

REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	RELEASE		FD	
			FD	

C-1 Range Connector			
QTY	DESCRIPTION	PCS P/N	NOTES
1	Connector	CON-2131	
9	Terminal	CON-2120	

C-3 Transmission Connect			
QTY	DESCRIPTION	PCS P/N	NOTES
1	Connector	CON-2133	WPT590
1	TPA	CON-2128	Red
9	Terminal	CON-2121	

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

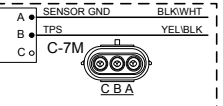
C-5 OPTION			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-0065	
4	TERMINALS	CON-0051	

C6 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 SENSOR 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



Print Date: 6/26/2017

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 E40D (95-97) TCM-2800

CUSTOMER DRAWING NO.: NONE

PCS PART NUMBER: TCM-4809

REV: 003

DATE: 10/19/2016

APPROVED BY: FAD

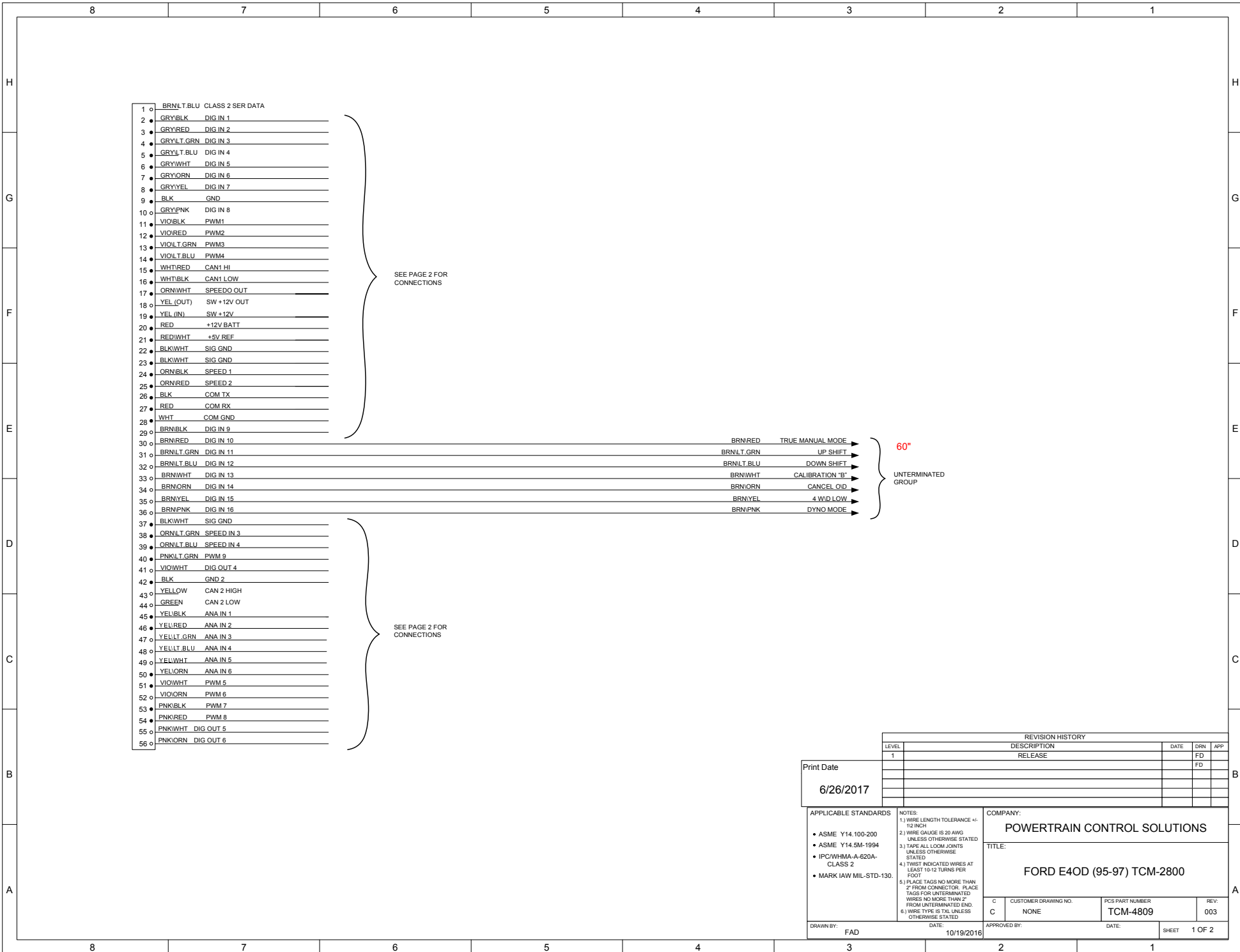
SHEET 1 OF 2

TCM-2800 Connector			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-1202	M/F
32	TERMINALS	CON-1205	
1	CONNECTOR COVER	CON-1203	
24	CAVITY PLUG	CON-1204	

