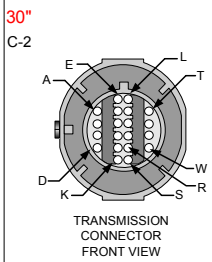


REVISION HISTORY

LEVEL	DESCRIPTION	DATE	DRN	APP
1	Release	4/24/19	FD	
1A	PROTO UPDATE	5/13/19	FD	
1B	PROTO CORRECTIONS	6/7/19	FD	
2	CUSTOMER TCU CON CHANGES	7/16/19	FD	



C-2 TRANSMISSION CONNECTOR

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2000	
17	TERMINALS	CON-2804	20-22 AWG
2	TERMINALS	CON-2805	16-18 AWG
1	BLOCKING PINS	CON-1044	BLUE
1	SEAL	CON-3309	LT.GREEN
1	CONDUIT CLIP	CON-2008	
1	TPA	CON-2003	GRY

C-3 OUTPUT SHAFT SPEED SENSOR FEMALE

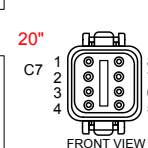
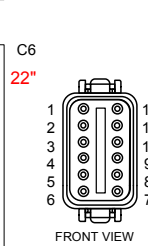
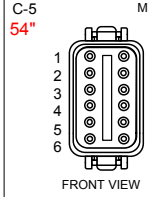
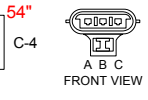
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-1070	
2	TERMINALS	CON-1084	20 AWG
1	TPA	CON-1072	GRY

C-4 DIAGNOSTIC COM CONNECTOR

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-3416	
3	TERMINALS	CON-1038	
1	TPA	CON-3417	CREAM
MIF3	CABLE SEALS	CON-1027	WHT

C-4A DIAGNOSTIC COMM CONNECTOR CAP

QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-3415	
3	CAVITY PLUG	CON-1024	DK.RED
1	SECONDARY LOCK	CON-3417	



POWERTRAIN CONTROL SOLUTIONS

TCM-4450 GSE 4LHD TRANS HARNESS W/ E-SHIFTER

DATE: 7/16/2019

PRINT DATE: 7/16/2019

1700

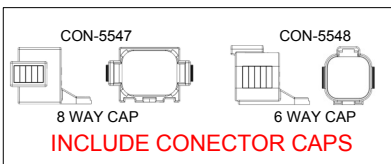
APPROVED BY: [Signature]

DATE: 7/16/2019

SHEET: 1

PAGE: 1

INCLUDE CONNECTOR CAPS

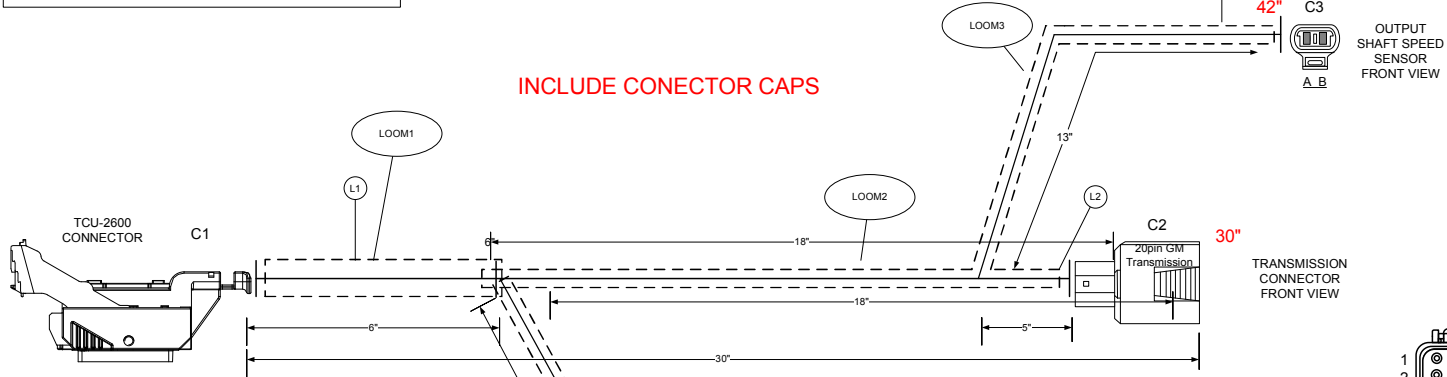


REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	Release	4/24/19	FD	
1A	PROTO UPDATE	5/13/19	FD	
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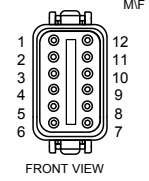
C2 OUTPUT SHAFT SPEED SENSOR FEMALE			
PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
A	TOSS+	ORG/RED	25
B	TOSS-	BLK/WHT	23

C2 TRANSMISSION CONNECTOR 2600 TO 4170 STAND ALONE			
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 -	VIOLBK	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	VIOL.T.GRN	TCU-13
S	REV CL	VIOL.T.BLU	TCU-14
T	TCC ON/OFF	VIOWHT	TCU-41
U	TCC PWM	VIOWHT	TCU-12
V	TURBIN SPEED -	BLK/WHT	TCU-22
W			

