

# Control Cassettes

## VLT® Midi Drive FC 280

### 1 Installation Instructions

#### 1.1 Description

The following control cassettes are for VLT® Midi Drive FC 280:

- Standard control cassette.
- Control cassette with PROFIBUS.
- Control cassette with PROFINET.
- Control cassette with CANopen.
- Control cassette with EtherNet/IP™.
- Control cassette with POWERLINK.
- Control cassette with EtherCAT.
- Control cassette with PROFIsafe.
- Control cassette with FSoE.

The installation instructions in this guide apply to all control cassettes. For all control cassettes, except for the standard cassette, mount the decoupling kit after mounting the control cassette. Find the instructions on mounting the decoupling kit in the kit package.

#### 1.2 Item Supplied

One of the following types of control cassettes:

Table 1: Item Supplied

Description	Code number
Standard control cassette	132B0345
Control cassette with PROFIBUS	132B0347
Control cassette with PROFINET	132B0348
Control cassette with CANopen	132B0346
Control cassette with EtherNet/IP™	132B0349
Control cassette with POWERLINK	132B0378
Control cassette with EtherCAT	132B0608
Control cassette with PROFIsafe	132B0802
Control cassette with FSoE	132B1362

#### 1.3 Safety Precautions

Only qualified personnel are allowed to install this equipment.

## ⚠ WARNING ⚠

### DISCHARGE TIME

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 indicator lights are off.

Failure to wait the specified time after power has been removed before performing service or repair work could result in death or serious injury.

- Stop the motor.
- Disconnect AC mains, permanent magnet type motors, and remote DC-link supplies, including battery back-ups, UPS, and DC-link connections to other drives.
- Wait for the capacitors to discharge fully. The minimum waiting time is specified in the table *Discharge time* and is also visible on the nameplate on the top of the drive.
- Before performing any service or repair work, use an appropriate voltage measuring device to make sure that the capacitors are fully discharged.

Table 2: Discharge Time

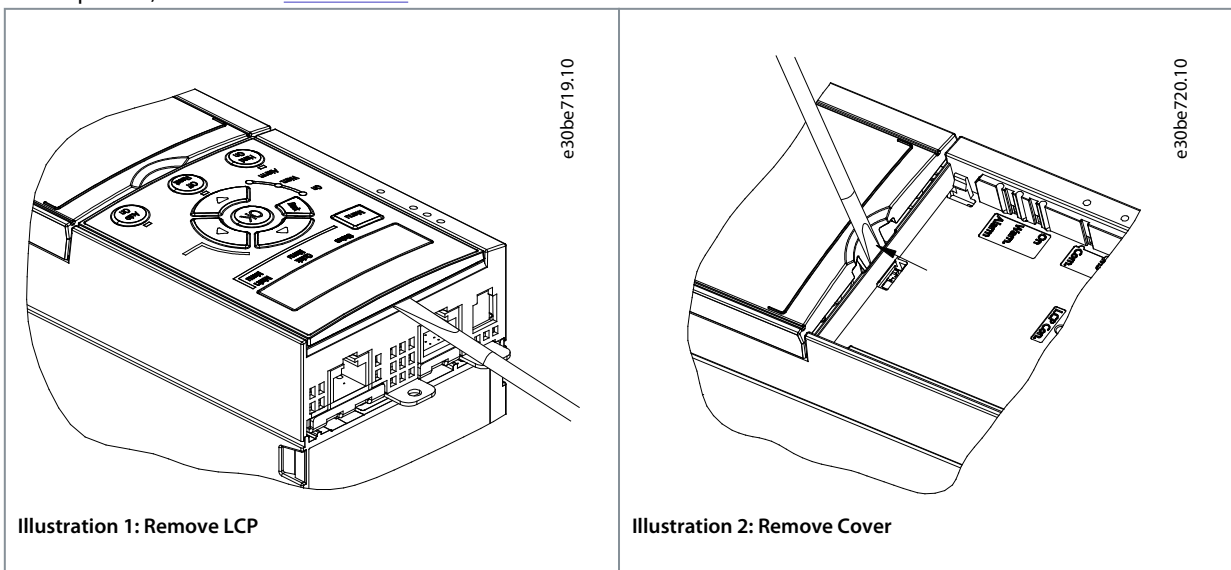
Voltage [V]	Power range [kW (hp)]	Minimum waiting time (minutes)
200–240	0.37–3.7 kW (0.5–5 hp)	4
380–480	0.37–7.5 kW (0.5–10 hp)	4
	11–22 kW (15–30 hp)	15

For important information about safety precautions for installation, refer to the drive's operating guide.

