

REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	RELEASE	10/17/16	FD	

C-1 RANGE CONNECTOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2100	BLK
1	SECONDARY LOCK PLATE	CON-2102	YEL
10	TERMINALS	CON-2103	
4	CABLE SEAL	CON-2105	ORN
6	CABLE SEAL	CON-2106	VIO
2	CAVITY PLUG	CON-2107	BLK

C2 OUTPUT SHAFT SPEED SENSOR			
QTY	DESCRIPTION	P/N	NOTES
1	CONNECTOR	CON-4110	
2	PINS	CON-1006	20 AWG
3	RUBBER SEALS	CON-1004	

C3 TRANS CONNECTOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2132	
7	TERMINALS	CON-2121	
1	WEDGE LOCK	CON-2127	BLK
1	MULTI CABLE SEAL	CON-2143	
1	CONNECTOR SEAL	CON-2144	
3	CAVITY PLUG	CON-1036	

C-4 LAPTOP CALIBRATION CONNECTOR			
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

C-5 OPTION			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-0065	
4	TERMINALS	CON-0051	

CAN CONNECTOR			
QTY	DESCRIPTION	P/N	NOTES
1	CONNECTOR	CON-5050	CON-5050
2	TERMINALS	CON-5200	(20-18gauge)
1	WEDGE LOCK	CON-5100	ORANGE

C-7 THROTTLE POSITION CONNECTOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2302	
3	TERMINALS	CON-1006	
3	CABLE SEALS	CON-1004	VIO

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

C-7M THROTTLE POSITION SENSOR PIGTAIL			
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

- 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: FORD 4R70W (1998+) TCM-2800 HARNESS

SIZE: C	CUSTOMER DRAWING NO. XXXXX-XXXXX	PCS PART NUMBER TCM-4815	REV: 003
DRAWN BY: FRED D.	DATE: 4/28/2015	APPROVED BY: XXXXX	DATE: SHEET 2 OF 14

Print Date
10/14/2016
1700

REVISION HISTORY			
LEVEL	DESCRIPTION	DATE	DRN APP
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1	0	BRNLT.BLU	CLASS 2 SER DATA
2	4	GRYBLK	DIG IN 1
3	4	GRYRED	DIG IN 2
4	4	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	GRYIEL	DIG IN 7
9	4	BLK	GND
10	0	GRYPNK	DIG IN 8
11	4	VIOBLK	PWM1
12	4	VIORED	PWM2
13	4	VIOLT.GRN	PWM3
14	4	VIOLT.BLU	PWM4
15	4	WHTRED	CAN1 HI
16	4	WHTBLK	CAN1 LOW
17	4	ORNWHT	SPEEDO OUT
18	0	YEL(OUT)	SW +12V OUT
19	4	YEL(IN)	SW +12V
20	4	RED	+12V BATT
21	4	REDWHT	+5V REF
22	4	BLKWHT	SIG GND
23	4	BLKWHT	SIG GND
24	4	ORNBK	SPEED 1
25	4	ORNRED	SPEED 2
26	4	BLK	COM TX
27	4	RED	COM RX
28	4	WHT	COM GND
29	4	BRNBLK	DIG IN 9
30	4	BRNRED	DIG IN 10
31	4	BRNLT.GRN	DIG IN 11
32	4	BRNLT.BLU	DIG IN 12
33	4	BRNWHIT	DIG IN 13
34	4	BRNORN	DIG IN 14
35	4	BRNIEL	DIG IN 15
36	4	BRNPNK	DIG IN 16
37	4	BLKWHT	SIG GND
38	4	ORNLT.GRN	SPEED IN 3
39	4	ORNLT.BLU	SPEED IN 4
40	4	PNKLT.GRN	PWM 9
41	0	VIOWHT	DIG OUT 4
42	4	BLK	GND 2
43	0	YELLOW	CAN 2 HIGH
44	0	GREEN	CAN 2 LOW
45	4	YELBLK	ANA IN 1
46	4	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	4	YELORN	ANA IN 6
51	4	VIOWHT	PWM 5
52	4	VIOORN	PWM 6
53	4	PNKBLK	PWM 7
54	4	PNKRED	PWM 8
55	0	PNKWHT	DIG OUT 5
56	0	PNKORN	DIG OUT 6

