

# SIEMENS



**CAHL4010-WK**

**CAHL4011-WK**

**Wiper Kits**

**Installation instruction**

**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 product
Installer	Technical training for building or electrical installations.	Installs the product, individual components of the product or replacement parts.	Components of the product are not yet installed or need to be replaced or modified.

## 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.

### 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

The severity of a hazard is indicated by the following written warning notices.

Signal word	Type of hazard
CAUTION	There is a risk of minor to medium injuries or damage to property.

## 1.4 Meaning of the hazard symbols

The nature of the hazard is indicated by icons.



Warning of a hazard

## 2 EU Directives

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The product complies with the requirements of the following EU directives. 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”**

Compliance with the European Directive 2004/108/EC has been proven by testing according to the following standards:

Emitted interference:	EN 55022 Class B
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

Supply Voltage	230 V AC, 50/60 Hz (CAHL4010-WK) 24 V AC, 50/60 Hz (CAHL4011-WK)
Operating Current	25 mA (230 V AC) 200 mA (24 V AC)
Rotation Speed	10 RPM with 50 Hz supply, 12 RPM with 60 Hz supply
Rotation Angle	90°
Motor/Gearbox Output Torque	36 Ncm Minimum
Blade Length	60 mm
Weatherproof Rating (Housing assembly)	IP66, BS EN 60529
Construction	Stainless steel and rubber wiper arm assembly. Steel, stainless steel, aluminium and plastic drive system components. Stainless steel fixings.
Suitable housings	CHSL4010, CHSL4011

### 4 Details of ordering

Type	Part no	Designation	Weight
CAHL4010-WK	S54561-C608-A1	Wiper Kit 230 V AC	0.8 kg
CAHL4011-WK	S54561-C608-A2	Wiper Kit 24 V AC	0.8 kg

#### Accessories

Type	Part no	Designation	Weight
CAHL401X-W	S54561-B604	Spare Wiper Arm Assembly	0.1 kg

## 5 Scope of delivery

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- Wiper drive unit assembly
- Wiper arm assembly
- Wiper arm guide
- Wiper drive shaft assembly
- Installation guide
- 3 × M4 × 12 pozi pan head screws

## 6 Description of equipment

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This kit is supplied as a means to add a wiper to Siemens Camera Housings CHSL4010 and CHSL4011. The kit is designed to be retro-fitted to the housings and is available in two voltage options CAHL4010-WK (230V AC) and CAHL4011-WK (24V AC). The kit comprises a wiper arm assembly, internal drive shaft system and a motor drive unit which mounts inside the housing.

Useable internal height of housing with the wiper unit fitted is reduced from **100 mm to 88 mm.**



## 7 Installation

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### Suggested tools

The following tools are suggested for the installation of a wiper kit:

- No. 1 pozi drive screwdriver
- No. 2 pozi drive screwdriver
- Flat bladed terminal screwdriver
- 3 mm Allen key (one is supplied with the camera housings)

### 7.1 Accessing the inside of the housing

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1. To open the housing, release the four rear end cap screws (using the 3 mm A/F Allen key provided in the original packing kit supplied with the Housing).
2. Remove the housing body earth harness connection.
3. Slide the housing body fully forward (A) and pivot downward (B) about the base plate hinges (see Fig. 1).
4. This reveals the camera/lens mounting plate and wiring connections. Should complete removal of the housing body become necessary, simply twist the whole body laterally about the base plate hinges and then lift off.
5. To close the unit, repeat the above procedure in the reverse order ensuring that the housing body earth harness is reconnected.

