

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	

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, kit contents page added, corrected splice chart	5/25/2011	FAD	DB
1b	Added TCM4181 to kit content, added yell/lt.grn and yell/lt.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

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	

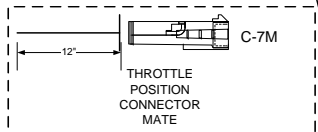
INPUT SHAFT SPEED SENSOR				
PIN	CIRCUIT FUNCTION	COLOR	TCU POS.	
A	TISS+	ORG/GRN	TCU-7	
B	TISS-	BLK/WHT	TCU-53, S-3	

UNTERMINATED			
CIRCUIT FUNCTION	COLOR	CONNECTS TO	
TACHOMETER GROUND	BLK/WHT	TCU-54, S3	} TWISTED PAIR
TACHOMETER	ORN/BLK	TCU-5	
SPEEDOMETER	ORN/WHT	TCU-9	
BRAKE LIGHT	GRY/LT.BLU	TCU-16	
SPARE ANALOG IN	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



THROTTLE POSITION SENSOR PIGTAIL				
PIN	CIRCUIT FUNCTION	COLOR	DOES TO	
A	SENSOR GND	BLK/WHT	UNTERM	
B	TPS	YEL/BLK	UNTERM	
C	NC	NC	NC	

LABEL DEFINITION TABLE			
NUM	NAME	STOCK #	NOTES
L1	TCM-4100	594-01105	
L2	CAN BUS	594-09105	
L3	THROTTLE POSITION SENSOR	594-09105	
L4	+12V BATTERY	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	SPARE ANALOG IN	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 UNTERMINATED END.
 - WIRE TYPE IS TX UNLESS OTHERWISE STATED

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

DRAWN BY: FRED D. DATE: 7/21/2011 APPROVED BY: DB DATE: 7/21/2011 SHEET 2 OF 9