LG Inverter AC Error Codes: Indoor and Outdoor Unit Professional Guide

Category: air conditioner
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Model: Inverter AC

Indoor Unit

ERROR CODE	DISCRIPTION
1	Indoor unit room temperature sensor error
2	Indoor unit inlet pipe sensor error
3	Wired remote control error
4	Float switch error
5	Communication error between indoor and outdoor units
6	Indoor unit outlet pipe sensor error
9	Indoor unit EEPROM error
10	Indoor unit BLDC fan motor lock
12	Indoor unit middle pipe sensor error

Outdoor Unit

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ERROR CODE	DISCRIPTION
21	DC Peack (IPM) fault
22	CT2 (Max CT)
23	DC link low voltage
26	DC Comp position error
27	PSC fault
29	Comp phase over current
32	Inverter compressor D pipe overheat
34	High pressure sensor high
35	Low pressure sensor low
36/38	Refrigerant leak detection
37	Exceed the compression ration limit
40	CT sensor error
41	Discharge pipe sensor error
42	Low pressure sensor error
43	High presure sensor error
44	Outdoor air sensor error
45	Cond middle pipe sensor Error
46	Suction pipe sensor Error
51	Excess capacity (Mismatch between IDU and odu unit)
53	Communication error
61	Cond. Pipe high
62	Heat sink sensor temp. High
67	BLDC motor fan lock
72	Detect 4 way valve transfer failure
93	Communication error

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LG inverter air conditioners use numeric error codes to identify sensor faults,

communication problems, and inverter failures in both indoor and outdoor units. Understanding these codes helps technicians diagnose issues quickly, reduce downtime, and protect sensitive electronic components.

Indoor Unit Error Codes and Meanings

The indoor unit focuses on temperature sensing, water safety, fan control, and communication with the outdoor inverter PCB. The table below summarizes the most common codes.

Indoor error code	Description (short)	Engineering meaning / typical cause
1	Room temperature sensor error	Thermistor out of range, open/short circuit near return air sensor.
2	Inlet pipe sensor error	Coil sensor not reading evaporator temperature correctly; wiring or sensor fault.
3	Wired remote control error	Loss of signal or wiring problem between controller and indoor PCB.
4	Float switch error	Condensate level high or float switch open, often due to blocked drain pan.
5	Communication error IDU–ODU	Data link failure between indoor and outdoor boards.
6	Outlet pipe sensor error	Discharge side coil sensor faulty; risk of coil icing or overheating.
9	EEPROM error	Indoor PCB memory failure; configuration data cannot be read reliably.
10	BLDC fan motor lock	Indoor fan blocked, seized bearings, or motor/driver fault.
12	Middle pipe sensor error	Additional coil sensor abnormal, often in multi-row or multi-circuit coils.

Technician conseil: Always confirm sensor resistance vs temperature (for example 8 kΩ at 30 °C and 13 kΩ at 20 °C in many LG thermistors) before replacing the PCB; many “EEPROM” or fan faults are triggered by unstable sensor feedback.

Outdoor Unit Error Codes: Inverter, Power, and Pressure Protection

The outdoor unit handles high-voltage power electronics, compressor control, and refrigerant protection logic, so most serious faults appear here.

Outdoor error code	Description (short)	Technical interpretation
21	DC Peak (IPM fault)	Instant over-current in inverter module; possible shorted compressor or IPM PCB failure.
22	CT2 (Max CT)	AC input current too high; overload, locked compressor, or wiring issue.
23	DC link low voltage	DC bus below threshold, often due to low supply voltage or rectifier problem.

Outdoor error code	Description (short)	Technical interpretation
26	DC compressor position error	Inverter cannot detect rotor position or rotation; motor or sensor issue.
27	PSC fault	Abnormal current between AC/DC converter and compressor circuit; protection trip.
29	Compressor phase over current	Excessive compressor amperage, mechanical tightness or refrigerant over-load.
32	Inverter compressor discharge pipe overheat	Too-high discharge temperature; blocked condenser, overcharge, or low airflow.
40	CT sensor error	Current sensor (CT) thermistor open/short; feedback to PCB missing.
41	Discharge pipe sensor error	D-pipe thermistor failure; system loses critical superheat/overheat feedback.
42	Low pressure sensor error	Suction or LP switch malfunction or low refrigerant scenario.
43	High pressure sensor error	HP switch trip from blocked condenser, fan fault, or overcharge.
44	Outdoor air sensor error	Ambient thermistor failure; affects defrost and capacity control.
45	Condenser middle pipe sensor error	Coil mid-point sensor fault; can disturb defrost and condensing control.
46	Suction pipe sensor error	Suction thermistor open/short; impacts evaporator protection logic.
51	Excess capacity / mismatch	Indoor–outdoor capacity mismatch or wrong combination in multi-systems.
53	Communication error	Outdoor to indoor comms failure; wiring, polarity, or surge damage.
61	Condenser coil temperature high	Overheating outdoor coil; airflow or refrigerant problem.
62	Heat-sink sensor temp high	Inverter PCB heat sink over temperature; fan or thermal grease issue.
67	BLDC motor fan lock	Outdoor fan blocked, iced, or motor defective; can quickly raise pressure.
72	Four-way valve transfer failure	Reversing valve not changing position; coil or slide inefficiency.
93	Communication error (advanced)	Additional protocols or cascade communication problem depending on model.

