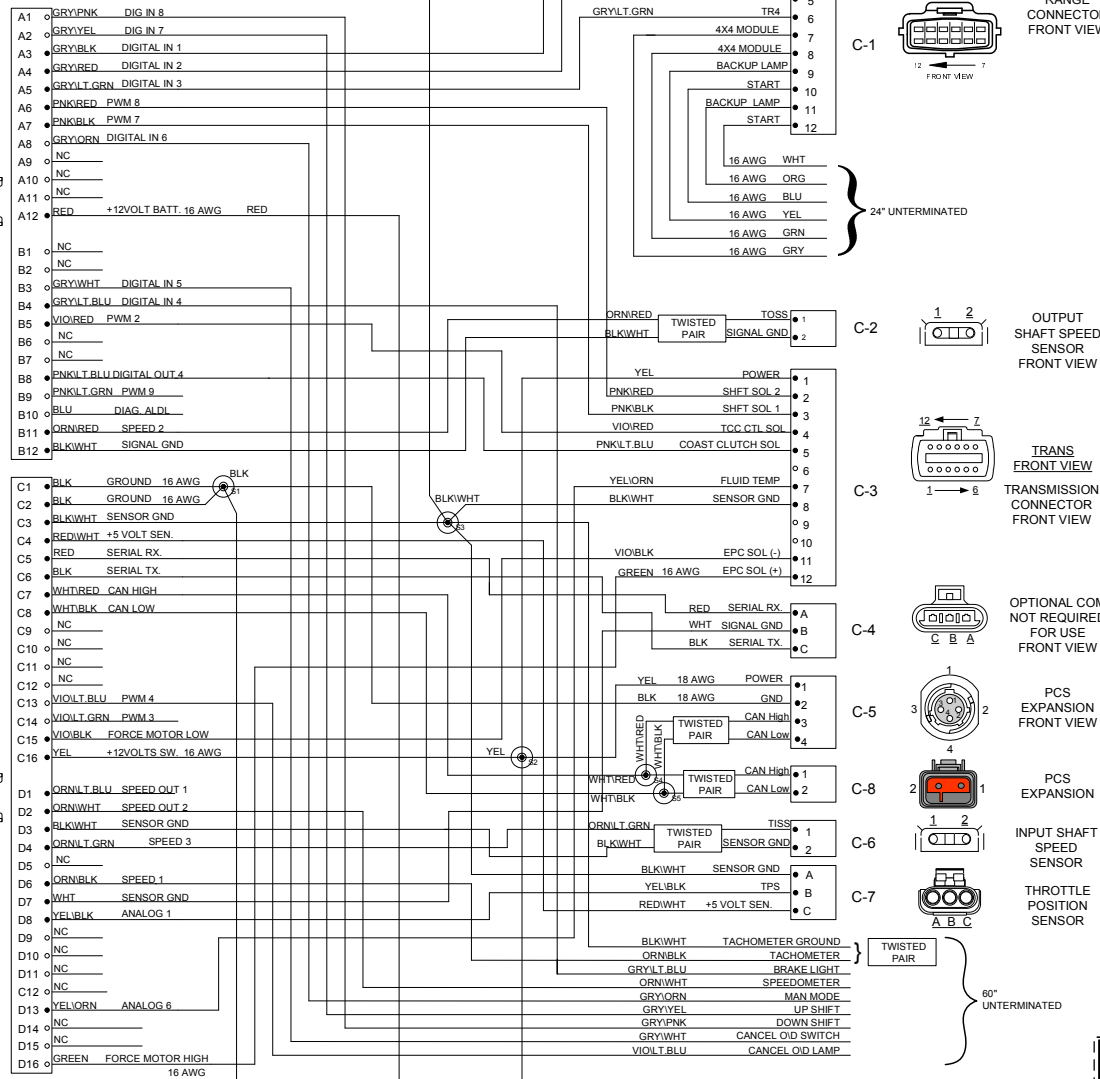


TCU-2100/2300

REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	RELEASE	11/17/16	FD	



QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR 24P	CON-1953	32 PIN CONNECTOR
1	CONNECTOR 32P	CON-1950	32 PIN CONNECTOR
29	TERMINALS	CON-1980	32 PIN CONNECTOR
1EA	LOCK TPA A:	CON-1951	32 PIN CONNECTOR
1EA	LOCK TPA B:	CON-1952	32 PIN CONNECTOR
1EA	LOCK TPA A:	CON-1954	32 PIN CONNECTOR
1EA	LOCK TPA B:	CON-1955	32 PIN CONNECTOR

