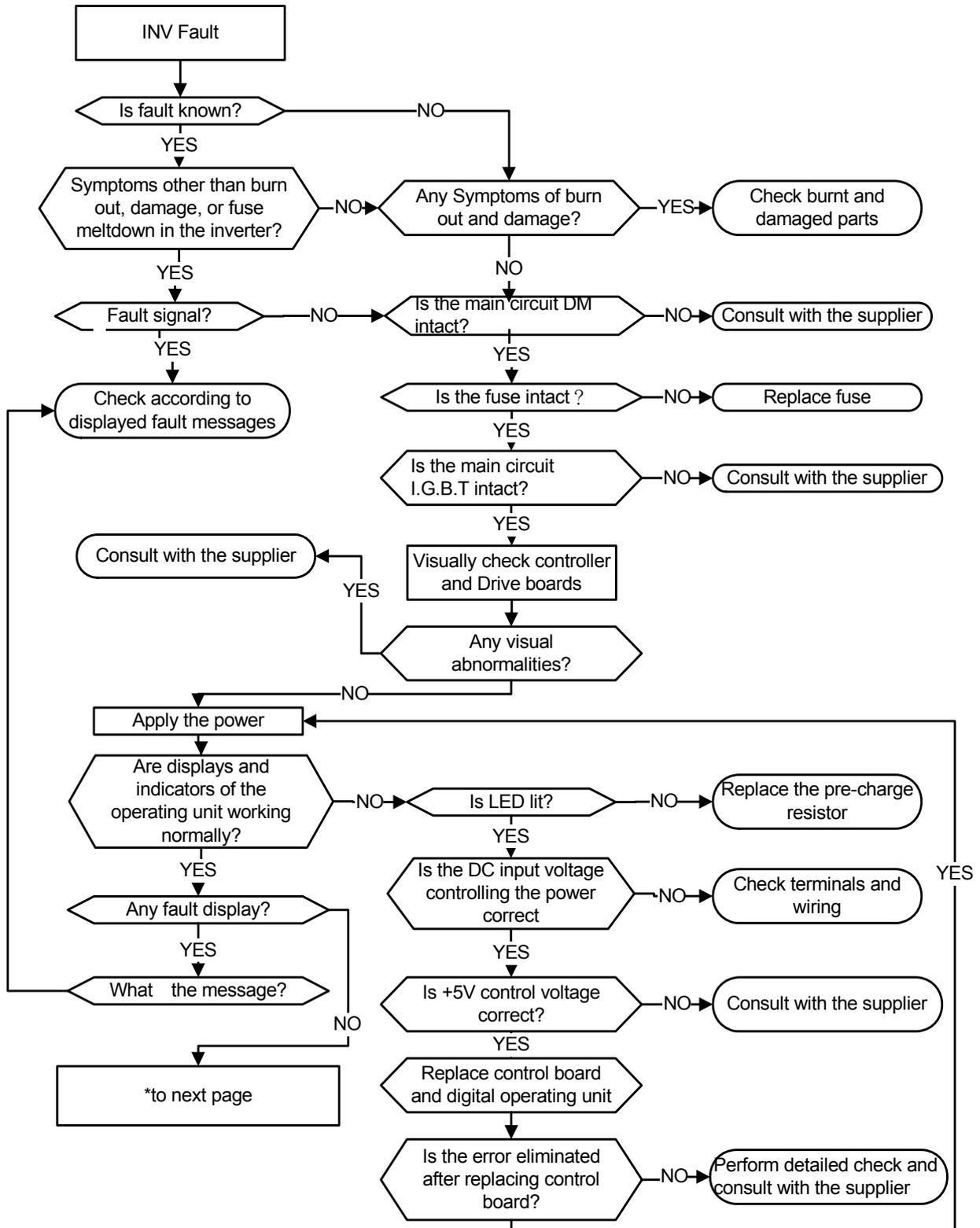


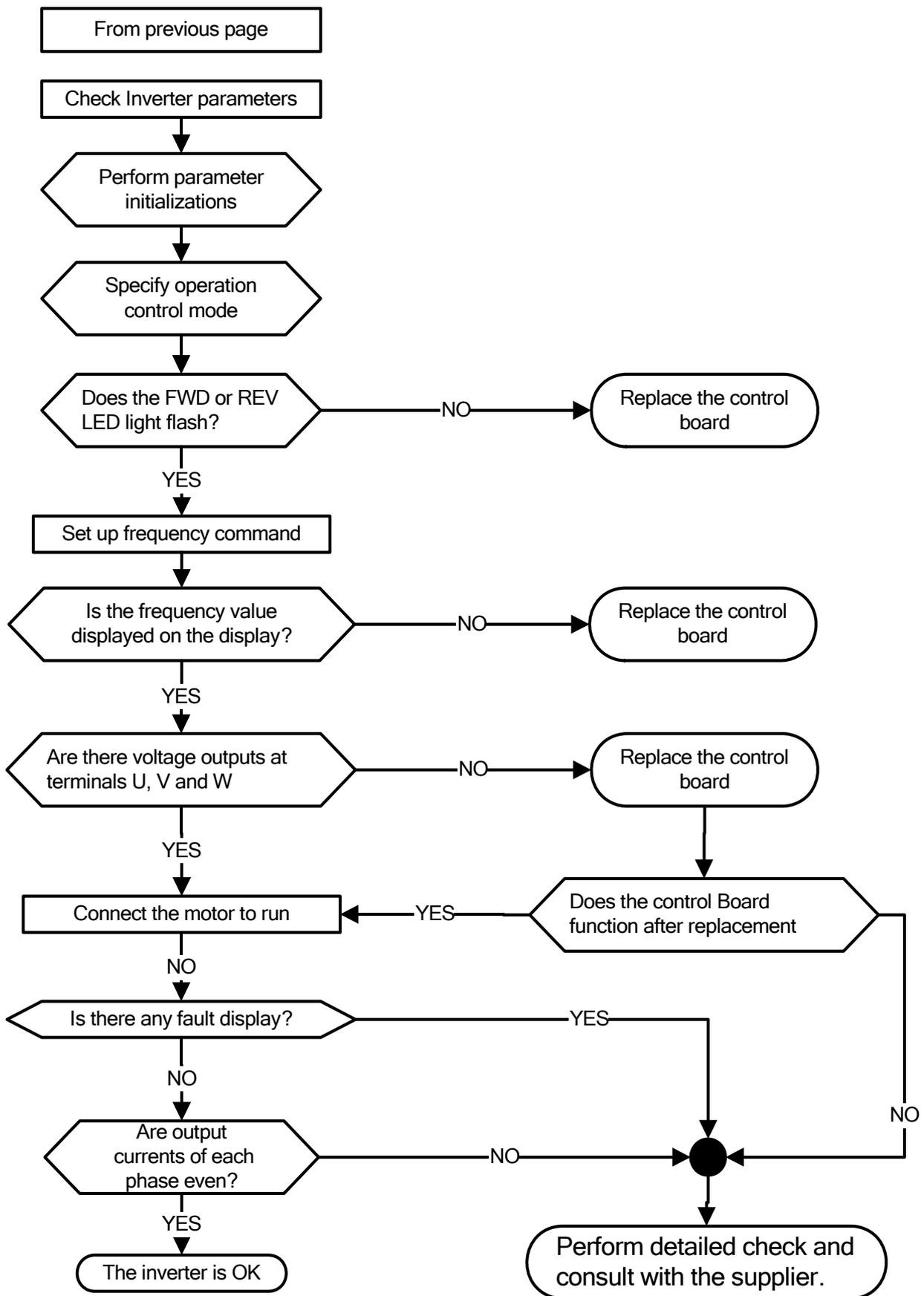
## 10.6 General troubleshooting

Status	Checking point	Remedy
<b>Motor runs in wrong direction</b>	Is the wiring for the output terminals correct?	Wiring must match U, V, and W terminals of the motor.
	Is the wiring for forward and reverse signals correct?	Check for correct wiring.
<b>The motor speed can not be regulated.</b>	Is the wiring for the analog frequency inputs correct?	Check for correct wiring.
	Is the setting of operation mode correct?	Check the Frequency Source set in parameters 00-05/00-06.
	Is the load too excessive?	Reduce the load.
<b>Motor running speed too high or too low</b>	Check the motor specifications (poles, voltage...) correct?	Confirm the motor specifications.
	Is the gear ratio correct?	Confirm the gear ratio.
	Is the setting of the highest output frequency correct?	Confirm the highest output frequency
<b>Motor speed varies unusually</b>	Is the load too excessive?	Reduce the load.
	Does the load vary excessively?	1.Minimize the variation of the load. 2.Consider increasing the capacities of the inverter and the motor.
	Is the input power unstable or is there a phase loss ?	1.Consider adding an AC reactor at the power input side if using single-phase power. 2.Check wiring if using three-phase power
<b>Motor can not run</b>	Is the power connected to the correct L1, L2, and L3 terminals? is the charging indicator lit ?	1.Is the power applied? 2.Turn the power OFF and then ON again. 3.Make sure the power voltage is correct. 4.Make sure screws are secured firmly.
	Is there voltage across the output terminals T1, T2, and T3?	Turn the power OFF and then ON again.
	Is overload causing the motor to stall?	Reduce the load so the motor will run.
	Are there any abnormalities in the inverter?	See error descriptions to check wiring and correct if necessary.
	Is there a forward or reverse run command ?	
	Has the analog frequency signal been input?	1.Is analog frequency input signal wiring correct? 2.Is voltage of frequency input correct?
	Is the operation mode setting correct?	Operate through the digital keypad

