

DM DEDICATED MICROS

ice

Vandal Resistant Fixed Dome Cameras

DM/ICEVC-BH39

DM/ICEVS-BH39

DM/ICEVS-OBH39

DM/ICEVC-CMH39

DM/ICEVS-CMH39

DM/ICEVS-OCMH39

DM/ICEVC-CMU39

DM/ICEVS-CMU39

DM/ICEVS-OCMU39

DM/ICEVC-DNU39

DM/ICEVS-DNU39

DM/ICEVS-ODNU39



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Whilst every attempt is made to ensure these manuals are accurate and current, Dedicated Micros reserve the right to alter or modify the specification of the machine described herein without prejudice.

Introduction

These instructions cover ICE series fixed dome cameras. Read all of these instructions. Use them to install your camera and have them available for its lifetime. If you have any problems, contact your agent.

Models

| | | | |
|----------------------|-----------------------------------|------------------|------------------|
| Mono high resolution | 570 TVL | 0.07 lux at F1.2 | Vandal Resistant |
| DM/ICEDVC-BH39 | Ceiling mount | | |
| DM/ICEDVS-BH39 | Surface mount | | |
| DM/ICEDVS-OBH39 | Surface mount with outdoor heater | | |

| | | | |
|-----------------------------|-----------------------------------|-----------------|------------------|
| Colour/Mono high resolution | 480 TVL | 0.7 lux at F1.2 | Vandal Resistant |
| DM/ICEDVC-CMH39 | Ceiling mount | | |
| DM/ICEDVS-CMH39 | Surface mount | | |
| DM/ICEDVS-OMH39 | Surface mount with outdoor heater | | |

| | | | |
|------------------------------|-----------------------------------|-----------------|------------------|
| Colour/Mono ultra resolution | 540 TVL | 0.7 lux at F1.2 | Vandal Resistant |
| DM/ICEDVC-CMU39 | Ceiling mount | | |
| DM/ICEDVS-CMU39 | Surface mount | | |
| DM/ICEDVS-OCMU39 | Surface mount with outdoor heater | | |

| | | | |
|----------------------------|-----------------------------------|------------------------|------------------|
| Day/Night ultra resolution | 540 TVL | 1.0 / 0.15 lux at F1.6 | Vandal Resistant |
| DM/ICEDVC-DNU39 | Ceiling mount | | |
| DM/ICEDVS-DNU39 | Surface mount | | |
| DM/ICEDVS-ODNU39 | Surface mount with outdoor heater | | |

Each model uses a 1/3" SuperHAD™ CCD.

Important Safeguards

Product Safety

WARNING

- Installation and servicing is only to be carried out by suitably qualified and experienced personnel.
- Do not remove covers as there is a risk of injury or death by electric shock.
- Only power low voltage dome cameras from a class 2 isolated power supply.

This camera range is designed for use in general purpose CCTV applications and has no other purpose.

Only operate your camera between the temperatures of -10°C and +50°C. Do not operate your camera outside its specified power supply range.

Electromagnetic Compatibility (EMC)

CAUTION

This product is intended solely for use in general CCTV applications.

The product must be installed and maintained in accordance with good installation practice to enable the product to function as intended and to prevent problems. Refer to your agent for installation guidance.

Declaration of Conformity

The manufacturer declares that the equipment supplied with this manual is compliant with the essential protection requirements of the EMC directive 89/336 and the Low Voltage Directive LVD 73/23 EEC.

Conforming to the requirements of standards EN55022 for emissions, EN61000-4 parts 2, 3, 4, 5, 6 and 11 for immunity and EN60950 for Electrical Equipment safety.

Camera Care

In order to avoid damaging your camera, note the following points:

CAUTION

- Remove all packaging inserts and the protective film from the dome cover before using the camera.
- Do not touch the image surface of the sensor. If the sensor is accidentally touched, only clean it using isopropanol.
- Do not expose the camera sensor to very bright light over a long period of time as this may cause damage to the CCD sensor. The camera and lens set-up must be correct to avoid possible damage due to long term exposure to bright light. A lens with an automatic iris is recommended under these conditions.

