

# AutoDome Reference Guide

Security Systems



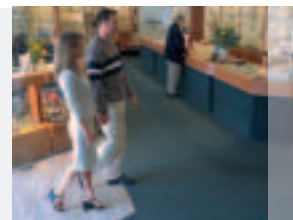
**BOSCH**



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## AutoDome



Since the development of integrated high-speed dome, pan/tilt cameras almost a decade ago, AutoDome has been synonymous with innovation, superior performance and reliability.



Bosch AutoDome systems are designed to meet the needs of your security application. They easily integrate with our entire security product line, including Divar digital recorders and Allegiant matrix switchers. Our Unity domes, which have the same appearance as the AutoDome but contain a pre-configured fixed camera and lens combination, are the perfect complement to the AutoDome installation.



Full integration offers you a complete, easy-to-install, low-maintenance CCTV system from a single supplier.

The Bosch commitment to world-class support begins with a three-year warranty and easy access to technical support. Our international sales organizations are committed to meeting your product, service and training needs. More options, better quality, more support – only from Bosch.

## Options to Explore

### What to consider when choosing your AutoDome

In order to select the right AutoDome for your application, there are a number of factors to consider, including lighting conditions, mounting locations and visibility. These will dictate which features and options are necessary and which camera you should choose. The following explanations cover the major options available in the AutoDome line.

## Camera Options

### Day/Night

The Day/Night camera option offers the best of both worlds, producing high-quality color video during the day or when light levels are high, and then switching to monochrome and removing the infrared filter to improve IR sensitivity at night or when light conditions are low.

### Color

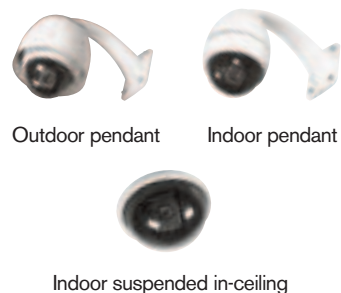
Color cameras are the most popular camera choice for standard lighting conditions. Offering high resolution and high sensitivity, these cameras produce excellent color images for all types of security applications.

### Monochrome

Monochrome cameras are used when the ultimate sensitivity or higher resolution is required. Since monochrome cameras are more sensitive to infrared radiation, they can be used in lighting conditions too dark for a color camera.

## Housing Options

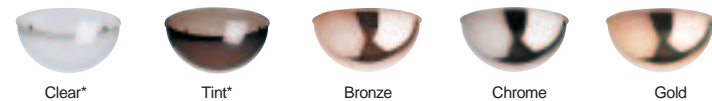
Pendant housings are for indoor or outdoor applications. Suspended in-ceiling housings are for indoor applications only.



## Bubble Options

All AutoDomes are available with either a clear or a tinted bubble. The clear bubble offers maximum sensitivity by allowing as much light through as possible. The tinted bubble offers covertness by making it difficult to see the camera from the outside. In addition to these standard bubble types, there are several other colored bubbles that can be purchased separately. Each offers varying levels of covertness, aesthetics and sensitivity.

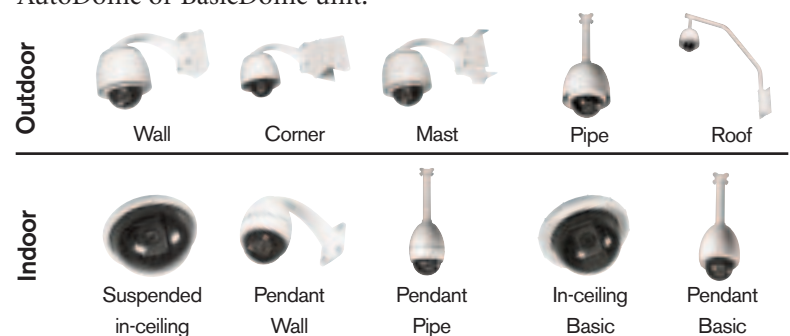
We also offer the exclusive rugged bubble to protect your AutoDome camera from vandalism. Designed to meet stringent strength standards without compromising optical clarity, the rugged bubble can withstand impact equivalent to a 10-pound (4.536 kilograms) weight dropped from a height of 10 feet (3.048 meters).



\* Available in standard and rugged bubble.

## Mounting Options

The following photos show the various mounting options available for indoor and outdoor systems. Mounting choices are specified within the order number for each individual EnviroDome, AutoDome or BasicDome unit.



## Fiber Optics

Fiber optics is the preferred transmission medium to bridge long distances in hostile electromagnetic environments such as subways and railways. AutoDome and EnviroDome systems are available with a bi-directional fiber transceiver, which allows both video and control signals to be transmitted over a single fiber.

## Choosing the Right AutoDome



### EnviroDome

#### Outdoor Systems

Whatever the weather may bring, EnviroDome maintains peak performance, making it the ideal solution for perimeter surveillance, parking lots and other outdoor applications. Day/night cameras provide extra sensitivity under changing light conditions, while high-resolution cameras capture the finest detail. For extreme conditions there is even a pressurized version available.



