RELEASE NOTES FOR SNAP I/O MODULES FIRMWARE

Document Updated: May 29, 2025

NOTE: Some bug fixes may require a corresponding SNAP PAC firmware update. In these situations, the description lists the corresponding version of SNAP PAC firmware required to complete the fix.

Installing a Module Firmware Update

For instructions to install module firmware, see the "Loading SNAP I/O Module Firmware" section in the *PAC Manager User's Guide* (form 1704).

SNAP-AICTD MODULES

Version R2.1b

Released: May 29, 2025

Bug Fixes

KB91204 - Some SNAP analog input modules report only NaN or -32768 on B3000, B3000-B, and B3000-B-OMUX brains

Version R2.1a

Released: April 8, 2025

Bug Fixes

KB91167 - SNAP analog input modules using R2.0a firmware may not operate normally

Version R2.0a

Released: February 12, 2025

Initial release.

SNAP-AICTD-4 MODULES

Version R2.1b

Released: May 29, 2025

Bug Fixes

KB91204 - Some SNAP analog input modules report only NaN or -32768 on B3000, B3000-B, and B3000-B-OMUX brains

Version R2.1a

Released: April 8, 2025

Bug Fixes

KB91167 - SNAP analog input modules using R2.0a firmware may not operate normally

Version R2.0a

Released: February 21, 2025

Enhancements

Updates due to changes in internal hardware.

Version R1.0a

Released: October 22, 2024

Initial release.

SNAP-AIMA MODULES

Version R2.1b

Released: May 29, 2025

Bug Fixes

KB91204 - Some SNAP analog input modules report only NaN or -32768 on B3000, B3000-B, and B3000-B-OMUX brains

Version R2.1a

Released: April 8, 2025

Bug Fixes

KB91167 - SNAP analog input modules using R2.0a firmware may not operate normally

Version R2.0a

Released: February 12, 2025

Initial release.

SNAP-AIMA-4 MODULES

Version R2.1b

Released: May 29, 2025

Bug Fixes

KB91204 - Some SNAP analog input modules report only NaN or -32768 on B3000, B3000-B, and B3000-B-OMUX brains

Version R2.1a

Released: April 8, 2025

Bug Fixes

KB91167 - SNAP analog input modules using R2.0a firmware may not operate normally

Version R2.0a

Released: February 21, 2025

Enhancements

Updates due to changes in internal hardware.

Version R1.0a

Released: October 22, 2024

Initial release.

SNAP-AIMA-i MODULES

Version R2.1b

Released: May 29, 2025

Bug Fixes

KB91204 - Some SNAP analog input modules report only NaN or -32768 on B3000, B3000-B, and B3000-B-OMUX brains

Version R2.1a

Released: April 8, 2025

Bug Fixes

KB91167 - SNAP analog input modules using R2.0a firmware may not operate normally

Version R2.0a

Released: February 21, 2025

Enhancements

Updates due to changes in internal hardware.

Version R1.0a

Released: September 12, 2024

Initial release.

SNAP-AIMA-iH HART MODULES

Version R1.0d

Released: March 26, 2015

Bug Fixes

KB84634 - HART protocol input module stops receiving HART responses

Version R1.0a

Released: May 8, 2014

Initial release.

SNAP-AIMV-4 MODULES

Version R2.1b

Released: May 29, 2025

Bug Fixes

KB91204 - Some SNAP analog input modules report only NaN or -32768 on B3000, B3000-B, and B3000-B-OMUX brains

Version R2.1a

Released: April 8, 2025

Bug Fixes

KB91167 - SNAP analog input modules using R2.0a firmware may not operate normally

Version R2.0a

Released: February 21, 2025

Initial release.

SNAP-AIRTD-8U MODULES

Version R1.0e

Released: November 13, 2024

Bug Fixes

KB90952 - SNAP-AIRTD-8U reports over-range on all channels every 49.71 days

Version R1.0d

Released: April 26, 2023

Enhancements

Updates due to changes in internal hardware.

Version R1.0c

Released: February 22, 2016

Initial release.

SNAP-AITM-i, SNAP-AITM-i-C MODULES

Version R2.1b

Released: May 29, 2025

Bug Fixes

KB91204 - Some SNAP analog input modules report only NaN or -32768 on B3000, B3000-B, and B3000-B-OMUX brains

Version R2.1a

Released: April 8, 2025

Bug Fixes

KB91167 - SNAP analog input modules using R2.0a firmware may not operate normally

Version R2.0a

Released: February 21, 2025

Initial release.

SNAP-AIV MODULES

Version R2.1b

Released: May 28, 2025. Section updated: May 29, 2025.

Bug Fixes

KB91204 - Some SNAP analog input modules report only NaN or -32768 on B3000, B3000-B, and B3000-B-OMUX brains

Version R2.1a

Released: April 8, 2025

Bug Fixes

KB91167 - SNAP analog input modules using R2.0a firmware may not operate normally

Version R2.0a

Released: February 12, 2025

Initial release.

SNAP-AIV-4 MODULES

Version R2.1b

Released: May 29, 2025

Bug Fixes

KB91204 - Some SNAP analog input modules report only NaN or -32768 on B3000, B3000-B, and B3000-B-OMUX brains

Version R2.1a

Released: April 8, 2025

Bug Fixes

KB91167 - SNAP analog input modules using R2.0a firmware may not operate normally

Version R2.0a

Released: February 21, 2025

Enhancements

Updates due to changes in internal hardware.

Version R1.0a

Released: October 22, 2024

Initial release.

