

# SIEMENS



**CDD2425**

**CDD2416-T**

**CDAP2316-T**

**CDAP2416-T**

**Pan and Tilt Heads**

**Installation Manual**

**Building Technologies**

Fire Safety & Security Products

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# 1 Safety

## 1.1 Target group

The instructions in this document are designed only for the following target group.

Target group	Qualification	Activity	Condition of the equipment
Installer	Has appropriate technical training with regard to the installation and the product and has completed the training courses for product specialists.	Installs the equipment.	New, readily assembled and installed device or modified device.

## 1.2 General safety precautions

- Read the general safety precautions before operating the device.
- Follow all warnings and instructions marked on the device
- Keep this document for reference.
- Always pass this document on together with the product.
- Please also take into account any additional country-specific, local safety standards or regulations concerning project planning, operation and disposal of the product.
- Contact the supplier if any functional problems arise.

### Liability claim

- Do not connect the device if it is damaged or any parts are missing.
- Do not make any changes or modifications to the device unless they are expressly mentioned in this manual and have been approved by the manufacturer.
- Use only spare parts and accessories that have been approved by the manufacturer.

## 1.3 Meaning of the signal words

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The severity of a hazard is indicated by the following signal words. Ignoring these hazards may lead to the consequences indicated.

Signal word	Type of hazard
CAUTION	Danger of minor bodily injury or property damage.
IMPORTANT	Danger of malfunctions

## 1.4 Meaning of the hazard symbols

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The nature of the hazard is indicated by icons.



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Dangerous situation

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## 2 EU Directives

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The product meets the requirements of the EU Directive 2004/108/EC on electromagnetic compatibility. The EU declaration of conformity is available from:

Siemens Building Technologies  
Fire & Security Products GmbH & Co. oHG  
76181 Karlsruhe  
Germany

### **EU Directive 2004/108/EC on electromagnetic compatibility**

Conformity with the European Directive 2004/108/EC is demonstrated by compliance with the following standards:

Emitted interference:	EN 61000-6-3
Resistance to interference:	EN 50130-4

### **EU Directive 2006/95/EC “Low-Voltage Directive”**

Compliance with the European Directive 2006/95/EC has been proven by testing according to the following standard:

Safety:	EN 60950-1
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## 3 Technical data

### 3.1 Specifications

Nominal Voltage	CDD2425: 24 V DC CDD2416-T: 24 V DC CDAP2316-T: 230 V AC, 50 Hz CDAP2416-T: 24 V AC, 50 Hz
Maximum Current	CDD2425: 2 A CDD2416-T: 2 A CDAP2316-T: 0.15 A CDAP2416-T: 1.5 A
Speed Ranges	CDD2425: Pan: 24°/s (variable), Tilt: 12°/s (variable) CDD2416-T: Pan: 48°/s (variable), Tilt: 24°/s (variable) CDAP2316-T: Pan: 6°/s, Tilt: 3°/s CDAP2416-T: Pan: 6°/s, Tilt: 3°/s
Driving Torques	CDD2425: Pan: 20 Nm, Tilt: 40 Nm CDD2416-T: Pan: 10 Nm, Tilt: 20 Nm CDAP2316-T: Pan: 19 Nm, Tilt: 19 Nm CDAP2416-T: Pan: 19 Nm, Tilt: 19 Nm
Holding Torques	CDD2425: Pan: 40 Nm, Tilt: 50 Nm CDD2416-T: Pan: 20 Nm, Tilt: 40 Nm CDAP2316-T: Pan: 24 Nm, Tilt: 24 Nm CDAP2416-T: Pan: 24 Nm, Tilt: 24 Nm
Maximum pan rotation	365° ± 2°
Maximum tilt rotation	Over the Top Mount: +20 to -90° Side Mount: ± 90°
Load rating	16 or 25 kg (depending on configuration/spec.)
Backlash	Typically < ± 0.1°
Stall protection	DC: Over-current shutdown in stall condition AC: Permanent stall without damage
Usable temp. Range (at 70% max. duty cycle)	-40 to +60 °C -20 to +60 °C without heaters connected
Heater – fitted as standard	On at +10 °C when temp falling Off at +20 °C when temp rising
Relative humidity	95 % non-condensing
Protection rating	IP67, BS EN 60 529
MTTR	Better than 1 hour
Plug connection	AC: 7-Pin IP67 Screw-Locking Industrial Connector DC: 7-Pin IP67 Screw-Locking Industrial Connector Presets : 4-Pin IP67 Screw-Locking Industrial Connector
Construction	Die-cast aluminium body and brackets, machined stainless steel and aluminium components, stainless steel fixings.



Finish	Polyester powder coat, full gloss, RAL 9006 white aluminium.
Weight	7 kg
Suitable mounting brackets	CDBS4540, CDBS6699, CADC1599, CADC3099.

