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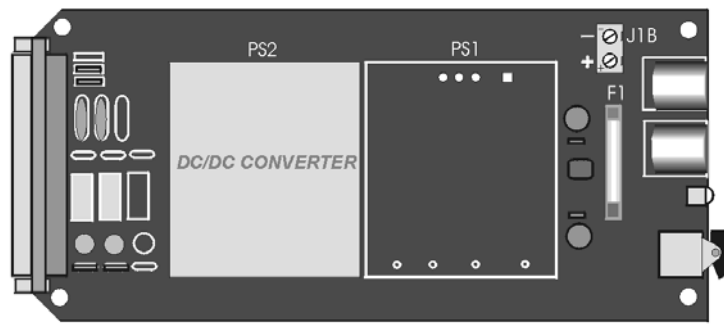
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**Reference Notes:**

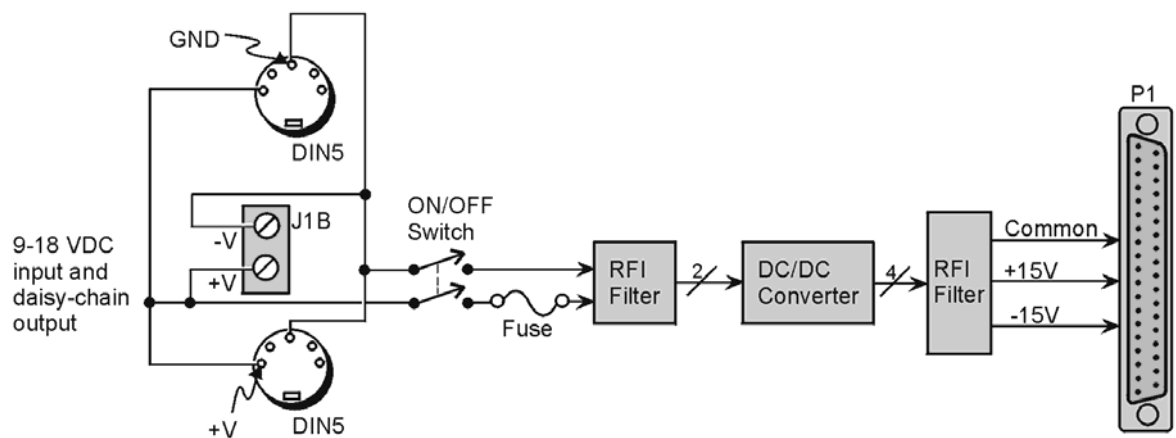
- Chapter 2 includes pinouts for P1, P2, P3, and P4. Refer to pinouts applicable to your system, as needed.
- In regard to calculating system power requirements, refer to *DBK Basics* located near the front of this manual.

## Overview



### DBK32A Power Supply Card

The DBK32A provides added power in configurations where the number of expansion cards exceeds the power available from a LogBook, DaqBook, or DaqBoard. For power, the DBK cards rely on voltages supplied via the P1 connection. The DBK32A supplies  $\pm 15$  V @ 500 mA via the P1 bus and is compatible with all analog DBK cards.



*DBK32A Block Diagram*



**The DBK32A does not provide +5 V. If +5 V is required by the DBKs in use, you should use the DBK33 Triple-Output Power Supply. Refer to the *DBK33 Document Module* for additional information.**

## Configuring the Primary Device for use with a DBK32A

Configuration for:

**DaqBook/100 Series**  
**DaqBook/200 Series**  
**DaqBoard/100 Series**  
**DaqBoard/200 Series [ISA-type boards]**

### CAUTION



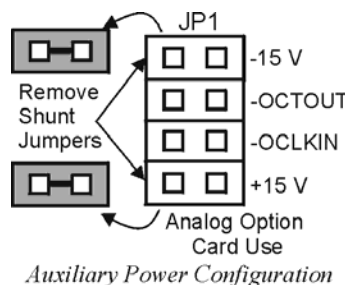
You must configure the DaqBook/100 Series & /200 Series devices or DaqBoard [ISA type] before connecting the DBK32A. Do not connect the P1 cable without first removing the shunt jumpers from JP1 inside the DaqBook/100 Series & /200 Series device or DaqBoard [ISA type]. Failure to remove these jumpers can result in damage to the DBK32A and the DaqBook/100 Series, DaqBook/200 Series or DaqBoard [ISA type].

### CAUTION



Do not place jumpers on the -OCTOUT and -OCLKIN pins. If configured such, damage to the 8254 timer chip will result.

Using a DBK32A requires you to entirely remove the shunt jumpers from header JP1 inside the DaqBook /100 Series & /200 Series or DaqBoard [ISA type], as shown in the figure. DaqBooks/100 Series & /200 Series and DaqBoards [ISA type] are shipped with these shunts positioned to deliver analog power to P1.



JP1 default position will not work with a DBK32A. Shunt jumpers must be removed before connecting DBK32A. See previous Cautions.

Configuration for:

**DaqBook/260**  
**DaqBook/2000 Series**  
**DaqBoard/2000 Series**  
**DBK60**  
**LogBook/300**  
**LogBook/360**

No hardware configuration is performed in regard to using the DBK32A with these devices.

