

SmartLogger3000

Alarm Reference

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Huawei Technologies Co., Ltd.

Address: Huawei Industrial Base
Bantian, Longgang
Shenzhen 518129
People's Republic of China

Website: <https://e.huawei.com>

About This Document

Purpose

This document describes how to handle all alarms of SmartLogger3000.






Intended Audience

The document is intended for:

- Technical support engineers
- Commissioning engineers
- Maintenance engineers

Symbol Conventions

The symbols that may be found in this manual are defined as follows.

Symbol	Description
	Indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.
	Indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.
	Indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.
	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance deterioration, or unanticipated results. NOTICE is used to address practices not related to personal injury.
	Supplements the important information in the main text. NOTE is used to address information not related to personal injury, equipment damage, and environment deterioration.

Change History

Changes between document issues are cumulative. The latest document issue contains all the changes made in earlier issues.

Issue 01 (2023-09-15)

This issue is the first official release.

Contents

About This Document.....	ii
1 Description of Alarm Reference Items.....	1
2 1100 Active Power Scheduling Instruction Exception.....	2
3 1101 Reactive Power Scheduling Instruction Exception.....	4
4 1103 MCB Disconnect.....	6
5 1104 Abnormal Cubicle.....	7
6 1105 Device Address Conflict.....	8
7 1106 AC SPD fault.....	9
8 1107 DI1 custom alarm.....	10
9 1108 DI2 custom alarm.....	11
10 1109 DI3 custom alarm.....	12
11 1110 DI4 custom alarm.....	13
12 1111 DI5 custom alarm.....	14
13 1112 DI6 custom alarm.....	15
14 1113 DI7 custom alarm.....	16
15 1114 DI8 custom alarm.....	17
16 1115 24V power failure.....	18
17 1116 Web Certificate Invalid.....	19
18 1117 Certificate to expire.....	20
19 1118 Web Certificate Expired.....	21
20 1119 License Expired.....	22
21 1120 Management system certificate invalid.....	23
22 1121 Management system certificate to expire.....	24
23 1122 Management system certificate expired.....	25

24	1123 Remote output control certificate invalid.....	26
25	1124 Remote output control certificate to expire.....	27
26	1125 Remote output control certificate expired.....	28
27	1126 Poverty alleviation monitoring center certificate invalid.....	29
28	1127 Poverty alleviation monitoring center certificate to expire.....	30
29	1128 Poverty alleviation monitoring center certificate expired.....	31
30	1129 SmartLogger Certificate Invalid.....	32
31	1130 SmartLogger Certificate About to Expire.....	33
32	1131 SmartLogger Certificate Expired.....	34
33	1132 Smart Battery ESC DC Bus Not Completely Connected.....	35
34	1133 Sds bracket uncontroled.....	36
35	1134 Smart Battery PCS DC Bus Not Completely Connected.....	37
36	1135 The SDS license capacity is insufficient.....	38
37	1136 Communication Failure.....	39
38	1140 Array Black Start Failed.....	40
39	1143 The system-to-ground insulation capability of the system has decreased	42
40	1251 SmartModule SmartLogger Certificate Invalid.....	43
41	1252 SmartModule Certificate About to Expire.....	44
42	1253 SmartModule Certificate Expired.....	45
A	Acronyms and Abbreviations.....	46

1 Description of Alarm Reference Items

Item	Description
Alarm ID	Indicates the ID of an alarm. Unique identifier of an alarm in one product.
Alarm Name	Indicates the name of an alarm. In the same product, alarm names and alarm IDs correspond to each other, which clearly and accurately reflect the meaning of alarms.
Alarm Severity	Alarm severities are defined as follows: <ul style="list-style-type: none">• Major: The device is faulty or the external environment is abnormal. As a result, the output power decreases or the device stops feeding to the grid.• Minor: Some components of the device are faulty but the device can still connect to the grid and generate power.• Warning: The device functions normally, but its output power decreases or some authorization functions fail due to external factors.
Possible Cause	Indicates the possible cause of the alarm, including the cause ID and cause description.
Suggestion	Indicates the procedure for handling the alarm.