### 3.2 Mechanical dimensions

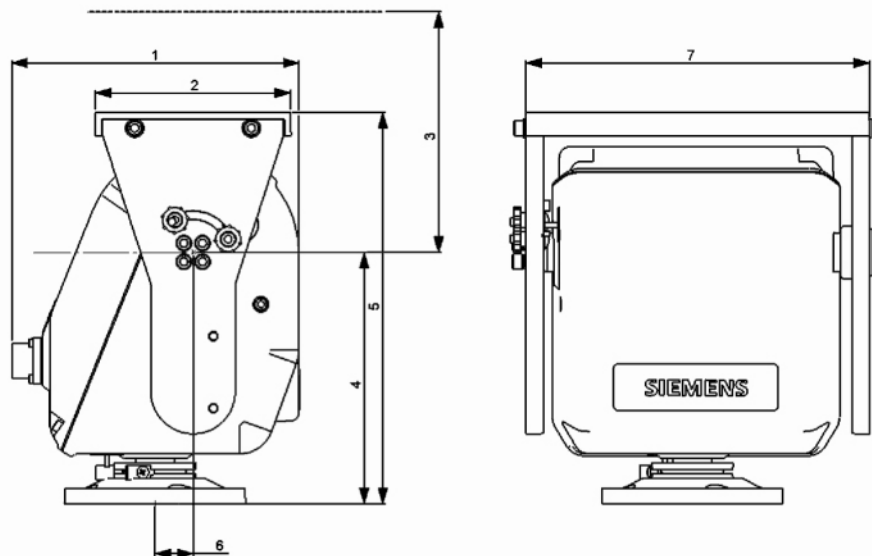


Fig. 1 Mechanical dimensions

1	185 mm	5	255 mm
2	125 mm	6	25 mm (to axis of rotation)
3	155 mm (to centre-line of load)	7	223 mm
4	162 mm (to axis of rotation)		

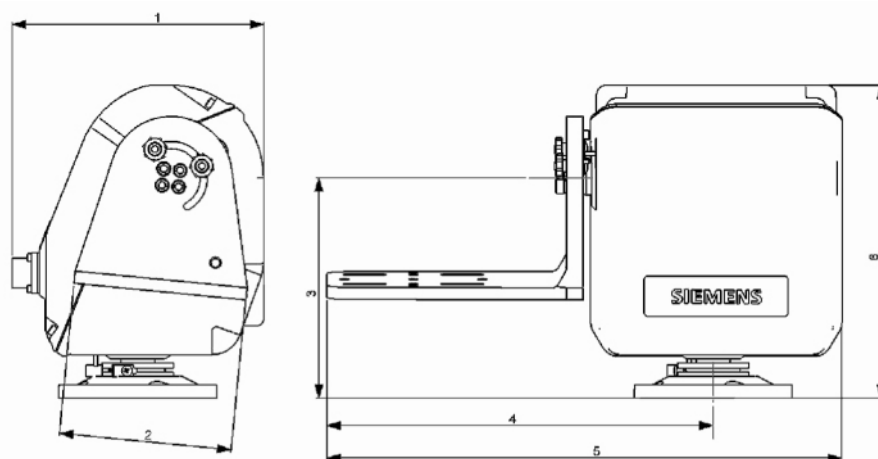


Fig. 2 Mechanical dimensions (continued)

1	185 mm	4	285 mm (to axis of rotation)
2	127 mm	5	378 mm
3	162 mm (to axis of rotation)	6	230 mm

## 4 Details for ordering

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Type	Part no	Designation	Weight
CDD2425	S54561-C700	Pan and Tilt Head	8.0 kg
CDD2416-T	S54561-C701	Pan and Tilt Head	8.0 kg
CDAP2316-T	S54561-C702	Pan and Tilt Head	8.0 kg
CDAP2416-T	S54561-C703	Pan and Tilt Head	8.0 kg

### Accessories

Type	Part no	Designation	Weight
CADS1816	S54561-B713	Side Mount Kit	1.0 kg
CADO0700-DC	S54561-B711-A2	Spare DC Input Connector	0.1 kg
CADO0700-AC	S54561-B711-A1	Spare AC Input Connector	0.1 kg
CADO0400-PR	S54561-B712	Spare Preset Connector	0.1 kg

## 5 Scope of delivery

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### Over the Top versions

- Motor/base assembly with top mount plate
- 4 x M8 nuts
- 4 x plain washers for M8 screws
- 4 x M8 x 30 mm hex. head screws
- 1 x 7 pin cable assembly
- 1 x 4 pin cable assembly
- Installation Manual

### Side Mount versions

- Motor/base assembly with side mount bracket
- 4 x M8 nuts
- 4 x plain washers for M8 screws
- 4 x M6 x 30 mm cap head screws
- 4 x small diameter washers for M6 screws
- 1 x left hand and right hand inverted tilt striker (long)
- 4 x M8 x 30 mm hex. head screws
- 1 x 7 pin cable assembly
- 1 x 4 pin cable assembly
- 1 x side mount platform with standard strikers
- 4 x spring washers for M6 screws
- Installation Manual

## 6 Description of equipment

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The Pan and Tilt unit is designed to meet most outdoor applications (IP67, BS EN 60 529 weatherproof rating) and is supplied with Heaters and Preset Position Feedback capability as standard.

A Weatherproof Cap is supplied with AC versions and must be fitted if the Preset option is not to be used. Preset Position Feedback should always be used on DC units.

A Side Mount Platform kit is available to convert an Over the Top platform unit to Side Mount configuration.

The Side Mount unit is suitable for inverted mounting of a Pan and Tilt unit.

The unit is designed to be powered and controlled by a suitable CCTV telemetry receiver.

The drive unit is powered either by synchronous 230 V or 24 V AC motors, or by high power variable speed 24 V DC motors.

All units are fitted with externally adjustable end-stop limits, which can be used to limit the travel range of both pan and tilt functions to suit the customers' application.

The units are supplied with pre-wired cables that are designed to be wired from the Pan and Tilt unit into the camera housing that is mounted on it.