Installation

The ICE fixed dome camera is available in two versions: the ceiling mount version for installation into a ceiling tile of up to 1.5" (38 mm) thickness; and the surface mount version for installation directly onto a hard surface or mounting structure. When installing the outdoor vandal resistant dome you must set the jumpers on the thermostat PCB to the correct supply voltage being used.

Parts Supplied

| Ceiling Mount Models | Surface Mount Models |
|-------------------------|----------------------|
| 2 x Fixing screws | 4 x Fixing screws |
| 2 x Wall plugs | 4 x Wall plugs |
| 2 x Machine screws | 4 x O-rings |
| 2 x Sprung toggle clips | Custom torx key |
| Custom torx key | This booklet |
| This booklet | |

Parts Not Supplied

- Optional video service lead (part number DM/ICED-SERV)

Ceiling Mount Installation

Refer to the Quickstart section for more information.

- 1 Loosen the two torx screws on the front of the camera using the torx screw key supplied.
- 2 Gently pull away the dome cover from the camera body and remove the plastic shroud. The dome cover is attached to the camera body with a retaining cord. Do not undo or cut this cord.
- 3 Using the template supplied at the rear of this booklet, mark and drill two 5/8" (16 mm) holes at opposite sides of the large hole. Mark and cut a 4" (100 mm) diameter hole. Check that the holes are large enough to enable the safety lugs on the camera body to pass through.
Mark and drill the two screw holes for fixing the camera body. Two pairs of screw holes are provided on the camera body for ease of fixing. Use only one pair of screw holes. A 5 mm drill bit is suitable for use with the supplied wall plugs.
- 4 Connect the video cable to the BNC connector at the end of the flying lead or directly to the BNC connector on the camera body. Use only one of the BNC connectors to connect the video cable. Connect the power cable to the power terminals. The camera operates from a 12V DC or 24V AC power supply. Connections and polarity are indicated next to the terminals. The power supply must be a UL Listed, Class 2 isolated type.
- 5 Optionally attach a safety chain (not supplied) to one of the lugs and secure the other end of the safety chain to a fixed object.
- 6 Insert the camera body into the hole and fix it to the ceiling tile using either the wood screws and wall plugs supplied or the two machine screws and sprung toggle clips. Do not over-tighten the screws.
- 7 Optionally attach a local monitor to the test point using an DM/ICED-SERV service connector (available separately) and adjust the camera as described earlier.
- 8 Visually align the screws on the dome front cover with the screw holes on the camera body to assist in replacing the dome cover.
Replace the dome front cover and tighten the torx screws, taking care not to trap the retaining cord in the edge of the front cover. Do not over-tighten the torx screws.

Note: *This dome uses non standard Torx screws for increased security, which can only be unfastened using the provided tool.*

Surface Mount Installation

Refer to the Quickstart section for more information.

Video and power cables enter the camera body inside a plastic or metal conduit either from the side or rear of the camera.

- 1 Loosen the four torx screws on the front of the camera using the torx screw key supplied.
- 2 Gently pull away the dome cover from the camera body and remove the plastic shroud. The dome cover is attached to the camera body with a retaining cord. Do not undo or cut this cord.
- 3 Unscrew one of the two large screws, either at the side or rear of the camera body, depending on where the video and power cables are to enter the camera body. Note that the screw is wrapped in PTFE tape. This is necessary to ensure that moisture does not enter the camera body after the camera has been installed.
- 4 Using the template supplied at the rear of this booklet, mark and drill the four screw holes required for fixing the camera body. An 8 mm drill bit is suitable for use with the supplied wall plugs.

Note: *If the video and power cables enter from the side of the camera, you may wish to fit a conduit in position temporarily at the side of the camera to align the camera before marking the screw holes.*

If the video and power cables enter from the rear of the camera, mark and drill a hole for the conduit and leads. The size of hole required depends on the size of the conduit. The template shows the position of the large screw hole at the rear of the camera.

