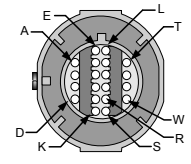
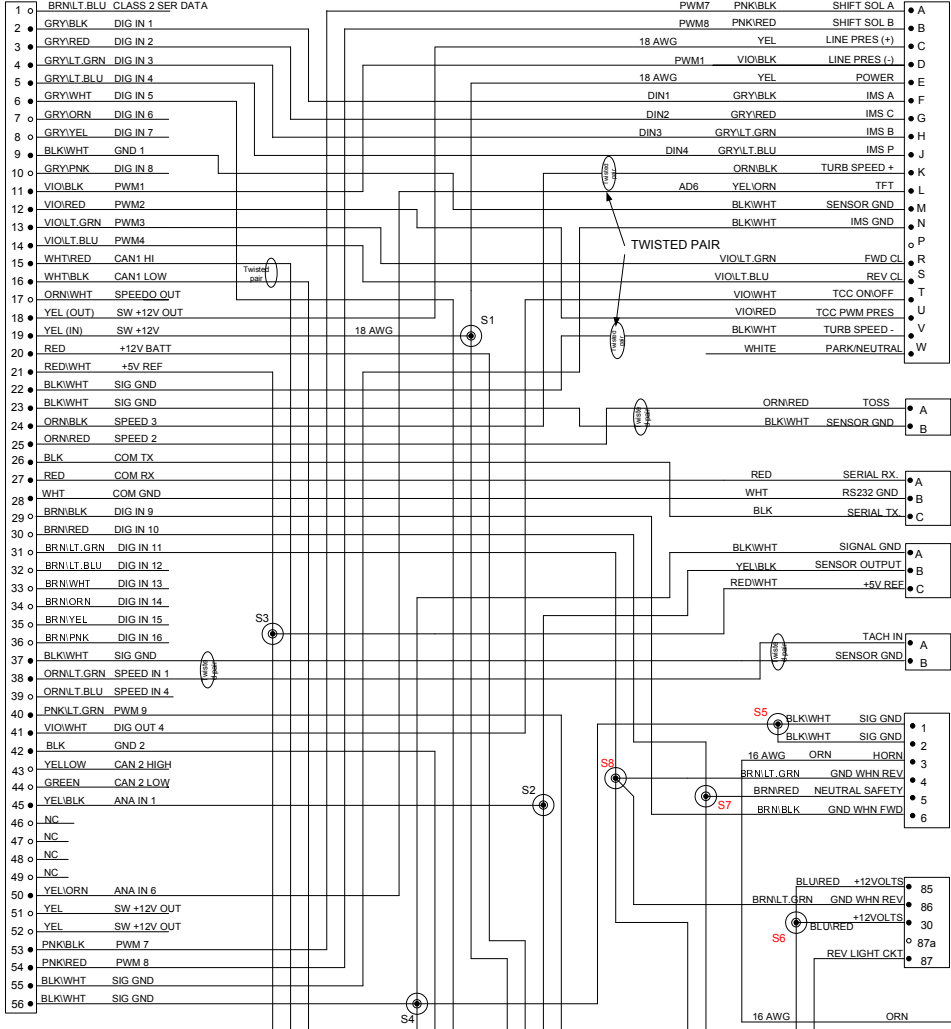


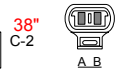
REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	Release	5/27/15	FD	
1A	CORRECT C4 CON #	9/15/15	FD	
1B	DRAWING # CORRECTED FROM 4641 TO 4660	9/4/16	FD	
2A	DRAWING # CORRECTED FROM 4641 TO 4661 (new shifter con)	12/1/16	FD	
2B	ADDED TRN-1200 SWITCHING DETAIL	1/26/16	FD	
2C	CORRECT PAGE 7 PRODUCTION REMOVE #5 LINE	1/26/16	FD	
2D	ADD 20AWG NEUTRAL SAFETY WIRE TO PIGTAIL	8/9/17	FD	

