

K9-B Watchdog Circuit Installation Guide

General Information

The K9-B watchdog is an add-on board for XL series drives. It is designed to provide additional protection to the motor.

Normally, the motor signal from the drive is sent as a series of pulses. The K9-B monitors these signal pulses by sensing the voltage across drive transistor Q501.

If a power component on the drive shorts out, the drive will produce a continuous “on” signal instead of a pulse. The watchdog will detect the missing pulse and close the contacts in the on-board relay, applying voltage to the gate of the watchdog SCR. The SCR will then conduct and short the AC power inputs. Shorting the power inputs will blow watchdog fuse F501.

Because the fuse is located in line with the power input, it will interrupt the power to the drive. This prevents motor overspeeding and possible damage to the motor components.

Installation

Installation of the K9-B circuit board is very simple and can be accomplished with common hand tools in only a few minutes. Please read through the instructions before beginning installation of the K9-B.

Install the K9-B as follows:

1. Remove the two mounting screws as shown in Figure 1. Discard these screws.
2. Install the K9-B circuit board, spacers and new mounting screws as shown in Figure 2.
3. Install the 15A line fuse on the K9-B assembly (Figure 3).
4. Connect the K9-B to the drive (as shown in Figure 5).

MOUNTING SCREWS

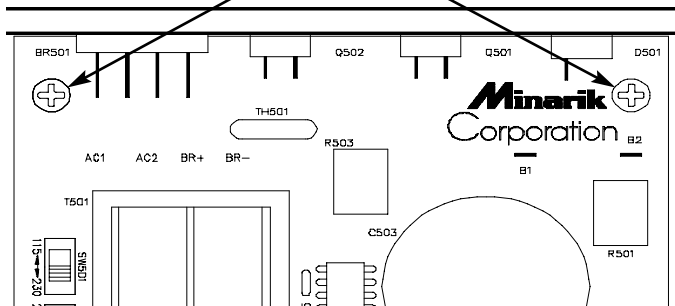


Figure 1. Mounting Screw Location

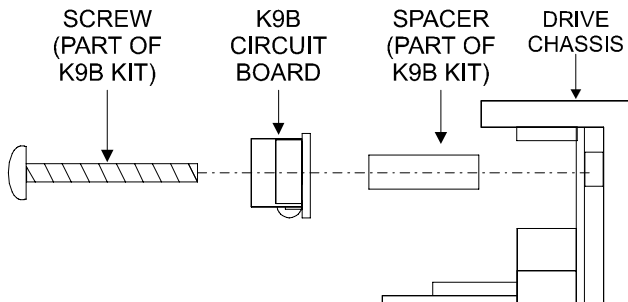


Figure 2. K9-B Installation Sequence

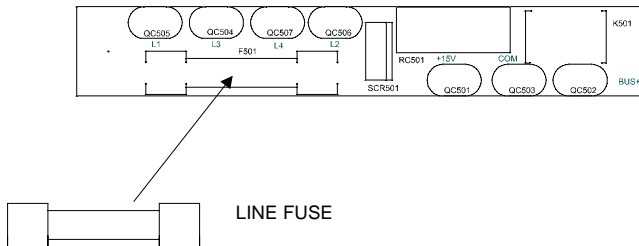
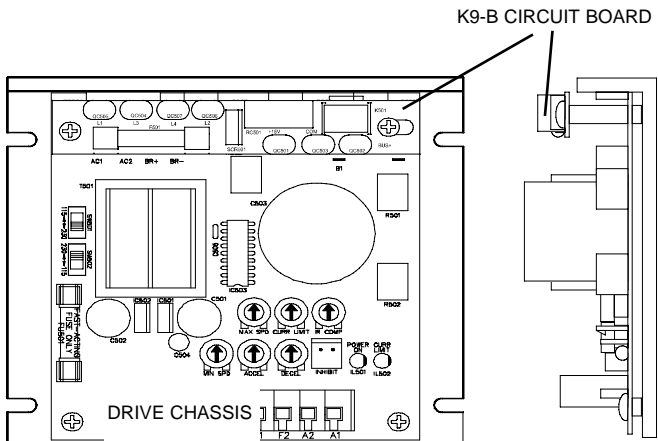


Figure 3. Line Fuse Installation



Connections

Connect the K9-B to the drive as shown in Table 1. Use 16 AWG wire for power leads and 18 AWG wire for signal leads. See Figure 5 for connections.

Table 1. K9-B Connections

From	To	Color
POWER INPUT	K9-B – L1	
POWER INPUT	K9-B – L2	
K9-B – L3	DRIVE – TB501–L1	BLK
K9-B – L4	DRIVE – TB501–L2	WHT
K9-B – COM	DRIVE – COM	BLK/WHT
K 9-B – BUS+	DRIVE – VBUS	RED
K9-B – (+15)	DRIVE – (+15)	RED/WHT

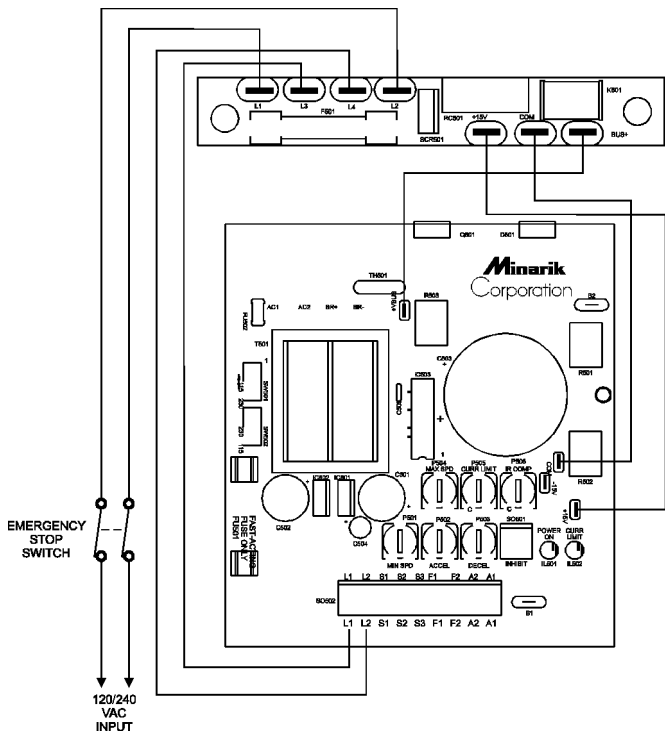


Figure 5. Typical K9-B Connections to XL Series Drive

Notes



901 East Thompson Avenue
Glendale, California 91201-2011

Tel: (800) MINARIK

Fax: (800) 394-6334

www.minarikcorp.com

Document Number 250-0267, Revision 0

Printed in the U.S.A – 8/98

\$12.00 North America, \$13.00 Outside North America