

SOLAR ELECTRIC

KOSTAL

PIKO IQ / PLENTICORE G1/ G2

Hybrid inverter



Event list

Legal notice

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General note on gender equality

KOSTAL Solar Electric GmbH is aware of how language impacts on gender equality and always makes an effort to reflect this in documentation. Nevertheless, for the sake of readability we are unable to use non-gender-specific terms throughout and use the masculine form instead.

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1. General information

There is no need to take action when an event occurs occasionally or only briefly and the device resumes operation. When an event persists or recurs frequently, the cause must be determined and rectified.



DANGER

Risk of death due to electrical shock and discharge!

Life-threatening voltages are present in the device. Only a qualified electrician may open and perform work on the device.

If there is a persistent event, the device interrupts the feed-in and switches off automatically.

- Check whether the DC switch or the external DC voltage separator has been switched off.
- Check whether the event is due to a mains power failure, or whether the fuse between the feed meter and the inverter has tripped.

If the fuse has tripped, notify the installer. If there is a power failure, simply wait until the grid operator has corrected the fault.

If the event lasts only a short time (grid fault, overheating, overload, etc.), then the inverter will automatically resume operation as soon as the event has been resolved.

If the event persists, notify your installer or the manufacturer's customer support team.

Provide the following information:

- Device type and serial number. You will find this information on the type plate on the exterior of the housing.
- Description of fault (LED indicator and display message).

The type of event can be determined using the message on the display or Webserver **<Code> <Fault type>** and the following table.

For events that are not listed in the table, please contact the Service team.

2. Service information

For service information and in the event of parts being needed, we require your device type and the serial number. You will find this information on the type plate on the exterior of the housing.

If parts are required, use only original replacement parts.

If you have any technical questions, please call our service hotline:

- Germany and other countries (language: German, English):
+49 (0)761 477 44-222
- Switzerland:
+41 32 5800 225
- France, Belgium, Luxembourg:
+33 16138 4117
- Greece:
+30 2310 477 555
- Italy:
+39 011 97 82 420
- Poland:
+48 22 153 14 98
- Spain, Portugal (language: Spanish, English):
+34 961 824 927

3. Type of events

| Type of event | General explanation and actions |
|-----------------------------|--|
| Information | No action necessary |
| System fault | If this error is displayed, the inverter should generally be restarted. To do this, use the DC switch to switch the inverter off. Wait 5 minutes before switching it on again. If this does not help, please contact your installer or call our hotline. |
| Excess temperature | The device has got too hot. Switch the device off for approx. 20 min. If the error occurs several times/persistently, please contact the Support team. |
| External grid fault | If the error continues to be displayed after some time has passed, please contact your installer or call our hotline. |
| External generator fault | Please contact your installer |
| Fan fault | Please contact your installer |
| Energy meter fault | Please contact your installer |
| Battery malfunction | Please contact your installer or our Support team |
| Battery communication fault | Please contact your installer or our Support team |

LED statuses

Explanation of the red LED status.

| Red LED | Explanation |
|----------|---------------------|
| Flashing | A warning is active |
| Lit up | An error is active |
| Off | Information |

4. Event codes

| Event code | Red LED | Type of event | Description/possible cause | Action |
|------------|----------|--------------------------|--|---|
| 5002 | Flashing | System fault | Fused DC main relay detected | Restart the device ¹ |
| 5003 | Flashing | System fault | Fused DC main relay detected | Restart the device ¹ |
| 5005 | Flashing | System fault | Fused DC main relay detected | Restart the device ¹ |
| 5006 | Flashing | System fault | Relay or activation potentially defective | Restart the device ¹ |
| 5008 | Flashing | Excess temperature | Excess temperature, AC/DC power level | Switch off device and allow to cool off. Check installation conditions and fan ¹ |
| 5009 | Flashing | Excess temperature | Excess temperature, processor | Switch off device and allow to cool off. Check installation conditions and fan ¹ |
| 5010 | Flashing | System fault | Relay or activation potentially defective | Restart the device ¹ |
| 5011 | Flashing | System fault | Relay or activation potentially defective | Restart the device ¹ |
| 5012 | Lit up | External generator fault | Overvoltage on PV generator | Check generator installation/layout ¹ |
| 5013 | Off | Information | Power curtailment due to external specifications (grid operator) | No action necessary ¹ |
| 5014 | Off | Information | Power curtailment due to a grid fault (increased grid frequency) | No action necessary(1) |
| 5016 | Lit up | External generator fault | Overvoltage at PV generator DC(1) | Check generator installation/layout ¹ |

¹ If the error occurs several times/persistently, please contact the Support team.

