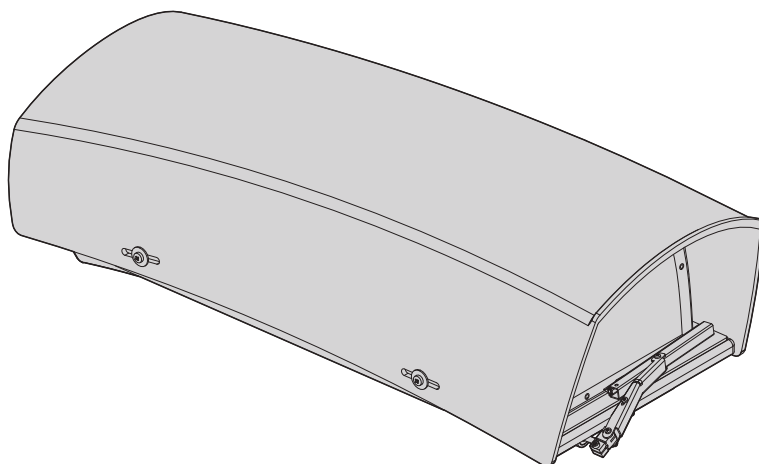




HGV Installation Manual

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1 About this manual

Read all the documentation supplied carefully before installing and using this product. Keep the manual in a convenient place for future reference.

1.1 Typographical conventions



DANGER!

High level hazard.

Risk of electric shock. Disconnect the power supply before proceeding with any operation, unless indicated otherwise.



CAUTION!

Medium level hazard.

This operation is very important for the system to function properly. Please read the procedure described very carefully and carry it out as instructed.



INFO

Description of system specifications. We recommend reading this part carefully in order to understand the subsequent stages.

2 Notes on copyright and information on trademarks

The mentioned names of products or companies are trademarks or registered trademarks.

3 Safety rules



CAUTION! Device installation and maintaining must be performed by specialist technical staff only.



CAUTION! The electrical system to which the unit is connected must be equipped with an automatic bipolar circuit breaker. The circuit breaker for main supply voltage phase units must have a level of intervention of 20A max. The circuit breaker for low voltage units must have a level of intervention of 6A max. This circuit breaker must be of the Listed type. The minimum distance between the circuit breaker contacts must be 3mm (0.1in). The circuit breaker must be provided with protection against the fault current towards the ground (differential) and the overcurrent (magnetothermal).

- The manufacturer declines all responsibility for any damage caused by an improper use of the appliances mentioned in this manual. Furthermore, the manufacturer reserves the right to modify its contents without any prior notice. The documentation contained in this manual has been collected and verified with great care. The manufacturer, however, cannot take any liability for its use. The same thing can be said for any person or company involved in the creation and production of this manual.
- Before starting any operation, make sure the power supply is disconnected.
- Be careful not to use cables that seem worn or old.
- Never, under any circumstances, make any changes or connections that are not shown in this handbook. Improper use of the appliance can cause serious hazards, risking the safety of personnel and of the installation.
- Use only original spare parts. Non-original spare parts could cause fire, electrical discharge or other hazards.
- Before proceeding with installation, check the supplied material to make sure it corresponds to the order specification by examining the identification labels (4.2 Product marking label, page 5).

- This device was designed to be permanently secured and connected on a building or on a suitable structure. The device must be permanently secured and connected before any operation.
- Comply with all the national standards during the device installation.
- Installation category (also called Overvoltage Category) specifies the level of mains voltage surges that the equipment will be subjected to. The category depends upon the location of the equipment, and on any surge voltage protection provided. Equipment in an industrial environment, directly connected to major feeders/short branch circuits, is subjected to Installation Category III. If this is the case, a reduction to Installation Category II is required. This can be achieved by use of an insulating transformer with an earthed screen between primary and secondary windings, or by fitting UL listed Surge Protective Devices (SPDs) from live to neutral and from neutral to earth. Listed SPDs shall be designed for repeated limiting of transient voltage surges and the following rated operation conditions: Type 2 (SPDs permanently connected to the power network and intended for installation on the load side of the service equipment); Nominal Discharge Current (I_n) 20kA min. For example: FERRAZ SHAWMUT, STT2240SPG-CN, STT2BL240SPG-CN rated 120Vac/240Vac, ($I_n=20kA$). Maximum distance between installation and reduction is 5m.
- Any device which could be installed inside the product must comply with the current safety rules.
- The product is designed to house only cameras that are properly certified according to IEC/UL 60950-1 or IEC/UL 62368-1 (7W max).

