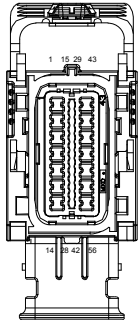


REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	RELEASE	6/28/2016	FAD	

TCM-2800

C-1

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



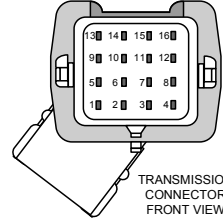
C1 56 PIN CONNECTOR
Front View

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2200	
2	TERMINALS	CON-2201	
1	CONNECTOR COVER	CON-2202	

Print Date
1/3/2017
1700

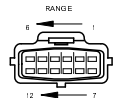
SPLICE INFORMATION		
S-#	FUNCTION	COLOR
S1	12 VOLTS SWITCHED	YEL
S2	GROUND	BLK
S3	12 VOLTS SWITCHED	YEL
S4	SENSOR GROUND	BLK/WHT
S5	CAN HIGH	WHT/RED
S6	CAN LOW	WHT/BLK

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	CON-2221	10A
1	FUSE	CON-2217	3A
4	CABLE SEAL	CON-1001	GRN



TRANSMISSION CONNECTOR FRONT VIEW

C-1 TRANSMISSION CONNECTOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-3416	
2	TERMINALS	CON-1038	
1	TPA	CON-3417	CREAM
3	CABLE SEALS	CON-1027	WHT



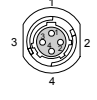
RANGE CONNECTOR FRONT VIEW

C-2 RANGE SENSOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-3416	
2	TERMINALS	CON-1038	
1	TPA	CON-3417	CREAM
3	CABLE SEALS	CON-1027	WHT



OUTPUT SHAFT SPEED SENSOR FRONT VIEW

C-3 OUTPUT SHAFT SPEED SENSOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-3416	
2	TERMINALS	CON-1038	
1	TPA	CON-3417	CREAM
3	CABLE SEALS	CON-1027	WHT



LAPTOP CAL CONNECTOR

C-4 LAPTOP CAL 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



OPTION FRONT VIEW

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



CAN CONNECTOR

C-6 CAN BUS CONNECTOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-5050	
2	TERMINALS	CON-5200	(20-18gauge)
1	WEDGE LOCK	CON-5100	ORN



THROTTLE POSITION SENSOR

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	PCS P/N	NOTES
1	RING TERM.	CON-0350	

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 5R55E TCM-2800 HARNESS

C	CUSTOMER DRAWING NO.	PCS PART NUMBER	REV:
C	NONE	TCM-4836	003

DATE: 6/27/16

APPROVED BY: _____ DATE: _____ SHEET 2 OF 10

REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	RELEASE	6/28/2016	FAD	

- 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 DYNO MODE

60" UNTERMINATED GROUP

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	

FULL FILENAME
 \PWR\2950\PCS_WORK\PCS PRODUCTS\TRANSMISSION
 CONTROLLERS\TCM-2800\HARNESSES\TCM-4836-003 FORD
 5R55E HARNESS\TCM-4836-003 FORD 5R55E.VSD

Print Date
 1/3/2017
 1700

APPLICABLE STANDARDS	NOTES
<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. 	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 5R55E TCM-2800 HARNESS			
C	CUSTOMER DRAWING NO. NONE	PCS PART NUMBER TCM-4836	REV: 003
DRAWN BY: FAD	DATE: 6/27/16	APPROVED BY:	DATE: SHEET 3 OF 10

LOCATION	DISCRPTION	LENGTH	PCS PART#
LOOM1	1/2" BLACK CONVOLUTED LOOM	60.5"	WRE-3003
LOOM2	1/4" BLACK CONVOLUTED LOOM	54"	WRE-3000
LOOM3	3/8" BLACK CONVOLUTED LOOM	47"	WRE-3001
LOOM4	1/4" BLACK CONVOLUTED LOOM	5"	WRE-3000
LOOM5	3/8" BLACK CONVOLUTED LOOM	4"	WRE-3001
LOOM6	1/4" BLACK CONVOLUTED LOOM	4"	WRE-3000
LOOM7	1/4" BLACK CONVOLUTED LOOM	9"	WRE-3000
LOOM8	1/4" BLACK CONVOLUTED LOOM	30"	WRE-3000
LOOM9	PART OF LOOM 1		
LOOM10	5/8" BLACK CONVOLUTED LOOM	8"	WRE-3004
LOOM11	1/4" BLACK CONVOLUTED LOOM	5"	WRE-3000

THROTTLE POSITION SENSOR			
PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
A	SEN.GND	BLK/WHT	S4, TCU-37
B	TPS	YEL/BLK	TCU-45
C	+5V SENSOR	RED/WHT	TCU-21

RANGE CONNECTOR			
PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	NC	NC	NC
2	SIGNAL GND	BLK/WHT	TCU-37, S4
3	RNG GEAR SEN TR3A	GRY/LT.BLU	TCU-10
4	RNG GEAR SEN TR1	GRY/BLK	TCU-2
5	RNG GEAR SEN TR2	GRY/RED	TCU-37, S4
6	RNG GEAR SEN TR34	GRY/LT.GRN	TCU-42, S2
7	GROUND	BLK	TCU-42, S2
8	NEUTRAL SW	GRN	UNTERM
9	SW +12V	YEL	TCU-19, S1
10	START	BLU	UNTERM
11	BACKUP	ORN	UNTERM
12	START	WHT	UNTERM