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

WIRE COLOR ABBREVIATIONS		
TXL	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

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	



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

SEE PAGE 2 FOR CONNECTIONS

SEE PAGE 2 FOR CONNECTIONS

BRN/RED	TRUE MANUAL MODE
BRN/LT.GRN	UP SHIFT
BRN/LT.BLU	DOWN SHIFT
BRN/WHT	CALIBRATION 'B'
BRN/ORN	CANCEL O/D
BRN/YEL	4 W/D LOW
BRN/PNK	D/YNO MODE

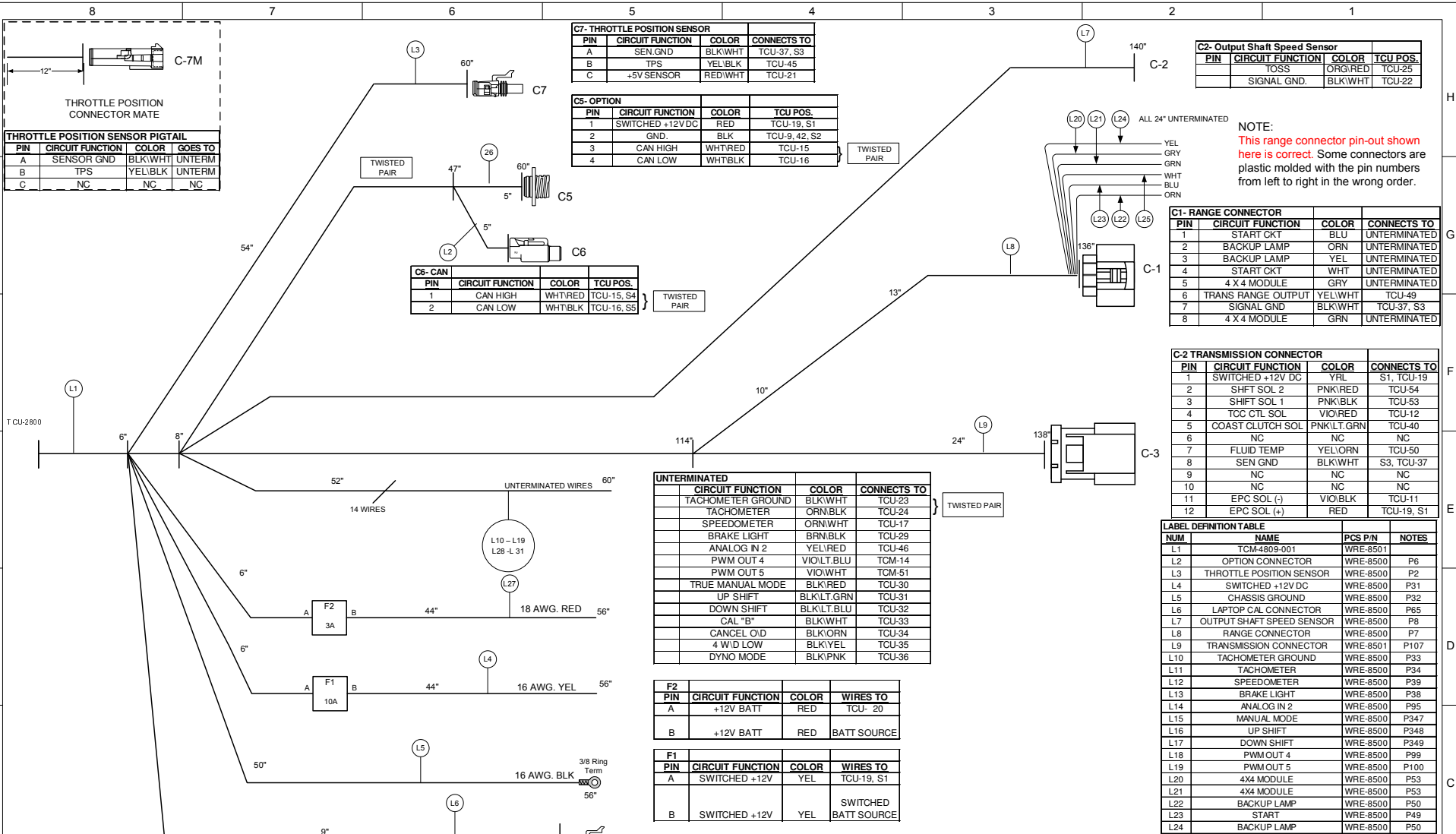
60"