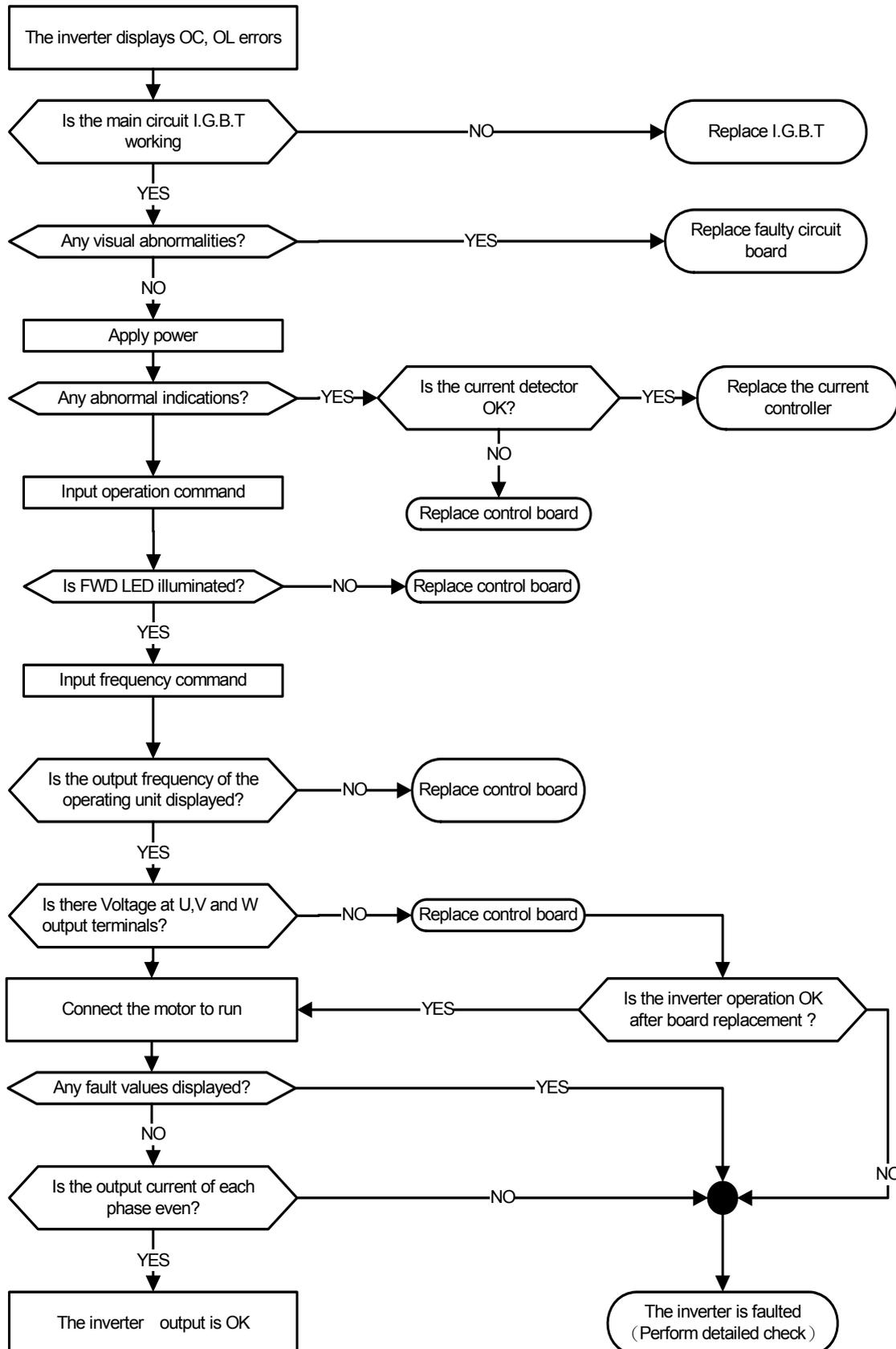
## 10.7 Troubleshooting of the Inverter

### 10.7.1 