



Garage / Pit Power Box - Data Sheet

Overview:

The garage / pit power box has been designed specifically to support the DW12 IndyCar electronics system. The supply is a compact break out for the download loom that can be used in as a power source in the garage or timing stand. Breakout connections for the LLB and VIDS2 systems, ECU comms, and LLB debug are included. A duplicate car download pass-through connector for use by the engine support engineer also allows the box to be mounted in either direction when necessary.



The garage / pit power box can replace a traditional timing stand loom. The box has been designed to house the DSE Garage / Pit Power Supply; P/N: DSE-LB-PS-001 and connect to a DSE download umbilical or internal timing stand loom.

Functionality:

The indicator LEDs from the DSE power supply can be viewed through the cooling vents located in the garage / pit power box. Proper airflow must be maintained at all times. The two fans on the rear of the supply provide cooling.



Mechanical Specifications:

- Size: 6.75" x 11.5" x 4"
- Enclosure Material: Aluminum; powder coat finish

Part Number And Ordering Information:

P/N: DSE-LB-PB-001

Connector Interface:

Doug Shelby Engineering Phone: 765-586-0731 Email: dshelby1@hotmail.com <http://www.linkedin.com/in/dougshelby>

C1	Connector Name	Download		
	Label:	N/A		
Pin	Function	Dest1	Dest2	Dest3
C1-1	BAT+	C5-1	C2-1	C9-1
C1-2	BAT+	C5-2	C2-1	
C1-3	BAT+	C5-3	C2-1	
C1-4	BAT+	C5-4	C2-1	
C1-5	BAT-	C5-5	C3-1	C9-5
C1-6	BAT-	C5-6	C3-1	
C1-7	BAT-	C5-7	C3-1	
C1-8	BAT-	C5-8	C3-1	
C1-9	LLB to PC -ve	C5-9		
C1-10	LLB to PC +ve	C5-10		
C1-11	PC to LLB -ve	C5-11		
C1-12	PC to LLB +ve	C5-12		
C1-13				
C1-14	Pi Comms Screen	C5-14		
C1-15	ETXClk- (CBU)	C5-15		
C1-16	ETXClk+ (CBU)	C5-16		
C1-17	ERXClk- (CBU)	C5-17		
C1-18	ERXClk+ (CBU)	C5-18		
C1-19	ECU Gnd / Comms Screen	C5-19		
C1-20	PC to Pi LLB Debug	C5-20		
C1-21	Pi LLB to PC Debug	C5-21		
C1-22	DEBUG Mode	C5-22		
C1-23	VIDS 2 TO PC TX-	C5-23		
C1-24	VIDS 2 TO PC TX+	C5-24		
C1-25	PC TO VIDS 2 RX-	C5-25		
C1-26	PC TO VIDS 2 RX+	C5-26		
C1-27	V SENSE +	C5-27	C9-2	
C1-28	V SENSE -	C5-28	C9-4	
C1-29	RS232 ECU Rx	C5-29		
C1-30	RS232 ECU Tx	C5-30		
C1-31	HAND THROTTLE +ve	C5-31		
C1-32	HAND THROTTLE SIG	C5-32		
C1-33	HAND THROTTLE GND	C5-33		
C1-34	SPARE / INTERCOM 1	C5-34		
C1-35	SPARE / INTERCOM 2	C5-35		
C1-36	SPARE / INTERCOM 3	C5-36		
C1-37	SPARE / INTERCOM 4	C5-37		

C2	Connector Name	BATT+		
	Label:	+		
Pin	Function	Dest1	Dest2	Dest3
C2-1	BAT+	C1-1	C1-2	C1-3, C1-4

C3	Connector Name	BATT-		
	Label:	-		
Pin	Function	Dest1	Dest2	Dest3
C3-1	BAT-	C1-5	C1-6	C1-7, C1-8