| Event code | Red LED | Type of event | Description/possible cause | Action |
|------------|----------|-----------------------------|---------------------------------------|---|
| 5018 | Lit up | External generator fault | Overvoltage on PV generator DC2 | Check generator installation/layout ¹ |
| 5020 | Lit up | External generator fault | Overvoltage on PV generator DC3 | Check generator installation/layout ¹ |
| 5022 | Flashing | Excess temperature | Excess temperature, AC/DC power level | Switch off device and allow to cool off. Check installation conditions and fan ¹ |
| 5023 | Lit up | Battery malfunction | Incorrect battery type selected | Set the right battery type in the inverter. |
| 5024 | Flashing | System fault | Hardware error | Restart the device ¹ |
| 5025 | Flashing | System fault | Hardware error | Restart the device ¹ |
| 5026 | Flashing | System fault | Hardware error | Restart the device ¹ |
| 5035 | Lit up | System fault | Internal system fault | Check generator installation/layout ¹ |
| 5040 | Flashing | External generator fault | Overcurrent event on DC string (1) | Check generator installation/layout ¹ |
| 5041 | Flashing | External generator fault | Overcurrent event on DC string 2 | Check generator installation/layout((1)) |
| 5042 | Flashing | External generator fault | Overcurrent event on DC string 3 | Check generator installation/layout ¹ |
| 5043 | Lit up | External generator fault | Overcurrent event on generator | Check generator installation/layout ¹ |
| 5046 | Lit up | Battery communication fault | Internal communication error | Restart the device ¹ |
| 5049 | Lit up | Excess temperature | Excess temperature, processor | Switch off device and allow to cool off. Check installation conditions and fan ¹ |
| 5050 | Off | External grid fault | Power limitation due to a grid fault | No action necessary. ¹ |
| 5052 | Off | Information | Overcurrent on the PV generator | Check generator installation/layout ¹ |

4. Event codes

| Event code | Red LED | Type of event | Description/possible cause | Action |
|------------|---------|---------------------|--|---|
| 5055 | Lit up | External grid fault | Residual current too high | There may be a weather-related problem. Check inverter/generator installation ¹ Check generator insulation resistance. Potential PV generator error (too many PV modules). |
| 5057 | Lit up | External grid fault | Insulation resistance too low | There may be a weather-related problem. Check inverter/generator installation ¹ |
| 5059 | Off | External grid fault | Grid conditions are not within the valid range | No action necessary. If the error occurs frequently, check installation and associated grid values. |
| 5061 | Off | External grid fault | Grid conditions are not within the valid range | No action necessary. If the error occurs frequently, check installation and associated grid values. |
| 5062 | Off | External grid fault | Grid conditions are not within the valid range | No action necessary. If the error occurs frequently, check installation and associated grid values. |
| 5063 | Off | External grid fault | Grid conditions are not within the valid range | No action necessary. If the error occurs frequently, check installation and associated grid values. |
| 5064 | Off | External grid fault | Grid conditions are not within the valid range | No action necessary. If the error occurs frequently, check installation and associated grid values. |

4. Event codes

| Event code | Red LED | Type of event | Description/possible cause | Action |
|------------|----------|-----------------------------|--|---|
| 5065 | Off | External grid fault | Grid conditions are not within the valid range | No action necessary. If the error occurs frequently, check installation and associated grid values. |
| 5066 | Off | External grid fault | Grid conditions are not within the valid range | No action necessary. If the error occurs frequently, check installation and associated grid values. |
| 5067 | Lit up | External grid fault | Device error | No action necessary(1) |
| 5069 | Lit up | System fault | Device error | No action necessary. ¹ |
| 5070 | Lit up | System fault | Hardware error | Contact support |
| 5071 | Lit up | System fault | Hardware error | There may be a weather-related problem. Check inverter/generator installation ¹ |
| 5072 | Lit up | System fault | Hardware error | Contact support |
| 5073 | Lit up | System fault | Hardware error | Contact support |
| 5074 | Lit up | Excess temperature | Temperature of inverter is too high | Restart the device ¹ |
| 5075 | Lit up | External grid fault | Overcurrent, AC grid | Restart the device ¹ |
| 5077 | Off | Off | Information | Power curtailment due to external specifications (grid operator) ¹ |
| 5078 | Off | Information | Power curtailment due to external specifications (grid operator) | No action necessary ¹ |
| 5084 | Lit up | System fault | Sensor information cannot be retrieved | Restart the device ¹ |
| 5085 | Lit up | System fault | Internal system error | Restart the device ¹ |
| 5086 | Lit up | System fault | Internal system error | Restart the device ¹ |
| 5087 | Flashing | Battery communication fault | Communication cable to battery faulty | Restart the device ¹ |