WIRE COLOR ABBREVIATIONS	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	

F1 & F2	QTY	DESCRIPTION	PCS P/N	NOTES
	2	CONNECTOR	CON-2200	
	2	FUSE CAP:	CON-2201	BLK
	2	TPA	CON-2202	BLU
	4	TERMINAL	CON-1020	(18-16 AWG)
	1	FUSE - 1	CON-2217	3A
	1	FUSE - 2	CON-2221	10A
	4	CABLE SEAL	CON-1001	GRN

QTY	DESCRIPTION	PCS P/N	NOTES
1	Connector	CON-2100	Black
1	Secondary Lock Plate	CON-2102	Yellow
10	Terminal	CON-2103	
4	Cable Seal	CON-2105	Orange
6	Cable Seal	CON-2106	Violet
2	Cavity Plug	CON-2107	Black

QTY	DESCRIPTION	PCS P/N	NOTES
1	Connector	CON-2130	Black
1	Wedglock	CON-2125	Red
2	Terminal	CON-2121	

QTY	DESCRIPTION	PCS P/N	NOTES
1	Connector	CON-2133	Gray
1	TPA	CON-2128	Red
9	Terminal	CON-2121	

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-0065	
4	TERMINALS	CON-0051	

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

QTY	DESCRIPTION	PCS P/N	NOTES
1	Connector	CON-2130	Black
1	Wedglock	CON-2125	Red
2	Terminal	CON-2121	

