

Touch Protection Kit for FK09/FB09 and FK10/FB10 iC7 Series Frequency Converters

1 Overview

1.1 Description

The touch protection kit is compatible with iC7 Series Frequency Converters in the following frames:

- FK09a/FB09a
- FK10a/FB10a
- FK09c/FB09c
- FK10c/FB10c

The kit adds a polycarbonate shield over the mains terminals and busbars. It provides protection against accidental touch of the power terminals to comply with local and national regulations.

1.2 Kit Numbers

Use these instructions with the following kits.

Table 1: Numbers For Touch Protection Kits

Kit Number	Description
176F4164	Touch protection kit, FK09a/FB09a
176F4163	Touch protection kit, FK09c/FB09c
176F4161	Touch protection kit, FK10a/FB10a
176F4162	Touch protection kit, FK10c/FB10c

1.3 Items Supplied

Table 2: Items Supplied in FK09a/FB09a and FK10a/FB10a Touch Protection Kits

Item	Quantity
Touch protection shield	1
Bracket, left	1
Bracket, right	1
M5x12 mm screw	4

Table 3: Items Supplied in FK09c/FB09c and FK10c/FB10c Touch Protection Kits

Item	Quantity
Touch protection shield	1
Bracket, left	2
Bracket, right	2
M5x12 mm screw	6

2 Installation

2.1 Safety Information

CAUTION



QUALIFIED PERSONNEL

Only qualified personnel are allowed to install the parts described in these installation instructions.

- Disassembly and reassembly of the frequency converter must be done in accordance with the corresponding service guide.
- Use the standard fastener torque values from the service guide, unless the torque value is specified in these instructions.

WARNING



ELECTRICAL SHOCK HAZARD

The frequency converter contains dangerous voltages when connected to mains voltage. Improper installation, and installing or servicing with power connected, can cause death, serious injury, or equipment failure.

- Only use qualified electricians for the installation.
- Disconnect the frequency converter from all power sources before installation or service.
- Treat the frequency converter as live whenever the mains voltage is connected.
- Follow the guidelines in these instructions and local electrical safety regulations.

WARNING



DISCHARGE TIME (20 MINUTES)

The drive contains DC-link capacitors, which can remain charged even when the drive is not powered. High voltage can be present even when the warning LED indicator lights are off.

Failure to wait 20 minutes after power has been removed before performing service or repair work can result in death or serious injury.

- Stop the motor.
- Disconnect AC mains and remote DC-link power supplies, including battery back-ups, UPS, and DC-link connections to other drives.
- Disconnect or lock PM motor.
- Wait for the capacitors to discharge fully. The minimum waiting time is 20 minutes.
- Before performing any service or repair work, use an appropriate voltage measuring device to make sure that the capacitors are fully discharged.

CAUTION



INTERNAL FAILURE HAZARD

An internal failure in the drive can result in serious injury when the drive is not properly closed.

- Ensure that all safety covers are in place and securely fastened before applying power.

2.2 Installing the Touch Protection Shield FK09a/FB09a and FK10a/FB10a

Use the following steps to install the touch protection shield in FK09a/FB09a and FK10a/FB10a frequency converters.

1. Unfasten 4 screws (T25) and open the frequency converter door.
2. Remove the existing side brackets, by removing 1 screw (T25) from the lower left bracket and 1 screw (T25) from the lower right bracket. See [Figure 1](#).

Retain the 2 screws (T25) for reuse.