Quick troubleshooting of the Inverter

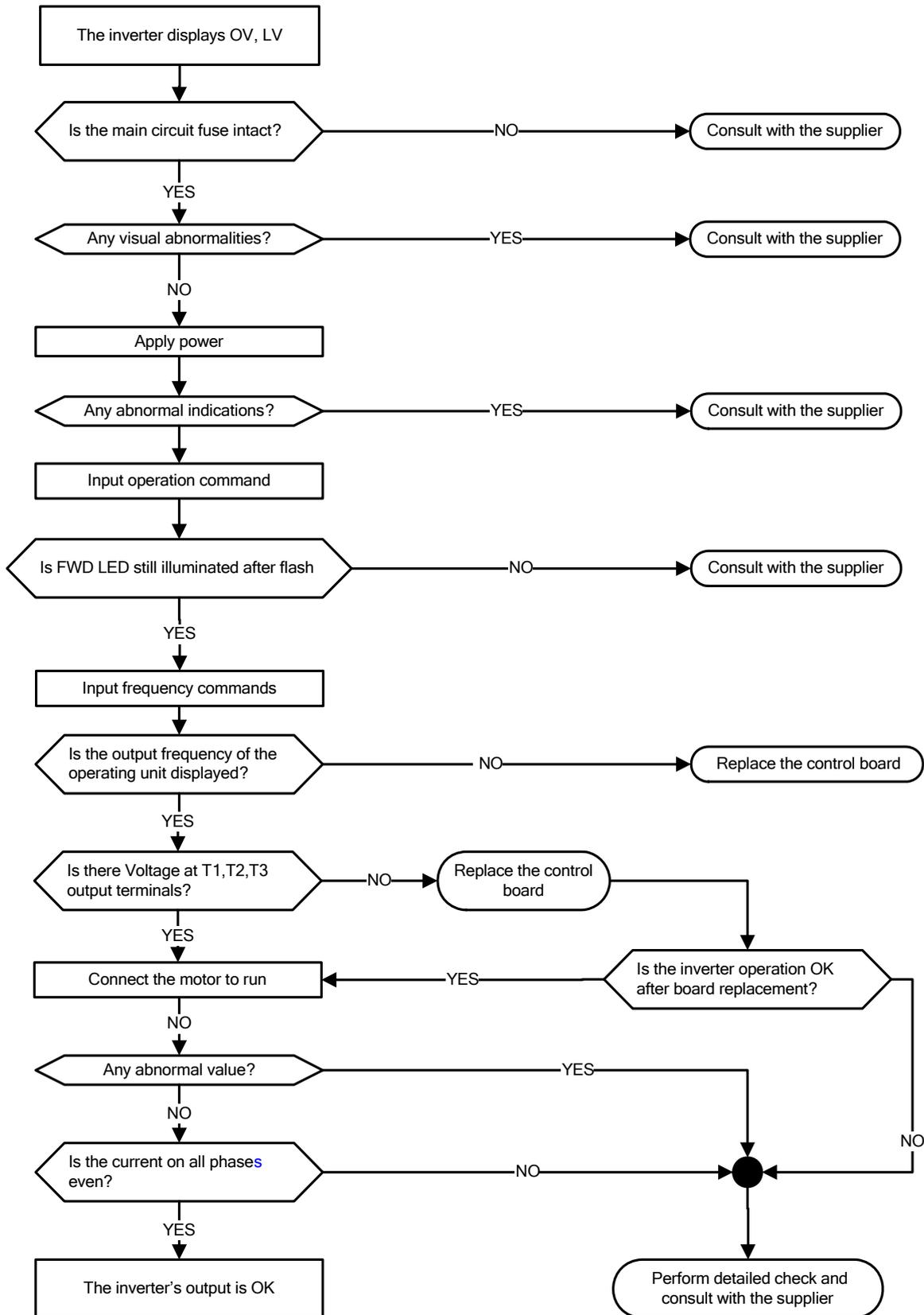




