# 13. Before contacting your Toshiba distributor - Trip information and remedies

## 13.1 Trip /Alarm causes and remedies

When a problem arises, diagnose it in accordance with the following table.
If it is found that replacement of parts is required or the problem cannot be solved by any remedy described in the table, contact your Toshiba distributor.

[Trip information]

| Error code | Failure code | Name | Description | Remedies |
|---|---|---|---|---|
| OC 1 | 0001 | Overcurrent during acceleration | • The acceleration time ACC is too short. | • Increase the acceleration time ACC. |
| | | | • The V/F setting is improper. | • Check the V/F parameter setting. |
| | | | • A restart signal is input to the rotating motor after a momentary stop, etc. | • Use F301 (auto-restart) and F302 (ride-through control). |
| | | | • A special motor (e.g. motor with a small impedance) is used. | • In case of Pt=0, 1, 7, decrease ub.<br>• In case of Pt=2 to 6, set F415 (Motor rated current) and make an auto-tuning. |
| | | | • Low inductance motor especially High speed motor is used. | • Choose the higher power range drive. (1 class up drive is recommended.) |
| | | | • The connecting cable length with a motor is long. | • AC reactors etc. are required for the output side. (Refer to section 1.4.3-(4).) |
| OC2 | 0002 | Overcurrent during deceleration | • The deceleration time dEC is too short. | • Increase the deceleration time dEC. |
| | | | • Low inductance motor especially High speed motor is used. | • Choose the higher power range drive. (1 class up drive is recommended.) |
| | | | • The connecting cable length with a motor is long. | • AC reactors etc. are required for the output side. (Refer to section 1.4.3-(4).) |
| OC3 | 0003 | Overcurrent during constant speed operation | • The load fluctuates abruptly.<br>• The load is in an abnormal condition. | • Reduce the load fluctuation.<br>• Check the load (operated machine). |
| | | | • Low inductance motor especially High speed motor is used. | • Choose the higher power range drive. (1 class up drive is recommended.) |
| | | | • The connecting cable length with a motor is long. | • AC reactors etc. are required for the output side. (Refer to section 1.4.3-(4).) |
| OCL | 0004 | Overcurrent (An overcurrent on the load side at start-up) | • The insulation of the output main circuit or motor is defective.<br>• The motor has too small impedance. | • Check the secondary wiring and insulation state.<br>• Set F613=2, 3 |
| OCA | 0005 | Overcurrent at start-up | • A main circuit element is defective. | • Contact your Toshiba distributor. |
| * EPH1 | 0008 | Input phase failure | • A phase failure occured in the input line of the main circuit.<br>• The capacitor in the main circuit lacks capacitance. | • Check the main circuit input line for phase failure.<br>• Check the capacitor in the main circuit for exhaustion. |
| * EPH0 | 0009 | Output phase failure | • A phase failure occurred in the output line of the main circuit.<br>• The motor has too big impedance. | • Check the main circuit output line, motor, etc. for phase failure.<br>• Select output phase failure detection parameter F605. |

* This marking trips can be selected valid or invalid by parameters.

[Trip information]

