IMAQ D100DAL CABLE

This guide describes how to attach the IMAQ D100DAL cable to your image acquisition (IMAQ) device and a DALSA camera.

You can use the 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 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)

Installation

As shown in Figure 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.

Insert the OS1 and OS2 camera connector ends of the IMAQ D100DAL cable into the OS1 and OS2 receptacles of your camera, as required, ensuring correct polarity.
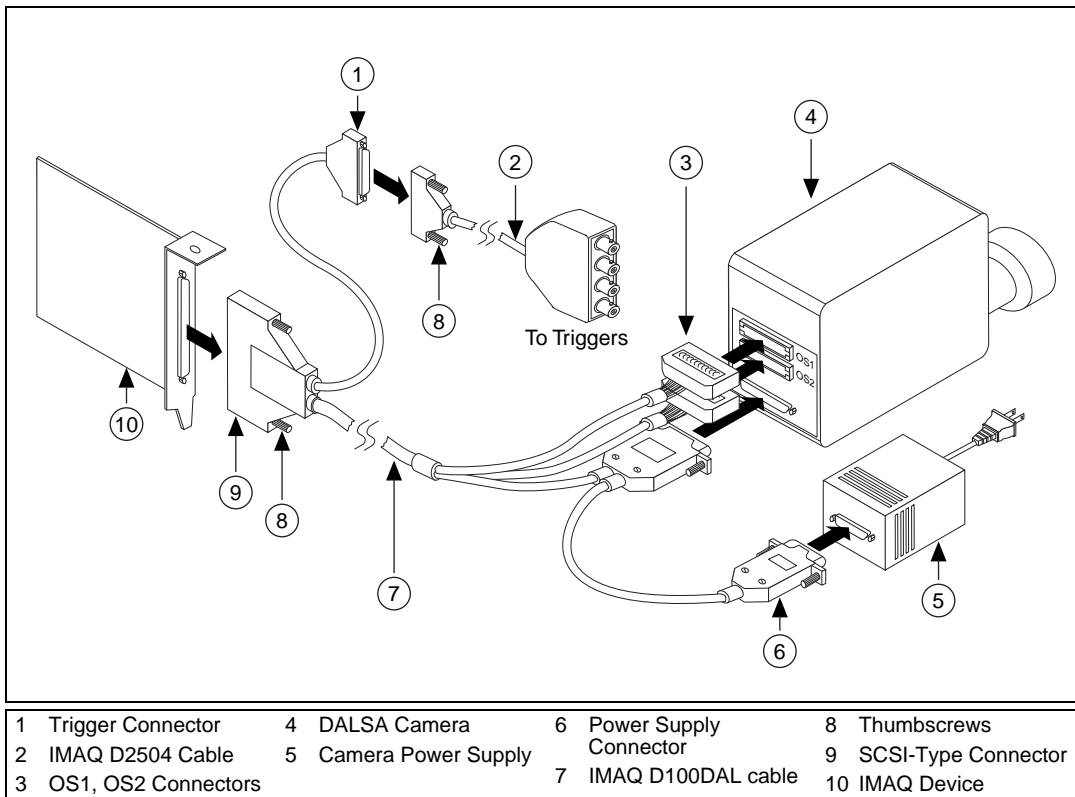
Note Some DALSA cameras have only an OS1 receptacle. With such cameras, you do not need to connect anything to the OS2 connector.

Insert the D100DAL cable's 25-pin DSUB connector into the camera's 25-pin DSUB receptacle. Insert the cable's power connector into the camera's external power supply receptacle.
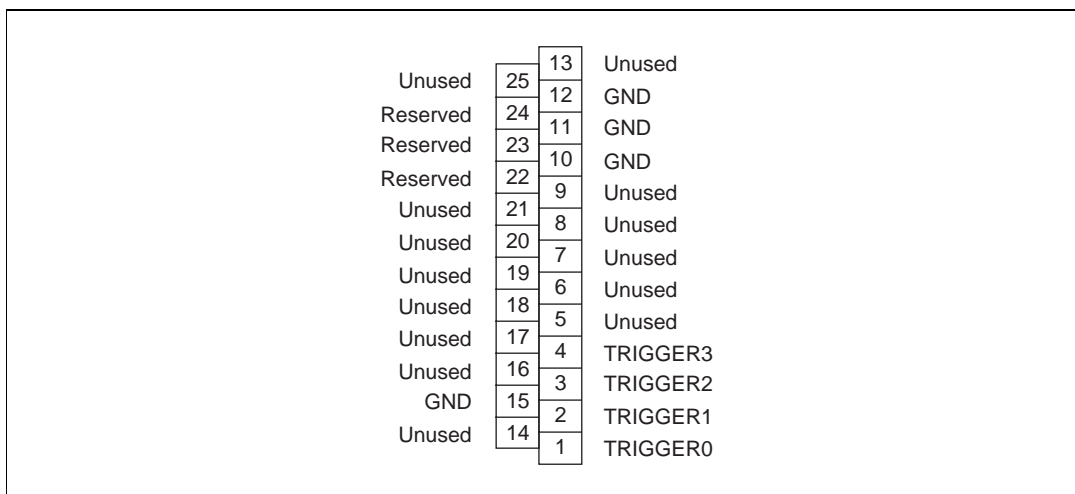
Triggering

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 2 for pin-out information. For more information on the D2504 cable, see the *IMAQ 2504 Cable Installation Guide*.

Insert the trigger interface cable into the trigger connector of the IMAQ D100DAL cable, ensuring correct polarity. Tighten the thumbscrews as necessary.

1	Trigger Connector	4	DALSA Camera	6	Power Supply Connector	8	Thumbscrews
2	IMAQ D2504 Cable	5	Camera Power Supply			9	SCSI-Type Connector
3	OS1, OS2 Connectors			7	IMAQ D100DAL cable	10	IMAQ Device

Figure 1. Connecting the IMAQ D100DAL Cable

Left pin		Right pin	
	13	Unused	
Unused	25	12	GND
Reserved	24	11	GND
Reserved	23	10	GND
Reserved	22	9	Unused
Unused	21	8	Unused
Unused	20	7	Unused
Unused	19	6	Unused
Unused	18	5	Unused
Unused	17	4	TRIGGER3
Unused	16	3	TRIGGER2
GND	15	2	TRIGGER1
Unused	14	1	TRIGGER0

Figure 2. D100DAL Cable Trigger Connector Pin Assignments

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