

REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP

QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON-2100	
1	BACK SHELL	CON-0005/2615/34	
1	RUBBER SEAL	CON-0005	

C-1 RANGE CONNECTOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2100	BLK
1	SECONDARY LOCK PLATE	CON-2102	YEL
10	TERMINAL	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	PIN	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	

C-6 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 P/N	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	

WIRE COLOR ABBREVIATIONS			SPLICE INFORMATION		
TXT	COLOR	NOTES	S-#	FUNCTION	COLOR
BLK	BLACK		S1	GROUND	BLK
BRN	BROWN		S2	12 VOLTS SWITCHED	YEL
RED	RED		S3	SENSOR GROUND	BLKWHT
ORN	ORANGE		S4	CAN HIGH	WHTRED
YEL	YELLOW		S5	CAN LOW	WHTBLK
LT.GRN	LIGHT GREEN				
GRN	GREEN				
LT.BLU	LIGHT BLUE				
BLU	BLUE				
VIO	VIOLET				
GRY	GRAY				
WHT	WHITE				
PNK	PINK				

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)
1	FUSE - 1	CON-2217	10A
2	CABLE SEAL	CON-1001	GRN

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" (3.05)
- 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

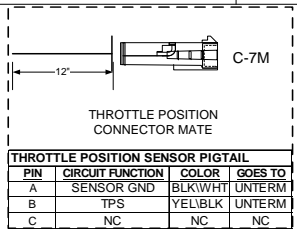
DRAWN BY: FRED D. DATE: 8/2/2012

COMPANY: POWERTRAIN CONTROL SOLUTIONS

TITLE: FORD 4R70W (1998+) TCM-2000 HARNESS

SIZE: C CUSTOMER DRAWING NO. XXXXXX-XXXXX PCS PART NUMBER: TCM-4115 REV: 001

APPROVED BY: XXXXX DATE: SHEET 1 OF 10



THROTTLE POSITION 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, S4

OPTION

OPTION	CIRCUIT FUNCTION	COLOR	TCU POS.
1	SWITCHED +12V DC	RED	TCU-1,2,3,4, S1
2	GND	BLK	TCU-80,81,82,83, S2
3	CAN HIGH	WHT/RED	TCU-33
4	CAN LOW	WHT/BLK	TCU-34

CAN

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

RANGE CONNECTOR

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	NC	NC	NC
2	SIGNAL RETURN	BLK/WHT	S3, TCU-54
3	NC	NC	NC
4	TR1	GRY/BLK	TCU-13
5	TR2	GRY/RED	TCU-14
6	TR4	GRY/LT GRN	TCU-15
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

Output Shaft Speed Sensor

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

TRANSMISSION CONNECTOR

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	NC	NC	NC
2	SEN GND	BLK/WHT	S3, TCU-54
3	TCO CTL SOL	VIO/RED	TCU-28
4	SWITCHED +12V DC	RED	S1, TCU-1-4
5	FLUID TEMP	YEL/ORN	TCU-51
6	LINE PRES SOL	VIO/BLK	TCU-37
7	SHIFT SOL 1	PNK/BLK	TCU-59
8	SHIFT SOL 2	PNK/RED	TCU-53
9	NC	NC	NC
10	NC	NC	NC

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	TCM-12
PWM OUT 5	VIO/WHT	TCM-52

F1

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

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

LABEL DEFINITION TABLE

NUM.	NAME	PCS PIN	NOTES
L1	TCM-4115-001	WRE-8501	
L2	CAN BUS	WRE-8800	
L3	THROTTLE POSITION SENSOR	WRE-8500	
L4	SWITCHED +12V DC	WRE-8500	
L5	CHASSIS GROUND	WRE-8500	
L6	OPTIONAL COM NOT REQUIRED FOR USE	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 CONNECTOR	WRE-8500	

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POWERTRAIN CONTROL SOLUTIONS

TITLE:
FORD 4R70W (1998+) TCM-2000 HARNESS

SIZE: CUSTOMER DRAWING NO. XXXXX-XXXXX
PCS PART NUMBER: TCM-4115
REV: 001

DRAWN BY: FRED D. **DATE:** 8/2/2012
APPROVED BY: XXXXX **DATE:** _____

SHEET 2 OF 10

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	GROUND	BLK
S2	12 VOLTS SWITCHED	YEL
S3	SENSOR GROUND	BLK/WHT
S4	CAN HIGH	WHT/RED
S5	CAN LOW	WHT/BLK