Powertrain Control Solutions, LLC.
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DRAWN BY: J. Ballenger | DATE: 5/26/2004 | PAGE: 1 OF 2

TITLE:

TCU 4T80E HARNESS - 2003

PART NUMBER: TCM - 4104

DESCRIPTION: 4T80E TRANSMISSION HARNESS – 2003 CADILLAC DEVILLE DHS

REV.	DESCRIPTION	DATE	BY
0	ORIGINAL REVISION	5/26/2004	JB
1	NEW FORMAT	5/25/2005	RC

Splice B:

TO TCU PINS 1-4

RED	20AWG	4IN.	
RED	20AWG	4IN.	
RED	20AWG	4IN.	
RED	20AWG	4IN.	

16-14 gauge butt splice

RED	18AWG	56IN.	TO 480E PIN E
RED	20AWG	56IN.	TO 480E PIN U
RED	18AWG	8IN.	TO FUSE PIN A

Splice A:

TO TCU PINS 60-63

BLACK	20AWG	4IN.	
BLACK	20AWG	4IN.	
BLACK	20AWG	4IN.	
BLACK	20AWG	7IN.	

16-14 gauge butt splice

BLACK	18AWG	56IN.	TO GROUND
BLACK	20AWG	56IN.	4T80E PIN D

Splice D:

BLACK/WHITE	20AWG	59IN.	TO UNTERMINATED OUTPUTS
BLACK/WHITE	20AWG	56IN.	TO UNTERMINATED OUTPUTS
BLACK/WHITE	20AWG	16IN.	TO SPLICE C

20-18 gauge butt splice

TO TCU PIN 54: BLACK/WHITE 20AWG 4IN.

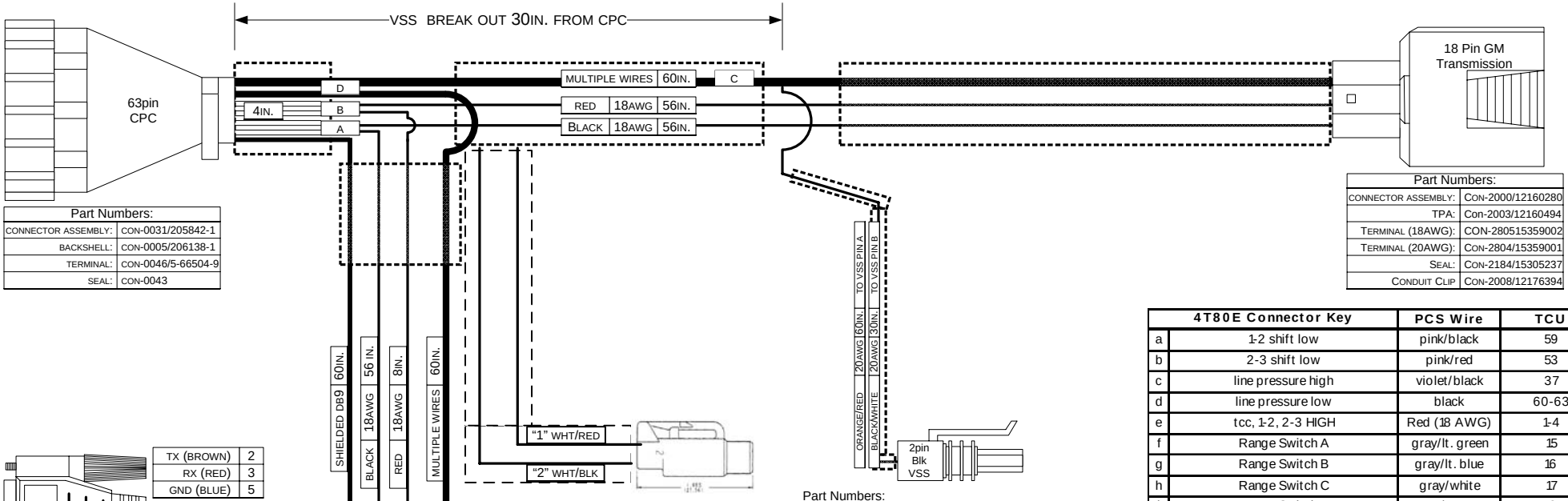
Splice C:

TO SPLICE D: BLACK/WHITE 20AWG 16 IN.

