



Spider 2

Quick Start Guide

Models

HSP-050

Date

September 2026

Spider 2

Quick Start Guide

Spider 2 is a compact, low power telemetry, logging and alarm system for remote and battery-powered applications. It monitors inputs, controls relay outputs, generates alarms and logs data. This guide covers physical installation and first-time commissioning on site. For full detail on configuration options, reporting, alarms, and maintenance, refer to the *Spider 2 User Manual* — available at halytech.com.au, under Products, Spider 2, Downloads.

1. What's in the Box

Item	Included
Spider 2 main unit	✓
Mobile whip antenna — 4G 5dB, 5m cable, SMA	✓
Mobile puck antenna — low-profile IP67, 3m cable, SMA	✓
LAN cable (for setup)	✓
Connectors (+ resistors/diodes)	✓

Note: The Spider 2 main unit is IP-20. It must be installed inside a suitable enclosure or in a protected indoor location — no enclosure is supplied.

2. Before You Start

Collect the following before attending site:

- Suitable IP-rated enclosure or protected indoor location confirmed
- Halytech Spider Power Supply or equivalent
- 12V sealed lead acid battery, up to 10Ah (installer supplied)
- Nano SIM card with active data plan, **PIN disabled**, otherwise the SIM is locked
- APN for your SIM card — confirm the correct value with your carrier or SIM provider
- Laptop or tablet for setup — by LAN cable or WiFi, you do not need both. A laptop with an Ethernet adapter is needed only for Easy Connect

3. Mount the Unit

1. Select a protected indoor location or suitable IP-rated enclosure — Spider 2 is IP-20.
2. Mark the keyhole mount positions: centres **79mm (W) × 178mm (H)**.
3. Fix screws to the wall or enclosure backplate at the marked positions.
4. Hang the Spider 2 unit on the screws.

Leave **75mm clear at the connector face** for terminal access, and **75mm below the antenna end** for cable entry and the SMA connectors.

Weight: 650g (approx) — standard wall fixings are adequate.

4. Mount the Antennas

Both antenna SMA connectors are on the **bottom** of the main unit.



1. Connect each antenna cable to the SMA connector on the bottom of the unit.
2. Mount each antenna in position.

Antenna	Where to mount
Mobile whip (main) — 5m cable	Mount externally for best signal (outside enclosure)
Mobile puck (diversity) — 3m cable	Surface-mount near the unit

Hand-tighten SMA connectors only. Using tools to tighten SMA connectors may damage the connector and void the warranty.

5. Insert the SIM Card

Caution: Do not insert or remove the SIM card while the unit is powered on.

1. Place the nano SIM into the tray with the **contacts facing the same direction as the LCD**.
2. Push the tray closed.

If you activate the SIM in an iPhone first, turn iMessage off. Otherwise SMS may never reach the unit — see section 13.



