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Find the *National Instruments IMAQ-D10031-1* at our website: *Click HERE*

INSTALLATION GUIDE

IMAQ D100DAL CABLE

This guide describes how to attach an IMAQ D100DAL cable to your image acquisition (IMAQ) device and a DALSA camera. This guide discusses two possible DALSA camera configurations: one in which the camera has a combined control/power connector receptacle and one in which the control connector receptacle and power connector receptacle are separate.

You can use an IMAQ D100DAL cable to connect your IMAQ device to your DALSA video camera and four trigger channels. Refer to your IMAQ device documentation for more detailed information on these external trigger signals.

Note Your DALSA camera cable receptacles may appear different from those illustrated in this guide. Refer to the National Instruments Web site, `http://www.natinst.com/imaq`, for the latest information on using DALSA cameras with your IMAQ device.

What You Need to Get Started

To install your IMAQ D100DAL cable, you will need the following:

- ❑ IMAQ D100DAL cable
- ❑ *IMAQ D100DAL Cable Installation Guide*
- ❑ Your IMAQ device and documentation
- ❑ Your computer
- ❑ Your DALSA camera
- ❑ IMAQ D2504 cable and documentation (optional)
- ❑ BNC cables for trigger signal connection (optional)
- ❑ Trigger signal sources (optional)

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Installation

Follow these steps to connect an IMAQ D100DAL cable to a camera with a combined control/power connector receptacle, as illustrated in Figure 1.

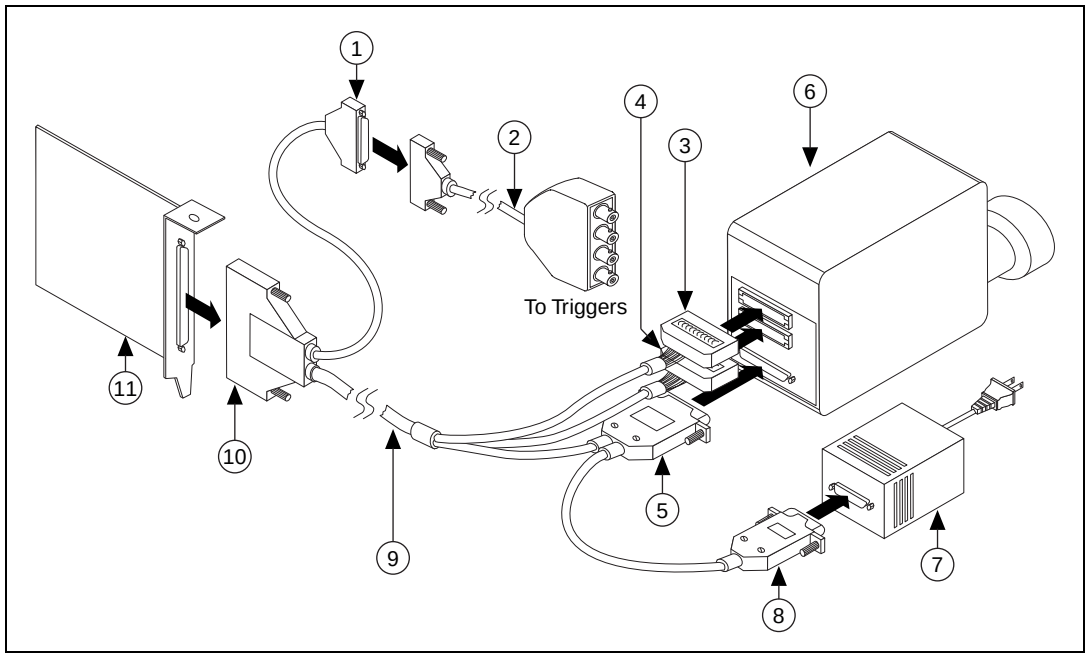
1. Insert the 100-pin SCSI-type connector end of the IMAQ D100DAL cable into the external 100-pin SCSI-type receptacle of your IMAQ device, ensuring correct polarity. Tighten the thumbscrews as necessary.
2. Depending on your camera, insert the OS1 or OS1/2 camera connector of the IMAQ D100DAL cable into your camera's corresponding receptacle, ensuring correct polarity.
3. Insert the OS2 or OS3/4 camera connector of the IMAQ D100DAL cable into your camera's corresponding receptacle, ensuring correct polarity.



Note Some DALSA cameras have only an OS1 or OS1/2 receptacle. With such cameras, you do not need to connect anything to the OS2 or OS3/4 connector.

4. Insert the IMAQ D100DAL control/power connector into the camera's corresponding receptacle, ensuring correct polarity.
5. Insert the IMAQ D100DAL cable's power supply connector into the camera's external power supply receptacle.

