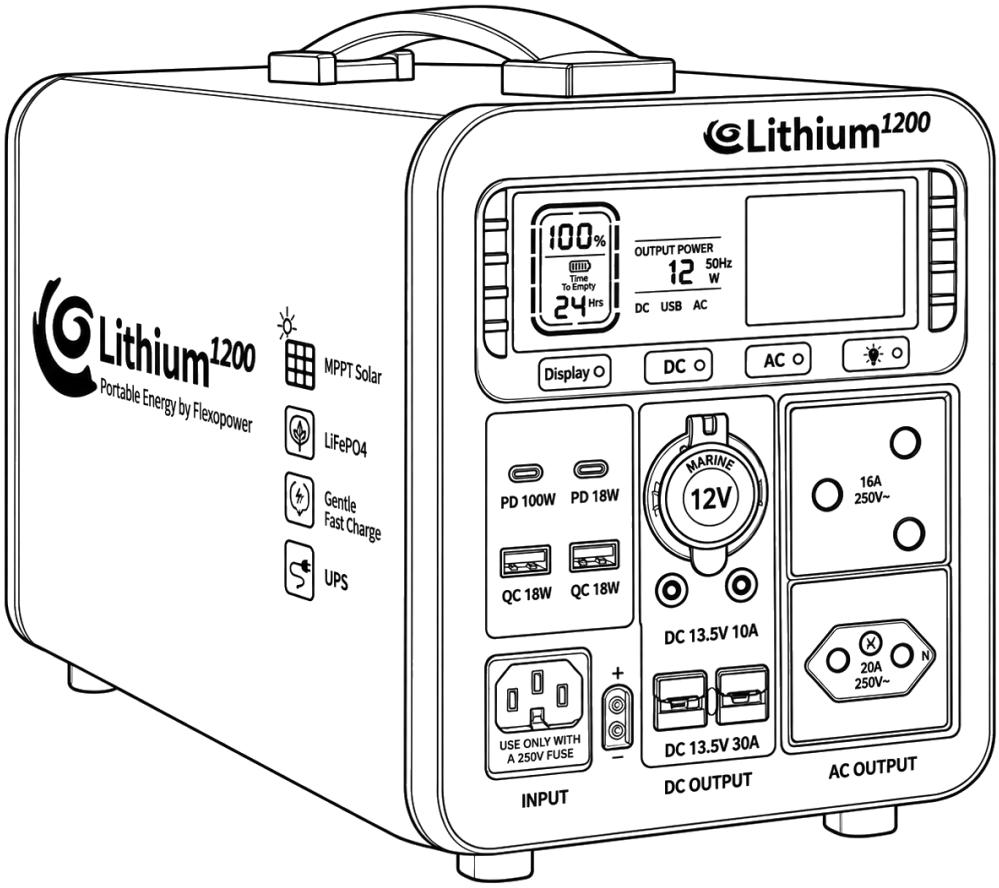
FLEXOPOWER

Lithium1200-D30

Portable Dual Battery System

OWNER'S MANUAL



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Product specifications and information contained in this manual are subject to change without prior notice.

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1. SAFETY INFORMATION

Read Before Operating

Read this manual and the product labels before operating the Lithium1200-D30. Use the unit only within its specified electrical and environmental limits.

WARNING — Do not open the enclosure or remove or loosen enclosure screws. Do not modify, repair or disassemble the unit. Internal service and battery replacement must be performed by Flexopower or an authorised Flexopower Service Centre.

Electrical Safety

- Use only compatible equipment and cables with the correct polarity and ratings.
- Do not expose AC connections to water or handle electrical connectors with wet hands.
- Disconnect connected loads before investigating abnormal operation.
- Do not exceed the specified AC, DC, USB or charging input ratings.

Battery and Fire Safety

- Keep the enclosure and ventilation openings unobstructed.
- Stop using the unit if the enclosure is damaged, unusually hot, leaking or emitting smoke or an unusual odour.
- Do not place the unit near flames or high-temperature heat sources.
- Do not short-circuit the battery or any output connector.

Additional Safety Precautions

• Do not operate the product unsupervised or in rain or high humidity; the enclosure is not water- or splash-proof.

• After prolonged high AC output, allow at least 30 minutes of cooling before recharging; allow longer in hot ambient conditions.