### AutoDome

#### Indoor Systems

Inside, nothing beats the AutoDome. It offers all the features you need to monitor everything from schools to offices, shopping malls to casinos and lets you focus on details other cameras are missing. A variety of mounting options lets you place cameras in the most effective locations throughout your building for the most reliable surveillance possible.



### BasicDome

#### Economical Systems

The BasicDome camera is the economical surveillance solution for indoor security applications. It offers faster, quieter and smoother operation than ever before in a dome in this price range. The BasicDome is the perfect choice for those who want the assurance of the Bosch name at an affordable price.



#### STANDARD FEATURES

Cameras Available	(1) 18x Optical Zoom Color (2) 18x Optical Zoom Day/Night (3) 25x Optical Zoom Day/Night (4) 18x Optical Zoom Monochrome	(1) 18x Optical Zoom Color (2) 18x Optical Zoom Day/Night (3) 25x Optical Zoom Day/Night (4) 18x Optical Zoom Monochrome	16x Optical Zoom Color
Digital Zoom	12x	12x	No
Operating Temperature	- 40° C to 50° C (- 40° F to 122° F)	- 10° C to 50° C (14° F to 122° F)	- 10° C to 50° C (14° F to 122° F)
Image Stabilization	Yes (on 25x only)	Yes (on 25x only)	No
Privacy Masking	Yes	Yes	No
Slow Shutter	Yes	Yes	No
Guard Tour	Yes	Yes	Yes
Remote FastAddress	Yes	Yes	Yes
AutoPivot and Auto Scaling	Yes	Yes	Yes
Pre-Positions	99	99	99
Alarm Inputs	Yes	Yes	No
Relay Outputs	Yes	Yes	No
Warranty	3 Year	3 Year	3 Year

#### AVAILABLE OPTIONS

AutoTrack	Yes	Yes	No
Housings	Pendant	In-Ceiling, Pendant	In-Ceiling, Pendant
Mounts	Wall, Corner, Mast, Pipe, Roof (Parapet)	Wall, Pipe, In-Ceiling (EnviroDome mounts can be used but are sold separately)	Wall, Pipe, In-Ceiling (EnviroDome mounts can be used but are sold separately)
Rugged Bubble	Yes	Yes	No
Bubble Color Options	Tint (standard) Clear (standard) Gold - (sold separately) Bronze - (sold separately) Chrome - (sold separately)	Tint (standard) Clear (standard) Gold - (sold separately) Bronze - (sold separately) Chrome - (sold separately)	Tint (standard) Clear (sold separately)

# How to Order Your AutoDome System

Use the charts on the following pages to create your order numbers based on the examples shown.



## EnviroDome

### Outdoor Systems

Example: ENV C 120 W T

- EnviroDome
- Color
- 120VAC 60 Hz
- Wall Mount
- AutoTrack

EnviroDome	M	-18x Monochrome	W	-Wall
	C	-18x Color	R	-Roof <sup>3</sup>
	D	-18x Day/Night	M	-Mast (Pole)
	T	-25x Day/Night	C	-Corner
			P	-Pipe
<b>ENV</b>				
120 VAC, 60 Hz NTSC	120	Standard		
230 VAC, 50 Hz PAL	230	AutoTrack	T	
24 VAC, 60 Hz NTSC <sup>1</sup>	2460	Fiber <sup>2</sup>	F	
24 VAC, 50 Hz PAL <sup>1</sup>	2450	Fiber w/ AutoTrack <sup>2</sup>	FT	

1 No transformer included. Customer must supply 24 VAC, 50 VA transformer (ENV-PSU or equivalent). Not available with fiber optic option.

2 Fiber option only available in kits with transformers. For kits without transformers, an LTC 4628 may be used with standard ENV kit. Each fiber kit requires an LTC 4629 at the system.



## AutoDome

### Indoor Systems

Example : G3A C PW 5 T P T

- Indoor AutoDome
- Color
- Pendant White
- 24 VAC 50 Hz
- Tinted
- Pipe Mount
- AutoTrack

18x Monochrome	M				
18x Color	C				
18x Day/Night	D	Clear	C	P	-Pipe <sup>4</sup>
25x Day/Night	T	Tint	T	W	-Wall <sup>4</sup>
<b>G3A</b>					
Suspended Ceiling	S	5	-24 VAC, 50 Hz PAL <sup>1</sup>		-Standard
Pendant White	PW	6	-24 VAC, 60 Hz NTSC <sup>1</sup>		-AutoTrack

3 Roof mount mounts to vertical parapet. For flat roof installations, you must also order the LTC 9230/01 Flat Roof Adapter Plate.

4 Wall and pipe mount kits only apply to pendant models.



## BasicDome

### Economical Systems

Example : G3B PW 50 W

- G3 Basic
- Pendant White
- 24 VAC 50 Hz PAL
- Wall Mount

		PW	-Pendant White
		S	-Suspended Ceiling
<b>G3B</b>			
24 VAC, 60 Hz NTSC	60		
24 VAC, 50 Hz PAL	50	W	-Wall <sup>4</sup>
		P	-Pipe <sup>4</sup>

# Optional Accessories



## EnviroDome

### Outdoor Systems

#### A. LTC 9230/01

Flat Roof Adapter Plate (for use with LTC 9230 Series Mounts.)



