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Dialogic®

Dialogic® D/120JCT-LS-EW

Installation Guide

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1. Product Description

The Dialogic® D/120JCT-LS-EW combined media board is a 12-port analog telecom board in a PCI Express form factor. The Dialogic® D/120JCT-LS-EW supports voice, fax, and software-based speech recognition processing in a single PCI Express slot, and provides 12 analog telephone interface circuits for direct connection to analog loop start lines.

Additional Information

Additional information about the Dialogic® D/120JCT-LS-EW is available from a number of sources.

The product data sheet, available at http://www.dialogic.com/products, provides a functional description as well as information about applications and configurations, features, and technical specifications.

Refer to the Release Guide and the online Release Update for your Dialogic® system release software to verify that the Dialogic® D/120JCT-LS-EW is supported in the release and for information on any new features or issues that may relate to it.

The Regulatory Notices document that is packed with each Dialogic® D/120JCT-LS-EW board contains safety warnings and national requirements for proper operation of telecommunications equipment.

2. Before You Begin

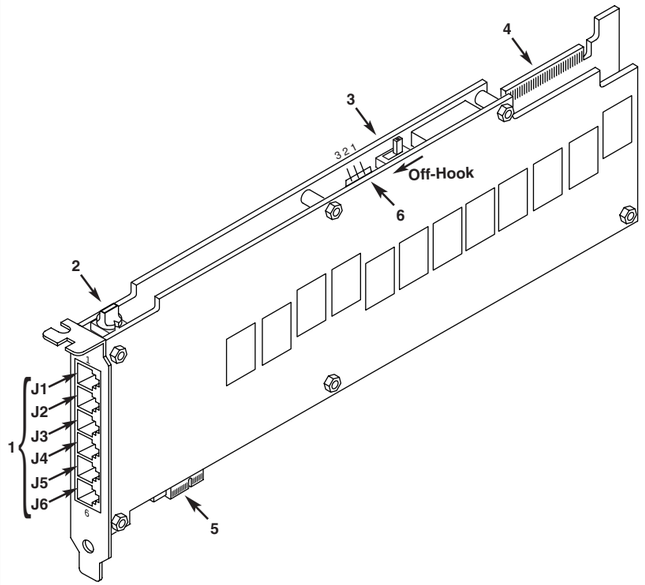
Protecting the Board from Damage

CAUTION: All computer boards are sensitive to electrostatic discharge (ESD). Handle all static-sensitive boards and components at a static-safe work area, and observe anti-static precautions at all times.

If you are not familiar with ESD safety precautions, visit http://www.dialogic.com/support/hwinstall to learn more.

Part number: 64-0098-03

Physical Layout



1. **RJ-14 Jacks, J1-J6:** Two-line analog telephone connectors.
2. **SW100:** Rotary switch used to set board ID number.
3. **SW1:** Slide switch to set default hook-state of all lines when board is powering up. Factory setting selects on-hook as the default.
4. **CT Bus connector:** H.100 telephony bus connector.
5. **PCI Express connector:** Host bus connector. Compatible with x1 and larger PCI Express Link connectors.
6. **Power Budgeting Jumper P3:** 3-pin jumper to set how the board responds to the system power budgeting function.
   - P3 jumper in pins 2-3: Board adheres to power budgeting values set by system.
   - P3 jumper in pins 1-2: Board ignores power budgeting values set by system.

   Factory default is P3 jumper in pins 2-3.

Unpacking the Board

Unpack the board according to the following steps:

1. Prepare a static-safeguarded work area.
2. Carefully remove the board from the shipping carton and static-shielding bag. Handle the board by the edges and avoid touching the board's components.
3. Lay the board on the static-dissipative work surface.

Note: Place boards in static-shielding bags when carrying boards from station to station.

CAUTION: Do not remove the board from the anti-static packaging until you are ready to install it. Observe proper anti-static precautions at all times.

3. Configuring the Board

The Dialogic® D/120JCT-LS-EW board uses Plug and Play technology to simplify installation. No user configuration is required for IRQ or memory address.

The Dialogic® D/120JCT-LS-EW board has the following manually configurable options:

- Board ID
- Hook-switch state during start-up
- Power budgeting (see Choosing a Slot section below)

Setting the Board ID

When the system is started, each Dialogic® telecom board is assigned a board instance ID number that programs can use to identify individual boards in a multi-board system. The setting of SW100 controls the generation of the instance numbers.