- A power disconnect device must be included in the electrical installation, and it must be very quickly recognizable and operated if needed.

4 Identification

4.1 Product description and type designation

The HGV housing is ideal for outdoor monitoring of great distances for applications in public safety, environmental monitoring and border surveillance or at harbours, along coastlines and at airports.

Robust housing with aluminium base designed to simplify installation and service and guarantee total protection in all environmental conditions.

The big dimensions of this camera housing make it suitable to contain the largest zoom lenses of the market.

For easy access during the installation and the adjustment of the camera, it is possible to remove the upper part of the housing body, which is held by a robust safety cord.

4.2 Product marking label

See the label attached to the product.

5 Preparing the product for use



Any change that is not expressly approved by the manufacturer will invalidate the warranty.

5.1 Unpacking

When the product is delivered, make sure that the package is intact and that there are no signs that it has been dropped or scratched.

If there are obvious signs of damage, contact the supplier immediately.

When returning a faulty product we recommend using the original packaging for shipping.

Keep the packaging in case you need to send the product for repairs.

5.2 Contents

Check the contents to make sure they correspond with the list of materials as below:

- Housing
- Housing equipment:
 - Allen wrench
 - Plate with nozzle for wiper
 - Plate in stainless steel without holes for cable glands/connectors
 - Spacers
 - Bolts and screws
 - Brackets for lenses and cameras mounting
- Wiper blade
- Instruction manual
- Desiccant bag

5.3 Safely disposing of packaging material

The packaging material can all be recycled. The installer technician will be responsible for separating the material for disposal, and in any case for compliance with the legislation in force where the device is to be used.

5.4 Preparatory work before installation

5.4.1 Mounting the bracket



The product must be fastened with suitable equipment. The fastening means must guarantee mechanical sealing when a force equal to at least 4 times the weight of the device is applied.

6 Installation

6.1 Sunshield mounting

Fix the sunshield to the housing using screws and washers provided.

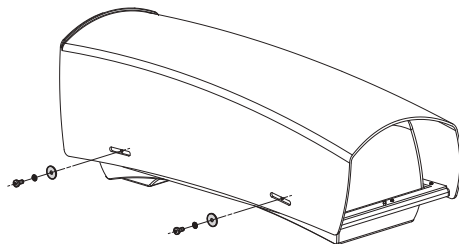


Fig. 1

6.2 Fixing with wall mount bracket

Fasten the housing to the bracket using the screws provided.

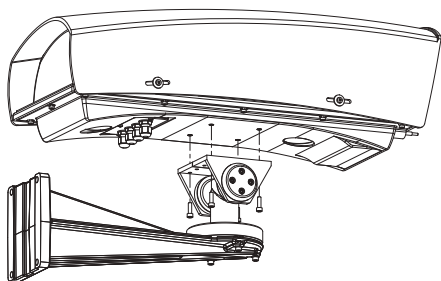


Fig. 2

6.3 Housing opening

Loosen the leak-proof screws placed on the sides and lift the upper part of the housing.

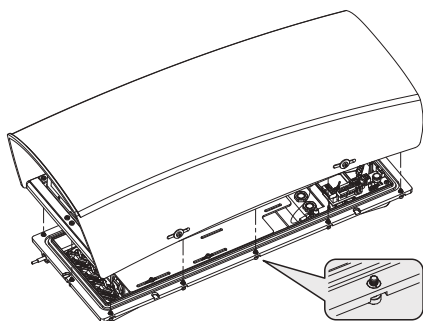


Fig. 3

Lift the upper body with the integrated sunshield and leave it hanging on the anchorage cable.

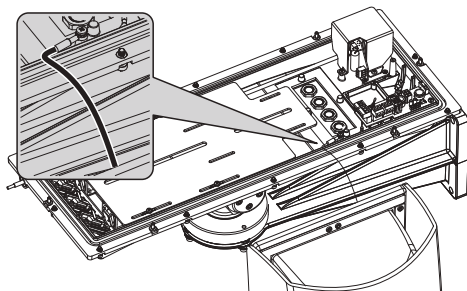


Fig. 4

6.4 Slide removal

To remove the slide it is necessary to unscrew the fixing screws as shown in figure.