## 1.4 Installation

### Procedure

1. Remove the LCP with a flat-edged screwdriver (accessed from the top), as shown in [Illustration 1](#).
2. Remove the plastic cover beneath the LCP by pushing down the lock lever with a flat-edged screwdriver and lift the plastic cover upwards, as shown in [Illustration 2](#).



3. Loosen the old control card cassette by removing the 2 screws (T10, M3x6) on the left side, as shown in [Illustration 3](#).
4. Slide the old control card cassette upwards to release it from the power section.

- Connect the new control cassette with the drive, as shown in [Illustration 4](#).

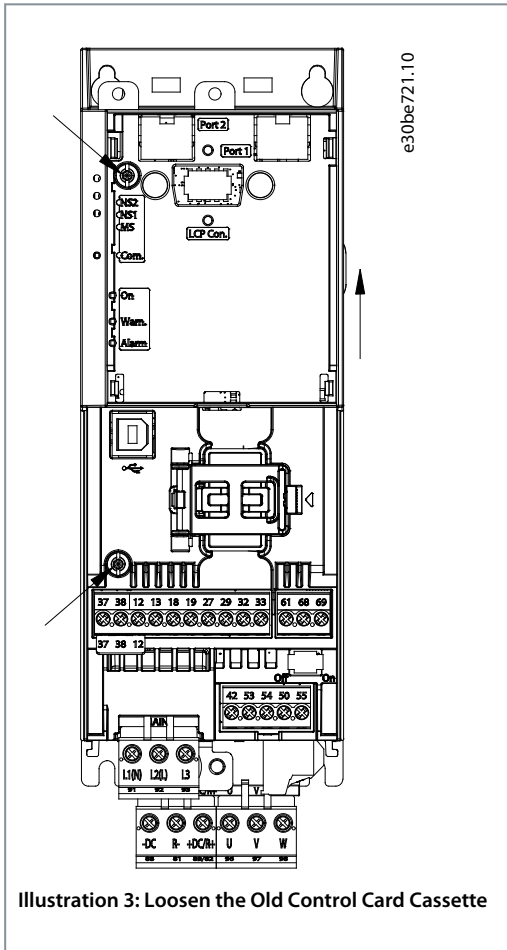


Illustration 3: Loosen the Old Control Card Cassette

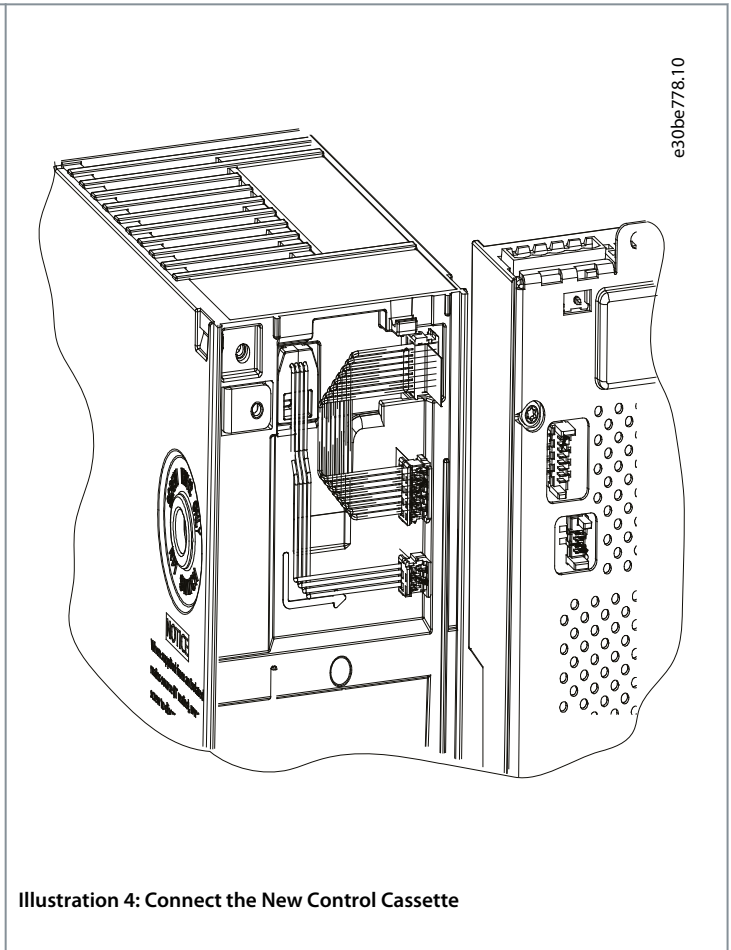


Illustration 4: Connect the New Control Cassette

- Place the new control cassette on the drive and slide it into place, as shown in [Illustration 5](#).
- Fasten the new control cassette on the drive using 2 screws (supplied), as shown in [Illustration 6](#). Tightening torque: 0.7–1.0 Nm (6.2–8.8 in-lb).

