



Illuminator 2

Quick Start Guide

Models

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Quick Start Guide

The Illuminator 2 is an integrated floodlight control and facility monitoring system. It controls floodlights, monitors sensors, generates alarms, and logs activity. This guide covers physical installation and first-time configuration on site. For full detail on configuration options, reporting, alarms, and maintenance, refer to the *Illuminator 2 User Manual* — available at halytech.com.au, under Products, Illuminator 2, Downloads.

1. What's in the Box

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

Note: Installation typically involves mains wiring. The Illuminator 2 should be installed by a qualified electrician.

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

Note: External intermediate relays are required to drive floodlight contactors — these are not supplied.

2. Before You Start

Collect the following before attending site:

- Halytech 12V battery (optional — provides backup power during mains failure)
- Halytech Spider power supply, or an equivalent 16-24V DC supply rated 3A or more. The unit can draw up to 3A while the backup battery is flat. The Halytech supply is for the Illuminator only
- Intermediate relays for switched lighting setups, or dimming hardware if dimming is required
- Nano SIM card with active SMS and 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. Easy Connect by cable needs a laptop with an Ethernet port

Remote access note: Remote browser access needs a SIM with a **public dynamic IP address**. Not every carrier offers one — check whether your carrier provides it before you order the SIM. Each carrier uses its own APN name for this. On Telstra it is **telstra.extranet**. A standard data SIM sends SMS and email reports, but it cannot give remote browser access.

3. Mount the Unit

1. Choose a place inside a distribution board or a protected indoor enclosure.
2. Mark the keyhole mount positions: centres **79mm (W) × 178mm (H)**.
3. Fix screws to the mounting surface at the marked positions.
4. Hang the Illuminator 2 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).

4. Connect the Antennas

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



1. Connect the whip antenna to the **Main Antenna** SMA connector.
2. Connect the puck antenna to the **Div Antenna** SMA connector.
3. Mount both antennas outside any metal enclosure.

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 up**.
2. Push the tray closed.

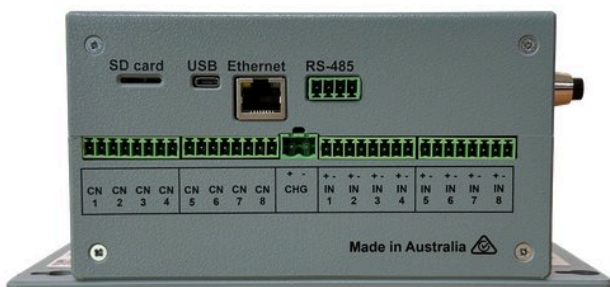
If you activate the SIM in an iPhone first, turn iMessage off. Otherwise SMS may never reach the unit — see section 13.



6. Connect Power

Observe correct polarity when connecting the power supply and battery.

1. Connect the power supply (16–24V DC) to the **CHG** connector.
2. If a backup battery is used, connect the 12V battery to the **Batt** (battery) connector.



Connector end



Switch and antenna end

The unit has no ON/OFF switch. It will start operating as soon as power is applied.

7. Connect Controls

The Illuminator 2 has **8 voltage-free relay outputs** (CN1–CN8), rated 30V / 1A — low voltage/low current loads only.*

Dimming installations: Connect the CN terminal pair directly to the control input of the third-party dimming module. Most modules accept a dry contact. If the module needs a switched voltage, fit an intermediate relay, powered from a supply on the module side.

Contactor installations: Intermediate relays must be used between the Illuminator outputs and the contactor coils. Supported relay coil voltages are 12V to 24V AC or DC. If relay coils are DC-powered, fit the supplied protection diodes across each coil — connect the diode stripe end to the positive side of the coil. Do not fit diodes on AC relay coils.

The Illuminator 2 User Manual has more wiring detail.

* Do not connect directly to mains loads, contactors, or motors. For **DC** inductive loads, such as relay coils, fit the supplied protection diode across the load, at the coil. Protection diodes work on DC only. **Do not fit them on AC loads.**

8. Connect Inputs (if required)

The 8 inputs, **IN1–IN8**, are for electricity monitoring, sensors and alarms. If you do not need them, skip this section. The inputs are on two screw terminal connectors. Each input uses **2 screw terminals**, with wire up to **1.5mm²**.

Note: There is no galvanic isolation between inputs — all negative terminals share a common ground.

