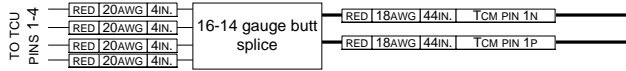
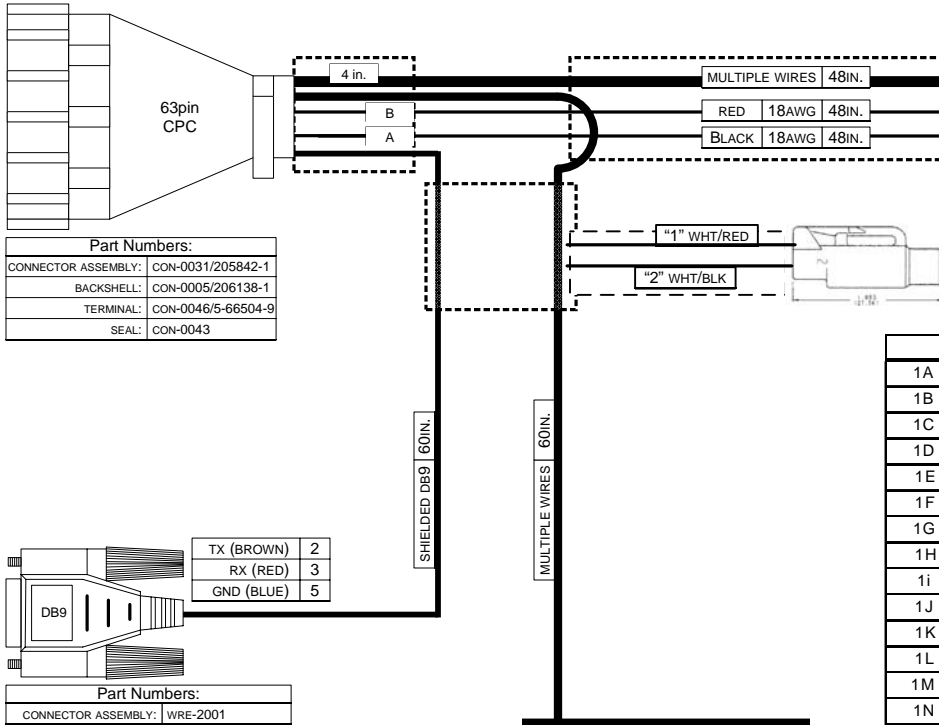
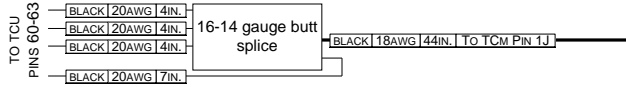


PART NUMBER:	TCM - 4105	REV.	DESCRIPTION	DATE	BY
DESCRIPTION:	RX -7 HARNESS	0	ORIGINAL REVISION	6/7/2004	JB
		1	NEW FORMAT	5/24/2005	RC

Splice B:



Splice A:



Part Numbers:

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

TX (BROWN)	2
RX (RED)	3
GND (BLUE)	5

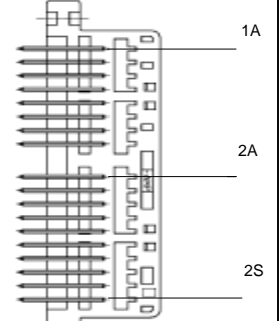
Part Numbers:

CONNECTOR ASSEMBLY:	WRE-2001
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Unterminated Wires

SPARE DIGITAL 1	BROWN/RED	24
SPARE DIGITAL 2	BRWON/LT. GREEN	25
SPARE DIGITAL 3	BROWN/LT. BLUE	26
SPARE ANALOG	YELLOW/LT. BLUE	49
+5V	RED/WHITE	58
SG GND	BLACK/WHITE	54