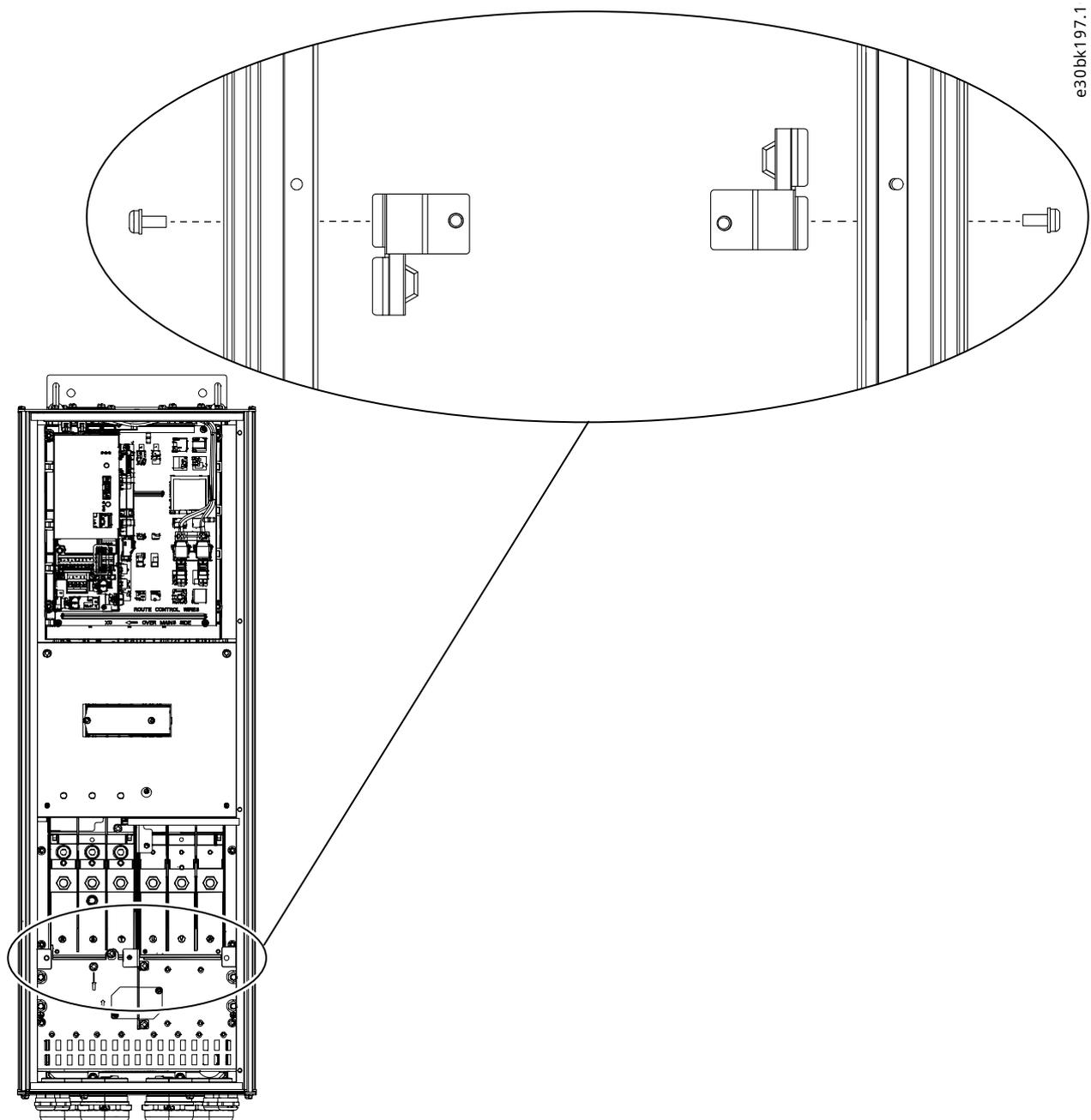