2 1100 Active Power Scheduling Instruction Exception

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1100	Active Power Scheduling Instruction Exception	Major

Possible Cause

Cause ID	Possible Cause
4	In DI active scheduling mode for active power control, instruction combinations not configured are read from the four DI ports.
5	In the remote active power scheduling mode, the SmartLogger cannot receive the active power scheduling command, or the received active power scheduling command is abnormal.

Suggestion

Cause ID=4:

1. Check that cables are connected correctly to the DI ports.
2. Enter the configuration page of the DI active scheduling mode for active power control, and view the current DI signal configuration mapping table. Contact the power grid company and verify that the combination configurations in the table are complete and meet the requirements of the company.

Cause ID=5:

1. Check whether the communication network between the SmartLogger and the plant scheduling control system is normal.
2. Check whether the active power scheduling commands received by the SmartLogger from the plant scheduling control system are correct, such as the command format and protocol type.
3. When "Active power control mode" is set to "Remote dispatch" and the "Shut down array upon communication timeout" function is not needed, you are advised to disable the function.

3 1101 Reactive Power Scheduling Instruction Exception

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1101	Reactive Power Scheduling Instruction Exception	Major

Possible Cause

Cause ID	Possible Cause
4	In DI reactive scheduling mode for reactive power control, instruction combinations not configured are read from the four DI ports.
5	In the remote reactive power scheduling mode, the SmartLogger cannot receive the reactive power scheduling command, or the received reactive power scheduling command is abnormal.

Suggestion

Cause ID=4:

1. Check that cables are connected correctly to the DI ports.
2. Enter the configuration page of the DI reactive scheduling mode for reactive power control, and view the current DI signal configuration mapping table. Contact the power grid company and verify that the combination

configurations in the table are complete and meet the requirements of the company.

Cause ID=5:

1. Check whether the communication network between the SmartLogger and the plant scheduling control system is normal.
2. Check whether the reactive power scheduling commands received by the SmartLogger from the plant scheduling control system are correct, such as the command format and protocol type.
3. When "Reactive power control mode" is set to "Remote dispatch" and the "Shut down array upon reactive power signal timeout" function is not needed, you are advised to disable the function.

4 1103 MCB Disconnect

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1103	MCB Disconnect	Major

Possible Cause

Cause ID	Possible Cause
1	The general AC circuit breaker at the grid-tied point is OFF

Suggestion

Check whether the disconnection of the circuit breaker is a normal operation. Otherwise, contact the service engineer to restore the connection.

5 1104 Abnormal Cubicle

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1104	Abnormal Cubicle	Major

Possible Cause

Cause ID	Possible Cause
1	The Cubicle device has detected an exception at the grid-tied point.

Suggestion

Check whether the auxiliary contact of the Cubicle device is disconnected. If yes, restart the inverter.

6 1105 Device Address Conflict

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1105	Device Address Conflict	Major

Possible Cause

Cause ID	Possible Cause
1	The communication address of the the current device conflicts with that of the device to be connected.

Suggestion

Change the local address or the address of the device to be connected.

7 1106 AC SPD fault

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1106	AC SPD fault	Major

Possible Cause

Cause ID	Possible Cause
1	Communication box SPD fault.

Suggestion

Replace the AC SPD.

8 1107 DI1 custom alarm

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1107	DI1 custom alarm	Major

Possible Cause

Cause ID	Possible Cause
1	The dry contact signal from the peripheral to the corresponding DI port on the SmartLogger is abnormal.

Suggestion

Check that the customer's device that connects to the DI port is in good condition.

9 1108 DI2 custom alarm

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1108	DI2 custom alarm	Major

Possible Cause

Cause ID	Possible Cause
1	The dry contact signal from the peripheral to the corresponding DI port on the SmartLogger is abnormal.

Suggestion

Check that the customer's device that connects to the DI port is in good condition.

