

# Cable Kit for Ethernet Port X1/X2, FA09-FA12

## iC7 Series Frequency Converters

### 1 Overview

#### 1.1 Description

The kit includes parts for changing frequency converters with top-entry access for X1 and X2 Ethernet ports to bottom-entry access. The kit is compatible with iC7 Series Frequency Converters in FA09, FA10, FA11, and FA12 frames. The frame is listed on the frequency converter product label.

#### 1.2 Kit Number

Use these instructions with the following kit.

Table 1: Number for Ethernet Cable Kit

Number	Description
176F4260	CBL kit for Ethernet port X1/X2, FA09-12

#### 1.3 Items Supplied

Table 2: Parts in Ethernet Cable Kit for X1/X2 Port

Item	Quantity
Top cover plate	1
M4 screws	2
Ethernet Port X1/X2 jumper cable set	1
Jumper cable holder	1

### 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**

The frequency converter contains DC-link capacitors, which can remain charged even when the frequency converter is not powered. High voltage can be present even when the warning indicator lights are off. Failure to wait the specified time after power has been removed before performing service or repair work can result in death or serious injury.

- Stop the motor.
- Disconnect AC mains, permanent magnet type motors, and remote DC-link supplies, including battery backups, UPS, and DC-link connections to other frequency converters.
- Disconnect or lock the motor.
- Disconnect any brake option.
- Disconnect any DC connection option and any connections to the DC terminals DC(+) and DC(-).
- Wait for the capacitors to discharge fully. The minimum waiting time is specified in the following discharge time table and is listed on the frequency converter labeling.
- Before performing any service or repair work, use an appropriate voltage measuring device to make sure that the capacitors are fully discharged.

Table 3: Discharge Time

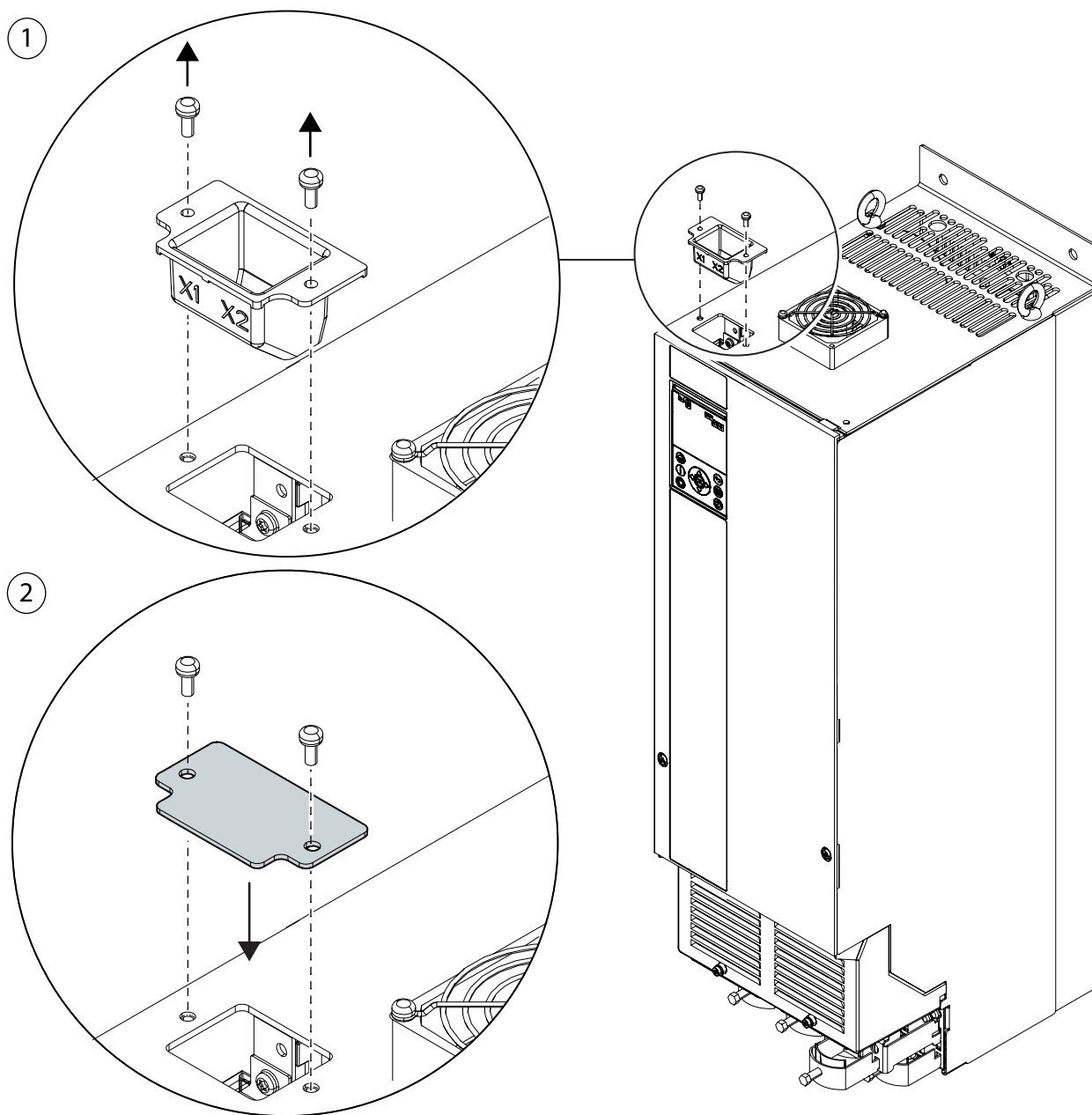
AC drive	Minimum waiting time
Fx09–Fx10 frequency converters	20 minutes
Fx11–Fx12 frequency converters	40 minutes