#### B. Power Supply with Surge Protection

Protects data, video and power lines.

##### Pendant Arm

###### No Fiber Optics

ENV-PA1-SP (120 VAC)  
ENV-PA2-SP (230 VAC)

###### "F" with Fiber Optics

ENV-PA1F-SP (120 VAC)  
ENV-PA2F-SP (230 VAC)



##### Stand Alone Box

###### No Fiber Optics

ENV-PSU1-SP (120 VAC)  
ENV-PSU2-SP (230 VAC)

###### "F" with Fiber Optics

ENV-PSU1F-SP (120 VAC)  
ENV-PSU2F-SP (230 VAC)



#### ENV-BOX

Empty Junction Box

#### C. ENV-PA-EX

Extended Pendant Arm (27")



#### D. Bubble Accessories-How to order Bubble Accessories.

Use the following chart to create your order numbers based on the example below.

Example: BUB-G3A PW CL

- Bubble Replacement
- G3 AutoDome Indoor
- Pendant White
- Clear Bubble
- Standard Replacement



Clear

Tint

Chrome	CHR			
Bronze	BRZ			
Gold	GLD			
Clear	CL	-R <sup>1</sup>		- Rugged
Tint	TI			- Standard
Indoor G3	G3A	PW		- Pendant White
EnviroDome <sup>1</sup>	ENV	S		- Suspended Ceiling

1 Rugged versions are available in Clear or Tint only.  
2 Pendant versions include lower housing.

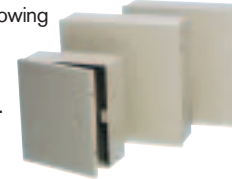


## AutoDome

### Indoor Systems

#### A. Optional Power Supplies

G3A-PSU1-(X): Optional indoor power supplies for connecting multiple domes. Comes in 4, 8, or 16 dome versions. Supply converts 120 VAC into 28 VAC allowing for longer distance runs offered by 24 VAC power supplies.



##### Model

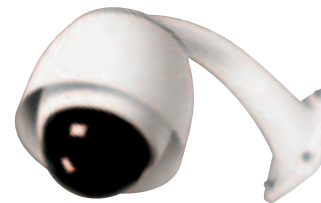
G3A-PSU1-4  
G3A-PSU1-8  
G3A-PSU1-16

##### Description

four (4) AutoDomes.  
eight (8) AutoDomes.  
sixteen (16) AutoDomes.

#### B. Unity Domes

Also available are Unity Domes, which look exactly like EnviroDomes and AutoDomes, but contain a variety of fixed camera options.



##### Model

LTC 9349 Series  
LTC 9449 Series  
LTC 9450 Series

##### Description

in ceiling.  
indoor pendant.  
outdoor pendant.



## BasicDome

### Economical Systems

#### A. BUB-G3BTI

Replacement Bubble w/Tinted Window

#### BUB-G3BCL

Optional Bubble w/Clear Window

#### G3B-Dummy

G3 Basic Dummy Kit (Dark Bubble and Trim Ring only)

## How to order Pressurized Housing Accessories.

Use the following chart to create your order numbers based on the example below.

Example: PRS C 1

- Pressurized Housing
- Color
- 120 VAC
- Standard



18x Monochrome	M			
18x Color	C			
18x Day/Night	D			
25x Day/Night	T			F - Fiber Optic
				- Standard
<b>PRS</b>				
Pressurized Housing	120 VAC NTSC	1		
	230 VAC PAL	2		
	24 VAC PAL <sup>2</sup>	5		
	24 VAC NTSC <sup>2</sup>	6		

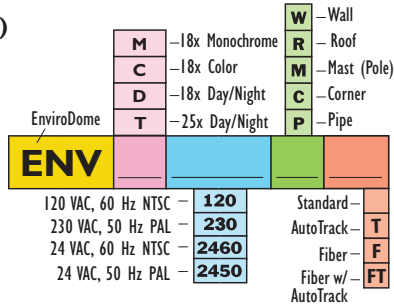
2 No transformer included. Customer must supply 24 VAC, 50 VA transformer (ENV-PSU or equivalent). Not available with fiber optic option.

# What are the components for each AutoDome System?

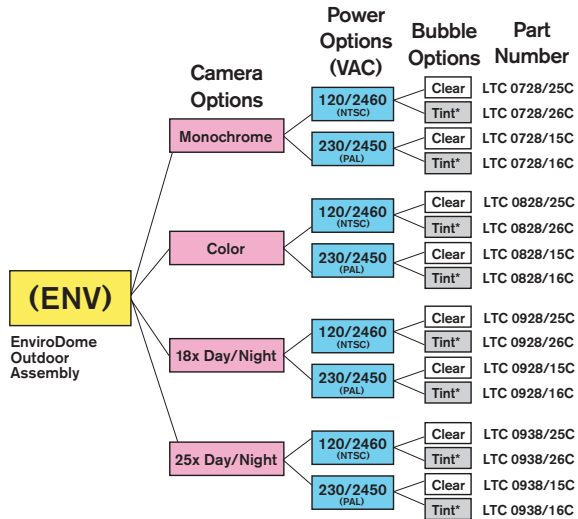
## EnviroDome

### Outdoor Assembly (ENV)

#### A. Camera



EnviroDome Camera Assembly



\*Tinted versions not available in systems. Only sold separately.