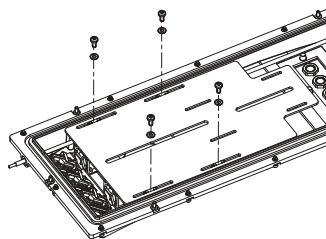


Fig. 5

6.5 Fasten the lens and the camera

Fasten the camera (02) to the lens (01).

Fasten the L shaped bracket (03) to the camera using the nylon washer and the 1/4" screw (04).

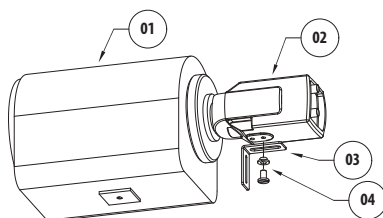


Fig. 6

Position the lens on the slide (02) interposing the plastic spacer (01). Fasten everything with the nylon washer and the 1/4" screw (03).

If necessary, use the additional spacers to correctly position the camera and lens.

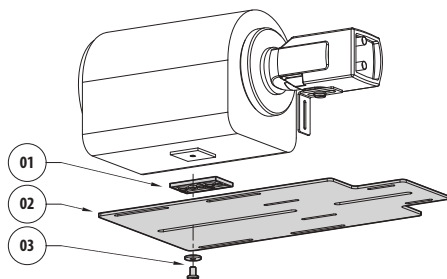


Fig. 7

Fasten the aluminium plate (01) on the slide by means of the screws and relative washers (02).

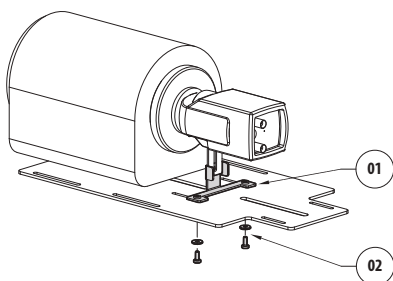


Fig. 8

Fasten the L shaped bracket with the screw (01).

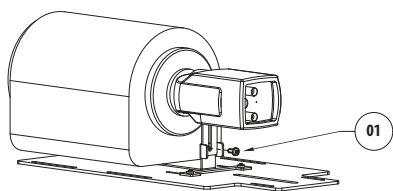


Fig. 9

6.5.1 Use the spacer H-20

You can fasten a spacer H-20 (02). Fasten the camera and the L shaped bracket (6.5 Fasten the lens and the camera, page 7). Interpose a plastic spacer (01) of the required thickness and fix it by means of washer and screw (03).

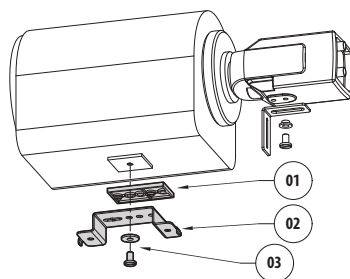


Fig. 10

Position the lens with the spacer (01) on the slide (02) and fasten using the washers and the screws (03) supplied.

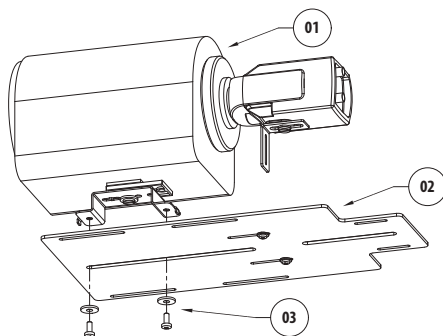


Fig. 11

Finish the installation as shown in the images (Fig. 8, page 8 e Fig. 9, page 8).

6.5.2 Slider positioning

Shift the inner slide with lens and camera already fastened into the wanted position and secure it by means of the washers and screws provided.