TCU Connector to Stock Harness



Part Numbers:
Con-4320/174912 - 2
D-Sub Terminal 66504

16 Pin Side

20 Pin Side

RX - 7			PCS Wire	TCU	RX - 7			PCS Wire	TCU
1A	Battery (backup)	-	-	-	2A	TPS +5v ref	-	-	-
1B	Shift Solenoid B	pink/red	53	2B	Inhibitor switch (D.)	gray/lt. green	15	-	-
1C	Inhibitor signal to ECU	violet/lt. blue	12	2C	MAP	yellow/red	47	-	-
1D	Shift Solenoid A	pink/black	59	2D	Inhibitor switch (P&N)	gray/black	13	-	-
1E	Inhibitor switch (R.)	gray/red	14	2E	Turbine Speed	orange/lt. green	7	-	-
1F	Line Pressure	violet/black	37	2F	TCC Solenoid control	pink/lt. green	36	-	-
1G	Engine RPM	orange/black	5	2G	Slip lockup off <3000rpm	-	-	-	-
1H	Dropping Resistor	violet/lt. green	20	2H	torque reduced input	-	-	-	-
1i	Speed 2 (Speedometer)	-	-	2I	hold switch	gray/pink	22	-	-
1J	Ground	black (18AWG)	60-63	2J	Speed 1	orange/red	6	-	-
1K	Hold Indicator/diag	pink/white	19	2K	TAT/overdrive cancel	gray/yellow	21	-	-
1L	A/C signal	brown/black	23	2L	sensor ground	black/white	54	-	-
1M	TCC lockup	violet/red	28	2M	Idle signal	-	-	-	-
1N	Main Battery	Red (18AWG)	1-4	2N	coolant theroswitch	yellow/lt.green	48	-	-
1O	Overrun Solenoid	pink/lt. blue	44	2O	brake switch	gray/orange	18	-	-
1P	Main Battery	Red (18AWG)	1-4	2P	torque reduction output	-	-	-	-
				2Q	Inhibitor switch (L)	gray/white	17	-	-
				2R	TFT	yellow/orange	51	-	-
				2S	Inhibitor switch (S)	gray/lt. blue	16	-	-
				2T	TPS	yellow/black	46	-	-

Note: Wires going to RX-7 connector should have D-Sub ends crimped on and should be soldered to straightened RX-7 terminal ends. Heatshrink soldered joints and leftover terminal ends.



Powertrain Control Solutions, LLC.

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Phone: (804) 752-6025
Fax: (804) 752-3516

