ADT Pulse℠ Interactive Solutions

MDC835

Mini Dome Camera

Installation Guide

Table Of Contents

CHAPTER 1 INTRODUCTION 1
Overview 1
Physical Details 2
Package Contents 4
CHAPTER 2 BASIC SETUP 5
Installation 5
CHAPTER 3 CEILING MOUNTING 5
Ceiling Mounting Installation 5
CHAPTER 4 ADT PULSE ENROLLMENT 9
Wired Connection to the Gateway Using the Pulse Portal 9
Using WPS with PIN to Enroll the Camera 12
If the Camera Continually Goes Offline 16
APPENDIX A SPECIFICATIONS 17
MDC835 IP Camera 17
Regulatory Approvals 17

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Chapter 1
Introduction

This Chapter provides details of the IP Camera features, components and capabilities.

Overview

This wireless 802.11n weather-resistant IP Camera, which comes with the IP66 rated housing, has a F1.8 large aperture Lens, SONY high sensitivity imaging sensor and high power IR LED illumination, enabling it to display high quality colorful image in low light condition and cover the distance up to 20 meters at night.

This device is also an all-in-one camera that has automatic day-night switching, built-in heater and Mechanical Pan/Tilt/Rotate orientation adjustment.

The camera is intended for use in ADT Pulse.

Features

- Lens Support. The IP Camera has the built-in F1.8 Lens with SONY Exmor high sensitivity 3.75 μm pixel image sensor.
- Dual Video Support. The IP Camera supports H.264 and MJEPG video compression.
- IR LEDs Support. The built-in two infrared LEDs can provide illumination for up to 20 meters.
- Built-in Heater. The built-in Heater ensures that the camera will continue to operate even in extremely cold outdoor climates. The heater turns on when the temperature falls below 26.6°F (-3°C).

Wireless Features

- Supports 802.11n Wireless Standard. The 802.11n standard provides for backward compatibility with the 802.11b/g wireless network.
- Supports WPS. Wi-Fi Protected Setup (WPS) can simplify the process of connecting the IP Camera to the wireless network by pin code mode via ADT pulse.
- Wired and Wireless Support. The IP Camera can be connected to the Pulse network wirelessly. It can also be hardwired to the network.

Physical Details

Front/Rear Panel

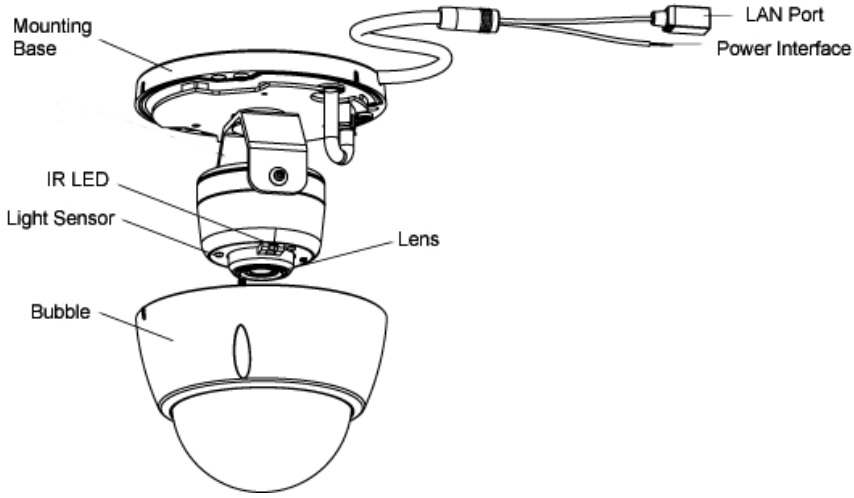


Figure 1: Front/Rear Panel

IR LEDs	They are used to provide illumination for night time. Please ensure that the two IR LEDs can be revealed in the transparent Dome.
Light Sensor	This is a hardware sensor to detect lux. Please ensure that the light sensor can be revealed in the transparent Dome.
Lens	No physical adjustment is required for the lens. Please ensure that the lens cover remains clean.
LAN port	Use a standard Ethernet cable (not included) to connect the LAN port of the supplied cable and the Pulse Gateway or TS Base panel. Note: ı Plugging in the Ethernet cable will disable the wireless interface. Only one interface can be active at any time. ı The Ethernet cable should only be connected or disconnected when the camera is powered OFF. Attaching or detaching the Ethernet cable while the camera is powered on does NOT switch the interface between wired and wireless.

Power Interface	Connect the two wires of the supplied cable to the terminal adapter. Do not use the other terminal adapters; doing so may damage the camera.
Power Indicator (Green, Amber, Blue)	On (Green) - Power on. Off – No power. Blinking (Green) - The LED will blink during start up or wireless connection is under association. On (Blue) - Network connection is available (wired or wireless). On (Amber) - If the LED is on for 5 seconds and then turns off, the WPS function has failed; or the heater is active. Blinking (Amber) – The WPS function is active. Note: If the data is being transmitted via WiFi/LAN, The color of the LED is blue in the mean time.

