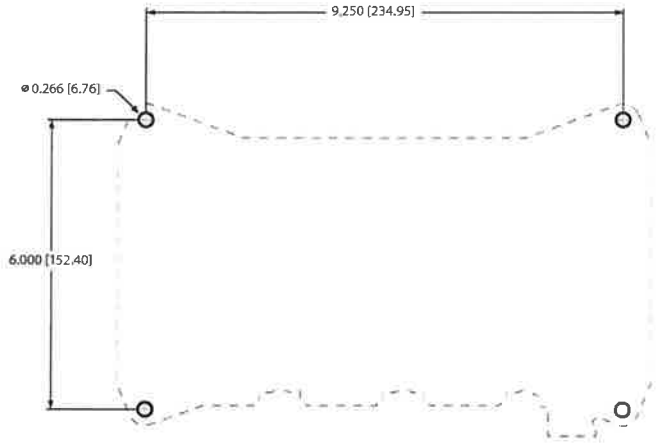
High Density PDM (21 outputs / 10 inputs) OEM Quick Manual

INSTALLATION

Mount the HD-PDM (p/n 120727) with screws and nuts. The dimensions in the detail below are in inches [millimeters].



WIRING

The HD-PDM has three (3) 12-pin Deutsch connectors and one (1) Cannon high current power input connector.

⚠ WARNING!

Ensure output current is limited to 100 Amps per connector.

Green connector

Mating connector:	Deutsch DT06-12SC GREEN
Mating sockets:	Deutsch 0462-201-16141
Recommended wire gage:	16-20 AWG
Wedge lock:	W12S

PIN	CIRCUIT	DESCRIPTION	
1	OUTPUT 10	(OUTPUT)	– Positive polarity (13 Amps)
2	OUTPUT 11	(OUTPUT)	– Positive polarity (13 Amps)
3	OUTPUT 12	(OUTPUT)	– Positive polarity (13 Amps)
4	OUTPUT 13	(OUTPUT)	– Positive polarity (13 Amps)
5	OUTPUT 14	(OUTPUT)	– Positive polarity (13 Amps)
6	OUTPUT 15	(OUTPUT)	– Positive polarity (13 Amps)
7	OUTPUT 16	(OUTPUT)	– Positive polarity (13 Amps)
8	OUTPUT 17	(OUTPUT)	– Positive polarity (13 Amps)
9	INPUT 8	(INPUT)	– Positive/Ground polarity (configurable)
10	INPUT 9	(INPUT)	– Positive/Ground polarity (configurable)
11	OUTPUT 18	(OUTPUT)	– Positive polarity (13 Amps)
12	OUTPUT 19	(OUTPUT)	– Positive polarity (13 Amps)

⚠ WARNING!

Ensure output current is limited to 100 Amps per connector.

Black connector

Mating connector:	Deutsch DT06-12SA GRAY
Mating sockets:	Deutsch 0462-201-16141
Recommended wire gage:	16-20 AWG
Wedge lock:	W12S

PIN	CIRCUIT	DESCRIPTION	
1	OUTPUT 0	(OUTPUT)	– Positive polarity (13 Amps)
2	OUTPUT 1	(OUTPUT)	– Positive polarity (13 Amps)
3	OUTPUT 2	(OUTPUT)	– Positive polarity (13 Amps)
4	OUTPUT 3	(OUTPUT)	– Positive polarity (13 Amps)
5	OUTPUT 4	(OUTPUT)	– Positive polarity (13 Amps)
6	OUTPUT 5	(OUTPUT)	– Positive polarity (13 Amps)
7	OUTPUT 6	(OUTPUT)	– Positive polarity (13 Amps)
8	OUTPUT 7	(OUTPUT)	– Positive polarity (13 Amps)
9	INPUT 6	(INPUT)	– Positive/Ground polarity (configurable)
10	INPUT 7	(INPUT)	– Positive/Ground polarity (configurable)
11	OUTPUT 8	(OUTPUT)	– Positive polarity (13 Amps)
12	OUTPUT 9	(OUTPUT)	– Positive polarity (13 Amps)

Gray connector

Mating connector:	Deutsch DT06-12SA GRAY
Mating sockets:	Deutsch 0462-201-16141
Gold mating sockets:	Deutsch 0462-201-1631
Recommended wire gage:	16-20 AWG
Wedge lock:	W12S

PIN	CIRCUIT	DESCRIPTION	
1	SYS POWER	(INPUT)	– battery voltage (+9VDC...+32VDC)
2	CAN HIGH	(DATA)	– SAE J1939 CAN 2.0B, 250Kbits/s *
3	CAN SHIELD	(DATA)	– SAE J1939 CAN 2.0B, 250Kbits/s *
4	INPUT 0	(INPUT)	– Positive/Ground polarity (configurable)
5	INPUT 1	(INPUT)	– Positive/Ground polarity (configurable)
6	INPUT 2	(INPUT)	– Positive/Ground polarity (configurable)
7	INPUT 3	(INPUT)	– Positive/Ground polarity (configurable)
8	INPUT 4	(INPUT)	– Positive/Ground polarity (configurable)
9	INPUT 5	(INPUT)	– Positive/Ground polarity (configurable)
10	OUTPUT 20	(OUTPUT)	– Ground polarity (2 Amps)
11	CAN LOW	(DATA)	– SAE J1939 CAN 2.0B, 250Kbits/s *
12	SYS GROUND	(INPUT)	– battery ground

⚠ WARNING!