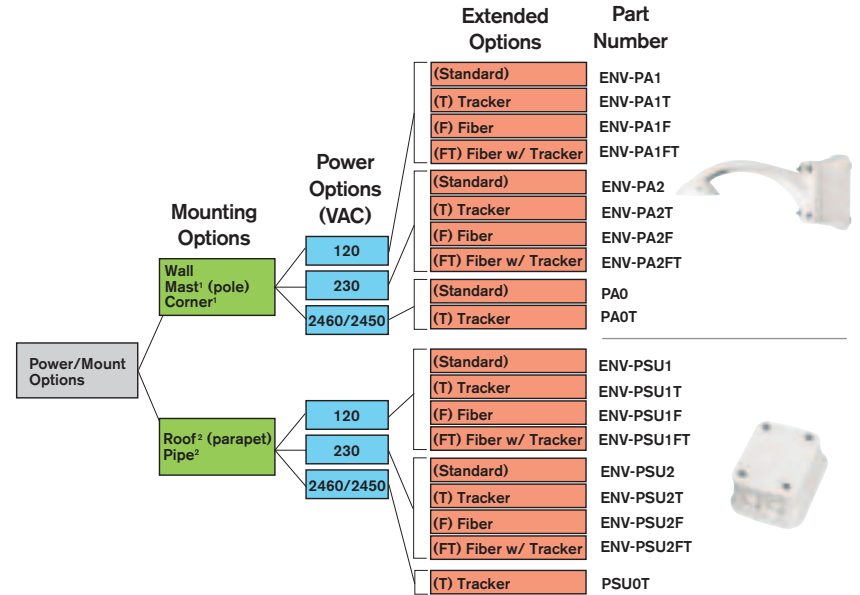
#### B. Power



Power Supply Unit (Roof2, Pipe2)



Pendant Mount (Wall, Mast1, Corner1)



#### C. Mount Options

##### Mast (Pole)



<sup>1</sup> For "M" add LTC 9451/01

##### Corner



For "C" add LTC 9542/01

##### Roof



<sup>2</sup> For "R" add LTC 9230/00

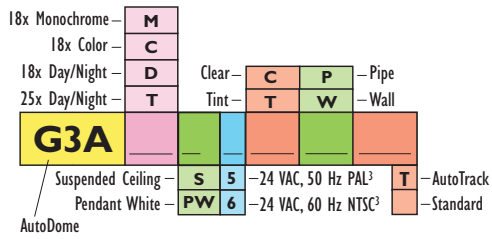
##### Pipe



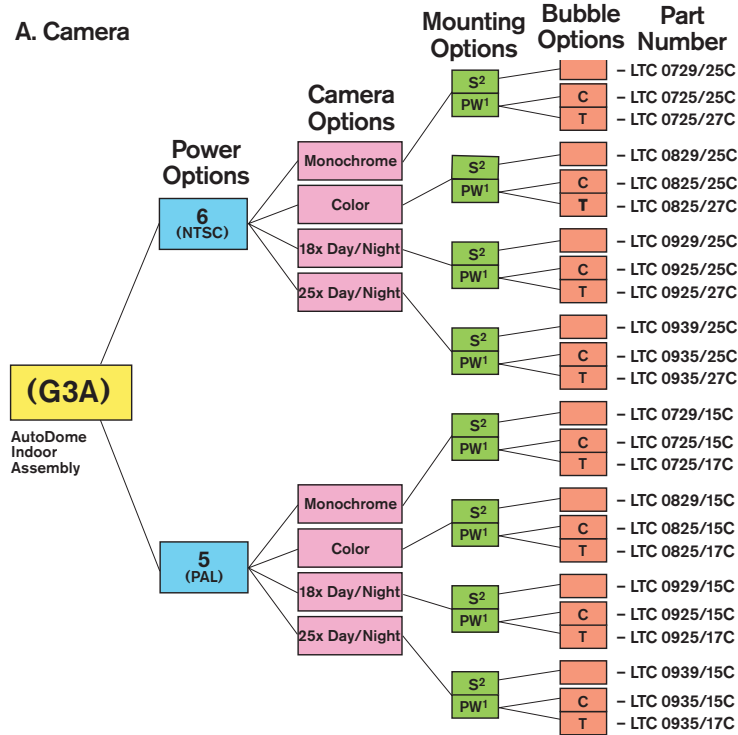
For "P" add LTC 9543/00

# What are the components for each AutoDome System?

## AutoDome Indoor Systems



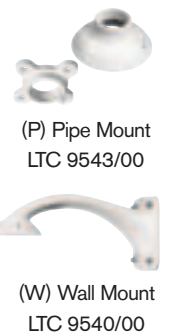
### A. Camera



### B. Mount Options

<sup>1</sup> (PW) Camera assembly requires (P) or (W)