Reset/WPS/Image Flip Button

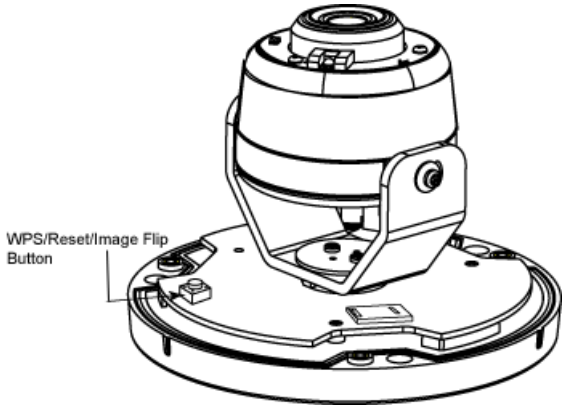


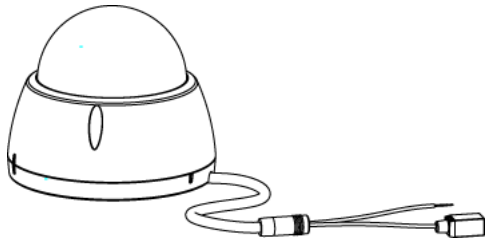
Figure 2: WPS/Reset/Image Flip Button

WPS/Reset/ Image Flip Button	The button serves three functions on the camera. ı WPS Pin Code Mode. When pressed and held for 5 seconds during the Pulse enrollment process, the camera creates an encryption-secured wireless connection. ı Reset. When pressed and held over 15 seconds, the camera reboots and the settings are restored to default values. ı Image Rotation. When the camera connected to ADT Pulse, the image will turn 180° if you fast-click this button twice.

Package Contents

The following items are included:

1. IP Camera with pigtail (DC-IN and RJ45)



2. Terminal Adapter

3. Wall Mount Screw Package

4. L Tool (T10)

5. Spice Connector

Chapter 2
Basic Setup

This Chapter provides details of installing and configuring the IP Camera.

Installation

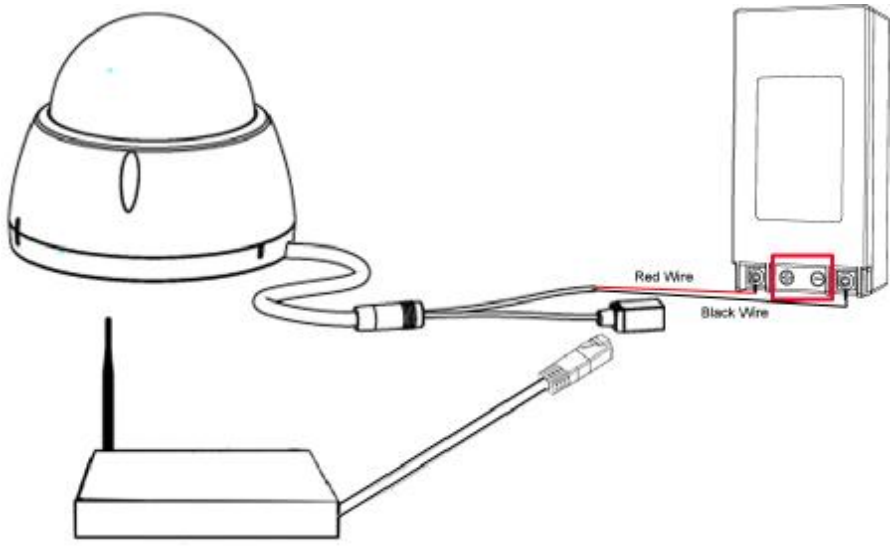


Figure 3: Wired Network Connection

1. Make the Connection

Using a Wired Connection

If you are using a wired connection to the MDC835, connect a standard Ethernet cable (not included) to the LAN port of the supplied cable of the camera and the Pulse Gateway or Total Security (TS) Base panel.

Using a Wireless Connection

The wireless (WPS) connection between the camera and the Pulse Gateway or Total Security (TS) Base panel is performed during the Pulse enrollment. See the following section for more details.

NOTE

NOTE: The Wireless and LAN interfaces cannot be used simultaneously. Making a wired LAN connection disables the wireless interface.

2. Power Up

a. Run the AC Wire to the spice connector.

b. Screw the red wire onto the positive(+) terminal of the terminal adapter.

c. Screw the black wire onto the negative(-) terminal of the terminal adapter.

d. Plug the terminal adapter into a power outlet.

CAUTION: Only use the terminal adapter provided. Using a different adapter may cause hardware damage.

3. Check the LED

The Power LED will turn on briefly, and then start blinking. It will blink during startup, which will take 60 to 90 seconds. After startup is completed, the Power LED should remain ON.

4. Enroll the Camera in ADT Pulse

This process is described in the later chapter.
After the enrollment, please check the image orientation. You may rotate the image 180 degrees by fast-clicking the WPS/Reset/Image Flip button twice.

5. Mount the Camera

Place the camera in a desired location near a power source. For mounting on the ceiling with the mounting plate, see Chapter 4 for more details.

Mounting Suggestion

To get the best video quality for targets at night, make sure that the camera's field of view does not include a foreground object, such as side wall or roof. Once installing on a ceiling, angle the camera so that a minimal portion of the wall is visible.

Chapter 3
Ceiling Mounting

This Chapter provides details for final ceiling mounting of the IP Camera

Ceiling Mounting Installation

NOTE: Ensure that the camera is configured and enrolled in ADT Pulse before permanently mounting it.

NOTE

1. Locate an unused indoor outlet to plug into the terminal adapter. The outlet should be located as close as possible to the location where the camera will be permanently mounted.

CAUTION: Do not plug in the terminal adapter until all the connections are completed and the camera is fully mounted.

2. Identify the location where you would like to mount the camera. And then drill three holes on the ceiling based on the mounting template (last page).
3. Remove the sponge from the camera. And then use the L tool to remove the three screws and the bubble from the camera.