Windows Systems: In a Windows system, leaving SW100 set to the 0 position (the factory default setting) on all Dialogic® telecom boards causes the system release software to assign instance numbers geographically, based on the bus and slot numbers. Note that when using this method, there is no way to know what the instance numbers will be until the system is started and configured, and the instance number for any given board is likely to change when there is any change in the number or arrangement of boards in the system.

As an alternative, you may set SW100 on each board to a different position (0-9 or A-F) to explicitly assign specific ID numbers to the boards. Note that each board must be set to a different ID number.

In either case, you can read the ID numbers assigned to the boards in the Dialogic Configuration Manager (DCM) after you start the system and invoke that tool.

Linux Systems: In a Linux system, you must explicitly specify the board ID numbers by setting SW100 on each board to a different position (0-9 or A-F). Refer to the Configuration Guide for Springware architecture products in your Dialogic system release software documentation for further information about the board ID numbers.

Setting the Hook-Switch State for Start-up

Slide switch SW1 determines how the Dialogic® D/120JCT-LS-EW board responds to an incoming call when the PC power is on, but the board is not yet initialized.

When the SW1 slider is positioned away from the board's bracket, the Dialogic® D/120JCT-LS-EW board responds as on-hook while uninitialized. With the SW1 slider positioned closer to the bracket, the board responds as off-hook during start-up.

The factory default setting for SW1 is on-hook.

4. Choosing a Slot

The Dialogic® D/120JCT-LS-EW board is a full length x1 form factor PCI Express board that requires 25W of power. The following explanation and guidelines are provided to ensure proper configuration of the product.

Power Budgeting is a new feature, introduced in the PCI Express Specification, that provides a mechanism to enable a system to negotiate power consumption requirements for add-in devices.

Per PCI Express Card Electromechanical Specification Revision 1.0a or higher, a x1 add-in card can draw no more than 10W in a x1 slot unless the board's required power is successfully negotiated and allocated by the system (power budgeting). However, implementation of power budgeting by a vendor's system is not a compliance requirement per the PCI Express Card Electromechanical Specification Revision 1.0a or higher. Therefore, some chassis may not support this feature. Power Budgeting jumper P3 is designed to ensure proper configuration of the product.

The Dialogic® D/120JCT-LS-EW board must be installed in a slot that can be allocated 25W.

If Power Budgeting is **not** implemented by a vendor's system, the Dialogic® D/120JCT-LS-EW board **must** be plugged into a x4 or higher slot with the P3 jumper in position 1-2 (power budgeting ignored). This is allowed per PCI Express Card Electromechanical Specification Revision 1.0a or higher because a x4 or greater slot must be able to support a minimum of 25W.

If Power Budgeting is implemented by a vendor's system, the Dialogic® D/120JCT-LS-EW board **can** be plugged into a x1 slot but the P3 jumper must be in position pins 2-3 (power budgeting adhered to).

WARNING! Installing the Dialogic® D/120JCT-LS-EW board in a x1 slot with the P3 jumper in position 1-2 will void the warranty of the D/120JCT-LS-EW board.

If the Dialogic® D/120JCT-LS-EW will be connected to other telephony boards via a CT Bus cable, you should install the boards to minimize unused connectors on the CT Bus cable (in addition to ensuring that the power requirements are met):

- Install boards in adjacent slots whenever possible.
- If the Dialogic® D/120JCT-LS-EW board will be connected to one or more PCI boards, use the PCI Express slot(s) closest to the PCI slots.

5. Installing the Board

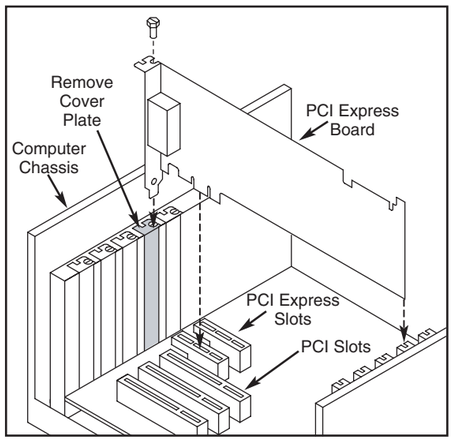
WARNING! Unplug the equipment before performing the procedures described here. Failure to disconnect the power before you open the chassis can result in personal injury. Ensure that the system is disconnected from its power source and from all telecommunications links, networks, or modem lines whenever the chassis cover is removed. Do not operate the system with the cover removed.

CAUTION: To avoid possible damage to the board, remove power from the computer before beginning installation. Observe proper anti-static precautions at all times while handling and installing the board.

