



WF4000VH User Manual



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Introduction

Video Hub is a hardware accessory designed to extend the capabilities of a security system by adding IP camera integration and visual alarm verification. It is paired with a DSC Connect cellular communicator and, once installed, allows installers and end users to connect IP cameras to the system, stream live video, and automatically capture snapshots before and after alarm events.

Video Hub connects to the network via Wi-Fi and bridges the alarm panel and the IP cameras. When an event is reported by the alarm panel through the DSC Connect cellular communicator (for example, an intrusion alarm, panic, or zone trouble), the Video Hub instructs the configured cameras to capture a series of snapshots. These snapshots are then made available in the DSC Connect Installer app (used by installers and central monitoring stations) and the DSC Connect app (used by end users) providing visual context for every event in the system log. This approach enables video verification of alarm events, which can reduce false alarms, accelerate response times, and give end users peace of mind by allowing them to see exactly what is happening at their property when an alarm occurs.

The Video Hub is configured by installers through the DSC Connect Installer app. End users interact with the system through the DSC Connect app, which also allows them to add cameras and configure triggers in addition to streaming and viewing events.

- ❶ **Note:** Snapshot trigger intervals may vary depending on the panel configuration and type of connection between the alarm panel and the DSC Connect cellular communicator.

Key features

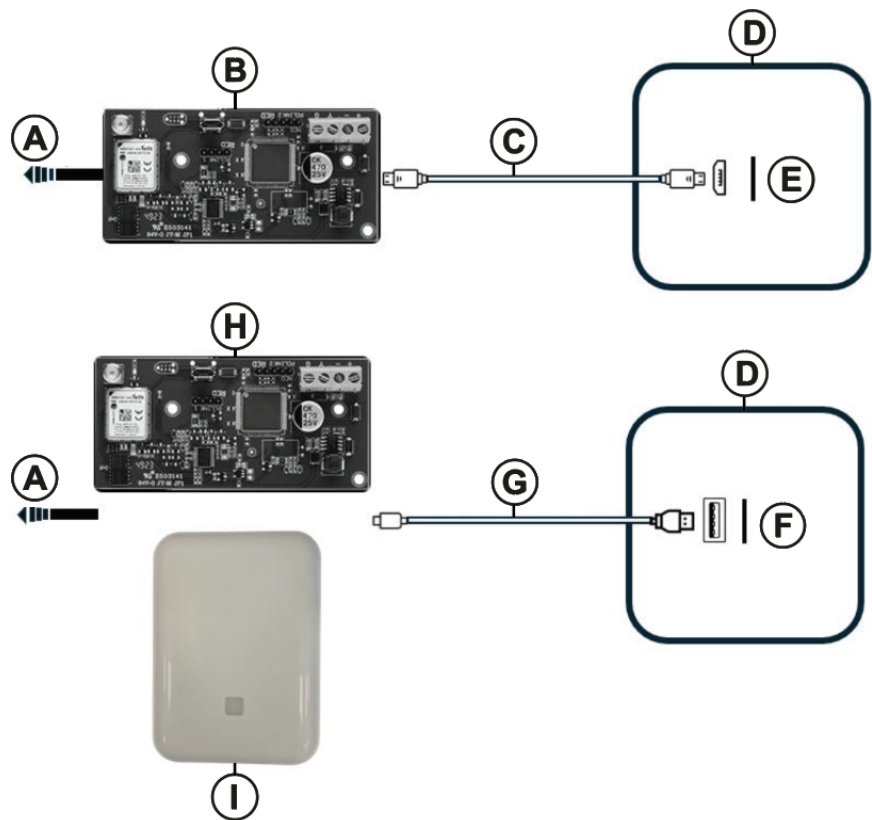
- **Wi-Fi Connectivity:** Connects to the network via Wi-Fi, enabling communication with IP cameras and cloud services.
- **Multi-Protocol Camera Support:** Compatible with ONVIF and RTSP IP cameras, allowing integration with a wide range of camera brands and models.
- **Automatic ONVIF Camera Discovery:** ONVIF-compatible cameras on the same network are automatically detected by the hub, simplifying setup.
- **Manual Camera Configuration:** Cameras can be added manually using their IP address, username, and password for control over which devices are integrated.
- **Camera and Trigger Management for End Users:** End users can add cameras and configure triggers directly from the DSC Connect app.
- **Event-Triggered Snapshots:** Configurable triggers automatically capture pre-alarm and post-alarm snapshots when specific events occur, providing visual verification of incidents. A total of 10 snapshots are captured per event, with a configurable pre/post split.
- **Live Video Streaming on Demand:** End users can stream live video from any configured camera through the DSC Connect app. Up to 3 cameras can be configured for pre-event verification, while the remaining 253 cameras can be assigned to post-event verification.
- **Snapshots on Demand:** End users can manually capture a snapshot from any configured camera at any time.
- **SIA Protocol Support:** The Video Hub supports the SIA (Security Industry Association) protocol for standardized alarm event reporting and communication with central monitoring stations.
- **Custom CID Trigger Support:** Custom Contact ID (CID) codes can be configured to trigger snapshot capture, beyond the standard event types.
- **Powered by the Communicator:** The Video Hub is powered directly by the DSC Connect cellular communicator using the supplied cable.