- 5 Attach a metal or plastic conduit with a suitable M20 screw thread to the side or rear entry point using PTFE tape to ensure a watertight seal. Ensure that the conduit does not foul the plastic camera mount inside the camera body.
- 6 Screw the camera body to the fixing surface using the screws, wall plugs and o-rings supplied. O-rings must be used to ensure that moisture does not enter the camera body after the camera has been installed. Do not over-tighten the screws.
- 7 Connect the video cable to the BNC connector at the end of the flying lead. Connect the power cable to the power terminals. The camera operates from a 12V DC or 24V AC power supply. Connections and polarity are indicated next to the terminals. The power supply must be a UL Listed, Class 2 isolated type.
- 8 Optionally attach a local monitor to the test point using an DM/ICED-SERV service connector (available separately) and adjust the camera as described earlier.
- 9 Visually align the screws on the dome front cover with the screw holes on the camera body to assist in replacing the dome cover.
- 10 Replace the dome front cover and tighten the torx screws, taking care not to trap the retaining cord in the edge of the front cover. Do not over-tighten the torx screws.

Note: *This dome uses non standard Torx screws for increased security, which can only be unfastened using the provided tool.*

Camera Adjustment

Camera Position

The camera assembly is adjustable in all three axes. Adjust the camera until it is pointing in the desired direction.

FOV & Focus

Use the levers on the varifocal lens to adjust the camera's field of view, and focus.

Switch Settings

The DIP switches are located on the camera's circuit board.

| Switch | Function | OFF | ON | INT | LL |
|--------|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1 | Backlight Compensation | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 2 | Automatic Gain Control | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 3 | Electronic Iris | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 4 | Line Lock | | | <input type="checkbox"/> | <input type="checkbox"/> |

| Switch | Function | OFF | ON | HI | LO |
|--------|--------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1 | Day/Night | | | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 | Colour Burst | <input type="checkbox"/> | <input type="checkbox"/> | | |

Default setting

White indicates switch position

Backlight Compensation

The Backlight Compensation (BLC) feature compensates for back-lit scenes by enhancing objects in the centre of the scene which would previously have been in silhouette. Select ON or OFF using the BLC switch. Default is OFF.

AGC (Automatic Gain Control)

The Automatic Gain Control (AGC) feature can improve picture quality when levels of illumination are low. Select ON or OFF using the AGC switch. For most applications the AGC feature should be ON and is therefore the default setting.

Electronic Iris

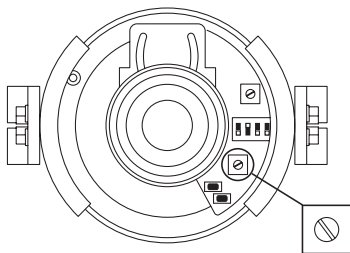
The Electronic Iris (EI) feature compensates for excessive light levels by automatically adjusting the shutter speed. For auto-iris lenses, the EI should be set to OFF. For manual lenses, EI should be ON.

Line Lock

Choose INT (internal) or LL (adjustable). The LL setting allows $\pm 180^\circ$ phase adjustment via the two LL Phase Advance/Retard buttons. Default is LL.

Pressing both buttons simultaneously will reset LL to the factory default setting.

The LL setting can be adjusted using the LL potentiometer available on some versions of this product.



Day/Night

(DN Versions only)

This switch sets the light level at which the camera automatically switches between day and night operation. Hi sets the camera to switch between day and night mode at higher light level. Lo sets the switching point at a lower light level. The default setting is Lo.

When in Night mode, the IR cut filter is removed allowing infra red illumination to be used.

Colour Burst

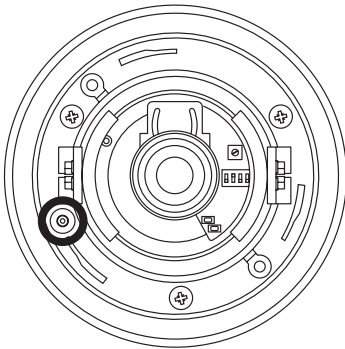
(DN versions only)

The Colour Burst (CB) switch allows the colour burst component of the signal to be turned on or off. When a day/night camera switches to night (mono) mode, the colour burst can be switched OFF for a true monochrome signal. Note that some multiplexers/recorders detect video-loss if the colour burst signal disappears. If problems are encountered with the multiplexer/recorder when the camera switches to mono, try setting CB to ON. Default is CB OFF.