SEE PAGE 2 FOR CONNECTIONS

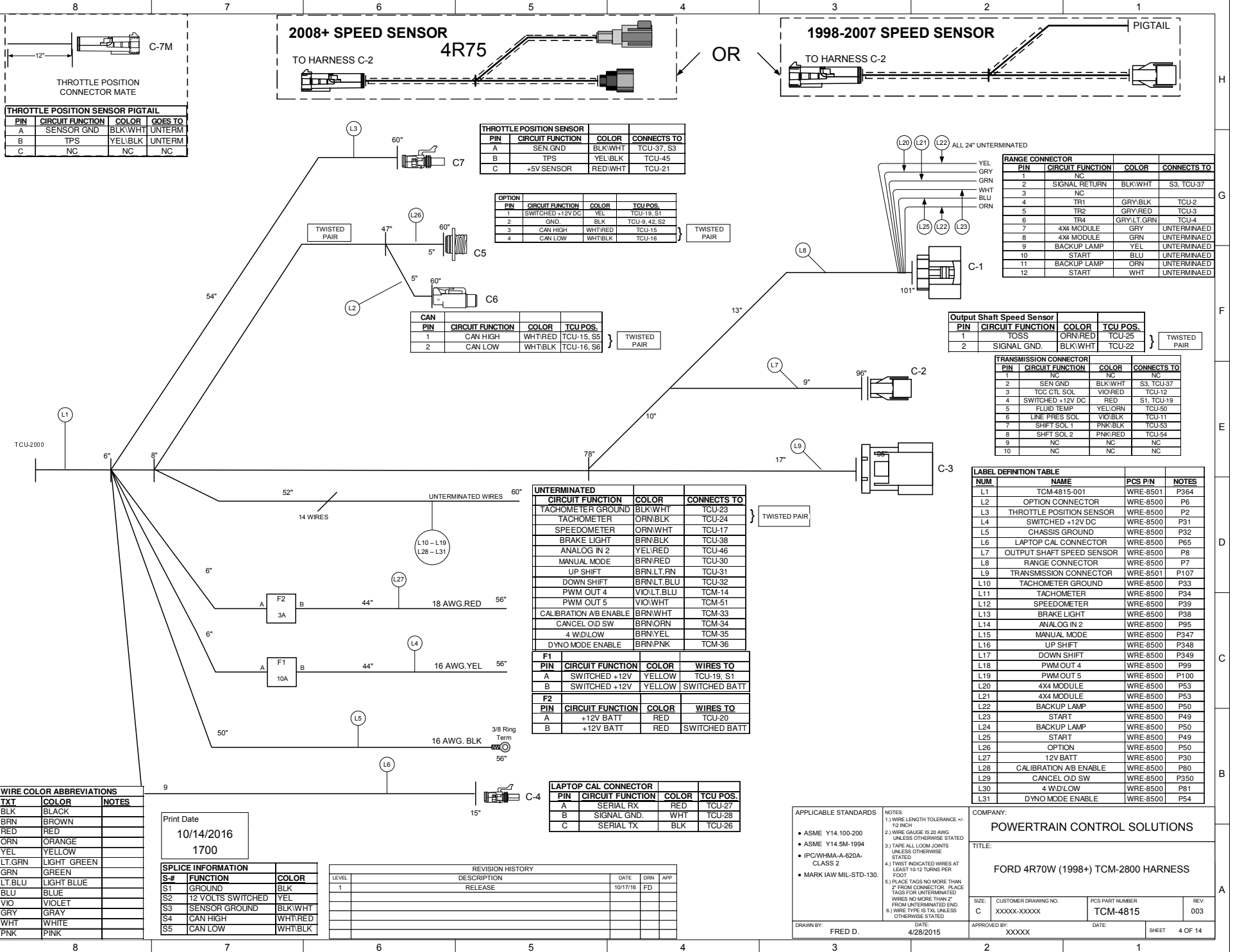
SEE PAGE 2 FOR CONNECTIONS

BRNRED	TRUE MANUAL MODE	} 60" UNTERMINATED GROUP
BRNLT.GRN	UP SHIFT	
BRNLT.BLU	DOWN SHIFT	
BRNWHIT	CALIBRATION "B"	
BRNORN	CANCEL O/D	
BRNIEL	4 W/D LOW	
BRNPNK	DYNO MODE	

SPlice INFORMATION		
S-#	FUNCTION	COLOR
S1	12 VOLTS SWITCHED	RED
S1A	12 VOLTS SWITCHED	RED
S2	GROUND	BLK
S3	SENSOR GROUND	BLK/WHT
S4	CAN HIGH	WHT/RED
S5	CAN LOW	WHT/BLK