| Error code | Failure code | Name | Description | Remedies |
|---|---|---|---|---|
| OP1 | 000A | Overvoltage during acceleration | • The input voltage fluctuates abnormally.<br>(1) The power supply has a capacity of 500kVA or more.<br>(2) A power factor improvement capacitor is opened or closed.<br>(3) A system using a thyristor is connected to the same power distribution line. | • Insert a suitable input reactor. |
| | | | • A restart signal is input to the rotating motor after a momentary stop, etc. | • Use F301 (auto-restart) and F302 (ride-through control). |
| OP2 | 000B | Overvoltage during deceleration | • The deceleration time dEC is too short. (Regenerative energy is too large.) | • Increase the deceleration time dEC. |
| | | | • Overvoltage limit operation F305 is set to 1. (Disabled). | • Set overvoltage limit operation F305 to 0, 2, 3. |
| | | | • The input voltage fluctuates abnormally.<br>(1) The power supply has a capacity of 500kVA or more.<br>(2) A power factor improvement capacitor is opened and closed.<br>(3) A system using a thyristor is connected to the same power distribution line. | • Insert a suitable input reactor. |
| OP3 | 000C | Overvoltage during constant-speed operation | • The input voltage fluctuates abnormally.<br>(1) The power supply has a capacity of 500kVA or more.<br>(2) A power factor improvement capacitor is opened or closed.<br>(3) A system using a thyrister is connected to the same power distribution line. | • Insert a suitable input reactor. |
| | | | • The motor is in a regenerative state because the load causes the motor to run at a frequency higher than the inverter output frequency. | • Install an optional dynamic braking resistor. (optional) |
| OL1 | 000D | Inverter overload | • The acceleration time ACC. is too short. | • Increase the acceleration time ACC. |
| | | | • The DC braking amount is too large. | • Reduce the DC braking amount F251 and the DC braking time F252. |
| | | | • The V/F setting is improper. | • Check the V/F parameter setting. |
| | | | • A restart signal is input to the rotating motor after a momentary stop, etc. | • Use F301 (auto-restart) and F302 (ride-through control). |
| | | | • The load is too large. | • Use an inverter with a larger rating.<br>• Reduce F300 (PWM carrier frequency) to 4kHz or less. |
| OL2 | 000E | Motor overload | • The V/F setting is improper. | • Check the V/F parameter setting. |
| | | | • The motor is locked up. | • Check the load (operated machine). |
| | | | • Low-speed operation is performed continuously.<br>• An excessive load is applied to the motor during operation. | • Adjust OLM to the overload that the motor can withstand during operation in a low speed range. |
| OL3 | 003E | Main module overload | • The carrier frequency is high and load current has increased at low speeds (mainly at 15Hz or less). | • Raise the operation frequency.<br>• Reduce the load.<br>• Reduce F300 (PWM carrier frequency)<br>• When an operating motor is started up at 0Hz, use the auto-restart function.<br>• Set carrier frequency control mode selection F316 to 1, 3 or 5 (carrier frequency with automatic reduction). |
| OLr | 000F | Dynamic braking resistor overload trip | • The deceleration time is too short.<br>• Dynamic braking is too large. | • Increase the deceleration time dEC.<br>• Increase the capacity of dynamic braking resistor (wattage) and adjust PBR capacity parameter F309. |

* This marking trips can be selected valid or invalid by parameters.

[Trip information]

| Error code | Failure code | Name | Description | Remedies |
|---|---|---|---|---|
| * 0L | 0020 | Over-torque trip 1 | • Over-torque reaches to a detection level during operation. | • Enable F615 (over-torque trip selection).<br>• Check system error. |
| 0L2 | 0041 | Over-torque trip 2 | • Output current reached F601 or more and maintain in F452 during power running.<br>• Power running torque reached F441 or more and maintain in F452 during power running. | • Reduce the load.<br>• Increase the stall prevention level or power running torque limit level. |
| * 0LC3 | 0048 | Over-torque / Overcurrent fault | • Power running torque or output current reached F593 or more and maintain in F595 during power running. | • Enable F591.<br>• Reduce the load.<br>• Check system error. |
| * ULC3 | 0049 | Small-torque / Small -current fault | • Power running torque or output current decreased F593 or less and maintain in F595 during power running. | • Enable F591.<br>• Check system error. |
| OH | 0010 | Overheat | • The cooling fan reaches the end of life or has a fault. | • The fan requires replacement if it does not rotate during operation. Contact your Toshiba distributor. |
| | | | • The ambient temperature is too high or low against the specified ambient temperature. | • Operate at a specified ambient temperature |
| | | | • The vent is blocked up. | • Secure sufficient space around the inverter. |
| | | | • A heat generating device is installed close to the inverter. | • Do not place any heat generating device near the inverter. |
| | | | • The load is large. | • Reduce the load.<br>• Reduce F300 : PWM carrier frequency.<br>• Set F136 = 1 (Carrier frequency with automatic reduction) |
| | | | • The temperature sensor has a fault. (When the trip arises, as soon as it is reset after a while.) | • Contact your Toshiba distributor. |
| OH2 | 002E | Thermal fault stop command from external device | • A thermal trip command (input terminal function: 46 or 47) is issued by an external control device. | • The motor is overheated, so check whether the current flowing into the motor exceeds the rated current. |
| E | 0011 | Emergency stop | • During automatic operation or remote operation, an emergency stop command is entered from the operation panel or an external (terminal or communication) . | • Reset the inverter.<br>• If the emergency stop signal is input, reset after releasing this signal. |
| EEP1 | 0012 | EEPROM fault 1 | • The EEPROM writing error occurs. | • Turn off the inverter, then, turn it again. If it does not recover from the error, contact your Toshiba distributor. |
| EEP2 | 0013 | EEPROM fault 2 | • tYP operation is aborted by the power-off etc. | • Turn off the inverter, then, turn it again, and then try tYP operation again. |
| | | | • The EEPROM reading error occurs. | • Turn off the inverter, then, turn it again. If it does not recover from the error, contact your Toshiba distributor. |
| EEP3 | 0014 | EEPROM fault 3 | • The EEPROM is defective. | • Contact your Toshiba distributor. |
| Err2 | 0015 | Main unit RAM fault | • The control RAM is defective. | • Contact your Toshiba distributor. |
| Err3 | 0016 | Main unit ROM fault | • The control ROM is defective. | • Contact your Toshiba distributor. |
| Err4 | 0017 | CPU fault 1 | • The control CPU is defective. | • Contact your Toshiba distributor. |
| Err5 | 0018 | Communication error | • The communication with external devices is broken off. | • Check the remote control device, cables, etc. |
| Err7 | 001A | Current detector fault | • The current detector is defective. | • Contact your Toshiba distributor. |
| Err8 | 001B | Optional unit fault 1 | • An optional unit has failed. (such as a communication option) | • Check the connection of optional unit. |
| Err9 | 001C | Remote keypad disconnection fault | • After run signal is activated by RUN key of the remote keypad, disconnection is occurred in 10 seconds or more. | • In case the remote keypad is disconnected, press STOP key before.<br>• This fault is disabled by F731= 1 setting. |