## 2.2 Installing the Jumper Cables for Ethernet Port X1/X2

Use the following steps to install the jumper cables for bottom-entry Ethernet connection.

1. Locate the plastic cover for the X1/X2 Ethernet ports in the top left corner of the frequency converter.
2. Unfasten 2 M4 screws (T20) from the plastic cover, and lift it out of the top of the frequency converter.

See step 1 in [Figure 1](#).



**Figure 1: Top Cover Plate Installation**

3. Position the cover plate over the screw holes where the plastic cover was removed, and fasten with 2 M4 screws (T20) provided with the kit.

See step 2 in [Figure 1](#).

4. Remove the front cover of the frequency converter by removing 2–8 screws (T25).

FA09 and FA10 frames have 2 screws. FA11 and FA12 frames have 8 screws.

5. At the top of the control board, attach the X1 and X2 jumper cables to the corresponding Ethernet ports.

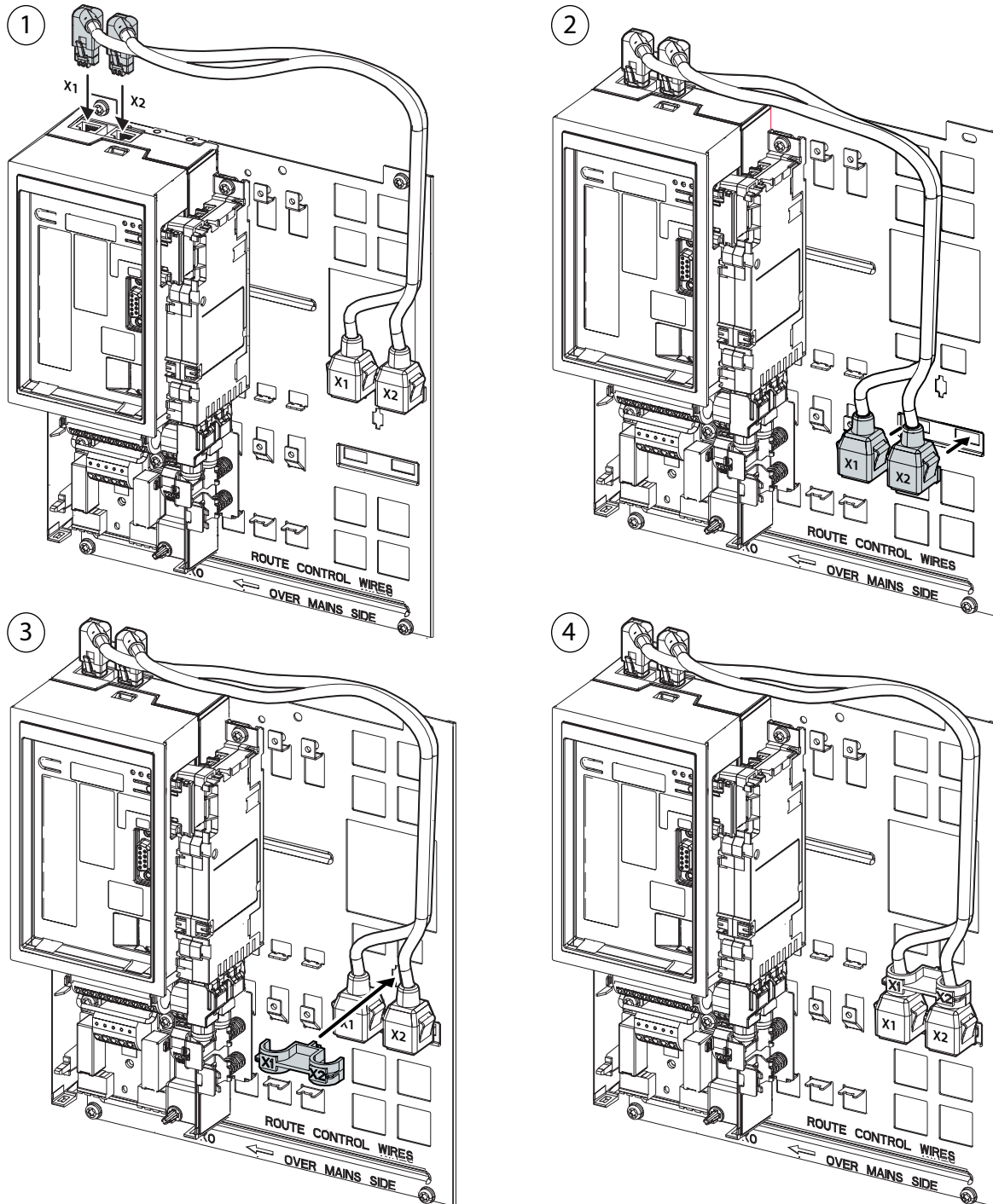
See step 1 in [Figure 2](#).

**NOTICE**

**INCORRECT CABLE CONNECTION**

Connecting the jumper cables to the wrong ports can result in equipment malfunction.

- Connect the X1 jumper cable to the X1 port (on the left), and the X2 jumper cable to the X2 port (on the right).



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Figure 2: X1 and X2 Jumper Cable Installation on Control Board Mounting Plate

6. Snap the tab on the back of the X1 and X2 jumper cable connectors into the corresponding slots on the control board mounting plate.

See step 2 in [Figure 2](#).