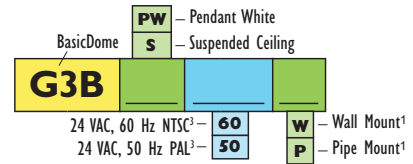
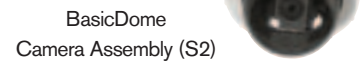
<sup>2</sup> (S) Camera assembly requires LTC 7490/20C Back Box and either - Tinted Bubble BUB-G3APWTI  
- Clear Bubble BUB-G3APWCL



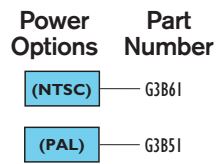
### C. AutoTrack

(P) Pipe mount and (S) suspended ceiling Add G3A-TRKR  
(W) Wall mount replace LTC 9540/00 with ENV-PAOT

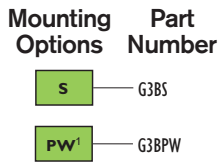
## BasicDome Economical Systems



### A. Camera

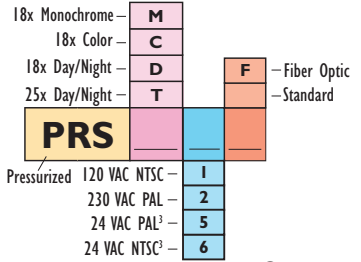
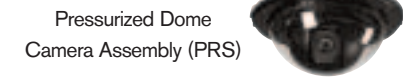


### B. Mount

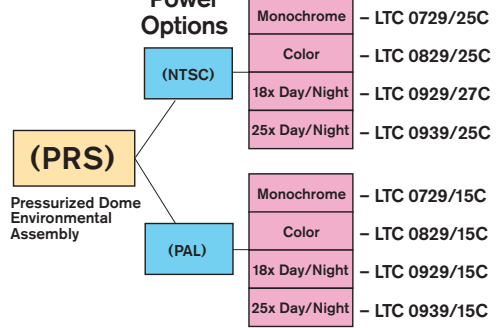


<sup>3</sup> No transformer included. Customer must supply 24-28 VAC, 15 W transformer (G3A-PSU or equivalent).

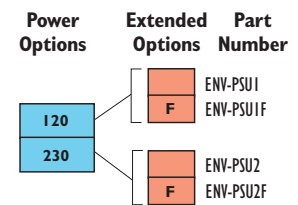
## Pressurized Dome Environmental Systems



### A. Camera



### B. Power Supply Options

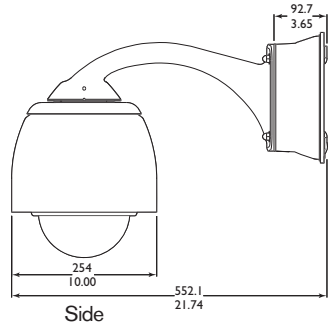


### C. Housing

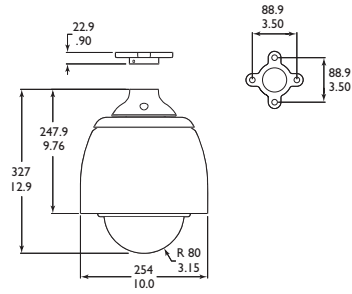
All kits include the PRS-Housing



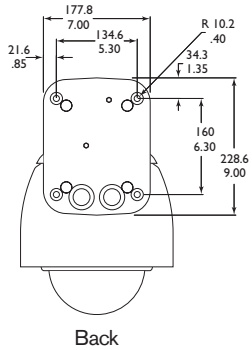
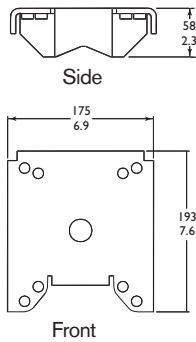
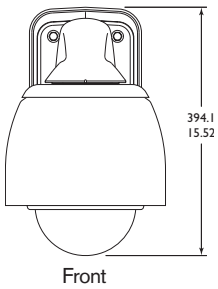
Wall Mount



