

Powertrain Control Solutions, LLC.

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DRAWN BY: J.Ballenger DATE: 12/13/2004 PAGE: 1 OF 2

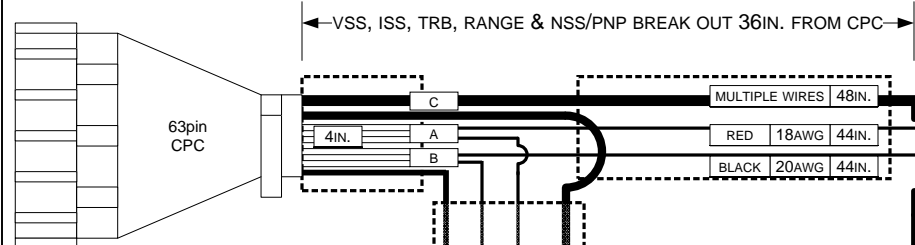
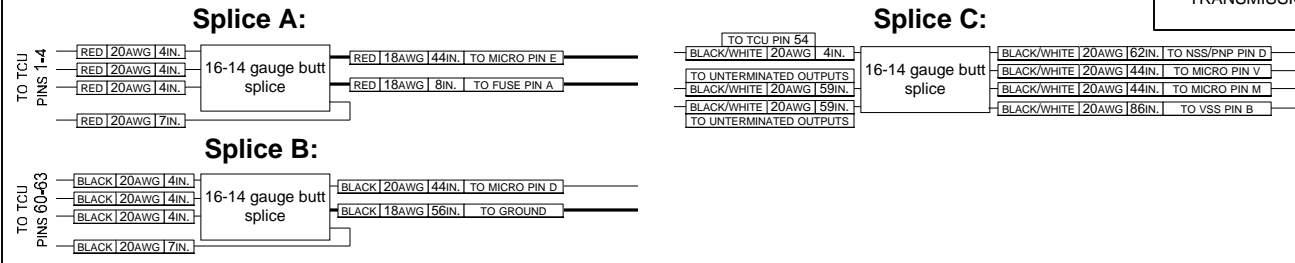
TITLE:

4T65E HARNESS

PART NUMBER: TCM-4101

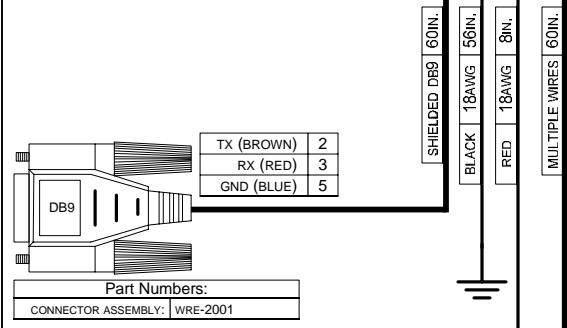
DESCRIPTION: GM 4T65E 1997-2002 TRANSMISSION HARNESS

REV.	DESCRIPTION	DATE	BY
0	ORIGINAL REVISION	1/27/2004	JB
1	COLOR CHANGES, ADDED FEATURES, PULL LOW SOL	12/13/2004	JB



Part Numbers:

CONNECTOR ASSEMBLY:	CON-0031/205842-1
BACKSHELL:	CON-0005/206138-1
TERMINAL:	CON-0044/5-66504-9
SEAL:	CON-0043

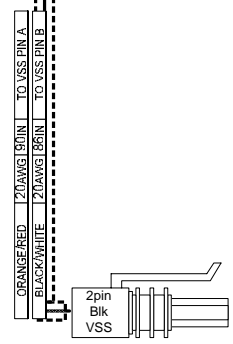


Part Numbers:

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

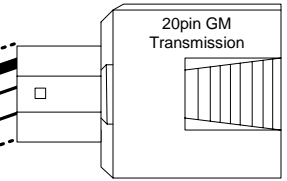
2-SENSOR GND	BLACK/WHITE
RPM	ORANGE/BLACK
SPEEDOMETER	ORANGE/WHITE
TPS	YELLOW/BLACK
MAP	YELLOW/RED
CLT	YELLOW/LT.GREEN
SPARE ANALOG 1	YELLOW/LT.BLUE
BRAKE LIGHT	BROWN/BLACK
SPARE DIGITAL 1	BROWN/RED
SPARE DIGITAL 2	BROWN/LT.GREEN
SPARE DIGITAL 3	BROWN/LT.BLUE



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
A ORANGE/RED	VSS+
B BLACK/WHITE	VSS-



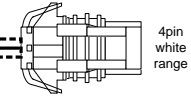
Part Numbers:
 Connector: CON-2001/12160280
 TPA: CON-2003/12160494
 Terminal (20-22AWG): CON-2804/15359001
 Terminal (18AWG): CON-2805/15359002
 Seal: Harness Dependant

14 PIN MICROPACK PINOUT & CORRESPONDANCE CHART

PCS WIRE COLOR	PCS FUNCTION	TCU POS	GM FUNCTION
PINK/BLACK	DIGITAL OUTPUT 1	59	SHIFT SOL (1-2) A-
PINK/RED	DIGITAL OUTPUT 2	53	SHIFT SOL (2-3) B-
VIOLET/BLACK	PWM OUTPUT 1	37	LINE PRESSURE+
BLACK	GROUND SOURCE	60-63	LINE PRESSURE-
RED (18AWG)	+12V SOURCE	1-4	TCC,SOL A,B +12V
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
YELLOW/ORANGE	ANALOG INPUT 6	51	TFT+
BLACK/WHITE	S.GROUND	54	TFT-
GRAY/BLACK	DIGITAL INPUT 1	13	PSA A
GRAY/LT. GREEN	DIGITAL INPUT 3	15	PSA C
GRAY/RED	DIGITAL INPUT 2	14	PSA B
ORANGE/LT. GREEN	SPEED INPUT 3	7	TCC SPEED+
VIOLET/RED	PWM OUTPUT 2	28	TCC PWM-
GRAY/PINK	DIGITAL INPUT 8	22	TCC RELEASE SWITCH
BLACK/WHITE	S.GROUND	54	TCC SPEED-
-	-	-	-