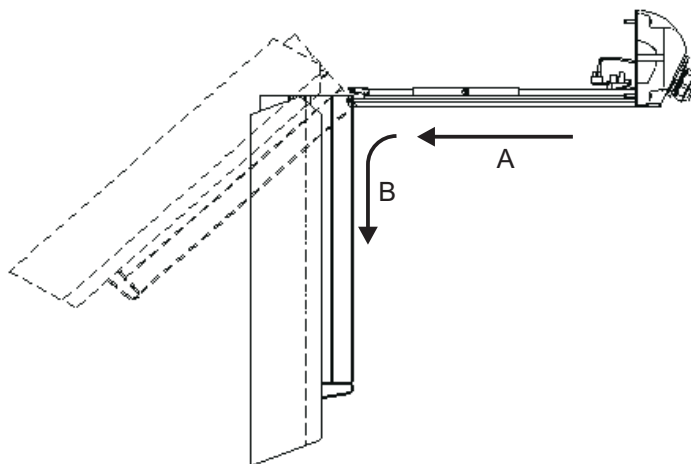


Fig. 1 Accessing the inside of the housing

## 7.2 Fitting the wiper assembly

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1. Open the housing as indicated in Fig. 1.
2. Remove the two-piece plastic bung from the front cap. Make sure that the o-ring seal inside the hole is not damaged.
3. Slide the wiper shaft guide into the body moulded guides (see Fig. 2).
4. Slide the wiper shaft assembly through the guide, nylon collar towards the front cap. Carefully push the end of the shaft through the bearings in the front cap (see Fig. 3). Take care to not damage the o-ring seals in the Front Cap.
5. Secure the wiper drive unit into the rear cap, using the three off screws indicated on the exploded view (see Fig. 3). The drive unit is supplied in the PARK position.
6. Connect the wiper drive unit electrical connections as described in section 7.3 Connecting the wiper drive unit.
7. Slide the housing back together ensuring no wires are trapped, reconnect the body earth connection and ensure the wiper shaft dog engages into the wiper drive unit. Secure the rear cap with the 4 screws.
8. Fit the wiper arm assembly onto the front cap. Ensure that the wiper blade is positioned correctly (shown in Fig. 4), tighten the mounting boss screw.
9. Test the unit following the test procedure detailed in section 7.4 Testing the wiper.

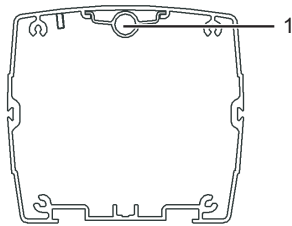


Fig. 2 Wiper shaft guide location

1	Wiper shaft guide
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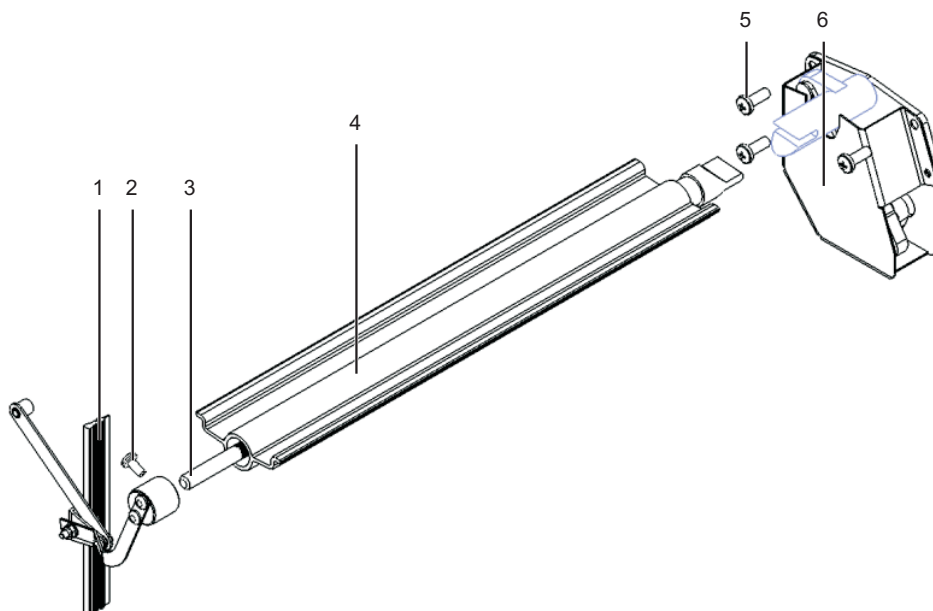


Fig. 3 Wiper assembly

1	Wiper arm assembly
2	Mounting boss screw
3	Wiper shaft (goes through front cap)
4	Wiper shaft guide
5	M4 × 12 mm pozi pan screws
6	Wiper drive unit

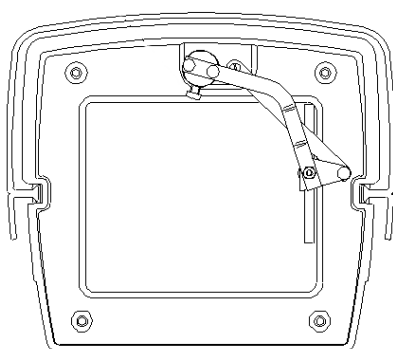


Fig. 4 Wiper in park position

### 7.3 Connecting the wiper drive unit

1. Once the drive unit is fitted into the housing, it must be connected to a power supply and wipe control signal. The terminal board supplied with the camera housing provides a suitable power supply connection (check voltages) and user through terminals on a terminal block for the wipe signal.
2. See the housing manual for details on connecting a power supply to the terminal board from an external source. If using a separate fused supply, the terminal block can be used for through terminals.



**CAUTION**

A readily accessible all-pole disconnect device shall be incorporated in the building installation wiring. As part of the building installation protect the unit via a fuse or circuit breaker rated at 2A for 230V AC units and 5A for 24V AC units.

3. Connect the drive unit to the terminal board in the chosen configuration; see Fig. 5 and Fig. 6 for the circuit diagram and details of the terminal board.
4. Connect WIPE to the control signal from the receiver for the wiper function. This will be taken LIVE to operate and will remain LIVE until the wiper is returned to the PARK position.
5. Ensure that the cable glands are tightened correctly to prevent the ingress of moisture into the housing.