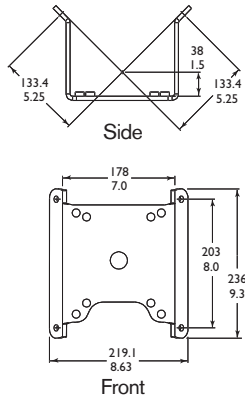
Pipe Mount



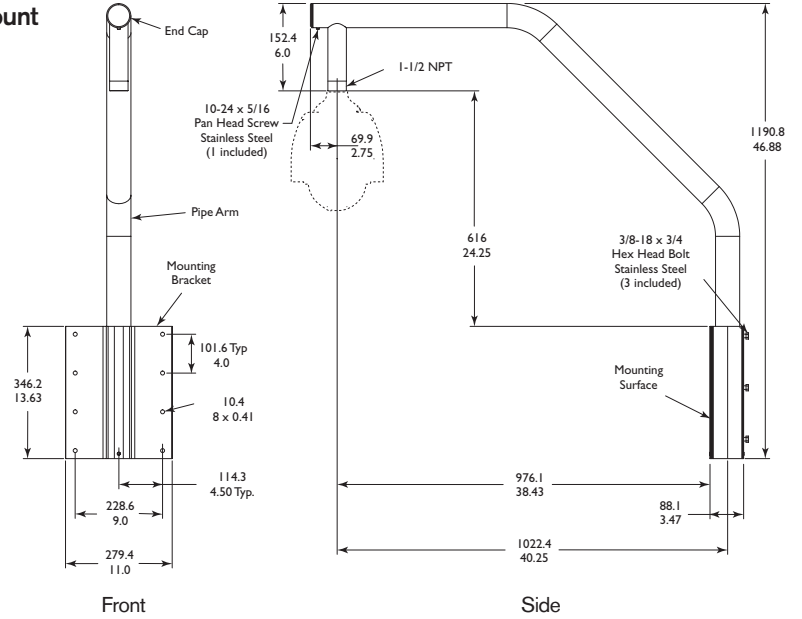
Mast Mount



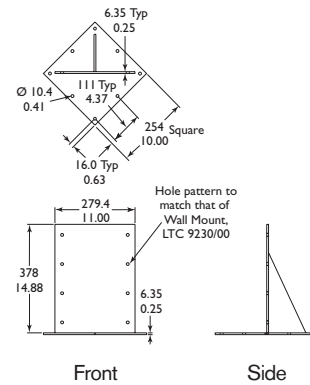
Corner Mount



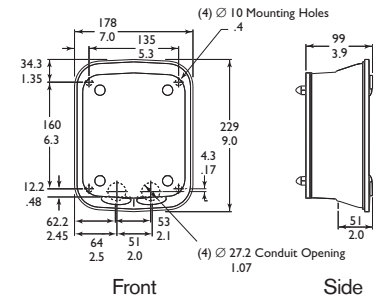
Roof Mount



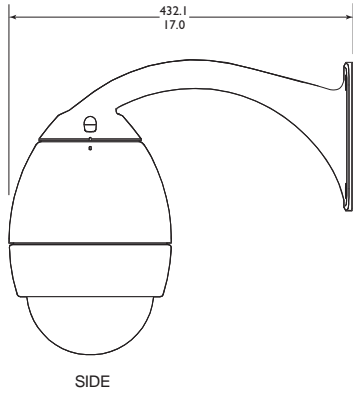
Roof Mount Adapter



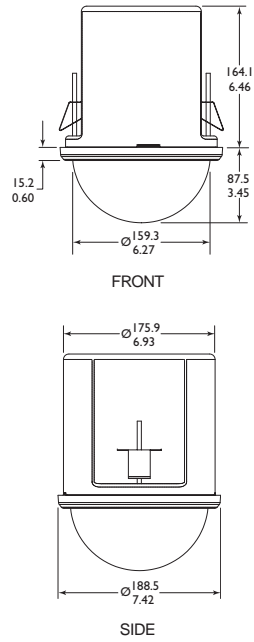
Power Supply for Pipe & Roof Mounts



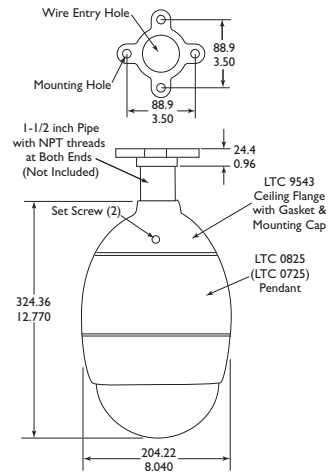
Wall Mount



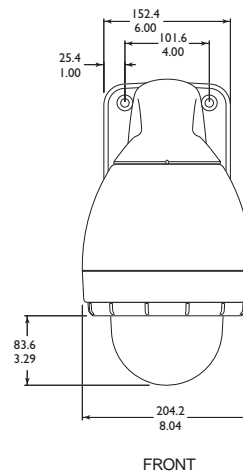
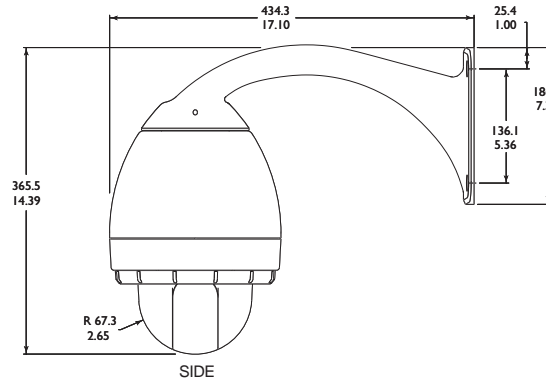
In-Ceiling Mount