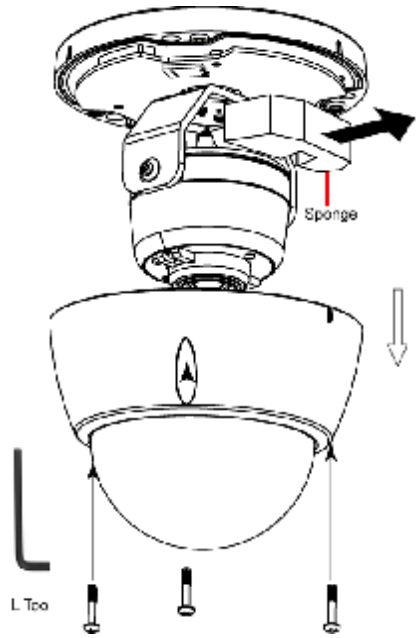


Figure 4: Removing the bubble from the Camera

4. If using the anchors, insert them into the mounting holes.
5. Align the three mounting holes of the camera stand with the three holes and mount the camera stand on the ceiling using the provided screws.

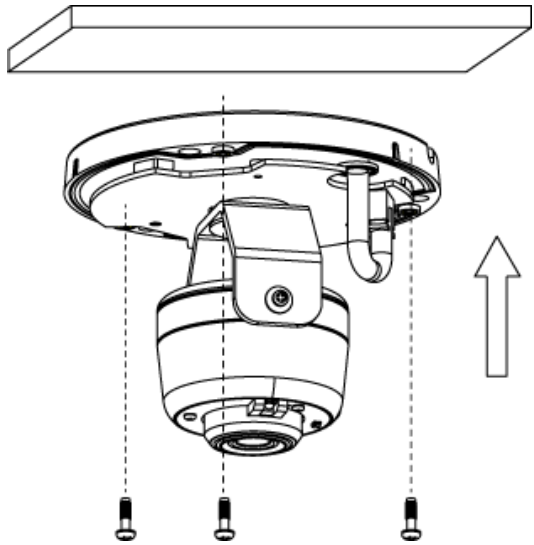


Figure 5: Ceiling Installation

NOTE: It is recommended to route the cable through the side opening of the mounting base.

NOTE

6. The camera offers 3-axis adjustments:

- Loosen the tilt adjust screw to adjust the tile angle (0°~70°).
- Adjust the pan angle (0°~330°) by holding the black liner.
- Use the lens to rotate (0°~350°) the camera.

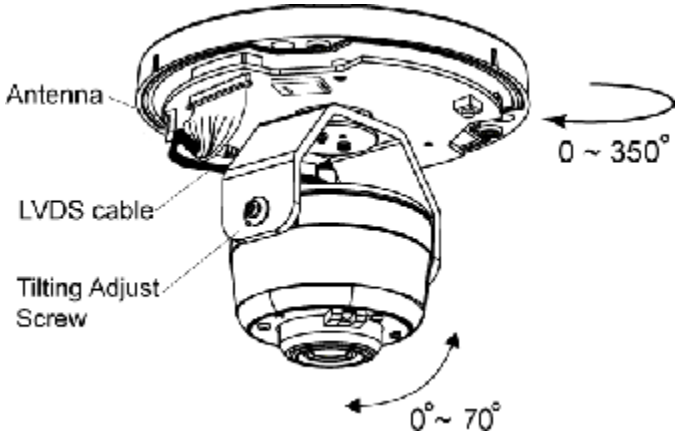


Figure 6: Angle Adjustment

CAUTION: Do not entwine the antenna while connecting the LVDS cable.

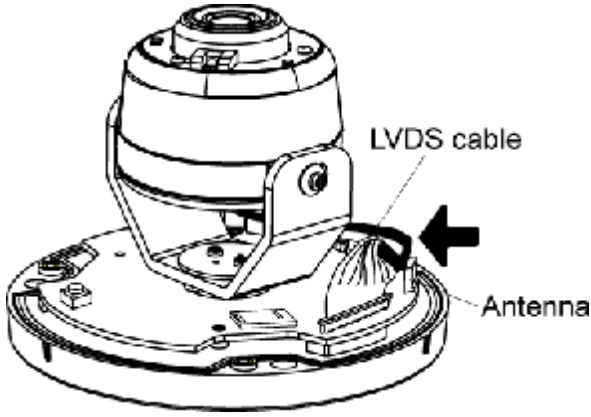


Figure 7: LVDS Cable

7. Attach the bubble to the camera and tighten it using the three screws.

NOTE: You can use the marks for alignment while attaching the bubble to the camera.

NOTE

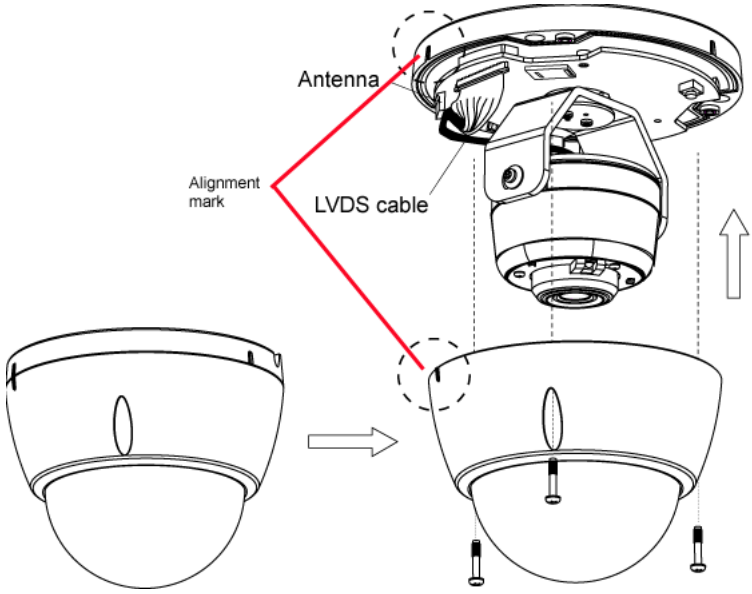


Figure 8: Attaching the Camera

CAUTION: Make sure to tighten up the three screws in order to prevent water from the camera.

