



Solar Surveillance Installation Guide



SLR-A75 Series

WiFi Solar Surveillance System (SLR-A75-4W)
4G Solar Surveillance System (SLR-A75-4G)

Thank you for purchasing a SLR-A75 Series Solar Surveillance System.
This install guide covers basic setup, installation and use of your surveillance system.
For more information, please visit:
www.vip-vision.com

1. Pre-install Information

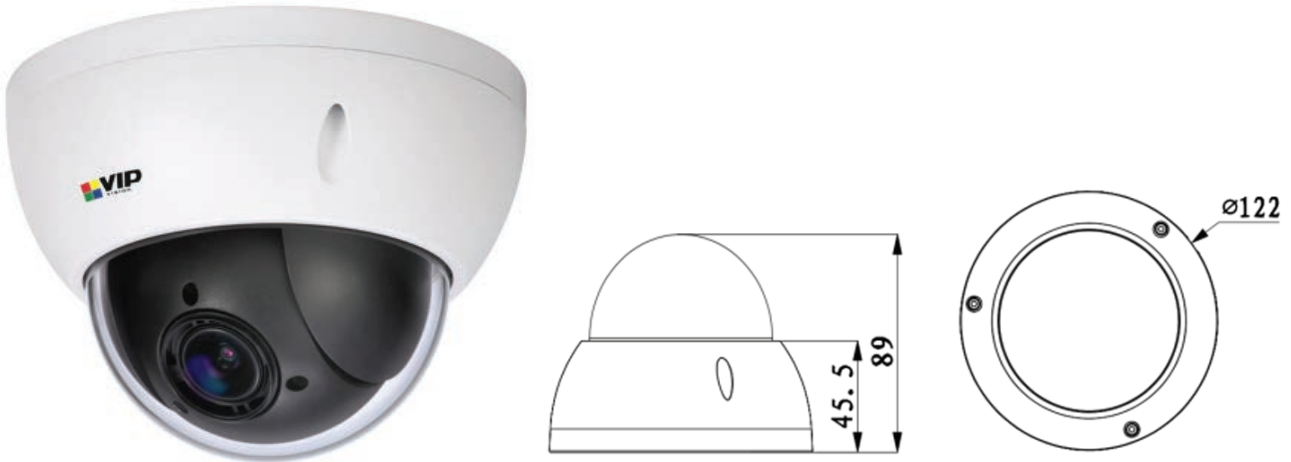
1.1 Included components

#	Part	Product Code	Image
1x	Solar Panel <i>(Optional remote control device)</i>	SSL-A40MN	
1x	4.0MP Mini PTZ Dome Camera	VSIP4MPPTZMINI	
1x	Camera Adapter	VSBKTA106	
1x	Right Angle Bracket	VSBKTB305W	
1x	Junction Box	VSBKTA140	
1x	Pole Mount Bracket	VSBKTA150	
1x	128GB microSD card	MICROSD128GB	
2x	Ubiquiti 5.8GHz 120° Wireless Bridge (1x Access Point, 1x Station) <i>(WiFi system only)</i>	WT5-ULB	
1x	Huawei 4G Modem Router with WiFi <i>(4G system only)</i>	VSWAN4GHW	

Pole, base plate & SIM card not included.

Required Install Tools: Allen key for junction box (*included*), 4mm & 10mm Allen keys for solar panel (*not included*), 8mm drill bit & battery drill, flat head screwdriver. Laptop with RJ45 network interface **strongly** recommended for camera setup.

1.2 Camera Information



Professional Series 4.0MP 4x Zoom Mini PTZ Dome

Note: Camera has been preinstalled with the supplied 128GB microSD card and has been preconfigured to record 4.0MP (2592 x 1520) at 25fps.

The username and password details for the camera can be found on the configuration sheet inside the junction box. The default username is **admin**.

To prevent unauthorised access, ensure you change the admin password before completing installation.

Default Camera Configuration

Main Stream

Stream Type	General
Encode Type	H.265
Resolution	2592x1520
FPS	25
StreamCTRL	VBR
Quality	6 (Best)
Ref Stream	1536-8192Kbps
I Frame Interval	50
Watermark	Yes
Characters	DigitalCCTV

Sub Stream

Stream Type	General
Encode Type	H.265
Resolution	704x576 (D1)
FPS	10
StreamCTRL	CBR
Bit Stream	512Kbps
Ref Stream	139-768Kbps
I Interval	20
SVC	1 (off)

1.3 Solar Panel Information



Motion Sensing Solar Panel with 40W Street Light

Note: This solar panel system is fitted with undervoltage protection, which disconnects the load at approximately 10.8V. If you are not receiving any voltage on the output wires, place the panel in direct sunlight for a minimum of one hour and re-test. The output will be reconnected automatically when battery voltage reaches approximately 11.5V.