• Keep the unit away from strong static-electricity and magnetic-field environments, and do not place heavy objects on it.

• Keep away from children and pets. Avoid impact, drops, extreme vibration and unusually low air-pressure environments.

• Do not insert metal objects into sockets or obstruct the cooling fan inlet or outlet.

• Users of medical implants or devices should verify potential electromagnetic interference with their medical-device provider.

• If abnormal heat or smoke occurs, discontinue use, disconnect safely and seek assistance.

Environmental Conditions

Operate the unit within 0°C to 50°C. Avoid rain, direct water exposure and environments where moisture may enter the enclosure.

2. QUICK START GUIDE

Step 1 — Inspect and charge

Inspect the unit and supplied accessories for damage. Charge through the specified AC input using the supplied AC charging cable and a suitable mains outlet.

Step 2 — Activate the display and outputs

Use the Display button to activate the display, then enable the required AC or DC output with its corresponding button. Switch outputs off when no longer required.

Step 3 — Connect equipment

Connect compatible AC, DC or USB appliances within the individual and combined output ratings. Do not connect equipment with unknown startup current requirements.

Step 4 — Recharge after use

Recharge by AC mains, compatible solar input, CLA vehicle charging or an appropriately installed external FlexoDrive DC-DC charger.

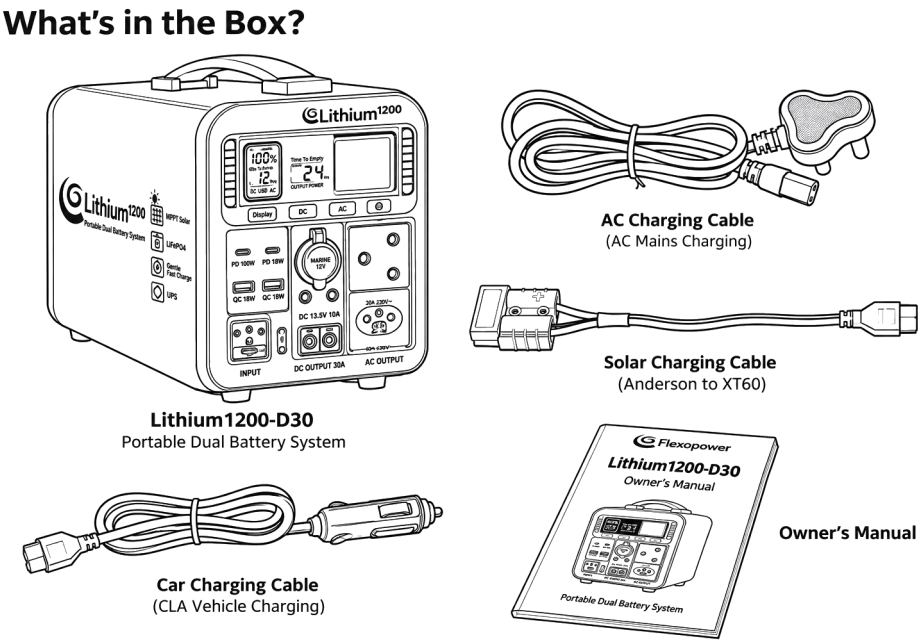
3. INTENDED USE

The Lithium1200-D30 is a portable $LiFePO_4$ power station for compatible AC, regulated 13.5 V DC and USB equipment in camping, overlanding, mobile field work and non-critical backup applications.

It is not a substitute for a permanently installed electrical system or a life-safety UPS. The published UPS transfer time is 20 ms and suitability must be assessed for each connected load.

4. PACKAGE CONTENTS

Item	Quantity
Lithium1200-D30 portable power station	1
AC charging cable	1
12 V CLA vehicle charging cable	1
Solar cable, XT60 to grey Anderson SB50	1
Owner Manual	1