UNTERMINATED GROUP

REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	RELEASE		FD	

Print Date: 6/26/2017

APPLICABLE STANDARDS	NOTES:	COMPANY:
<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. 	<ol style="list-style-type: none"> WIRE LENGTH TOLERANCE +/- .12 INCH WIRE GAUGE IS 20 AWG UNLESS OTHERWISE STATED TAPE ALL LOOM JOINTS UNLESS OTHERWISE STATED TWIST INDICATED WIRES AT LEAST 10-12 TURNS PER FOOT PLACE TAGS NO MORE THAN 2" FROM CONNECTOR. PLACE TAGS FOR UNTERMINATED WIRES NO MORE THAN 2" FROM UNTERMINATED END. WIRE TYPE IS TXL UNLESS OTHERWISE STATED 	POWERTRAIN CONTROL SOLUTIONS TITLE: FORD E40D (95-97) TCM-2800
DRAWN BY: FAD	DATE: 10/19/2016	APPROVED BY:
C	CUSTOMER DRAWING NO. NONE	PCS PART NUMBER TCM-4809
		REV: 003
SHEET 1 OF 2		



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

C7- 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

C5- OPTION

PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
1	SWITCHED +12V DC	RED	TCU-19, S1
2	GND.	BLK	TCU-9, 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, S4
2	CAN LOW	WHT/BLK	TCU-16, S5

UNTERMINATED

CIRCUIT FUNCTION	COLOR	CONNECTS TO
TACHOMETER GROUND	BLK/WHT	TCU-23
TACHOMETER	ORN/BLK	TCU-24
SPEEDOMETER	ORN/WHT	TCU-17
BRAKE LIGHT	BRN/BLK	TCU-29
ANALOG IN 2	YEL/RED	TCU-46
PWM OUT 4	VIO/LT.BLU	TCM-14
PWM OUT 5	VIO/WHT	TCM-51
TRUE MANUAL MODE	BLK/RED	TCU-30
UP SHIFT	BLK/LT.GRN	TCU-31
DOWN SHIFT	BLK/LT.BLU	TCU-32
CAL "B"	BLK/WHT	TCU-33
CANCEL O/D	BLK/ORN	TCU-34
4 W/D LOW	BLK/YEL	TCU-35
DYNO MODE	BLK/PNK	TCU-36

F2

PIN	CIRCUIT FUNCTION	COLOR	WIRES TO
A	+12V BATT	RED	TCU- 20
B	+12V BATT	RED	BATT SOURCE

F1

PIN	CIRCUIT FUNCTION	COLOR	WIRES TO
A	SWITCHED +12V	YEL	TCU-19, S1
B	SWITCHED +12V	YEL	SWITCHED BATT SOURCE

C4- 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

C2- Output Shaft Speed Sensor

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

C1- RANGE CONNECTOR

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	START CKT	BLU	UNTERMINATED
2	BACKUP LAMP	ORN	UNTERMINATED
3	BACKUP LAMP	YEL	UNTERMINATED
4	START CKT	WHT	UNTERMINATED
5	4 X 4 MODULE	GRY	UNTERMINATED
6	TRANS RANGE OUTPUT	YEL/WHT	TCU-49
7	SIGNAL GND	BLK/WHT	TCU-37, S3
8	4 X 4 MODULE	GRN	UNTERMINATED

C2 TRANSMISSION CONNECTOR

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	SWITCHED +12V DC	YRL	S1, TCU-19
2	SHFT SOL 2	PNK/RED	TCU-54
3	SHFT SOL 1	PNK/BLK	TCU-53
4	TCC CTL SOL	VIO/RED	TCU-12
5	COAST CLUTCH SOL	PNK/LT.GRN	TCU-40
6	NC	NC	NC
7	FLUID TEMP	YEL/ORN	TCU-50
8	SEN GND	BLK/WHT	S3, TCU-37
9	NC	NC	NC
10	NC	NC	NC
11	EPC SOL (-)	VIO/BLK	TCU-11
12	EPC SOL (+)	RED	TCU-19, S1

LABEL DEFINITION TABLE

NUM	NAME	PCS P/N	NOTES
L1	TCM-4809-001	WRE-8501	
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 A/B ENABLE	594-09105	P80
L29	CANCEL O/D SW	594-09105	P350
L30	4 W/D LOW	594-09105	P81
L31	DYNO MODE ENABLE	594-09105	P54

WIRE COLOR ABBREVIATIONS

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	

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

Print Date
6/26/2017

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 TX UNLESS OTHERWISE STATED.

COMPANY:
POWERTRAIN CONTROL SOLUTIONS

TITLE:
FORD E40D (95-97) TCM-2800

C CUSTOMER DRAWING NO. NONE
 C PCS PART NUMBER TCM-4809
 REV: 003

DRAWN BY: FAD
 DATE: 10/19/2016

APPROVED BY: SHEET 1 OF 2

REVISION HISTORY

LEVEL	DESCRIPTION	DATE	DRN	APP
1	RELEASE		FD	FD