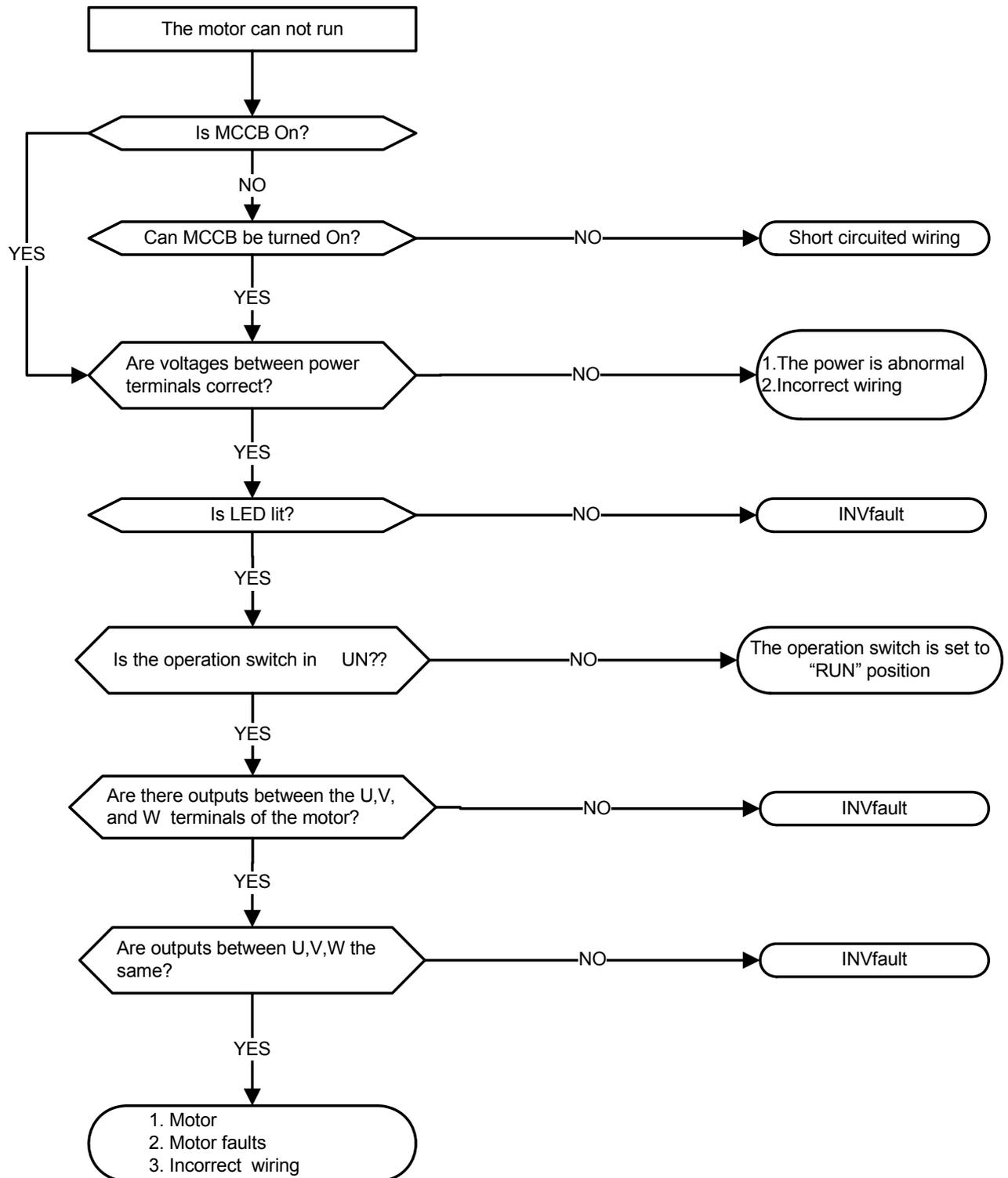
## 10.7.2 Troubleshooting for OC, OL error displays



