Warranty

Newport Corporation warrants this product to be free from defects in material and workmanship for a period of 1 year from the date of shipment. If found to be defective during the warranty period, the product will either be repaired or replaced at Newport’s discretion.

To exercise this warranty, write or call your local Newport representative, or contact Newport headquarters in Irvine, California. You will be given prompt assistance and return instructions. Send the instrument, transportation prepaid, to the indicated service facility. Repairs will be made and the instrument returned, transportation prepaid. Repaired products are warranted for the balance of the original warranty period, or at least 90 days.

Limitation of Warranty

This warranty does not apply to defects resulting from modification or misuse of any product or part.

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Original instructions.

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1.0 Introduction

This document describes the cable kits necessary to connect your Newport stage to your XPS-Q, XPS-RL or XPS-D controller.

**RECOMMENDATION**

We recommend you call your Motion Control Newport representative if you are unsure of your choice.

**WARNING**

The cables included in these kits are shielded correctly. For a correct operation, make sure to lock connectors (ground continuity provided by the cable).

**WARNING**

Keep the motor cable at a safe distance from other electrical cables in your environment to avoid potential cross talk.
2.0 **Cable Kits**

### 2.1 Selection Table

Below is the table that allows you to find the cable kit for connecting your Newport stage to the XPS controllers, following the motor driver.

<table>
<thead>
<tr>
<th>Stage</th>
<th>XPS-Q or XPS-R &amp;</th>
<th>XPS-DRV02</th>
<th>XPS-EDBL</th>
<th>XPS-DRV02</th>
<th>XPS-EDBL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ILS-LM-S</td>
<td>XPS-RK11</td>
<td>XPS-RK13</td>
<td>XPS-DK26</td>
<td>XPS-DK21</td>
<td>XPS-DK23</td>
</tr>
<tr>
<td>IMS-LM-S</td>
<td>XPS-RK12</td>
<td>XPS-RK14</td>
<td>–</td>
<td>XPS-DK22</td>
<td>XPS-DK24</td>
</tr>
<tr>
<td>RGV100L-S</td>
<td>XPS-RK11</td>
<td>–</td>
<td>–</td>
<td>XPS-DK21</td>
<td>–</td>
</tr>
<tr>
<td>RGV100H-L-S</td>
<td>XPS-RK11</td>
<td>XPS-RK13</td>
<td>–</td>
<td>XPS-DK21</td>
<td>XPS-DK23</td>
</tr>
<tr>
<td>XML-S</td>
<td>XPS-RK12</td>
<td>XPS-RK14</td>
<td>–</td>
<td>XPS-DK22</td>
<td>XPS-DK24</td>
</tr>
<tr>
<td>XMS-S</td>
<td>XPS-RK12</td>
<td>–</td>
<td>–</td>
<td>XPS-DK22</td>
<td>–</td>
</tr>
</tbody>
</table>

### 2.2 Kit Descriptions

Each kit includes several cables that allow to connect the motor, encoder, end-of-runs,... to the controller. The table below indicates the reference of these cables.

<table>
<thead>
<tr>
<th>Cable Kit</th>
<th>Encoder + End-of-Runs</th>
<th>Motor (+ Thermistor)</th>
<th>End-of-Runs (+ Thermistor)</th>
</tr>
</thead>
<tbody>
<tr>
<td>XPS-RK11</td>
<td>E3763x (1)</td>
<td>E4025x (1)</td>
<td>–</td>
</tr>
<tr>
<td>XPS-RK12</td>
<td>E3763x (1)</td>
<td>E3839x (1)</td>
<td>E3840x (1)</td>
</tr>
<tr>
<td>XPS-RK13</td>
<td>E3763x (1)</td>
<td>EDBCABLE-M2</td>
<td>–</td>
</tr>
<tr>
<td>XPS-RK14</td>
<td>E3763x (1)</td>
<td>EDBCABLE-M1</td>
<td>EDBCABLE-E1</td>
</tr>
<tr>
<td>XPS-RK15</td>
<td>E3763x (1)</td>
<td>E4949x (1)</td>
<td>–</td>
</tr>
<tr>
<td>XPS-DK21</td>
<td>E5775x (1)</td>
<td>E5777x (1)</td>
<td>–</td>
</tr>
<tr>
<td>XPS-DK22</td>
<td>E5775x (1)</td>
<td>E5776x (1)</td>
<td>–</td>
</tr>
<tr>
<td>XPS-DK23</td>
<td>E5775x (1)</td>
<td>EDBCABLE-M2</td>
<td>–</td>
</tr>
<tr>
<td>XPS-DK24</td>
<td>E5775x (1)</td>
<td>EDBCABLE-M1</td>
<td>EDBCABLE-E1</td>
</tr>
<tr>
<td>XPS-DK25</td>
<td>E5775x (1)</td>
<td>E4949x (1)</td>
<td>–</td>
</tr>
<tr>
<td>XPS-DK26</td>
<td>E5775x (1)</td>
<td>E4025x (1)</td>
<td>–</td>
</tr>
</tbody>
</table>

1) The low case letter “x” at the end of the reference represents the revision index of the cable and can therefore be modified at any time without notice.