Technical specifications

Specification	Value
Supply voltage	3.6 V (powered via DSC Communicator)
Power consumption	Operating: 80 mA / Standby: 40 mA
Wi-Fi protocol	802.11 b/g/n (2.4 GHz)
Camera protocols	ONVIF, RTSP
Maximum camera	254 (3 with pre/post verification, 251 post-events only)
Operating temperature	-40 °C to 85 °C
Dimensions	95 × 95 × 25 mm

Wiring diagram

Figure 1: Wiring diagram



Callout	Description	Callout	Description
A	To the alarm panel	F	USB connector
B	LE4050M	G	USB Type-C to USB Type-A
C	Micro USB cable	H	LE4050C
D	Video Hub (WF4000VH)	I	LE4060U
E	Micro USB connector		

Video Hub connects to the DSC Connect cellular communicator using one of two cable types, depending on the communicator model:

Communicator model	Cable type
LE4050M	Micro-USB to Micro-USB
LE4060U / LE4050C	USB Type-C to USB Type-A

The cable provides both power and data communication between Video Hub and the communicator. Video Hub does not require an external power source - it is powered entirely by the DSC Connect cellular communicator.

- ❶ **Note:** Only use the cable provided with the hub. Other cables may not provide the correct power or data signaling, which can cause the hub to malfunction or fail to pair with the communicator.

Installation instructions

Follow these steps to install and pair Video Hub with your DSC Connect cellular communicator.

1. Connect the DSC Connect cellular communicator according to the instructions of the specific alarm panel you are using. The communicator must be properly installed and operational before Video Hub is paired.
2. Download the DSC Connect Installer app from the Google Play Store or Apple App Store, and log in using the installer credentials provided.

- **Device Registration in the DSC Connect Installer App**

Serial Number and Cong Key: DSC Connect Installer Portal: <https://connect.dsc.com/>



- **Setting up your account in the DSC Connect App**

Master User Credentials: Download the DSC Connect mobile app for end users by scanning the QR code below.



3. To pair the hub with the communicator, search for the DSC Connect cellular communicator connected to the hub by pressing the menu button in the DSC Connect Installer app.

Figure 2: DSC Connect App main screen



4. In the menu, enter the serial number of the communicator and press **Search** in the upper right corner. From the search results, select the device.
5. Once you have selected your device, access the **Settings** page of the app and press the **Hub Settings** menu.

Pairing the Video Hub

To pair the Video Hub with the DSC Connect cellular communicator, connect the hub to the communicator using the provided cable and ensure the communicator is powered on.

1. Press the **Add Hub** button in the **Hub Settings** menu.
2. Scan the QR code printed on the back of the Video Hub. The QR code uniquely identifies your hub and links it to the communicator.
3. Once the pairing is complete, the hub's data (such as its serial number and firmware version) will appear in the **Hub Settings** menu of the app.

❗ **Note:** After pairing, the hub may not yet be fully operational. If the communicator or the hub is running an older firmware version, an "**Update required**" message may appear in the **Hub Settings** menu.

Firmware update

Firmware updates are optional after pairing. However, updating the latest firmware is recommended to ensure full functionality, including network connectivity and camera integration.

1. Press the **Update** button located under the **UPDATE REQUIRED** message.
2. During the update process, the Hub LED will be solid red. When the update finishes, the LED will change to solid blue, indicating the hub is ready.
3. Wait for the update to be completed and for the device to restart. After the restart, all the configuration menus and options for the hub will be visible in the **Settings** page of the DSC Connect Installer app.

❗ **Note:** Do not disconnect the hub or power off the communicator during the firmware update.

Network settings

Once installed and paired, Video Hub needs Internet access to communicate with the cloud services and to allow remote streaming and event reporting. The hub supports Wi-Fi connection.

To configure the network, select the **Settings** tab in the DSC Connect Installer app and click **Network Settings**.

Wi-Fi configuration

To connect the hub via Wi-Fi, select the **Enable Wi-Fi** checkbox, then set up your wireless network using one of the two following options:

Search for available networks (recommended):

1. Click the **Search** button and wait while the device scans for nearby Wi-Fi networks.
2. Select your preferred Wi-Fi network from the list.
3. Enter the network password.
4. Click **Connect**, then click **Save Settings**.