# 7 Mounting



**IMPORTANT**

Always fit the camera housing assembly directly to the pan and tilt unit. Do not use additional spacers, as this may result in overloading of the pan and tilt unit. Use suitable screws to affix the camera housing. Refer to the appropriate housing manual.

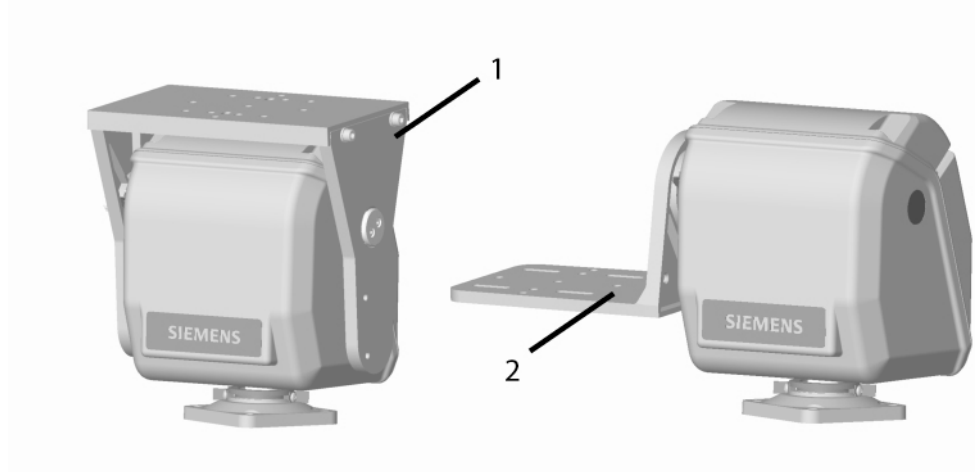


Fig. 3 Pan and Tilt unit mounting options

1	Over the Top mount
2	Side mount

## 7.1 Mounting Over the Top models

The Over the Top Pan and Tilt unit has a removable mounting plate for ease of installation of a camera housing (see Fig. 6). A column spacer can be used to offer greater installation flexibility (see Fig. 3)



Fig. 4 Typical Over the Top assembly

1	Camera housing
2	Pan & tilt unit
3	Column spacer

### 7.1.1 Mounting a Camera Housing to the Over the Top Platform

The mounting plate has a set of eight Ø 7 mm holes equally spaced on a 101.6 mm (4") PCD and seven other Ø 7 mm holes. These are suitable for mounting most types of camera housing (see Fig. 5).

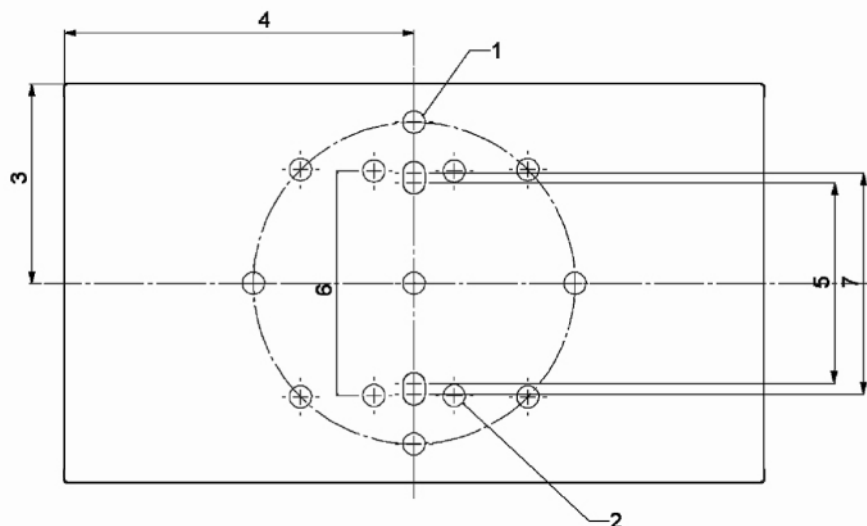


Fig. 5 Pan and Tilt unit Over the Top mounting details

1	8 x Ø 7 mm holes equally spaced at 101.6 mm PCD
2	7 x Ø 7 mm holes (two slotted)
3	62.75 mm
4	110.5 mm
5	63.50 mm (Slotted Hole)
6	71 mm (Through Hole)
7	70 mm (Slotted Hole)

#### To install a camera housing



**NOTE**

Retain the screws so you can refit the Top Plate and camera housing to the Pan and Tilt unit.

1. Remove the four M6 screws (3) using the 5 mm Allen Key (see Fig. 6).
2. Remove the washers.
  - You can now remove the Mounting Plate from the Pan and Tilt unit.
3. Secure the mounting plate to the base of the camera housing using suitable mounting camera housing screws. Refer to the appropriate housing manual.
4. Refit the Top Plate and camera housing to the Pan and Tilt unit using the screws and washers removed earlier, tighten the screws fully.
  - The camera housing is now mounted on the Pan and Tilt unit.