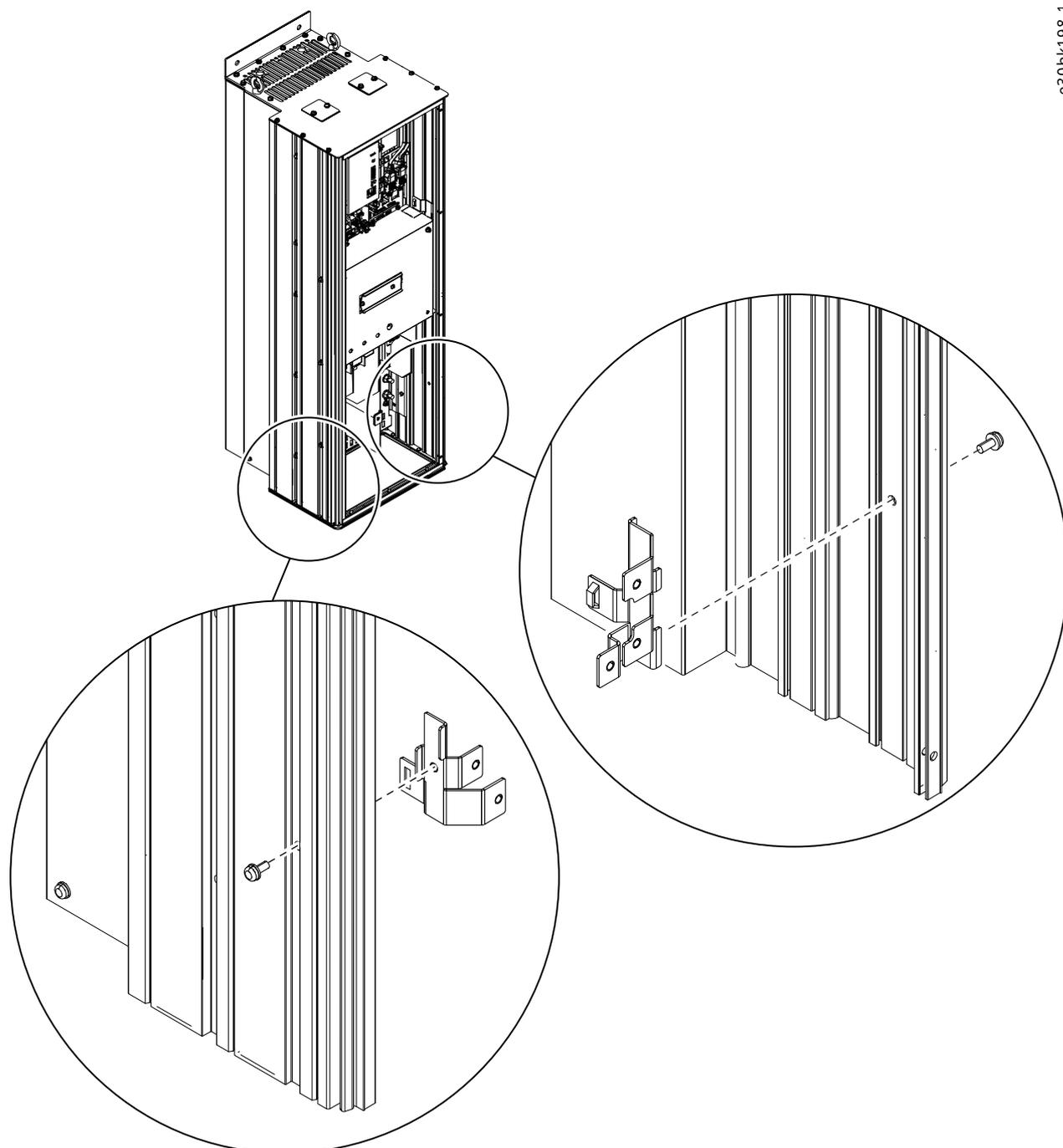