Manual entry

Use this option if the desired network is hidden or not appearing in the scan list.

1. Manually enter the **SSID** (network name) and **Password** of the Wi-Fi network.
2. Click the **Save Settings** button to apply the configuration.

Custom IP Address (Static IP)

By default, Wi-Fi are configured to **Obtain an IP address automatically** (DHCP). However, if your network requires a fixed IP address, you can switch to **Use the following IP address**.

When using a static IP, enter:

- **IP address:** the fixed IP that will be assigned to Video Hub
- **Netmask:** the subnet mask for the network
- **Gateway:** the IP address of the network's default gateway/router

After entering the values, click **Save Settings** to apply the configuration.

Camera settings

Connecting one or more IP cameras to Video Hub is optional, but it is the key feature that unlocks live streaming, on-demand snapshots, and event-triggered visual verification.

Cameras can be added by installers through the DSC Connect Installer app and by end users through the DSC Connect app. Both apps support the same camera addition workflow.

Camera requirements

Before adding a camera, ensure the following:

- The camera must support the ONVIF or RTSP protocol.
- The camera and Video Hub must be connected to the same network.
- The camera should be configured with a static IP address. If the IP address changes, the hub will no longer be able to communicate with the camera, and live streaming and snapshots will fail until the new IP is reconfigured.
- You will need the camera's login credentials (username and password).

Camera installation

Physically mount and power your IP camera according to the manufacturer's instructions. Connect it to the same network as Video Hub and verify it is reachable on that network before attempting to pair it.

From the **Settings** page of the DSC Connect Installer app (or the DSC Connect app), click **Camera Settings**.

Adding ONVIF-Compatible Cameras (Automatic Discovery)

Video Hub automatically scans the network for ONVIF-compatible cameras.

1. Under the **Nearby ONVIF Cameras** section of the **Camera Settings** menu, the hub displays a list of all available ONVIF cameras on the same network.
2. Select the desired camera, then enter the username and password for that camera.
3. Press the **Connect** button to add the camera to the hub.

Manually adding cameras

If automatic discovery is not available or the camera is not detected, you can add cameras manually using either the ONVIF or RTSP protocol.

1. In the **Camera Settings** menu, select **Can't find your camera?**.

2. A menu will appear where you can choose which camera type to add based on the supported protocol:
 - Adding an ONVIF camera manually:
 - i. Enter the camera's IP address.
 - ii. Enter a camera name for easy identification in the Video Hub interface.
 - iii. Provide the camera's username and password (default or your updated credentials).
 - iv. Press **Connect** to add the camera.
 - Adding an RTSP camera manually:
 - i. Open the camera's own settings page using its IP address in a web browser and locate the port number used for its RTSP stream.
 - ii. Enter the camera's URL in the format IP address: port (e.g., 192.168.1.100:1000).
 - iii. Enter a camera name for easy identification in the Video Hub interface.
 - iv. Provide the camera's username and password (default or your updated credentials).
 - v. Press **Connect** to add the camera.
6. Once added, the camera will appear in the **My Cameras** section of the app.

Adding Cameras via the DSC Connect App

End users can also add cameras directly from the DSC Connect app, following the same process as in the DSC Connect Installer app. Navigate to the camera settings within the DSC Connect app, and use either automatic ONVIF discovery or manual entry (ONVIF or RTSP) to add new cameras. This allows end users to expand their camera setup independently without requiring the installer to return on-site.

Streaming on demand

End users can live stream video from any configured camera at any time using the **DSC Connect app**. To use this feature, the end user must download the **DSC Connect app** from the Google Play Store or Apple App Store and log in using the credentials provided with the communicator.

To start a live stream:

1. Open the **DSC Connect app**.
2. Navigate to the **Favorites** tab.
3. Locate the camera under the **My Camera** section.
4. Click the green **Play button** to begin streaming.

Snapshot on demand

In addition to live streaming, end users can capture a still image from any configured camera at any time.

1. In the **DSC Connect app**, open the **My Camera** menu.
2. In the **My Camera** menu, click the **camera button** to immediately capture a snapshot from the camera.

Triggers (event-triggered snapshots)

Triggers allow the hub to automatically capture a series of snapshots whenever a specific alarm event occurs on the system. Because the hub is connected to the DSC Connect cellular communicator, any event reported by the alarm panel, including alarms, troubles, info messages, and even custom CID codes can be used to trigger snapshot capture.

Triggers can be configured by installers in the **DSC Connect Installer** app and by end users in the **DSC Connect app**. The process is the same in both apps.

Creating Triggers in the DSC Connect Installer App

1. Select the camera to which the trigger should apply.
2. Click **Triggers** at the bottom of the screen.
3. Click the + button in the upper right corner to add a new trigger.