Lens Level

Adjust the lens iris level according to the lighting conditions.

- 1 Turn the Automatic Gain Control switch OFF
- 2 Adjust the Lens Level potentiometer so that a 1 V peak-to-peak signal is achieved. Use care so as not to damage the potentiometer.
- 3 Turn the Automatic Gain Control switch ON



Local Video Out

Provision is made for the connection of a local video monitor to assist in setting up the camera. Use the optional service connector DM/ICED-SERV (not supplied).

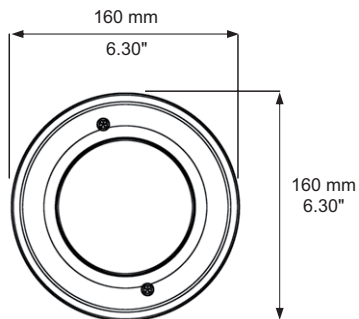
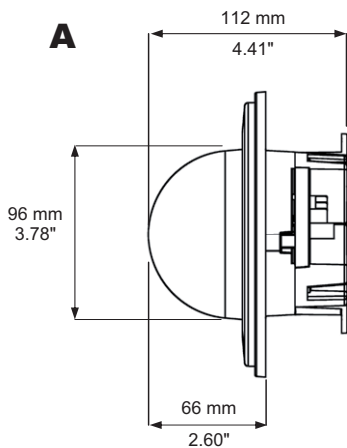
Final Assy

When all the connections and adjustments have been made, re-attach the camera liner and dome cover.

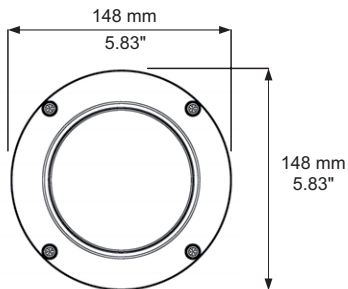
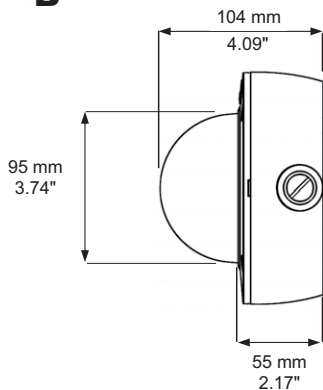
Appendix

Dimensions

VC version



B

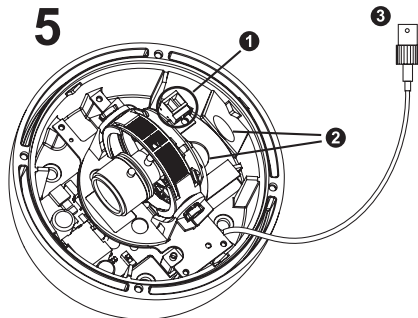
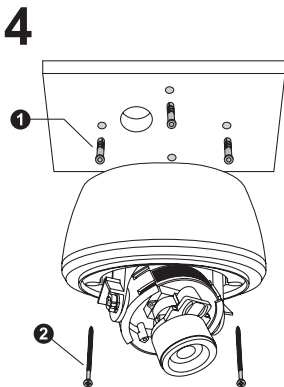
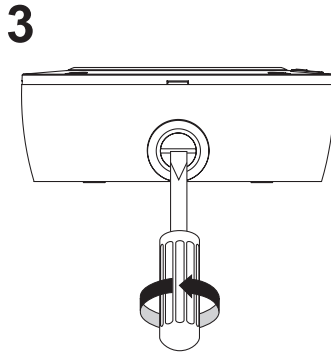
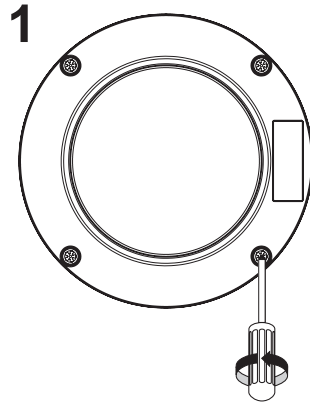
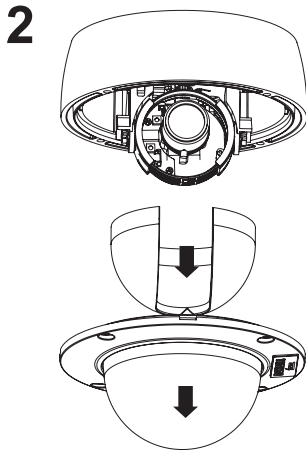