TCM-2600

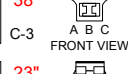


C-1 TRANSMISSION CONNECTOR FRONT VIEW

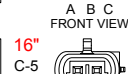
23.5"



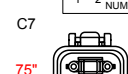
C-2 OUTPUT SHAFT SPEED SENSOR FRONT VIEW



C-3 OPTIONAL COM NOT REQUIRED FOR USE FRONT VIEW



C-4 MAP CONNECTOR FRONT VIEW



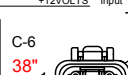
C-5 RPM CONNECTOR FRONT VIEW



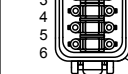
C-7 START/BACKUP CIRCUIT CONNECTOR FRONT VIEW



RY1 REV LIGHT RELAY FRONT VIEW (CONNECTOR NOT RELAY)



C-6 BULKHEAD CONNECTOR FRONT VIEW



TRN-1200 SWITCH CONFIGURATION



C-6M CONNECTOR HARNESS FRONT VIEW

QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON-2000	
14	TERMINAL	CON-2804	20-22 AWG.
2	TERMINAL	CON-2805	16-18 AWG
5	BLOCKING PINS	CON-1044	BLUE
1	SEAL	CON-3309	LT.GREEN
1	CONDUIT CLIP	CON-2008	
1	TPA	CON-2003	GRY

QTY	DESCRIPTION	PCS	PIN	NOTES
1	CONNECTOR	CON-1070		
2	TERMINALS	CON-1084	20 AWG	
2	CABLE SEAL	CON-1093	GRN	GRN
1	TPA	CON-1072	GRY	

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

QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON-3415	
3	CAVITY PLUG	CON-1029	GRN
1	TPA	CON-3417	

QTY	DESCRIPTION	PCS	PIN	NOTES
1	CONNECTOR	CON-2303		GREEN BODY
2	TERMINALS	CON-1006		
3	CABLE SEAL	CON-1004		

QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON-1071	F
2	PIN	CON-1088	M
1	SEAL	CON-1093	GRN
1	LOCK	CON-1072	3/5/2013

QTY	DESCRIPTION	PCS	PIN	NOTES
1	CONNECTOR	CON-5520		M/F
4	TERMINALS	CON-5504		
1	WEDGE LOCK	CON-5521		
1	CAVITY PLUG	CON-5530		

QTY	DESCRIPTION	PCS	PIN	NOTES
1	CONNECTOR	CON-2502		
1	RELAY	CON-2501		
4	TERMINAL	CON-2503		

QTY	DESCRIPTION	PCS	PIN	NOTES
1	CONNECTOR	CON-5542		GRY
12	TERMINALS	CON-5504		
1	WEDGE	CON-5508		GRN

PROVIDE A LAPTOP CALIBRATION CONNECT PROTECTIVE CAP

Print Date  
3/16/2018  
1700

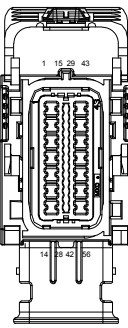
APPLICABLE STANDARDS	NOTES
• ASME Y14.100-2000	1) LENGTH TOLERANCE +/- 1/16 INCH
• ASME Y14.1M-1994	2) WIRE GAUGE 20 AWG (SEE WIRING)
• IPC/WHA-A-423-A	3) WIRE ALLOU/CONTS
• CLASS 2	4) WIRE NICKED/WIRE SMT
• MARKING MIL-STD-191	5) FOOT 1/16 INCH (SEE WIRING)
	6) TERMINAL POSITION (SEE WIRING)
	7) TERMINAL LENGTH (SEE WIRING)
	8) TERMINAL POSITION (SEE WIRING)
	9) TERMINAL POSITION (SEE WIRING)
	10) TERMINAL POSITION (SEE WIRING)

