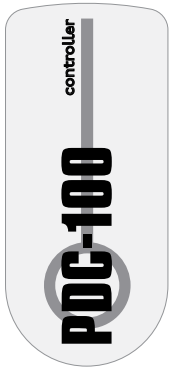


PDC-100

IDX 100 Controller

5025938-A



Packing List

- PDC-100
- US power cable
- EU power cable
- UK power cable
- Y-split DVI video cable
- Dell literature
- This document
- USB thumb drive

Introduction / Overview

The PDC-100 is the central controller (AKA 'core', 'server', 'brain') for an IDX 100 system. The PDC-100 is a Windows-based rackmount PC which ships pre-configured from BSS Audio, running specialized server software. An IDX 100 system is customized remotely by an intuitive, wizard-based software application named 'IDX100 Designer'. In an IDX 100 system, the PC which runs IDX100 Designer is referred to as the 'client' PC. The client PC can be the PDC-100 itself, or it can be a completely separate PC (see "Client PC Requirements" for further information). It is highly recommended to use a separate PC as the client, as this prevents any user from unintentionally changing critical OS settings within the PDC-100.

The system administrator simply completes the 'IDX 100 System Wizard' within IDX100 Designer and then uploads a resulting file to the PDC-100 via Ethernet. Upon receiving this file, the PDC-100 is then considered to be "configured," and it will perform its core duties within an IDX 100 system. These duties include:

- Audio file storage/playback
- Event-log data storage
- Monitoring the other system components' statuses and all system activity via the network
- Making signal path adjustments to facilitate automatic 'failover' functionality
- Triggering scheduled events
- Automatic / "behind the scenes" assignment of CobraNet bundle numbers to CobraNet-based IDX 100 components (i.e., DT-715 paging stations and PDP-DSP signal processors), allowing users to easily operate the paging stations without considering bundle numbers
- DHCP for automatic IP configuration of all IDX 100 components
 - » **NOTE 1:** The PDC-100 is not reliant upon IDX100 Designer to activate DHCP server functionality—this functionality is enabled by default on the PDC-100 when shipped.
 - » **NOTE 2:** The PDC-100 ships with an IP address of 10.10.10.10 (subnet mask 255.0.0.0), and it will start assigning IP addresses from 10.10.10.100.

Once configured, the PDC-100 will perform these duties regardless of the presence of the client PC. Leaving the client PC connected to the IDX 100 system (i.e., connected to the Ethernet switch) is not strictly required, but doing so allows the following functionality, directly from IDX100 Designer:

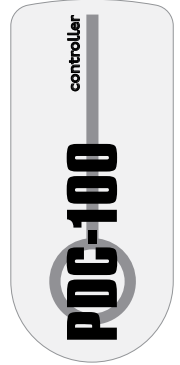
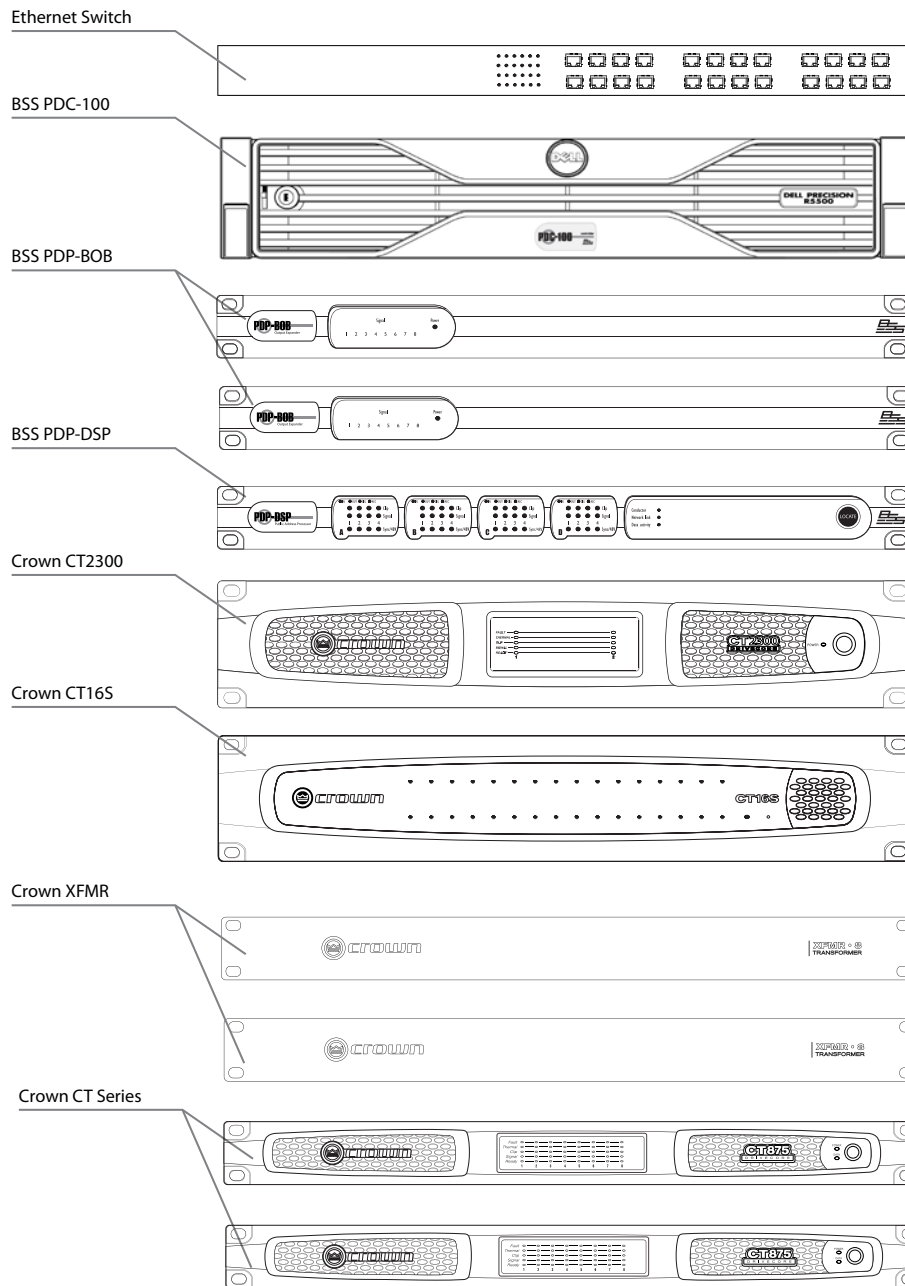
- Real-time, control/monitoring of system EQ
- Real-time control/monitoring of system volume
- Retrieval of stored event-log data
- Real-time testing/monitoring of IDX 100 system components' health
- Modification of the system to accommodate evolving system requirements (e.g., more zones and paging stations are required after a building renovation)

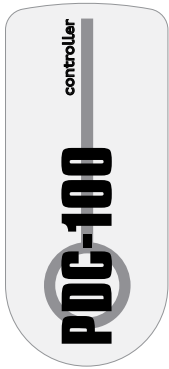
Rack Mounting

The PDC-100 is one of many IDX 100 system components, all of which were designed to be mounted in a standard 19" wide rack. A '4-post' type rack should be used, and it should be at least 30 inches deep to accommodate the PDC-100 (the deepest of all IDX 100 system components).

The diagram below is a recommended rack layout for the various devices. The arrangement is not mandatory however, and rack layout will generally be dictated by the particular installation.

As a general rule, it is best to locate power amplifiers and associated transformers at the bottom of the rack, and the Ethernet switch at the top. Use 1U solid blank panels to separate power amplifiers from each other and other equipment for ventilation purposes.





