

# Installation Instructions

## LOP Connection and Set-up

### 1.1.1 Items Supplied

- Local operating panel (LOP), 175N0128 IP 65, see *Illustration 1.1*
- Fixture for LOP, 175N2717 (included in 175N0128), see *Illustration 1.2*
- LOP cable

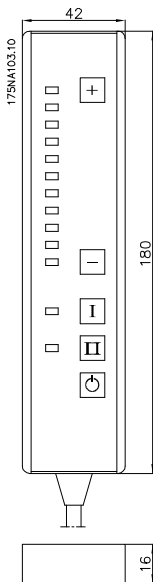


Illustration 1.1 Local Operation Panel (LOP) 175N0128 IP 65

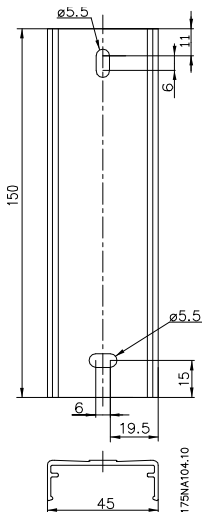


Illustration 1.2 Fixture for LOP 175N2717 (included in 175N0128)

### 1.1.2 Safety Instructions

Refer to *VLT® DriveMotor FCP 106 and FCM 106 Operating Instructions* for detailed information about safety precautions for installation.

#### **⚠ WARNING**

##### DISCHARGE TIME

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

1. Stop motor.
2. Disconnect AC mains, permanent magnet type motors, and remote DC-link power supplies, including battery back-ups, UPS, and DC-link connections to other frequency converters.
3. Wait for the capacitors to discharge fully, before performing any service or repair work. The duration of waiting time is specified in *Table 1.1*.

Voltage [V]	Power Range <sup>1)</sup> [kW]	Minimum waiting time (min)
3x400	0.55–7.5	4
High voltage can be present even when the warning LED indicator lights are off.		

Table 1.1 Discharge Time

<sup>1)</sup> Power ratings relate to NO, see *VLT® DriveMotor FCP 106 and FCM 106 Operating Instructions*.

### 1.1.3 Connection to FCP 106 or FCM 106

1. Connect the LOP as shown in *Table 1.2* and *Illustration 1.3*.
2. After completing connections, cut off or isolate excess wire.
3. Connect terminal 27 to +24V or set 5-12 *Terminal 27 Digital Input* to [0] *No operation*.

Colour of wire	Terminal	Function
White	53	Reference
Brown	18	Reset
Purple, orange or grey	19	See <i>Table 1.3</i> , under Key I
Green	27	See <i>Table 1.3</i> , under Key II
Red	12	+24 V
Yellow	50	+10 V
Blue	55	Ground

Table 1.2 Wiring to FCP 106 or FCM 106 Terminals

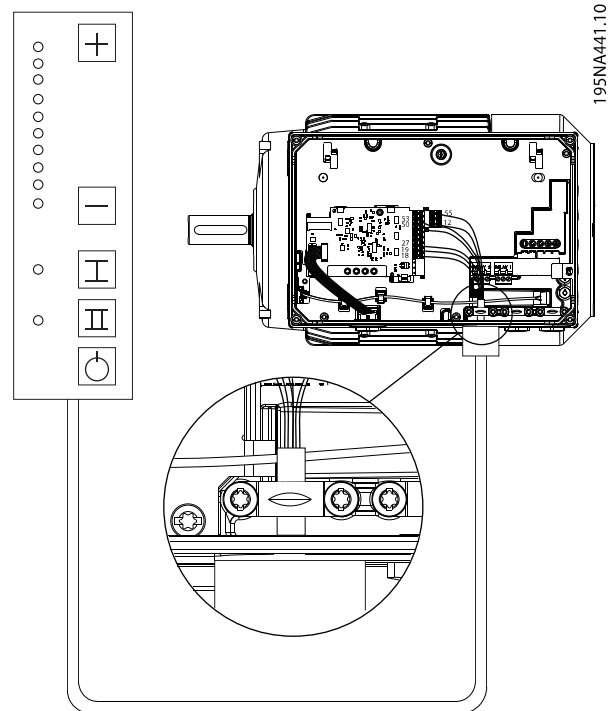


Illustration 1.3 LOP Connections to FCP 106 or FCM 106

### 1.1.4 Set-Up

1. Perform set-up according to *Table 1.3*.
2. Use the [+]/[-] keys to set reference.
3. At power up, the unit is always in stop mode. The set reference is stored during power down. To set up permanent start mode, connect terminal 12 to terminal 19 and do not connect purple/grey wire to terminal 12. Permanent start mode will disable the stop function on the LOP.

Function	Settings	Key I (Start)	Key II (Start)	⏻
				Key (Stop)
Default - Dual speed operation (connect purple or orange wire)	No changes to factory setting.	Run on set reference (+/-)	Run on 5 Hz <sup>1)</sup> jog speed	Stop (and reset <sup>2)</sup> - if trip)
Function 2 - Dual mode operation (connect purple or orange wire)	Select desired modes of operation in Setups 1 and 2 Set 0-10 <i>Active Set-up</i> to [9] <i>Multi Set-up</i> Set 5-13 <i>Terminal 29 Digital Input</i> to [23] <i>Set-up select bit 0</i>	Run with Setup 1	Run with Setup 2	Stop (and reset <sup>2)</sup> - if trip)
Function 3 - Dual direction operation (connect grey wire)	Set 4-10 <i>Motor Speed Direction</i> to [2] <i>Both directions</i> Set 5-13 <i>Terminal 29 Digital Input</i> to [11] <i>Start reversing</i>	Run forward	Run reverse	Stop (and reset <sup>2)</sup> - if trip)

Table 1.3 LOP Operation Mode

<sup>1)</sup> Set Jog speed in 3-11 *Jog Speed* [Hz]

<sup>2)</sup> When reset is required, set 5-11 *Terminal 19 Digital Input* to [1] *Reset*.



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