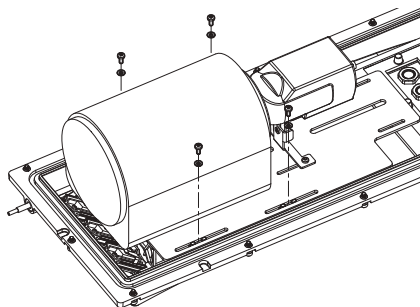


Fig. 12

6.6 Replacement of the cable glands plate with the stainless steel plate supplied

Perforate according to the plate supplied.

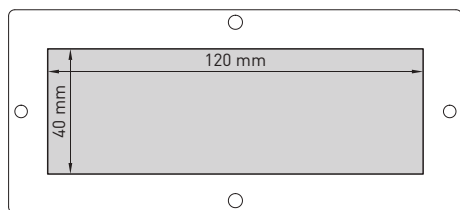


Fig. 13 Useful perforation area.

Replace the standard plate by unscrewing the fastening screws.

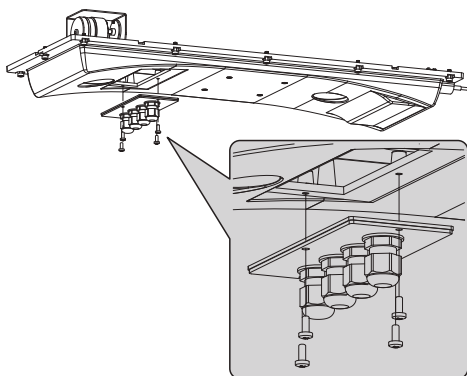


Fig. 14

Place the gasket between the new plate and the housing.

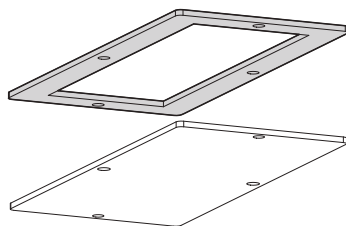


Fig. 15

Block the new plate using the fastening screws (Fig. 14, page 9).

6.7 Fastening of the wiper blade

Insert the blade on the wiper shaft.

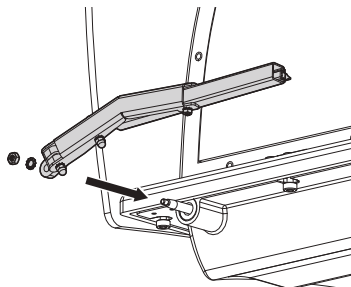


Fig. 16

Bring the brush to the stand-by position.

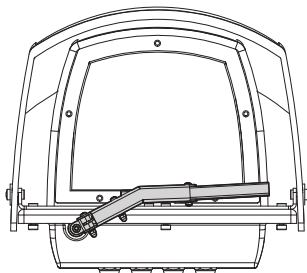


Fig. 17



Correct adjustment must enable the brush to return to the stand-by position by stopping against the lower body of the housing.

Fasten using the washer and nut.

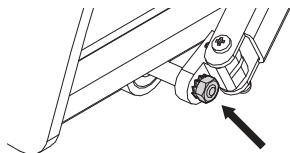


Fig. 18

6.7.1 Fastening of the small plate with nozzle

Fasten the plate (01) with the nozzle already assembled on the lower body using the two screws (02) supplied.

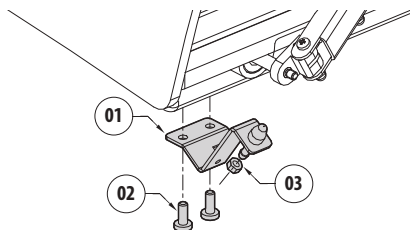


Fig. 19



To calibrate the jet, orientate the nozzle towards the window of the housing.

Tighten the nut (03) to fasten the nozzle in position.

6.8 Board description

i The board may appear different to that illustrated.

i Depending on the product version, the board may not be equipped with all functions.

BOARD DESCRIPTION		
Con- nector	Function	Notes
J6	Camera power supply (V_{OUT})	
J7	Power supply for the board (V_{IN})	Depending on the power supply model the two connectors have different use. If powered in 12vdc connector A corresponds to polarity +, while connector B corresponds to polarity - . If powered in 24vac connectors A and B are equivalent and correspond to the voltage Vac.
J8	Power supply/jumper connector	
J9	Tamper-proof switch contacts (SW1)	Jumper present only in ventilated models
J10	Auxiliary output (V_{OUT})	Same voltage applied on J7
SW1	Tamper-proof switch	Only some models

Tab. 1

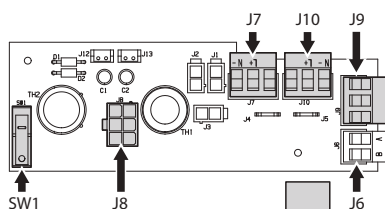


Fig. 20

i Nominal section of the cables used: from 0.2mm² (24AWG) up to 2.5mm² (13AWG).