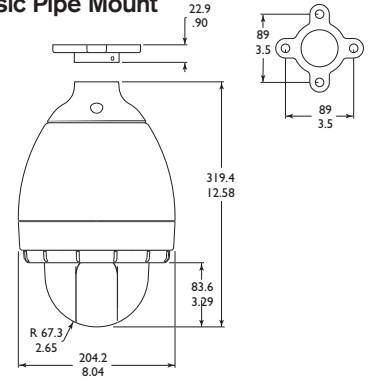
Pipe Mount



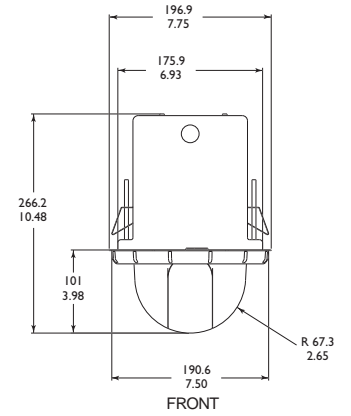
Basic Pendant



Basic Pipe Mount

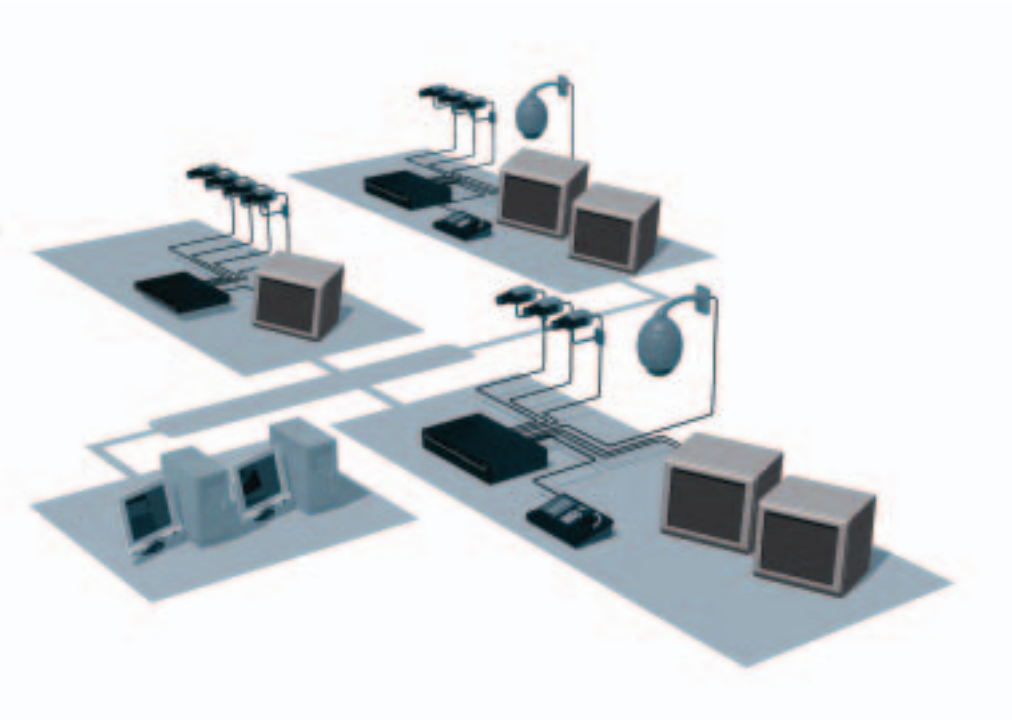


Basic In-Ceiling



## System Configurations

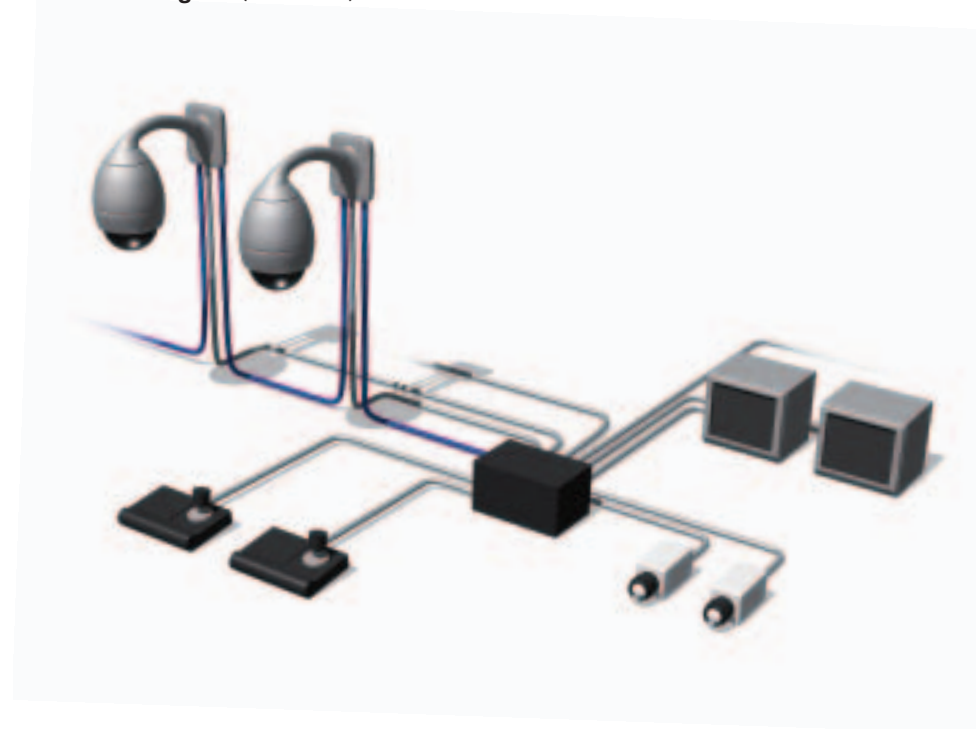
Typical digital system  
using the Divar recorder