OPTION	PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
1	POWER		YEL	TCU-19, S1
2	GND.		BLK	TCU-42, S2
3	CAN HIGH		WHT/RED	TCU-15, S4
4	CAN LOW		WHT/BLK	TCU-16, S5

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

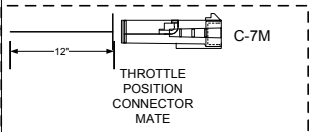
WHT — START
 ORN — BACKUP LAMP
 BLU — START
 GRN — IN NEUTRAL
 ALL 24" UNTERMINATED

OUTPUT SHAFT SPEED SENSOR			
PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
A	TOSS-	ORG/RED	TCU-25
B	TOSS-	BLK/WHT	TCU-23

TRANSMISSION CONNECTOR			
PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	SW +12V	YEL	TCU-19, S1
2	TISS	ORN/LT.GRN	TCU-38
3	SEN GND	BLK/WHT	TCU-37, S4
4	TFT	YEL/ORN	TCU-50
5	TCC SOL	VIO/LT.BLU	TCU-14
6	NC	NC	NC
7	SHFT SOL C	PNK/LT.GRN	TCU-40
8	SEN GND	BLK/WHT	TCU-37, S4
9	SHFT SOL D	PNK/LT.BLU	TCU-41
10	SW +12V	YEL	TCU-19, S3
11	SW +12V	RED	TCU-19, S3
12	EPC	VIO/BLK	TCU-11
13	NC	NC	NC
14	SHFT SOL B	PNK/RED	TCU-54
15	NC	NC	NC
16	SHFT SOL A	PNK/BLK	TCU-53

UNTERMINATED			
CIRCUIT FUNCTION	COLOR	CONNECTS TO	
TACHOMETER GROUND	BLK/WHT	TCU-22	} TWISTED PAIR
TACHOMETER	ORN/BLK	TCU-24	
SPEEDOMETER	ORN/WHT	TCU-17	
BRAKE LIGHT	BRN/BLK	TCU-29	
SPARE ANALOG IN	YEL/RED	TCU-46	
TRUE MANUAL MODE	BRN/RED	TCU-30	
UP SHIFT	BRN/LT.GRN	TCU-31	
DOWN SHIFT	BRN/LT.BLU	TCU-32	
PWM OUT 5	VIO/WHT	TCM-51	
PWM OUT 6	VIO/ORN	TCM-52	
CAL "B"	BRN/WHT	TCU-33	
CANCEL O/D	BRN/ORN	TCU-34	
4 WD LOW	BRN/YEL	TCU-35	
DYNO MODE	BRN/PNK	TCU-36	

LABEL DEFINITION TABLE			
NUM	NAME	NOTES	P#
L1	TCM-4836-001		P341
L2	CAN BUS		P6
L3	THROTTLE POSITION SENSOR		P2
L4	SWITCHED +12V DDC		P31
L5	CHASSIS GROUND		P32
L6	LAPTOP CALIBRATION CONNECTOR		P65
L7	OUTPUT SHAFT SPEED SENSOR		P8
L8	SW+12V BATTERY		P30
L9	TRANSMISSION CONNECTOR		P107
L10	TACHOMETER GROUND		P33
L11	TACHOMETER		P34
L12	SPEEDOMETER		P39
L13	BRAKE LIGHT		P38
L14	ANALOG IN 2		P95
L15	MANUAL MODE		P347
L16	UP SHIFT		P348
L17	DOWN SHIFT		P349
L18	PWM OUT 4		P99
L19	PWM OUT 5		P100
L20	OPTION CONNECTOR		P5
L22	CALIBRATION A/B ENABLE		P80
L23	CANCEL O/D SW		P50
L24	4 WD/LOW		P81
L25	DYNO MODE ENABLE		P54



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

SPLICE INFORMATION		
S-#	FUNCTION	COLOR
S1	12 VOLTS SWITCHED	YEL
S2	GROUND	BLK
S3	12 VOLTS SWITCHED	YEL
S4	SENSOR GROUND	BLK/WHT
S5	CAN HIGH	WHT/RED
S6	CAN LOW	WHT/BLK

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

F1	PIN	CIRCUIT FUNCTION	COLOR	WIRES TO
A	SWITCHED +12V	YELLOW	TCU-19, S1	SWITCHED BATT SOURCE
B	SWITCHED +12V	YELLOW	SWITCHED BATT SOURCE	
F2	PIN	CIRCUIT FUNCTION	COLOR	WIRES TO
A	+12V BATT	RED	TCU-20	SWITCHED BATT SOURCE
B	+12V BATT	RED	SWITCHED BATT SOURCE	

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 5R55E TCM-2800 HARNESS

CUSTOMER DRAWING NO: NONE
 PCS PART NUMBER: **TCM-4836**
 REV: 003

DRAWN BY: FAD
 DATE: 6/27/16
 SHEET 4 OF 10

Print Date
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 1700