10 1109 DI3 custom alarm

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1109	DI3 custom alarm	Major

Possible Cause

Cause ID	Possible Cause
1	The dry contact signal from the peripheral to the corresponding DI port on the SmartLogger is abnormal.

Suggestion

Check that the customer's device that connects to the DI port is in good condition.

11 1110 DI4 custom alarm

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1110	DI4 custom alarm	Major

Possible Cause

Cause ID	Possible Cause
1	The dry contact signal from the peripheral to the corresponding DI port on the SmartLogger is abnormal.

Suggestion

Check that the customer's device that connects to the DI port is in good condition.

12 1111 DI5 custom alarm

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1111	DI5 custom alarm	Major

Possible Cause

Cause ID	Possible Cause
1	The dry contact signal from the peripheral to the corresponding DI port on the SmartLogger is abnormal.

Suggestion

Check that the customer's device that connects to the DI port is in good condition.

13 1112 DI6 custom alarm

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1112	DI6 custom alarm	Major

Possible Cause

Cause ID	Possible Cause
1	The dry contact signal from the peripheral to the corresponding DI port on the SmartLogger is abnormal.

Suggestion

Check that the customer's device that connects to the DI port is in good condition.

14 1113 DI7 custom alarm

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1113	DI7 custom alarm	Major

Possible Cause

Cause ID	Possible Cause
1	The dry contact signal from the peripheral to the corresponding DI port on the SmartLogger is abnormal.

Suggestion

Check that the customer's device that connects to the DI port is in good condition.

15 1114 DI8 custom alarm

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1114	DI8 custom alarm	Major

Possible Cause

Cause ID	Possible Cause
1	The dry contact signal from the peripheral to the corresponding DI port on the SmartLogger is abnormal.

Suggestion

Check that the customer's device that connects to the DI port is in good condition.

16 1115 24V power failure

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1115	24V power failure	Major

Possible Cause

Cause ID	Possible Cause
1	The 24V power supply in the communications cabinet is faulty.

Suggestion

1. Check whether the cable to the 24 V power supply in the smart array controller is loose, disconnected, or reversely connected. If so, reconnect the cable securely.
2. Check whether the 24 V power supply in the smart array controller is faulty. If so, replace the power supply.

17 1116 Web Certificate Invalid

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1116	Web Certificate Invalid	Warning

Possible Cause

Cause ID	Possible Cause
1	Web server digital signature certificate does not take effect.

Suggestion

Please confirm the time or replace the digital signature certificate.

18 1117 Certificate to expire

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1117	Certificate to expire	Warning

Possible Cause

Cause ID	Possible Cause
1	Web server digital signature certificate is about to expire.

Suggestion

Please replace the digital signature certificate in time.

19 1118 Web Certificate Expired

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1118	Web Certificate Expired	Major

Possible Cause

Cause ID	Possible Cause
1	Web server digital signature certificate has expired.

Suggestion

Please replace the digital signature certificate immediately.

20 1119 License Expired

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1119	License Expired	Warning

Possible Cause

Cause ID	Possible Cause
1	<ol style="list-style-type: none">1. The authorization certificate has entered the grace period.2. The authorization feature is about to expire.

Suggestion

1. Apply for a new certificate.
2. Load the new certificate.

21 1120 Management system certificate invalid

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1120	Management system certificate invalid	Warning

Possible Cause

Cause ID	Possible Cause
1	Management system digital signature certificate does not take effect.
2	The digital signature certificate of Management System-1 has not taken effect.

Suggestion

Please confirm the time or replace the digital signature certificate.

22 1121 Management system certificate to expire

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1121	Management system certificate to expire	Warning

Possible Cause

Cause ID	Possible Cause
1	Management system digital signature certificate is about to expire.
2	The digital signature certificate of Management System-1 is about to expire.

Suggestion

Please replace the digital signature certificate in time.

23 1122 Management system certificate expired

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1122	Management system certificate expired	Major

Possible Cause

Cause ID	Possible Cause
1	Management system digital signature certificate has expired.
2	The digital signature certificate of Management System-1 has expired.

