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INSTALLATION MANUAL

Evve Long Range Camera System

MK-Series

2020



CONTENTS

ABOUT THIS DOCUMENT	3
ADDITIONAL INFORMATION & RELATED DOCUMENTS	3
FFC COMPLIANCE	2
SUPPORT SERVICES	2
RETURNS.....	2
SHIPMENT.....	3
SAFETY INSTRUCTIONS.....	3
1. INTRODUCTION: EQUIPMENT SUPPLIED	5
2. INSTALLATION	6
2.1 INSTALLATION OF THE POWER BOX.....	6
2.2 INSTALLATION OF THE PT UNIT	8
2.3 CONNECTION OF THE CAMERA TO THE PT UNIT.....	9

ABOUT THIS DOCUMENT

This manual contains information on the operation and the different interfaces of the following Evve Long Range™ products:

- 2000HD Series - High Definition Camera System

The information in this manual is subject to change without notice. Please refer to our website for the latest information.

NOTE: *All graphics contained within this document, including screenshots and other displays, are for reference use only and are subject to change.*

ADDITIONAL INFORMATION & RELATED DOCUMENTS

For information on the camera operation and configuration, please see Operation Manual MK-2000HD. This manual is available from the Evve Long Range website at: **www.evvelongrange.com/downloads**

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Evve Long Range™ and Evve International BV™ are trademark of BOTHA BV.

FFC COMPLIANCE

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications to this device void the warranty.

SUPPORT SERVICES

Please contact ELR for technical assistance: support@ewvelongrange.com | +31 0 85 0441855 (NL).

RETURNS

This item was thoroughly tested and carefully packed at the factory prior to shipping. Upon acceptance by the carrier, the carrier assumes responsibility for the item's safe arrival. If you receive the item in a damaged condition, apparent or concealed, a claim for damage must be made to the carrier.

If a visual inspection shows damage upon receipt of this shipment, it must be noted on the freight bill or express receipt and the notation signed by the carrier's agent. Failure to do this can result in the carrier refusing to honor the claim. When the damage is not apparent until the unit is unpacked, a claim for concealed damage must be made.

Make a mail or phone request to the carrier for inspection immediately upon discovery of the concealed damage. Keep all cartons and packing materials.

To return the product to the factory for service, please contact ELR for a Return Material Authorization (RMA) Number.

Prominently display the RMA number on the outside of the shipping container(s) and on paperwork contained inside. Give a brief description of why the equipment is being returned and list the symptoms of any problems being experienced with the equipment.

SHIPMENT

IMPORTANT!

If the camera needs to be shipped, please use the original packaging material which was designed to protect the product during transportation. If the original packaging is lost or damaged, please order a replacement at ELR.

SAFETY INSTRUCTIONS

WARNING:

Power supplies used with these cameras operate on 115 Vac or 230 Vac. These voltages are dangerous. Use extreme care working with equipment connected to either 115 Vac or 230 Vac.

WARNING:

Do not remove covers. There are no user-serviceable parts inside.

CAUTION:

Mount the camera system before the power is applied. After the power is applied the camera system will start a configuration sequence and pan and tilt movement will occur.

Installation should be done only by qualified installers and conform to all local codes.

- It is the users' responsibility to ensure that the mounting methods are safe and adequate for the location.
- Use only A4 quality stainless steel hardware to fasten the mount to an outdoor surface.
- All servicing should be performed by qualified service personnel. Procedures in this manual do not require entry into the housing of the camera positioning system. The unit contains potential high voltage. It also contains sensitive devices that can be damaged by static discharge. To reduce the risk of electric shock and damage to the unit by static discharge do not perform any servicing other than that described in these instructions. If the unit is defective, please contact the Customer Service Department for technical assistance.
- Liability: It is the sole responsibility of the installer to provide proper installation in compliance with all local codes and regulations.

SAFETY INSTRUCTIONS

The Evve Long Range products are part of the next generation of Long Range camera systems, ranging from high-definition (HD) to standard-definition (SD) camera positioning systems. The systems are IP (Internet Protocol) based with a full function built-in operating system. Operator functions features are controlled from the On Screen Display (OSD).

A drive system positioned within the MK-2000 Series camera permits full 360° continuous pan and 90° tilt movements. The camera systems comply with MIL-STD-18F standards for temperature, shock, and vibration specifications. For environmental protection the camera systems use an IP67 camera head enclosure and IP66 positioner enclosure.