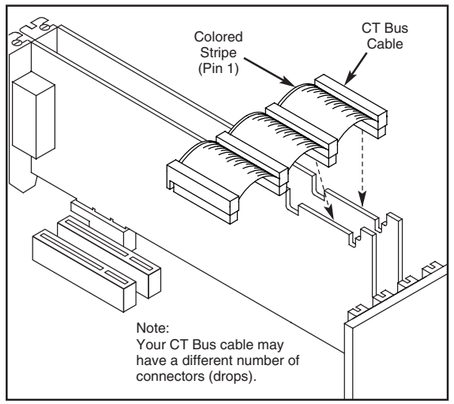
To install the Dialogic® D/120JCT-LS-EW board, perform the following steps:

1. Turn off all power to the system and disconnect the system's power cords.
2. Remove the computer's cover.
3. Choose an empty PCI Express expansion slot and remove the slot's retaining screw and access cover plate.

4. Insert the board's edge connector into the bus slot, and apply firm pressure to the top edge of the board until the board is fully seated in the edge connector.



5. Reinstall the retaining screw.
6. Repeat steps 1 through 5 for any additional boards you are installing.
7. Connect the telephony boards together with a CT Bus cable of the appropriate size (not included). If possible, use a cable assembly that matches the number of boards in your system. If the cable has more than one unused connector, install the cable so that all the unused connectors are at one end of the cable.



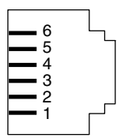
8. Replace the computer's cover.
9. Reconnect the computer's power cord.

6. Connecting to External Equipment

Each of the six RJ-14 jacks on the rear bracket of the Dialogic® D/120JCT-LS-EW board supports two analog telephony channels. A standard telephone will **not** function when directly connected to the board.

The following figure illustrates the pinout of the RJ-14 jacks, which provide two tip/ring pairs with an earth recall, one set for each telephony channel.

Pinout for RJ–14 Jacks on D/120JCT-LSEW Bracket



6 Line 2 Earth Recall
5 Line 2 Ring
4 Line 1 Tip
3 Line 1 Ring
2 Line 2 Tip
1 Line 1 Earth Recall

7. After Installing the Board

If you are installing the Dialogic® D/120JCT-LS-EW in a system that already has the Dialogic® system release software installed, you may not need to install a new or upgraded software release to support the board. The Dialogic® D/120JCT-LS-EW has been designed to be compatible with existing System Release 6.x software versions that support PCI boards. Please refer to the Release Update document for your release version for up-to-date information about support for PCI Express boards and any known issues relating to their use.

If this is the first Dialogic® telecom board you have installed in your system, you will need to install an appropriate version of the Dialogic® system release software and configure the software for the specific board(s) you are using. Refer to the installation and configuration documentation that accompanies the release for instructions.

When configuring the system for the Dialogic® D/120JCT-LS-EW board, use the same menu selections and configuration settings that are documented for the PCI version of the Dialogic® D/120JCT-LS.

8. Removing the Board

Removal of the Dialogic® D/120JCT-LS-EW board is essentially the reverse of the installation procedure:

1. Observe anti-static precautions.
2. Disconnect the telephony cables.
3. Remove the computer's power cord.
4. Remove the computer's cover.
5. Disconnect the CT Bus cable (if applicable).
6. Remove and set aside the board's retaining screw.
7. Remove the board and place it static-protective packaging.

9. Contacting Technical Support

Dialogic provides technical support for its products through a network of value added distributors who are trained to answer technical questions on installing and configuring Dialogic® products. If you are unsure how to contact your support channel, please call Dialogic in the United States at 973-967-6600 (9am - 5pm EST) and we will assist in obtaining the appropriate support channel. Outside the United States please refer to http://www.dialogic.com/support/contact to obtain local contact information.

Dialogic also provides direct support via Dialogic® Pro™ Services agreements. For more details of direct support from Dialogic please refer to http://www.dialogic.com/support/DialogicPro.

10. Returning a Product

To return a board for warranty repair or any other returns, please refer to the following: http://www.dialogic.com/support/hwfaults

11. Warranty Information

For specific warranty information for this board, refer to the Warranty section of the Products page, located at this URL: http://www.dialogic.com/warranties/.

12. Sales Assistance

If you have a sales question, please contact your local Sales Representative or the Regional Sales Office for your area. Address, telephone and fax numbers, are available at the Dialogic website located at: http://www.dialogic.com/contact.htm.

To purchase Dialogic® products, please refer to the following website to locate the appropriate supplier: http://www.dialogic.com/purchase.htm.

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