4 PIN RANGE CONNECTOR

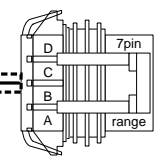
PCS COLOR	GM FUNCTION
A GRAY/YELLOW	RANGE P
B GRAY/WHITE	RANGE B
C GRAY/ORANGE	RANGE C
D GRAY/LT.BLUE	RANGE A



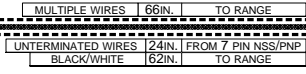
Part Numbers:
 Connector Assembly: CON-2160/12191757
 Terminal (20-22AWG): CON-1038/12084200
 TPA: CON-2165/12129802

7 PIN NSS/PNP CONNECTOR

PCS COLOR	GM FUNCTION
A -	-
B WHITE/BLACK	P/N/R IN+12V
C WHITE/RED	P/N OUT
D BLACK/WHITE	RANGE S.GND
E RED (16AWG)	START RELAY
F BROWN/PINK	REV. LAMP
G BLACK (16AWG)	NSS- P/N+12V



Part Numbers:
 Connector Assembly: CON-2156/12129840
 Terminal (20-22AWG): CON-1038/12084200
 Terminal (16AWG): CON-1020/12077411
 TPA: CON-2157/12129841



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TITLE:

4T65E HARNESS

PART NUMBER: TCM-4101

DESCRIPTION:
1997-2002 4T65E HARNESS

DRAWN BY: J.Ballenger DATE: 12/13/2004 PAGE: 2 OF 2

REV.	DESCRIPTION	DATE	BY
0	ORIGINAL REVISION	1/27/2004	JB
1	COLOR CHANGES, ADDED FEATURES, PULL LOW SOL	12/13/2004	JB

CPC	Pin Function	Harness Function	4T65E	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	PM, from tach outp	orange/black
6	Speed Input 2	Transmission Speed Input	VSS	orange/red
7	Speed Input 3	TCC Speed Input	TCC Speed	orange/lt. green
8	Speed Input 4	Optional Speed Input	-	orange/lt. blue
9	Speed Output	Speedometer Drive Output	PCM Speed Inpt	orange/white
10	unused	-	-	-
11	unused	-	-	-
12	PWM Out 4/freq2	V/L M ultifunction/PWM/Sole	-	violet/lt. blue
13	Digital Input 1	Digital Input	PSA "A"	gray/black
14	Digital Input 2	Digital Input	PSA "B"	gray/red
15	Digital Input 3	Digital Input	PSA "C"	gray/lt. green
16	Digital Input 4	Digital Input	Range Switch 1/A	gray/lt. blue
17	Digital Input 5	Digital Input	Range Switch 2/B	gray/white
18	Digital Input 6	Digital Input	Range Switch 3/C	gray/orange
19	Digital Out 5	V/L M ultifunction/PWM/Sole	-	pink/white
20	PWM Out 3/freq2	ble H/L M ultifunction/Digita	-	violet/lt. green
21	Digital Input 7	Digital Input	Range Switch 0/P	gray/yellow
22	Digital Input 8	Digital Input	TCC Release	gray/pink
23	Digital Input 9	Digital Input	Brake Light	brown/black
24	Digital Input 10	Digital Input	Spare Dig 1	brown/red
25	Digital Input 11	Digital Input	Spare Dig 2	brown/lt. green
26	Digital Input 12	Digital Input	Spare Dig 3	brown/lt. blue
27	Digital Out 6	ble H/L M ultifunction/Digita	-	pink/orange
28	PWM Out 2/freq1	ble H/L M ultifunction/Digita	CC Pressure Contr	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	V/L M ultifunction/PWM/Sole	-	pink/lt. green
37	PWM Out 1/freq 1	ble H/L M ultifunction/Digita	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	V/L M ultifunction/PWM/Sole	-	pink/lt. blue
45	PWM Out 6/freq1	ble H/L M ultifunction/Digita	-	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 Analog 1	yellow/lt. blue
50	Analog Input 5/temp	Analog Input	-	yellow/white
51	Analog Input 6/temp	Analog Input	tft	yellow/orange
52	Pwm Out 5/freq1	V/L M ultifunction/PWM/Sole	-	violet/white
53	Digital Out 2	ble H/L M ultifunction/Digita	2-3 Shift (Sol B)	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 or reference Voltage	-	red/white
59	Digital Out 1	V/L M ultifunction/PWM/Sole	1-2 Shift (Sol A)	pink/black
60	Gnd	Battery Connection	Gnd	black
61	Gnd	Battery Connection	Gnd	black
62	Gnd	Battery Connection	Gnd	black

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

	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

4T65E Connector Key	PCS Wire	
A	Shift Sol (1-2) A-	pink/black
B	Shift Sol (2-3) B-	pink/red
C	Line Pressure+	violet/black
D	Line Pressure-	black
E	TCC, Sol A,B +12v	Red (18AWG)
F	-	-
G	-	-
H	-	-
J	-	-
K	-	-
L	ATF Temp+	yellow/orange
M	ATF Temp-	black/white
N	Range A	gray/black
P	Range C	gray/lt.green
R	Range B	gray/red
S	TCC Speed+	orange/lt.green
T	TCC PWM -	violet/red
U	TCC Release Switch	gray/pink
V	TCC Speed-	black/white
W	-	-