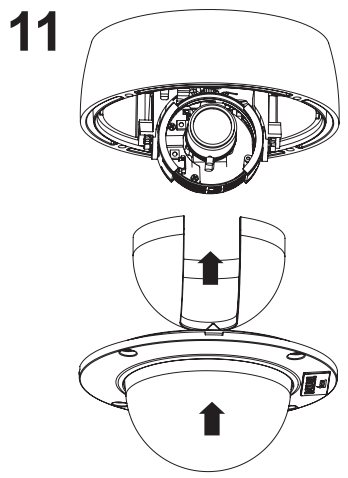
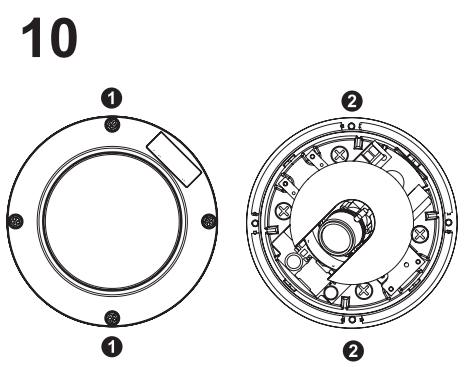
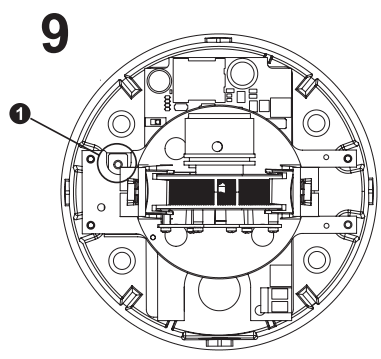
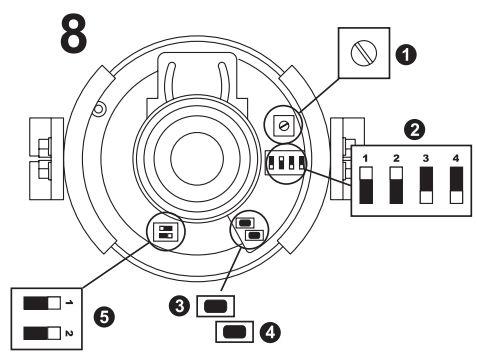
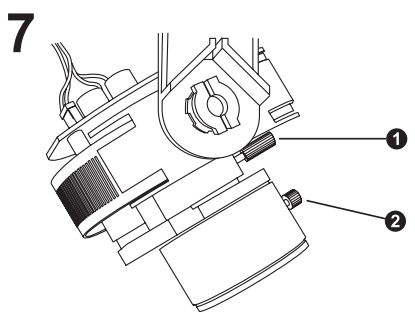
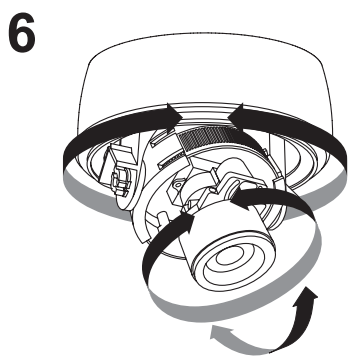
VS version