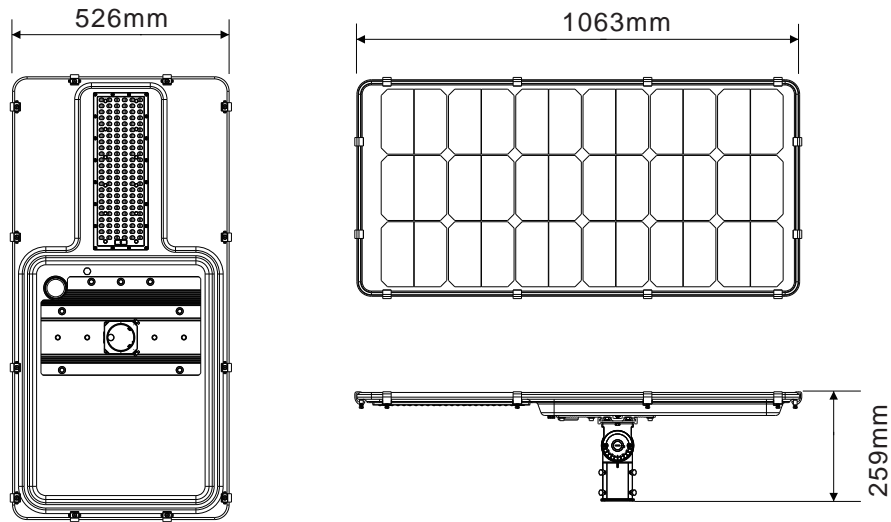
Must be installed in direct sunlight. Shade will negatively impact performance.

Panel Type	75W monocrystalline silicon panel
Battery	41.6Ah Lithium Iron Phosphate (LiFiPo 4) with Low Voltage Cutoff
Panel Tilt Adjust	-60° ~ 60°
Ingress Protection (Panel)	IP66
Wind Tolerance	Up to 65m/s
Dimensions (Panel)	1063 x 259 x 526mm
Pole Diameter (Spigot)	Ø60mm

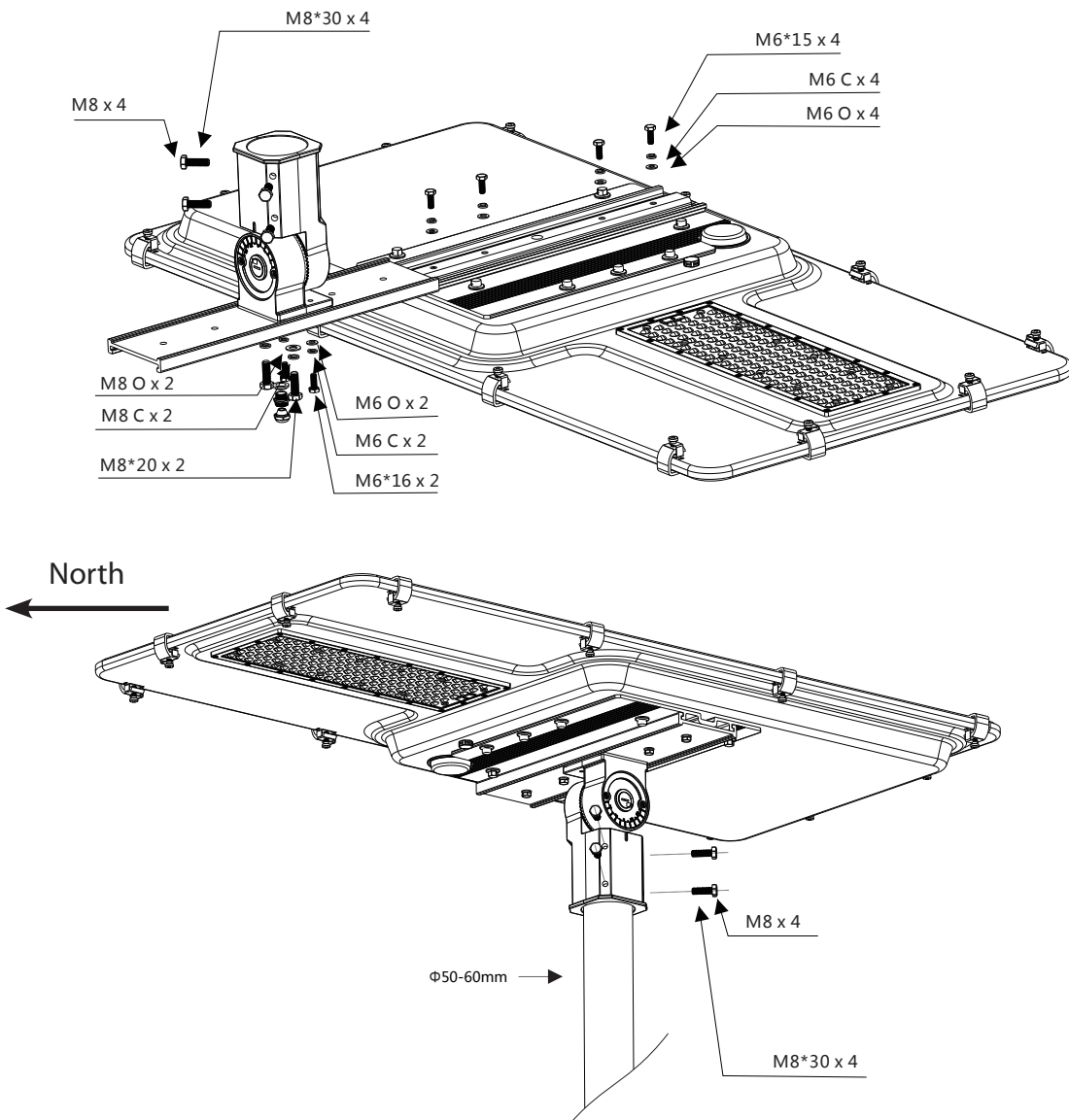
This solar panel includes a motion-activated LED light which is **disabled** by default. For more information, refer to 4. *Solar Panel LED Configuration (p16)*.

