



# Spider 2 AMR

## Quick Start Guide

Models HAM-050, HAM-051

Date March 2026

**Audience:** Installer **Purpose:** First-time installation and initial configuration **For full detail:** Refer to the Spider 2 AMR User Manual

## 1. What's in the Box

Item	HAM-050	HAM-051
Spider 2 AMR in weatherproof enclosure	✓	✓
12V 7.2Ah SLA battery (pre-installed)	✓	✓
90W mains power supply (pre-installed)	✓	✓
Cellular whip antenna — 4G 5dB, 5m cable, SMA	✓	✓
Cellular puck antenna (diversity) — IP67, 3m cable (pre-mounted on enclosure top)	✓	✓
Antenna bracket (wall/pole mount)	×1	×2
LAN cable (for initial setup)	✓	✓
WRX-01 wireless receiver, 433MHz (pre-installed, connected to AUX2)	—	✓
High-gain 433MHz wireless antenna — 3.5m cable, SMA	—	✓

## 2. Before You Start

Collect the following before attending site:

-> Nano SIM card with active data plan -> Carrier APN (see table below) -> Transmitter addresses (format `00000-00-00000000`, printed on each transmitter label) — **HAM-051 only** -> FTP server address, username, and password (if automatic FTP reports required) -> SMTP server address, port, and credentials (if automatic email reports required)

### Common Australian carrier APNs:

Carrier	APN
Telstra	<code>telstra.internet</code>
Optus	<code>yesinternet</code>
Vodafone	<code>vfinternet.au</code>

Confirm APN with your carrier before installation — these settings may change.

### 3. Mount the Enclosure

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1. Select a mounting location — wall or solid vertical surface, accessible for cabling and maintenance.
2. Mark and drill fixing points to suit the enclosure mounting brackets. Brackets can be orientated in different directions — fix to suit the mounting surface.
3. Insert screws and mount the enclosure securely using the supplied brackets.
4. The enclosure is rated IP66 — suitable for indoor and outdoor installation.

**Note:** The assembled unit weighs approximately 10–15 kg. Ensure the wall surface and fixings are rated for the load.

### 4. Mount the Antennas

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All antennas are pre-connected at the factory. Mount them in position only — no cable connections are required on site.

Antenna	Where to mount
Cellular whip (5m cable)	External — mount clear of metalwork for best signal. Use the antenna bracket provided.
Cellular puck (3m cable, pre-mounted)	Already fixed to top of enclosure — leave in place unless relocation is needed.
433MHz wireless antenna (HAM-051 only, 3.5m cable)	External, elevated position for best wireless range. Use the second antenna bracket provided.

### 5. Insert the SIM Card

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1. Open the enclosure door.
2. Locate the nano SIM tray on the Spider 2 AMR unit (push-release tray).
3. Insert the nano SIM and close the tray.

Most SIM cards are issued without a PIN. If yours has a PIN set, disable it before insertion — the Spider 2 AMR cannot prompt for a PIN and will fail to connect if one is active.

## 6. Connect Wired Inputs

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Native inputs are on two 8-pole connectors labelled **INPUT1–INPUT8**. Each input uses two screw terminals. Maximum wire size: 1.5mm<sup>2</sup>.

Connect field wiring to the relevant input terminals. Configure input types (Switch, Counter, Analogue, etc.) via the web interface in step 11.

**Note:** There is no galvanic isolation between inputs or internal circuitry. Ensure field wiring is appropriately isolated.

## 7. Connect Relay Outputs (if required)

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Relay outputs are on two 4-pole connectors labelled **CN1–CN8**. Relays are latching type, rated 30V / 1A resistive.

For inductive loads (pumps, solenoids), fit external protection diodes across the load.

## 8. Connect Mains Power

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The 90W mains power supply is pre-installed and wired to the charger input (16–30V DC, minimum 1A). Connect the mains supply to a suitable power outlet or distribution board.

If mains power is not available, connect an external solar panel to the charger input in place of the mains supply.

## 9. Power On

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1. Switch on the mains supply (or solar input).
2. The Spider 2 AMR will boot — the front panel display will initialise.
3. The unit powers from the mains supply and charges the internal SLA battery.

## 10. Connect to the Web Interface

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Two connection methods are available for initial setup:

### Option A — Direct cable (Easy Connect)

1. Connect the supplied LAN cable between your laptop and the **LAN** port on the Spider 2 AMR.
2. The Spider 2 AMR acts as a DHCP server — your laptop will be assigned an IP address automatically. No network configuration is required.
3. Open a browser and navigate to `http://192.168.0.189`.

**Note:** Easy Connect requires your laptop's Ethernet adapter to be set to obtain an IP address automatically (DHCP). If automatic IP is disabled in your network settings, re-enable it before connecting.

### Option B — WiFi hotspot

1. Press and hold the front panel button to activate the WiFi hotspot.
2. On your device, connect to the WiFi network: `192.168.10.1_Spider2_[serial number]`
3. Open a browser and navigate to `http://192.168.10.1`.

#### Default login credentials:

Role	Username	Password
Administrator	<code>user</code>	<code>changeme</code>
Normal user	<code>user</code>	<code>user</code>

Change the administrator password immediately after first login.

# 11. Initial Configuration

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All configuration is done via **CHANGE SETUP** in the web interface. Work through the following in order:

## a. Change password

Navigate to **Change User / Password**. Set a new administrator password and record it securely.

## b. Set location name

Navigate to **Change Location / SMS PIN**. Enter a unique name for this installation (up to 16 characters). This name appears at the start of all SMS and email notifications.

## c. Set date and time

Navigate to **Change Date/Time**. Confirm or correct the date and time, and set the correct timezone for the installation location.

## d. Configure cellular network (APN)

Navigate to **Change Network Settings**. Enter the carrier APN for the installed SIM.

## e. Configure native inputs

Navigate to **Change Input Setup**. For each active input:

- Set the **input type** (Switch, Counter, Analogue, Utility Meter, etc.)
- Enter a descriptive **input name**
- Set logging interval and units as required

Unused inputs should be set to **Disabled**.

For analogue inputs: calibrate using **Select Native Input to Calibrate or Scale** before going live. For counter / utility meter inputs: set the pulse scaler and, if required, pre-set the counter to match the current meter reading.

## f. Set up wireless inputs (HAM-051 only)

1. In **Change Input Setup**, set the number of wireless transmitter modules to match the number of transmitters at this site.
2. Navigate to **Select Wireless Transmitter to Setup**.
3. For each transmitter, enter its address (from the label) and configure the input type and name.

4. Walk the site and verify signal strength is  $\geq 50\%$  at each transmitter location before finalising mounting.

### g. Multiple Wireless Base Stations (HAM-051 only)

If two or more Spider 2 AMR units are within wireless range of each other, set each to a different RF zone. This will minimise possible interference

## 12. Verify and Hand Over

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Before leaving site, confirm the following:

-> Cellular connection established — signal  $> 40\%$  (30–40% is low; reposition cellular antenna if possible) -> Date and time correct -> All active inputs showing expected readings in the web interface -> All wireless transmitters registered and showing  $\geq 50\%$  signal — 30–40% is low, improve antenna placement or add repeater (HAM-051 only) -> Password changed from factory default -> Location name set -> APN configured and data connection active

## 13. Default IP Addresses — Quick Reference

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Connection method	Address
Easy Connect (LAN cable)	192.168.0.189
WiFi hotspot	192.168.10.1

*Spider 2 AMR Quick Start Guide — Halytech For full installation and configuration detail, refer to the Spider 2 AMR User Manual.*



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