

# 1SYSTEM®

## Release Notes - IRTPTMS

from

# bf1systems

### 1 Modifications

Date	Modifications	Author	Version	Modified Sheets	Approved		
					By	Date	Signed
9/12/2024	New Document	GA	v1.7	All	GU	16/12/2024	GU
25/03/2025	v1.8 and v1.9 added	GU	v1.9	2	GA	25/03/2025	GA
25/03/2025	Minor changes to wording	GU	v1.9.1	2	MJB	25/03/2025	MJB
24/02/2026	v1.10 added	GA	v1.10	2	GU	24/02/2026	GU
15/04/2026	v1.11 added	GA	v.1.11	2	MJB	16/04/2026	MJB

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## 2 History

### v1.11 – 15<sup>th</sup> April 2026

- Modified the NVM location to prevent possible overlap when performing a software update.

#### Important Notes

- **Only update sensors from v1.9 (or older) to v1.11.**
- **There is no functionality difference between v1.10 & v1.11.**
- **If the sensor is already at v1.10, DO NOT update to v1.11.**

### v1.10 – 24<sup>th</sup> February 2026

- Modified the IR enable scheme to work for longer at a lower temperature, while also adding additional protection against brownouts and other errors.
- Temperature for time to RBL 0 default updated to 30°C.
- Modified the energy usage above 125°C to improve accuracy.
- The voltage used in energy used calculation changed, so when IR is active, the voltage is the 'loaded' voltage during an IR data capture event.
- Multiple improvements to 0xA00A watchdog events, meaning other potential causes have been given their own discrete error codes.
- Modified error handling scheme, so only high priority errors are treated as faults (error codes below 0x8000). Other errors are only temporarily transmitted and don't increment the global fault count value.

### v1.9 – 14<sup>th</sup> March 2025

- Bug fix, assertion error seen in v1.8 (error 0x8000).
- Temperature for time to RBL 0 added for when IR operation no longer possible. Customer configurable default 50°C.

### v1.8 – 18<sup>th</sup> February 2025

- IR will only function if the temperature and RBL are with usable limits not to cause a reset.
- V\_error flag used to indicate Temp/RBL not sufficient to enable IR.
- Non volatile memory writes held in RAM until temp is below 85°C.
- Reduced IR sampling in burst mode.
- IR sampling removed when reset occurs.

### v1.7 – 26<sup>th</sup> September 2024

- Sensor Idle State implementation to improve battery life.
- Fault state reporting behaviour changes to improve battery life.
- Bug fix to prevent IR internal communication looping in specific error scenarios.

### v1.6 – 7<sup>th</sup> August 2024

- Added an additional timer event when scheduling adverts to mitigate against a failed timeout response from the BT stack.
- Added a watchdog reset to the core advertising state machine. This additional mechanism is to mitigate against the update described above.

### v1.5 – 12<sup>th</sup> April 2024

- Re-evaluate sampling in Slow State.
- Fix temperature reporting to include negative temperatures.
- Bug fix for ignoring acceleration errors when maximum limit achieved whilst moving, as flag was not reset.
- Time reduction in the fault advertising duration and interval to reduce the interruption to normal TPMS operation to ~7s.
- Improve I2C communication reliability to the IR device in low battery scenarios.

**v1.4 – 19<sup>th</sup> September 2023**

- Ignore acceleration errors when maximum limit achieved whilst moving.
- Add extra error codes for IR system.
- Improved IR recovery logic before locking out to TPMS mode only.

**v1.3 – 28<sup>th</sup> November 2022**

- Initial Release.