* This marking trips can be selected valid or invalid by parameters.

[Trip information]

| Error code | Failure code | Name | Description | Remedies |
|---|---|---|---|---|
| * UC | 001D | Low-current operation fault | • The output current decreased to a low-current detection level during operation. | • Enable F610 (low-current detection).<br>• Check the suitable detection level for the system (F609, F611, F612).<br>• Contact your Toshiba distributor if the setting is correct. |
| * UP1 | 001E | Undervoltage fault (main circuit) | • The input voltage (in the main circuit) is too low. | • Check the input voltage.<br>• Enable F627 (undervoltage trip selection).<br>• To take measures to momentary power failure, set F627=0, Regenerative power ride-through control F302 and Auto-restart control selection F301. |
| ETn<br>ETn1<br>ETn2<br>ETn3 | 0028<br>0054<br>0055<br>0056 | Auto-tuning error | • The motor parameter UL, UL0, F405, F415, F417 are not set correctly. | • Set the left column parameters correctly as a motor name plate and make an auto-tuning again.<br>• Set parameter F416 to smaller 70% of the present value, and execute the auto-tuning again. |
| | | | • The motor with the capacity of 2 classes or less than the inverter is used.<br>• The output cable is too thin.<br>• The inverter is used for loads other than those of three-phase induction motors. | • Set the left column parameters correctly as a motor name plate and make an auto-tuning again.<br>• Then set F400=1, when trip occurs. |
| | | | • The motor is not connected. | • Connect the motor.<br>• Check whether the secondary magnetic contactor. |
| | | | • The motor is rotating. | • Make an auto-tuning again after the rotation of the motor stops. |
| | | | • Parameter PT=6 is set and High speed motor is connected. | • Choose the higher power range drive. (1 class up drive is recommended.) |
| EF2 | 0022 | Ground fault | • A ground fault occurs in the output cable or the motor.<br>• A ground fault occurs in dynamic braking resistor. | • Check the cable and the motor for ground faults. |
| | | | • When inverters are fed by AC power supply and connected with common DC bus link, unnecessary trip occurs. | • Set the parameter F614 to 0 “Disabled”. |
| * SOUT | 002F | Step-out (for PM motor drive only) | • The motor shaft is locked.<br>• One output phase is open.<br>• An impact load is applied.<br>• Using the DC braking function. | • Unlock the motor shaft.<br>• Check the interconnect cables between the inverter and the motor.<br>• Prolong the acceleration / deceleration time.<br>• Turn off the Step-out function when using the DC braking function or change the DC braking to Servo lock function. |
| PrF | 003B | Safe torque off error | • Error of safe torque off circuit | • Contact your Toshiba distributor. |
| ETYP | 0029 | Inverter type error | • It may be a breakdown failure. | • Contact your Toshiba distributor. |
| E-13 | 002D | Over speed fault | • The input voltage fluctuates abnormally.<br>• Over speed fault due to the overvoltage limit operation. | • Check the input voltage.<br>• Install an optional dynamic braking resistor. (optional) |
| * E-18 | 0032 | Analog input break detection fault | • The input signal from VIC is equal to or less than the F633 setting. | • Check the VIC signal cable for breaks. Also, check the input signal value or setting of F633. |
| E-19 | 0033 | CPU communications error | • A communications error occurs between control CPUs. | • Contact your Toshiba distributor. |

