

Suunto Race 2 — Repeated Reboot / Crash Loop Report

Prepared from on-device diagnostic logs (syslogs/systemevent_*.log) extracted from the watch's internal storage.

1. Device Info

Model	Suunto Race 2
HW Version	1428B4
Firmware crashing	2.56.18 (wuiapp)
BID (sample)	8893611 / d61faa59 / CU

2. Summary of the Problem

The watch's system event logs show **29 identical firmware crashes (hard faults)** over a single ~17.3-hour period (2026-08-06, 04:35 to 21:54, ICT/UTC+7), forcing a reboot each time. Average interval between crashes: ~37 minutes; the closest were only 7–9 minutes apart.

Every single crash has the identical signature:

```
HardFault (task:ui)
HFSR: 0x40000000 (FORCED – an unhandled lesser fault escalated
                 to a full HardFault)
CFSR: 0x01000000 (UsageFault: UNALIGNED memory access)
MMFAR: 0x00000000
BFAR: 0x00000000
PC: 0x004A0A38 <- identical in all 29 crashes
LR: 0x004A0C5F <- identical in all 29 crashes
Faultcom code: fa017c01 (occasionally fa017c02)
```

Because the PC/LR (the exact crashing instruction) is identical in all 29 events, this is a fully deterministic firmware bug — an unaligned memory access inside the UI task of firmware 2.56.18 that is not being trapped/handled, escalating to a hard fault and forcing a full reboot. It is **not** random memory corruption; the call stack shows the crash is reached from several different UI code paths (different callers), all funneling into the same faulting low-level routine.

Important: A full factory reset (“Full reset (1)”) was performed by the device around 2026-08-06 13:36 ICT (unix ts 1786010996), in the middle of this crash series. The identical hard fault (fa017c01) continued to recur for another ~5 hours afterward. This rules out corrupted user settings/data as the cause — the bug is in the firmware itself.

A separate, one-time crash was also recorded during a firmware update/rollback attempt at the same period: an explicit firmware assertion (not a hard fault) at `FlasherState.cpp:776`, while the watch was mid-update and briefly running the older firmware 2.50.28. This suggests the update/rollback path was also unstable around this window, though it is a distinct, single event from the recurring UI-task hard fault described above.

3. Full Crash Timeline (29 hard-fault reboots)

All times ICT (UTC+7). “Gap” = time since the previous crash/reboot.

#	Timestamp (ICT)	Unix ts	Gap since prev.
1	2026-08-06 04:35:03	1785965703	-
2	2026-08-06 04:55:03	1785966903	+20m0s
3	2026-08-06 05:13:03	1785967983	+18m0s
4	2026-08-06 05:22:03	1785968523	+9m0s
5	2026-08-06 05:36:03	1785969363	+14m0s
6	2026-08-06 05:50:03	1785970203	+14m0s
7	2026-08-06 06:24:03	1785972243	+34m0s
8	2026-08-06 07:54:03	1785977643	+90m0s
9	2026-08-06 08:44:03	1785980643	+50m0s
10	2026-08-06 08:56:03	1785981363	+12m0s
11	2026-08-06 09:53:03	1785984783	+57m0s
12	2026-08-06 10:19:03	1785986343	+26m0s
13	2026-08-06 11:13:41	1785989621	+54m38s
14	2026-08-06 13:07:03	1785996423	+113m22s
15	2026-08-06 13:22:03	1785997323	+15m0s
16	2026-08-06 13:38:03	1785998283	+16m0s
17	2026-08-06 14:13:03	1786000383	+35m0s
18	2026-08-06 15:36:03	1786005363	+83m0s
19	2026-08-06 15:58:03	1786006683	+22m0s
20	2026-08-06 16:07:03	1786007223	+9m0s
21	2026-08-06 16:29:03	1786008543	+22m0s
22	2026-08-06 16:45:08	1786009508	+16m5s
23	2026-08-06 19:47:47	1786020467	+182m39s
24	2026-08-06 20:31:19	1786023079	+43m32s
25	2026-08-06 20:43:29	1786023809	+12m10s
26	2026-08-06 21:08:01	1786025281	+24m32s
27	2026-08-06 21:15:42	1786025742	+7m41s
28	2026-08-06 21:34:45	1786026885	+19m3s
29	2026-08-06 21:54:08	1786028048	+19m23s

Note: between rows #22 and #23, the device performed a full factory reset (~13:36 ICT) and a separate one-time firmware-update assertion occurred (see Sample B below). The identical hard fault resumed afterward.