Client PC Requirements

A client PC must meet these requirements in order to run IDX100 Designer:

- **Operating System:** Windows 7, 32-bit or 64-bit
- **DotNet Framework:** 4.0 (full version)
- **Firewall:** disabled
- **Processor:** 1.6 GHz or faster
- **Memory:** 2 GB RAM or more
- **Screen Resolution:** 1280x1024 or higher

Connecting the PDC-100 and Client PC Within an IDX 100 System

1. Connect the 'Ethernet' port on the PDC-100 to a port on the Ethernet switch.
 - » If a separate PC is being used as the client PC (recommended), there is no need to connect a keyboard, mouse, or video monitor to the PDC-100.
 - » The PDC-100 contains an internal DHCP server. Care must be taken to ensure this DHCP server is the only DHCP server on the network. If another DHCP server is present on the IDX 100 network, this will cause conflicts which prevent the IDX 100 system from functioning. Therefore, install the IDX 100 system on an isolated network. **INSTALLING THE IDX 100 SYSTEM ON A LARGER NETWORK IS DONE AT THE INSTALLER'S OWN RISK.**
2. Connect the 'Ethernet' port on the client PC to a port on the Ethernet switch.
 - » If the Client PC is not a laptop, connect a keyboard, mouse, and computer monitor to the client PC.
3. Connect the appropriate power cables to the PDC-100, client PC, and Ethernet switch.
4. A USB flash-drive ships with the PDC-100. Insert this USB drive into the client PC.
5. The USB drive contains the installation file for IDX100 Designer. Copy this file onto the hard drive of the client PC.
6. Install IDX100 Designer on the client PC.

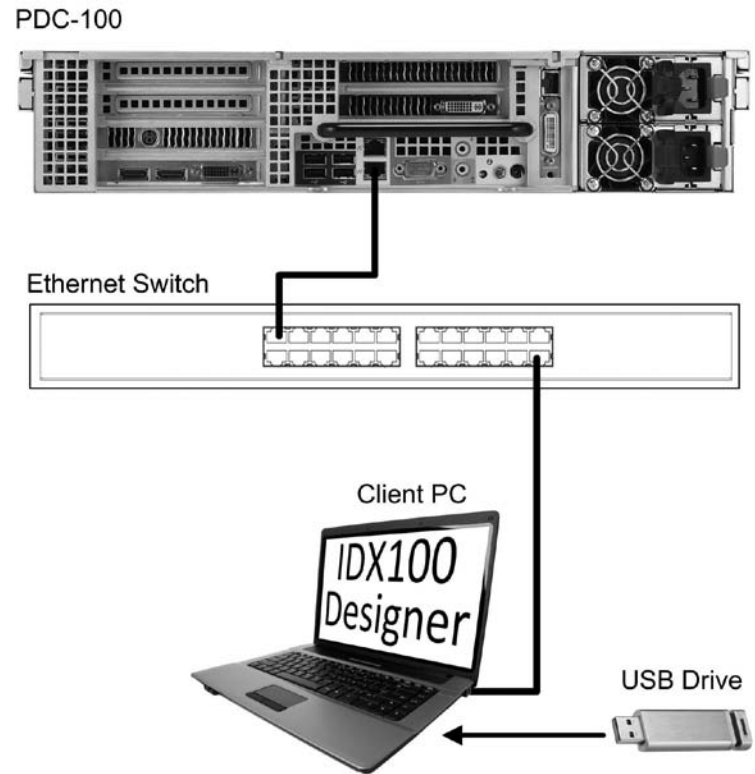


Figure 1

Obtaining a Software License

Once IDX100 Designer has been installed onto a client PC, a user can immediately begin using IDX100 Designer to design a system—even if the client PC is not connected to IDX 100 hardware. However, before loading a design to the IDX 100 hardware, a license must be acquired to activate the PDC-100's server software. This is a one-time requirement.

The recommended method of obtaining a license involves temporarily connecting the PDC-100 to the Internet, while also retaining a connection to the local IDX 100 network. This requires the client PC to have at least two NICs. Connect one NIC on the client PC to the IDX 100 Ethernet switch. Connect another NIC (e.g., a wireless card) on the client PC to the Internet (see Figure 2).

Once this physical setup is established, please consult the Help File within IDX100 Designer. It contains detailed instructions for completing the licensing process within the software.

If the client PC only has one NIC, or if it is impossible to obtain an internet connection, please consult the Help File within IDX100 Designer. It contains detailed instructions for completing the licensing process within the software and without internet access.

