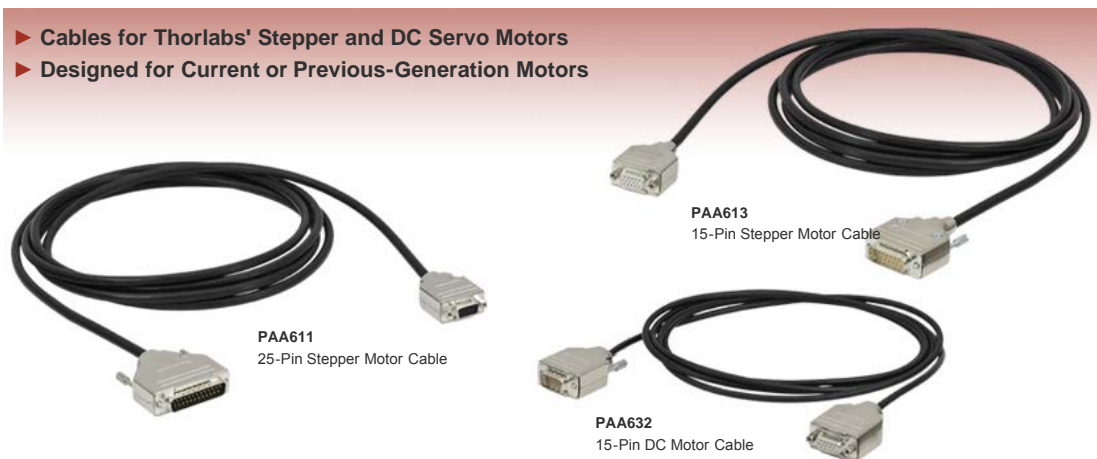


PAA611 - June 12, 2015

Item # PAA611 was discontinued on June 12, 2015. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

STEPPER AND DC SERVO MOTOR DRIVE CABLES



[Hide Overview](#)

OVERVIEW

Stepper Motor Cables

Thorlabs offers a variety of cables to support several stepper motor actuator and controller combinations. Supported stepper motors include our ZST, ZFS, and DRV actuators; supported controllers include our BSC benchtop controllers, our TST101 T-Cube Controller, and our MST602 Rack Control Module. In order to see which cable is compatible with a given combination of stepper motor and controller, please see the table below. The pin assignment for each cable is given in the *Pin Diagrams* tab. Please note that these cables cannot be used with motors and controllers that do not match their pin assignment, even if the connectors are the same.

DC Motor Cables

The PAA632 is a 2.5 m cable for our Z8 series of DC motor actuators. This cable is intended to be used with the TDC001 T-Cube DC Servo Motor Controller. The pin assignment for this cable is given in the *Pin Diagrams* tab. Although it uses a 15-pin connector, this cable is not compatible with any of our stepper motors.

Controller

			-	-	
	BSC Benchtop Controller and MST602 Rack Controller	TST101 T-Cube Controller	Previous Generation Controller with Female DB25 Connector ^a	Previous Generation Controller with Female 8-Pin LEMO Connector ^a	TDC001 T-Cube Controller ^b
	PAA612 (1 m) or PAA613 (3 m)	PAA614 (1 m) ^c	PAA611 (3 m)	PAA621 (3 m)	-
DRV Stepper Motor Actuators					
	-	PAA614 (1 m)	-	-	-
ZST and ZFS Stepper Motor Actuators					
	-	-	-	-	PAA632 (2.5 m)
Z8 DC Servo Motor Actuators					
Previous Generation Stepper Motor with Male 8-Pin LEMO Connector^a	-	-	PAA620 (3 m)	-	-

a. Use our search engine at the top of this webpage to find information about previous generation motors and controllers. Consult the manual for these products to ensure compatibility with a given cable.

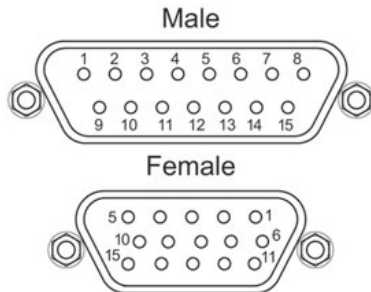
b. Green shading indicates hardware for DC servo motors.

c. The TST101 T-Cube Controller can be used to drive our DRV Stepper Motor Actuators at a reduced velocity.

