0 GRYBLK DIG IN 1
- 3 0 GRYRED DIG IN 2
- 4 0 GRYLT.GRN DIG IN 3
- 5 0 GRYLT.BLU DIG IN 4
- 6 0 GRYWHT DIG IN 5
- 7 0 GRYORN DIG IN 6
- 8 0 GRYYEL DIG IN 7
- 9 0 BLACK GND
- 10 0 GRYPNK DIG IN 8
- 11 0 VIOBLK PWM1
- 12 0 VIORED PWM2
- 13 0 VIOILT.GRN PWM3
- 14 0 VIOILT.BLU PWM4
- 15 0 WHTRED CAN1 HI
- 16 0 WHTBLK CAN1 LOW
- 17 0 ORNWHT SPEEDO OUT
- 18 0 YEL (OUT) SW +12V OUT
- 19 0 YEL (IN) SW +12V
- 20 0 RED +12V BATT
- 21 0 REDWHT +5V REF
- 22 0 BLKWHT SIG GND
- 23 0 BLKWHT SIG GND
- 24 0 ORNBLK SPEED 1
- 25 0 ORNRED SPEED 2
- 26 0 BLK COM TX
- 27 0 RED COM RX
- 28 0 WHT COM GND
- 29 0 BRNBLK DIG IN 9
- 30 0 BRNRED DIG IN 10
- 31 0 BRNLT.GRN DIG IN 11
- 32 0 BRNLT.BLU DIG IN 12
- 33 0 BRNWHT DIG IN 13
- 34 0 BRNORN DIG IN 14
- 35 0 BRNYEL DIG IN 15
- 36 0 BRNPNK DIG IN 16
- 37 0 BLKWHT SIG GND
- 38 0 ORNLT.GRN SPEED IN 3
- 39 0 ORNLT.BLU SPEED IN 4
- 40 0 PNKLT.GRN PWM 9
- 41 0 VIOWHT DIG OUT 4
- 42 0 BLK GND 2
- 43 0 YELLOW CAN 2 HIGH
- 44 0 GREEN CAN 2 LOW
- 45 0 YELBLK ANA IN 1
- 46 0 YELRED ANA IN 2
- 47 0 YELLT.GRN ANA IN 3
- 48 0 YELLT.BLU ANA IN 4
- 49 0 YELWHT ANA IN 5
- 50 0 YELORN ANA IN 6
- 51 0 VIOWHT PWM 5
- 52 0 VIOORN PWM 6
- 53 0 PNKBLK PWM 7
- 54 0 PNKRED PWM 8
- 55 0 PNKWHT DIG OUT 5
- 56 0 PNKIORN DIG OUT 6

SEE PAGE 2 FOR CONNECTIONS

SEE PAGE 2 FOR CONNECTIONS

- BRNRED TRUE MANUAL MODE
- BRNLT.GRN UP SHIFT
- BRNLT.BLU DOWN SHIFT
- BRNWHT CALIBRATION 'B' ENABLE
- BRNORN CANCEL O/D
- BRNYEL 4 W/D LOW
- BRNPNK DYN0 MODE

60°

UNTERMINATED GROUP

RECOMMENDED SPEED SENSOR FOR C3



If the base of the sensor is white and has no detents on sensor end it may not operate properly with this harness. This part works in place of OEM part.

Print Date
1/2/2020
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WIRE COLOR ABBREVIATIONS		
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	

REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	RELEASE	10/20/16	FD	
1A	TCU-40, TCU-53 wire color and name corrections	9/23/17	FD	
2	IPC CHANGES	4/25/18	FD	
3	TEXT UPDATE	1/2/20	FD	

FULL FILENAME
 \\PCSSORAGE\PCS_WORK\ENGINEERING\HARNESSES\TRANSMISSION CONTROLLERS\TCM-2800\HARNESSES\TCM-4819-003 5R110 TO TCM-2800\TCM-4819-003.VSD