6.9 Connecting the power supply

! CAUTION! The type of cable used must be compatible with the planned use. Comply with the national regulations in force on electrical installation.

! Connect the safety earth to the relative terminal of the power supply connector.

! Earth cable should be about 10mm longer than the other two, so that it will not be disconnected accidentally if pulled.

Insert the cables inside the housing using the cable glands. The cable glands are suitable for conductors with diameters of between 5mm and 10mm. The section of the cable inside the housing must be sufficiently long to allow connection. Suitably lock the cable glands.

Connect the conductors to the terminal (board power supply, 6.8 Board description, page 11).

6.10 Wiper connection

Open the housing as described in the relative chapter (6.3 Housing opening, page 7).

Identify the terminal of the wiper board.

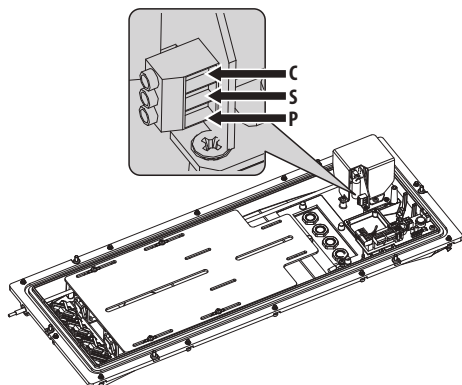


Fig. 21

Connect the wiper board to the power supply mains as shown in the figure.

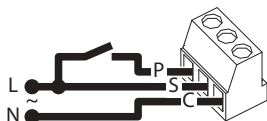


Fig. 22

Pressing the button activates the wiper. When the button is released the wiper blade will return to the rest position.

If you have a receiver with the Wiper control function, connect the SW, PER and COM terminals respectively to terminals S, P and C of the board.

i **Nominal section of the cables used: from 0.2mm² (24AWG) up to 2.5mm² (13AWG).**

6.11 Connect the housing opening signalling device

⚠ **Switch working voltage: 30Vac max or 60Vdc max.**

Identify on the board the terminal of the tamper-proof switch (tamper-proof switch contacts, Fig. 20, page 11).

Carry out the connections as described in the table.

TAMPER-PROOF SWITCH CONNECTION	
Contact	Description
COM	Switch common contact
NC	Normally closed contact
NO	Normally open contact

Tab. 2

6.12 Desiccant bag

Take the dessicant salt bag out of its pack and insert it into the product.

6.13 Housing closure

⚠ **Pay attention to the fixing. Tightening torque: 1.6Nm**

Close the housing following the opposite procedure (6.3 Housing opening, page 7).

7 Instructions for normal operation



Do not use the wiper if the ambient temperature is under 0°C or if there is ice.

8 Cleaning

8.1 Cleaning the window and plastic parts



Avoid ethyl alcohol, solvents, hydrogenated hydrocarbide, strong acid and alkali. Such products may irreparably damage the surface.

We recommend using a soft cloth with neutral soap diluted with water or specific products to clean the lenses.

9 Information on disposal and recycling

The European Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE) mandates that these devices should not be disposed of in the normal flow of municipal solid waste, but they should be collected separately in order to optimize the recovery stream and recycling of the materials that they contain and to reduce the impact on human health and the environment due to the presence of potentially hazardous substances.



The symbol of the crossed out bin is marked on all products to remember this.

The waste may be delivered to appropriate collection centers, or may be delivered free of charge to the distributor where you purchased the equipment at the time of purchase of a new equivalent or without obligation to a new purchase for equipment with size smaller than 25cm (9.8in).

For more information on proper disposal of these devices, you can contact the responsible public service.