PIN DIAGRAMS

PAA612 and PAA613 Stepper Motor Cables

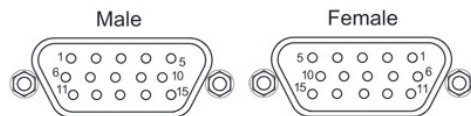
DA15-Pin Male D-type to DE15-Pin Female D-Type



DA15 Male Pin	DE15 Female Pin	Description
9	3	Forward Limit Switch
10	2	Reverse Limit Switch
11 and 12	1	Limit Switch Ground
8	6	Motor Phase A-
15	7	Motor Phase A+
14	5	Motor Phase B+
7	4	Motor Phase B-
5	13	5 V

PAA632 DC Servo Motor Cable

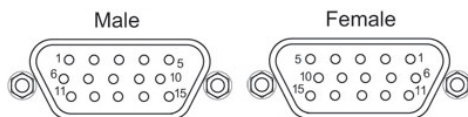
DE15-Pin Male D-Type to DE15-Pin Female D-Type



DE15 Male Pin	DE15 Female Pin	Description
1	1	Ground
2	2	Forward Limit Switch
3	3	Reverse Limit Switch
5	5	Motor -
7	7	Motor +
10	10	5 V Encoder Supply
11	11	Encoder Channel A
13	13	Encoder Channel B

PAA614 Stepper Motor Cable

DE15-Pin Male D-Type to DE15-Pin Female D-Type

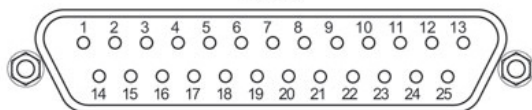


DE15 Male Pin	DE15 Female Pin	Description
1	1	Ground
2	2	CCW Limit Switch
3	3	CW Limit Switch
4	4	Motor Phase B -
5	5	Motor Phase B +
6	6	Motor Phase A-
7	7	Motor Phase A+
10	10	+5 V DC
15	15	Ground

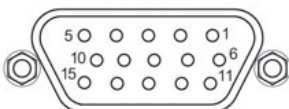
PAA611 Legacy Stepper Motor Cable

DB25-Pin Male D-type to DE15-Pin Female D-Type

Male



Female

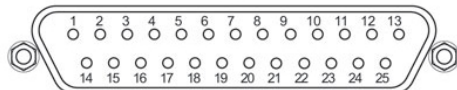


DB25 Male Pin	DE15 Female Pin	Description
2	13	+ 5V
7	3	Forward Limit Switch
8	2	Reverse Limit Switch
9	1	Limit Switch Ground
22	6	Motor Phase A-
23	7	Motor Phase A+
24	5	Motor Phase B+
25	4	Motor Phase B-

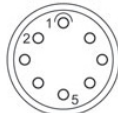
PAA620 Legacy Stepper Motor Cable

DB25-Pin Male D-type to 8 Pin Female LEMO

Male



Female



DB25 Male Pin	Female LEMO Pin	Description
7	3	Forward Limit Switch
9	1	Limit Switch Ground
22	7	Motor Phase A-
23	6	Motor Phase A+
24	5	Motor Phase B+
25	4	Motor Phase B-

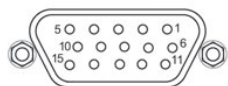
PAA621 Legacy Stepper Motor Cable

8 Pin Male LEMO to DE15-Pin Female D-Type

Male



Female



Male LEMO Pin	DE15 Female Pin	Description
2	1	Limit Switch Ground
1	2	Limit Switch Ground
3	3	Forward Limit Switch
4	4	Motor Phase B-
5	5	Motor Phase B+
7	6	Motor Phase A-
6	7	Motor Phase A+
-	15	Ground (Braid)
8	-	Not Connected

[Hide Stepper and DC Servo Motor Drive Cables](#)

Stepper and DC Servo Motor Drive Cables

Part Number	Description	Price	Availability
PAA612	APT Stepper Motor Cable, DA15 Male to DE15 Female, 1 m	\$56.90	Today
PAA613	APT Stepper Motor Cable, DA15 Male to DE15 Female, 3 m	\$68.20	Today
PAA614	NEW! Customer Inspired! APT Stepper Motor Cable, DE15 Male to DE15 Female, 1 m	\$55.00	Today
PAA632	APT DC Servo Motor Cable for Z8 Motors, DE15 Male to DE15 Female, 2.5 m	\$54.40	Today

[Hide Stepper Motor Drive Cables for Previous Generation Components](#)

Stepper Motor Drive Cables for Previous Generation Components

Part Number	Description	Price	Availability
PAA611	APT Stepper Motor Cable, DB25 Male to DE15 Female, 3 m, Legacy	\$63.70	3-5 Days
PAA620	APT Stepper Motor Cable, DB25 Male to 8-Pin LEMO Female, 3 m, Legacy	\$96.30	3-5 Days
PAA621	APT Stepper Motor Cable, 8-Pin LEMO Male to DE15 Female, 3 m, Legacy	\$99.90	3-5 Days

Visit the [Stepper and DC Servo Motor Drive Cables](#) page for pricing and availability information:
http://www.thorlabs.com/newgrouppage9.cfm?objectgroup_id=1104