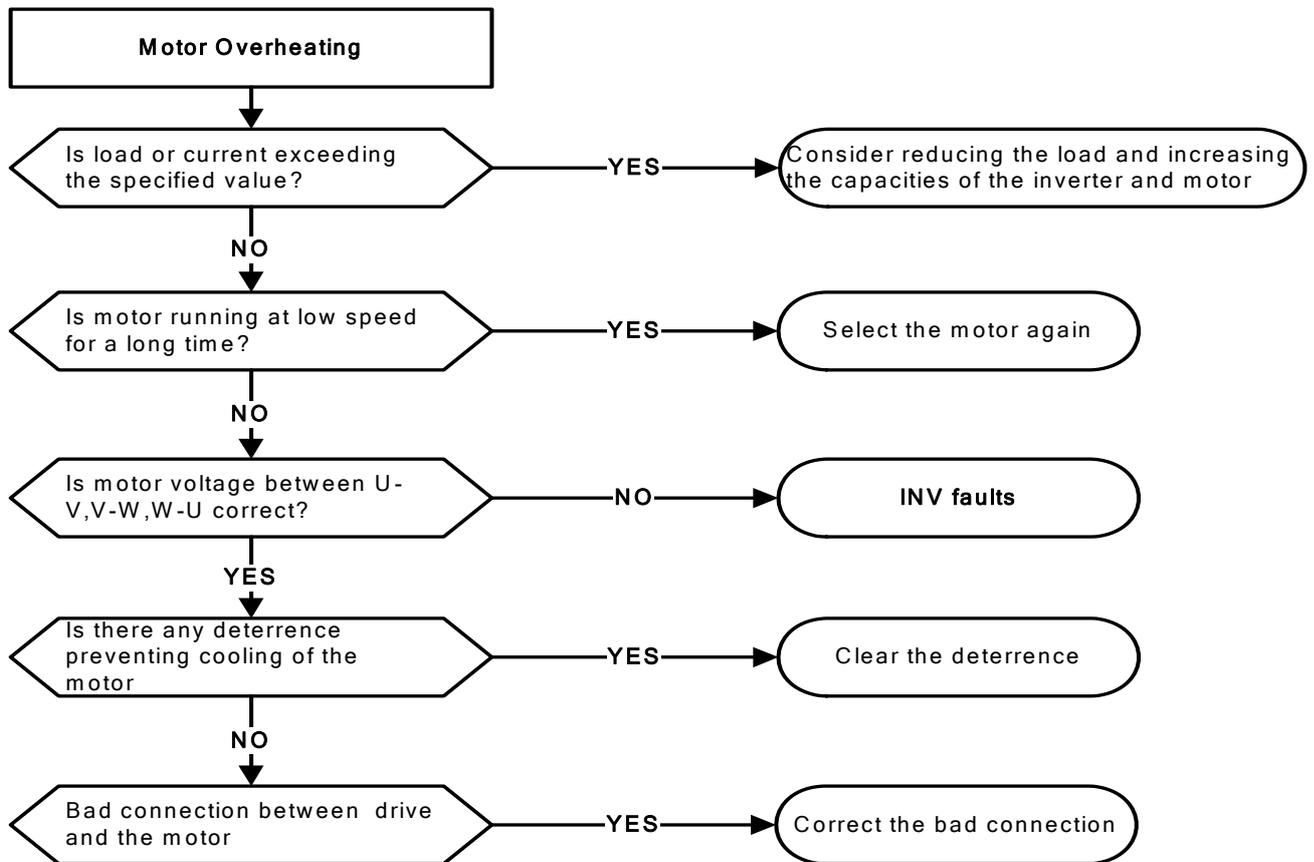
### 10.7.3 Troubleshooting for OV, LV error