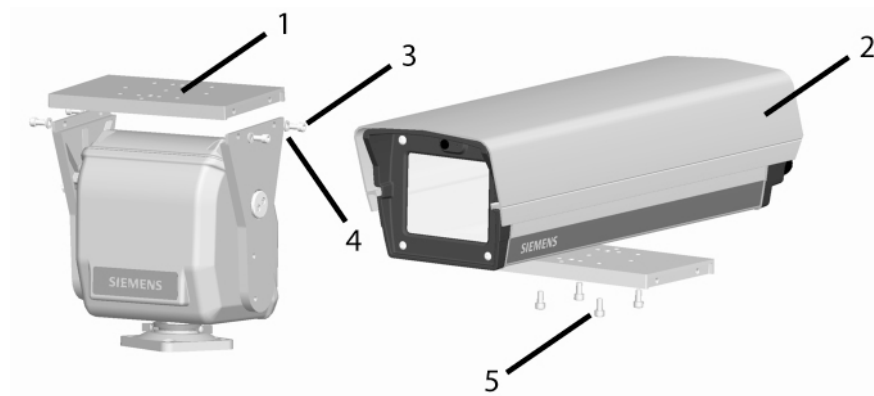


Fig. 6 Over the Top platform top plate camera installation

1	Removable Mounting Plate for ease of installation
2	Camera housing
3	4 x M6 screws to secure Top Plate
4	4 x plain washers for M6 screws
5	4 x screws suitable for mounting camera housing

### 7.1.2 Over the Top models – platform load

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**Average centre line of load 155 mm (65 mm above platform)**

Tilt speed	Maximum platform load
3°/s (AC)	16 kg (balanced)
24°/s (DC)	16 kg (balanced)

## 7.2 Mounting Side Mount models

The Side Mount pan and tilt unit offers flexibility of installation by allowing increased load capacity in some configurations and the possibility to inverse mount the Pan and Tilt. It is supplied as standard with the CDD2425 25 kg rated unit, and is available as a kit to fit to all of the Over the Top Pan and Tilt.



Fig. 7 Typical Side Mount Assembly

1	Camera housing
2	Pan and Tilt
3	Column Spacer

### 7.2.1 Mounting the Side Mount Platform to the Pan and Tilt

The Side Mount platform is supplied loose in the carton with the unit CDD2425. To affix the Side Mount platform, the following steps need to be taken.

1. Offer the Side Mount platform up to the Pan and Tilt drive unit, lining up the 4 holes in the platform with the holes in the drive output shaft. (see Fig. 8).
  2. Make sure the tilt limit strikers are correctly positioned either side of the microswitch.
  3. Secure the Side Mount platform to the Pan and Tilt with the four M6 screws (supplied), fitting first an M6 spring washer, and then a plain washer for M6 screws under each head.
  4. Fully tighten the four screws using the 5mm Allen Key, ensuring full compression of the spring washers.
- The Side Mount Platform has been mounted on the Pan and Tilt unit.

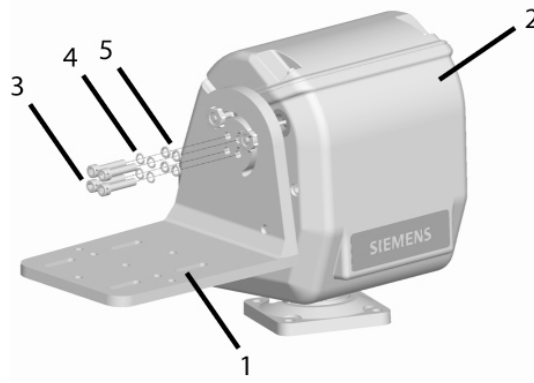


Fig. 8 Side Mount platform attachment

1	Side Mount platform assembly
2	Pan and Tilt
3	4 x M6 x 30 mm socket cap head screws
4	4 x spring washers for M6 screws
5	4 x plain washers for M6 screws

### 7.2.2 Replacing an Over the Top Platform with a Side Mount Kit

When a kit is bought to replace an Over the Top Platform with a Side Mount Kit, the following steps need to be taken to affix the Side Mount platform to the unit.

1. Undo and remove the four screws (1) and washers (2) & (3) securing the drive side platform yoke to the Pan and Tilt unit with a 5 mm Allen Key (see Fig. 9).
2. Undo and remove the two screws (7) and washers (6) holding the idle side yoke and stub shaft to the Pan and Tilt unit with a 3 mm Allen Key.
  - The Over the Top Platform is loose.
3. Remove the Over the Top bracket assembly (4).
4. Fit the Side Mount platform to the unit as described in section 7.2.1.
5. Fit the supplied self-adhesive blanking disc (8) to the circular indentation left where the stub shaft was fitted.

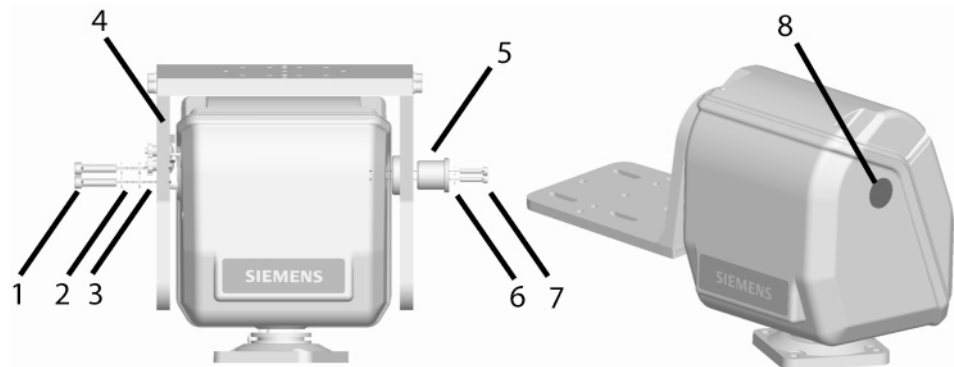


Fig. 9 Replacing an Over the Top platform with a Side Mount Kit

1	4 x M6 x 30 socket cap head screws
2	4 x spring washers for M6 screws
3	4 x plain washers for M6 screws
4	Over the Top bracket assembly
5	Stub shaft
6	Star washers for M4 screws
7	M4 x 25 socket cap head screws
8	Self adhesive blanking disc