Quickstart



VS VERSIONS

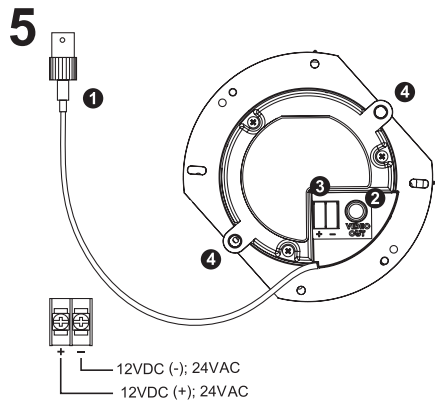
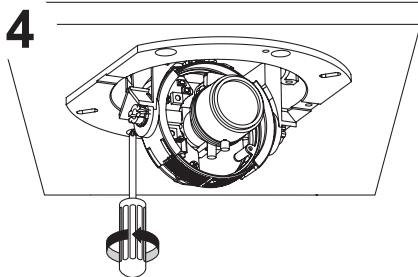
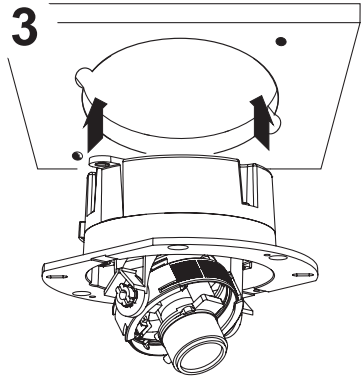
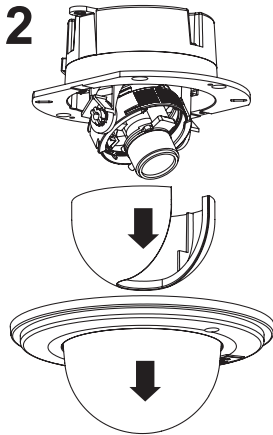
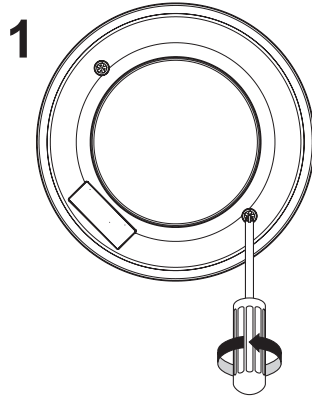


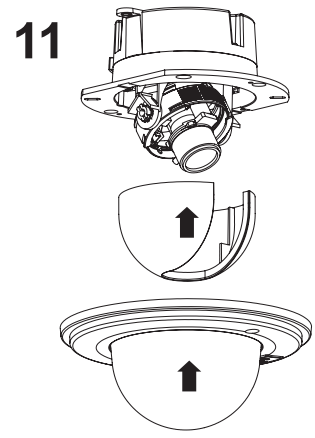
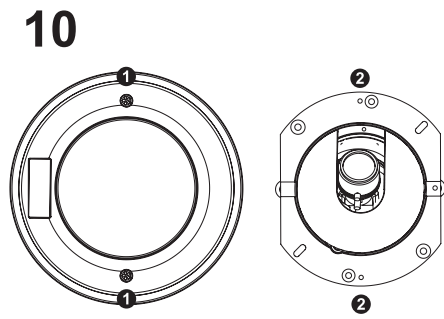
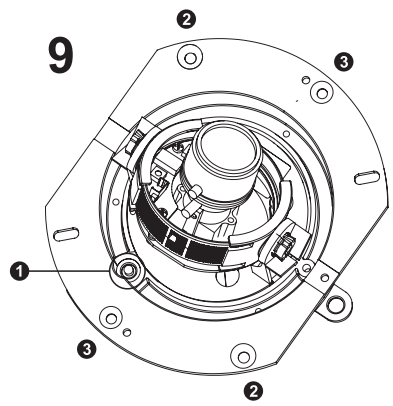
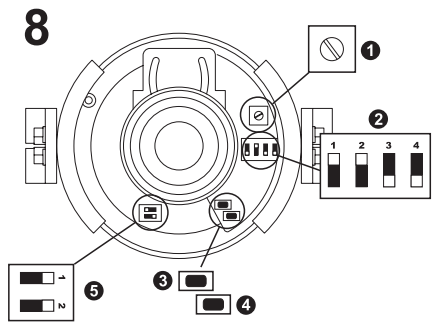
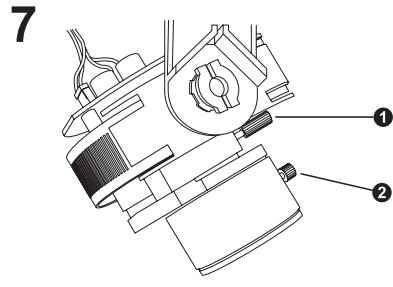
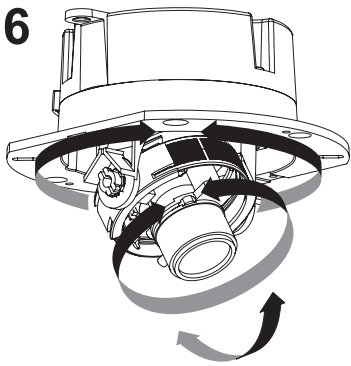