CAUTION: Be careful not to let the bubble cover the light sensor and damage the LVDS cable while attaching the bubble to the camera.

8. Connect the power cable to the terminal adapter.
   - Screw the red wire onto the positive(+) terminal of the terminal adapter.
   - Screw the black wire onto the negative(-) terminal of the terminal adapter.
9. Plug the terminal adapter into a power outlet.
10. Make sure the IP Camera is firmly fixed on the ceiling.
11. Verify that the camera is active on the wireless network and is recognized by Pulse.

NOTE: It is recommended to let a qualified technician install the device.

NOTE

Chapter 4
ADT Pulse Enrollment

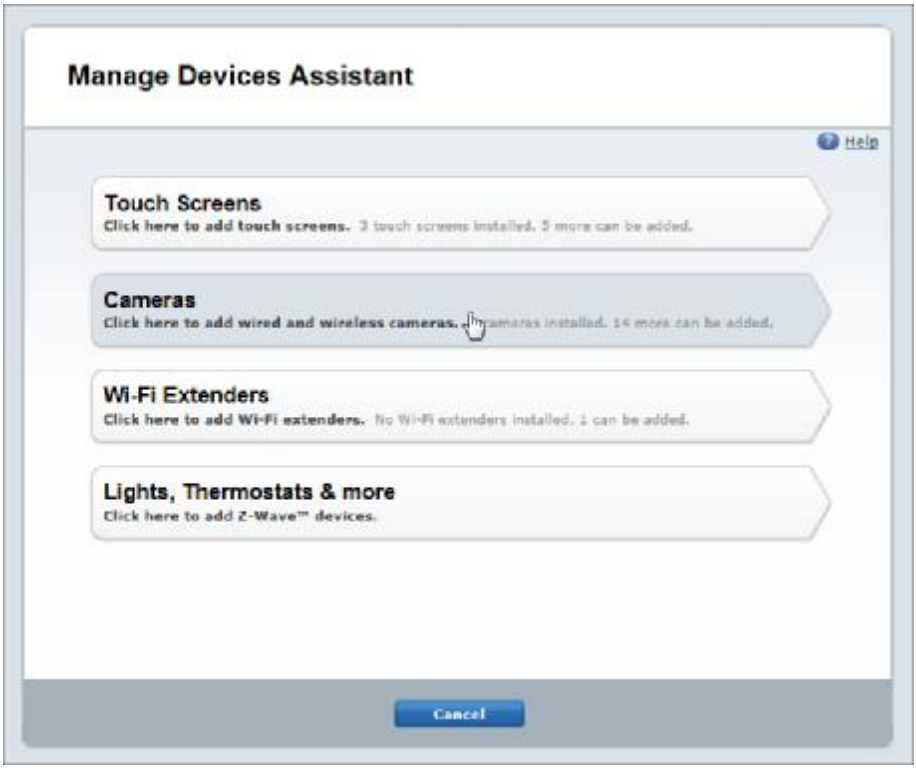
This section provides instructions for wirelessly enrolling the MDC835 Camera into the ADT Pulse network. This process uses the Wi-Fi Protected Setup (WPS) with PIN method to wirelessly enroll the Camera to the gateway via the ADT Pulse Portal or TS Installer App.

Wired Connection to the Gateway Using the Pulse Portal

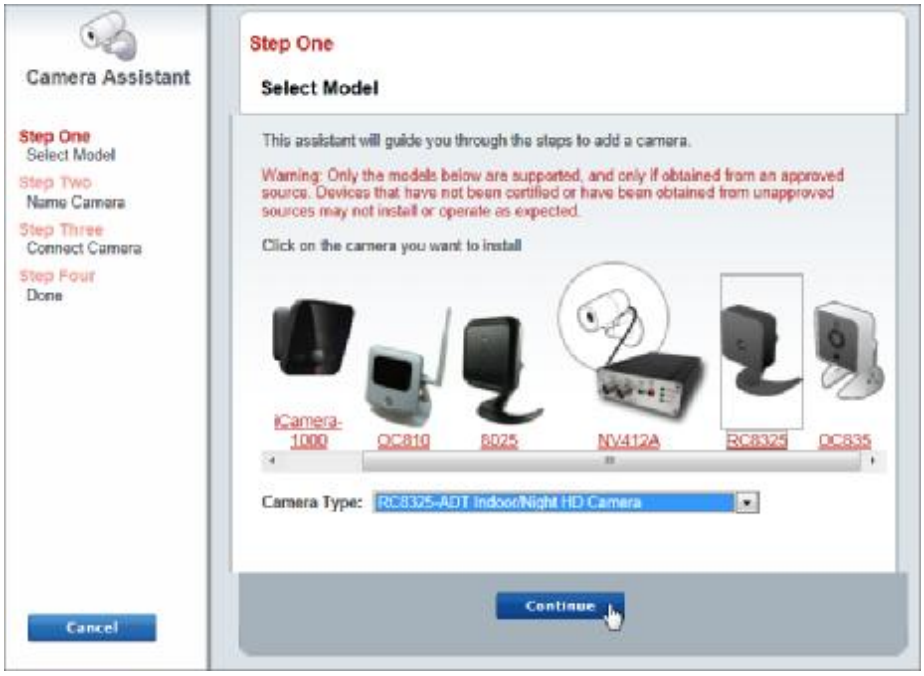
1. Set up the Camera, as described in the previous chapter.
2. Open a web browser and in the address bar, enter: https://Portal.ADTPulse.com.
3. Type your **Username** and **Password**, and then click the **Sign In** button.