### Divar AutoDome Control Using Divar Digital Recorder

Using the Divar digital versatile recorder, the AutoDome can be viewed, controlled and even configured from the local system to virtually anywhere in the world using control center software.

Typical matrix system using  
the Allegiant (LTC 8600) switcher



### Allegiant Video Matrix

The Allegiant Matrix Switcher is the solution for your control center needs – from eight cameras with two monitors to 4,096 cameras with 512 monitors. The Allegiant allows for complete control of the AutoDome line via the universal keyboard.

# Glossary of AutoDome Terms

## Address

Each AutoDome has a numerical address in the control system in which it is located. This allows the appropriate dome to be operated. The address may be set manually on the unit via dip switches or remotely (see Fast Address).

## AutoDome

Fully integrated, high speed, pan/tilt camera built into a protective dome housing allowing full 360° coverage of the scene.

## AutoTrack

A patented technology that integrates motion detection into the camera allowing tracking of object and zooming in to optimize size and perspective.

## Auto Focus

The lens continuously adjusts to the correct focus automatically for the sharpest picture.

## Autolris

The lens iris opening is automatically adjusted to allow the correct illumination of the camera sensor.

## AutoPan

The camera pans continuously between right and left limit settings.

## AutoPivot

As the camera tilts through the vertical position, the camera is rotated to maintain the correct orientation of the image.

## AutoPlayback

This function records the sequence of movements of the AutoDome (P/T/Z) for later playback allowing a set pattern to be repeated automatically. This function is often called Guard Tour.

## AutoScaling

As the camera zooms in to increase the size of objects on the monitor screen, the pan and tilt speeds are reduced so that the relative speed on the screen remains constant for similar joystick control positions.

## BasicDome

Bosch solution for an economical dome package that incorporates a vast amount of the AutoDome features into a modular, discrete package.

## Bi-Phase

Pan/Tilt/Zoom protocol for Bosch products.

## Day/Night

An AutoDome that has normal color operation in situations where there is sufficient illumination (day conditions), but where the sensitivity can be increased when there is little light available (night conditions). This is achieved by removing the infrared cut filter used for good color rendition and/or integrating a number of frames to increase the signal to the noise ration of the camera.

## EnviroDome

AutoDome with environmental protection that allows it to be used outdoors in almost any climate.

## Fast Address

A system for setting the address of the AutoDome remotely from the control system.

## Preset Tour

A sequence of preset shots combined to provide a pre-programmed tour of the area covered by an AutoDome camera.

## Guard Tour

Allows recorded tours with a combined duration of 15 minutes. Recorded tours consist of control commands and can be played back as needed. All camera position information is stored for maximum flexibility (including pan, tilt, zoom, etc.).

## Image Stabilization

Software correction for vibration caused by wind or other outside forces on the camera.

## IP 66

The IP code (Ingress Protection) indicates the degree of protection provided by enclosures for electrical equipment. The first number indicates protection of internal equipment against the ingress of solid foreign objects. The second number indicates protection of internal equipment against harmful ingress of water. Higher digits refer to higher levels of protection. See also NEMA rating.

## NEMA rating

(National Electric Manufacturers Association) Specification standards in reference to the operating environment for a variety of electrical devices.

## Pan

Camera movement in the horizontal direction.

## Pre-Position

A pre-selected and stored combination of pan, tilt and zoom positions that allow a set view to be recalled. Also known as Preset Shot.

## Pressurized Dry Nitrogen Housing

A housing for outdoor applications that protects against smog, humidity, dirt and dust.

## Privacy Masking

The ability to mask out a specific area to prevent it being viewed.

## RS232/485

A communication interface for third party control and firmware upgrades to the AutoDome products.

## Sector Blanking

The ability to blank out video in any of the 16 pan sectors.

## Slow Shutter

With this option the camera can reduce the shutter speed to as little as one second, thus increasing the sensitivity to nearly 0.002 lux in select models. Comes as a standard feature on all color and day/night EnviroDomes.

## Spot Focus

Activates Auto Focus for three seconds after camera movement.

## Tilt

Camera movement in the vertical direction.

## Zoom

Changing the effective focal length to allow different fields of view to fill the picture area. Zoom can be optical, where the lens is adjusted, or digital, where a portion of the view is magnified electronically.



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