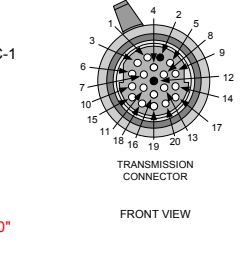


REVISION HISTORY				
LEVEL	DESCRIPTION	DATE	DRN	APP
1	RELEASE	7/1/16	FD	
1A	FIRST BUILD CORRECTIONS	7/18/16	FD	
3	LATEST CHANGES	10/21/16	FD	



TRANSMISSION CONNECTOR			
QTY	DESCRIPTION	P/N	NOTES
1	CONNECTOR	CON-2020	
18	TERMINALS	CON-2022	
18	WIRE SEAL	CON-1090	
2	CAVITY PLUG	CON-2107	

C-2 LAPTOP CAL CONNECTOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-3416	
3	TERMINALS	CON-1038	
1	TPA	CON-3417	CREAM
3	CABLE SEALS	CON-1027	WHT

C-3 OPTION			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-0065	
4	TERMINALS	CON-0051	

C-4 CAN BUS CONNECTOR			
QTY	DESCRIPTION	P/N	NOTES
1	CONNECTOR	CON-5050	(20-18gauge)
2	TERMINALS	CON-5200	
1	WEDGE LOCK	WM-2s	ORANGE

C-5 THROTTLE POSITION CONNECTOR			
QTY	DESCRIPTION	PCS P/N	NOTES
1	CONNECTOR	CON-2302	
3	TERMINALS	CON-1006	
3	CABLE SEALS	CON-1004	VIO

CHASSIS GND			
QTY	DESCRIPTION	P/N	NOTES
1	RING TERM.	CON-0350	

Print Date
10/21/2016
1700

TXT	COLOR	NOTES
BLK	BLACK	
BRN	BROWN	
RED	RED	
ORN	ORANGE	
YEL	YELLOW	
LT.GRN	LIGHT GREEN	
GRN	GREEN	
LT.BLU	LIGHT BLUE	
BLU	BLUE	
VIO	VIOLET	
GRY	GRAY	
WHT	WHITE	
PNK	PINK	

F1, F2	QTY	DESCRIPTION	PCS P/N	NOTES
	2	CONNECTOR	CON-2200	
	2	FUSE CAP.	CON-2201	BLK
	2	TPA	CON-2202	BLU
	4	TERMINAL	CON-1020	(18-16 AWG)
	2	FUSE	CON-2221, 2217	10A, 3A
	4	CABLE SEAL	CON-1001	GRN

S-#	FUNCTION	COLOR
S1	12 VOLTS SWITCHED	YEL
S2	12 VOLTS SWITCHED	YEL
S3	SIGNAL GND	BLK/WHT
S4	GND	BLK/WHT
S5	CAN HIGH	WHT/RED
S6	CAN LOW	WHT/BLK

APPLICABLE STANDARDS
 • ASME Y14.100-200
 • ASME Y14.5M-1994
 • IPC/WMA-A-620A-CLASS 2
 • MARK IAW MIL-STD-130.