Figure 1: Removal of Existing Side Brackets

3. Install the left and right brackets from the kit by fastening 2 screws (T25), 1 through each side panel of the cabinet and into the bracket. Reuse the screws from step 1.

The left and right brackets differ from each other. For the position of the brackets, see [Figure 2](#).



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Figure 2: Installation of Left and Right Brackets

4. Loosen (but don't remove) the upper 2 screws (T25) that hold the air baffle.

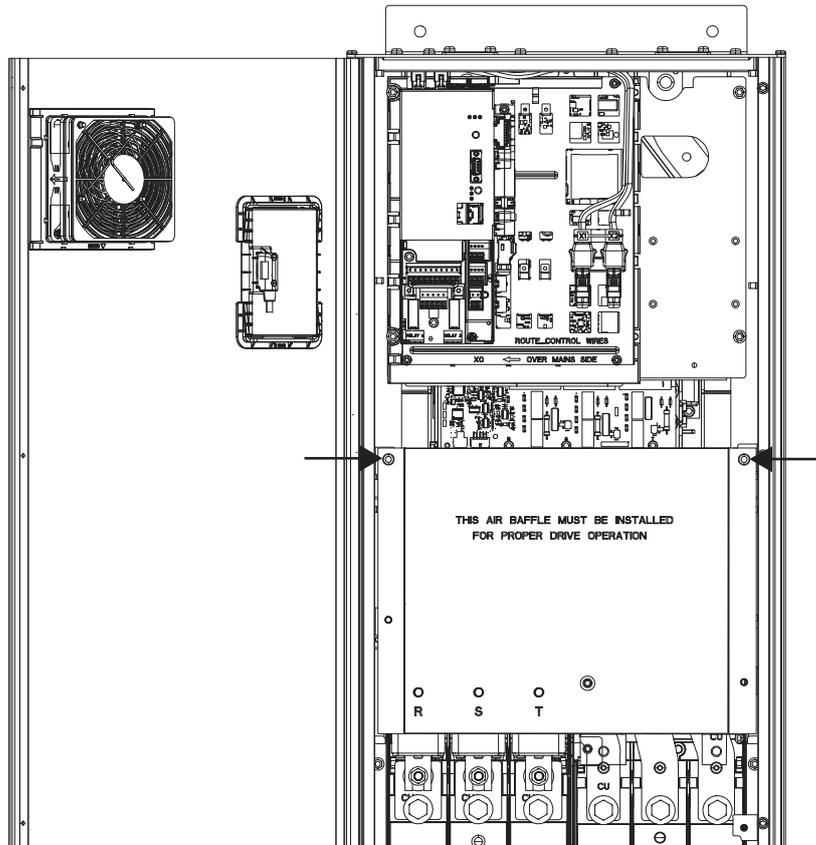


Figure 3: Location of Upper Air Baffle Screws

5. Remove the protective film from the front and back of the touch protection shield.
6. Position the touch protection shield:
 - a. Align the 2 keyholes at the top of the shield over the 2 upper screws in the air baffle.
 - b. Align the other holes in the shield with the holes in the brackets.
7. Attach the touch protection shield to the brackets by fastening 4 M5x12 mm (T25) screws.