Suggestion

Please replace the digital signature certificate immediately.

24 1123 Remote output control certificate invalid

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1123	Remote output control certificate invalid	Warning

Possible Cause

Cause ID	Possible Cause
1	Remote control digital signature certificate does not take effect

Suggestion

Please confirm the time or replace the digital signature certificate.

25 1124 Remote output control certificate to expire

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1124	Remote output control certificate to expire	Warning

Possible Cause

Cause ID	Possible Cause
1	Remote output control digital signature certificate is about to expire.

Suggestion

Please replace the digital signature certificate in time.

26 1125 Remote output control certificate expired

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1125	Remote output control certificate expired	Major

Possible Cause

Cause ID	Possible Cause
1	Remote output control digital signature certificate has expired.

Suggestion

Please replace the digital signature certificate immediately.

27 1126 Poverty alleviation monitoring center certificate invalid

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1126	Poverty alleviation monitoring center certificate invalid	Warning

Possible Cause

Cause ID	Possible Cause
1	The ESGCC digital signature certificate has not taken effect.

Suggestion

Please confirm the time or replace the digital signature certificate.

28 1127 Poverty alleviation monitoring center certificate to expire

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1127	Poverty alleviation monitoring center certificate to expire	Warning

Possible Cause

Cause ID	Possible Cause
1	The ESGCC digital signature certificate is about to expire.

Suggestion

Please replace the digital signature certificate in time.

29 1128 Poverty alleviation monitoring center certificate expired

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1128	Poverty alleviation monitoring center certificate expired	Major

Possible Cause

Cause ID	Possible Cause
1	The ESGCC digital signature certificate has expired.

Suggestion

Please replace the digital signature certificate immediately.

30 1129 SmartLogger Certificate Invalid

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1129	SmartLogger Certificate Invalid	Warning

Possible Cause

Cause ID	Possible Cause
1	SmartLogger digital signature certificate does not take effect.

Suggestion

Please confirm the time or replace the digital signature certificate.

31 1130 SmartLogger Certificate About to Expire

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1130	SmartLogger Certificate About to Expire	Warning

Possible Cause

Cause ID	Possible Cause
1	SmartLogger digital signature certificate is about to expire.

Suggestion

Please replace the digital signature certificate in time.

32 1131 SmartLogger Certificate Expired

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1131	SmartLogger Certificate Expired	Major

Possible Cause

Cause ID	Possible Cause
1	SmartLogger digital signature certificate has expired.

Suggestion

Please replace the digital signature certificate immediately.

33 1132 Smart Battery ESC DC Bus Not Completely Connected

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1132	Smart Battery ESC DC Bus Not Completely Connected	Major

Possible Cause

Cause ID	Possible Cause
1	存在直流母线未完全连接的智能电池簇控制器。 There exists a Smart Battery ESC that is not completely connected to the DC bus.

Suggestion

1. Referring to the cable connection check topology view, locate the Smart Battery ESC that has the cabling problem.
2. Turn off the battery input switch, the DC and AC switches in the LV panel. Wait for 5 minutes. Verify that no electricity is present using a multimeter before checking the DC bus cable connection of the battery.

34 1133 Sds bracket uncontrolled

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1133	SDS bracket uncontrolled	Major

Possible Cause

Cause ID	Possible Cause
1	One or more trackers in the array are not controlled by the smart tracking algorithm.

Suggestion

1. Whether the communication link between the SmartLogger and the TCU is normal.
2. Whether the tracker settings are correct.
3. Whether the TCU is running normally.
4. If the preceding items are normal, contact the vendor.

35 1134 Smart Battery PCS DC Bus Not Completely Connected

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1134	Smart Battery PCS DC Bus Not Completely Connected	Major

Possible Cause

Cause ID	Possible Cause
1	The DC bus is not fully connected on some Smart PCSs.

Suggestion

1. Referring to the cable connection check topology view, locate the Smart Battery PCS that has the cabling problem.
2. Turn off the battery input switch, the DC and AC switches in the LV panel. Wait for 5 minutes. Verify that no electricity is present using a multimeter before checking the DC bus cable connection of the battery.