4. Click the **System** tab, and then click the **Manage Devices** button.

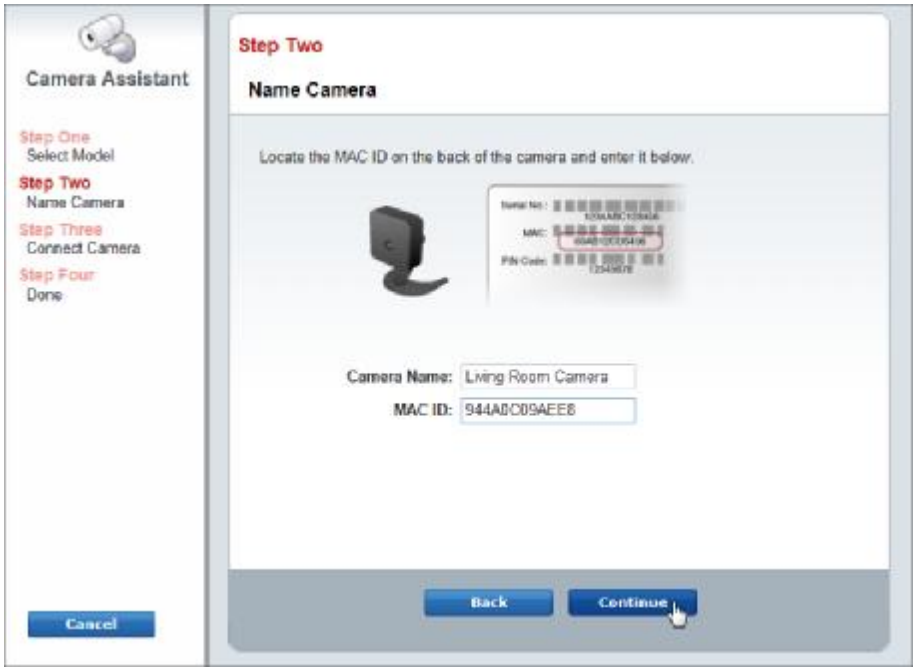
5. In the Manage Devices Assistant, click **Cameras**.



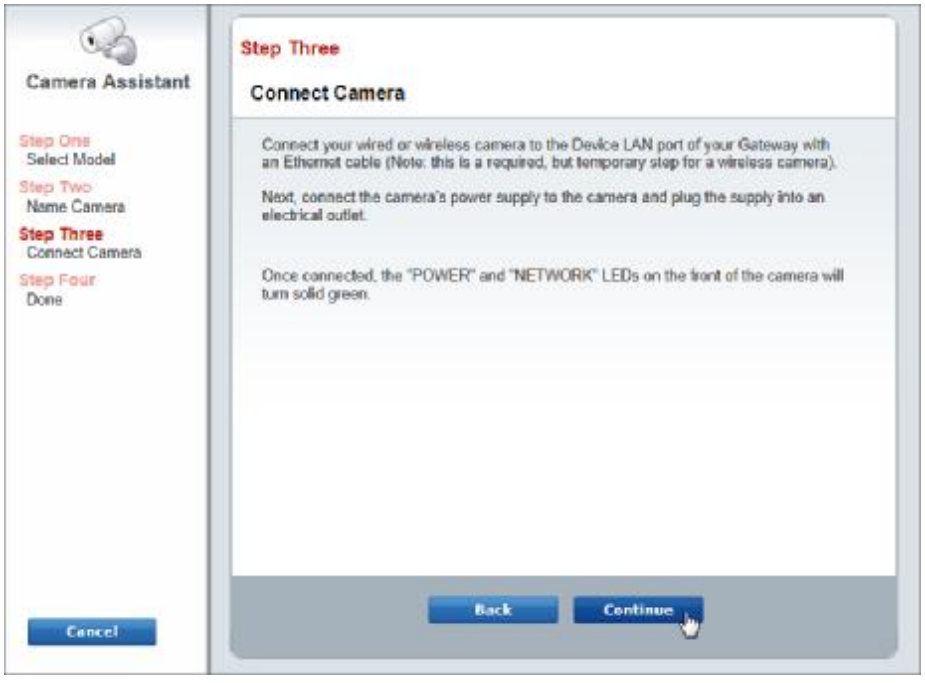
6. Click the picture of the **MDC835** or select it from the drop-down list, and then click the **Continue** button.