COMPANY	TITLE
POWERTRAIN CONTROL SOLUTIONS	GM 4 SPEED TRANSMISSION C6 REPLACEMENT

DATE	APPROVED BY	DATE	APPROVED BY
7/21/16	XXXXX	XXXXX	XXXXX

FIG. NO.	FIG. NAME	FIG. NO.	FIG. NAME
003	TCM-4661	003	TCM-4661

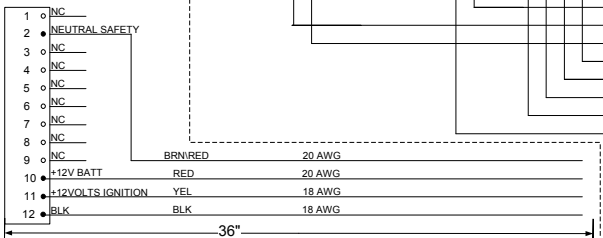
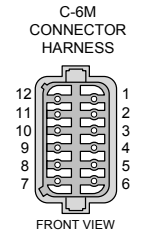
DATE: 7/21/16  
SHEET: 2 OF 10



TCU-2600

QTY	DESCRIPTION	PCS	PIN	NOTES
1	CONNECTOR	CON-1202		M/F
34	TERMINALS	CON-1205		
1	CONNECTOR COVER	CON-1203		
21	CAVITY PLUG	CON-1204		

QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON5543	
3	TERMINALS	CON5510	
1	WEDGE	CON5544	



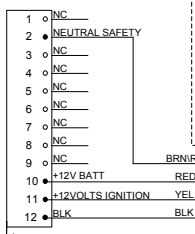
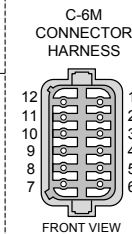
LOCATION	DISCRIPTION	LENGTH	PART#
LOOM1	3/4" BLACK CONVOLUTED LOOM	6.5"	WRE-3005
LOOM2	1/2" BLACK CONVOLUTED LOOM	17.5"	WRE-3003
LOOM3	1/4" BLACK CONVOLUTED LOOM	17.5"	WRE-3000
LOOM4	1/2" BLACK CONVOLUTED LOOM	32"	WRE-3003
LOOM5	1/4" BLACK CONVOLUTED LOOM	8"	WRE-3000
LOOM6	1/4" BLACK CONVOLUTED LOOM	4"	WRE-3000
LOOM7	1/4" BLACK CONVOLUTED LOOM	4"	WRE-3000
LOOM8	3/8" BLACK CONVOLUTED LOOM	9"	WRE-3001
LOOM9	3/8" BLACK CONVOLUTED LOOM	45"	WRE-3001

NUM	NAME	PART #	NOTES
L1	TCM-4661-002 4170E 2010+ TO	WRE-8501	P377
L2	TRANSMISSION CONNECTOR	WRE-8500	P107
L3	TOSS	WRE-8500	P8
L4	BULKHEAD CONNECTOR	WRE-8500	P64
L5	OPTIONAL COM NOT REQUIRED FOR USE	WRE-8500	P4
L6	RPM CONNECTOR	WRE-8500	P304
L7	1 BAR MAP SENSOR	WRE-8500	P305
L8	RY1 REV LIGHT RELAY	WRE-8500	P278
L9	SHIFTER CONNECTOR	WRE-8500	P376

S#	FUNCTION	COLOR
S1	12 VOLTS SWITCHED	YEL
S2	TPS/MAP SIGNAL	YEL/BLK
S3	+5V SENSOR	RED/WHT
S4	SIGNAL GND	BLK/WHT

QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	12129615	
3	CAVITY PLUG	12059168	DK_RED
1	SECONDARY LOCK	12052845	
1	PIN BLOCKING PLUG		

QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON5543	
3	TERMINALS	CON5510	
1	WEDGE	CON5544	