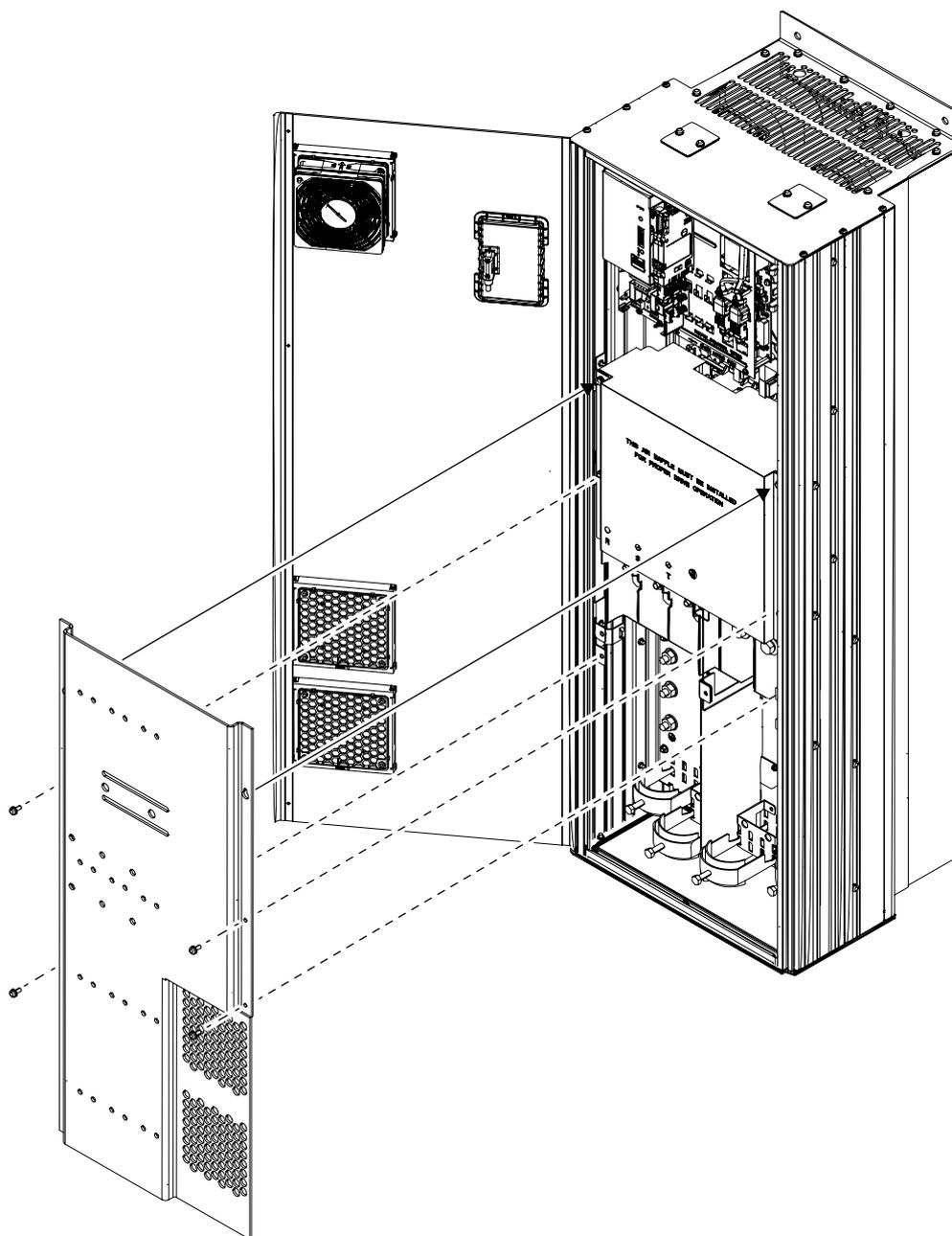


Figure 4: Installation of Touch Protection Shield