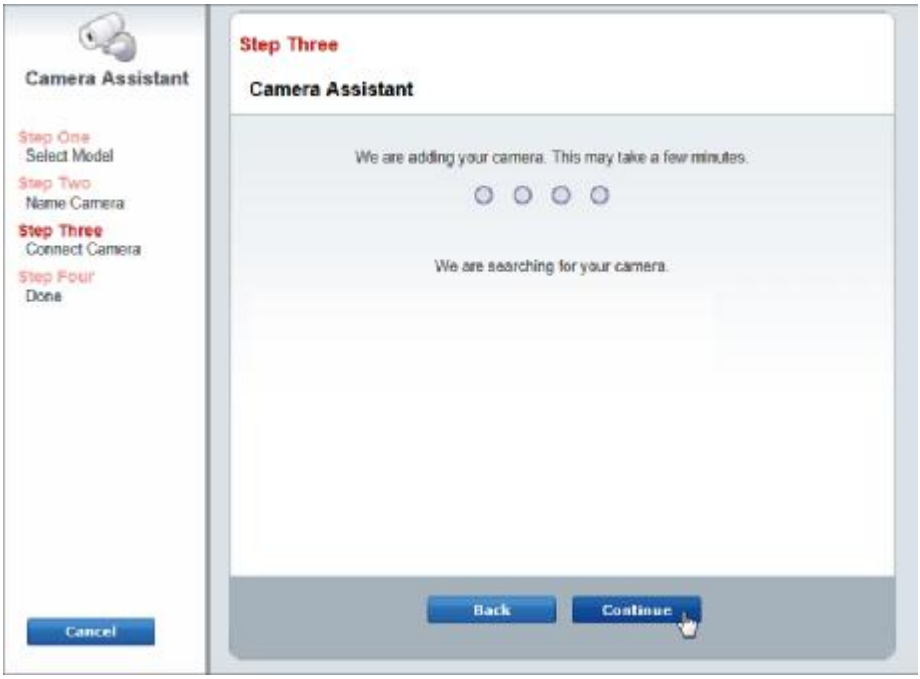
7. Assign the **MDC835** a unique Camera Name (usually based on the location of the camera) in the space provided, and then type in the camera's **MAC ID**.
8. Click the **Continue** button.



9. Ensure that the camera is connected to the device port of the Gateway using the Ethernet cable. Click **Continue**.



10. After the Camera has connected and the button is no longer grayed out, click **Continue**.

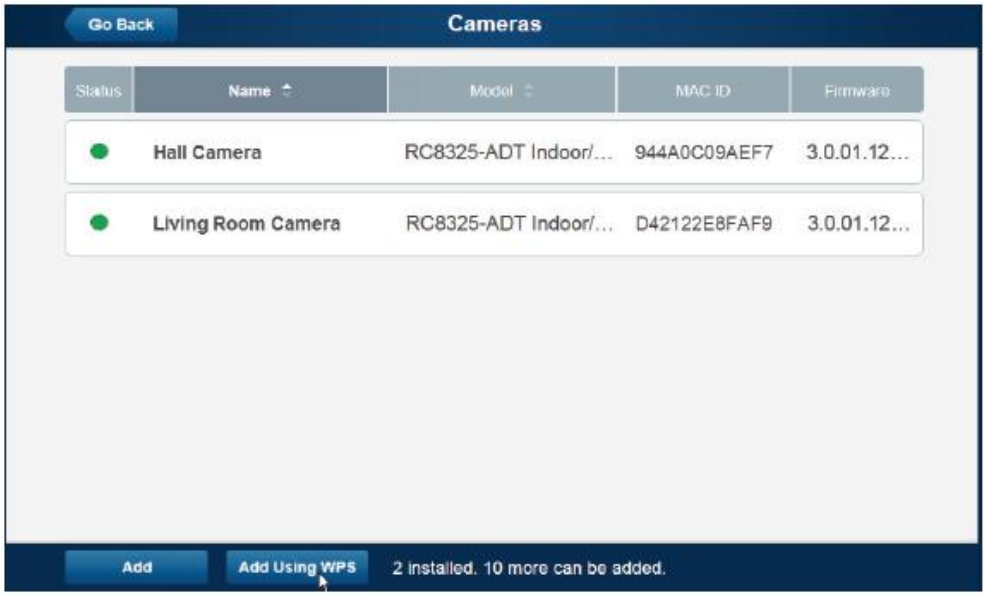


11. Click **Finish**. The Pulse enrollment is complete.
12. Disconnect the camera from the Gateway and remove from power.
13. Install the camera in its final location.

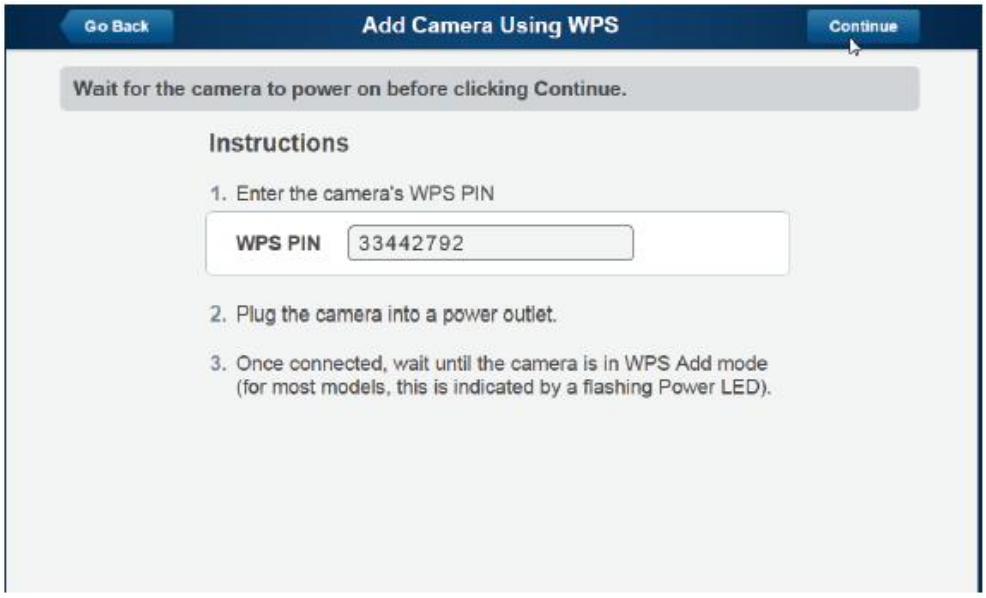
Using WPS with PIN to Enroll the Camera

1. Set up the camera, as described in the previous chapter.
2. Launch an Internet browser and log in to the Pulse portal or TS installer app.
3. Enter the *Manage Devices* screen using one of these methods:
   - For the Pulse portal, select the **System** tab and click **Manage Devices**.
   - For the TS installer app, click the **Pulse Devices** link.