10 Technical data

10.1 General

Base in aluminium, epoxypolyester powder painting, RAL9002 colour

Upper body and sunshield in ABS

Stainless steel external screws

10.2 Mechanical

Internal usable dimensions: See drawing

Cable glands: 4xM16 (on plate)

Stainless steel plate without customised holes

Extra clear glass window

- Dimensions (WxH): See drawing

Unit weight: 9.2kg (20.3lb)

10.3 Electrical

Supply voltage/Current consumption (version with triple heater, continuous cycle fans, Ton 15°C±3°C (59°F±5°F), Toff 22°C±3°C (72°F±5°F)):

- 24Vac, 3.35A max, 50/60Hz
- 230Vac, 0.66A max, 50/60Hz

Supply voltage/Current consumption (integrated wiper):

- 24Vac, 0.3A max, 50/60Hz
- 230Vac, 32mA max, 50/60Hz

Camera power supply

- IN from 100Vac up to 240Vac, 50/60Hz - OUT 12Vdc, 1.25A (already installed in the 230Vac version)

10.4 Environment

For indoors and outdoors installation

Operating temperature with heating: from -20°C (-4°F) up to +60°C (140°F)

10.5 Certifications

Electrical safety (CE): EN62368-1

Electromagnetic compatibility (CE): EN50130-4, EN61000-6-3

IP protection degree (EN60529): IP66

11 Technical drawings



The indicated measurements are expressed in millimetres.

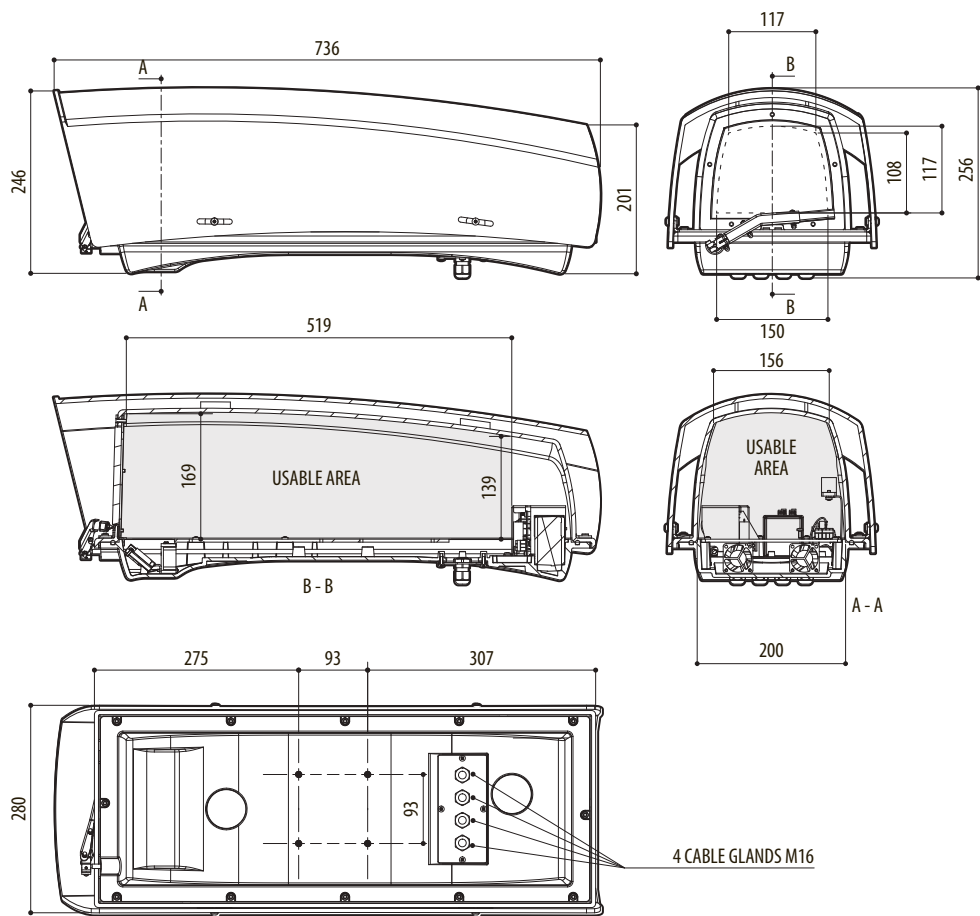


Fig. 23 HG.V.

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