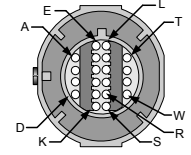


REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	RELEASE	5/9/2011	FAD	DB
1a	Correct C1 Pin E color RED. Wires for TPS signal added. All contents page added; corrected splice chart	5/25/2011	FAD	DB
1b	Added TCM4181 to kit content, added yell,grn and yell,blu to extra wire kit, corrected cut chart for TPS blk-wht	6/9/2011	FAD	DB
2	CHANGED WIRES FROM TCU TO C1, C2 TO TWISTED PAIR	7/21/2011	FAD	DB
2a	Updated option use cut lengths	02/29/2013	FAD	DB
2b	Update Cut sheet Data and affected sheets, RedLine 4-4-2014	4/6/2014	FAD	DB



C-1 TRANSMISSION CONNECTOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2000	
14	TERMINAL	CON-2804	20-22 AWG.
1	TERMINAL	CON-2805	16-18 AWG
5	CAVITY PLUG	CON-1044	BLU
1	MULTI CABLE SEAL	CON-3309	LT GRN
1	CONDUIT CLIP	CON-2008	BLK
1	TPA	CON-2003	GRY

TRANSMISSION CONNECTOR FRONT VIEW

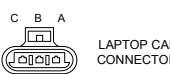
C-2 OUTPUT SHAFT SPEED SENSOR FEMALE			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-1070	
2	TERMINALS	CON-1084	20 AWG
2	CABLE SEAL	CON-1093	GRN
1	TPA	CON-1072	GRY



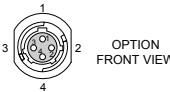
C-3 INPUT SHAFT SPEED SENSOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-1070	
2	TERMINALS	CON-1084	20 AWG
2	CABLE SEAL	CON-1093	GRN
1	TPA	CON-1072	GRY



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



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



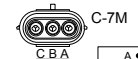
C-6 CAN BUS CONNECTOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-5050	
2	TERMINALS	CON-5200	(20-18gauge)
1	WEDGE LOCK	CON-5100	ORN



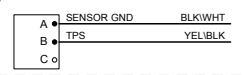
C-7 THROTTLE POSITION CONNECTOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2302	
3	TERMINALS	CON-1006	
3	CABLE SEALS	CON-1004	VIO



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



C-7N THROTTLE POSITION SENSOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-0350	
1	RING TERM.	CON-0350	



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
S2	GROUND	BLK
S3	SENSOR GROUND	BLK/WHT
S4	NONE	NONE
S5	CAN HIGH	WHT/RED
S6	CAN LOW	WHT/BLK
S7	TSS	ORN/LT.GRN

F1	QTY	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	CON-2221	10A
	2	CABLE SEAL	CON-1001	GRN

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 +/- 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 TXL UNLESS OTHERWISE STATED

COMPANY: POWERTRAIN CONTROL SOLUTIONS			
TITLE: GM 4L60/65/80/85E(1993+), 4L70E (2006-2009) TCM-2000 HARNESS			
SIZE:	CUSTOMER DRAWING NO:	PCS PART NUMBER:	REV:
C		TCM-4100	002
DRAWN BY: FRED D.		DATE: 7/21/2011	
APPROVED BY: DB		DATE: 7/21/2011	
		SHEET 1 OF 9	

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		

REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	RELEASE	5/9/2011	FAD	DB
1a	Correct C1 Pin E color RED, Wires for TPS pg141 added, kit contents page added, corrected splice chart	9/25/2011	FAD	DB
1b	Add TCMA181 to kit content, addser w/lt grn and w/lt blk to wire wire kit, corrected cut chart for TPS blk/wht	6/9/2011	FAD	DB
2	CHANGED WIRES FROM TCU TO C1, C2 TO TWISTED PAIR	7/21/2011	FAD	DB
2c	Updated option/wht cut lengths	6/29/2013	FAD	DB
2d	Update Cut sheet Data and affected sheets. RedLine 4-4-2014	4/4/2014	FAD	DB

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
A	SEN.GND	BLK/WHT	S3
B	TPS	YEL/BLK	TCU-46
C	+5V SENSOR	RED/WHT	TCU-58, S4

OPTION	PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
1		POWER	RED	S1
2		GND.	BLK	S2
3		CAN HIGH	WHT/RED	TCU-33, S4
4		CAN LOW	WHT/BLK	TCU-34, S5