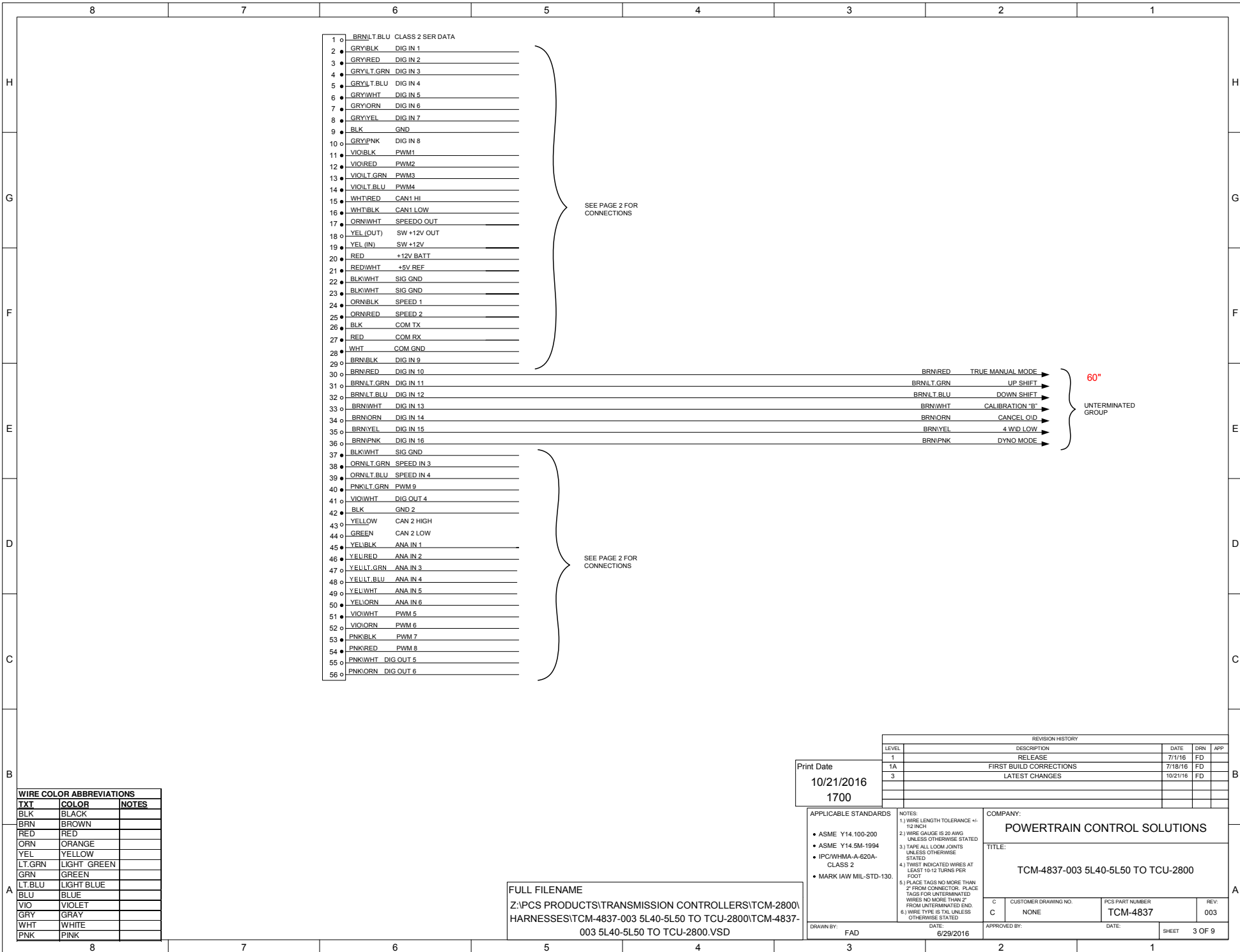
NOTES:
 1.) WIRE LENGTH TOLERANCE +/- 1/2 INCH
 2.) WIRE GAUGE IS 20 AWG UNLESS OTHERWISE STATED
 3.) TAPE ALL LOOM JOINTS UNLESS OTHERWISE STATED
 4.) TWIST INDICATED WIRES AT LEAST 10-12 TURNS PER FOOT
 5.) PLACE TAGS NO MORE THAN 2" FROM UNTERMINATED END.
 6.) WIRE TYPE IS TXL UNLESS OTHERWISE STATED

COMPANY:
POWERTRAIN CONTROL SOLUTIONS

TITLE:
TCM-4837-003 5L40-5L50 TO TCU-2800

C	CUSTOMER DRAWING NO.	PCS PART NUMBER	REV:
C	NONE	TCM-4837	003

DRAWN BY: FAD DATE: 6/29/2016 APPROVED BY: DATE: SHEET 2 OF 9



- 1 0 BRNLT.BLU CLASS 2 SER DATA
- 2 0 GRYBLK DIG IN 1
- 3 0 GRYRED DIG IN 2
- 4 0 GRYLT.GRN DIG IN 3
- 5 0 GRYLT.BLU DIG IN 4
- 6 0 GRYWHT DIG IN 5
- 7 0 GRYORN DIG IN 6
- 8 0 GRYYEL DIG IN 7
- 9 0 BLK GND
- 10 0 GRYPNK DIG IN 8
- 11 0 VIOBLK PWM1
- 12 0 VIORED PWM2
- 13 0 VIOILT.GRN PWM3
- 14 0 VIOILT.BLU PWM4
- 15 0 WHTRED CAN1 HI
- 16 0 WHTBLK CAN1 LOW
- 17 0 ORNWHT SPEEDO OUT
- 18 0 YEL (OUT) SW +12V OUT
- 19 0 YEL (IN) SW +12V
- 20 0 RED +12V BATT
- 21 0 REDWHT +5V REF
- 22 0 BLKWHT SIG GND
- 23 0 BLKWHT SIG GND
- 24 0 ORNBLK SPEED 1
- 25 0 ORNRED SPEED 2
- 26 0 BLK COM TX
- 27 0 RED COM RX
- 28 0 WHT COM GND
- 29 0 BRNBLK DIG IN 9
- 30 0 BRNRED DIG IN 10
- 31 0 BRNLT.GRN DIG IN 11
- 32 0 BRNLT.BLU DIG IN 12
- 33 0 BRNWHT DIG IN 13
- 34 0 BRNORN DIG IN 14
- 35 0 BRNYEL DIG IN 15
- 36 0 BRNPNK DIG IN 16
- 37 0 BLKWHT SIG GND
- 38 0 ORNLT.GRN SPEED IN 3
- 39 0 ORNLT.BLU SPEED IN 4
- 40 0 PNKLT.GRN PWM 9
- 41 0 VIOWHT DIG OUT 4
- 42 0 BLK GND 2
- 43 0 YELLOW CAN 2 HIGH
- 44 0 GREEN CAN 2 LOW
- 45 0 YELBLK ANA IN 1
- 46 0 YELRED ANA IN 2
- 47 0 YELLT.GRN ANA IN 3
- 48 0 YELLT.BLU ANA IN 4
- 49 0 YELWHT ANA IN 5
- 50 0 YELORN ANA IN 6
- 51 0 VIOWHT PWM 5
- 52 0 VIOORN PWM 6
- 53 0 PNKBLK PWM 7
- 54 0 PNKRED PWM 8
- 55 0 PNKWHT DIG OUT 5
- 56 0 PNKIORN DIG OUT 6