The output power feed line should be fused to limit current to 200 Amps.

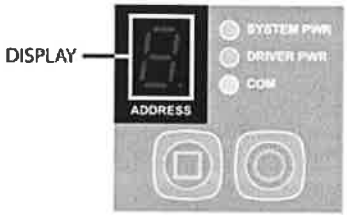
High current power feed connector

Mating connector:	Cannon 121583-0013
Mating socket:	Cannon 031-8521-020 (2 AWG) Cannon 031-8521-010 (4 AWG)
Hexagonal nut:	Cannon 217-8516-010
Cable seal:	Cannon 351-8697-001 0.409 in – 0.472 in [10.4mm – 12.0mm]
Recommended wire gage:	2 AWG
For more information - Cannon website:	http://www.ittcannon.com

PIN	CIRCUIT	DESCRIPTION	
1	OUTPUT PWR	(INPUT)	– battery voltage (+9VDC...+32VDC)

VIEWING THE ADDRESS

The HD-PDM's address is shown during normal operation on the 7-segment LED display.



The display shows the address with a single digit. Addresses that would require two digits (10, 11, 12, 13, 14, and 15) are indicated with a letter (A, b, C, d, E, and F).

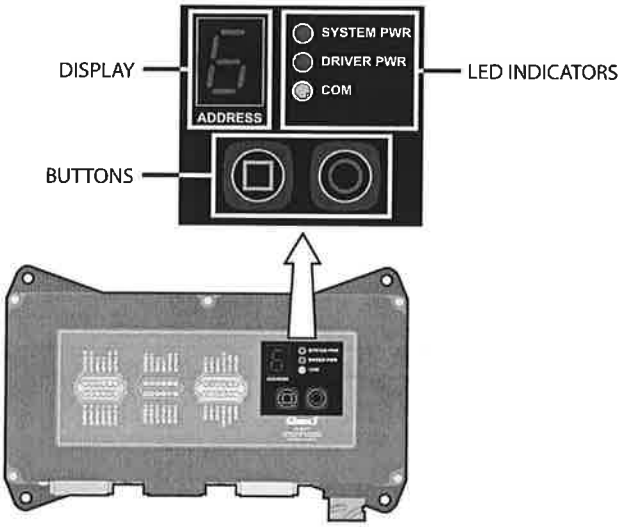
Display	Address
0	0
1	1
2	2
3	3
4	4
5	5

Display	Address
6	6
7	7
8	8
9	9
A	10
b	11

Display	Address
C	12
d	13
E	14
F	15

ENTERING PASSWORDS

Use the green **SQUARE** and red **CIRCLE** buttons on the HD-PDM to enter passwords. Each button press will show either a **1** or a **0** on the display to indicate the button pressed: **1** for the green **SQUARE** button and **0** for the red **CIRCLE** button. Each password button press must occur within 4 seconds of the last button press otherwise the attempted password is cleared.



SET THE ADDRESS

The HD-PDM's address is set by entering a password consisting of 8 button presses. The first 4 button presses are circle, circle, square, square (○ ○ □ □). The last 4 button presses depend on the desired address. The default address is 0.

ROOT PASSWORD				ADDRESS PASSWORD				
○	○	□	□	○	○	○	○	0
				○	○	○	□	1
				○	○	□	○	2
				○	○	□	□	3
				○	□	○	○	4
				○	□	○	□	5
				○	□	□	○	6
				○	□	□	□	7
				□	○	○	○	8
				□	○	○	□	9
				□	○	□	○	10
				□	○	□	□	11
				□	□	○	○	12
				□	□	○	□	13
				□	□	□	○	14
				□	□	□	□	15

SET THE INPUT POLARITY

The HD-PDM's 10 physical inputs can be configured for positive or ground input polarity by entering a password consisting of 14 button presses. The first 4 button presses are circle, circle, circle, square (○ ○ ○ □). The last 10 button presses depend on the desired input polarities: □ = positive, ○ = ground. The default configuration is positive polarity for all inputs.

ROOT PASSWORD				INPUT POLARITY									
				9	8	7	6	5	4	3	2	1	0
○	○	○	□										

□ = positive, ○ = ground

SET THE DEVICE TYPE

The HD-PDM's ES-Key device type may be changed from the default Power Distribution Module (PDM, device type 1) to an Input Output Module (IOM, device type 4) by entering a password.

ROOT PASSWORD				IOM DEVICE TYPE			
○	□	○	○	○	□	○	○

ROOT PASSWORD				PDM DEVICE TYPE			
○	□	○	○	○	○	○	□

For detailed operation and troubleshooting consult the full manual (p/n 120741) available from the Class 1

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