20-18 gauge butt splice

BLACK/WHITE	20AWG	40IN.	TO VSS PIN B
BLACK/WHITE	20AWG	40IN.	TO 4T80E PIN M
BLACK/WHITE	20AWG	40IN.	TO 4T80E PIN K

BLACK/WHITE 18AWG 45IN. TO 4T80E PIN V



Part Numbers:	
CONNECTOR ASSEMBLY:	CON-0031/205842-1
BACKSHELL:	CON-0005/206138-1
TERMINAL:	CON-0046/5-66504-9
SEAL:	CON-0043

Part Numbers:	
CONNECTOR ASSEMBLY:	CON-2000/12160280
TPA:	Con-2003/12160494
TERMINAL (18AWG):	CON-280515359002
TERMINAL (20AWG):	CON-2804/15359001
SEAL:	CON-2184/15305237
CONDUIT CLIP	CON-2008/12176394

Part Numbers:	
CONNECTOR ASSEMBLY:	WRE-2001

CONNECTOR ASSEMBLY:	CON-5050/DTM06-2S		
WEDGELOCK (ORANGE):	CON-5100/WM-2S		
TERMINAL(20-18GAUGE)	CON-5200/1062-20-1022		

Part Numbers:
Connector Assembly: CON-2169/12162195
Terminal (20-22AWG): CON-1033/12124076
Terminal (18AWG): CON-1034/12124075

2 PIN VSS CONNECTOR			
	PCS COLOR	GM FUNCTION	TCU POS
A	ORANGE/RED	VSS+	5
B	BLACK/WHITE	VSS-	54

Part Numbers:	
CONNECTOR ASSEMBLY:	CON-2200/15300027
FUSE CAP:	CON-2201/ES10CAP
TERMINAL(18-16GAUGE)	CON-1016/12048159
TERMINAL(14-12GAUGE)	CON-1017/12129497
CABLE SEAL(20-16GAUGE)	CON-1004/12089679
CABLE SEAL(18-14GAUGE)	CON-1001/12015323
CABLE SEAL(16-12GAUGE)	CON-1002/12010293

Unterminated Wires		
2-SENSOR GND	BLACK/WHITE	54
RPM	ORANGE/BLACK	5
SPEEDOMETER DRIVE	ORANGE/WHITE	9
TPS	YELLOW/BLACK	46
MAP	YELLOW/RED	47
CLT	YELLOW/LT.GREEN	48
SPARE ANALOG 1	YELLOW/LT.BLUE	49
BRAKE LIGHT	GRAY/YELLOW	21
SPARE DIGITAL 1	GRAY/PINK	22
SPARE DIGITAL 2	BROWN/BLACK	23
SPARE DIGITAL 3	BROWN/RED	24
+5V	RED/WHITE	58

4T80E Connector Key		PCS Wire	TCU
a	1-2 shift low	pink/black	59
b	2-3 shift low	pink/red	53
c	line pressure high	violet/black	37
d	line pressure low	black	60-63
e	tcc, 1-2, 2-3 HIGH	Red (18 AWG)	1-4
f	Range Switch A	gray/lt. green	15
g	Range Switch B	gray/lt. blue	16
h	Range Switch C	gray/white	17
j	Range Switch P	gray/orange	18
k	Range Switch Ground	black/white	54
L	trans fluid temp high	yellow/orange	51
m	trans fluid temp low	black/white	54
n	range a	gray/black	13
p	range c	gray/red	14
s	Turbine speed high	orange/lt. green	7
t	tcc pwm low	violet/red	28
u	tcc pwm high (+12v when brake is off)	Red	1-4
v	turbine speed low	black/white	54

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TITLE:

