YASKAWA

YASKAWA AC Drive-E7

Electronic Bypass

Supplemental Safety Information

Supplement for E7 Series: E7L, E7N, E7B with Y or T Option

To properly use the product, read this supplement thoroughly and retain for easy reference, inspection, and maintenance. Ensure the end user receives this supplement.

ATTENTION!

Important safety information regarding the E7 Electronic Bypass.
Read this supplement carefully prior to installation and start-up.

SUPPLEMENT NO. IG.E7.05

1 Supplemental Safety Information - E7 Electronic Bypass

◆ Applicability

This document is shipped with each E7L, E7N, E7B with Y Option, and E7B with T Option to call attention to the installer that certain wiring of the safety and interlock circuits is required. The contents of this supplement pertain to Yaskawa drive products listed in ***Table 1***.

Table 1 Affected Models

Yaskawa Product	Description
E7L	Applicable models are Yaskawa Bypass units definedby model numbers E7L_ _ _ _.
E7N Narrow Bypass Package	Applicable models are Yaskawa Bypass units definedby model numbers E7N_ _ _ _.
E7B with Y Option ot T Option	Applicable models are Yaskawa Bypass units definedby model numbers E7B_ _ _ _ with Y Option or T option installed.

NOTICE

Equipment Damage - Precautions for Setting Control Circuit Logic Inputs Jumpers J4, J5, J6, J7, J8 and J9

Place all jumpers, J4, J5, J6, J7, J8, J9, in the same matching positions for the correct logic input voltage at PCB A2 terminal TB1. Failure to comply will result in E7 control circuit damage or in damage to connected peripheral devices. J4, J5, J6, J7, J8, J9 jumpers are placed in factory default positions 1 & 2 for 120 Vac Control Circuit Logic Inputs.

Equipment Failure to Operate - Precautions for Safety Circuit Installation TB1-1 to TB1-9

Install a jumper or a normally closed (N.C.) circuit at PCB A2 terminals TB1-1 to TB1-9 to allow drive or bypass operation and to prevent a Safety Open fault at power-up. Failure to comply will prevent drive or bypass operation.

Equipment Failure to Operate - Precautions for BAS Interlock Circuit Installation TB1-3 to TB1-9

Install a jumper or a normally closed (N.C.) circuit at PCB A2 terminals TB1-3 to TB1-9 to allow drive or bypass operation and to prevent a Safety Open fault at power-up. Failure to comply will prevent drive or bypass operation.

◆ Safety Circuit Installation

On power up, the E7 Electronic Bypass will display a red "Safety Open" LED in the System Status area of the front control panel if a normally closed (N.C) safety circuit is not been installed between TB1-1 and TB1-9 on PCB A2. This condition will prevent Drive or Bypass operation.

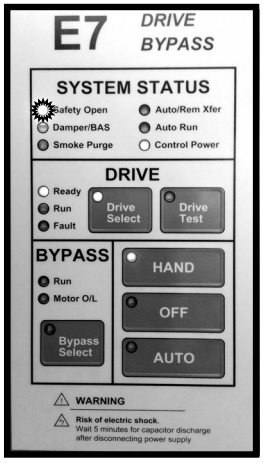

Figure 1 Safety Open LED Indication

■ Installing or Deactivating the Safety Circuit

One of these three actions below must be taken prior to equipment start-up to prevent the Safety Open condition.

1. Option 1: Install a N.C. Safety Circuit between TB1-1 and TB1-9 on PCB A2 according to ***Figure 2***.
2. Option 2: Install a jumper between TB1-1 and TB1-9 on PCB A2 according to ***Figure 3***. This method should be used if a Safety Circuit will be added later in the installation.
3. Option 3: De-activate these terminals by moving DIP switch S2-7 to the ON position (toward the enclosure door) according to ***Figure 4***. This solution is only suggested if a Safety Circuit will never be applied to the drive system.