CLASS 3 (EYE & SPECULAR REFLECTION HAZARD):

- Never aim the laser at a person's eye or stare at the laser from within the beam.
- Keep the beam path above or below eye level for one seated or standing.
- Laser safety eyewear is needed if MPE (Maximum Permissible Exposure) is exceeded.
- Don't view beam directly with optical instruments unless a protective filter is used.
- Only experienced and authorized individuals are permitted to operate the laser.
- Secure the laser from operation by unauthorized personnel. A key switch should be used if unauthorized personnel may gain access to the laser.
- Always strive to enclose as much of the beam path as practical and to operate the laser in a controlled access area.
- During alignment, avoid placing one's eye near the axis of the beam path, where specular reflections are most likely to occur. Alignment eyewear should be considered.
- Unnecessary specular (i.e., mirror-like) reflecting objects should be removed from the beam path.
- Mount the laser on a firm support to ensure the beam travels along its intended path.
- Post laser hazard warning signs at entrances to laser use areas.

1. INTRODUCTION: EQUIPMENT SUPPLIED

POWER BOX & CONNECTION CABLES



POWER BOX & CONNECTION CABLES



CAMERA HOUSING WITH SUNSHIELD



12 BOLTS (M12 STAINLESS STEEL) & ALLEN KEY SET

2. INSTALLATION

This chapter covers the general installation and cable requirements of the MK2000HD series.

NOTE:

Before starting installation:

- Choose a flat surface or bracket.
- Have the bolts available.
- Do NOT power the systems until all devices are connected.

CAUTION:

The bolts that are used to install the camera must be securely fastened.

After installation and before turning on the camera, check if the camera moves freely and has enough clearance for pan and tilt movements without any obstructions.

2.1 INSTALLATION OF THE POWER BOX

1. Mount the powerbox at the correct position. (Tools and materials for mounting are not included).



2. Connecting the red camera power cable:
 - 2.1 Place the camera cable through the cable gland.



2.1 INSTALLATION OF THE POWERBOX

2.2 Place a screwdriver flat in the opening of the socket.



2.3 Place the ground (yellow and green) cable in the socket and remove the screwdriver.

2.4 Unscrew the screw at -V and +V.

2.5 Place the blue camera wire in -V.

2.6 Place the brown camera wire in +V.



3. Connecting the main power cable:

- Place the main power cable through the cable gland.
- Place a screwdriver flat in the opening of the socket.
- Place the ground (yellow and green) cable in the yellow and GREEN socket and remove the screwdriver.
- Place the plus (brown) in the GREY socket and remove the screwdriver.
- Place the minus (blue) in the BLUE socket and remove the screwdriver.



The power installation is ready. If you turn on the power, a green LED will light up.

The power cable is now ready to be connected to the connector of the PT unit.

2.2 INSTALLATION OF THE PT UNIT

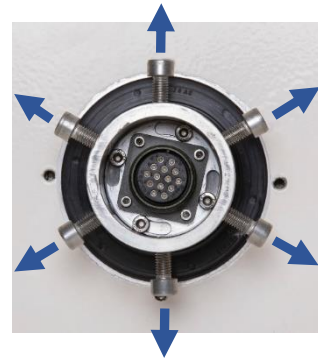
1. Place the PT on a flat surface in the correct position to mount the bolts.



-
2. Fasten the M12 bolts and check if the bolts are securely fastened.
-
3. Remove the connector (be carefull that you don't damage the wire). Fasten the M12 bolts and check if the bolts are securely fastened. Put the connector back in place.
-

2.3 CONNECTION OF THE CAMERA TO THE PT UNIT

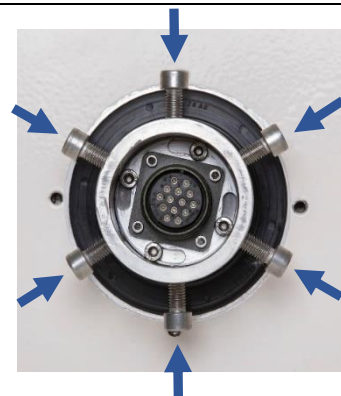
1. Remove the bolts from the tilt axle.



2. Slide the camera housing on the drive shaft.



3. Secure the bolts on the drive shaft.



4. Connect the power and data cable from the power box to the camera.



5. Turn on the power.
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