4. Event codes

| Event code | Red LED | Type of event | Description/possible cause | Action |
|------------|----------|-----------------------------|--|--|
| 5088 | Flashing | Battery mal-function | Battery faulty | Restart the device ¹ |
| 5089 | Flashing | Battery mal-function | Battery faulty | Restart the device ¹ |
| 5090 | Flashing | Energy meter fault | Energy meter faulty | Restart the device ¹ |
| 5091 | Lit up | External generator fault | Negative voltage on PV generator 0 | Check generator installation/layout ¹ |
| 5092 | Lit up | External generator fault | Negative voltage on PV generator 1 | Check generator installation/layout ¹ |
| 5093 | Lit up | External generator fault | Negative voltage on PV generator 2 | Check generator installation/layout ¹ |
| 5094 | Lit up | External generator fault | Negative voltage on PV generator 3 | Check generator installation/layout ¹ |
| 5095 | Flashing | Battery mal-function | Problem with battery connection | Check battery connection. Restart the device ¹ |
| 5096 | Lit up | External grid fault | External grid fault | Restart the device ¹ |
| 5097 | Lit up | Battery communication fault | Communication cable to battery faulty | Check MODBUS communication cable between inverter and battery ¹ |
| 5098 | Lit up | System fault | Internal system error | Check generator installation/layout ¹ |
| 6004 | Flashing | Fan fault | Fan unit dirty | Check/clean fan ¹ |
| 6005 | Flashing | Fan fault | Fan unit dirty | Check/clean fan ¹ |
| 6006 | Lit up | System fault | Sensor information cannot be retrieved | Check connection to energy meter ¹ |
| 6007 | Lit up | System fault | Internal system fault | Contact support |
| 6009 | Lit up | Battery communication fault | Communication cable to battery faulty | Check communication cable to the battery ¹ |
| 6010 | Lit up | Fan fault | Fan unit defective | Check fan ¹ |
| 6011 | Lit up | Fan fault | Fan unit dirty or defective | Check/clean fan ¹ |
| 6012 | Lit up | Fan fault | Fan unit dirty or defective | Check/clean fan ¹ |
| 6013 | Lit up | Fan fault | Fan unit dirty or defective | Check/clean fan ¹ |

4. Event codes

| Event code | Red LED | Type of event | Description/possible cause | Action |
|------------|---------|---------------------------------|---|--|
| 6014 | Lit up | Energy meter fault | Parameter fault | The KOSTAL Smart Meter's firmware is not up to date. Update firmware. Contact the Support team |
| 6015 | Lit up | Battery communication fault | Communication cable to battery faulty | Check communication cable to the battery. |
| 6017 | Lit up | Fan fault | Fan unit dirty or defective. | Check/clean fan. |
| 6018 | Lit up | Battery malfunction | The battery system is sending an unknown error. | Contact the Support team. |
| 6202 | Lit up | Internal parameterisation fault | Hardware error | Contact support |
| 6203 | Lit up | Battery malfunction | Hardware error | Contact support |
| 6204 | Lit up | Battery malfunction | Hardware error | Contact support |
| 6205 | Lit up | Battery malfunction | Communication cable to battery faulty | Check communication cable to the battery ¹ |
| 6206 | Lit up | Battery malfunction | Communication cable to battery faulty | Check communication cable to the battery ¹ |
| 6207 | Lit up | Battery malfunction | Hardware error | Contact support |
| 6208 | Lit up | Battery malfunction | Hardware error | Contact support |
| 6209 | Lit up | Battery malfunction | Ambient temperature too high | Switch off device and allow to cool off. Check installation conditions ¹ |
| 6210 | Lit up | Battery malfunction | Communication cable to battery faulty | Check communication cable to the battery ¹ |
| 6211 | Lit up | Battery malfunction | Communication cable to battery faulty | Check communication cable to the battery ¹ |
| 6212 | Lit up | Battery malfunction | Hardware error | Contact support |