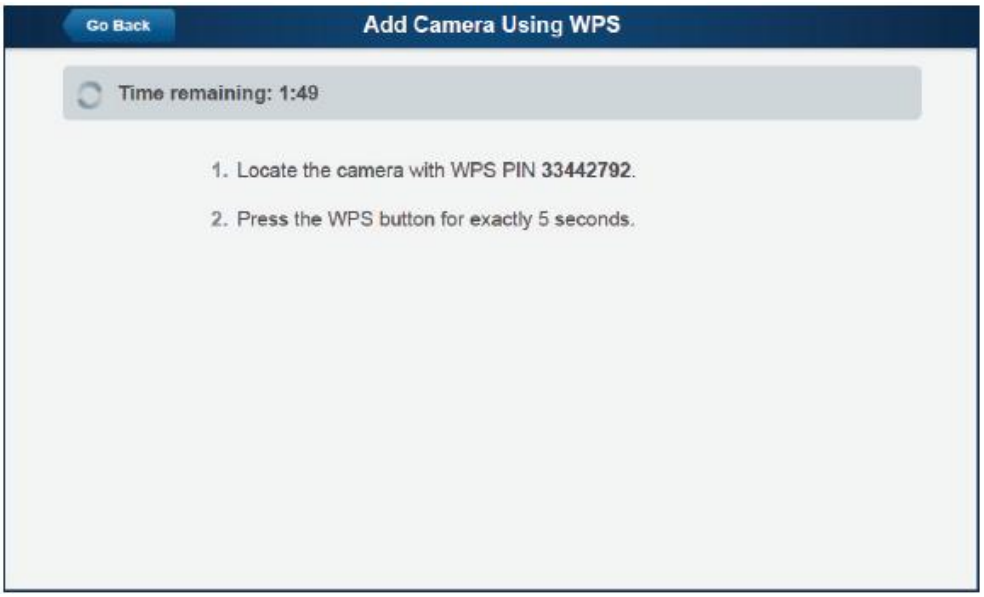
   The *Manage Devices* screen displays.
4. In the *Manage Devices* screen, click **Cameras**.
5. Click the **Add Using WPS** button, located at the bottom of the screen.



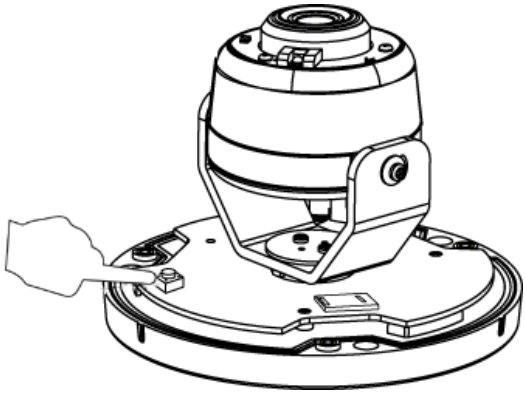
6. Locate the camera's **PIN** number on the label on the rear of the camera.
7. Enter the PIN number in the **WPS PIN** field.



8. Ensure that the camera is powered on and that the Power LED is flashing green.
9. Click the **Continue** button to initiate the WPS process. The following screen appears.

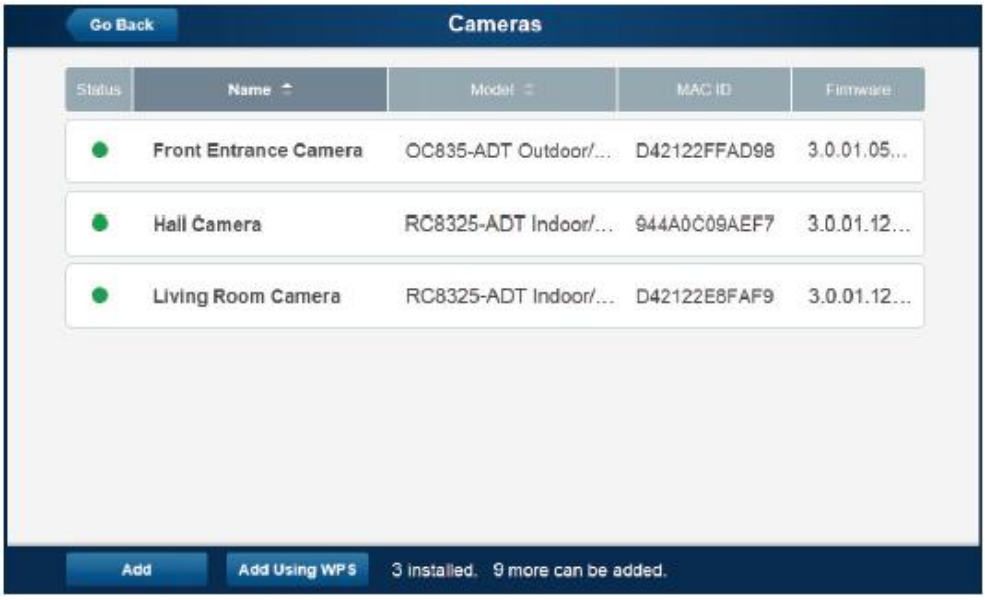


10. Press and hold the WPS/RESET/Image Flip button on the camera for 5seconds to establish a wireless connection. The Power LED flashes amber as the gateway attempts to connect to the camera. The wireless connection is successful when the Power LED turns solid green.
    NOTE: You must complete the WPS connection within 2 minutes or else the process will time out. The time remaining is displayed in the upper left portion of the screen.



