



SAT-3 Display Fault Codes

10 November 2015

Notes

When a fault code has two or more numbers the SAT-3 shows each number twice and repeats. For example: Code "A1 A2" is shown on the SAT-3 display as A1 A1 A2 A2 ... continuously repeating.

Note also that numbers must be read from lowest to highest. For example A1 A2 and A2 A1 are the same fault code.

At the time of writing:

- On a system with the SAT-3 thermostat, the TZ zone controller and UC8 controller the SAT-3 display is able to show SAT-3 internal fault codes and zone controller fault codes but not any UC8 fault codes.
- The UC6 does not yet support connection to the SAT-3.

SAT-3 internal fault codes

| Description | SAT-3 display code | Notes |
|---|--------------------|-------|
| Internal temperature sensor error | t1 | |
| External temperature sensor error | t2 | |
| Comms lost between SAT-3 and zone controller or UC8 | t3 | |

SAT-3 & Zone controller fault codes

| Description | SAT-3 display code | Notes |
|--|--------------------|-------------------------------------|
| Damper calibration not completed | A1 | |
| Damper calibration failed | A2 | |
| Comms lost between zone controller and UC8 | A3 | |
| | A1 A2 | Combinations of above three faults. |
| | A1 A3 | |
| | A2 A3 | |
| | A1 A2 A3 | |

SAT-3 & UC8 fault codes

Valid for UC8 software version 2.0.5.

| Description | UC8 fault number | UC8 display code | SAT-3 display code | Notes |
|-------------|------------------|------------------|--------------------|-----------------------------------|
| No faults | | . | | |
| Lock out | | | A4 | UC8 display shows lock-out cause. |
| HP trip | 0 | HP | A1 A4 | |
| LP trip | 1 | LP | A1 A5 | |

Continued on the next page.

| Description | UC8 fault number | UC8 display code | SAT-3 display code | Notes |
|------------------------------|------------------|------------------|--------------------|--------------------------|
| Overload | 2 | OL | A3 A6 | |
| Indoor coil frost protection | 3 | Frost | A1 A6 | |
| Water freeze protection | 4 | Lo-t | A5 A6 | HWPs and chillers only. |
| Discharge line high temp | 5 | Hi-t | A1 A7 | |
| Suction line high temp | 6 | Hi-SL | A1 A8 | |
| Flooded condensate sump | 7 | Flood | A5 A7 | HWPs only. |
| No circulating water flow | 8 | No-Flo | A5 A8 | HWPs and chillers only. |
| Low discharge superheat | 9 | Lo-DSH | A3 A4 | |
| Outdoor fan fault | 10 | F10 | A3 A7 | |
| Indoor fan fault | 11 | F11 | | |
| Low pressure transducer | 12 | F12 | A3 A8 | |
| High pressure transducer | 13 | F13 | | |
| Suction line temp sensor | 14 | F14 | | |
| Discharge line temp sensor | 15 | F15 | | |
| De-ice ambient sensor | 16 | F16 | | |
| Outdoor temp sensor | 17 | F17 | | |
| Indoor coil temp sensor | 18 | F18 | | |
| Outdoor ambient sensor | 19 | F19 | | |
| Superheat unknown | 20 | F20 | A1 A2 A8 | |
| Comms lost, thermostat | 21 | F21 | A1 A2 A4 | Code cannot be shown. |
| Comms lost, BMS | 22 | F22 | A2 A4 | |
| Comms lost, system 2 | 23 | F23 | A2 A5 | |
| Comms lost, system 3 | 24 | F24 | A2 A6 | |
| Comms lost, system 4 | 25 | F25 | A2 A7 | |
| Cannot read DIP switches | 26 | F26 | A1 A2 A6 | |
| Illegal fan selection | 27 | F27 | | |
| Illegal mode | 28 | F28 | | Fault is not used. |
| High board temperature | 29 | F29 | | |
| Supply voltage brown-out | 30 | F30 | | |
| Slave reports a fault | 31 | F31 | A2 A3 A4 | |
| UC8 internal problem | 32 | F32 | A1 A2 A6 | Same code as F26...F30. |
| High discharge superheat | 33 | Hi-DSH | A3 A5 | |
| Pressures not equalising | 34 | F34 | A4 A8 | |
| Reverse cycle valve fault | 35 | F35 | A2 A3 | |
| TZT-100 DIP switch setting | 36 | F36 | A1 A2 | Applies to TZT-100 only. |
| Comms lost, IUC | 37 | F37 | A2 A8 | |
| IUC reports a fault | 38 | F38 | A7 A8 | |
| Inverter reports a fault | 39 | F39 | A6 A7 | |
| Compression ratio too high | 40 | F40 | A4 A5 | |
| Compression ratio too low | 41 | F41 | A4 A6 | |
| Evaporating temp too high | 42 | F42 | A4 A7 | |
| Condensing temp too low | 43 | F43 | A4 A8 | |
| All other UC8 faults | 44-47 | | A1 A2 A5 | Should never be seen. |