SEE PAGE 2 FOR CONNECTIONS

SEE PAGE 2 FOR CONNECTIONS

60°
UNTERMINATED GROUP

WIRE COLOR ABBREVIATIONS		
TXI	COLOR	NOTES
BLK	BLACK	
BRN	BROWN	
RED	RED	
ORN	ORANGE	
YEL	YELLOW	
LT.GRN	LIGHT GREEN	
GRN	GREEN	
LT.BLU	LIGHT BLUE	
BLU	BLUE	
VIO	VIOLET	
GRY	GRAY	
WHT	WHITE	
PNK	PINK	

FULL FILENAME
 Z:\PCS PRODUCTS\TRANSMISSION CONTROLLERS\TCM-2800\HARNESSES\TCM-4837-003 5L40-5L50 TO TCU-2800\TCM-4837-003 5L40-5L50 TO TCU-2800.VSD

REVISION HISTORY			
LEVEL	DESCRIPTION	DATE	DRN APP
1	RELEASE	7/1/16	FD
1A	FIRST BUILD CORRECTIONS	7/18/16	FD
3	LATEST CHANGES	10/21/16	FD

Print Date
10/21/2016
1700

APPLICABLE STANDARDS		NOTES:		COMPANY:	
<ul style="list-style-type: none"> • ASME Y14.100-200 • ASME Y14.5M-1994 • IPC/WHMA-A-620A-CLASS 2 • MARK IAW MIL-STD-130. 		1.) WIRE LENGTH TOLERANCE +/- 1/2 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		POWERTRAIN CONTROL SOLUTIONS TITLE: TCM-4837-003 5L40-5L50 TO TCU-2800	
C	CUSTOMER DRAWING NO.	PCS PART NUMBER	REV:		
C	NONE	TCM-4837	003		
DRAWN BY: FAD		DATE: 6/29/2016	APPROVED BY:	DATE:	SHEET 3 OF 9

FULL FILENAME
 Z:\PCS PRODUCTS\TRANSMISSION CONTROLLERS\TCM-2800\HARNESSES\TCM-4837-003 5L40-5L50 TO TCU-2800\TCM-4837-003 5L40-5L50 TO TCU-2800.VSD

LABEL DEFINITION TABLE			
NUM	NAME	PCS PIN	NOTES
L1	TCM-4835-001	WRE-8501	P-344
L2	CAN CONNECTOR	WRE-8500	P2
L3	THROTTLE POSITION SENSOR	WRE-8500	P32
L4	CAHASSIS GROUND	WRE-8500	P31
L5	SW +12 VOLTS	WRE-8500	P65
L6	LAPTOP CALIBRATION CONNECTOR	WRE-8501	P107
L7	TRANSMISSION CONNECTOR	WRE-8500	P33
L8	TACHOMETER GROUND	WRE-8500	P34
L9	TACHOMETER	WRE-8500	P39
L10	SPEEDOMETER	WRE-8500	P38
L11	BRAKE LIGHT	WRE-8500	P85
L12	ANALOG IN 2	WRE-8500	P347
L13	MANUAL MODE	WRE-8500	P348
L14	UP SHIFT	WRE-8500	P349
L15	DOWN SHIFT	WRE-8500	P100
L16	PWM OUT 4	WRE-8500	P100
L17	PWM OUT 5	WRE-8500	P100
L18	OPTION CONNECTOR	WRE-5000	P30
L19	+12V BATTERY	WRE-5000	P80
L20	CALIBRATION A/B ENABLE	WRE-5000	P350
L21	CANCEL O/D SW	WRE-5000	P81
L22	4 W/D LOW	WRE-5000	P54
L23	DYNO MODE ENABLE	WRE-5000	P54