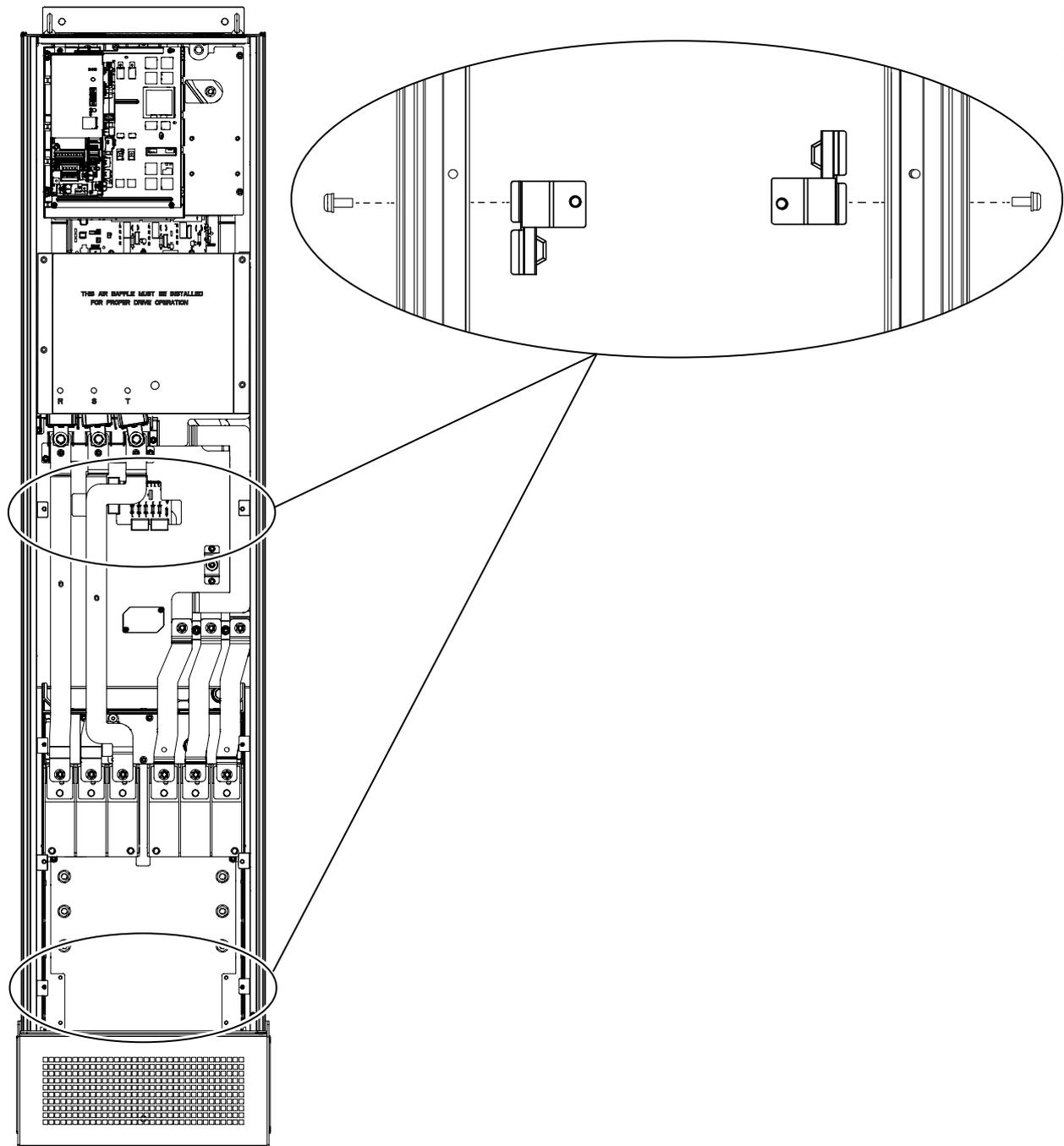
8. Tighten the 2 screws in the air baffle.