### 7.2.3 Mounting a Camera Housing to the Side Mount Platform

The Side Mount platform has a set of four holes and four slots (7 mm diameter) offset by 90° equally spaced on a 101.6 mm (4") PCD. There are also 2 holes 70 mm apart. These holes are suitable for mounting most types of camera housing (see Fig. 10).

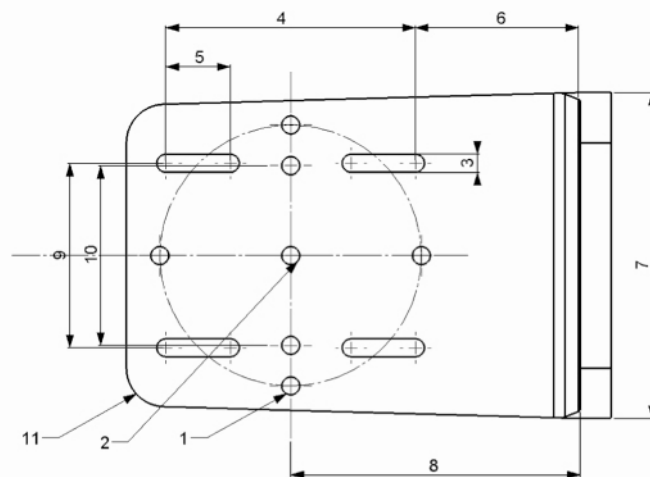


Fig. 10 Side Mount platform details

1	4 x Ø 7 mm holes equally spaced at 101.6 mm PCD
2	3 x Ø 7 mm holes with Ø 11.0 mm counterbore
3	7 mm wide slot with Ø 11.0 counterbore for screw head
4	97.0 mm
5	25.0 mm
6	64.0 mm
7	127.0 mm
8	112.5 mm
9	71.0 mm (Slots)
10	70.0 mm
11	R15.0 mm Typical (Holes)

#### To install camera housing:

1. Line up the camera housing with the corresponding holes in the Side Mount bracket.
2. Fit the camera housing in position using suitable screws; refer to the appropriate camera housing manual for screw recommendations.
  - The camera housing is installed.

### 7.2.4 Side Mount models – platform load

#### Average centre of load on centre line of tilt axis

Tilt speed	Maximum platform load
3°/s (AC)	25 kg (balanced)
12°/s (DC)	25 kg (balanced)
24°/s (DC)	16 kg (balanced)

## 7.2.5 Inverse mounting of Side Mount models

Should you need to inverse mount the Pan and Tilt unit, for example to mount the Pan and Tilt to a ceiling; it is only suitable to use the Side Mount version. The specially designed Left Hand and Right Hand Inverted Tilt Strikers (Long) must be fitted to replace the standard strikers on the Side Mount assembly. This ensures that the microswitch striker is actuated correctly. The Tilt Limits are setup as described in section 8.

To inverse mount the side platform:

1. Remove the 2 standard strikers from the side mount platform by undoing the two screw locks by hand.
  2. Fit the two supplied inverse mounting strikers using the same screw locks; orientate them so that they will actuate the limit switch when the platform is inverse mounted.
  3. Fit the platform to the unit as described in section 7.2.1, in the correct orientation (see Fig. 11).
  4. Adjust the strikers to actuate the limit switch as described in section 9.2.
- The inverse mounted Side Mount platform has been mounted on the Pan and Tilt unit.



Fig. 11 Side Mount inverse mounting

1	Pan and Tilt unit
2	Camera housing mounted on Inverse mounted Pan and Tilt unit



**NOTE**

Inverse mounting of a Pan and Tilt unit requires that the direction of travel must be rewired on the associated receiver.

e.g. Left = Right  
Up = Down

## 7.2.6 Mounting to a bracket or column spacer

The following is a reference guide to Siemens brackets and the weights that they support. (Refer to the Siemens price list and technical specifications for further information.)

Suitable Fixed Brackets:

- CDBS4540 – 40 kg fixed bracket
- CADC1599 – column spacer
- CADC3099 – column spacer

The unit is supplied with a kit of parts for mounting the Pan and Tilt to a suitable Siemens bracket. It is the installer's responsibility to ensure suitable fixings are used to secure the assembly to the primary surface.

The Pan and Tilt base has 4 holes equally spaced on a 4" (101.6 mm) P.C.D, which line up with the bracket mounting holes, (see Fig. 12).

1. Mount the Pan and Tilt unit onto the bracket (or column spacer) using the four M8 x 30 Hex. Head screws, washers for M8 screws and the M8 nuts provided in the packing kit.
2. Place one washer on the screw, pass through the bracket and then the base plate of the Pan and Tilt unit.
3. Place another M8 washer over the fixing screw and secure by tightening the M8 nuts from the top of the Pan and Tilt unit base plate.

The maximum recommended tightening torque for the supplied M8 stainless steel fixings is 21.4 Nm (15.8 lb/ft).