11. When the *Camera Details* screen appears, showing that the camera has been enrolled, assign the camera a unique name (usually based on the location of the camera) in the Name field, and then click **Save**.

The Pulse enrollment is complete. The newly-added device appears in the *Cameras* list.



12. At the top left of the screen, click **Go Back**.
13. Wait until the Power LED and Network LED are both lit solid green/blue, and then disconnect the camera from power.
14. Install the camera in its final location. For *Wall Mounting*, refer to Chapter 4.

If the Camera Continually Goes Offline

If after enrolling it the camera, it continually goes offline (Power LED blinks continually), the camera will automatically attempt to recover the wireless connection. If the camera cannot recover on its own, take the following measures to re-establish the Wi-Fi connection.

1. Power cycle the camera.
2. If the previous measure fails, move the gateway closer to the camera, if possible.
3. If the previous measure fails, press the camera’s reset button for15 seconds, and then re-enroll the camera into Pulse.
4. If the previous measure fails, install a Wi-Fi Range Extender model WN3000RPH-2ADPAS.

Appendix A
Specifications

MDC835 IP Camera

Dimensions (DxH)	4.33″ x 3.62″ (110mm x 92mm)
Lens	F1.8. DFOV 75°
Video Compression	H.264 and MJPEG
Image Resolution	16:9 720p (1280x 720), QHD (640x360), VGA (640x480), QVGA (320x240) Mixed Mode (720p, VGA, QVGA)
Operating Temperature	-40°F to 122°F (-40°C to 50°C) * If the temperature is below -40°C, the device will start the heater to warm up the device, then boot up.
Storage Temperature	-40°F to 158°F (-40°C to 70°C)
Network Protocol	TCP/IP, HTTP, HTTPS, DHCP, SMTP, FTP, UPnP, DDNS, NTP, RTP, RTCP, RTSP, SMB, DNS
Network Interface	1 Ethernet 10/100BaseT (RJ45) LAN connection
Wireless Interface	IEEE 802.11n/802.11b/802.11g compatible
Button	1 WPS/Reset/Image Flip Button
LED	1 3-color LED for Power/Network/Heater
IR LEDs	2
Power Adapter	12V, 1.5A

Regulatory Approvals

FCC Statement

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by

turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada statement:

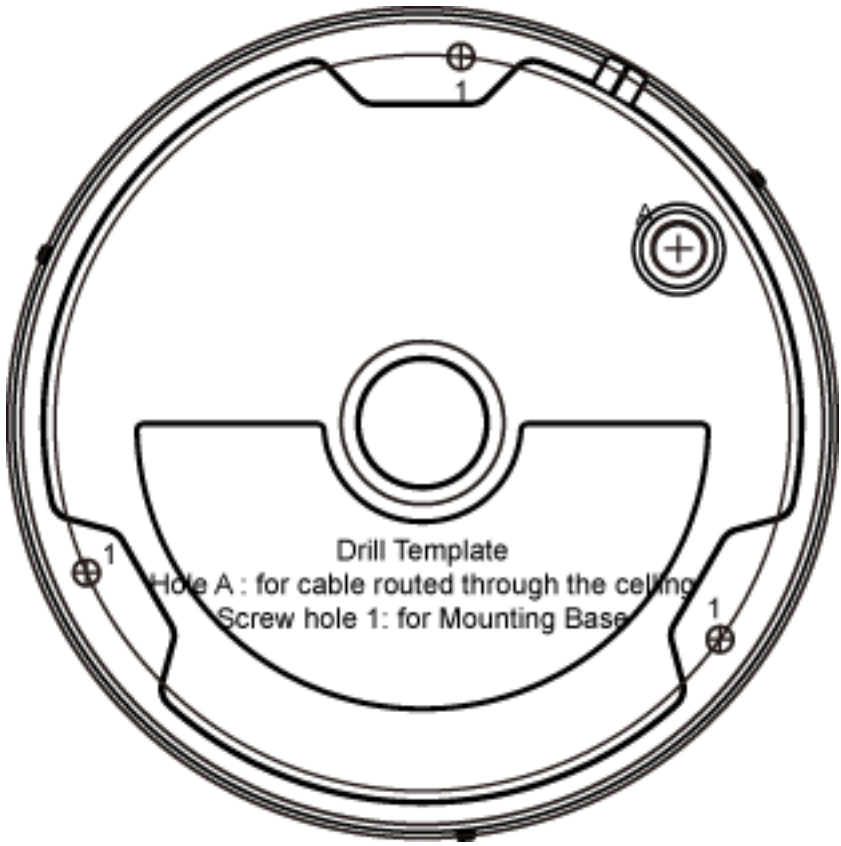
This device complies with RSS-247 of the Industry Canada Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Ce dispositif est conforme à la norme RSS-247 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

Mounting Template