SNAP-AIV-i MODULES

Version R2.1b

Released: May 29, 2025

Bug Fixes

KB91204 - Some SNAP analog input modules report only NaN or -32768 on B3000, B3000-B, and B3000-B-OMUX brains

Version R2.1a

Released: April 8, 2025

Bug Fixes

KB91167 - SNAP analog input modules using R2.0a firmware may not operate normally

Version R2.0a

Released: February 21, 2025

Enhancements

Updates due to changes in internal hardware.

Version R1.0a

Released: September 12, 2024

Initial release.

SNAP-AIV2-i MODULES

Version R2.1b

Released: May 29, 2025

Bug Fixes

KB91204 - Some SNAP analog input modules report only NaN or -32768 on B3000, B3000-B, and B3000-B-OMUX brains

Version R2.1a

Released: April 8, 2025

Bug Fixes

KB91167 - SNAP analog input modules using R2.0a firmware may not operate normally

Version R2.0a

Released: February 21, 2025

Initial release.

SNAP-AOVA-8 MODULES

Version R1.4a

Released: January 30, 2015

Initial release.

SNAP SERIAL COMMUNICATION MODULE (NON-REVISION A HARDWARE)

The only SNAP serial communication module with non-Revision A hardware is module SNAP-SCM-232 (non-REVISION A).

Version R1.1o

Released: March 23, 2004

Enhancements

- Modified the `Receive Only` command to allow the `qty` (quantity) of characters to be specified.
- Modified serial module configuration to allow end of line to be modified.
- Fixed problem where RTS/CTS loop-back was not being handled correctly.
- Added sleep command – `cmdC` (`C` or `0x43`) - to put serial ports to sleep.
- Added `bySequence` check for redundant Arcnet transmissions.

Version R1.0f

Released: April 27, 2000

Initial release.

SNAP SERIAL COMMUNICATION MODULES (REVISION A HARDWARE)

The following are SNAP serial communication modules with Revision A hardware:

- SNAP-SCM-232 (REVISION A)
- SNAP-SCM-485-422

Version R2.0a

Released: November 14, 2007

Enhancements

Power-up test message format changed to

```
Opto 22 SNAP-SCM-232 (Rev A), Ver R2.0a, Module <module>, Port <port>,
<baud>,<parity>,<data bits>,<stop bits>
```

from

```
Opto 22 SNAP-SCM-232 (MCF5249) Prototype, Ver 1.1.2.4, Module <module>,
Port <port>, <baud>,<parity>,<data bits>,<stop bits>
```

Bug Fixes

KB57560 - SNAP-SCM-485-422 not recognized after 'Restart I/O unit from powerup' from PAC Manager

Version R1.1e

Released: June 19, 2003

Initial release.

SNAP-SCM-CAN2B MODULES

Version R2.0c

Released: April 17, 2019

Bug Fixes

KB86512 - SNAP-SCM-CAN2B buffer overruns may occur at baud rates higher than 250 kbps

Version R2.0b

Released: June 29, 2015

Enhancements
- Added transmit capability to SNAP-SCM-CAN2B module.
- Added Long Polling command support.
- Improved port configuration.

Version R1.0d

Released: February 2, 2012

Enhancements
- Fixed error reporting. Now when the Error LED illuminates, you can read the error code.
- Fixed standard CAN packet reception. It no longer displays old extended CAN packet data in standard CAN packets.

Version R1.0c

Released: June 23, 2011

Initial release.

MADE IN THE USA

SNAP-SCM-MCH16 MODULES

Version R1.0c

Released: October 8, 2007

Initial release.

SNAP-SCM-PROFI MODULES

Version R1.1a

Released: August 5, 2013

Bug Fixes

KB82660 - SNAP-SCM-PROFI Profibus module may reset when connected to a device that continuously transmits data

The following two issues have been identified and corrected:

- The SNAP-SCM-PROFI module may stop receiving characters if the baud rate is changed while the module is currently receiving characters.
- The SNAP-SCM-PROFI module's RUN LED may turn off after connecting the Profibus cable. Under certain circumstances, a constant flow of characters into the module's receive port would cause the input buffer to overflow. This would cause the RUN LED to turn off, and the module may lock up and stop receiving characters until power was cycled.

Version R1.0b

Released: September 26, 2005

Initial release.

SNAP-SCM-ST2 MODULES

Version R1.0d

Released: May 12, 2014

Initial release.

SNAP-SCM-W2 MODULES

Version R1.1g

Released: October 15, 2004

Initial release.

HOW TO GET HELP

If you have any questions about the SNAP I/O modules, you can call or e-mail Opto 22 Product Support:

Phone: 800-TEK-OPTO (800-835-6786 toll-free in the U.S. and Canada)
951-695-3080
Monday through Friday, 7 a.m. to 5 p.m. Pacific Time

E-mail: support@opto22.com

Website: www.opto22.com

When calling for technical support, be prepared to provide the following information about your system to the Product Support engineer:

- Version information for SNAP I/O modules, SNAP PAC controller, *groov* EPIC, PAC Control Engine, PAC Manager, PAC Control, *groov* View, *groov* Manage, and, if applicable, Node-RED and Ignition Edge.
- A description of your system equipment:
  - Computer CPU type, speed, memory, and operating system
  - *groov* EPIC processor and/or SNAP PAC controller model and firmware version
  - SNAP I/O module types and their firmware versions (if applicable)
  - A description of your Setup and Configuration: how it is connected, the purpose of each device, external connections, and networks
  - Specific error messages or other diagnostic indications

Finding SNAP I/O Module Firmware Version Number

To find the version numbers for the SNAP I/O module firmware:

1. In PAC Manager, open the Inspect window (**Tools** > **Inspect**).
2. Click **Communications** > **Serial Modules**.
3. Select the slot number of the module from the **Serial Module Number** drop-down list. The firmware version number appears in the **Firmware Version** field.
4. Repeat step 3 for each module as desired.

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