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

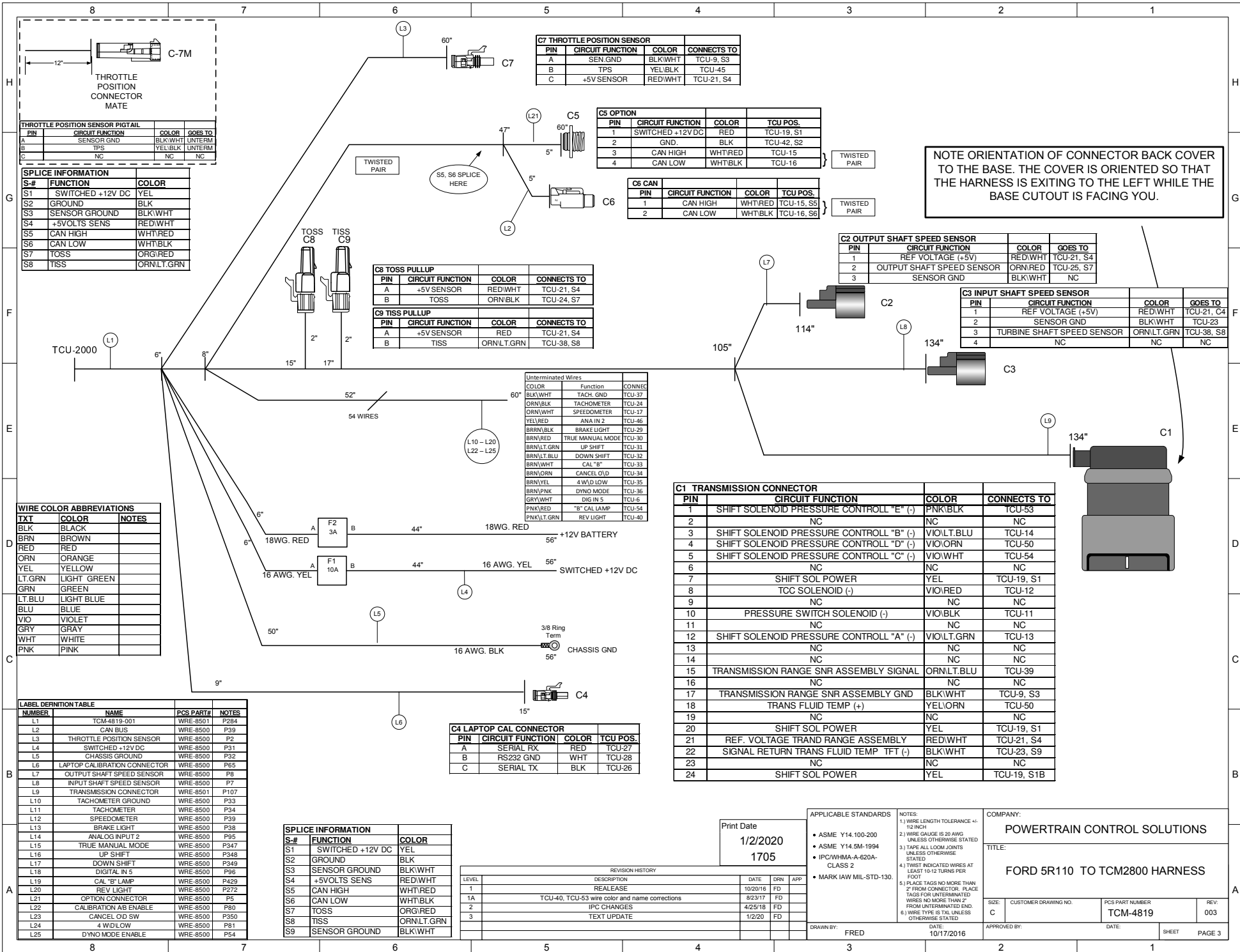
DRAWN BY: FRED
DATE: 10/17/2016

COMPANY:
POWERTRAIN CONTROL SOLUTIONS

TITLE:
FORD 5R110 TO TCM2800 HARNESS

SIZE: C	CUSTOMER DRAWING NO:	PCS PART NUMBER: TCM-4819	REV: 003
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APPROVED BY: DATE: SHEET PAGE 2



