3. Test Run

3-1 Preliminary Check and Preparation

Perform the following checks before starting operation.

(1) Check that the inverter is correctly wired.
Most importantly, the inverter output terminals, U, V, and W should not be connected to a power source and the earth terminal should be correctly grounded.

(2) No terminal or exposed live part should be short-circuited or grounded.

(3) Check for loose terminals, connectors, and screws.

(4) Check that the motor is disconnected from mechanical devices.

(5) Turn all switches off so that the inverter will not start or malfunction when powered on.

(6) After power-up of the inverter, check that:

1) the KEYPAD panel gives indications as shown in Figure 3-1-2 (no alarm message), and

2) the inverter contained fan is rotating.
(However, when the function code H06 “Cooling fan ON-OFF control” is used, there may be a case where the built-in fan is stopped.)

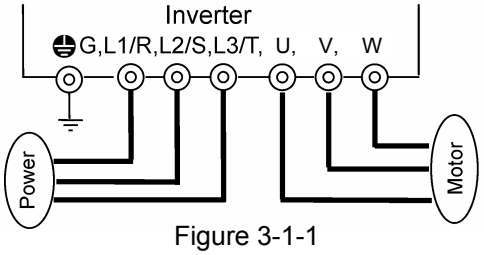

Figure 3-1-1
Inverter Connection Diagram

Figure 3-1-2
KEYPAD Panel Display with the Power ON

⚠WARNING

- Never turn the power switch on (closed) before mounting the face cover. Do not remove the cover while the inverter is energized.
- Do not handle the inverter with wet hand.

Doing so may lead to electric shock.

3-2 Operating Methods

There are many operating methods. Read this manual and select the one most suitable to the intended use and operating conditions. General operating methods are described in Table 3-2-1.

3-3 Test Run

After checking that no abnormal condition exists in 3.1, perform a test run.

Before delivery, the inverter is programmed to be operated from the KEYPAD panel (with function code F01 set to 0 and F02 to 0).

(1) Turn the power on. Check that the speed indicated by blinking LEDs is 0r/min.

(2) Set the speed to a lower level around 100r/min using the ∧ key.

(3) Press the FWD key to run the motor in the forward direction or the REV key to run in the reverse direction. Press the STOP key to stop the motor.

(4) Check that:

1) the motor runs in the selected direction (see Figure 3-3-1),

2) it revolves without any problem (motor roars and excessive vibration), and

3) it smoothly accelerates or decelerates.

If no abnormal condition is observed, raise the operating speed and check again. If the inverter is found to normally function in the test run, start regular operation.

Table 3-2-1 General Operating Methods

Operating method	Speed controls	Operation commands
From KEYPAD panel	KEYPAD panel keys ∧ ∨	FWD REV , STOP
Through external signal input	∨ ∨	Contact inputs (switches) Terminals: FWD - CM Terminals: REV - CM
	Variable resistor (POT) or analog voltages	

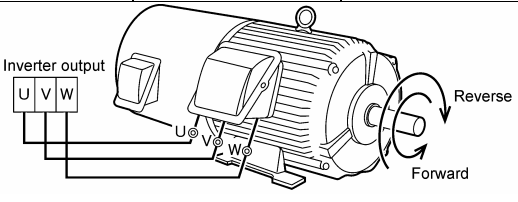

Figure 3-3-1 Motor Rotating Directions

If the inverter is found to normally function in the test run, start regular operation.

⚠CAUTION

- If any abnarmal condition is observed with the inverter or motor, immediately stop and locate the cause (see 'Troubleshooting').
- Even after the inverter stops outputting, touching any of the inverter output terminals, U, V, and W may lead to electric shock if a voltage is continuously applied to the main circuit power terminals, L1/R, L2/S, and L3/T, and auxiliary control power terminals, R0 and T0. The smoothing capacitor remains live after the power switch is turned off and requires some time until completely discharged.
  When touching an electric circuit after the shut-down, check that the charge lamp is off or check with a multimeter that the voltage has been reduced to a safe level (24V or less).

⚠WARNING

- Setting a function code in a wrong manner or without fully understanding this manual may cause the motor to revolve at an unacceptable torque or speed, possibly resulting in accident or injury.

Accident on injury may result.