LED light configuration requires the solar panel remote control (*provided on request*).

Solar Panel Dimensions



Solar Panel Screw Diagram



2. Installation

2.1 Mounting the solar panel to the pole

Caution: Solar panel **must** be placed so it is in **direct sunlight all day**.

Any shading will greatly reduce the solar panel's performance!

1. Drill an 8mm hole in the pole (minimum 15cm down from the top of the pole) on the same side that the camera will be mounted.

This is for the solar panel cable to run through. The position of the hole will vary depending on what position on the pole the camera is to be mounted.

2. Feed the twin power cable connected to your solar panel through that hole
3. Place the solar panel bracket on top of the pole, pointing north.

- **Note:** If you need to cover a different area with the light beam, keep the panel flat after repositioning .

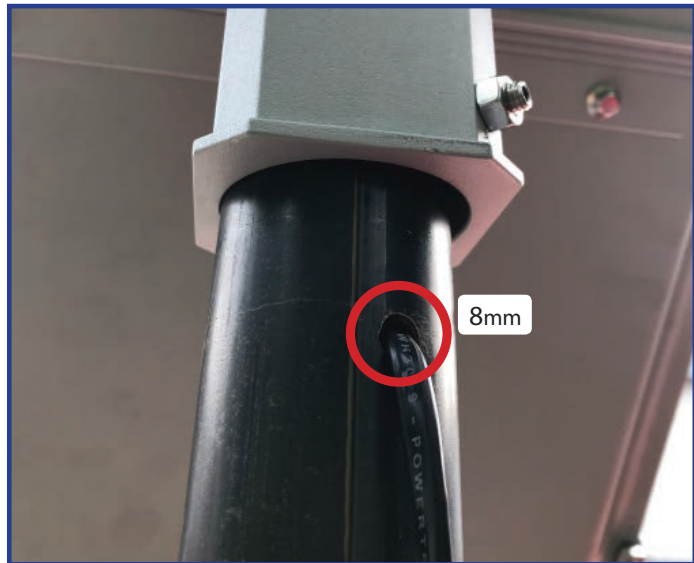


Fig. 2.1a
Solar panel power cable drill location

4. Securely fasten the included grub screws to the bracket. Tighten the locking bolts to prevent the grub screws from loosening. (Fig. 2.1b)

- **Note:** For poles greater than 4m in height, tapered poles are preferable for camera stability and pole strength.



Fig. 2.1b
Installed grub screws

2.2 Adjusting solar panel angle

To ensure your solar panel absorbs as much light as possible, it's important to adjust the solar panel angle to an ideal angle, depending on your region (refer to table below).

1. Use a flat head screwdriver to remove the bracket cover (Fig. 2.2a).
2. Once the cover is removed, loosen the Allen head to adjust the solar panel angle (Fig. 2.2b).

Ideal panel angles (H°) by Australian city

Sydney	Melbourne	Perth	Brisbane	Hobart	Adelaide	Darwin
34°	38°	32°	27.5°	43°	35°	12.5°

Note: Ideally, the panel must point north with the correct angle from the table above. Please contact VIP Vision for cities outside of Australia.

To ensure the solar panel works efficiently, it will require regular cleaning. The lower the angle the solar panel is positioned (flatter), the more often it will need to be cleaned.