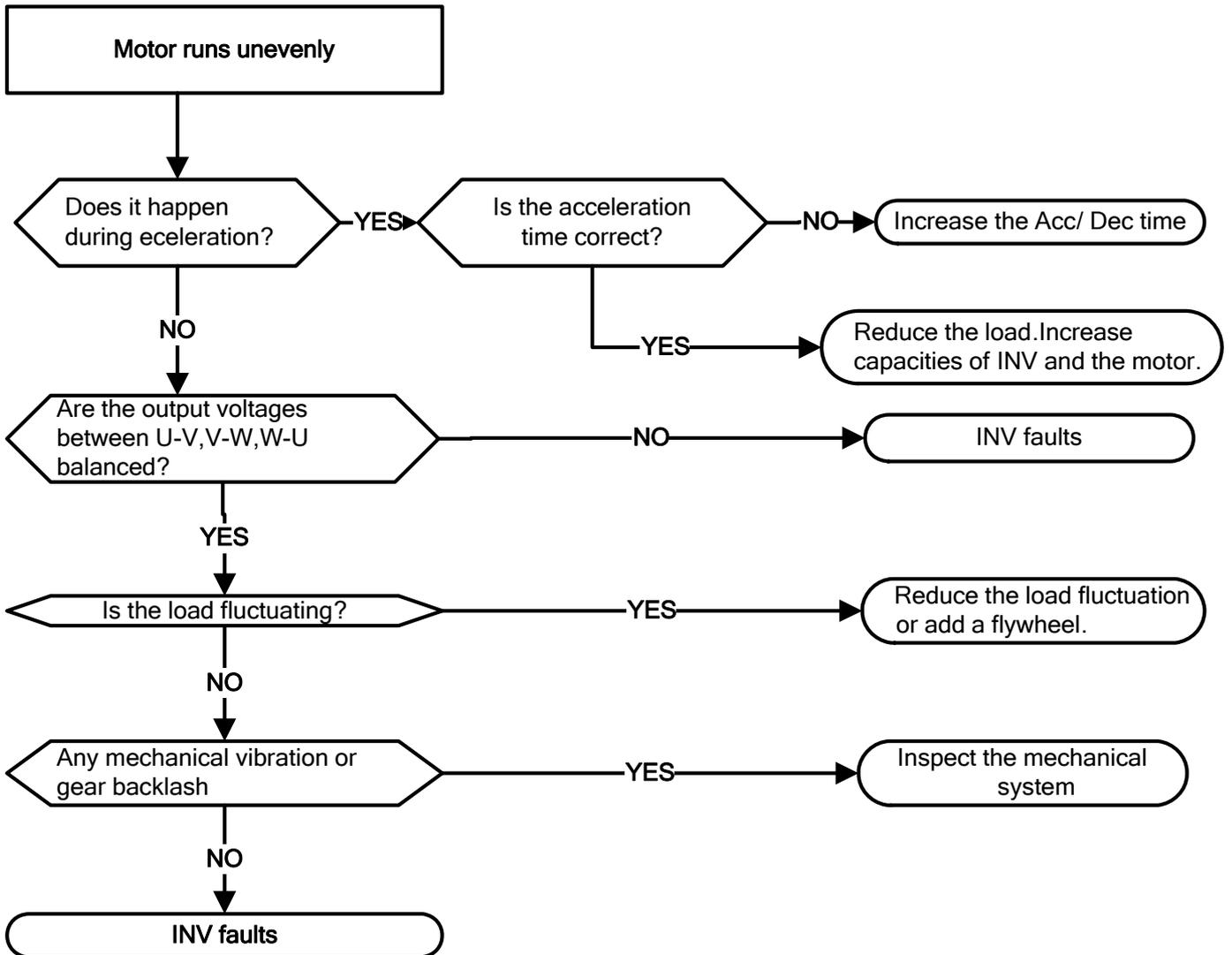
## 10.7.4 The motor can not run



## 10.7.5 Motor Overheating



### 10.7.6 Motor runs unbalanced



## 10.8 Routine and periodic inspection

To ensure stable and safe operations, check and maintain the inverter at regular intervals.