Ensure that the correct bracket for the application is used and that it is securely mounted to the prime surface.

Ensure the surface to which the unit is being mounted is solid and that there is no risk of the bracket becoming loose due to crumbling brick or mortar.

Ensure that all fixing screws and securing bolts are tight. Where required fit suitable anti-vibration fastenings.



### IMPORTANT

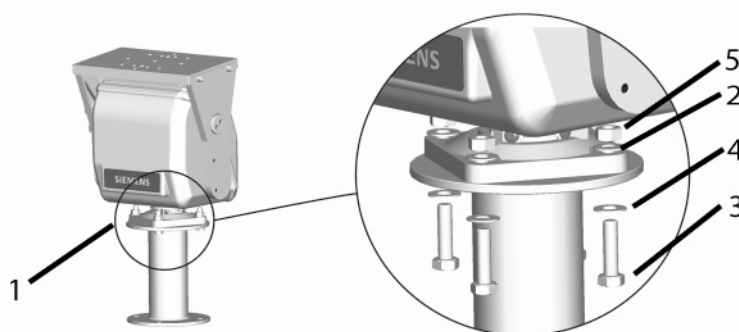


Fig. 12 Base mounting

1	Pan and Tilt base
2	Bracket mounting holes
3	M8 x 30 hex. head screws
4	Washers for M8 screws
5	M8 nuts

## 8 Connecting the cables

### 8.1 Standard AC and DC Control Cable Assembly



**CAUTION**

The power input connector fitted to the unit is the all-pole disconnect device, ensure it is accessible at all times.

The unit must be protected via the telemetry receiver. The following ratings must not be exceeded: 3 A for 230 V AC units, 5 A for 24 V AC units and 5 A anti-surge for 24 V DC units.



**IMPORTANT**

- The DC units CDD2425 and CDD2416-T must only be supplied using an SELV supply.
- The unit must be earthed via the earthing conductor in the control connector assembly.
- The unit CDAP2416-T must not be connected to IT power systems.
- The power cable must be sufficiently long for the full range of horizontal and vertical movement of the unit. Make sure the power cable is not under stress, kinked or damaged at any time.



**CAUTION**

Units CDAP2316-T (230V AC) and CDAP2416-T (24V AC) use the same style power input connectors. Ensure the correct voltage supply is used before connecting and switching on the unit to prevent malfunction or damage. The supplied power cables and units are clearly marked with voltage warnings.

All installation work must comply with national wiring standards.

The unit comes supplied with a 2 metre pre-wired cable assembly (see Fig. 13).

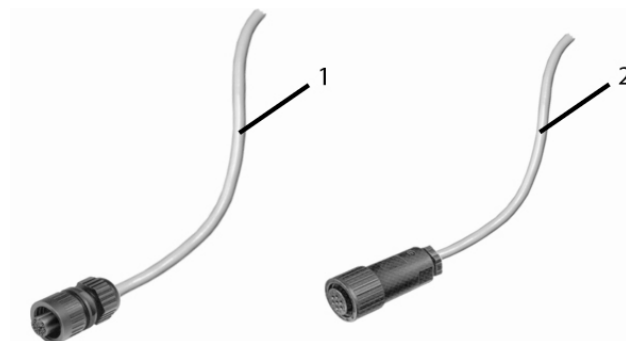


Fig. 13 Standard AC and DC connectors

1	AC connector
2	DC connector

The pan and tilt unit is supplied with a pre-wired AC or DC control connector assembly. The supplied cable is suitable for general CCTV installations. If the installation requires a different cable to be fitted, it must meet the specification of the supplied cable, be less than 10m in length and also meet any special requirements for the installation and any required local and national standards. See below for the specification of the supplied AC and DC control cable.

**AC and DC Control Cables:** 7 cores (six numbered white on black, one yellow/green), 0.75 mm<sup>2</sup> conductor area per core, flexible stranded cores, 300 V working voltage, grey flexible UV resistant weatherproof outer jacket, -40 to +90 °C working temperature range.

The AC connector gland can accept cables with an overall diameter of 6-12mm, the DC connector can accept cables with an overall diameter of 8-10mm. Make sure the gland is assembled and tightened correctly to ensure a weatherproof seal.

Pin No.	Wire ident No.	AC function	DC function
1 / A	1	Neutral	* Heater
2 / B	2	Pan right	Pan right
3 / C	3	Pan left	Pan left
4 / D	4	Tilt up	Tilt up
5 / E	5	Tilt down	Tilt down
6 / F	6	* Heater	* Heater
Earth / Earth	Earth wire	Ground	Ground

\* Optional – only connect if required

## 8.2 Preset Feedback Cable Assembly



### CAUTION

Preset pan and tilt limits must be set before controlling the unit; failure to set limits could result in a collision with surrounding surfaces or objects.

Pan and tilt position recall is achieved by having high-grade potentiometers fitted to the pan and tilt axes. These potentiometers are used to feed back positional information to an external control system, allowing preset positions to be recorded and recalled (the control system must be preset position capable). These potentiometers are fitted as standard on all versions.

The pan and tilt is supplied with a pre-wired 2m preset connector assembly. The supplied cable is suitable for general CCTV installations. If the installation requires a different cable to be fitted, it must meet the specification of the supplied cable, be less than 10m in length and also meet any special requirements for the installation and any required local and national standards. See below for the specification of the supplied preset cable.