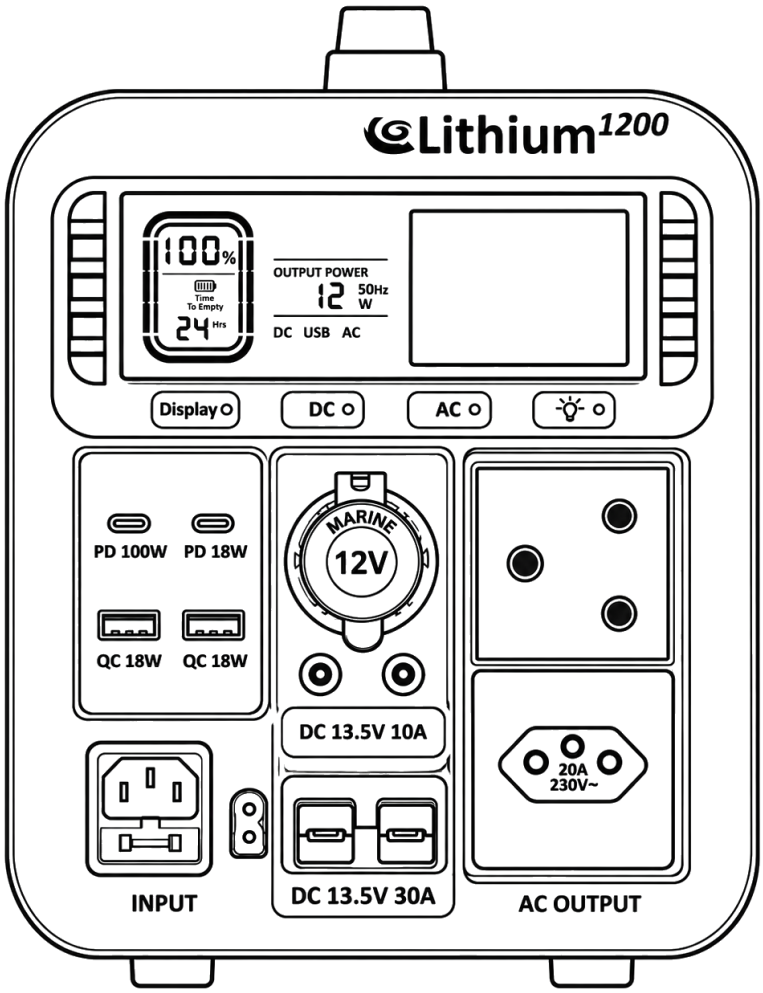


5. BEFORE FIRST USE

- Confirm the delivered model is Lithium1200-D30.
- Inspect the housing, handle, vents, sockets and supplied cables.
- Verify the connected appliance rating against the output specifications.
- Charge the battery before first use.
- For FlexoDrive installations, use only a verified compatible external DC-DC charger installed according to its own approved manual.

6. PRODUCT OVERVIEW

The Lithium1200-D30 combines a 1008 Wh replaceable $LiFePO_4$ battery, 1200 W pure sine wave AC inverter, regulated 13.5 V DC outputs and USB charging in a portable enclosure.



Front-panel connections

Interface	Rating / function
AC output	230 V AC, 50 Hz; 1200 W continuous
Anderson SB50 output	13.5 V regulated, 30 A
CLA output	13.5 V regulated, 10 A
DC5521 outputs	Two regulated 13.5 V outputs, 10 A rating; simultaneous-load limits apply
USB-A	2 × 18 W
USB-C	1 × PD 18 W; 1 × PD 100 W
AC charging input	230 V, 600 W
XT60 DC charging input	Solar 10–60 V, 10 A, 400 W; CLA 117 W maximum

Charging Inputs

The product supports AC mains charging, solar charging through its integrated MPPT controller, 12 V CLA vehicle charging and alternator charging through the separate FlexoDrive DC-DC charger.

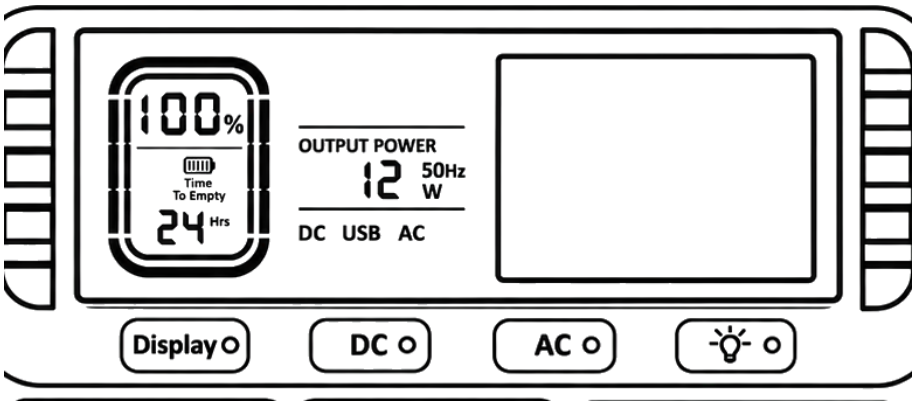
The rear panel contains cooling fans, a specification label and a serial-number label. Keep the cooling fans unobstructed.