C5	Connector Name	Download		
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C4	Title	LLB
	Label:	LLB
Pin	Function	Dest 1
C4-1	PC to LLB +ve	C5-12
C4-2	PC to LLB -ve	C5-11
C4-3	LLB to PC +ve	C5-10
C4-4		
C4-5		
C4-6	LLB to PC -ve	C5-9
C4-7		
C4-8		

C6	Title	DEBUG
	Label:	N/A
Pin	Function	Dest 1
C6-1	Batt+	C5-1
C6-2	RS232 to S6, RS232 RxD	C5-21
C6-3	S6 to RS232, RS232 TxD	C5-20
C6-4	Debug Mode	C5-22
C6-5	GND	C5-5

C7	Title	VIDS2
	Label:	VIDS2
Pin	Function	Dest 1
C7-1	PC TO VIDS 2 RX+	C5-26
C7-2	PC TO VIDS 2 RX-	C5-25
C7-3	VIDS 2 TO PC TX+	C5-24
C7-4		
C7-5		
C7-6	VIDS 2 TO PC TX-	C5-23
C7-7		
C7-8		

C8	Title	ECU
	Label:	ECU
Pin	Function	Dest 1
C8-1	ERXClk+ (CBU)	C5-18
C8-2	ERXClk- (CBU)	C5-17
C8-3	ETXClk+ (CBU)	C5-16
C8-4		
C8-5		
C8-6	ETXClk- (CBU)	C5-15
C8-7		
C8-8		

C9	Title	VSENSE
	Label:	N/A
Pin	Function	Dest 1
C9-1	Batt+	C1-1
C9-2	V SENSE +	C1-27
C9-3		
C9-4	V SENSE -	C1-28
C9-5	GND	C1-5

		P/T		
	Label:	N/A		
Pin	Function	Dest1	Dest2	Dest3
C5-1	BAT+	C1-1	C6-1	
C5-2	BAT+	C1-2		
C5-3	BAT+	C1-3		
C5-4	BAT+	C1-4		
C5-5	BAT-	C1-5	C6-5	
C5-6	BAT-	C1-6		
C5-7	BAT-	C1-7		
C5-8	BAT-	C1-8		
C5-9	LLB to PC -ve	C1-9	C4-6	
C5-10	LLB to PC +ve	C1-10	C4-3	
C5-11	PC to LLB -ve	C1-11	C4-2	
C5-12	PC to LLB +ve	C1-12	C4-1	
C5-13				
C5-14	Pi Comms Screen	C1-14		
C5-15	ETXCik- (CBU)	C1-15	C8-6	
C5-16	ETXCik+ (CBU)	C1-16	C8-3	
C5-17	ERXCik- (CBU)	C1-17	C8-2	
C5-18	ERXCik+ (CBU)	C1-18	C8-1	
C5-19	ECU Gnd / Comms Screen	C1-19		
C5-20	PC to Pi LLB Debug	C1-20	C6-3	
C5-21	Pi LLB to PC Debug	C1-21	C6-2	
C5-22	DEBUG Mode	C1-22	C6-4	
C5-23	VIDS 2 TO PC TX-	C1-23	C7-6	
C5-24	VIDS 2 TO PC TX+	C1-24	C7-3	
C5-25	PC TO VIDS 2 RX-	C1-25	C7-2	
C5-26	PC TO VIDS 2 RX+	C1-26	C7-1	
C5-27	V SENSE +	C1-27		
C5-28	V SENSE -	C1-28		
C5-29	RS232 ECU Rx	C1-29		
C5-30	RS232 ECU Tx	C1-30		
C5-31	HAND THROTTLE +ve	C1-31		
C5-32	HAND THROTTLE SIG	C1-32		
C5-33	HAND THROTTLE GND	C1-33		
C5-34	SPARE / INTERCOM 1	C5-34		
C5-35	SPARE / INTERCOM 2	C5-35		
C5-36	SPARE / INTERCOM 3	C5-36		
C5-37	SPARE / INTERCOM 4	C5-37		