---

**WARNING**

A label sticked on the connectors of most cables indicates its function. Be careful to properly connect each cable in the appropriate stage and controller connectors.

The cable diagrams in the following chapter indicate the stage and controller sides of the cable connectors.
### 3.0 Cables

---

**WARNING**
Always turn the controller’s power OFF before connecting to a stage.

---

### 3.1 E3763x: Encoder Cable
- **Length:** 16.4 ft (5 m)
- **Connectors:**
  - Stage side: SUB-D15F
  - Controller side: SUB-D15M
- **Outer diameter:** .24 in (6 mm)
- **Min. static bending radius:** .79 in (20 mm)
- **Min. dynamic bending radius:** 2.95 in (75 mm)

---

### 3.2 E3839x: Motor Cable
- **Length:** 16.4 ft (5 m)
- **Connectors:**
  - Stage side: SUB-D9F
  - Controller side: SUB-D9M
- **Outer diameter:** .28 in (7 mm)
- **Min. dynamic bending radius:** 2.76 in (70 mm)
3.3 E3840x: End-of-Run & Thermistor Cable

- Length: 16.4 ft (5 m)
- Connectors:
  - Stage side: SUB-D9M
  - Controller side: SUB-D9F
- Outer diameter: .28 in (7 mm)
- Min. dynamic bending radius: 1.77 in (45 mm)

3.4 E4025x: Motor, End-of-Run & Thermistor Cable

- Length: 16.4 ft (5 m)
- Connectors:
  - Stage side: SUB-D15M
  - Controller side: SUB-D9M
    - Outer diameter: .28 in (7 mm)
    - Min. dynamic bending radius: 2.76 in (70 mm)
  - Controller side: SUB-D9F
    - Outer diameter: .28 in (7 mm)
    - Min. dynamic bending radius: 1.77 in (45 mm)
3.5 **E4949x: Motor Cable**

- Length: 16.4 ft (5 m)
- Connectors:
  - Stage side: DB9W4F
  - Controller side: DB9W4M
- Outer diameter: .45 in (11.5 mm)
- Min. static bending radius: 3.39 in (86 mm)
- Min. dynamic bending radius: 4.53 in (115 mm)

3.6 **E5775x: Encoder Cable**

- Length: 16.4 ft (5 m)
- Connectors:
  - Stage side: SUB-D15F
  - Controller side: SUB-D26HDM
- Outer diameter: .24 in (6 mm)
- Min. static bending radius: .79 in (20 mm)
- Min. dynamic bending radius: 2.95 in (75 mm)
3.7 E5776x: Motor, End-of-Run & Thermistor Cable

- Length: 16.4 ft (5 m)
- Connectors:
  - Stage side: SUB-D9F
    - Outer diameter: .28 in (7 mm)
    - Min. dynamic bending radius: 2.76 in (70 mm)
  - Stage side: SUB-D9M
    - Outer diameter: .28 in (7 mm)
    - Min. dynamic bending radius: 1.77 in (45 mm)
  - Controller side: SUB-D25M

3.8 E5777x: Motor, End-of-Run & Thermistor Cable

- Length: 16.4 ft (5 m)
- Connectors:
  - Stage side: SUB-D15M
  - Controller side: SUB-D25M
- Outer diameter: 2 cables .28 in (7 mm)
- Min. dynamic bending radius: 2.76 in (70 mm)
3.9 **EDBCABLE-E1: End-of-Run Cable**

- Length: 16.4 ft (5 m)
- Connectors:
  - Stage side: SUB-D9M
  - Controller side: SUB-D9M
- Outer diameter: .24 in (6 mm)
- Min. dynamic bending radius: 1.77 in (45 mm)

3.10 **EDBCABLE-M1: Motor Cable**

- Length: 16.4 ft (5 m)
- Connectors:
  - Stage side: SUB-D9F
  - Controller side: DB9W4M
- Outer diameter: .32 in (8.2 mm)
- Min. dynamic bending radius: 3.15 in (80 mm)
3.11 EDBCABLE-M2: Motor, End-of-Run & Thermistor Cable

- Length: 16.4 ft (5 m)
- Connectors:
  - Stage side: SUB-D15M
  - Controller side: DB9W4M
    - Outer diameter: .28 in (7 mm)
    - Min. dynamic bending radius: 2.76 in (70 mm)
  - Controller side: SUB-D9M
    - Outer diameter: .28 in (7 mm)
    - Min. dynamic bending radius: 1.77 in (45 mm)
Service Form

Name: ____________________________
Company: _________________________
Address: __________________________
Country: __________________________
P.O. Number: ______________________

Return authorization #: _________________________
(Please obtain prior to return of item)

Date: ____________________________
Phone Number: _____________________
Fax Number: _______________________

Item(s) Being Returned:

Model #: __________________________
Description: _______________________
Serial #: __________________________

Reasons of return of goods (please list any specific problems):

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