**Preset Cable:** 4 cores (Red, Blue, Yellow, Green), 0.5 mm<sup>2</sup> conductor area per core, flexible stranded cores, 300 V working voltage, braid shield, grey flexible UV resistant weatherproof outer jacket, -40 to +90 °C working temperature range.

The preset connector gland can accept cables with an overall diameter of 6 – 12 mm. Make sure the gland is assembled and tightened correctly to ensure a weatherproof seal.



Fig. 14 Preset connector

Pin-No.	Wire colour	Function
1	Red	Potentiometer +VE
2	Blue	Potentiometer -VE
3	Yellow	Pan wiper
4	Green	Tilt wiper

1. Ensure that the wiper of the potentiometer is not connected to a supply voltage, since this will damage the components.
2. Fit the water proof cap to cover the preset connector if a preset cable is not used.
3. Check the polarity of the reference voltage connection to the Pan and Tilt to ensure that movement of the unit causes feedback voltage from the wiper to operate in the correct polarity of the control system.



**IMPORTANT**

If the polarity is not correct the unit will not find its correct position and will not operate. To correct this, reverse the polarity of the reference supply connection to the potentiometers.

There are Siemens preset telemetry receivers which do this automatically.

Ensure the cable connector is correctly assembled to prevent the ingress of moisture into the unit.

## 8.3 Heater

The heater is used to allow the unit to operate down to a lower minimum ambient temperature (-40 °C) than it would without any heating (-20 °C). The heater is controlled by a built in thermostat which switches on when the temperature falls below +10 °C and switches off again when it rises above +20 °C.

The heater connections are shown in the table in section 8.1. If heating is not required do not make any connection to the heater terminals.

The maximum current required for the heater is 1 A for the 24 V AC/DC versions or 0.1 A for the 230 V version.

## 9 Setting the Pan and Tilt end-stops

The unit is fitted with two adjustable end-stop switches which need to be set to limit the angle of travel to suit the site conditions or to the maximum specified travel. The switch actuators are placed externally; there is no need to open the unit.



**NOTE**

The end-stop switches should be set to the required limits of travel to ensure that the camera housing does not foul on any obstructions that may be present, or cause tension on the control cables.



**CAUTION**

**Danger of damage to the unit**

Do not attempt to use force to manually move the pan or tilt mechanisms as this can cause damage to the gearboxes. The unit should only be moved by driving it correctly, as described in this guide.

### 9.1 Setting the Pan end-stops

1. Drive the unit to the required pan stop positions to adjust the strikers (see Fig. 15).
2. Loosen the M4 screws to free the pan strikers.
3. Adjust the strikers so that they strike the microswitch actuator, at the required positions.
4. Tighten the M4 screws to secure the pan strikers.



**NOTE**

If one of the end-stops is removed, it is possible to achieve a maximum 365° of pan rotation.

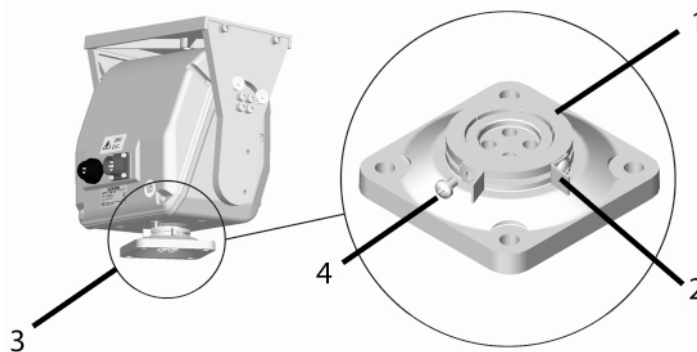


Fig. 15 Setting the Pan end-stops

1	Pan and Tilt base
2	Adjustable strikers
3	Pan and Tilt assembled base and switch
4	M4 screws

## 9.2 Setting the Tilt end-stops

1. Drive the unit to the required tilt stop positions to adjust the strikers. For Over the Top mounting see Fig. 16, for Side Mounting see Fig. 17.
2. Release the screw locks (4).
3. Adjust the strikers (3) until they are at the position to strike the microswitch actuator.
4. Retighten the screw locks once in position.

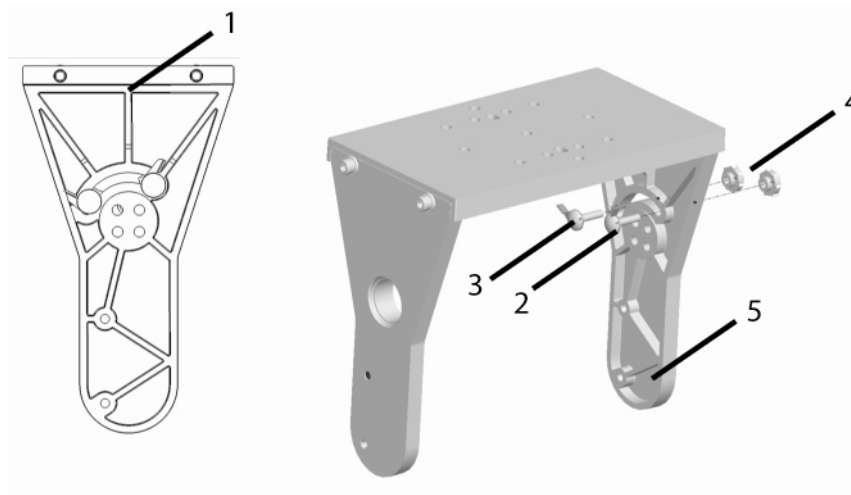


Fig. 16 Over the Top tilt limit adjustment

1	Detail showing approximate striker positions
2	Nylon coach bolts
3	Tilt limit strikers
4	Adjustable plastic screw locks
5	Tilt platform