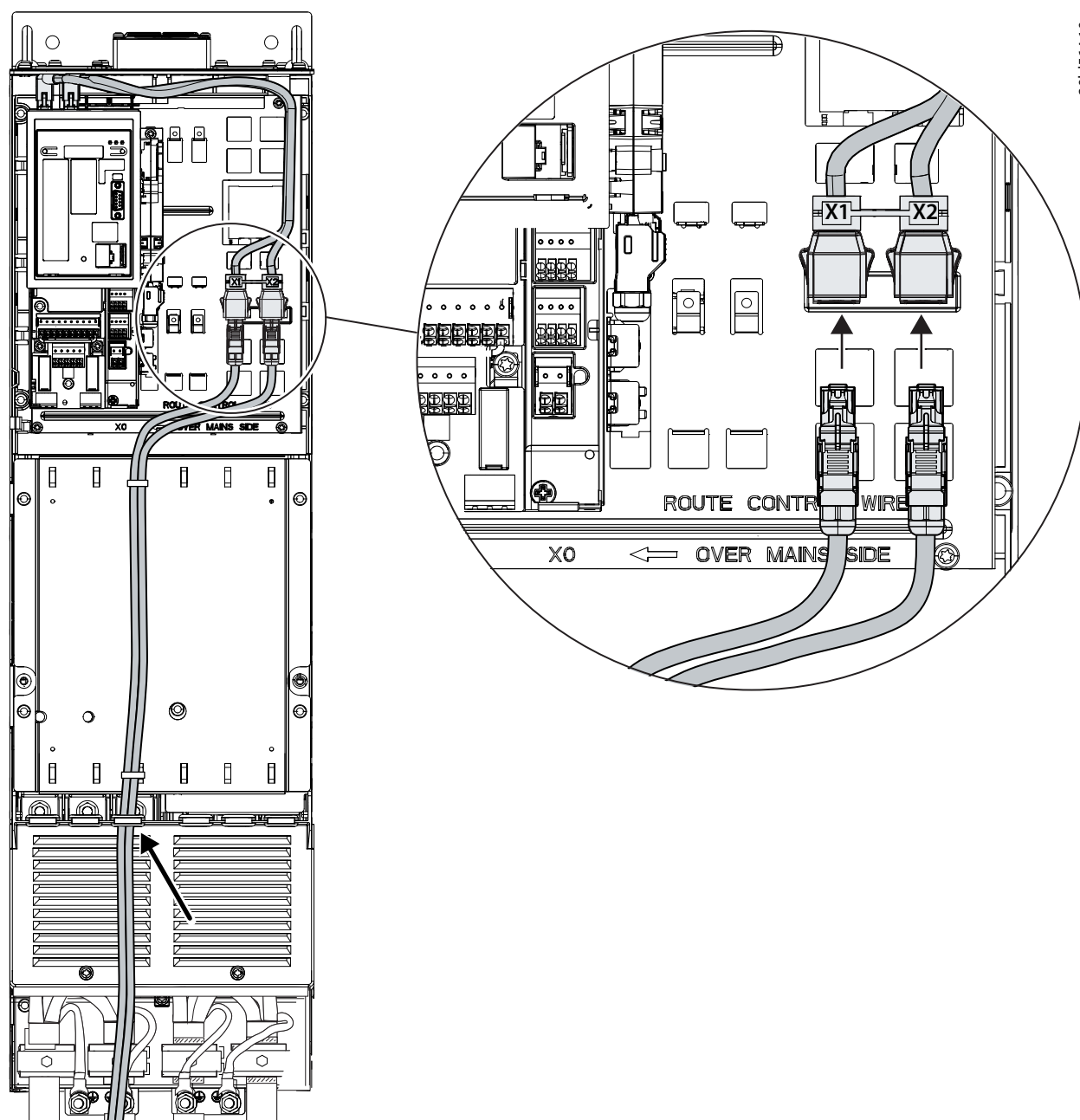
7. Secure the X1 and X2 jumper cables to the plate with the jumper cable holder.

See step 3 in [Figure 2](#).

8. Feed the customer Ethernet cables upward through the rubber grommet in the flange of the terminal cover.

See [Figure 3](#).

9. Connect the customer Ethernet cables to the X1 and X2 jumper cables.
10. Secure the customer cables to the control shield with zip ties.



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Figure 3: Customer Cable Connection and Routing

Danfoss A/S  
DK-6300 Graasten  
Ulsnaes 1  
[drives.danfoss.com](http://drives.danfoss.com)



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