

REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	RELEASE	8/14/2012	FD	

RANGE CONNECTOR	ONT VII	DESCRIPTION	PIN	NOTES
1	CONNECTOR	(FORD) F3DB-14A464-JB		(STD. WALL, ALL OPEN)
1	SPACER	(FORD) F3DB-14A468-CB		
3	TERMINALS	(FORD) XL3T-14474-EA		18-20 AWG (PIN 3,6,7)
3	TERMINALS	(FORD) E8EB-14474-BFA		14-16 AWG (PIN 1,2,4)

C-2 OUTPUT SHAFT SPEED SENSOR				
QTY	DESCRIPTION	PCS	P/N	NOTES
1	CONNECTOR	CON-2130	BLK	
1	WEDGELock	CON-2125	RED	
2	TERMINAL	CON-2121		

C3 TRANS CONNECTOR				
QTY	DESCRIPTION	PCS	PIN	NOTES
1	CONNECTOR	CON-2132		
9	TERMINALS	CON-2121		
1	WEDGE LOCK	CON-2127	BLK	
1	MULTI CABLE SEAL	CON-2143		
1	CONNECTOR SEAL	CON-2144		
1	CAVITY PLUG	CON-1036		

C-4 LAPTOP CALIBRATION CONNECTOR				
QTY	DESCRIPTION	PCS	PIN	NOTES
1	CONNECTOR	CON-3416		
3	TERMINALS	CON-1038		
1	TPA	CON-3417	CREAM	
3	CABLE SEALS	CON-1027	WHT	

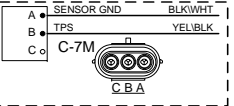
C-5 OPTION				
QTY	DESCRIPTION	PCS	PIN	NOTES
1	CONNECTOR	CON-0065		
4	TERMINALS	CON-0051		

CAN CONNECTOR				
QTY	DESCRIPTION	PIN	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	PIN	NOTES
1	CONNECTOR	CON-2302		
3	TERMINALS	CON-1006		
3	CABLE SEALS	CON-1004	VIO	

CHASSIS GND				
QTY	DESCRIPTION	PIN	NOTES	
1	RING TERM.	CON-0350		

C-7M THROTTLE POSITION SENSOR PIGTAIL				
QTY	DESCRIPTION	PCS	PIN	NOTES
1	CONNECTOR	CON-2307		
2	TERMINALS	CON-1011	20 AWG	
2	CABLE SEALS	CON-1004	VIO	
1	PLUG	CON-0999	GRN	