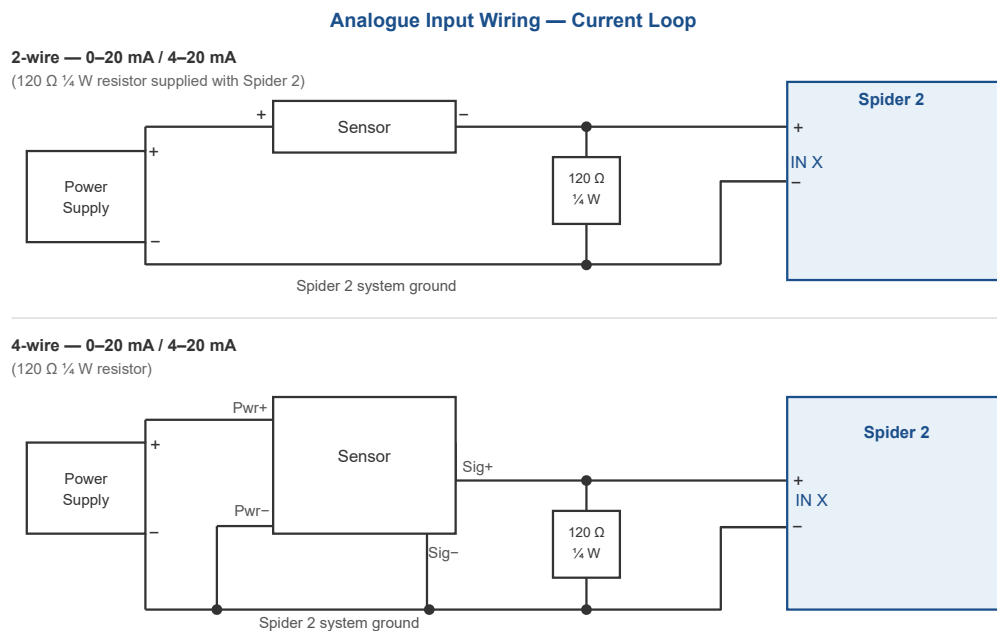
6. Connect Wired Inputs

The Spider 2 has **8 native inputs**, printed **IN 1** to **IN 8** on the case, on two 8-pole screw terminal connectors. Each input uses **2 screw terminals**. Maximum wire size: **1.5mm²**.

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

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

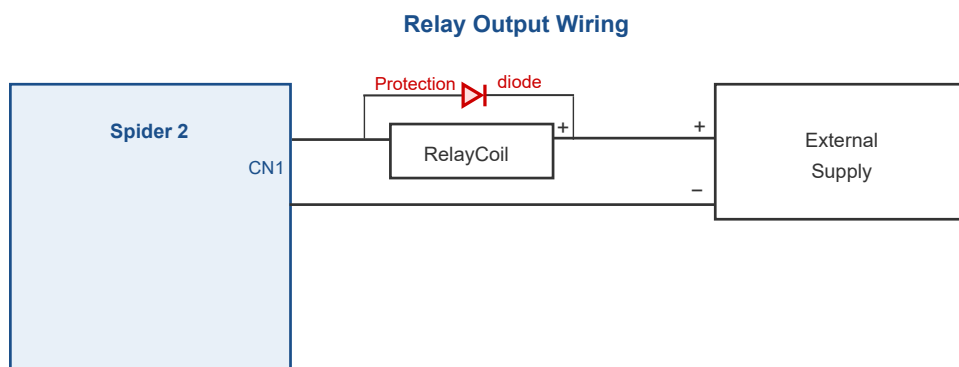
Analogue current-loop (4–20 mA) input wiring:



For voltage-input wiring and full detail, refer to the Spider 2 User Manual.

7. Connect Relay Outputs (if required)

The Spider 2 has **8 latching relay, voltage-free outputs** (CN1–CN8) on two 8-way screw terminal connectors, rated 30V / 1A — low voltage/low current loads only. Do not connect directly to mains loads, contactors, or motors. Each output uses **2 screw terminals**. Maximum wire size: **1.5mm²**.



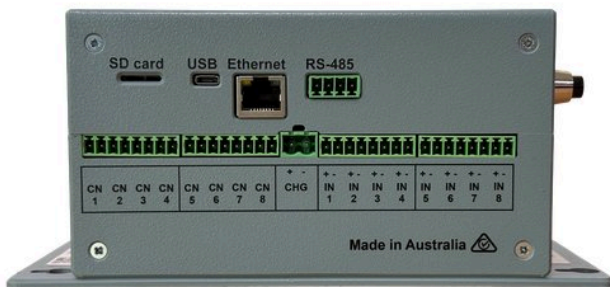
Protection diodes must be installed when driving inductive loads
(power relays, solenoids, motors). Omitting the diode may damage the Halytech relay contacts.

Relay contacts rated: 30V, 1A resistive loads — Latching

For additional wiring detail, refer to the Spider 2 User Manual.

8. Connect Power

Connect the Halytech Spider Power Supply (or equivalent) to the **CHG** (charger) input (16–30V DC, minimum 2A). Connect the 12V SLA battery to the **Batt** (battery) terminals.



Connector end



Switch and antenna end

For connector pinout and wiring diagram, refer to the Spider 2 User Manual.