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1	Trigger Connector	4	OS2 or OS3/4 Connector	6	DALSA Camera	9	IMAQ D100DAL cable
2	IMAQ D2504 Cable	5	Control/Power Connector	7	Camera Power Supply	10	SCSI-Type Connector
3	OS1 or OS1/2 Connector			8	Power Supply Connector	11	IMAQ Device

Figure 1. IMAQ D100DAL Cable With Camera Power Supply Connector

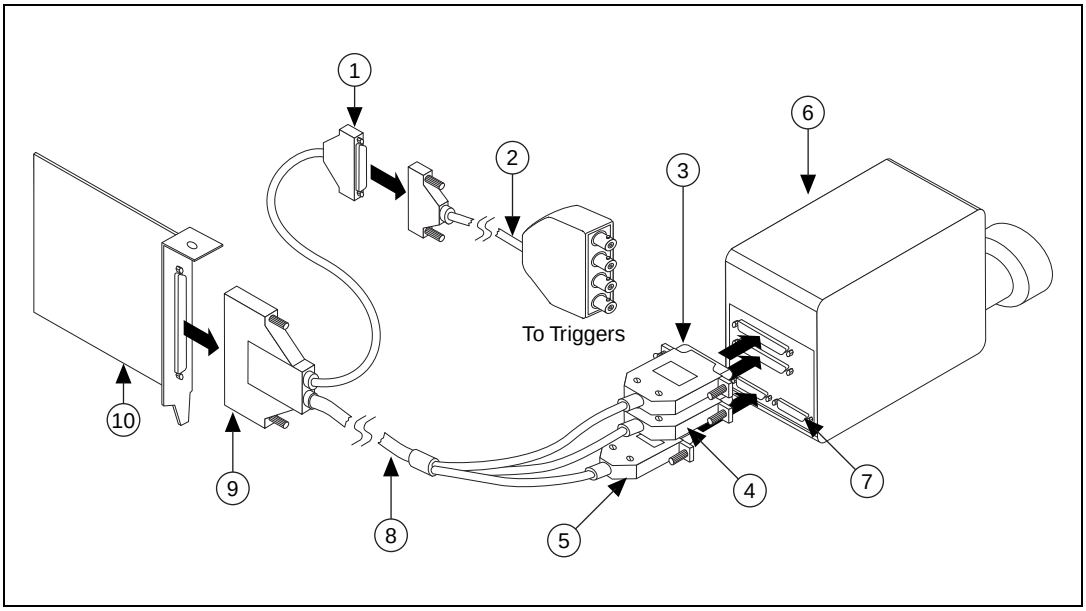
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Follow these steps to connect an IMAQ D100DAL cable to a camera with separate control connector and power connector receptacles, as illustrated in Figure 2.

1. Insert the 100-pin SCSI-type connector end of the IMAQ D100DAL cable into the external 100-pin SCSI-type receptacle of your IMAQ device, ensuring correct polarity. Tighten the thumbscrews as necessary.
2. Insert the OS1/2 camera connector of the IMAQ D100DAL cable into your camera's corresponding receptacle, ensuring correct polarity.
3. Insert the OS3/4 camera connector of the IMAQ D100DAL cable into your camera's corresponding receptacle, ensuring correct polarity.

Note Some DALSA cameras have only an OS1/2 receptacle. With such cameras, you do not need to connect anything to the OS3/4 connector.

4. Insert the IMAQ D100DAL control connector into the camera's corresponding receptacle, ensuring correct polarity.



1	Trigger Connector	4	OS3/4 Connector	7	Power Connector	9	SCSI-Type Connector
2	IMAQ D2504 Cable	5	Control Connector	8	IMAQ D100DAL cable	10	IMAQ Device
3	OS1/2 Connector	6	DALSA Camera				

Figure 2. IMAQ D100DAL Cable Without Camera Power Supply Connector

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Triggering

If you plan to connect external trigger signals to your IMAQ device, you can use either the IMAQ D2504 cable or your own trigger interface cable. If building your own cable, see Figure 3 for pin-out information. For more information on the D2504 cable, see the *IMAQ 2504 Cable Installation Guide*.

To connect external trigger signals to your IMAQ device, insert the trigger interface cable into the trigger connector of the IMAQ D100DAL cable, ensuring correct polarity. Tighten the thumbscrews as necessary.

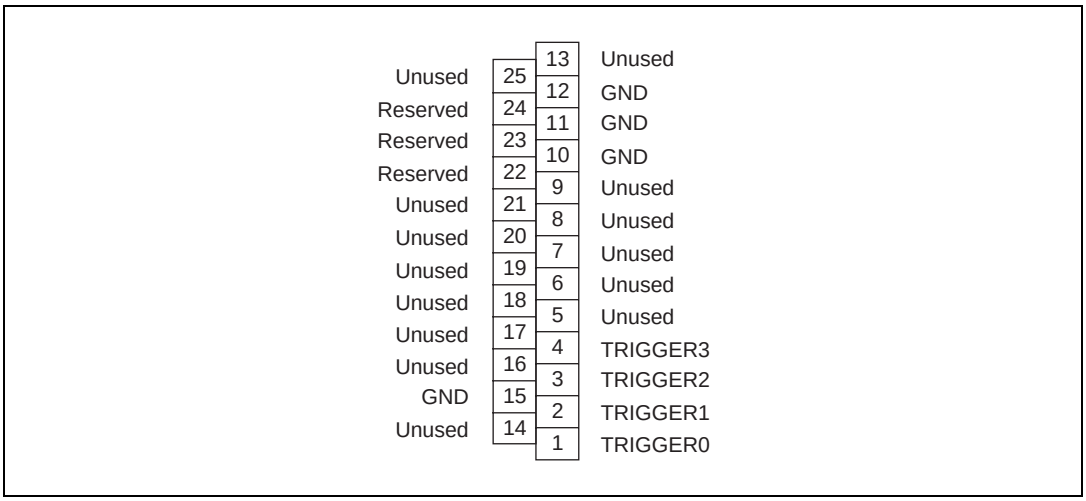


Figure 3. D100DAL Cable Trigger Connector Pin Assignments

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