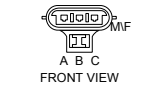
INCLUDE CONECTOR CAPS



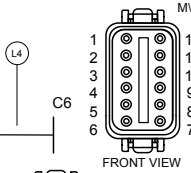
C6 BULKHEAD CONNECTOR			
PIN	CIRCUIT FUNCTION	COLOR	GOES TO
1	CAN1 L	WHT/BLK	TCU-16
2	LIMIT GEAR CAL2	BRN/WHT	TCU-33
3	FORCE NEUT	BRN/ORN	C1-34
4	DIG IN 6	GRY/ORN	C1-7
5	SHIFT INHIBIT	GRY/WHT	TCU-6
6	DIG IN 7	GRY/YELL	C1-8
7	CAN1 H	WHT/RED	TCU-15
8	CHECK TRANS LIGHT	PNK/LT.GRN	TCU-40
9	POWER +12V SW	YELLOW	C5-7
10	+12V BATTERY	RED	TCU-20
11	+12 VOLTS IGNITION	YEL	TCU-19,S1
12	CHASSIS GND	BLK	TCU-42



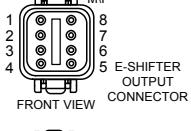
C-4A DIAGNOSTIC COMM CONNECTOR CAP			
QTY	DESCRIPTION	PIN	NOTES
1	CONNECTOR	CON-3415	
3	CAVITY PLUG	CON-1024	DK.RED
1	SECONDARY LOCK	CON-3417	



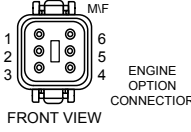
C-4 DIAGNOSTIC COMM CONNECTOR			
PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
A	SERIAL RX	RED	TCU-27
B	SIGNAL GND.	WHT	TCU-28
C	SERIAL TX	BLK	TCU-26



C-6 BULKHEAD CONNECTOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-5542	
12	TERMINALS	CON-5400	
1	TPA	CON-5532	



C-7 E-SHIFTER OUTPUT CONNECTOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-5532	
8	TERMINALS	CON-5400	
1	TPA	CON-5533	



C-8 ENGINE OPTION CONNECTOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-5520	
6	TERMINALS	CON-5400	
1	TPA	CON-5521	

C5 E-SHIFTER CONNECTOR			
PIN	CIRCUIT FUNCTION	COLOR	GOES TO
1	NEUTRAL SAFETY RY-1 (+)	PINK	TO C7-P5
2	NEUTRAL SAFETY RY-1 (-)	BLUE	TO C7-P6
3	NEUTRAL POS OUT	ORN/LT.BLU	TO C7-P2
4	REV POS OUT	ORN/WHT	TO C7-P3
5	REV LIGHT RY-2 (+)	ORN	TO C7-P7
6	REV LIGHT RY-2 (-)	GRN	TO C7-P8
7	POWER +12V SW	YELLOW	TO C7-P9
8	GROUND	BLACK	TO C6-P12
9	FORWARD POS OUT	ORN/RED	TO C7-P1
10	CAN HIGH	WHT/RED	TO C1-P15, C6-P7
11	CAN LOW	WHT/BLK	TO C1-P16, C6-P1
12	NU	NU	NU

Print Date
7/16/2019
1700

LABEL DEFINITION TABLE			
NUM	NAME	PART #	NOTES
L1	TCM-4450-001	WRE-8501	P-530
L2	TRANSMISSION CONNECTOR	WRE-8501	P-107
L3	TOSS	WRE-8500	P-8
L4	BULKHEAD CONNECTOR	WRE-8500	P-64
L5	DIAGNOSTIC COMM CONNECTOR	WRE-8500	P-337
L6	E-SHIFTER IN CONNECTOR	WRE-8500	P-531
L7	E-SHIFTER OUTPUT CONNECTOR	WRE-8500	P-532
L8	ENGINE OPTION CONNECTOR	WRE-8500	P-533

LOOM DEFINITION TABLE			
LOCATION	DISCRIPTION	LENGTH	PART#
LOOM1	5/8" BLACK CONVOLUTED LOOM	7"	WRE-3004
LOOM2	1/2" BLACK CONVOLUTED LOOM	13"	WRE-3003
LOOM3	1/4" BLACK CONVOLUTED LOOM	13"	WRE-3000
LOOM4	3/8" BLACK CONVOLUTED LOOM	4"	WRE-3001
LOOM5	NOT USED		NOT USED
LOOM6	3/8" BLACK CONVOLUTED LOOM	4"	WRE-3001
LOOM7	3/8" BLACK CONVOLUTED LOOM	44"	WRE-3001
LOOM8	1/4" BLACK CONVOLUTED LOOM	36"	WRE-3000

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

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.

DRAWN BY: FRED D. DATE: 4/12/2019

COMPANY:
POWERTRAIN CONTROL SOLUTIONS

TITLE:
TCM-4450 GSE 4LHD TRANS HARNESS W/ E-SHIFTER

SIZE: CUSTOMER DRAWING NO. PCS PART NUMBER
TCM-4450

REV: 002

DRAWN BY: FRED D. DATE: 4/12/2019 APPROVED BY: DATE: SHEET PAGE 2