9. Power On

1. Switch on the power supply.
2. The Spider 2 will boot — the LCD will start.
3. If the unit is in low power mode, press the black button to wake it. The LCD will show "**Please Wait...**" — the unit may take up to 30 seconds to wake up.
4. The unit powers from the supply and charges the SLA battery.

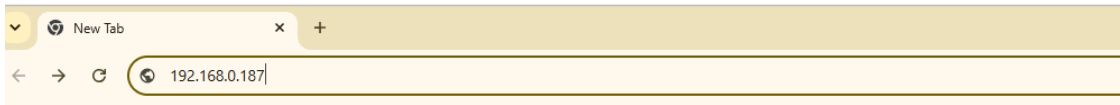
10. Connect to the Web Interface

First, wake the unit. If the LCD backlight is off, press and hold the black button until it turns on. Waking the unit starts both the WiFi and the LAN port. A browser cannot connect to a sleeping

unit.

Option A — Easy Connect (LAN cable)

1. Connect the supplied LAN cable between your laptop's LAN port and the Spider 2 LAN port.
2. Open a browser and navigate to `192.168.0.187`. The unit also shows its own address on the LCD — press the black button until you see it.



The login page should open. If the browser shows an error page instead, see section 13.

Option B — WiFi

1. Press the black button briefly until the LCD shows the WiFi screen. It reads `Wi-Fi STATUS`, then `Enabled` with a countdown of the time the WiFi has left.
2. On your laptop or tablet, open its WiFi settings. Look for a network named `192.168.10.1_Spider2_[serial]`, where the serial is the unit's serial number. The factory-set password is printed on the label on top of the unit.
3. Open a browser and navigate to the address at the start of the network name, `192.168.10.1`.

The WiFi times out. Wake the unit again to restart it.

The login page should open. If the network does not appear in your WiFi list, if the password is rejected, or if the browser shows an error page, see section 13.

Then log in. From here the two options are the same.

Spider 2 Log In

User Name:

Password:

Default credentials

Level	Username	Password
Administrator	user	changeme
Normal user	user	user

Change both passwords before the unit goes into service.

11. Initial Configuration

After login, click **CHANGE SETUP**.

Change Setup stops logging and alarms. Exit as soon as you finish.

The screenshot shows the 'Change Setup' interface with the following options:

- Change User / Password
- Change Date / Time
- Change Location / SMS PIN
- Change Input Setup
 - Select Input to Calibrate
- Select Control to Change
- Select Alarm to Change
- Change Network Settings
- Change Power Settings
- Change E-mail Settings
- Save Setup to Disk
- Select Report to Change
- Restore Setup from Disk
- Advanced Settings
- Upgrade Software
- Exit Change Setup

a. Location Name

1. Click **Change Location / SMS PIN**.
2. Enter a unique name, up to 16 characters.
3. Click **Save**.

b. Date and Time

1. Click **Change Date/Time**.
2. Confirm the date, the time and the timezone.
3. Enable NTP and enter the NTP server address.
4. Click **Save**.

Do not enable daylight saving — it causes gaps and overlaps in logged time-series data. NTP must always be enabled.

c. Username and Password

1. Click **Change User / Password**.
2. Set new usernames and passwords.
3. Click **Save**.

d. Input Setup

1. Click **Change Input Setup**.
2. Set the input type, the name and the units for each active input.
3. Click **Save**.

Change Input Setup

Input #	Type	Name	Units	ID	Warmup	Logging*	Min Change To Log*
1	Utility Meter	Main Meter	kL	01KN001223	-	☒	
2	Analogue	Tank Level	%	TK-101	☐	☒	5.000
3	Disabled				-		
4	Disabled				-		
5	Disabled				-		
6	Disabled				-		
7	Disabled				-		
8	Disabled				-		

Input #	Type	System Monitors	Units	ID	Warmup	Logging*	Min Change To Log*
	System	Battery Charger	-	Battery Charger	-	☒	0.5000
	System	Battery Voltage	V	Battery Voltage	-	☒	0.0000
	System	Unit Temperature	deg C	Unit Temperature	-	☒	0.0000