Creating Triggers in the DSC Connect App

End users can also create, edit, and delete triggers directly from the **DSC Connect app**. The workflow mirrors the **DSC Connect Installer** app: select a camera, navigate to the **Triggers** section, and use the + button to add a new trigger. This gives end users full control over which events generate snapshot verification, without needing to contact the installer.

Trigger types

The following event types are available when configuring a trigger. The trigger protocol can be set to SIA or CID:

- **Alarm:** A general intrusion or burglary alarm.
- **Perimeter Alarm:** An alarm originating from a perimeter zone (e.g., door or window).
- **Panic:** A panic alarm initiated by the user.
- **Medical:** A medical emergency alert.
- **Arm:** The system being armed.
- **Disarm:** The system being disarmed.
- **Arm by User:** The system being armed by a specific user.
- **Disarm by User:** The system being disarmed by a specific user.

CID only:

- **Custom CID:** Use this when you need to trigger snapshots on a specific Contact ID (CID) code that is not covered by the standard event types listed above. This is useful for integrating manufacturer-specific or custom event codes.

Event / restore behavior

Each trigger can be configured to respond to the event itself, the restore of that event, or both:

- **Event:** Snapshots are captured only when the specified event occurs. You receive one event with snapshots.
- **Restore:** Snapshots are captured only when the event is restored (returns to normal). You receive one event with snapshots.
- **Both:** Snapshots are captured for both the event and its restore. You receive two separate events, each with 15 snapshots.

This flexibility allows the installer or end user to choose whether they want visual verification of the initial alarm only, the restoration only, or both - depending on the type of event and the monitoring requirements.

Zone configuration

Triggers can be applied to all zones or to a specific zone:

- To trigger snapshots only when an event occurs in a particular zone, enter that zone number in the **Zone** field.
- To trigger snapshots whenever the event occurs in any zone, leave the **Zone** field empty.

This makes it possible to associate specific cameras with specific zones - for example, a camera covering the back door can be triggered only by events from the back door zone.

When all fields (Trigger Type, Event/Restore, and Zone) are configured, click **Save Settings**.

Snapshot Count (Pre/Post Alarm)

For each event, Video Hub captures a total of 10 snapshots. By default, the split is set to 0 pre-alarm and 10 post-alarm snapshots.

Use the pre alarm / post alarm slider to adjust the split according to your needs. The slider ranges from -15 to 10, allowing you to allocate more snapshots before or after the event.

- 8 pre-alarm and 2 post-alarm snapshots.
- 5 pre-alarm and 5 post-alarm snapshots.

View trigger events

Trigger events can be viewed in the **DSC Connect Installer** app and the **DSC Connect app** in two places:

1. **Below the camera view:** For quick access to recent events for that specific camera.
2. **In the Event Log:** For a complete chronological list of all system events.

❗ **Note:** Events that have associated camera snapshots are marked with a camera icon on the right side of the event entry. Click the event to view the snapshots that were captured.

Edit or delete triggers

Once at least one trigger has been configured, you can return to the **Triggers** menu at any time to modify or remove it. This can be done in both the **DSC Connect Installer** app and the **DSC Connect app**:

Settings tab > Camera Settings > Triggers

From here you can delete an existing trigger, change its parameters, or add additional triggers for the same camera.

LED indicators

The LED on the front of Video Hub indicates its current operating state.

LED state	Meaning
Slow flashing green	Initializing / searching for Wi-Fi
Constantly ON blue	Connected to Wi-Fi / update complete
Solid red	Firmware update in progress
Flashing red	Power issue or camera sync error

DSC Connect App Features

Once the installer has completed the initial setup, end users interact with Video Hub through the **DSC Connect app**. The available features include:

- **Live Streaming on Demand:** View a live video feed from any configured camera at any time, via the **Play** button under the **My Camera** section of the **Favorites** tab.
- **Snapshots on Demand:** Capture an instant snapshot from any configured camera using the camera button in the **My Camera** menu.

- **Add Cameras:** End users can add new cameras directly from the **DSC Connect app** using the same process as the installer (automatic ONVIF discovery, manual ONVIF, or RTSP entry), allowing them to expand their setup independently.
- **Configure Triggers:** End users can create, edit, and delete triggers from the **DSC Connect app**, allowing them to choose which events trigger snapshot capture and adjust the pre/post alarm split.
- **Event Review with Visual Verification:** Browse alarm events in the event log. Events that include camera snapshots are marked with a camera icon, allowing the user to see exactly what was happening at the property before and after the event occurred.
- **Pre/Post Alarm Snapshots:** Automatically receive 10 snapshots per event. The pre/post alarm split can be adjusted from -15 to 10, with the total always equaling 10 snapshots, providing visual context for every alarm.