TITLE: TCU R4A-EL HARNESS RX-7

PART NUMBER: TCM-4105

DESCRIPTION:
TCU R4A-EL HARNESS RX-7

DRAWN BY: J. Ballenger DATE: 6/7/2004 PAGE: 2 OF 2

REV.	DESCRIPTION	DATE	BY
0	ORIGINAL REVISION	6/7/2004	JB
1	NEW FORMAT	05/24/2005	RC

CPC	Pin Function	Harness Function	R4A-EL (RX-7)	colors
1	+12v	Battery Connection	+12v - 1N	red
2	+12v	Battery Connection	+12v -1N	red
3	+12v	Battery Connection	+12v - 1P	red
4	+12v	Battery Connection	+12v - 1P	red
5	Speed Input 1	Engine Speed Input	RPM -1G	orange/black
6	Speed Input 2	Transmission Speed Input	VSS/Speed1-2J	orange/red
7	Speed Input 3	TCC Speed Input	Turbine Speed-2E	orange/lt. green
8	Speed Input 4	Optional Speed Input	-	orange/lt. blue
9	Speed Output	Speedometer Drive Output	-	orange/white
10	unused	-	-	-
11	unused	-	-	-
12	PWM Out 4/freq2	PWM/Solenoid Driver	P/N Indication to ECU -1C	violet/lt. blue
13	Digital Input 1	Digital Input	Range P&N - 2D	gray/black
14	Digital Input 2	Digital Input	Range R - 1E	gray/red
15	Digital Input 3	Digital Input	Range D - 2B	gray/lt. green
16	Digital Input 4	Digital Input	Range S - 2S	gray/lt. blue
17	Digital Input 5	Digital Input	Range L - 2Q	gray/white
18	Digital Input 6	Digital Input	Brake light - 2O	gray/orange
19	Digital Out 5	Digital Driver	Hold Indicator	pink/white
20	PWM Out 3/freq2	PWM/Solenoid Driver	LP Dropping Res - 1H	violet/lt. green
21	Digital Input 7	Digital Input	TAT/OD cancel - 2K	gray/yellow
22	Digital Input 8	Digital Input	Hold Switch - 2i	gray/pink
23	Digital Input 9	Digital Input	A/C signal - 1L	brown/black
24	Digital Input 10	Digital Input	Spare Digital 1	brown/red
25	Digital Input 11	Digital Input	Spare Digital 2	brown/lt. green
26	Digital Input 12	Digital Input	Spare Digital 3	brown/lt. blue
27	Digital Out 6	Digital Driver	-	pink/orange
28	PWM Out 2/freq1	PWM/Solenoid Driver	TCC Lockup - 1M	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	TCC Solenoid - 2F	pink/lt. green
37	PWM Out 1/freq 1	PWM/Solenoid Driver	Line Pressure - 1F	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	Overrun Solenoid - 1O	pink/lt. blue
45	PWM Out 6/freq1	PWM/Solenoid Driver	-	violet/orange
46	Analog Input 1	Analog Input	tps - 2T	yellow/black
47	Analog Input 2	Analog Input	map - 2C	yellow/red
48	Analog Input 3	Analog Input	Coolant switch - 2N	yellow/lt. green
49	Analog Input 4	Analog Input	Spare Analog	yellow/lt. blue
50	Analog Input 5/temp	Analog Input	-	yellow/white
51	Analog Input 6/temp	Analog Input	fluid temp - 2R	yellow/orange
52	Pwm Out 5/freq1	PWM/Solenoid Driver	-	violet/white
53	Digital Out 2 / PWM 8	Digital Driver	Shift Sol B - 1B	pink/red
54	Sensor/AD Gnd	Sensor or reference Gnd	fluid temp/vss - 2L	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	Shift Sol A - 1D	pink/black
60	Gnd	Battery Connection	Gnd - 1J	black
61	Gnd	Battery Connection	Gnd - 1J	black
62	Gnd	Battery Connection	Gnd - 1J	black
63	Gnd	Battery Connection	Gnd - 1J	black

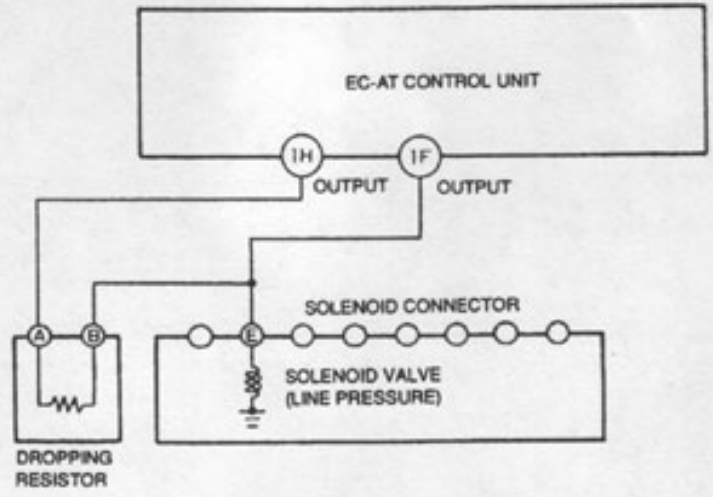
1	orange/lt. blue
2	orange/white
3	pink/orange
4	brown/white
5	brown/orange
6	brown/yellow
7	brown/pink
8	violet/orange
9	violet/white
10	red/white
11	yellow/white
12	
13	

Terminal	Solenoid Valve	Resistance
A	Lockup Control	20-40
B	Shift A	20-40
C	Shift B	20-40
D	Overrunning Clutch	20-40
E	Line Pressure	2.5-5.0
F	Lockup	10/20

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

TFT	Resistance
10°C (50°F)	3.8kohm
40°C (104°F)	1.2kohm
80°C (176°F)	.3kohm

ATF temperature	Continuity
Above 115 °C {239°F}	Yes
Below 110°C {230 °F}	No



dropping resistor is 12.5-19 ohms
line pressure resistor is 2.5-5 ohms