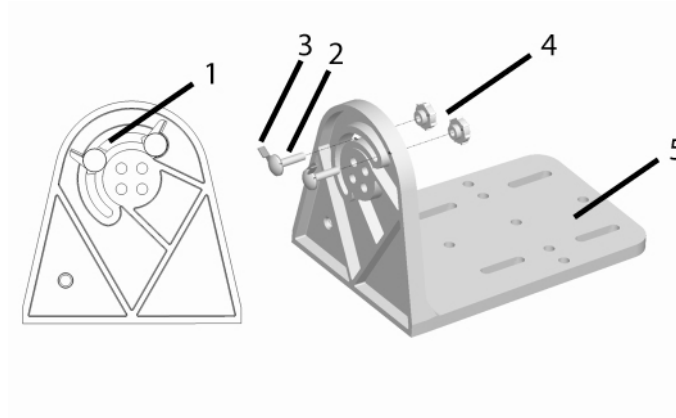


Fig. 17 Side mount tilt limit adjustment

1	Detail showing approximate striker positions
2	Nylon coach bolts
3	Tilt limit strikers
4	Adjustable plastic screw locks
5	Tilt platform



## 10 Maintenance and service

The following maintenance guidelines should be observed.

6 monthly checks	<p>1. All fastenings and cables should be checked for tightness and wear.</p> <p>2. Regular checks should be performed to ensure that the outer sheaths of the cables are not damaged and that the cables are not fouling on any obstruction.</p>
5 yearly checks	If the unit is exposed to severe weather conditions or other harsh environments, the rubber weather seals should be replaced. Contact your Siemens representative to arrange this.

## 11 Troubleshooting

Fault	Possible cause	Possible solution
Unit will not drive, both functions	Faulty wiring from the control system to the Pan and Tilt unit.	<p>Check the neutral connection between the supply and the Pan and Tilt unit.</p> <p>Check the connection of the telemetry receiver</p> <p>If a separate fuse is fitted for the Pan and Tilt, check it has not blown.</p> <p>Some receivers are capable of being linked to enable separate supply rails to be used for different functions. These links should be checked to ensure they are in the correct position (refer to receiver manual).</p>
Pan will not drive	Electrical failure	<p>Check the voltage from the control system is present on either the pan right or pan left input.</p> <p>A quick test to check if the fault lies with the Pan and Tilt unit or the supply is: Bypass the control system and apply the rated supply voltage directly to the pan and tilt input connector between neutral and pan left or pan right.</p> <p>It is advisable to try both left and right to ensure that the unit is not at an end-position limit switch.</p> <p>For units with presets, check preset wiring as some preset receivers will not drive unless they receive feedback from preset pots. If the Pan and Tilt unit will not drive with direct voltage application, the unit should be returned for service.</p>
Tilt will not drive	Electrical failure	<p>Check the voltage from the control system is present on either the tilt up or tilt down input.</p> <p>A quick test to check if the fault lies with the Pan and Tilt unit or the supply is: Bypass the control system and apply the rated supply voltage directly to the pan and tilt input connector, between neutral and tilt up or tilt down.</p> <p>It is advisable to try both up and down to ensure that the unit is not at an end-position limit switch.</p> <p>For units with presets, check preset wiring as some preset receivers will not drive unless they receive feedback from preset pots. If the Pan and Tilt unit will not drive with direct voltage application, the unit should be returned for service.</p>
Unit tries to move in both directions or goes wrong way	In AC units, this problem can be caused by a faulty motor capacitor.	<p>Check that the control system is stable and that relay chatter is not present.</p> <p>If the problem persists, it is possible it could be faulty capacitors; it is recommended that the unit be returned to the factory for repair.</p>
	It can also be caused by both functions being activated simultaneously.	Check that only one input on each motor is activated at any one time.
	Excessive drive torque demand on the motor.	Check the cables are free to rotate and are not fouling or obstructing.
DC Unit will not pan and tilt at full speed OR Preset positions, preset sequences or preset tour do not function correctly	If the head is being driven from a Siemens DC receiver, re-initialise the receiver.	<p>Send a 'Camera Reset' command from the control keyboard to the receiver.</p> <p>Any preset positions previously stored in the receiver may need to be re-stored (dependant upon model of receiver).</p>

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**NOTE**



This installation manual cannot cover all conceivable cases of installation, operation or maintenance. Should you require further information or should special problems occur which are not discussed in adequate detail in the installation manual, please request the required information from your local Siemens office.

We must also point out that the contents of this installation manual do not constitute a part of an earlier or existing agreement. Neither do they constitute or amend any earlier or existing commitment or legal relationship. All obligations on the part of Siemens result from the relevant purchase agreement which also contains the complete and solely valid warranty regulations. This installation manual neither extends nor restricts these contractual warranty regulations.

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## 12 Disposal

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All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.

This crossed-out wheeled bin symbol on the product means the product is covered by the European Directive 2002/96/EC.

The correct disposal and separate collection of your old appliance will help prevent potential negative consequences for the environment and human health. It is a precondition for reuse and recycling of used electrical and electronic equipment. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.



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