Use the checklist below to carry out inspection.

Disconnect power after approximately 5 minutes to make sure no voltage is present on the output terminals before any inspection or maintenance.

Items	Details	Checking period		Methods	Criteria	Remedies
		Daily	1Year			
<b>Environment &amp; Ground connection</b>						
Ambient conditions at the installation	Confirm the temperature and humidity at the machine	◎		Measure with thermometer and hygrometer	Temperature: -10 ~40°C/50°C (14~104°F)/(122°F) Humidity: Below 95%RH	Improve the ambient or relocate the drive to a better area.
Installation Grounding	Is the grounding resistance correct?		◎	Measure the resistance with a multi-tester	200Vclass: below 100Ω	Improve the grounding if needed.
<b>Terminals &amp; Wiring</b>						
Connection terminals	Any loose parts or terminals?		◎	Visual check Check with a screwdriver	Correct installation requirement	Secure terminals and remove rust
	Any damage to the base ?		◎			
	Any corroded Terminals?		◎			
Wiring	Any broken wires?		◎	Visual check	Correct wiring requirement	Rectify as necessary
	Any damage to the wire insulation?		◎			
<b>voltage</b>						
Input power voltage	Is the voltage of the main circuit correct?	◎		Measure the voltage with a multi-tester	Voltage must conform with the spec.	Improve input voltage if necessary.
<b>Circuit boards and components</b>						
Printed circuit board	Any contamination or damage to printed circuit board?		◎	Visual check	Correct component condition	Clean or replace the circuit board
Power component	Any dust or debris		◎			
		Check resistance between terminals		◎	Measure with a multi-tester	No short circuit or broken circuit in three phase output
<b>Cooling System</b>						
Cooling fan	Unusual vibration and noise?		◎	Visual and sound check	Correct cooling	Consult with the supplier
	Excessive dust or debris	◎		Visual check		Clean the fan
Heat sink	Excessive dust or debris	◎				Clean up debris or dust
Ventilation Path	Is the ventilation path blocked?	◎				Clear the path

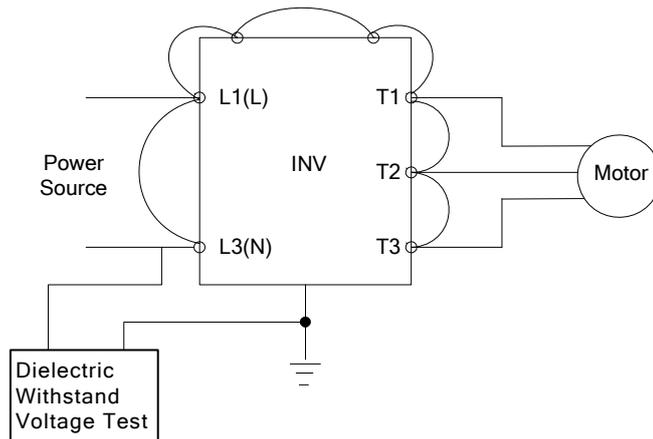
## 10.9 Maintenance

To ensure long-term reliability, follow the instructions below to perform regular inspection. Turn the power off and wait for a minimum of 5 minutes before inspection to avoid potential shock hazard from the charge stored in high-capacity capacitors.

### 1. Maintenance Check List.

➤ Ensure that temperature and humidity around the inverters is as required in the instruction manual, installed away from any sources of heat and the correct ventilation is provided..
➤ For replacement of a failed or damaged inverter consult with the local supplier.
➤ Ensure that the installation area is free from dust and any other contamination.
➤ Check and ensure that the ground connections are secure and correct.
➤ Terminal screws must be tight, especially on the power input and output of the inverter.
➤ Do not perform any insulation test on the control circuit.

### 2. Insulation test Method . Single Phase



### Three Phase