C7 THROTTLE POSITION SENSOR				
PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO	
A	SEN.GND	BLK/WHT	TCU-9, S3	
B	TPS	YEL/BLK	TCU-45	
C	+5V SENSOR	RED/WHT	TCU-21, S4	

C5 OPTION				
PIN	CIRCUIT FUNCTION	COLOR	TCU POS.	
1	SWITCHED +12V DC	RED	TCU-19, S1	
2	GND.	BLK	TCU-42, S2	
3	CAN HIGH	WHT/RED	TCU-15	
4	CAN LOW	WHT/BLK	TCU-16	

C6 CAN				
PIN	CIRCUIT FUNCTION	COLOR	TCU POS.	
1	CAN HIGH	WHT/RED	TCU-15, S5	
2	CAN LOW	WHT/BLK	TCU-16, S6	

C2 OUTPUT SHAFT SPEED SENSOR				
PIN	CIRCUIT FUNCTION	COLOR	GOES TO	
1	REF VOLTAGE (+5V)	RED/WHT	TCU-21, S4	
2	OUTPUT SHAFT SPEED SENSOR	ORN/RED	TCU-25, S7	
3	SENSOR GND	BLK/WHT	NC	

NOTE ORIENTATION OF CONNECTOR BACK COVER TO THE BASE. THE COVER IS ORIENTED SO THAT THE HARNESS IS EXITING TO THE LEFT WHILE THE BASE CUTOUT IS FACING YOU.

C3 INPUT SHAFT SPEED SENSOR				
PIN	CIRCUIT FUNCTION	COLOR	GOES TO	
1	REF VOLTAGE (+5V)	RED/WHT	TCU-21, C4	
2	SENSOR GND	BLK/WHT	TCU-23	
3	TURBINE SHAFT SPEED SENSOR	ORN/LT.GRN	TCU-38, S8	
4		NC	NC	

Color	Function	CONNECTS TO
BLK/WHT	TACH. GND	TCU-37
ORN/BLK	TACHOMETER	TCU-24
ORN/WHT	SPEEDOMETER	TCU-17
YEL/RED	ANA IN 2	TCU-46
BRN/BLK	BRAKE LIGHT	TCU-29
BRN/RED	TRUE MANUAL MODE	TCU-30
BRN/LT.GRN	UP SHIFT	TCU-31
BRN/LT.BLU	DOWN SHIFT	TCU-32
BRN/WHT	CAL "B"	TCU-33
BRN/ORN	CANCEL O/D	TCU-34
BRN/YEL	4WD LOW	TCU-35
BRN/PNK	DYNO MODE	TCU-36
GRY/WHT	DIG IN S	TCU-6
PNK/RED	"B" CAL LAMP	TCU-54
PNK/LT.GRN	REV LIGHT	TCU-40

C1 TRANSMISSION CONNECTOR				
PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO	
1	SHIFT SOLENOID PRESSURE CONTROL "E" (-)	PNK/BLK	TCU-53	
2	NC	NC	NC	
3	SHIFT SOLENOID PRESSURE CONTROL "B" (-)	VIO/LT.BLU	TCU-14	
4	SHIFT SOLENOID PRESSURE CONTROL "D" (-)	VIO/ORN	TCU-50	
5	SHIFT SOLENOID PRESSURE CONTROL "C" (-)	VIO/WHT	TCU-54	
6	NC	NC	NC	
7	SHIFT SOL POWER	YEL	TCU-19, S1	
8	TCC SOLENOID (-)	VIO/RED	TCU-12	
9	NC	NC	NC	
10	PRESSURE SWITCH SOLENOID (-)	VIO/BLK	TCU-11	
11	NC	NC	NC	
12	SHIFT SOLENOID PRESSURE CONTROL "A" (-)	VIO/LT.GRN	TCU-13	
13	NC	NC	NC	
14	NC	NC	NC	
15	TRANSMISSION RANGE SNR ASSEMBLY SIGNAL	ORN/LT.BLU	TCU-39	
16	NC	NC	NC	
17	TRANSMISSION RANGE SNR ASSEMBLY GND	BLK/WHT	TCU-9, S3	
18	TRANS FLUID TEMP (+)	YEL/ORN	TCU-50	
19	NC	NC	NC	
20	SHIFT SOL POWER	YEL	TCU-19, S1	
21	REF. VOLTAGE TRANSD RANGE ASSEMBLY	RED/WHT	TCU-21, S4	
22	SIGNAL RETURN TRANS FLUID TEMP TFF (-)	BLK/WHT	TCU-23, S9	
23	NC	NC	NC	
24	SHIFT SOL POWER	YEL	TCU-19, S1B	