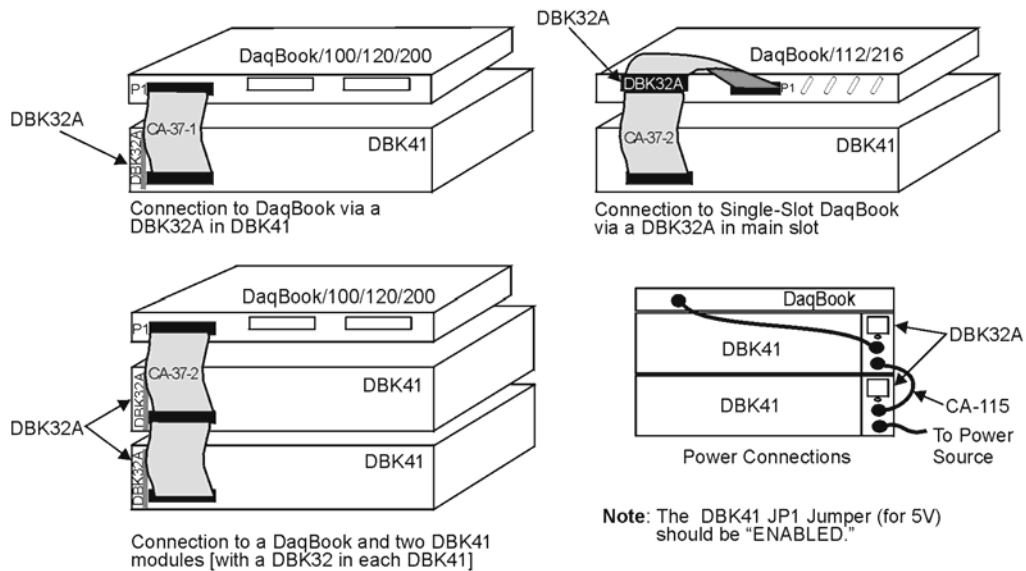
Configuration for:

**DBK41**

When a DBK32A is installed in a DBK41, the DBK41 should have its JP1 jumper in the “ENABLE +5 VDC” position. Refer to the DBK41 section of the manual for additional information.

## Connecting the DBK32A

The DBK32A can be installed into the internal expansion slot of a DaqBook/112, DaqBook/216, DaqBook/2000X, a 3-Slot DBK10, a 3-slot DBK60, or a 10-Slot DBK41. It can also be used in a LogBook/360 and DaqBook/260.



### Examples of DBK32A Connections



If you will be using a 3-port DaqBook, i.e., DaqBook/100, /120, /200, /260, or /2000 Series with a DBK41, then the best location for the DBK32A is the right-hand end-slot of the DBK41 when facing the DBK41's rear panel. This will be the left-hand slot if facing the DBK41 from the front-panel.

### DBK32A's P1 Connector

DBK32A's DB37 P1 connector interfaces with the analog DBK in one of two ways:

- Via a P1 interface backplane, such as in the case of installing the DBK32A in a DBK41.
- Via a CA-37-x cable, which interfaces between the DBK32A's P1 connector and the P1 connector(s) of the analog DBK(s) that it is to supply power to.

### DBK32A's DIN5 Connectors

The DBK32A can be powered from a 9 to 18 VDC source such as an AC/DC power adapter, a DBK30A battery module, or a car battery.

The DBK32A has two DIN5 power connectors to allow for the cascading of multiple DBK32As (via a CA-115 power cable). The lower right-hand section of the preceding figure portrays this scenario. Note that a DBK32A can share a power source with an acquisition device. For example, you can connect a CA-115 power cable to the DIN5 Power Out connector of a DaqBook, DaqBoard, or LogBook and then connect the other end of the CA-115 cable to one of the DIN5 connectors on the DBK32A.

### DBK32A's J1B Terminal Block

Terminal block J1B has one positive (+) and one negative (-) screw terminal. The terminal block power connection is available as an alternative to a DIN5 connector. As indicated in the block diagram on page 1, all three connectors are in parallel.

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## **DBK32A – Specifications**

**Name/Function:** Auxiliary Power Supply Card

**Isolation, Input to Output:** 500 VDC

**Output Voltages:**

+15 VDC (nominal) @ 535 mA

-15 VDC (nominal) @ 535 mA

**Line Regulation:** 0.5% (maximum)

**Load Regulation:** 1.0% (maximum)

**Total Output Power:** 16 VA (full load)

**Input Voltage Range:** 9 to 18 VDC

**Input Current Range:**

1.05A @ 18 VDC

10A @ 9 VDC

**Size:** 209 mm x 19 mm x 82 mm (8-1/4 " x 3/4" x 3-1/4")

**Full Load Efficiency:** 80% Typical

**Input Connections:** DIN-5 (x2 for daisy-chaining)

**Output Connections:** DB37 Male

**Parallel Provision:** OR-ing diodes in output lines

**Controls:** ON/OFF rocker arm switch

**Indicators:** LED driven by positive output

**Over-Voltage Protection:** Fuse followed by 19V zener clamp

**Switching Frequency:** 100 kHz min.

**Operating Temperature Range:** -20 to 70°C

**Input Fuse Size:** 3 A (Littelfuse)

**Note:** Specifications are subject to change without notice.