* Sensor Warmup Period - applies to all inputs with warmup enabled

30 sec

* Hydstra zero event will be recorded every day

0 hr after midnight

* Switch and Event Inputs are logged automatically when they change

* Analogue Inputs, Counter Inputs and System Monitors checked for change every 5 min

* Log modem signal: ☐ No

☒ Yes

[Cancel](#)

[Save](#)

e. Network Settings

1. Click **Change Network Settings**.
2. Set the APN for mobile, or the LAN settings, as required.
3. Click **Save**.

Change Network Settings

Local Area (LAN) Settings

My IP Address:

Network mask:

Easy Connect: ENABLED ☒ DISABLED ☐

LAN settings are used for local (Ethernet) connections to the Spider 2

Wide Area (WAN) Settings

Connection Type:

APN:

Remote APN (optional):

Send test SMS To:

WAN settings are used by the Spider 2 to send E-mails and FTP reports

Wi-Fi Settings

Mode:

Password:

Note: Empty password means use the password on the factory label
Note: Changing the Wi-Fi password requires a reboot

f. Exit Change Setup

Click **EXIT CHANGE SETUP**. Logging and alarms restart immediately.

12. Verify and Hand Over

- Mobile signal 40% or better on the LCD, for example Signal: L65%. Below 40% reposition the antenna
- NTP enabled — date and time correct, no daylight saving enabled
- Location name set and unique
- All active inputs visible in web interface
- Alarms configured and tested
- Admin password changed from default
- APN confirmed and mobile connection active
- Automatic reports verified — confirm data received at destination (if reporting enabled)
- SMS operation verified — send a test alarm, or use the black button test (if SMS used)
- Email operation verified — send a test email with the black button (if email used)
- Settings saved to disk (Change Setup, then **Save Setup to Disk**)

13. Troubleshooting

Symptom	Likely cause	Action
Browser shows an error page, not the login page	Unit asleep, or browser opened too soon after plugging the cable in	Press and hold the black button until the backlight turns on. Then wait ten seconds and reload the page
Can't reach <code>192.168.0.187</code> in browser	DHCP not enabled on the laptop adapter, or the unit is on a LAN with a different address	Enable DHCP on your Ethernet adapter. Press the black button until the LCD shows the address the unit is using
WiFi network not showing on device	WiFi not started, or it has timed out	Press and hold the black button to start it again — WiFi must be started each session
WiFi password rejected	Mistyped, or changed from the factory setting	Retype it from the label. If it still fails, connect by LAN cable and set a new one in Change Network Settings
No signal strength shown (<code>??</code> or <code>—</code>)	No antenna fitted, antenna loose at the SMA connector, SIM not seated in its tray, or SIM not activated	Check an antenna is fitted to Main and is hand-tight. Reseat the SIM in its tray. Confirm the carrier has activated the SIM
SMS from an iPhone never arrives	The SIM was activated in an iPhone with iMessage on, so Apple holds the number	On that iPhone, open Settings, then Messages and turn iMessage off. To test, text the unit from an iPhone — green means SMS, blue means Apple still holds it. Apple has an online tool to deregister a number
Mobile registration failed	Incorrect APN, antenna fault, or SIM not activated	Verify APN matches your carrier; check antenna; confirm SIM is activated
Signal present but SMS not received	SIM plan does not include SMS	Contact carrier to enable SMS on the SIM
Signal present but email not delivered	APN, SMTP, or address configuration error	Confirm APN is correct; check SMTP server and email address settings
Forgotten login password	Default is <code>user</code> / <code>changeme</code> (admin) or <code>user</code> / <code>user</code> (normal user)	If defaults have been changed, contact the system owner — passwords should be on record



Halytech Pty Ltd

Unit 11, 22 Lexington Drive

Bella Vista, 2153

NSW, Australia

ABN 51 094 853 068

+61 2 8814 5235

support@halytech.com.au

halytech.com.au



Full specifications, downloads and support

www.halytech.com.au/products/spider2

Spider 2 — Quick Start Guide · 2637.9831 · September 2026

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