| Event code | Red LED | Type of event | Description/possible cause | Action |
|------------|---------|----------------------|--|---|
| 6213 | Lit up | Battery mal-function | Fuses defective or wiring error | Check/replace fuses. Check wiring ¹ |
| 6214 | Lit up | Battery mal-function | Fuses defective or wiring error | Check/replace fuses. Check wiring ¹ |
| 6215 | Lit up | Battery mal-function | Internal system error | Check device installation on AC side |
| 6250 | Lit up | Battery mal-function | Internal system error | No action necessary ¹ |
| 6251 | Lit up | Battery mal-function | Internal system error | No action necessary ¹ |
| 6252 | Lit up | Battery mal-function | Internal system error | Battery needs to be charged via generators |
| 6253 | Lit up | Battery mal-function | Internal system error | Contact support |
| 6254 | Lit up | Battery mal-function | Ambient temperature too high | Reduce ambient temperature. Check installation conditions |
| 6255 | Lit up | Battery mal-function | Ambient temperature too high or problem with temperature measurement | Contact support |
| 6256 | Lit up | Battery mal-function | Ambient temperature too high | Reduce ambient temperature. Check installation conditions |
| 6257 | Lit up | Battery mal-function | Ambient temperature too low or problem with temperature measurement | Contact support |
| 6258 | Lit up | Battery mal-function | Internal system error | No action necessary ¹ |
| 6259 | Lit up | Battery mal-function | Hardware error | Contact support |
| 6260 | Lit up | Battery mal-function | Internal system error | No action necessary ¹ |
| 6261 | Lit up | Battery mal-function | Hardware error | Contact support |
| 6262 | Lit up | Battery mal-function | Incorrect number of modules set | Correct the number of modules |

| Event code | Red LED | Type of event | Description/possible cause | Action |
|------------|---------|----------------------|---|--|
| 6263 | Lit up | Battery mal-function | Hardware error | Contact support |
| 6264 | Lit up | Battery mal-function | Hardware error | Contact support |
| 6265 | Lit up | Battery mal-function | Interruption on communication cables or incorrect number of modules set | Check communication cables, correct the number of modules ¹ |
| 6266 | Off | Information | Internal system error | No action necessary ¹ |
| 6267 | Off | Information | Internal system error | No action necessary ¹ |
| 6268 | Lit up | Battery mal-function | Hardware error | Contact support |
| 6300 | Lit up | Battery mal-function | Charging was prevented too late. | Wait for discharging, increase home consumption. |
| 6301 | Lit up | Battery mal-function | Charging was prevented too late. | Wait for discharging, increase home consumption. |
| 6302 | Lit up | Battery mal-function | Discharging was prevented too late or the system went into deep discharge via self-consumption. | Battery needs to be charged via generators. |
| 6303 | Lit up | Battery mal-function | Discharging was prevented too late or the system went into deep discharge via self-consumption. | Contact the Support team |
| 6304 | Lit up | Battery mal-function | Ambient temperature too high or problem with temperature measurement. | Reduce ambient temperature. Check installation conditions. |
| 6305 | Lit up | Battery mal-function | Ambient temperature too high or problem with temperature measurement. | Contact the Support team. |
| 6306 | Lit up | Battery mal-function | Ambient temperature too high or problem with temperature measurement. | Check ambient temperature. |

| Event code | Red LED | Type of event | Description/possible cause | Action |
|------------|---------|----------------------|--|--|
| 6307 | Lit up | Battery mal-function | Ambient temperature too high or problem with temperature measurement. | Contact the Support team. |
| 6308 | Lit up | Battery mal-function | Incorrect current measurement. | No action necessary. |
| 6309 | Lit up | Battery mal-function | Inverter defective or BMU current measurement defective. | Contact the Support team. |
| 6310 | Lit up | Battery mal-function | Incorrect current measurement. | No action necessary. |
| 6311 | Lit up | Battery mal-function | Inverter defective or BMU current measurement defective. | Contact the Support team. |
| 6312 | Lit up | Battery mal-function | Incorrect number of modules set. | Correct the number of modules. Completely disconnect system (AC/DC) and restart. |
| 6313 | Lit up | Battery mal-function | Short circuit on DC cables or relay error in the BMU. | Completely disconnect system (AC/DC) and restart. |
| 6314 | Lit up | Battery mal-function | Old and new battery modules have been used together or cell defect. | Contact the Support team. |
| 6315 | Lit up | Battery mal-function | Interruption on communication cables or incorrect number of modules set. | No action necessary. |
| 6316 | Off | Battery mal-function | Software renewed. | No action necessary. |
| 6317 | Off | Battery mal-function | Restart launched. | No action necessary. |
| 6318 | Lit up | Battery mal-function | Charging relay defective or communication error or very low or very high cell voltage. | Contact the Support team. |
| 6319 | Lit up | Battery mal-function | Fused relay contacts. | Contact the Support team. |

4. Event codes

| Event code | Red LED | Type of event | Description/possible cause | Action |
|------------|---------|----------------------|--------------------------------------|---------------------------|
| 6320 | Lit up | Battery mal-function | Defective cabling or hardware defect | Contact the Support team. |

1) If the error occurs several times/persistently, please contact the Support team.