The front panel contains the LCD screen, air vents, Display/DC/AC buttons, USB-C and USB-A outputs, AC and DC charging inputs, AC outlets, a light button, an LED light and DC output ports.

IMPORTANT — FlexoDrive is an external DC-DC charging system. It is not built into the Lithium1200-D30. The 30 A Anderson SB50 connection is a regulated DC output, not a 30 A alternator-charging input.

7. LCD DISPLAY

The LCD displays battery state of charge, estimated remaining time, input power, output power and active AC, DC and USB indicators. Additional symbols identify the light, warning conditions, high temperature and fan operation. Remaining-time estimates vary with the connected load and charging conditions.



Display detail cropped from the front-panel technical drawing.

8. PRODUCT FEATURES

$LiFePO_4$ Battery

The battery energy capacity is 1008 Wh. Battery replacement is an authorised-service operation.

Pure Sine Wave Inverter

The inverter supplies 230 V AC at 50 Hz, rated 1200 W continuous and 2400 W peak.

Power Boost

Power Boost supports loads up to 1600 W by reducing AC output voltage to approximately 200 V. This is not a 1600 W / 230 V operating mode and is unsuitable for voltage-sensitive appliances.

UPS Function

UPS transfer time is 20 ms for compatible non-critical loads; uninterrupted operation of any particular appliance is not guaranteed.

MPPT Solar Charging

An integrated MPPT controller supports compatible solar sources within 10–60 V DC, 10 A and 400 W maximum.

Regulated DC Outputs

The Anderson SB50 provides 13.5 V regulated DC at up to 30 A; other DC outlets have separate limits.

FlexoDrive Compatibility

Alternator charging requires a compatible external FlexoDrive DC-DC charger and an approved installation.

9. SWITCHING THE LITHIUM1200-D30 ON AND OFF

Use the front-panel display and output controls as marked on the unit. Verify the indicated output status before connecting or disconnecting equipment.

Display: press the Display button once to illuminate the display; the green indicator lights. Press Display again to turn it off. If AC and DC are inactive, the display switches off automatically after a short interval.

DC: press DC once to enable DC output (green indicator illuminated). Press DC again to disable it.

AC: press AC once to enable the AC output (green indicator illuminated). Press AC again to disable it. Switch off AC when no load is connected, because the inverter consumes power while idling.

The corresponding indicator light shows whether each output is enabled.

IMPORTANT — Use the Display, AC and DC controls as described above. If a control or indicator does not respond as expected, disconnect connected equipment and contact Flexopower Technical Support.

10. OPERATING THE LITHIUM1200-D30

10.1 AC OUTPUT

Connect appliances rated for 230 V, 50 Hz pure sine wave AC. The continuous rating is 1200 W. Power Boost permits up to 1600 W at a reduced output voltage of approximately 200 V; do not use this mode for voltage-sensitive equipment. Account for appliance startup surge current.

The overload protection temporarily disables AC output and automatically attempts a restart. If overload recurs, AC output remains disabled until the connected load is reduced and AC is manually re-enabled.

10.2 DC OUTPUT

Do not exceed the current rating of any individual DC output. The 30 A Anderson SB50 rating does not mean every other DC outlet can simultaneously deliver its maximum current. Reduce simultaneous loading if protection activates or the unit indicates overload.

10.3 USB OUTPUT

The unit provides two USB-A 18 W ports, one USB-C PD 18 W port and one USB-C PD 100 W port. Device charging is negotiated according to the device and cable capabilities.

10.4 LIGHT / OTHER CONTROLS

The light has four states: off, weak, strong and intermittent. Use the front-panel light button to select the required state. Check the light state before leaving the unit unattended.