Fig. 2.2a
Solar panel angle adjust cover

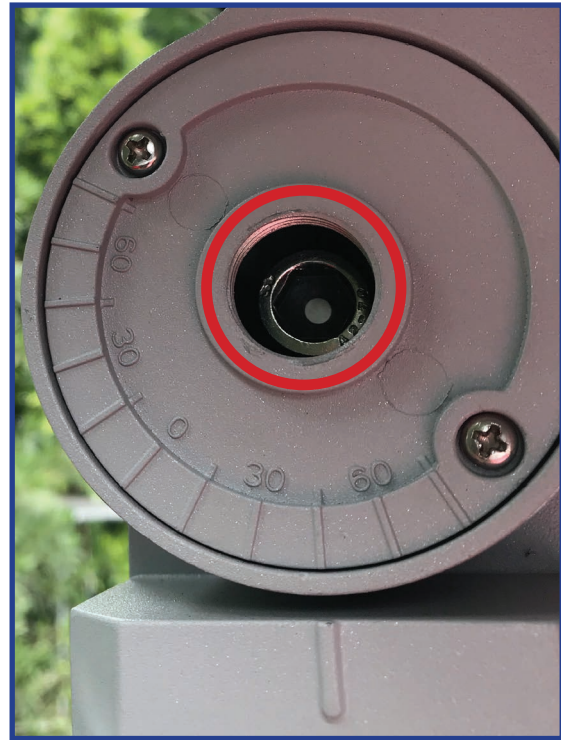


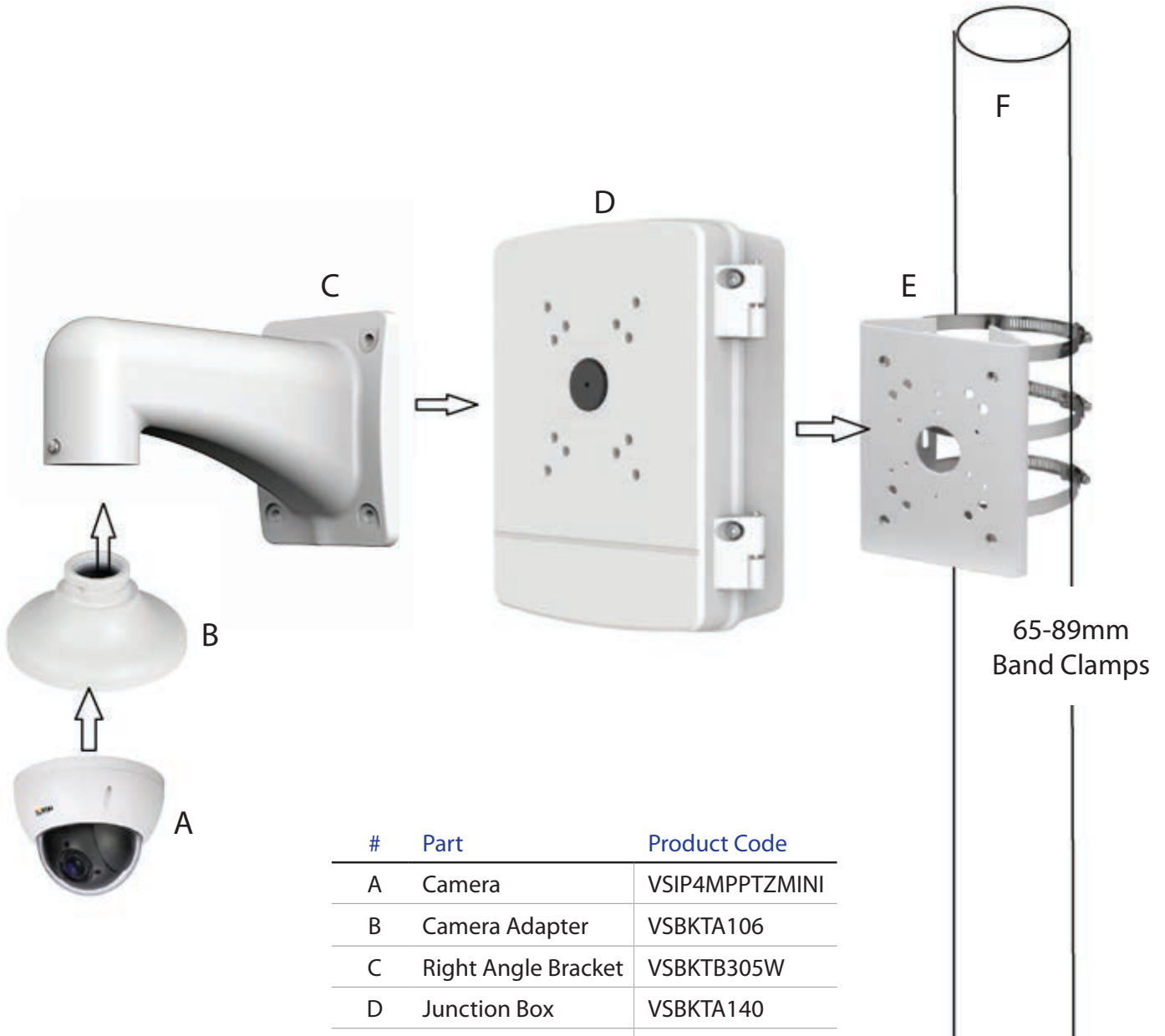
Fig. 2.2b
Solar panel angle adjust Allen head

3. Tighten the bolt after adjusting the angle to secure the solar panel in place.
4. Replace the cover.

2.3 Mounting the camera to the pole

The camera, camera adapter, right angle bracket and junction box are already connected (A, B, C & D).