* This marking trips can be selected valid or invalid by parameters.

[Trip information]

| Error code | Failure code | Name | Description | Remedies |
|---|---|---|---|---|
| E-20 | 0034 | Over torque boost fault | • The automatic torque boost parameter F402 setting is too high.<br>• The motor has too small impedance. | • Set a lower automatic torque boost parameter F402 setting.<br>• Make an auto-tuning. |
| E-21 | 0035 | CPU fault 2 | • The control CPU is defective. | • Contact your Toshiba distributor. |
| E-23 | 0037 | Optional unit fault 2 | • An optional device is defective. | • Contact your Toshiba distributor. |
| E-26 | 003A | CPU fault 3 | • The control CPU detected a fault. | • Reset the inverter. The cause can be surrounding noise. If the problem is not solved, contact your Toshiba distributor. |
| E-31 | 0063 | Heavy cycle of main power ON/OFF | • Main power ON/OFF during running is repeated frequently.<br>• Initial failure if it is caused by other reasons. | • Reduce the frequency of repetition of main power ON/OFF during running.<br>• Contact your Toshiba distributor. |
| E-32 | 0040 | PTC fault | • PTC thermal protection is occurred. | • Check the PTC in motor. |
| E-37 | 0045 | Servo lock fault | • The motor shaft is not locked in servo lock operation. | • Reduce the load in servo lock operation. |
| E-39 | 0047 | Auto-tuning error (PM motor) | • When auto-tuning (relating parameters are Pt=6, F400=2), the current of the permanent magnet motor exceeded the threshold level.<br>• The inductance of permanent magnet motor is too small. | • Auto tuning for permanent magnet motor is not allowed for this motor, please measure inductance with the LCR meter etc. |
| | | | • The motor is not connected. | • Set V/F control mode selection Pt = 0, for operation check without connecting motor. |

* This marking trips can be selected valid or invalid by parameters.

[Alarm information] Each message in the table is displayed to give a warning but does not cause the inverter to trip.

| Error code | Name | Description | Remedies |
|---|---|---|---|
| OFF | ST (assigned standby function) terminal OFF | • The ST-CC (or P24) circuit is opened. | • Close the ST-CC (or P24) circuit. |
| nOFF | Undervoltage in main circuit | • The supply voltage between R, S and T is under voltage.<br>• Internal communication fault. | • Measure the main circuit supply voltage. If the voltage is at a normal level, the inverter requires repairing for fault. |
| rtry | Retry in process | • The inverter is in process of retry.<br>• A momentary stop occurred. The motor speed is being detected. | • The inverter restarts automatically. Be careful of the machine because it may suddenly restart. |
| Err1 | Frequency point setting error alarm | • The frequency setting signals at points 1 and 2 are set too close to each other. | • Set the frequency setting signals at points 1 and 2 apart from each other. |
| CLr | Clear command acceptable | • This message is displayed when pressing the STOP key while an error code is displayed. | • Press the STOP key again to clear the trip. |
| EOFF | Emergency stop command acceptable | • The operation panel is used to stop the operation in automatic control or remote control mode. | • Press the STOP key for an emergency stop. To cancel the emergency stop, press any other key. |
| HI!<br>LO | Setting error alarm / An error code and data are displayed alternately twice each. | • An error is found in a setting when data is reading or writing. | • Check whether the setting is made correctly. |
| HEAd/<br>End | Display of first/last data items | • The first and last data item in the AUH data group is displayed. | • Press MODE key to exit the data group. |
| db | DC braking | • DC braking in process | • The message goes off in several tens of seconds if no problem occurs. Note 1) |
| E1<br>E2<br>E3 | Flowing out of excess number of digits | • The number of digits such as frequencies is more than 4. (The upper digits have a priority.) | • Lower the frequency free unit magnification F702. |
| StOP | Deceleration stop function during power failure activated. | • The slowdown stop prohibition function set with F302 (momentary power failure ride-through operation) is activated. | • To restart operation, reset power supply or input an operation signal again. |
| LStP | Auto-stop because of continuous operation at the lower-limit frequency | • The automatic stop function selected with F256 was activated. | • This function is cancelled, when frequency reference reaches LL+0.2Hz or operation command is OFF. |
| Init | Parameters in the process of initialization | • Parameters are being initialized to default values. | • Normal if the message disappears after a while (several seconds to several tens of seconds). |
| A-01 | Points setting alarm 1 | • In case of Pt=1, there are same setting value at least two on parameter uL, F190, F192, F194, F196, or F198 except 0.0Hz. | • Set the points to different values. |
| A-02 | Points setting alarm 2 | • In case of Pt=1, the inclination of V/f is too high. | • Set the inclination of V/f to be flat. |