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APPLICABLE STANDARDS <ul style="list-style-type: none"> ASME Y14.100-200 ASME Y14.5M-1994 IPC/WHMA-A-620A-CLASS 2 MARK IAW MIL-STD-130. 		NOTES: 1.) WIRE LENGTH TOLERANCE +/- .10 INCH 2.) WIRE GAUGE IS 20 AWG UNLESS OTHERWISE STATED 3.) TARE ALL LOOM JOINTS UNLESS OTHERWISE STATED 4.) TWIST INDICATED WIRES AT LEAST 10-12 TURNS PER FOOT 5.) PLACE TASS 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 4R70W (1998+) TCM-2800 HARNESS	
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APPROVED BY: XXXXX		DATE: SHEET 3 OF 14			



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

THROTTLE POSITION SENSOR

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
A	SEN GND	BLK/WHT	TCU-37, S3
B	TPS	YEL/BLK	TCU-45
C	+5V SENSOR	RED/WHT	TCU-21

OPTION

PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
1	SWITCHED +12V DC	YEL	TCU-19, S1
2	GND	BLK	TCU-9, 42, S2
3	CAN HIGH	WHT/RED	TCU-15
4	CAN LOW	WHT/BLK	TCU-16

CAN

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

RANGE CONNECTOR

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	NC	NC	
2	SIGNAL RETURN	BLK/WHT	S3, TCU-37
3	NC	NC	
4	TR1	GRY/BLK	TCU-2
5	TR2	GRY/RED	TCU-3
6	TR4	GRY/LT GRN	TCU-4
7	4X4 MODULE	GRY	UNTERMINAED
8	4X4 MODULE	GRN	UNTERMINAED
9	BACKUP LAMP	YEL	UNTERMINAED
10	START	BLU	UNTERMINAED
11	BACKUP LAMP	ORN	UNTERMINAED
12	START	WHT	UNTERMINAED

Output Shaft Speed Sensor

PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
1	TOSS	ORN/RED	TCU-25
2	SIGNAL GND.	BLK/WHT	TCU-22

TRANSMISSION CONNECTOR

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	NC	NC	
2	SEN GND	BLK/WHT	S3, TCU-37
3	TCC CTL SOL	VIO/RED	TCU-12
4	SWITCHED +12V DC	RED	S1, TCU-19
5	FLUID TEMP	YEL/ORN	TCU-50
6	LINE PRES SOL	VIO/BLK	TCU-11
7	SHIFT SOL 1	PNK/BLK	TCU-53
8	SHIFT SOL 2	PNK/RED	TCU-54
9	NC	NC	
10	NC	NC	

LABEL DEFINITION TABLE

NUM	NAME	PCS P/N	NOTES
L1	TCM-4815-001	WRE-8501	P364
L2	OPTION CONNECTOR	WRE-8500	P6
L3	THROTTLE POSITION SENSOR	WRE-8500	P2
L4	SWITCHED +12V DC	WRE-8500	P31
L5	CHASSIS GROUND	WRE-8500	P32
L6	LAPTOP CAL CONNECTOR	WRE-8500	P65
L7	OUTPUT SHAFT SPEED SENSOR	WRE-8500	P8
L8	RANGE CONNECTOR	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 IN 2	WRE-8500	P95
L15	MANUAL MODE	WRE-8500	P347
L16	UP SHIFT	WRE-8500	P348
L17	DOWN SHIFT	WRE-8500	P349
L18	PWM OUT 4	WRE-8500	P99
L19	PWM OUT 5	WRE-8500	P100
L20	4X4 MODULE	WRE-8500	P53
L21	4X4 MODULE	WRE-8500	P53
L22	BACKUP LAMP	WRE-8500	P50
L23	START	WRE-8500	P49
L24	BACKUP LAMP	WRE-8500	P50
L25	START	WRE-8500	P49
L26	OPTION	WRE-8500	P50
L27	12V BATT	WRE-8500	P30
L28	CALIBRATION AB ENABLE	WRE-8500	P80
L29	CANCEL O/D SW	WRE-8500	P350
L30	4 WD/LW	WRE-8500	P81
L31	D/YNO MODE ENABLE	WRE-8500	P54

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	

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SPLICE INFORMATION

S#	FUNCTION	COLOR
S1	GROUND	BLK
S2	12 VOLTS SWITCHED	YEL
S3	SENSOR GROUND	BLK/WHT
S4	CAN HIGH	WHT/RED
S5	CAN LOW	WHT/BLK

REVISION HISTORY

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LAPTOP CAL CONNECTOR

PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
A	SERIAL RX.	RED	TCU-27
B	SIGNAL GND.	WHT	TCU-28
C	SERIAL TX	BLK	TCU-26

APPLICABLE STANDARDS

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- ASME Y14.5M-1994
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DRAWN BY: FRED D. DATE: 4/28/2015

COMPANY:
POWERTRAIN CONTROL SOLUTIONS

TITLE:
FORD 4R70W (1998+) TCM-2800 HARNESS

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