- Mount the pole mount bracket to the pole first.
- After the pole mount is installed, mount the junction box to the pole mount.
- Open the junction box and tighten the screws inside to securely fasten it to the pole mount.



#	Part	Product Code
A	Camera	VSIP4MPPTZMINI
B	Camera Adapter	VSBKTA106
C	Right Angle Bracket	VSBKTB305W
D	Junction Box	VSBKTA140
E	Pole Mount Bracket	VSBKTA150
F	Pole	<i>Not supplied</i>

1. Mount the pole mount bracket onto the pole using 3 included band clamps (Fig. 2.3b).

Note: The 3 included band clamps are 65-89mm for poles 50-60mm in diameter. If installing on a thicker pole (eg. 80-150mm), larger band clamps will be required.



Fig. 2.3a
Mounted pole bracket (front)



Fig. 2.3b
Mounted pole bracket (back)

2. Open the junction box (Fig. 2.3c).

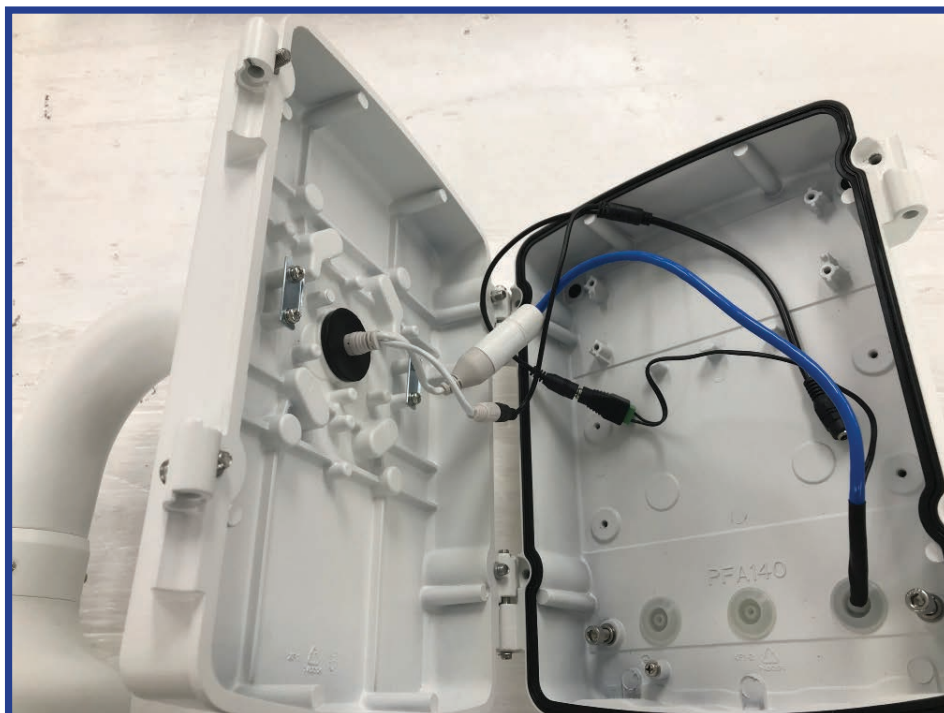


Fig. 2.3c
Junction box interior (no 4G router)

Note: This image shows the inside of the junction box as seen with the WiFi kit. The 4G kit will also have the 4G router pre-installed inside the junction box.

Caution: Do not allow the negative and positive power supply wires from the solar panel to touch (short circuit) - this will cause the lithium polymer battery to enter protection mode and output voltage will drop to 0V.

The only way to recover from this is to disconnect and then reconnect the battery inside the panel - Please contact VIP Vision™ for further details.

When running cables, insulation should be removed from each end and cut carefully, **ensuring each end does not touch each other.**

4. Run the power cable coming from the solar panel through one of the cable holes of the junction box.
5. **Carefully** connect the solar panel power cable to the terminal block, with the **red wire connecting to +** and the **black wire connecting to -**. (Fig. 2.3f)



Fig. 2.3e
Terminal block



Fig. 2.3f
Solar battery cables connected to terminal block

3. Connections

3.1 Connect using WiFi (SLR-A75-4W)



This section covers how to set up the WiFi network for your WiFi Solar Kit. Most of the setup for the solar panel side of the installation has already been done - it just needs to be connected to the solar panel battery for power.

Note: The station side of the wireless bridge should already be mounted under the solar panel.