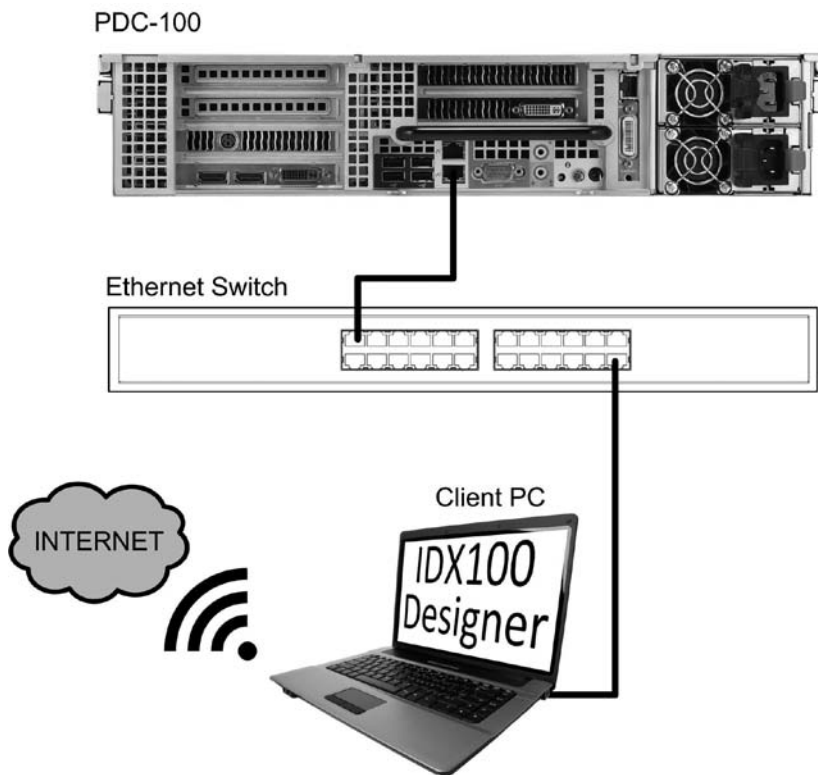
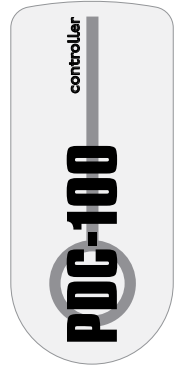
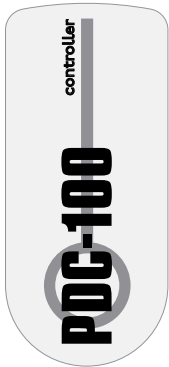


Figure 2





Connecting the PDC-100 to the PDP-DSP

The PDC-100's stereo audio output must be connected to analog Inputs **B3** and **B4** on the PDP-DSP. These specific inputs are reserved for receiving the pre-recorded message audio stored on the hard drive of the PDC-100.

A stereo unbalanced cable carrying the PDC-100's audio should be connected to inputs **B3** and **B4** on the PDP-DSP as follows:

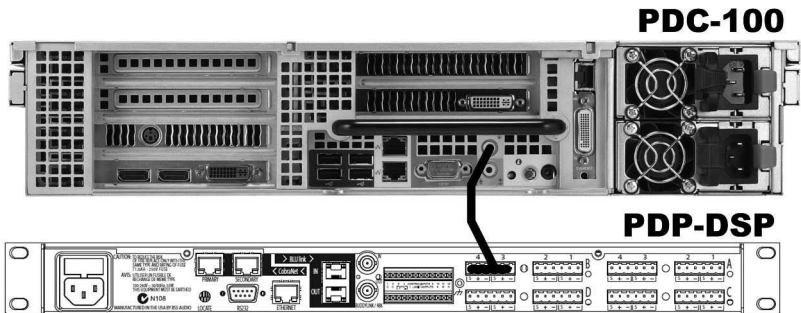


Figure 3

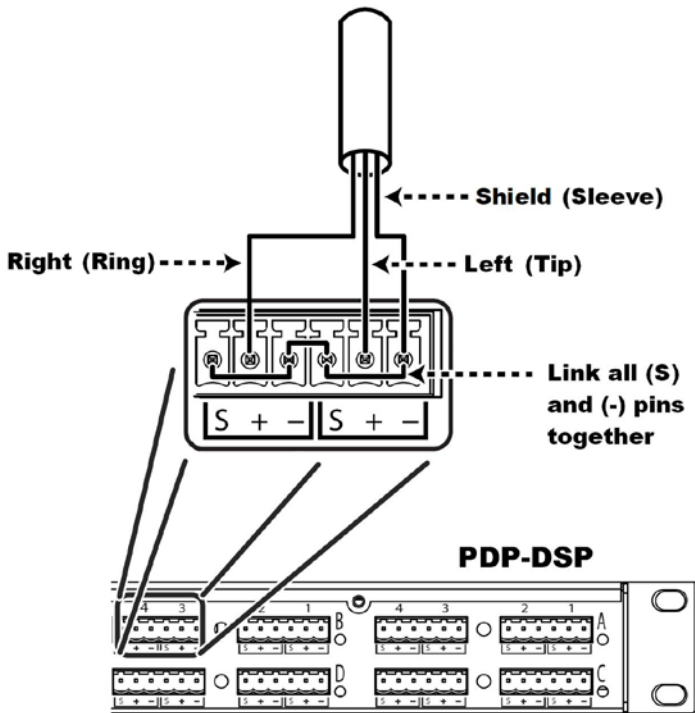


Figure 4

NOTE: For detailed information pertaining to the various connections on the PDC-100, please consult the document provided by Dell, "Dell Precision R5500 Setup And Features Information."

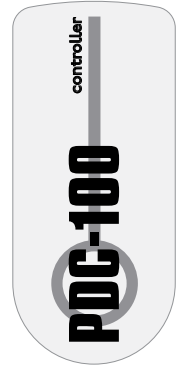
SUPPORT

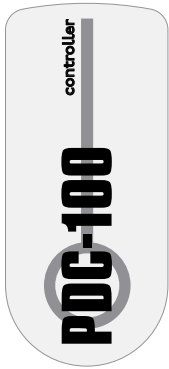
For IDX 100 support, please contact your local Harman/BSS Audio dealer. For PDC-100 Computer hardware support, please consult the Dell documentation for contact information regarding Dell support.



Technical Specifications

Base Unit:	Dell Precision R5500 Workstation
Processor:	Intel Xeon Processor E5603, 1.60 GHz, 4M Cache, 4.80 GT/s Intel QPI
Memory:	4GB, DDR3 ECC RDIMM Memory 1333MHz, 2X2GB
Video Card:	512 MB NVIDIA Quadro NVS 300, Dual Monitor
Hard Drive:	250GB SATA, 7200RPM Hard Drive 2.5 Inch with 16MB DataBurst Cache
Hard Drive Controller:	C1 SATA drive, Non-RAID
Operating System:	Windows 7 Professional, 64-bit, English
Voltage:	100 V to 240 V, 12.00 A to 6.00 A, 50 Hz to 60 Hz
Wattage:	1023 W on 100 VAC to 120 VAC, 1100 W on 200 VAC to 240 VAC
Maximum heat dissipation:	4774 BTU/hr
Required Temperature for operation:	10 oC to 35 oC (50 oF to 95 oF)
Required Temperature for storage:	-40 oC to 65 oC (-40 oF to 149 oF)
Required Relative Humidity for operation/storage:	20% to 80% (noncondensing)
Required Altitude for operation:	-15.2 m to 3048 m (-50 ft to 10,000 ft)
Required Altitude for storage:	-15.2 m to 10,668 m (-50 ft to 35,000 ft)
Dimensions – Height:	86.30 mm (3.40 inches)
Dimensions – Width:	440.60 mm (17.35 inches)
Dimensions – Depth with front bezel:	792.70 mm (31.21 inches)
Dimensions – Depth without front bezel:	753.60 mm (29.67 inches)
Weight (minimum):	23.52 kg (51.85 lb) without bezel; 23.91 kg (52.71 lb) with bezel





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