TCU 4T80E HARNESS - 2003

PART NUMBER: TCM - 4102

DESCRIPTION:
HARNESS DIAGRAM FOR 4T80E – 2003 CADILLAC DEVILLE DHS

REV.	DESCRIPTION	DATE	BY
0	ORIGINAL REVISION	5/26/2004	JB
1	NEW FORMAT	5/25/2005	RC

CPC	Pin Function	Harness Function	4T80E	colors
1	+12v	Battery Connection	+12v	red
2	+12v	Battery Connection	+12v	red
3	+12v	Battery Connection	+12v	red
4	+12v	Battery Connection	+12v	red
5	Speed Input 1	Engine Speed Input	RPM	orange/black
6	Speed Input 2	Transmission Speed Input	VSS	orange/red
7	Speed Input 3	TCC Speed Input	Turbine Speed	orange/lt. green
8	Speed Input 4	Optional Speed Input	-	orange/lt. blue
9	Speed Output	Speedometer Drive Output	Speedometer In	orange/white
10	unused	-	-	-
11	unused	-	-	-
12	PWM Out 4/freq2	PWM/Solenoid Driver	-	violet/lt. blue
13	Digital Input 1	Digital Input	psa A	gray/black
14	Digital Input 2	Digital Input	psa C	gray/red
15	Digital Input 3	Digital Input	Range A/1	gray/lt. green
16	Digital Input 4	Digital Input	Range B/2	gray/lt. blue
17	Digital Input 5	Digital Input	Range C/3	gray/white
18	Digital Input 6	Digital Input	Range P/4	gray/orange
19	Digital Out 5	Digital Driver	-	pink/white
20	PWM Out 3/freq2	PWM/Solenoid Driver	-	violet/lt. green
21	Digital Input 7	Digital Input	brake light	gray/yellow
22	Digital Input 8	Digital Input	Spare Dig1	gray/pink
23	Digital Input 9	Digital Input	Spare Dig2	brown/black
24	Digital Input 10	Digital Input	Spare Dig3	brown/red
25	Digital Input 11	Digital Input	-	brown/lt. green
26	Digital Input 12	Digital Input	-	brown/lt. blue
27	Digital Out 6	Digital Driver	-	pink/orange
28	PWM Out 2/freq1	PWM/Solenoid Driver	Tcc Pressure	violet/red
29	unused	-	-	-
30	RS-232 Transmit	Communications Cable	db9	white/orange
31	RS-232 Receive	Communications Cable	db9	white/lt. blue
32	CAN/RS-232 GND	Communications Cable	db9	white/lt. green
33	CAN High	Communications Cable	-	white/red
34	CAN Low	Communications Cable	-	white/black
35	unused	-	-	-
36	Digital Out 3/PWM 9	Digital Driver	-	pink/lt. green
37	PWM Out 1/freq 1	PWM/Solenoid Driver	Line Pressure	violet/black
38	unused	-	-	-
39	Digital Input 13	Digital Input	-	brown/white
40	Digital Input 14	Digital Input	-	brown/orange
41	Digital Input 15	Digital Input	-	brown/yellow
42	Digital Input 16	Digital Input	-	brown/pink
43	unused	-	-	-
44	Digital Out 4	Digital Driver	-	pink/lt. blue
45	PWM Out 6/freq1	PWM/Solenoid Driver	-	violet/orange
46	Analog Input 1	Analog Input	tps	yellow/black
47	Analog Input 2	Analog Input	map	yellow/red
48	Analog Input 3	Analog Input	clt	yellow/lt. green
49	Analog Input 4	Analog Input	Spare An1	yellow/lt. blue
50	Analog Input 5/temp	Analog Input	-	yellow/white
51	Analog Input 6/temp	Analog Input	fluid temp	yellow/orange
52	Pwm Out 5/freq1	PWM/Solenoid Driver	-	violet/white
53	Digital Out 2/PWM 8	Digital Driver	2-3 Shift	pink/red
54	Sensor/AD Gnd	Sensor or reference Gnd	fluid temp/vss	black/white
55	unused	-	-	-
56	unused	-	-	-
57	unused	-	-	-
58	Ref Voltage (+5v)	Sensor/reference Voltage	-	red/white
59	Digital Out 1/PWM 7	Digital Driver	1-2 Shift	pink/black
60	Gnd	Battery Connection	Gnd	black
61	Gnd	Battery Connection	Gnd	black
62	Gnd	Battery Connection	Gnd	black
63	Gnd	Battery Connection	Gnd	black

	db9 pinout	DB9
1	none	none
2	transmit	brown
3	receive	red
4	none	none
5	gnd	blue
6	none	none
7	none	none
8	none	none
9	none	none

Extra Wires	
1	orange/lt. blue
2	violet/lt. blue
3	pink/white
4	violet/lt. green
5	brown/lt. green
6	brown/lt. blue
7	pink/orange
8	pink/lt. green
9	brown/white
10	brown/orange
11	brown/yellow
12	brown/pink
13	pink/lt. blue
14	violet/orange
15	yellow/white