1. Connect a DC jack from the terminal block to the camera.
2. Ensure the Ethernet cable is connected between the camera and the wireless bridge (station).
3. Mount the other side of the wireless bridge (access point) on the building, facing towards the station on the solar panel.
4. The access point can be powered by one of the following methods:
 - a. Connect the AP's network port to a PoE switch.
 - b. Connect the AP's network port to the included PoE injector, then connect the injector to a network switch and a 24V power supply.
5. (Optional) Connect the network switch to an NVR (The camera includes a microSD card for edge recording).
6. (Optional) Connect the network switch to a router.

Refer to the next page for a WiFi system map example using a PoE injector.



Fig. 3.1a
Example WiFi Setup

3.2 Connect using 4G (SLR-A75-4G)

NOTE: 4G setup requires an active SIM card (not included).

For more information on how to configure the 4G router, refer to the 4G router manual (included).

1. Insert an active SIM card into the SIM slot.
2. Connect a DC jack from the terminal block to the 4G router.
3. Connect the other DC jack from the terminal block to the camera.
4. (Optional) Connect an antenna to the 4G router to improve signal strength (not included).

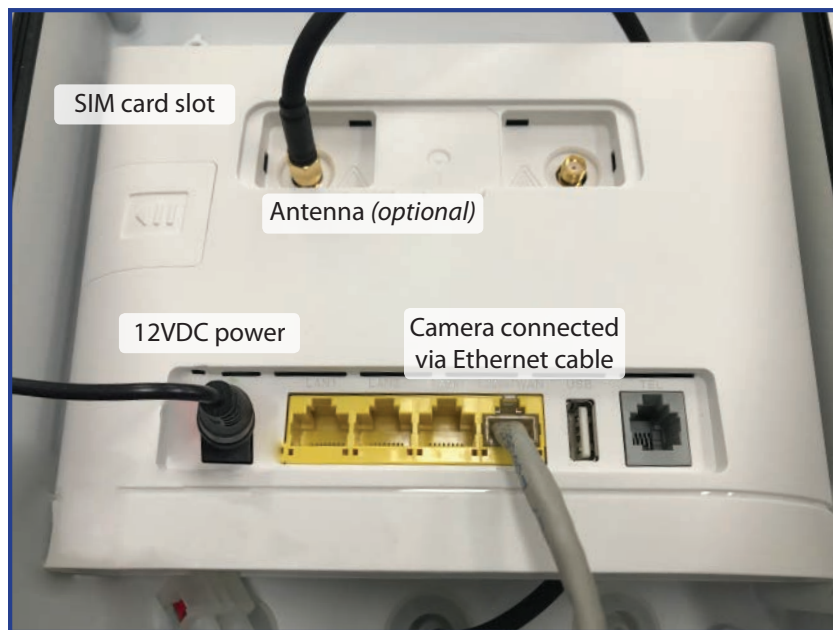


Fig. 3.2a
4G router overview

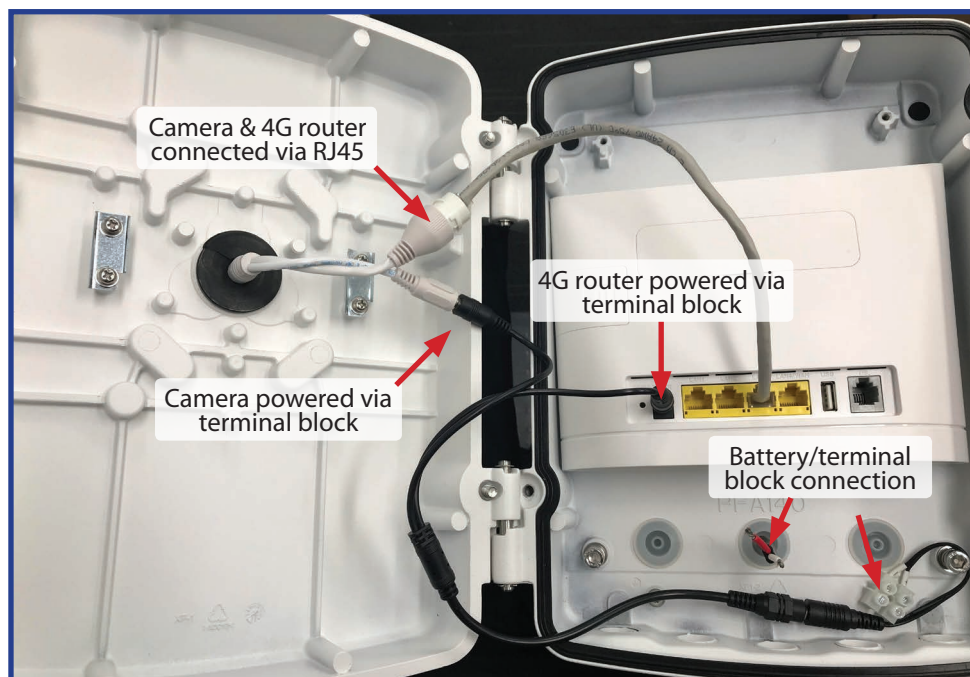
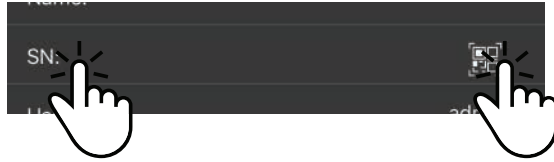