Connect each sensor to its input terminals. Set the input types in the web interface. The Illuminator 2 User Manual has more wiring detail.

9. Connect to the Web Interface

First, turn the LCD backlight on. If it is off, press and hold the black button until it turns on. That starts both the WiFi and the LAN port. The Illuminator 2 never sleeps, but a browser cannot connect while the backlight is off.

Option A — Easy Connect (LAN cable)

1. Using the supplied LAN cable, connect your laptop to the Illuminator 2 LAN port.
2. Open a browser and go to **192.168.0.188** in the address bar.

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 go to **192.168.10.1** in the address bar. It is the address at the start of the network name.

The WiFi times out. Press and hold the black button 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 with the default credentials:

Level	Username	Password
Administrator	user	changeme
Normal user	user	user

Change both usernames and passwords before the unit goes into service.

After login, the **Lights** page is displayed automatically.

10. Initial Configuration

Click **CHANGE SETUP** in the navigation menu.

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

a. Location and Lighting Setup

1. Click **Change Location and Lighting Setup**.
2. Enter a unique location name, up to 16 characters.
3. Enter the help contact name and number. These are added to SMS replies for invalid commands.
4. Set the turn on delay and the turn off delay.
5. If you track energy cost, set the cost per kWh.
6. Click **Save**.

b. Date and Time

1. Click **Change Date/Time**.
2. Confirm the date, the time and the timezone.
3. If the site uses daylight saving, enable it.
4. Enable NTP and enter the NTP server address. NTP is always required.
5. Click **Save**.

c. Username and Password

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

d. Network Settings

1. Click **Change Network Settings**.
2. Enter the APN for your SIM.

Warning: Never enter the remote access APN, for example **telstra.extranet**, in the main APN field. The remote access APN gives the unit a public IP address. As the main APN, it leaves the unit on the open internet all the time. Enter it only in the Remote APN field.

3. If the unit connects to a network, set the LAN settings.
4. Click **Save**.
5. Click **Test Network** to check the mobile connection.
6. Click **Send Test SMS** to check SMS delivery.

e. Email Settings

1. Click **Change Email Settings**.
2. Enter the SMTP server address, the sender address and the test email address.
3. Click **Save**.

f. Reports

1. Click **Reports**.
2. Enter up to 3 recipient email addresses.
3. Set the maximum days between reports.
4. Click **Save**.

g. Exit Change Setup

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

11. Administrator PIN, Scenarios and Clubs

These steps are done from the main navigation — outside Change Setup.

a. Change the administrator PIN

Club #1 is the administrator. The administrator PIN controls the lights by SMS. Change it from the default **1234** before the unit goes into service.

1. Click **Clubs** in the navigation menu.
2. On the Club #1 row, click **Change**.
3. Enter a new 4-digit PIN.
4. Click **Save**.

b. Configure lighting scenarios and clubs

Note: The site administrator normally configures scenarios and clubs, not the installer. However, the administrator may ask you to do it during commissioning. Otherwise, leave these steps to the administrator after handover.

Lighting scenarios:

1. On the **Lights** page, click the value in the **Today's Times** column for the scenario to configure.
2. For each day of the week, enter On and Off times and select **Club Controlled** or **Timer** mode.
3. Click **Save**.

Clubs and users:

1. Click **Clubs** in the navigation menu.
2. For each club, click **Change**.
3. Enter the club abbreviation, name, PIN and scenario access rights.
4. Click **Save**.

12. Verify and Hand Over

- Mobile signal 40% or better on the LCD, for example **L4 Signal: 65%**. Below 40% reposition the antenna
- NTP enabled — date and time correct, correct timezone selected, daylight saving enabled if required
- Location name set and unique
- Admin web password changed from factory default
- Administrator SMS PIN changed from default 1234
- APN confirmed and mobile connection active
- Test SMS confirmed — mobile SMS delivery verified
- Email operation verified — send a test email with the black button (**Send test email?** screen — hold button for more than 3 seconds)
- Automatic reports verified — confirm data received at destination (if reporting enabled)
- 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	LCD backlight off, 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 192.168.0.188 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 (?? or —)	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 user / changeme (admin) or user / user (normal user)	If defaults have been changed, contact the system owner — passwords should be on record



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Powered by **Spider 2**



Full specifications, downloads and support

halytech.com.au/products/illuminator-2

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