2.3 Installing the Touch Protection Shield FK09c/FB09c and FK10c/FB10c

Use the following steps to install the touch protection shield in FK09c/FB09c and FK10c/FB10c frequency converters.

1. Unfasten 6 screws (T25) and open the frequency converter door.
2. Remove 4 existing side brackets by removing 4 screws (T25) from the cabinet exterior, 1 from each bracket.

Retain the 4 screws (T25) for reuse in the next step.

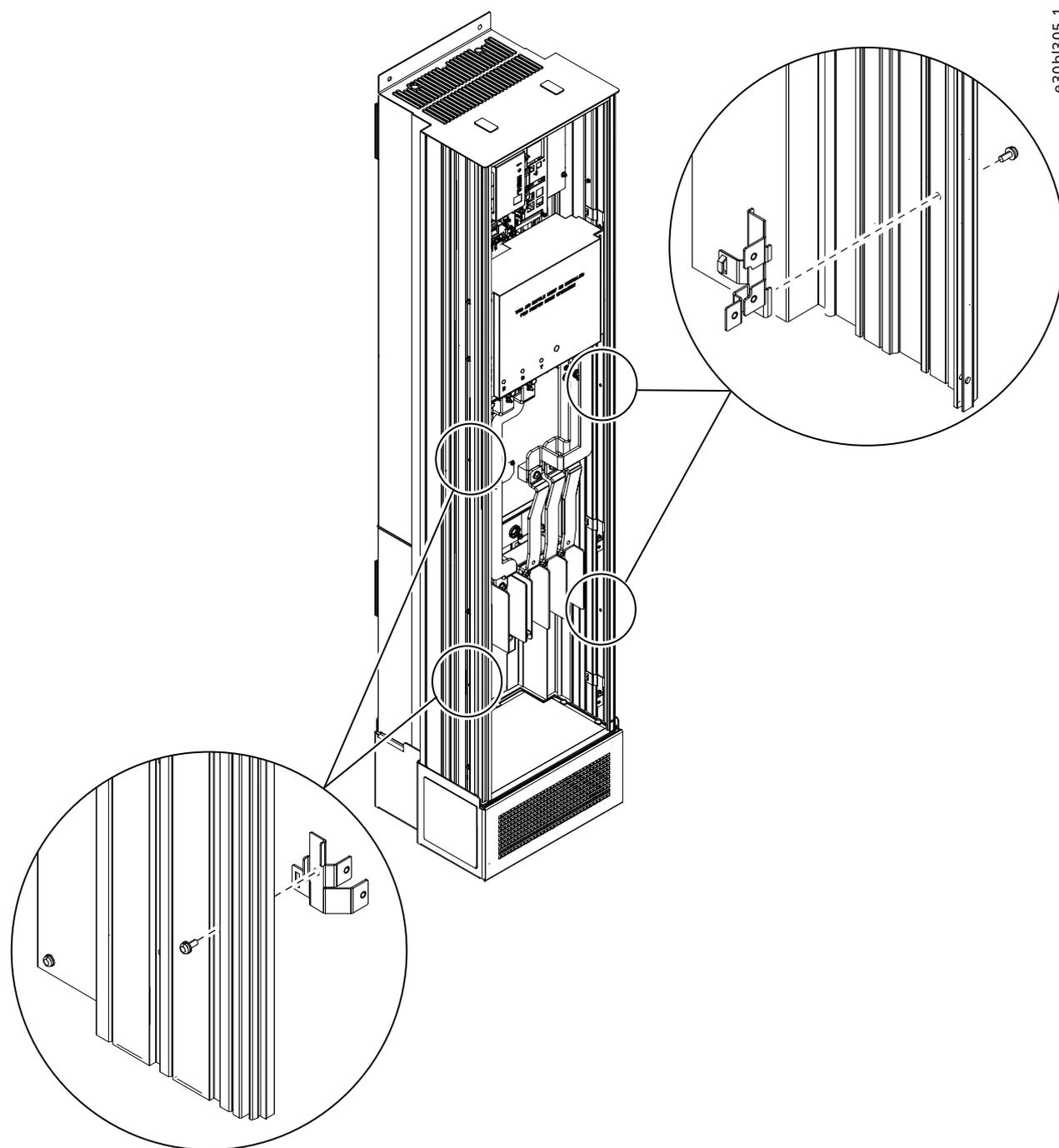


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Figure 5: Removal of Existing Side Brackets in FK09c/FB09c and FK10c/FB10c

3. Install the 2 left brackets and 2 right brackets from the kit by fastening 4 screws (T25), 1 through each bracket and into the side panel of the cabinet.

The left and right brackets differ from each other. For the position of the brackets, see illustration xref.



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Figure 6: Installation of Left and Right Brackets in FK09c/FB09c and FK10c/FB10c

4. Loosen the upper 2 screws (T25) that hold the air baffle.

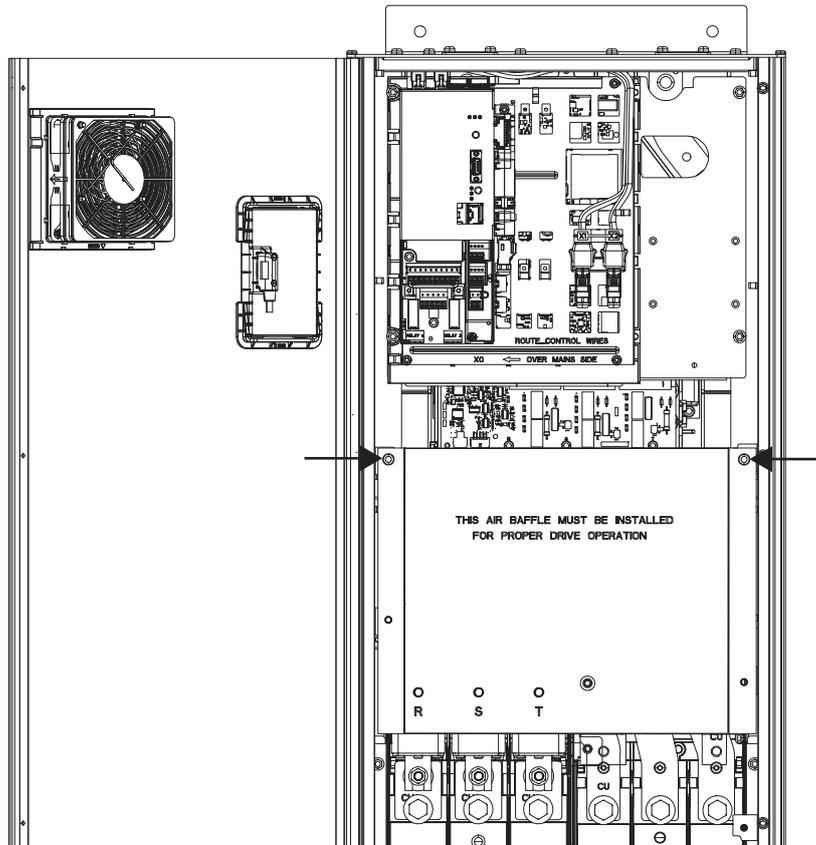


Figure 7: Upper Air Baffle Screws

5. Remove the protective film from the front and back of the touch protection shield.
6. Position the touch protection shield on the frequency converter, and align the 2 keyholes with the 2 loosened screws at the upper corners of the air baffle.
7. Attach the touch protection shield to the brackets by fastening 10 M5x12 mm (T25) screws. Use the kit screws and existing screws.