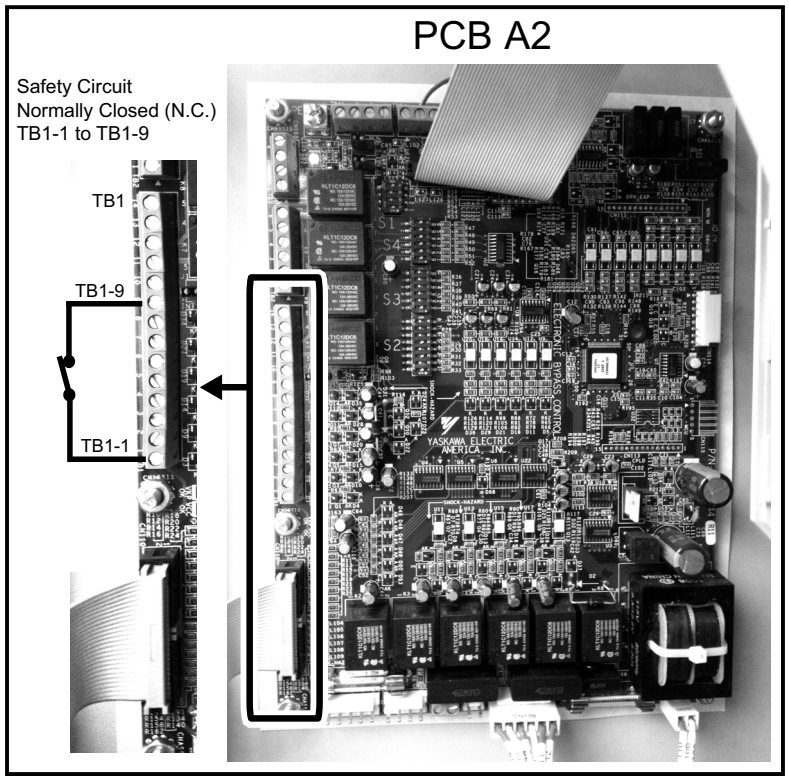

Figure 2 Option1: Normally Closed (N.C.) Safety Circuit Installation

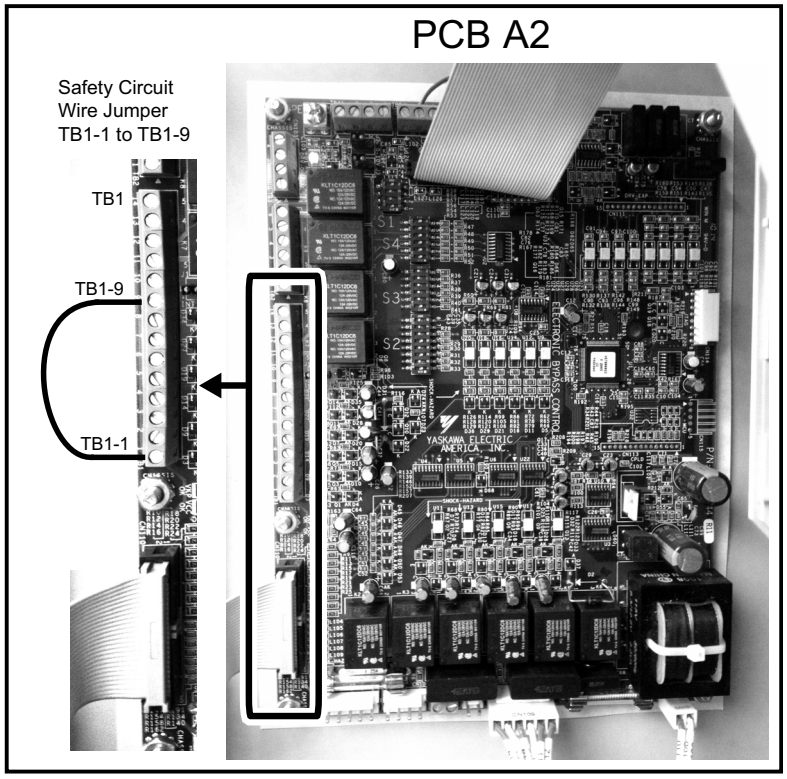

Figure 3 Option 2: Safety Circuit Wire Jumper

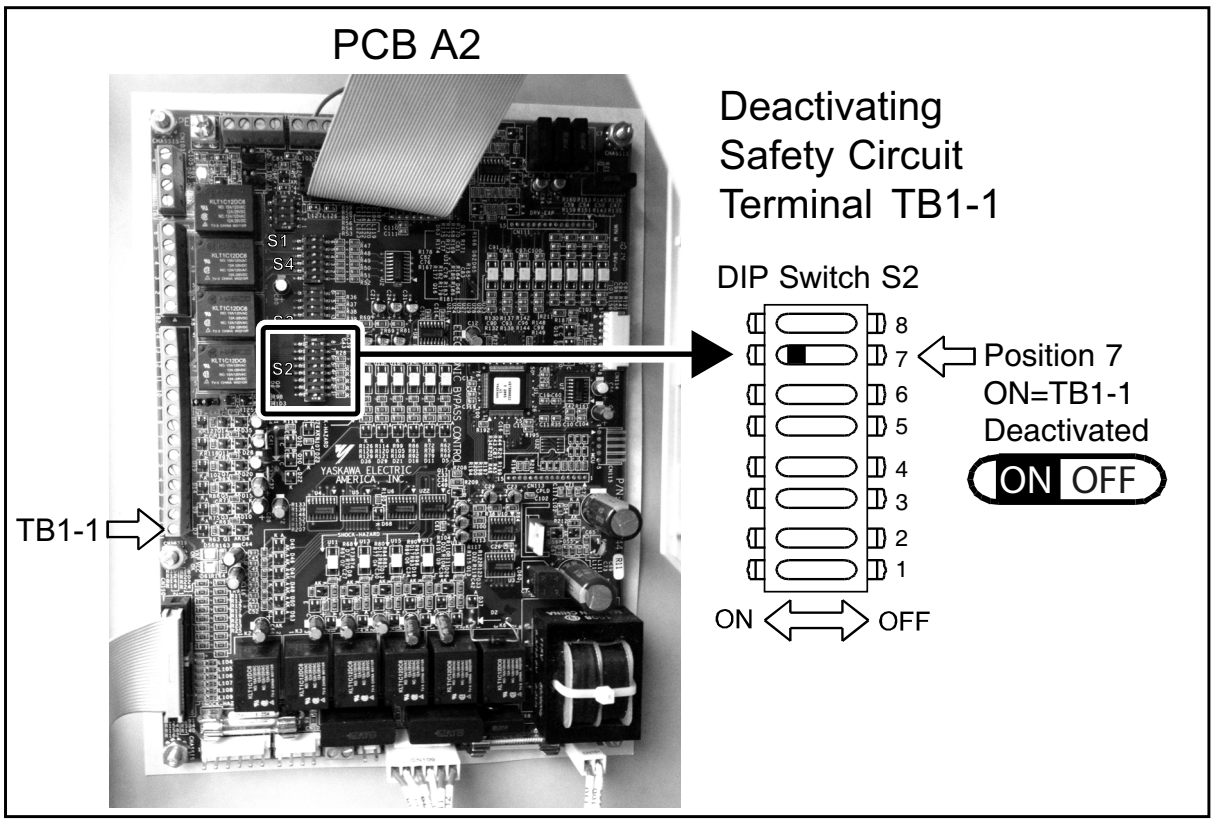

Figure 4 Option 3: Deactivating the Safety Circuit with DIP Switch S2-7

◆ Damper/BAS Interlock Circuit Installation

When a Run command is received in HAND or AUTO mode, the E7 Electronic Bypass will display a red "Damper/BAS" LED in the System Status area of the front control panel. This condition will prevent Drive or Bypass operation.

Figure 5 Damper BAS Interlock LED Indication

■ Installing or Deactivating the Damper/BAS Interlock Circuit

One of these three actions below must be taken prior to equipment start-up to prevent the Damper/BAS Interlock condition.

1. Option 1: Install a normally closed (N.C.) BAS Interlock Circuit between TB1-3 and TB1-9 on PCB A2. Refer to ***Figure 6***.
2. Option 2: Install a jumper between TB1-3 and TB1-9 on PCB A2 according to ***Figure 7***. This method should be used if a BAS Interlock Circuit will be added later in the installation.
3. Option 3: De-activate terminal TB1-3 by moving DIP switch S2-8 to the ON position (toward the enclosure door). Refer to ***Figure 8***. This solution is only suggested if a BAS Interlock Circuit will never be applied to the drive system.