11. CHARGING THE LITHIUM1200-D30

11.1 AC MAINS CHARGING

Connect the supplied AC charging cable to the unit’s AC input, then connect it to a suitable 230 V mains outlet. Maximum AC charging power is 600 W. Monitor the charging indication and disconnect if abnormal operation occurs.

11.2 SOLAR CHARGING

Use a compatible solar source and the specified XT60 adapter. The solar array must satisfy all input limits simultaneously: 10–60 V DC, 10 A maximum and 400 W maximum. Check polarity and ensure the array open-circuit voltage does not exceed 60 V under expected conditions.

Connect the yellow XT60 end of the supplied solar cable to the yellow DC input of the unit, then connect the grey Anderson SB50 connector to a compatible solar panel.

11.3 CLA VEHICLE CHARGING

With the vehicle accessory socket switched off where possible, connect the supplied CLA vehicle charging cable to the Lithium1200-D30 yellow XT60 DC input and then to a compatible 12 V vehicle accessory socket. Ensure the socket, cable and vehicle fuse can support the load; CLA charging input is limited to 117 W. Monitor charging and disconnect if a plug, cable or socket becomes unusually hot.

11.4 FLEXODRIVE ALTERNATOR CHARGING

Alternator charging requires a separately supplied compatible external FlexoDrive DC-DC charger. It is not a built-in charging function.

The Lithium1200-D30 FlexoDrive charging arrangement is specified as 24–32 V DC, up to 10 A and 320 W at the charging input. Use the matching external FlexoDrive charger and connection cable; connect the yellow XT60 plug to the unit's DC input and the grey Anderson SB50 plug to the compatible external charger. Do not treat these input limits as the charger's vehicle-side wiring specification.

Follow the external FlexoDrive charger's approved installation and operating instructions for its exact model, vehicle-side wiring, fusing, cable sizing and protection. Have a qualified installer perform vehicle installation.

IMPORTANT — Do not connect the vehicle alternator directly to the Lithium1200-D30 charging input. Installation, protection, cable sizing and charging limits must follow the approved FlexoDrive charger installation documentation. A qualified installer should perform the vehicle installation.

11.5 CHARGING WHILE POWERING LOADS

When charging and supplying connected equipment at the same time, remain within the rated charging-input and output limits. Monitor battery temperature, charging status and connected loads. If abnormal heat, a warning or unstable operation occurs, disconnect the load and charging source. Do not rely on this mode for life-critical equipment.

12. TROUBLESHOOTING

Symptom	Initial check	Next action
No AC output	Check AC control status and connected load rating	Disconnect loads; seek support if unresolved
No DC output	Check DC control status, connector and load rating	Disconnect loads; seek support if unresolved
No solar charging	Check panel voltage, polarity and sunlight	Confirm 10–60 V / 10 A / 400 W limits
No CLA vehicle charging	Check vehicle socket, CLA cable and engine status	Check 117 W limit and vehicle accessory fuse
No FlexoDrive charging	Check external charger power/status and installation	Refer to approved FlexoDrive documentation / installer
Unit too hot	Check ventilation and ambient temperature	Disconnect loads and allow to cool

IMPORTANT — Do not open the enclosure or remove screws when troubleshooting.

13. LCD WARNINGS AND FAULT RESPONSE

If an error or warning indicator appears, stop using the affected output, disconnect the connected load where safe, check for overheating, blocked ventilation or an overloaded connection, and allow the unit to cool if necessary.

If the warning persists, record the displayed code and the product serial number, and contact Flexopower Technical Support. Do not open the enclosure or attempt internal repairs.

14. FREQUENTLY ASKED QUESTIONS

Can I charge from the vehicle while driving?

Yes, using the compatible CLA vehicle charging cable within the 117 W input limit. Higher-power alternator charging requires the separate compatible FlexoDrive DC-DC charger.

Does the Lithium1200-D30 include FlexoDrive?

No. FlexoDrive is a separate external DC-DC charging system unless expressly included in a purchased bundle.

Does the 30 A Anderson SB50 charge the battery?

No. The 30 A rating refers to the regulated 13.5 V DC output.

Can I use solar panels?

Yes, within the integrated MPPT solar input limits of 10–60 V, 10 A and 400 W.

Can the battery be replaced?

The battery is replaceable by Flexopower or an authorised Flexopower Service Centre; users must not open the enclosure.