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

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

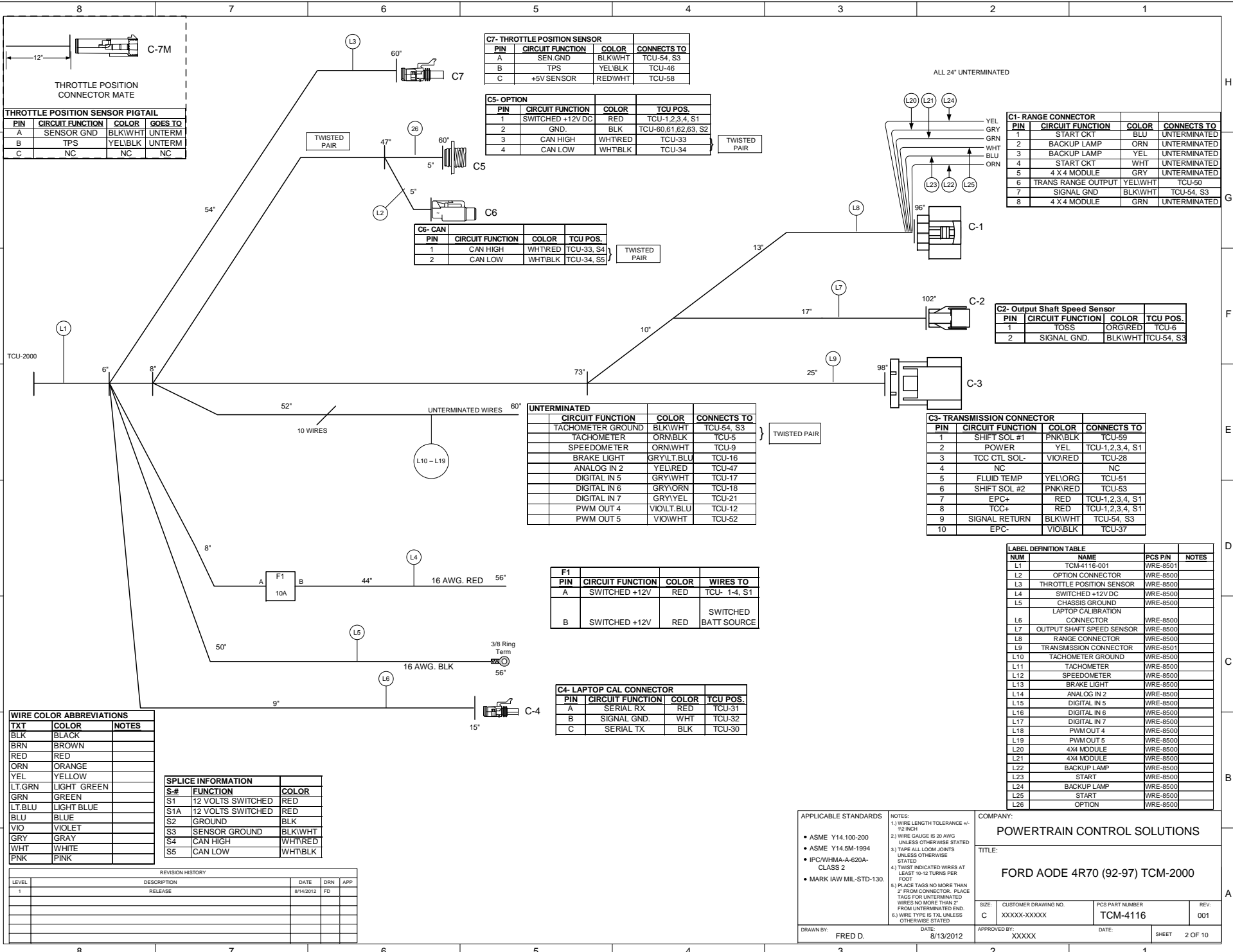
COMPANY: POWERTRAIN CONTROL SOLUTIONS

TITLE: FORD AODE 4R70 (92-97) TCM-2000

SIZE: C	CUSTOMER DRAWING NO. XXXXX-XXXXX	PCB PART NUMBER: TCM-4116	REV: 001
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DRAWN BY: FRED D. DATE: 8/13/2012

APPROVED BY: XXXXX DATE: SHEET 1 OF 10



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 POSION SENSOR

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
A	SEN.GND	BLK/WHT	TCU-54, S3
B	TPS	YEL/BLK	TCU-46
C	+5V SENSOR	RED/WHT	TCU-58

C5- OPTION

PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
1	SWITCHED +12V DC	RED	TCU-1,2,3,4, S1
2	GND.	BLK	TCU-60,61,62,63, S2
3	CAN HIGH	WHT/RED	TCU-33
4	CAN LOW	WHT/BLK	TCU-34

C6- CAN

PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
1	CAN HIGH	WHT/RED	TCU-33, S4
2	CAN LOW	WHT/BLK	TCU-34, S5

UNTERMINATED

CIRCUIT FUNCTION	COLOR	CONNECTS TO
TACHOMETER GROUND	BLK/WHT	TCU-54, S3
TACHOMETER	ORN/BLK	TCU-5
SPEEDOMETER	ORN/WHT	TCU-9
BRAKE LIGHT	GRY/LT.BLU	TCU-16
ANALOG IN 2	YEL/RED	TCU-47
DIGITAL IN 5	GRY/WHT	TCU-17
DIGITAL IN 6	GRY/ORN	TCU-18
DIGITAL IN 7	GRY/YEL	TCU-21
PWM OUT 4	VIO/LT.BLU	TCU-12
PWM OUT 5	VIO/WHT	TCU-52

F1

PIN	CIRCUIT FUNCTION	COLOR	WIRES TO
A	SWITCHED +12V	RED	TCU- 1-4, S1
B	SWITCHED +12V	RED	SWITCHED BATT SOURCE

C4- LAPTOP CAL CONNECTOR

PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
A	SERIAL RX	RED	TCU-31
B	SIGNAL GND.	WHT	TCU-32
C	SERIAL TX	BLK	TCU-30

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-50
7	SIGNAL GND	BLK/WHT	TCU-54, S3
8	4 X 4 MODULE	GRN	UNTERMINATED

C2- Output Shaft Speed Sensor

PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
1	TOSS	ORG/RED	TCU-6
2	SIGNAL GND.	BLK/WHT	TCU-54, S3

C3- TRANSMISSION CONNECTOR

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	SHIFT SOL #1	PNK/BLK	TCU-59
2	POWER	YEL	TCU-1,2,3,4, S1
3	TCC CTL SOL-	VIO/RED	TCU-28
4	NC	NC	NC
5	FLUID TEMP	YEL/ORG	TCU-51
6	SHIFT SOL #2	PNK/RED	TCU-53
7	EPC+	RED	TCU-1,2,3,4, S1
8	TCC+	RED	TCU-1,2,3,4, S1
9	SIGNAL RETURN	BLK/WHT	TCU-54, S3
10	EPC-	VIO/BLK	TCU-37

LABEL DEFINITION TABLE

NUM	NAME	PCS PIN	NOTES
L1	TCM-4116-001	WRE-8501	
L2	OPTION CONNECTOR	WRE-8500	
L3	THROTTLE POSITION SENSOR	WRE-8500	
L4	SWITCHED +12V DC	WRE-8500	
L5	CHASSIS GROUND	WRE-8500	
L6	LAPTOP CALIBRATION CONNECTOR	WRE-8500	
L7	OUTPUT SHAFT SPEED SENSOR	WRE-8500	
L8	RANGE CONNECTOR	WRE-8500	
L9	TRANSMISSION CONNECTOR	WRE-8501	
L10	TACHOMETER GROUND	WRE-8500	
L11	TACHOMETER	WRE-8500	
L12	SPEEDOMETER	WRE-8500	
L13	BRAKE LIGHT	WRE-8500	
L14	ANALOG IN 2	WRE-8500	
L15	DIGITAL IN 5	WRE-8500	
L16	DIGITAL IN 6	WRE-8500	
L17	DIGITAL IN 7	WRE-8500	
L18	PWM OUT 4	WRE-8500	
L19	PWM OUT 5	WRE-8500	
L20	4X4 MODULE	WRE-8500	
L21	4X4 MODULE	WRE-8500	
L22	BACKUP LAMP	WRE-8500	
L23	START	WRE-8500	
L24	BACKUP LAMP	WRE-8500	
L25	START	WRE-8500	
L26	OPTION	WRE-8500	

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COMPANY:
POWERTRAIN CONTROL SOLUTIONS

TITLE:
FORD AODE 4R70 (92-97) TCM-2000

SIZE: C

CUSTOMER DRAWING NO.: XXXXX-XXXXX

PCS PART NUMBER: TCM-4116

REV: 001

DRAWN BY: FRED D.

DATE: 8/13/2012

APPROVED BY: XXXXX

DATE:

SHEET: 2 OF 10