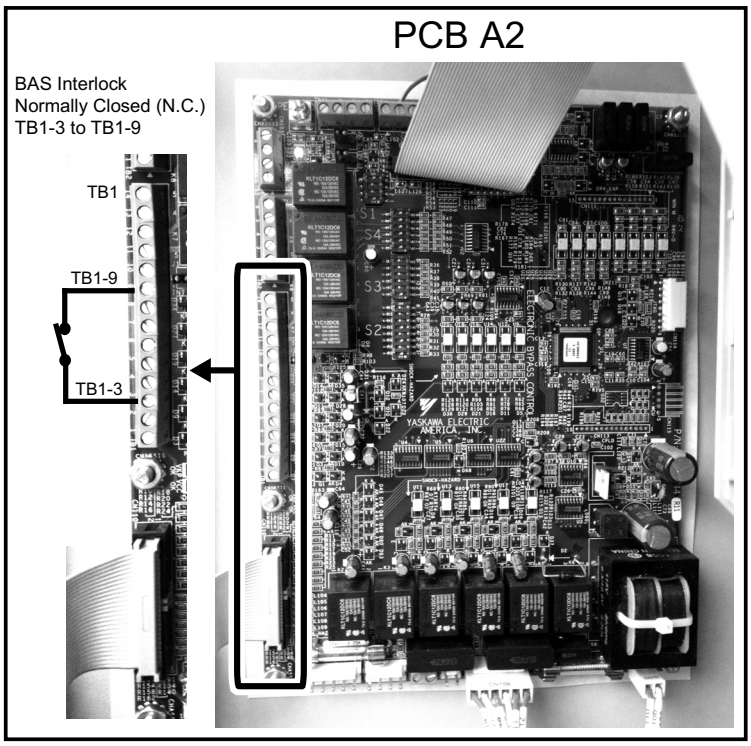

Figure 6 Option 1: Normally Closed (N.C.) Damper/BAS interlock Installation

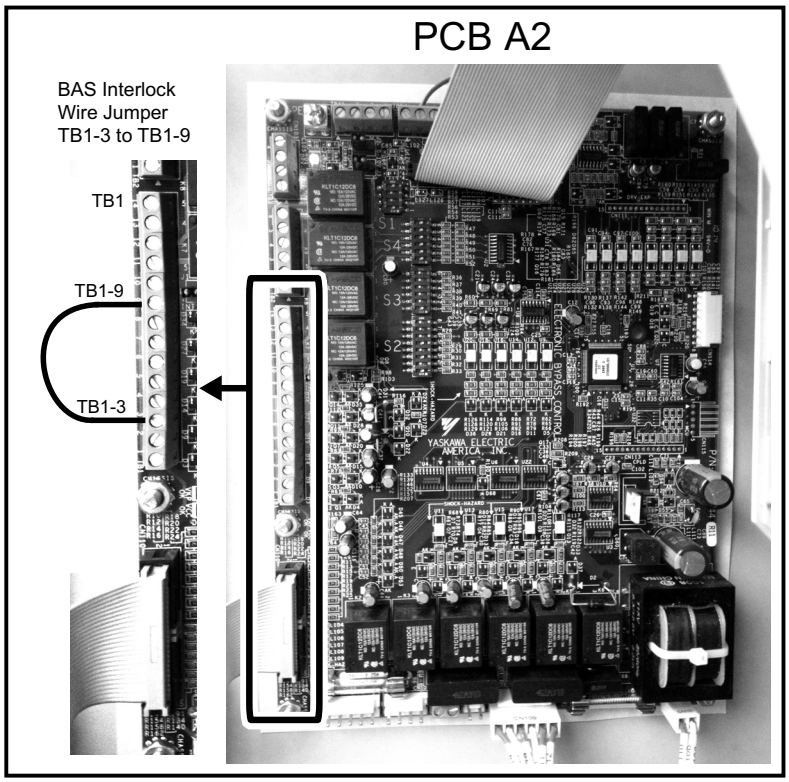

Figure 7 Option 2: Damper/BAS Interlock Wire Jumper

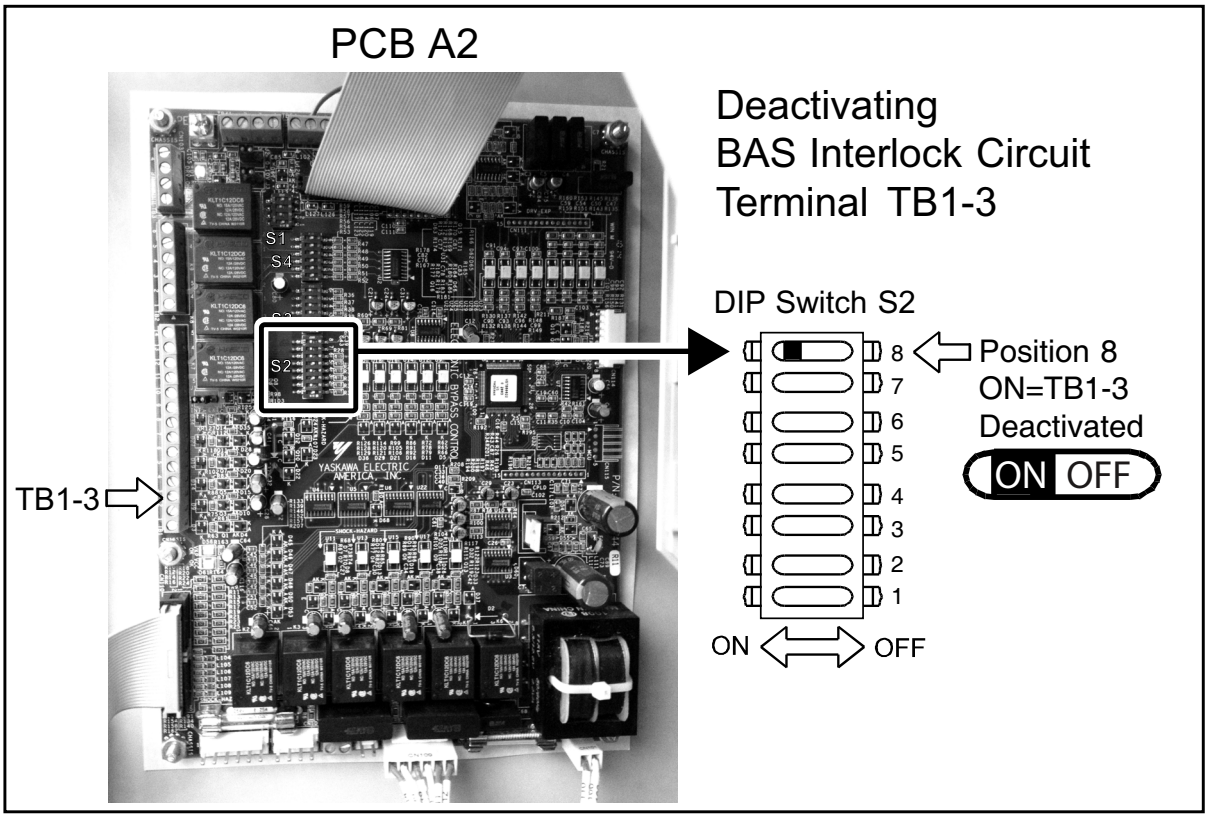

Figure 8 Option 3: Deactivating the Damper/BAS Interlock with DIP Switch S2-8

◆ Precautions for Setting PCB A2 Control Circuit Logic Input Voltage

The Control Circuit Logic Inputs on PCB A2 TB1 can be used with either 120 Vac or 24 Vdc input voltage. (UTC000510 only). Refer to ***Figure 9*** for details on setting jumpers J4, J5, J6, J7, J8 and J9.

NOTICE: *Damage to Equipment. Place all jumpers, J4, J5, J6, J7, J8, J9, in the same matching positions for the correct logic input voltage at PCB A2 terminal TB1. Failure to comply will result in E7 control circuit damage or in damage to connected peripheral devices. J4, J5, J6, J7, J8, J9 jumpers are placed in factory default positions 1 & 2 for 120 Vac Control Circuit Logic Inputs.*

Table 2 Control Circuit Input Voltage Jumper Settings

PCB A2 TB1 Input Voltage level	Jumpers J4, J5, J6, J7, J8, and J9, Position
120 Vac Input	1 & 2 (default)
24 Vdc Input	2 & 3
NOTE: All jumpers J4, J5, J6, J7, J8, and J9 must be set on the same setting, either all on Vac or all on 24 Vdc.	