Quickstart

ice

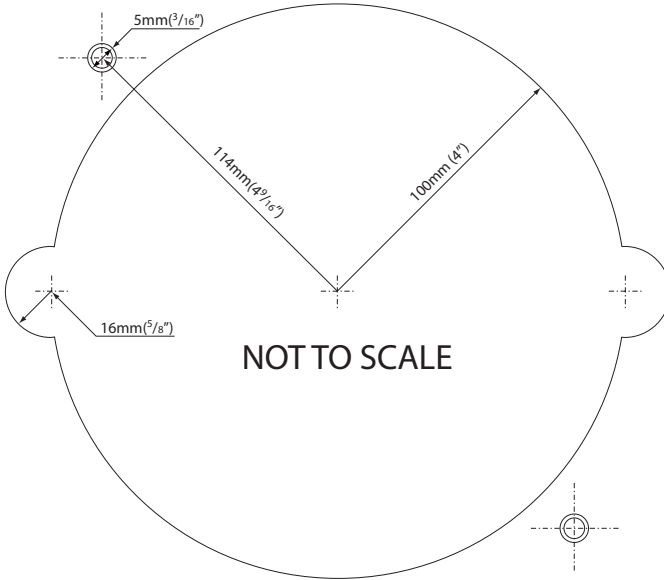
VC VERSIONS



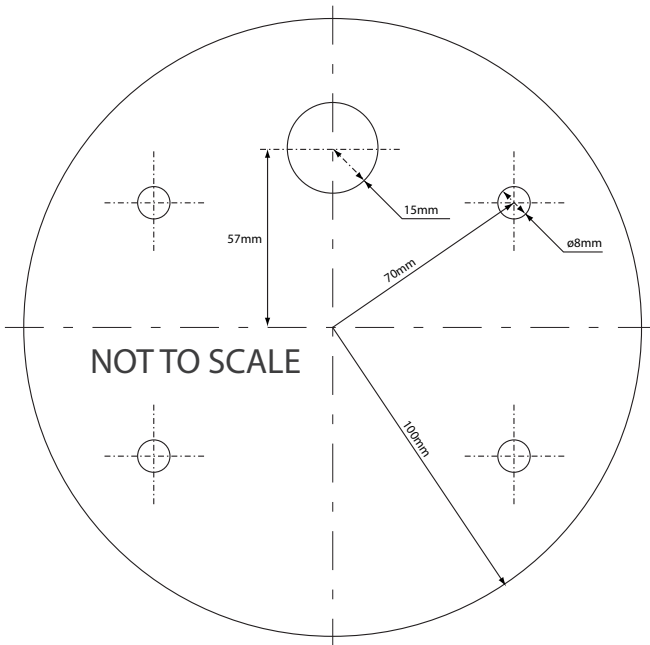


Template

Pattern for VC Ceiling Dome



Pattern for VS Ceiling Dome



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