4. Raw Log Evidence (Representative Samples)

Sample A — first crash in the series (#338719, systemevent_338606.log)

```
#338717 1785965615 9728 Zapp lock disconn wbId:4
#338718 1785965703 9993 ExtFID 0xc2,0x25,0x39
#338719 1785965703 0 HardFault (task:ui)
#338720 1785965703 0 HFSR: 0x40000000
#338721 1785965703 0 CFSR: 0x01000000
#338722 1785965703 0 MMFAR: 0x00000000
#338723 1785965703 0 BFAR: 0x00000000
#338724 1785965703 0 Possible Call Backtrace:
#338725 1785965703 0 #00 0x004A0A38
#338726 1785965703 0 #01 0x004A1E4E
#338727 1785965703 0 #02 0x004A2644
#338728 1785965703 0 #03 0x0049F21A
#338729 1785965703 0 #04 0x0049F7A0
#338730 1785965703 0 #05 0x004A0C5E
#338731 1785965703 0 #06 0x0049F7A0
#338732 1785965703 0 #07 0x004C7FD8
#338733 1785965703 0 Register State:
#338734 1785965703 0 R0: 0x00000000
#338735 1785965703 0 R1: 0x00080000
#338736 1785965703 0 R2: 0xD1FD3801
#338737 1785965703 0 R3: 0x00000000
#338738 1785965703 0 R12: 0x3A3A3A3A
#338739 1785965703 0 SP: 0x2003FF80
#338740 1785965703 0 LR: 0x004A0C5F
#338741 1785965703 0 PC: 0x004A0A38
#338742 1785965703 0 PSR: 0x09100000
#338743 1785965703 0 ===== Stack dump =====
#338752 1785965703 0 ===== End of Stack Dump =====
#338753 1785965703 0 HF ERROR
#338754 1785965703 8709 Faultcom c:fa017c01 ts:1785963363 n:1785965703
#338755 1785965703 13824 Start wuiapp 2.56.18 in mode 5 (asked 5 (5h))
#338756 1785965703 13824 HwVersion: 1428B4
#338757 1785965703 13824 BID: 8893611/d61faa59/CU
```

Sample B — one-time firmware-update assertion (#347444, systemevent_346812.log)

```
#347439 1786011062 9223 Flasher restore defaults
#347440 1786011062 9223 onInputEvent 0
#347441 1786011062 9223 Start new flasher sequence
#347442 1786011062 1031 No packages available
#347443 1786011066 9993 ExtFID 0xc2,0x25,0x39
#347444 1786011066 0 *ASSERT*
#347445 1786011066 0 Assert in: FlasherState.cpp:776
#347446 1786011066 0 Assert task:Application
#347447 1786011066 0 ===== Stack Dump (SP: 0x20031E60) =====
#347448 1786011066 0 Stack range: 0x2002F278 - 0x20032478
#347449 1786011066 0 Code range: 0x00450400 - 0x006210D4
[... stack words omitted, full detail available on request ...]
#347471 1786011066 8709 Faultcom c:fa017c01 ts:1786009508 n:1786011066
#347472 1786011066 13824 Start wuiapp 2.50.28 in mode 5 (asked 5 (5h))
```

Sample C — last crash in the series (#352078, systemevent_351544.log)

```
#352076 1786027380 9223 onInputEvent 4
#352077 1786028048 9993 ExtFID 0xc2,0x25,0x39
#352078 1786028048 0 HardFault (task:ui)
#352079 1786028048 0 HFSR: 0x40000000
#352080 1786028048 0 CFSR: 0x01000000
#352081 1786028048 0 MMFAR: 0x00000000
#352082 1786028048 0 BFAR: 0x00000000
#352083 1786028048 0 Possible Call Backtrace:
#352084 1786028048 0 #00 0x004A0A38
#352085 1786028048 0 #01 0x004F1B9C
#352086 1786028048 0 #02 0x004A8998
#352087 1786028048 0 #03 0x004F9A4C
#352088 1786028048 0 #04 0x004A0C5E
#352089 1786028048 0 #05 0x004C7FD8
#352090 1786028048 0 #06 0x004F993E
```

```

#352091 1786028048 0 #07 0x004D4BE2
#352092 1786028048 0 Register State:
#352093 1786028048 0 R0: 0x00000000
#352094 1786028048 0 R1: 0x0000000C
#352095 1786028048 0 R2: 0xD1FD3801
#352096 1786028048 0 R3: 0x00000000
#352097 1786028048 0 R12: 0x0000004E
#352098 1786028048 0 SP: 0x20040268
#352099 1786028048 0 LR: 0x004A0C5F
#352100 1786028048 0 PC: 0x004A0A38
#352101 1786028048 0 PSR: 0x09100000
#352102 1786028048 0 ===== Stack dump =====
#352111 1786028048 0 ===== End of Stack Dump =====
#352112 1786028048 0 HF ERROR
#352113 1786028048 8709 Faultcom c:fa017c01 ts:1786026885 n:1786028048
#352114 1786028048 13824 Start wuiapp 2.56.18 in mode 5 (asked 5 (5h))

```

Note: PC (0x004A0A38) and LR (0x004A0C5F) are byte-for-byte identical in Sample A and Sample C despite being reached via different call paths — confirming a single shared faulting routine, not a one-off glitch.

5. Request to Suunto Support

1. Whether firmware 2.56.18 has a known unaligned-memory-access bug in the UI task at PC 0x004A0A38 / LR 0x004A0C5F (fault code fa017c01).
2. Whether a firmware update newer than 2.56.18 is available that fixes this.
3. Whether a safe rollback firmware is available (note: 2.50.28 was also observed to be unstable on this unit during the update/rollback attempt — see Sample B).
4. Full unedited systemevent_*.log files from the device are available on request.