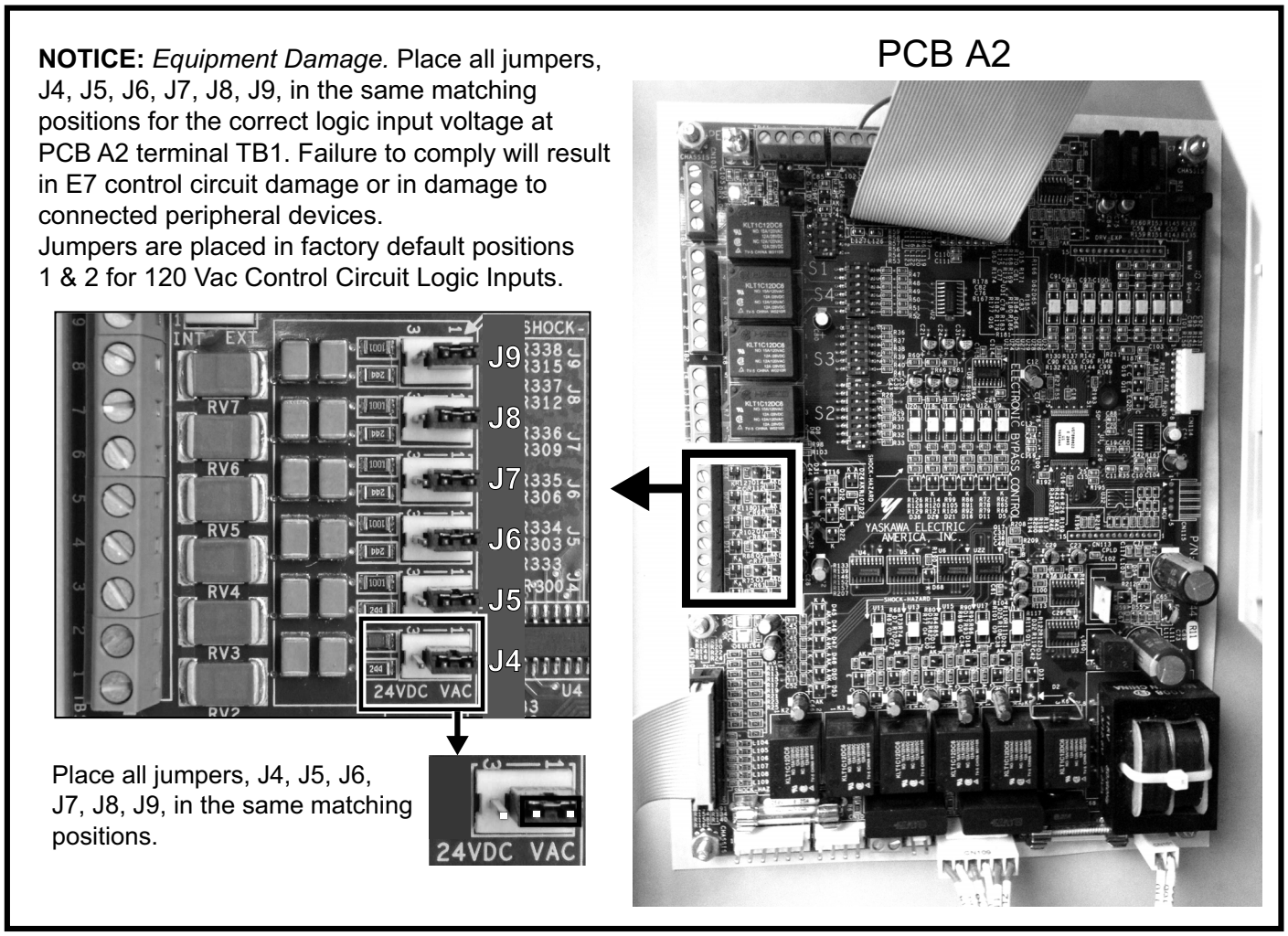

Figure 9 Setting Control Circuit Logic Input Voltage with Jumpers J4, J5, J6, J7, J8 and J9

YASKAWA AC Drive-E7

Electronic Bypass

Supplemental Safety Information

YASKAWA AMERICA, INC.
2121 Norman Drive South, Waukegan, IL 60085, U.S.A.
Phone: (800) YASKAWA (927-5292) or 1-847-887-7000 Fax: 1-847-887-7310
http://www.yaskawa.com

YASKAWA AMERICA, INC.

IG.E7.05

SUPPLEMENT NO. IG.E7.05
Published in U.S.A. FEBRUARY 2012 12-02