Note 1) When the DC braking (DB) function is assigned by using the input terminal function 22 or 23, it is normal if "db" disappears when opening the circuit between the terminal and CC (or P24).

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[Alarm information] Each message in the table is displayed to give a warning but does not cause the inverter to trip.

| Error code | Name | Description | Remedies |
|---|---|---|---|
| A-05 | Output frequency upper limit | • An attempt was made to operate at a frequency higher than 10 times the base frequency (uL or F170). | • Operate at a frequency within 10 times the base frequency. |
| A-17 | Operation panel key alarm | • The RUN or STOP key is held down for more than 20 seconds.<br>• The RUN or STOP key is faulty. | • Check the operation panel. |
| A-28 | S3 terminal alarm | • Slide switch SW2 and parameter F147 settings are different. | • Match the settings of SW2 and F147. Power supply OFF and ON after these settings. |
| Atn | Auto-tuning | • Auto-tuning in process | • Normal if it the message disappears after a few seconds. |
| A-18 | Break in analog signal cable | • The signal input via VIC is below the analog signal detection level set with F633 and setting value of F644 is one or more. | • Check the cables for breaks. And check the setting of input signal or setting value of F633 and F644.<br>• This alarm is cancelled, when operation command is OFF after VIC input signal is recovered. |
| FirE | In forced operation | • "FirE" and operation frequency is displayed alternately in operation of forced fire-speed control. | • It is normal the alarm is gone out after the forced fire-speed control operation. |
| PrA | STO signal OFF | • STO terminal is in open-circuit.<br>• Input voltage of STO terminal is low.<br>• The voltage of P24 terminal decreases.<br>• The load of P24 terminal (24Vdc power supply) is over 100mA.<br>• Control terminal block comes off. | • Close STO and + SU circuit.<br>• Check the load of P24 terminal, if STO and +SU is shorted.<br>• Check the load of P24 terminal.<br>• Use P24 terminal up to 100mA including transient current.<br>• Install the control terminal block to the inverter. |
| PASS／FAIL | Password verification result | • After the password setting (F738), the password was input to F739 (password verification). | • If the password is correct, PASS is displayed and if it is incorrect, FAIL is displayed. |
| EASY／Std | Switching display of Easy setting mode / Standard setting mode | • The EASY key was pushed in the standard monitor mode. | • When EASY is displayed, setting mode becomes easy setting mode. When Std is displayed, it becomes standard setting mode. |
| SEt Note 2) | Input requirement of region setting | • A region setting is not input yet.<br>• Power supplied to the inverter at first time<br>• As checking the region setting parameter SEt is set to 0, inverter return to default setting.<br>• As tyP is set to 13, inverter return to default setting. | • Set a region setting by using setting dial. Refer to section 3.1. |
| nErr | No trip of past trip | • No new record of past trip, after past trips were clear. | • Normal operation. |
| n--- | No detailed information of past trip | • The detailed information of past trip is read by pushing the center of setting dial during blinking nErr ⇔ number. | • Normal operation. To be returned by pressing MODE key. |

Note 2) SEt is blinking after power supply is on. In this time, the keys are not operated.
But parameter SEt is lighting as same as other parameters and is not blinking.

