

SAMSUNG MIM-B19N QUICK START GUIDE - V01

Planet Devices Ltd

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VERSION HISTORY

Version	Date	Author	Notes
V01	2024-05-10	JD	Initial release

PREFACE

Atmo (RS-485 Modbus RTU) [P/N 386363-249] requires a Modbus interface in order to communicate with heat pump systems.

For Samsung Eco Heating System (EHS), High Temperature (HT), and High Efficiency (HE) systems, this necessitates the installation of an MIM-B19N Modbus interface.

PURPOSE OF THIS DOCUMENT

Modbus interfaces must be configured to match the serial settings of the Atmo device, or vice versa.

This document serves as a “quick start” guide only. Please refer to the documentation provided with the heat pump system for more information.

INSTALLATION INSTRUCTIONS

1. Disconnect power from the Samsung system
2. Ensure that the indoor unit address is set to 0
3. Connect the included 12V power cable to CN12 on the outdoor unit main board, and CN4 on the MIM-B19N
4. Connect R1 and R2 on the outdoor unit sub board to CN3 on the MIM-B19N
5. On the MIM-B19N, set the rotary switch to position 1
6. On the MIM-B19N, set the DIP switches according to the following table:

SW4-1		SW4-2		SW5-1		SW5-2	
OFF	↓	OFF	↓	OFF	↓	OFF	↓

See *Appendix A – DIP Switch Setting Summary* for a summary of the changes made by these DIP switches.

If you wish to use a different Modbus Worker address (see *Appendix A – DIP Switch Setting Summary*), this change must be reflected in Sphere → Manage Devices → Address. Failure to update the Address will result in an **ERROR** state, where the Atmo device is unable to monitor or control the Samsung Eco Heating System (EHS), High Temperature (HT), or High Efficiency (HE) system.

Note that changing the position of the rotary switch and DIP switches while the MIM-B19N is powered on will have no effect. The MIM-B19N must be power cycled in this scenario.

7. Connect the RS-485 A and B signal lines according to the following table:

BUS1	↔	A (leftmost screw terminal)
BUS2	↔	B (rightmost screw terminal)

8. Turn on the Samsung Eco Heating System (EHS), High Temperature (HT), or High Efficiency (HE) system

The Atmo device should now be able to communicate with the Samsung Eco Heating System (EHS), High Temperature (HT), or High Efficiency (HE) system. Please refer to the *Atmo Installation Manual* for further steps.

TECHNICAL SUPPORT

If you are unable to use your Atmo device as intended after following the steps in this guide – and the Atmo Installation Manual – please contact our Support team.

Planet Devices operate Monday to Friday, between the hours of 09:00 and 17:30 (UTC/GMT/BST):

Email Address	support@planetdevices.com
Telephone Number	+44 (0) 1752 680 128

APPENDIX A – DIP SWITCH SETTING SUMMARY

- SW4-1, SW4-2, SW5-1 and SW5-2 add 128, 64, 32, and 16 (respectively) to the Modbus worker address

APPENDIX B – SERIAL SETTINGS AND WORKER ADDRESS

The MIM-B19N Modbus interface communicates using the following parameters:

- 9600 baud (immutable)
- 8 data bits (immutable)
- Even parity bits (immutable)
- 1 stop bit (immutable)
- Worker address between 1 and 247

See *Appendix A – DIP Switch Setting Summary*.

- Setting the address to 0 will render the Modbus interface non-communicative