Can I use Power Boost with sensitive electronics?

Not recommended. Power Boost reduces AC voltage to approximately 200 V, which may be unsuitable for voltage-sensitive equipment.

15. CARE & MAINTENANCE

Clean the exterior with a soft, dry cloth. Keep ventilation openings clear and inspect external cables and connectors periodically. Disconnect charging sources and loads before cleaning.

WARNING — Do not remove or loosen enclosure screws, open the enclosure or attempt internal cleaning or repair. Contact Flexopower or an authorised service centre.

16. BATTERY STORAGE

Store the unit in a clean, dry, ventilated environment away from direct heat and moisture. Periodically inspect the battery charge level during prolonged storage.

For long-term storage, maintain the battery at approximately 50% state of charge and periodically check the charge level.

17. TECHNICAL SPECIFICATIONS

Battery

Specification	Specification
Chemistry	$LiFePO_4$
Energy capacity	1008 Wh
Battery	Replaceable — authorised service
Battery cycle life	80% remaining capacity after 2,000 cycles

AC Output

Specification	Specification
Waveform	Pure sine wave
Continuous	1200 W
Peak	2400 W (momentarily only)
Voltage / frequency	230 V / 50 Hz
Power Boost	1600 W at approximately 200 V

AC Charging

Specification	Specification
Mains input	230 V AC
Published charging power	600 W

Solar Charging

Specification	Specification
Input voltage	10–60 V DC
Maximum current	10 A
Maximum power	400 W
Controller	Integrated MPPT

Vehicle Charging

Specification	Specification
CLA charging input	117 W maximum
Alternator charging	Up to 320 W via compatible external FlexoDrive DC-DC charger

DC Outputs

Specification	Specification
Anderson SB50	13.5 V regulated, 30 A
CLA output	13.5 V regulated, 10 A
DC5521	2 × 13.5 V regulated, 10 A

USB Outputs

Specification	Specification
USB-A	2 × 18 W
USB-C PD	1 × 18 W
USB-C PD	1 × 100 W

UPS / Operating Conditions

Specification	Specification
UPS transfer	20 ms
Operating temperature	0–50°C

Physical Specifications

Dimensions are listed as length × width × height. Allow clearance for handles, feet, cables and ventilation when selecting a storage compartment.

Specification	Specification
Length	395 mm
Width	190 mm
Height	220 mm
Net weight	12.8 kg
LED light	6 W

18. SHIPMENT AND PACKAGING

Use protective packaging that prevents movement, impact and connector damage during transport. Follow the applicable carrier requirements for lithium battery products.

19. WARRANTY

Flexopower warrants the Lithium1200-D30 against defects in materials and workmanship under normal use and service for two years from the original date of purchase, subject to the approved warranty terms.

Authorised Service

Proof of purchase is required for warranty claims. During the warranty period, Flexopower may inspect, repair or replace a unit found to have a manufacturing or material defect, in accordance with applicable warranty terms and law.

The Lithium1200-D30 enclosure must not be opened by the user. Do not remove or loosen enclosure screws, modify, repair or disassemble the unit. Internal servicing must be performed by Flexopower or an authorised Flexopower Service Centre.

Warranty Exclusions

The warranty does not cover damage resulting from misuse, incorrect connections, operation outside specified electrical or environmental limits, physical impact, liquid ingress, unauthorised modifications, or repairs performed by unauthorised persons. Normal wear and cosmetic damage not attributable to a manufacturing defect are excluded to the extent permitted by applicable law.

Unauthorised opening of the enclosure, including removal or loosening of enclosure screws, modification, repair or disassembly, may result in exclusion of damage caused by that intervention. Statutory consumer rights remain unaffected.

20. DISPOSAL AND RECYCLING

Do not dispose of the Lithium1200-D30 with ordinary household waste. Follow applicable local requirements for recycling electrical equipment and lithium batteries. Consult an authorised collection or recycling facility.

21. COPYRIGHT

Copyright and trademark protections are set out on page 1. Product information may be revised following technical approval.

22. CONTACT INFORMATION

Flexopower Energies (Pty) Ltd

Website: https://flexopower.co.za

For technical support and authorised service-centre information, visit https://flexopower.co.za. Have the model, serial number, proof of purchase and any displayed error code available.