LEVEL	DESCRIPTION	DATE	DRN	APP
1	Release	5/27/15	FD	
1A	CORRECT C4 CON #	9/15/15	FD	
1B	DRAWING # CORRECTED FROM 4641 TO 4660	8/4/16	FD	
2A	DRAWING # CORRECTED FROM 4641 TO 4661 [new shifter con]	12/1/16	FD	
2B	ADDED TRN-1200 SWITCHING DETAIL	1/26/16	FD	
2C	CORRECT PAGE 7 PRODUCTION REMOVE #5 LINE	1/26/16	FD	
2D	ADD 20AWG NEUTRAL SAFETY WIRE TO PIGTAIL	8/9/17	FD	

### 1 BAR MAP SENSOR CONNECTOR

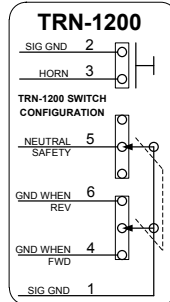
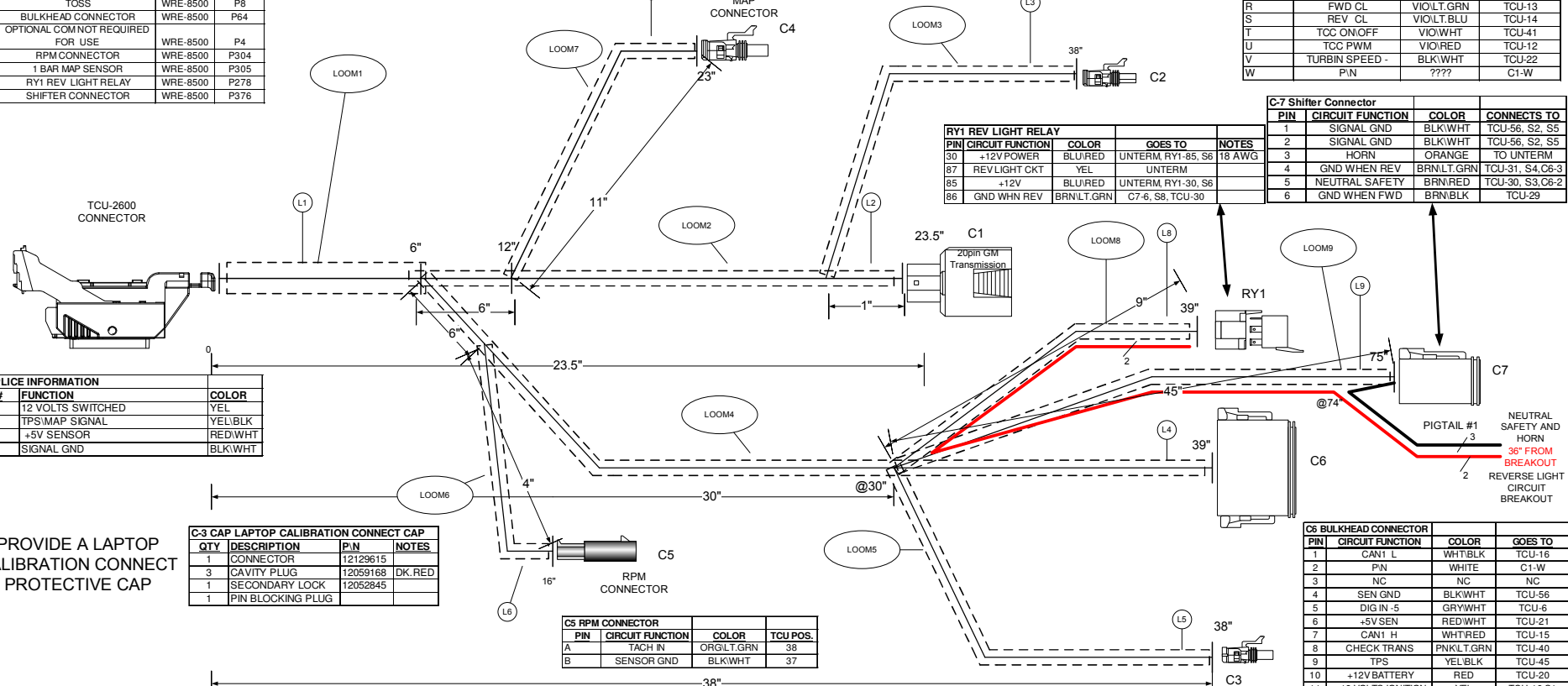
PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
A	SIGNAL GND	BLK/WHT	S4, TCU-56
B	SENSOR OUTPUT	YEL/RED	S2, TCU45
C	+5V REF	RED/WHT	S3, TCU-21

PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
A	TOSS+	ORG/RED	25
B	TOSS-	BLK/WHT	23

PIN	CIRCUIT FUNCTION	COLOR	GOES TO	NOTES
30	+12V POWER	BLU/RED	UNTERM RY1-85, S6	18 AWG
87	REV LIGHT CKT	YEL	UNTERM	
85	+12V	BLU/RED	UNTERM RY1-30, S6	
86	GND WHN REV	BRN/LT.GRN	C7-6, S8, TCU-30	

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
A	SHIFT SOL-A (1-2)	PNK/BLK	TCU-53
B	SHIFT SOL B-(2-3)	PNK/RED	TCU-54
C	LINE PRESSURE +	YEL (18 AWG)	TCU-18
D	LINE PRESSURE -	VIO/BLK	TCU-11
E	TCC, 1-2, 2-3, 3-2 +	YEL (18 AWG)	TCU-19, S1
F	IMS A	GRY/BLK	TCU-2
G	IMS C	GRY/RED	TCU-3
H	IMSB	GRY/GRN	TCU-4
J	IMS P	GRY/LT.BLU	TCU-5
K	TURBINE SPEED +	ORG/BLK	TCU-24
L	ATF TEMP +	YEL/ORG	TCU-50
M	ATF TEMP -	BLK/WHT	TCU-9
N	IMS GND	BLK/WHT	TCU-55
P	NC	NC	NC
R	FWD CL	VIO/LT.GRN	TCU-13
S	REV CL	VIO/LT.BLU	TCU-14
T	TCC ON/OFF	VIO/WHT	TCU-41
U	TCC PWM	VIO/RED	TCU-12
V	TURBIN SPEED -	BLK/WHT	TCU-22
W	PIN	????	C1-W

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	SIGNAL GND	BLK/WHT	TCU-56, S2, S5
2	SIGNAL GND	BLK/WHT	TCU-56, S2, S5
3	HORN	ORANGE	TO UNTERM
4	GND WHEN REV	BRN/LT.GRN	TCU-31, S4, C6-3
5	NEUTRAL SAFETY	BRN/RED	TCU-30, S3, C6-2
6	GND WHEN FWD	BRN/BLK	TCU-29



PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
A	SERIAL RX	RED	TCU-27
B	SIGNAL GND	WHT	TCU-28
C	SERIAL TX	BLK	TCU-26

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 +/- 1/32 INCH
- 2) WIRE GAUGE IS 20 AWG UNLESS OTHERWISE STATED
- 3) TAP 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 UNTERMINATED END.
- 6) WIRE TYPE IS TX UNLESS OTHERWISE STATED

COMPANY: POWERTRAIN CONTROL SOLUTIONS

TITLE: GM 4 SPEED TRANSMISSION C6 REPLACEMENT

DATE: 3/16/2018 1700

SIZE: CUSTOMER DRAWING NO. XXXXX-XXXXX PCS PART NUMBER TCM-4661 REV: 003

DRAWN BY: FRED D. DATE: 7/2/16 APPROVED BY: XXXXX DATE: SHEET 3 OF 10