Fig. 3.2b
Connection overview

QR code remote access setup (4G)

1. Install the free app from the App Store for iOS (iDMSS Plus) or Play Store for Android (gDMSS Plus).
2. Open the iDMSS Plus/gDMSS Plus app you have installed on your device and select "Camera"
3. Select Menu, then select "Device Manager". (Fig. 3.2c)
4. Press the "Add" button and tap "OK" when prompted.
5. Select "Wired device"
6. Select "P2P" & enter a name for the camera. This name is for reference only and can be set to anything.
7. Enter the serial number of the camera into the "SN:" text box, **OR** select the image of the QR code (pictured) and use your phone to scan the QR code included with the kit. Make sure the app is permitted to access your phone's camera. 
8. Enter the default username **admin** and password (refer to configuration sheet inside junction box). For extra security, be sure to change these details before completing installation.
9. In Live Preview, you can choose between using Main or Extra stream. (Fig. 3.2e) Main displays a higher quality stream but uses up more data and has a slower connection, while Extra consumes less data and bandwidth but has lower image quality.
10. When using Playback, ensure that Live Preview is set to Main. If set to Extra, the screen will be black. This is because the camera has been preset to only record the Main stream to the microSD card (you can change this setting).
11. Select "Start Live Preview". If the details were entered correctly, your phone should connect to your recorder and you will see the live camera display.

For more information on how to configure the camera, refer to the camera's Quick Start Guide (included).

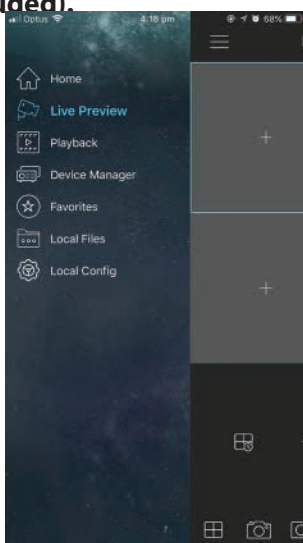


Fig. 3.2c
Main Menu

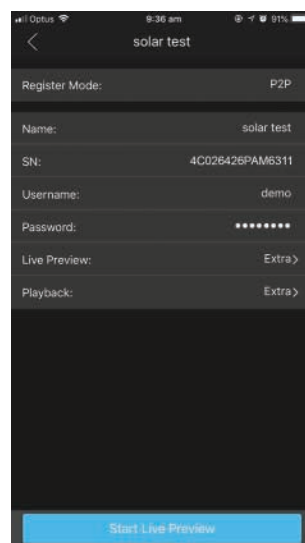


Fig. 3.2d
Camera details

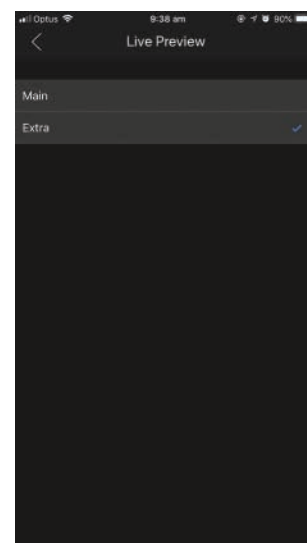


Fig. 3.2e
Live Preview stream selection

3.3 Finish camera installation

1. Close the junction box and securely fasten the 4 attached bolts (Fig. 3.3a).



Fig. 3.3a
Complete solar surveillance system

4. Solar Sensor Light Configuration (Optional)

This section covers how to set up the motion-activated 40W LED light on the solar panel. Our example will show you how to configure your solar panel & light with the remote control, showing you the steps required to set up the light to activate after motion is detected at night.

With this setup, the solar panel can double as a motion-activated security light at night, as well as a network CCTV system.

The solar panel's motion-activated LED light is disabled by default. Solar panel configuration requires the remote control (*provided on request*).

Note: Enabling the LED light and sensor will increase power consumption and reduce battery power available for the CCTV system.

Incorrectly editing power settings can permanently damage the solar panel, solar battery and/or LED light. Consult your VIP Vision professional for more information. Only edit power settings exactly as outlined in this guide.

4.1 Setting Up 40W Motion Activated LED Light

1. Ensure the solar panel battery is charged by checking that the red light on the back of the panel is flashing/illuminated. If the light is off, take the solar panel outside and wait for it to change in the sunlight.
2. Use the remote control and point it towards the black sensor at the back of the solar panel and press **State**.
 - If you hear 1 long beep, the remote successfully received data from the panel.
 - If you hear 3 quick beeps, the remote did not detect the panel.