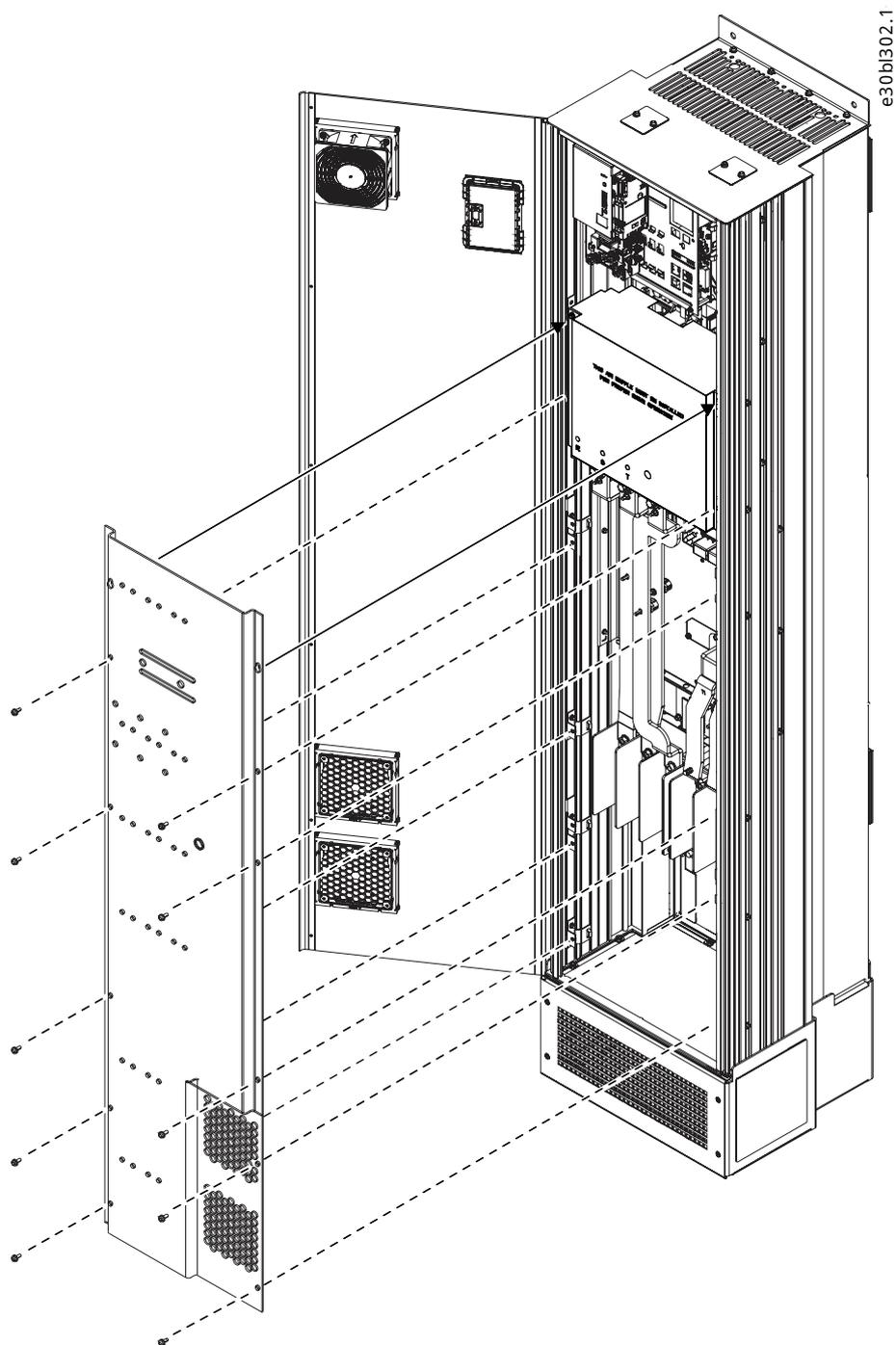


Figure 8: Touch Protection Shield Installation in FK09c/FB09c and FK10c/FB10c

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