[Pre-alarm information] Each message in the table is displayed to give a warning but dues not cause the inverter to trip
The following error code and the frequency will blink alternately.

| Error code | Name | Description | Remedies |
|---|---|---|---|
| C | Overcurrent pre-alarm | • When a current flows at or higher than the overcurrent stall prevention level. | Same as OC (overcurrent) |
| P | Overvoltage pre-alarm | • When a voltage is generated at or higher than the over voltage stall prevention level.<br>• Even if it was lower than the over voltage stall prevention level, when a voltage is generated at sharp increase. | Same as OP (overvoltage) |
| L | Overload pre-alarm | • When the cumulative amount of overload reaches 50% or more of the overload trip value.<br>• When the main circuit element temperature reaches the overload pre-alarm level | Same as OL 1 and OL 2 (overload) |
| H | Overheat pre-alarm | • When the overheat protection pre-alarm level is reached | Same as OH (overheat) |
| E | Communication pre-alarm | • When the communication was broken off at or longer than the parameter F803 setting. | Same as Err5 (communication fault) |

If two or more problems arise simultaneously, one of the following pre-alarms appears and blinks.
CP, PL, CPL
The blinking alarms C, P, L, H, E are displayed in this order from left to right.

# 13.2 Restoring the inverter from a trip

Do not reset the inverter when tripped because of a failure or error before eliminating the cause. Resetting the tripped inverter before eliminating the problem causes it to trip again.

The inverter can be restored from a trip by any of the following operations:

(1) By turning off the power (Keep the inverter off until the LED turns off.)
Note) See inverter trip hold selection F602 for details.
(2) By means of an external signal (Short circuit across RES and CC (or P24) on control terminal block → Open): The reset function must be assigned to the input terminal block. (function number 8, 9)
(3) By panel keypad operation
(4) By inputting a trip clear signal from communication
(Refer to communication manual (E6581913) for details.)

To reset the inverter by panel keypad operation, follow these steps.

1. Press the STOP key and make sure that CLr is displayed.
2. Pressing the STOP key again will reset the inverter if the cause of the trip has already been eliminated.

- When any overload function [OL 1: inverter overload, OL2: motor overload, OLr: braking resistor overload] is active, the inverter cannot be reset by inputting a reset signal from an external device or by operation panel operation before the virtual cooling time has passed.

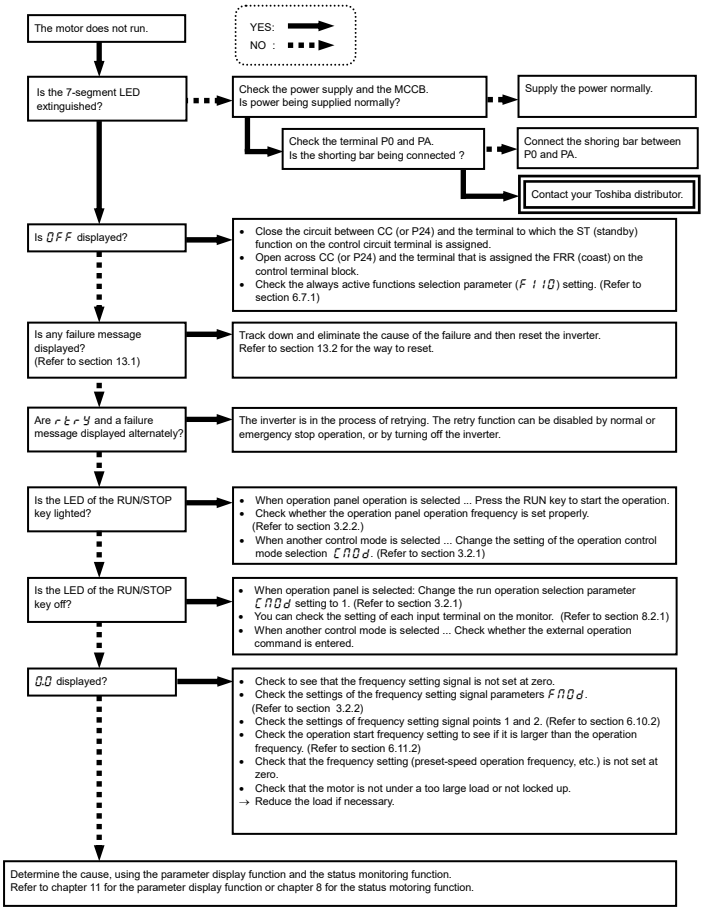
  Virtual cooling time ... OL 1 : about 30 seconds after the occurrence of a trip
  OL2 : about 120 seconds after a occurrence of a trip
  OLr : about 20 seconds after a occurrence of a trip

- As to OL 3 (Main module overload), there is no virtual cooling time.
- In case of a trip due to overheat (OH), the inverter checks the temperature within. Wait until the temperature in the inverter falls sufficiently before resetting the inverter.
- The inverter cannot be reset while the emergency stop signal is being input from the terminal.
- The inverter cannot be reset while the pre-alarm is occurred.