THROTTLE POSITION SENSOR PIGTAIL				
PIN	CIRCUIT FUNCTION	COLOR	GOES TO	
A	SENSOR GND	BLK/WHT	UNTERM	
B	TPS	YEL/BLK	UNTERM	
C	NC	NC	NC	

SPLICE INFORMATION		
S-#	FUNCTION	COLOR
S1	SWITCHED +12V DC	YEL
S2	GROUND	BLK
S3	SENSOR GROUND	BLK/WHT
S4	+5VOLTS SENS	RED/WHT
S5	CAN HIGH	WHT/RED
S6	CAN LOW	WHT/BLK
S7	TOSS	ORG/RED
S8	TISS	ORN/LT.GRN

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	

LABEL DEFINITION TABLE				
NUMBER	NAME	PCS PART#	NOTES	
L1	TCM4819-001	WRE-8501	P284	
L2	CAN BUS	WRE-8500	P39	
L3	THROTTLE POSITION SENSOR	WRE-8500	P2	
L4	SWITCHED +12V DC	WRE-8500	P31	
L5	CHASSIS GROUND	WRE-8500	P32	
L6	LAPTOP CALIBRATION CONNECTOR	WRE-8500	P65	
L7	OUTPUT SHAFT SPEED SENSOR	WRE-8500	P8	
L8	INPUT SHAFT SPEED SENSOR	WRE-8500	P7	
L9	TRANSMISSION CONNECTOR	WRE-8501	P107	
L10	TACHOMETER GROUND	WRE-8500	P33	
L11	TACHOMETER	WRE-8500	P34	
L12	SPEEDOMETER	WRE-8500	P39	
L13	BRAKE LIGHT	WRE-8500	P38	
L14	ANALOG INPUT 2	WRE-8500	P95	
L15	TRUE MANUAL MODE	WRE-8500	P347	
L16	UP SHIFT	WRE-8500	P348	
L17	DOWN SHIFT	WRE-8500	P349	
L18	DIGITAL IN S	WRE-8500	P96	
L19	CAL "B" LAMP	WRE-8500	P429	
L20	REV LIGHT	WRE-8500	P272	
L21	OPTION CONNECTOR	WRE-8500	P5	
L22	CALIBRATION AB ENABLE	WRE-8500	P60	
L23	CANCEL O/D SW	WRE-8500	P350	
L24	4 W/D LOW	WRE-8500	P81	
L25	DYNO MODE ENABLE	WRE-8500	P54	

SPLICE INFORMATION		
S-#	FUNCTION	COLOR
S1	SWITCHED +12V DC	YEL
S2	GROUND	BLK
S3	SENSOR GROUND	BLK/WHT
S4	+5VOLTS SENS	RED/WHT
S5	CAN HIGH	WHT/RED
S6	CAN LOW	WHT/BLK
S7	TOSS	ORG/RED
S8	TISS	ORN/LT.GRN
S9	SENSOR GROUND	BLK/WHT

C4 LAPTOP CAL CONNECTOR				
PIN	CIRCUIT FUNCTION	COLOR	TCU POS.	
A	SERIAL RX	RED	TCU-27	
B	RS232 GND	WHT	TCU-28	
C	SERIAL TX	BLK	TCU-26	

REVISION HISTORY				
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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:
FORD 5R110 TO TCM2800 HARNESS

DATE: 10/17/2016

DRAWN BY: FRED

APPROVED BY:

SIZE: C

CUSTOMER DRAWING NO:

PCS PART NUMBER:
TCM-4819

REV: 003

DATE:

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