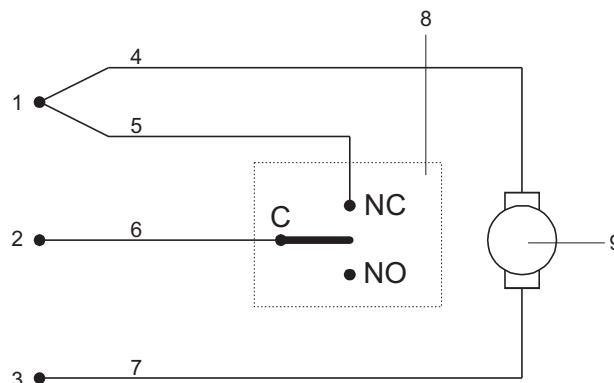


Fig. 5 Circuit diagram

1	Wiper Control (WIPE)
2	L (PARK)
3	N
4	White
5	White
6	Brown
7	Blue (230V) / White (24V)
8	Microswitch
9	Wiper Motor

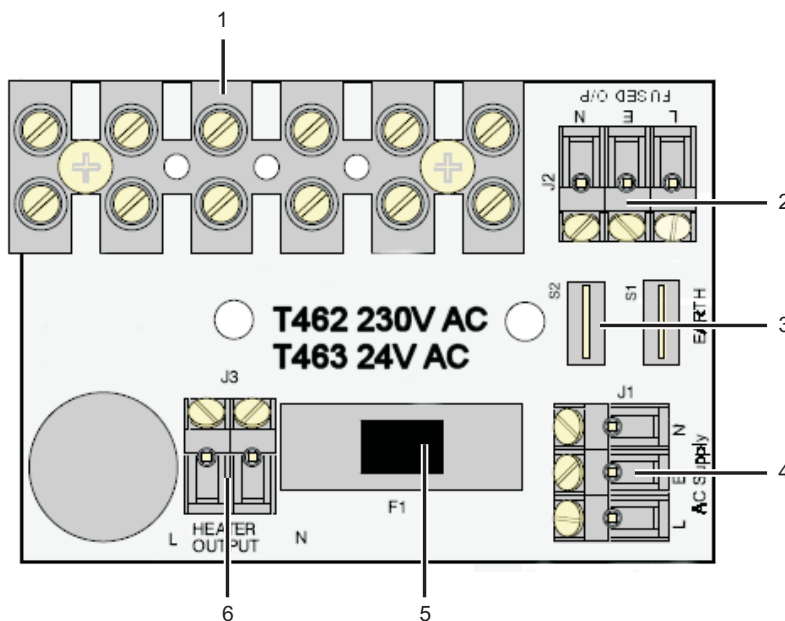


Fig. 6 Terminal board connection details

1	Pillar terminal block for user
2	Fused power output
3	Earth harness spade connectors
4	Power supply connections
5	Fuse F1 2 A 250 V AC 5x20 Type (T), HBC for 230V AC Board 5 A 250 V AC 5x20 Type (T), HBC for 24V AC Board
6	Heater output

## 7.4 Testing the wiper

The operation of the wiper is controlled by applying power to the WIPE terminal of the drive unit. Once the unit has been moved off the park position, it will continue moving until it reaches the park position once again, completing one wipe of the screen. Siemens receivers have a WIPE function which supplies the power to the WIPE terminal.

In order to test the wiper unit:

1. After wiring the unit as described in section 7.3 Connecting the wiper drive unit and connecting the WIPE control signal from a receiver, switch on the power to the assembly.
2. Consult the installation guide for the control system used to determine how to activate the WIPE function.
3. Activate the WIPE function; the drive unit should now operate.
4. On release of the function the wiper must return to the 'park' position (see Fig. 4).
5. If the wiper does not return to the position shown in Fig. 4, but has parked, loosen the Mounting Boss Screw (see Fig. 3) and readjust the wiper arm to the desired position.



**NOTE**

Ensure that the wiper arm is in the park position every time the rear cap is removed or replaced.

## 8 Maintenance and service

The following maintenance guidelines should be observed.

6 monthly checks	All fastenings, cables and wiper blades should be thoroughly checked for tightness and wear or corrosion.
2 yearly checks	The wiper blades should be replaced.

## 9 Troubleshooting

Fault	Possible cause	Possible solution
Wiper does not return to park position.	Wiper arm assembly not correctly fitted to wiper shaft.	Drive unit to park position, loosen the mounting boss screw, reposition arm assembly and retighten mounting boss screw.
Smears on screen when wiped	Worn out or misaligned wiper blade.	Inspect and replace or adjust wiper blade assembly as required.



### NOTE

This installation guide 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 guide, please request the required information from your local Siemens office.

We must also point out that the contents of this installation guide 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 guide neither extends nor restricts these contractual warranty regulations.

## 10 Disposal



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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