Fig. 4.1a
Solar panel remote control

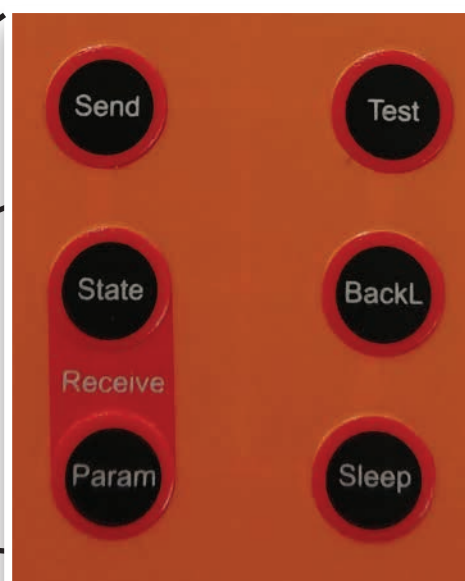


Fig. 4.1b
Solar panel remote buttons

- Point the remote control at the solar panel's black sensor and press **Param** (Parameters) to open the settings editing menu.
 - Use the + and - keys to scroll.
 - Press **Set** to begin editing values. The value should start flashing.
 - Use the + and - keys to edit the value while it is flashing.
 - Press **Set** again to confirm and stop editing.
 - If the remote enters sleep mode from inactivity, press **BackL** to turn it back on.

Note: Intervals are periods of time set in solar panel settings that occur after the sun sets. These periods can be set in 1 hour intervals, with a min. of 0 and max. of 3 Intervals overall.

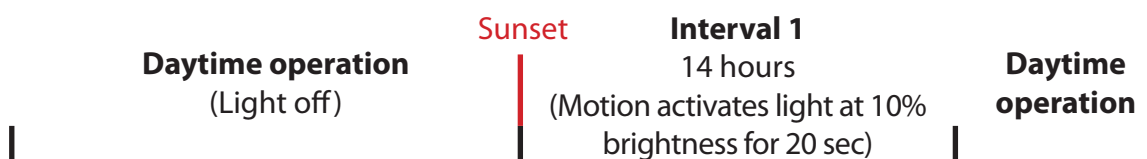


- Adjust the following settings:

Setting	Suggested Value	Description
S-Time-1	14H (Hours)	The duration of Interval 1. 14H sets the LED to be active all night.
S-C-Pow1	10%	% of LED-Cur power provided to the LED upon motion detection during Interval 1. Remains active for the duration of S-D-Time. 10% sets the LED to 10% brightness.
S-L-Pow1	0%	% of LED-Cur power provided to the LED after the last detected motion and S-D-Time has elapsed, during Interval 1. 0% sets the LED to turn off.
S-Time-2	0H	The duration of Interval 2. 0H skips this interval.
S-Time-3	0H	The duration of Interval 3. 0H skips this interval.
LED-Cur	0.15A (Amps)	LED driven current. Can be set from 0.15A to 1.1A. Warning: Do not exceed 1.1A, as this can damage the LED.
S-D-Time	20s	Duration which the light stays on for after last detected motion.

- Point the remote control at the solar panel's black sensor and press **Send** to update the solar panel with your new configuration. If the face symbol changes to a smile and you hear a long beep, the configuration settings were sent successfully.

The LED light has now been configured to activate at night when motion is detected (as shown in the diagram below):



Note: To change solar panel settings back to **factory default**, set **Re-Deflt** to **YES**

Disabling Motion Activated LED Light

To disable the LED light system again, simply **change all S-Time values (S-Time-1, S-Time-2 & S-Time-) back to 0H.**

This will skip every Interval after the sun sets, so editing other values after this point is unnecessary.

4.2 Check Solar Panel Configuration



Fig. 4.1b
Solar panel State menu

To check the solar panel's current settings configuration, press the **State** button (*Fig. 4.1b*). This will show info such as battery level, light activity (on/off), temperature, battery voltage, load voltage, run time (in days), battery history and more.

4.3 Test LED Light

1. Point the remote control at the solar panel's black sensor and press **Test**.
2. Test the LED light by adjusting the light level on the remote screen with the **Test** button. This scrolls through different light percentages. (100%, 70%, 50%, 30% and 0%)

For more detail on editing solar panel settings, refer to the instruction manual included with the remote control.

5. Troubleshooting

1. I can't connect to the camera using the QR code.

- Ensure that your camera is powered on power.
- Check that the inserted SIM card is active.

2. Video footage is slow/laggy/choppy.

- Ensure that your camera is in an area with good mobile service coverage and that only one user is viewing the system at once.
- Switch your mobile device to view the Extra (sub) stream instead of Main to use less bandwidth.

3. My camera doesn't have power.

- Check the connections from the solar panel battery to the camera.
- If the battery is out of power, the camera should automatically turn on once the solar panel absorbs more light.



Note:

All products, designs and software here are subject to change without prior written notice.

Please visit our website for more information.

For more information, please visit:

www.vip-vision.com