C5 THROTTLE POSITION SENSOR			
PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
A	SEN GND	BLK/WHT	TCU-37, S3
B	TPS	YEL/BLK	TCU-45
C	+5V SENSOR	RED/WHT	TCU-21

C3 OPTION			
PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
1	POWER	YEL	TCU-19, S1
2	GND.	BLK	TCU-9 & 42, S4
3	CAN HIGH	WHT/RED	TCU-15, S6
4	CAN LOW	WHT/BLK	TCU-16, S6

C4 CAN			
PIN	CIRCUIT FUNCTION	COLOR	TCU POS.
1	CAN HIGH	WHT/RED	TCU-15, S6
2	CAN LOW	WHT/BLK	TCU-16, S6

UNTERMINATED			
CIRCUIT FUNCTION	COLOR	CONNECTS TO	
TACHOMETER GROUND	BLK/WHT	TCU-22	
TACHOMETER	ORN/BLK	TCU-24	
SPEEDOMETER	ORN/WHT	TCU-17	
BRAKE LIGHT	GRY/LT.BLU	TCU-5	
ANALOG IN 2	YEL/RED	TCU-46	
TRUE MANUAL MODE	BLK/RED	TCU-30	
UP SHIFT	BLK/LT.GRN	TCU-31	
DOWN SHIFT	BLK/LT.BLU	TCU-32	
PWM OUT 4	VIO/LT.BLU	TCM-14	
PWM OUT 5	VIO/WHT	TCM-51	
CAL "B"	BLK/WHT	TCU-33	
CANCEL O/D	BLK/ORN	TCU-34	
4 W/D LOW	BLK/YEL	TCU-35	
DYNO MODE	BLK/PNK	TCU-36	

F2			
PIN	CIRCUIT FUNCTION	COLOR	WIRES TO
A	+12V BATT	RED	TCU-20
B	+12V BATT	RED	BATT SOURCE

F1			
PIN	CIRCUIT FUNCTION	COLOR	WIRES TO
A	SWITCHED +12V	YEL	TCU-19, S1
B	SWITCHED +12V	YEL	ITCHED +12V BA

C2 LAPTOP CAL 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

PIN	CIRCUIT FUNCTION	COLOR	CONNECTS TO
1	OSS	ORG/RED	TCU-25
2	NC		
3	SEN GND	BLK/WHT	TCU-23
4	GROUND	BLK	TCU-9 & 42, S4
5	SHIFT 4-5	PNK/GRN	TCU-40
6	SEN GND	BLK/WHT	TCU-37, S3
7	PSA C	GRY/RED	TCU-3
8	LINE PRES -	VIO/BLK	TCU-11
9	SHFT SEL 2	PNK/RED	TCU-54
10	FLUID TEMP	YEL/ORG	TCU-50
11	RANGE B	GRY/PNK	TCU-10
12	NC		
13	LINE PRES +	YEL	TCU-19, S2
14	SHIFT 1-2	PNK/BLK	TCU-53
15	ISS -	BLK/WHT	TCU-37, S3
16	RANGE A	GRY/BLK	TCU-2
17	SW +12v	YEL (16 AWG)	TCU-19, S2
18	TCC RPM	ORG/GRN	TCU-38
19	RANGE A	GRY/GRN	TCU-4
20	TCC SOL	VIO/RED	TCU-12

REVISION HISTORY			
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- APPLICABLE STANDARDS
- ASME Y14.100-200
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- NOTES
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COMPANY:
POWERTRAIN CONTROL SOLUTIONS

TITLE:
TCM-4837-003 5L40-5L50 TO TCU-2800

C CUSTOMER DRAWING NO. NONE
 PCS PART NUMBER TCM-4837
 REV: 003

DRAWN BY: FAD DATE: 6/29/2016 APPROVED BY: DATE: SHEET 4 OF 9

WIRE COLOR ABBREVIATIONS		
TX	COLOR	NOTES
BLK	BLACK	
BRN	BROWN	
RED	RED	
ORN	ORANGE	
YEL	YELLOW	
LT.GRN	LIGHT GREEN	
GRN	GREEN	
LT.BLU	LIGHT BLUE	
BLU	BLUE	
VIO	VIOLET	
GRY	GRAY	
WHT	WHITE	
PNK	PINK	

SPLICE INFORMATION		
S#	FUNCTION	COLOR
S1	12 VOLTS SWITCHED	YEL
S2	12 VOLTS SWITCHED	YEL
S3	SIGNAL GND	BLK/WHT
S4	GND	BLK/WHT
S5	CAN HIGH	WHT/RED
S6	CAN LOW	WHT/BLK

REVISION HISTORY			
LEVEL	DESCRIPTION	DATE	DRN APP
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