[Caution]
Turning the inverter off then turning it on again resets the inverter immediately. You can use this mode of resetting if there is a need to reset the inverter immediately. Note, however, that this operation may damage the system or the motor if it is repeated frequently.

# 13.3 If the motor does not run while no trip message is displayed...

If the motor does not run while no trip message is displayed, follow these steps to track down the cause.



# 13.4 How to determine the causes of other problems

The following table provides a listing of other problems, their possible causes and remedies.

| Problems | Causes and remedies |
|---|---|
| The motor runs in the wrong direction. | • Invert the phases of the output terminals U/T1, V/T2 and W/T3.<br>• Invert the forward/reverse run-signal terminals of the external input device. (Refer to section 7.2.1)<br>• Change the setting of the parameter Fr in the case of panel operation. |
| The motor runs but its speed does not change normally. | • The load is too heavy. Reduce the load.<br>• The soft stall function is activated. Disable the soft stall function. (Refer to section 5.6)<br>• The maximum frequency FH and the upper limit frequency UL are set too low. Increase the maximum frequency FH and the upper limit frequency UL.<br>• The frequency setting signal is too low. Check the signal set value, circuit, cables, etc.<br>• Check the setting characteristics (point 1 and point 2 settings) of the frequency setting signal parameters. (Refer to section 6.10.2)<br>• If the motor runs at a low speed, check to see that the stall prevention function is activated because the torque boost value is too large. Adjust the torque boost value (ub) and the acceleration time (ACC). (Refer to section 6.4 and 5.2) |
| The motor does not accelerate or decelerate smoothly. | • The acceleration time (ACC) or the deceleration time (dEC) is set too short. Increase the acceleration time (ACC) or the deceleration time (dEC). |
| A too large current flows into the motor. | • The load is too heavy. Reduce the load.<br>• If the motor runs at a low speed, check whether the torque boost value is too large. (Refer to section 6.4) |
| The motor runs at a higher or lower speed than the specified one. | • The motor has an improper voltage rating. Use a motor with a proper voltage rating.<br>• The motor terminal voltage is too low. Check the setting of the base frequency voltage parameter (uLu) . (Refer to section 5.5) Replace the cable with a cable larger in diameter.<br>• The reduction gear ratio, etc., are not set properly. Adjust the reduction gear ratio, etc.<br>• The output frequency is not set correctly. Check the output frequency range.<br>• Adjust the base frequency. (Refer to section 5.5) |
| The motor speed fluctuates during operation. | • The load is too heavy or too light. Reduce the load fluctuation.<br>• The inverter or motor used does not have a rating large enough to drive the load. Use an inverter or motor with a rating large enough.<br>• Check whether the frequency setting signal changes.<br>• If the V/F control selection parameter Pt is set at 3, check the vector control setting, operation conditions, etc. (Refer to section 6.3) |
| Parameter settings cannot be changed. | • Change the setting of the parameter setting selection prohibited parameter F700 to 0 (enabled) if it is set to 1 to 4 (prohibited).<br>• Set the verification code to F739, if password has entered by the password setting F738. (Refer to section 6.34.1)<br>• Switch off the logic input terminal, if this terminal is assigned to input terminal menu 200 to 203 (Parameter editing / reading prohibition).<br>• For reasons of safety, some parameters cannot be reprogrammed while the inverter is running. (Refer to section 11.9) |
| Inverter cannot communicate. | • Refer to “Appendix 4 Troubleshooting” in “RS485 Communication Function Instruction Manual” (E6581913). |

How to cope with parameter setting-related problems

| | |
|---|---|
| If you forget parameters which have been reset | • You can search for all reset parameters and change their settings.<br>* Refer to section 4.3.1 for details. |
| If you want to return all reset parameters to their respective default settings | • You can return all parameters which have been reset to their default settings.<br>* Refer to section 4.3.2 for details. |