36 1135 The SDS license capacity is insufficient

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1135	The SDS license capacity is insufficient.	Major

Possible Cause

Cause ID	Possible Cause
1	The license capacity of the smart tracker is insufficient.

Suggestion

Contact your dealer to apply for a license file and reload the license file. Ensure that the license capacity of the intelligent tracing algorithm is greater than or equal to the actual rated power of the subarray.

37 1136 Communication Failure

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1136	Communication Failure	Major

Possible Cause

Cause ID	Possible Cause
1	Communication Failure.

Suggestion

Cancel cable connection detection and turn off the DC and AC switches in the LV panel. Wait for 5 minutes. Verify that no electricity is present using a multimeter before checking the FE communication cable connection.

38 1140 Array Black Start Failed

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1140	Array Black Start Failed	Minor

Possible Cause

Cause ID	Possible Cause
1	The black start command is not delivered in the correct time sequence.
2	The array running status does not meet the condition for a black start.
3	No available ESS.
4	The ESS does not support black start.
5	The PCS does not support black start.
6	The black start of the ESS failed.
7	No available PCS.
8	The black start of the PCS failed.

Suggestion

Cause ID=1:

The black start instruction sequence is not supported. Contact the microgrid controller vendor to correct the sequence.

Cause ID=2:

The current running status of the array does not meet the conditions for a black start. Before black start, the array must be shut down. Issue an array shutdown command on the management system.

Cause ID=3:

1. Check the auxiliary power supply to the CMU in the ESS.
2. Check whether the communication is normal between the ESS and the SmartLogger.

Cause ID=4:

Check whether the models and software versions of all ESSs in the array support black start. If any software version does not meet requirements, upgrade it.

Cause ID=5:

Check whether the models and software versions of all PCSs in the array support black start. If any software version does not meet requirements, upgrade it.

Cause ID=6:

1. Check whether the communication is normal between the ESS and the SmartLogger.
2. View the ESS alarms of the array, determine the failure cause, and rectify the fault according to the corresponding troubleshooting suggestions.

Cause ID=7:

1. Check whether the DC cable connection of the PCS is normal.
2. Check whether the connection box switch on the DC side of the PCS is turned on.
3. Check whether the communication is normal between the PCS and the SmartLogger.

Cause ID=8:

Check the PCS alarms and handle them according to the troubleshooting suggestions.

39 1143 The system-to-ground insulation capability of the system has decreased

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1143	The system-to-ground insulation capability of the system has decreased.	Major

Possible Cause

Cause ID	Possible Cause
1	The system-to-ground insulation capability of the system has decreased.

Suggestion

1. Check the display of the IMD and determine the insulation resistance of the ESS based on the IMD user manual.
2. Turn off the switch on the AC side, test the insulation resistance on the AC and DC sides, and locate the cause of abnormal insulation resistance.

40 1251 SmartModule SmartLogger Certificate Invalid

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1251	SmartModule SmartLogger Certificate Invalid	Warning

Possible Cause

Cause ID	Possible Cause
1	The SmartModule digital signature certificate has not taken effect.

Suggestion

Check the time or replace the digital signature certificate.

41 1252 SmartModule Certificate About to Expire

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1252	SmartModule Certificate About to Expire	Warning

Possible Cause

Cause ID	Possible Cause
1	The SmartModule digital signature certificate is about to expire.

Suggestion

Replace the digital signature certificate in time.

42 1253 SmartModule Certificate Expired

Alarm Attribute

Alarm ID	Alarm Name	Alarm Severity
1253	SmartModule Certificate Expired	Major

Possible Cause

Cause ID	Possible Cause
1	The SmartModule digital signature certificate has expired.

Suggestion

Replace the digital signature certificate immediately.

A Acronyms and Abbreviations

I

IMD Insulation Monitor Device

P

PCS Smart PCS

S

SDS Smart DC System

SPPC Smart Power Plant
Controller

T

TCU Temperature Control Unit