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

QTY	DESCRIPTION	P/N	NOTES
1	RING TERM.	CON-3050	

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

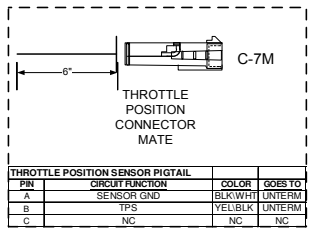
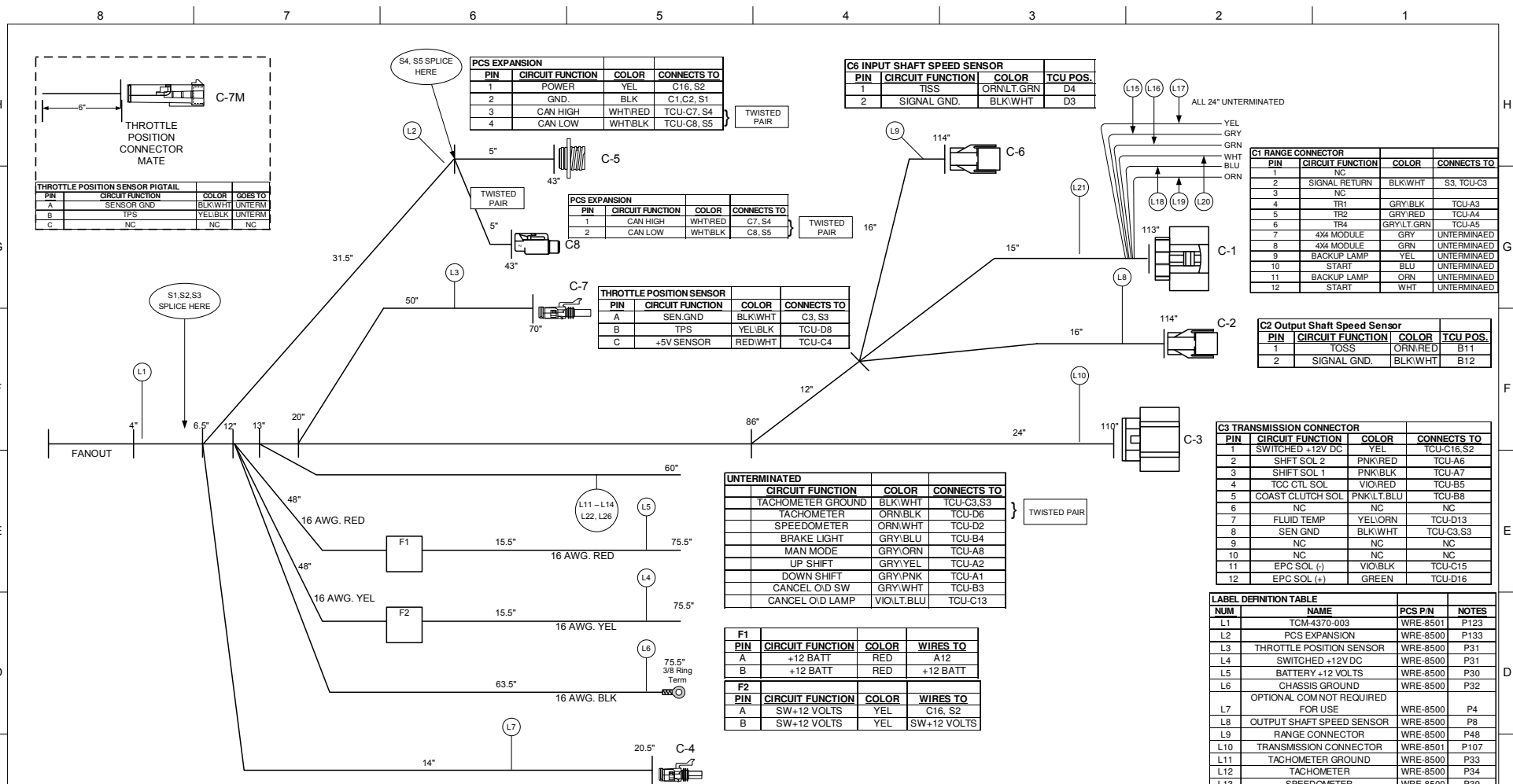
- APPLICABLE STANDARDS:
- ASME Y14.100-200
 - ASME Y14.5M-1994
 - IPC-WHMA-A-620A-CLASS 2
 - MARK IAW MIL-STD-130.

COMPANY: POWERTRAIN CONTROL SOLUTIONS

TITLE: FORD 4R100 98+ TO TCU-2100-2300

Print Date
11/17/2016
1700

DATE: 11/17/2016
DRAWN BY: FAD
APPROVED BY: C
CUSTOMER DRAWING NO: NONE
COMPANY PART NUMBER: TCM-4370
REV: 003
SHEET 2 OF 9



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

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	POWER	YEL	C16, S2
2	GND.	BLK	C1, C2, S1
3	CAN HIGH	WHT/RED	TCU-C7, S4
4	CAN LOW	WHT/BLK	TCU-C8, S5

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	CAN HIGH	WHT/RED	C7, S4
2	CAN LOW	WHT/BLK	C8, S5

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
A	SEN.GND	BLK/WHT	C3, S3
B	TPS	YEL/BLK	TCU-D8
C	+5V SENSOR	RED/WHT	TCU-C4

PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
1	TISS	ORN/LT.GRN	D4
2	SIGNAL GND.	BLK/WHT	D3

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	NC	NC	NC
2	SIGNAL RETURN	BLK/WHT	S3, TCU-C3
3	NC	NC	NC
4	TR1	GRY/BLK	TCU-A3
5	TR2	GRY/RED	TCU-A4
6	TR4	GRY/LT.GRN	TCU-A5
7	4X4 MODULE	GRN	UNTERMINAED
8	4X4 MODULE	GRN	UNTERMINAED
9	BACKUP LAMP	YEL	UNTERMINAED
10	START	BLU	UNTERMINAED
11	BACKUP LAMP	ORN	UNTERMINAED
12	START	WHT	UNTERMINAED

PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
1	TOSS	ORN/RED	B11
2	SIGNAL GND.	BLK/WHT	B12

CIRCUIT FUNCTION	COLOR	CONNECTS TO
TACHOMETER GROUND	BLK/WHT	TCU-C3,S3
TACHOMETER	ORN/BLK	TCU-D6
SPEEDOMETER	ORN/WHT	TCU-D2
BRAKE LIGHT	GRY/BLU	TCU-B4
MAN MODE	GRY/ORN	TCU-A8
UP SHIFT	GRY/YEL	TCU-A2
DOWN SHIFT	GRY/PNK	TCU-A1
CANCEL O/D SW	GRY/WHT	TCU-B3
CANCEL O/D LAMP	VIOLT/BLU	TCU-C13

F1 PIN	CIRCUIT FUNCTION	COLOR	WIRES TO
A	+12 BATT	RED	A12
B	+12 BATT	RED	+12 BATT

F2 PIN	CIRCUIT FUNCTION	COLOR	WIRES TO
A	SW+12 VOLTS	YEL	C16, S2
B	SW+12 VOLTS	YEL	SW+12 VOLTS

PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
A	SERIAL RX	RED	C5
B	SIGNAL GND.	WHT	D7
C	SERIAL TX	BLK	C6

CIRCUIT FUNCTION	COLOR	CONNECTS TO
TACHOMETER GROUND	BLK/WHT	TCU-C3,S3
TACHOMETER	ORN/BLK	TCU-D6
SPEEDOMETER	ORN/WHT	TCU-D2
BRAKE LIGHT	GRY/BLU	TCU-B4
CANCEL O/D INPUT	GRY/WHT	TCU-B3
CANCEL O/D INDICATOR	VIOLT/BLU	TCU-C13

TXT	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	

NUM	NAME	PCS P/N	NOTES
L1	TCM-4370-003	WRE-8500	P123
L2	PCS EXPANSION	WRE-8500	P133
L3	THROTTLE POSITION SENSOR	WRE-8500	P31
L4	SWITCHED +12V DC	WRE-8500	P31
L5	BATTERY +12 VOLTS	WRE-8500	P30
L6	CHASSIS GROUND	WRE-8500	P32
L7	OPTIONAL COM NOT REQUIRED FOR USE	WRE-8500	P4
L8	OUTPUT SHAFT SPEED SENSOR	WRE-8500	P8
L9	RANGE CONNECTOR	WRE-8500	P48
L10	TRANSMISSION CONNECTOR	WRE-8500	P107
L11	TACHOMETER GROUND	WRE-8500	P33
L12	TACHOMETER	WRE-8500	P34
L13	SPEEDOMETER	WRE-8500	P39
L14	BRAKE LAMP IN	WRE-8500	P38
L15	4X4 MODULE	WRE-8500	P53
L16	4X4 MODULE	WRE-8500	P53
L17	BACKUP LAMP	WRE-8500	P182
L18	START	WRE-8500	P124
L19	BACKUP LAMP	WRE-8500	P182
L20	START	WRE-8500	P124
L21	RANGE CONNECTOR	WRE-8500	P48
L22	MAN MODE	WRE-8500	P347
L23	UP SHIFT	WRE-8500	P348
L24	DOWN SHIFT	WRE-8500	P349
L25	CANCEL O/D SW	WRE-8500	P350
L26	CANCEL O/D LAMP	WRE-8500	P351

LEVEL	REVISION HISTORY	DATE	DRN	APP
1	RELEASE	11/17/16	FD	

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

Print Date
11/17/2016
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 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 4R100 98+ TO TCU-2100-2300

CUSTOMER DRAWING NO. NONE
 PCS PART NUMBER TCM-4370
 REV: 003

DRAWN BY: FAD DATE: 11/17/2016
 SHEET 3 OF 9