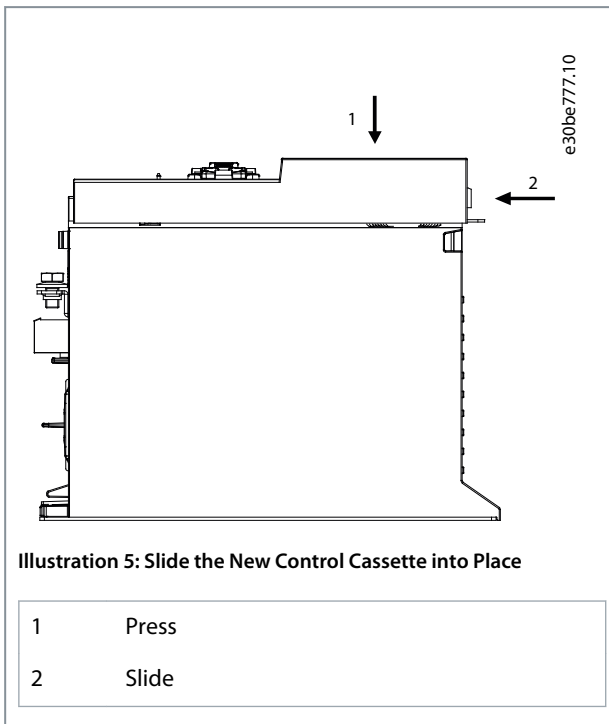


Illustration 5: Slide the New Control Cassette into Place

- |   |       |
|---|-------|
| 1 | Press |
| 2 | Slide |

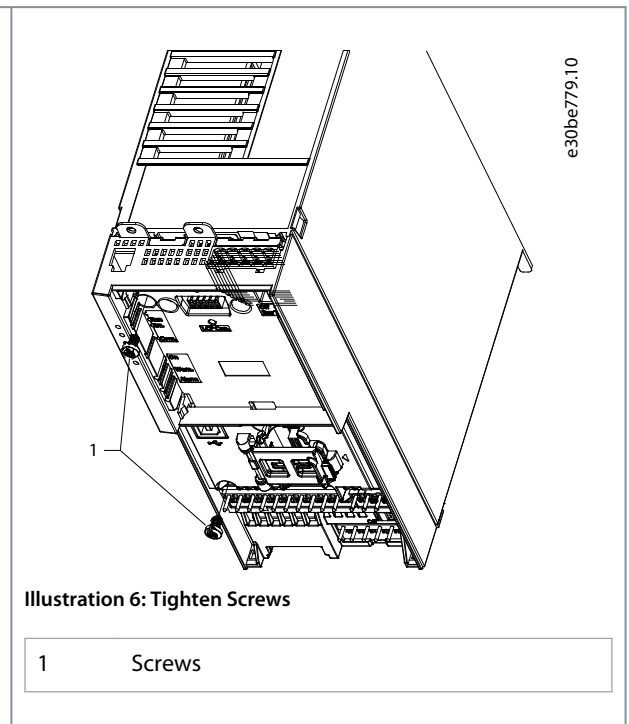


Illustration 6: Tighten Screws

- |   |        |
|---|--------|
| 1 | Screws |
|---|--------|

## 1.5 Software Update

### NOTICE

It is necessary to update the software in the drive when a new control cassette is installed. Use VLT® Motion Control Tool MCT 10 for the new control cassette to be properly recognized by the drive.

#### Procedure

1. Select MCT 10 setup software in the *Start* menu.
2. Select *Configure bus*.
3. Fill in the relevant data in the *Serial fieldbus configuration* window.
4. Click the *Scan bus* icon and find the drive.

➡ The drive appears in the *ID* view.

5. Click *Software upgrader*.
6. Select the oss file.
7. In the dialog window, tick *Force upgrade* and then click *Start upgrade*.

➡ The firmware flashes.

8. Click *Done* when the upgrade is complete.

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