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

OUTPUT SHAFT SPEED SENSOR				
PIN	CIRCUIT FUNCTION	COLOR	TCU POS.	
A	TOSS+	ORG/RED	TCU-6	
B	TOSS-	BLK/WHT	TCU-53, S-3	

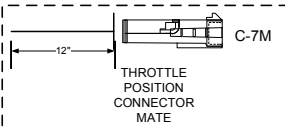
INPUT SHAFT SPEED SENSOR				
PIN	CIRCUIT FUNCTION	COLOR	TCU POS.	
A	TISS+	ORG/GRN	TCU-7	
B	TISS-	BLK/WHT	TCU-53, S-3	

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.BLK	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	

TRANSMISSION CONNECTOR				
PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO	
A	SHIFT SOL-A (1-2)	PNK/BLK	TCU-59	
B	SHIFT SOL B-(2-3)	PNK/RED	TCU-53	
C	LINE PRESSURE +	VIO/BLK	TCU37	
D	LINE PRESSURE -	BLK	S2	
E	TCC, 1-2, 2-3, 3-2 +	RED (18 AWG)	S1	
F	NC	NC	NC	
G	NC	NC	NC	
H	NC	NC	NC	
J	NC	NC	NC	
K	TURB SPEED+	ORN/LT.GRN	TCU-7	
L	ATF TEMP +	YEL/ORG	TCU-51	
M	ATF TEMP -	BLK/WHT	TCU-54, S3	
N	RANGE A	GRY/BLK	TCU-13	
P	RANGE C	GRY/GRN	TCU-15	
R	RANGE B	GRY/RED	TCU-14	
S	3-2 DOWN	VIO/RED	TCU-28	
T	TCC ON/OFF	PNK/LT.GRN	TCU-36	
U	TCC PWM-	VIO/LT.GRN	TCU-20	
V	TURB SPEED-	BLK/WHT	TCU-54, S3	
W			NC	

F1	PIN	CIRCUIT FUNCTION	COLOR	WIRES TO
A		+12 BATT FUSED	RED	TCU- 1-4, S1
B		+12 BATT	RED	FUSED BATT SOURCE

TCU-2000 CONNECTOR



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

NUM	NAME	STOCK #	NOTES
L1	TCM-4100	594-01105	
L2	CAN BUS	594-09105	
L3	THROTTLE POSITION SENSOR	594-09105	
L4	SWITCHED +12V DC	594-09105	
L5	CHASSIS GROUND	594-09105	
L6	LAPTOP CALIBRATION CONNECTOR	594-09105	
L7	OUTPUT SHAFT SPEED SENSOR	594-09105	
L8	INPUT SHAFT SPEED SENSOR	594-09105	
L9	TRANSMISSION CONNECTOR	594-01105	
L10	TACHOMETER GROUND	594-09105	
L11	TACHOMETER	594-09105	
L12	SPEEDOMETER	594-09105	
L13	BRAKE LIGHT	594-09105	
L14	ANALOG IN 2	594-09105	
L15	DIGITAL IN 5	594-09105	
L16	DIGITAL IN 6	594-09105	
L17	DIGITAL IN 7	594-09105	
L18	PWM OUT 4	594-09105	
L19	PWM OUT 5	594-09105	
L20	OPTION CONNECTOR	594-09105	

SPLICE INFORMATION			
S-#	FUNCTION	COLOR	
S1	12 VOLTS SWITCHED	RED	
S2	GROUND	BLK	
S3	SENSOR GROUND	BLK/WHT	
S4	NONE	NONE	
S5	CAN HIGH	WHT/RED	
S6	CAN LOW	WHT/BLK	
S7	TSS	ORN/LT.GRN	

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

APPLICABLE STANDARDS

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

NOTES

- WIRE LENGTH TOLERANCE +/- 1/2 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

DRAWN BY: FRED D. DATE: 7/21/2011

COMPANY: POWERTRAIN CONTROL SOLUTIONS

TITLE: GM 4L60/65/80/85E(1993+), 4L70E (2006-2009) TCM-2000 HARNESS

SIZE: C CUSTOMER DRAWING NO: PCS PART NUMBER: TCM-4100 REV: 002

APPROVED BY: DB DATE: 7/21/2011 SHEET 2 OF 9