For IPM-related codes like 21 or 22, LG service bulletins recommend checking gas pressure, pipe length, outdoor fan performance, and compressor winding balance before condemning the inverter PCB.

Comparing LG Inverter Error Logic With Conventional On/Off Systems

Traditional non-inverter split units often use simple **CH codes** driven mainly by high-pressure, low-pressure, and thermistor faults. LG inverter models add detailed DC link, CT sensor, and IPM protections that can distinguish between power quality issues, compressor mechanical problems, and PCB failures.

Feature	Conventional on/off split	LG inverter split
Compressor control	Fixed-speed relay or contactor	Variable-speed BLDC with IPM inverter stage.
Error detail	Limited (HP/LP, basic sensor)	Full DC bus, IPM, position, and communication diagnostics.
Protection behavior	Hard stop, manual reset	Automatic trials, soft restart, and logged protection history in many models.

This higher granularity allows experienced technicians to pinpoint failures faster but also demands better understanding of power electronics and thermistor networks.

Professional Diagnostic Strategy and Field Consel

From an engineering and service point of view, working with LG inverter codes should follow a structured method rather than trial-and-error replacement.

- **1. Confirm the exact model and environment**
  - Check whether the unit is single-split, multi-split, or CAC; some codes change meaning between product families.
  - Verify power supply stability, wiring polarity, and grounding before focusing on PCBs or compressors, especially for IPM and CT2 faults.
- **2. Read sensors and currents, not only codes**
  - Use a multimeter and clamp meter to measure thermistor resistance, compressor current, and DC bus voltage against the service manual tables.
  - For sensor errors, compare readings with reference charts (for example resistance vs temperature) to avoid replacing good parts.
- **3. Respect inverter safety**
  - Wait the recommended discharge time before touching any DC link components; capacitors can retain hazardous voltage even after power off.
  - Use insulated tools and avoid bypassing safety switches; overriding a high-pressure or IPM protection may damage the compressor permanently.
- **4. Compare with factory documentation**
  - Always check the latest LG error-code bulletins and service manuals, because some codes (for example 61 or 62) gained additional sub-causes in new generations.

For professional workshops, building a small internal database of “case histories” linking error codes, environmental conditions, and final solutions can significantly reduce repeated troubleshooting time.

Focus keyphrase (Yoast SEO)

LG inverter AC error codes indoor and outdoor unit sensor, communication, IPM fault and DC peak troubleshooting guide for professional air conditioner technicians

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SEO title

Mbsmpro.com, LG Inverter AC, Error Codes 1–93, Indoor and Outdoor Unit, IPM Fault, Sensor Error, Communication Fault, Professional Troubleshooting Guide

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Meta description

Detailed LG inverter AC error code guide for indoor and outdoor units, explaining sensor faults, communication errors, IPM and DC peak alarms, with professional diagnostic tips for HVAC technicians and engineers.

Slug

lg-inverter-ac-error-codes-indoor-outdoor-guide

Tags

LG inverter error codes, LG AC fault codes, indoor unit sensor error, outdoor unit IPM fault, DC peak CT2 error, BLDC fan lock, HVAC troubleshooting, inverter air conditioner service, Mbsmgroup, Mbsm.pro, mbsmpro.com, mbsm

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Excerpt (first 55 words)

LG inverter air conditioner error codes give technicians a precise window into what is happening inside both indoor and outdoor units. From simple room temperature sensor faults to complex IPM and DC peak alarms, decoding these numbers correctly is critical for fast, safe, and accurate HVAC troubleshooting on modern LG split systems.

10 PDF or catalog links about LG inverter AC error codes and service information

1. LG HVAC technical paper “Defining Common Error Codes” for inverter systems (official error explanations and sequences).
2. LG air conditioning fault codes sheet for split units, including indoor sensors and compressor protections.
3. LG universal split fault code sheet (detailed explanations for codes 21, 22, 26, 29, etc.).
4. LG ducted error codes guide covering DC peak, CT2 Max CT, and compressor over-current protections.
5. LG Multi and CAC fault code sheet with advanced guidance for IPM and CT faults.
6. LG installation and service manual for inverter units, listing DC link, pressure switch, and inverter position errors.

7. LG USA support “Guide to Error Codes” for single and multi-split systems, with troubleshooting summaries.
8. LG global support page “Single / Multi-Split Air Conditioner Error Codes” including IPM, CT2, EPROM, and communication errors.
9. ACErrorCode.com LG inverter AC error code list, useful as a quick field reference.
10. Valley Air Conditioning LG air conditioner error code and troubleshooting guide with indoor and outdoor tables.

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