

ADDENDUM TO INSTALLATION INSTRUCTIONS FOR XWW Series Washer Systems

**Class I Div 1 Group B,C,D
Class II Div 1 Groups E,F,G
Class I Zone 1 IIB +Hydrogen**

File No E477542



This manual should be used in conjunction with IMI-UL-XF-XC-XP-XT,
2400 & 1400 Series (XP, XT, XC & XF) Flame Proof Camera Housings & Pan Tilt Units Installation & Maintenance Instruction
This manual should be read before attempting to connect or operate the equipment.
This manual should be kept for future reference.
This equipment shall be installed in accordance with the latest local/national codes of practice, and standards
eg :- UL 1203 Edn. 5, CSA22.2 No30-M1986 Edn1 reaffirmed 2012, CSA C22.2 No25-1966 reaffirmed 2014,
CSA C22.2 No 60065-03 Edn. 1, UL60065 Edn. 7,

Whilst every effort has been made to ensure that all information in this document is correct at the time of publication, due to our policy of continuous improvement, the company reserves the right to change any information contained herein without notice.

Amendment Record

<u>Issue</u>	<u>Date</u>	<u>Details of Amendment</u>
1.0	06/09/2017	First Issue as Addendum

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Before Installation of the equipment ensure that:

- 1 The installation instructions are read and understood
- 2 The correct tools are available for use when installing

1.0 General

1.1 Important Safeguards and Warnings



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit. Read, Keep and Follow all instructions.

Prior to installation and use of this product, observe the following warnings.

1. Installation and servicing should only be carried out by qualified service personnel and in accordance with all local/national codes of practice and standards e.g. UL1203 Edn.5, NFPA 70, no modification to the certified product allowed.
2. It is essential that provision is made for overload, short circuit and earth fault protection for this equipment. Therefore we recommend that a double pole, mains rated, miniature circuit breaker rated to the max power consumption of the unit, must be incorporated in the electrical installation of the power supply to this product if not directly connected to Eaton camera stations.
3. A readily accessible disconnection device shall be incorporated in the electrical installation wiring, to provide all pole isolation of the supply to the equipment.
4. Only use tools and replacement parts supplied or recommended by EATON.
This unit does not contain any user serviceable parts.
5. Care must be taken to ensure selection of suitable cables connecting to these units, when installed in operating temperatures above +70°C.
6. The equipment is designed to satisfy the requirements of UL60065 7th Edition 2013/07/24. CSA C22.2 No. 60065-03 2012/08/01 Safety Requirements ANNEX II of ATEX directive 94/9/EC.
7. Be aware that aggressive substances may require extra protection of the equipment to maintain its integrity and explosion protection.
8. The equipment may need additional means of protection if it is to be installed in locations where it may be exposed to excessive external stresses e.g. vibration, heat, impact and damage.
9. Any repairs or replacement parts must be done by the manufacturer or a suitably qualified repair agent.
10. Due to the weight of the units, correct planning and equipment must be used when unpacking and installing.
11. When batteries are fitted to electronic equipment they must be removed and are not to be replaced.
12. After installation, operatives must adhere to the following warning on the units label:

**WARNING: DO NOT OPEN WHEN ENERGISED OR WHEN
AN EXPLOSIVE ATMOSPHERE IS PRESENT.
CLEAN WITH DAMP CLOTH.**



This symbol indicates that dangerous voltage constituting a risk of electric shock may be present within this unit.

2.0 Description

The XWW Series washer pump assemblies have been developed to provide a solution for spraying a jet of water onto the window of Eaton CCTV camera housings, to aid in the cleaning of the window, to allow unobstructed viewing by the cameras.

The units meet the rigorous requirements of Flame proof and dust-ignition-proof electrical equipment for installation and use in hazardous locations found in the onshore and offshore, oil & gas and petro-chemical installations. The units may also be used in marine and industrial hazardous environments.

The units include a water tank for cleaning fluid and are operated by supplying a switched 24VAC to power the internal pump.

The system can pump water up 40 feet to high mounted camera stations*/**

The Assembly is made up of an EXD certified chamber (XF26JP) that houses a pump mechanism and a terminal strip for wiring connections, an XW10 (10 litre) or XW25 (25 litre) washer tank assembly and a Stainless steel Back Plate Mount.



All external parts, excluding washer tank and hoses, are manufactured from AISI 316L stainless steel for low maintenance and protection from corrosion.

The EXD chamber covers are fixed to the body by five (5), M6 x 16-mm stainless steel hex cap screws; all conforming to the requirements of UL 1203

The weatherproof seal of the union between the body and end covers is maintained by use of 'O' ring seals fitted in purpose made grooves.

The EXD housings features an internal sliding rail which carries terminals for pump connections as well as an allowance for pass through connections; to assist in easy connection to Eaton camera stations.

The XF26JB housings comprise a single tube section with 3 x ¾" NPT cable entries in one end.

The certification for the XF26JP housing is included within the overall certification of the 2400 & 1400 series housings and integrated pan/tilt units.



The certified part number for the XF26JP is **OXALIS-ULC2410-X4**



The project requirements and unit certification label must be checked by the installer before installation, to confirm that the product supplied is suitable for the intended installation zone and environment.

Manufactured in accordance with

UL 1203 Edn. 5, CSA22.2 No30-M1986 Edn1 reaffirmed 2012, CSA C22.2 No25-1966 reaffirmed 2014, CSA C22.2 No 60065-03 Edn. 1, UL60065 Edn. 7,

*** Measured using pure water at ambient 70°F**

****Units supplied with 30 Feet of hose**

2.1 Versions

There are two options within the series; these cover different washer tank sizes:

Part No	Description
XWW-10	10 litre 24VAC supply (including 30 feet on Antistatic Hose)
XWW-25	25 litre 24VAC supply (including 30 feet on Antistatic Hose)

2.2 Supplied Equipment

Contained in the package are the following items:

- XF26JP HOUSING
- Washer Tank Assembly
- Back Plate and supplied item fixings
- Installation & Maintenance Instructions

2.3 Recommended Tools

For installation and maintenance purposes, we recommend the following hand tools:

- Voltmeter/Ohmmeter
- Hex Allen wrench bits 5, 4, 3 & 1.5mm
- Spanners 5.5mm, 8mm, 10mm & 13mm A/F
- Screw drivers standard and Phillips head
- Pliers side cutting and long nose

2.4 Recommended Spares

For Maintenance purposes, we recommend the following spares:

- PTZ Seal Kit: O Ring seal kit, spare M6 x 16 & M3 x 6 screws
- XP40 Washer Nozzle (for systems with optional washer system)
- XP26 Washer Nozzle (for systems with optional washer system)
- XF Fixed Washer Nozzle (for systems with optional washer system)
- PUMP ROTA TUBE OD7X4.8 CLEAR SILICONE

3.0 Installation

In order to ensure proper wiring and system operation of all components, it is recommended that all units and all associated control equipment be tested at your Factory before field installation is attempted.

3.1 Unpacking and Handling

3.1.1 Unpacking

On receipt of the units ensure that the cartons are undamaged and that the contents are all correct and complete.

After unpacking it is recommended that the packing materials are kept safe in case they are needed for returning the unit for repair or maintenance.

3.1.2 Handling



The units should not be handled having direct contact with ferrous metal equipment. (see section 4.1 for details)

3.2 Mounting



To prevent injury ensure the mounting surface and the selected mount can support four times the combined weight of the complete unit, when fully filled with fluid.

Do not stand or place objects "directly under" installed system.

Secure the assemblies to a suitable surface using suitable fixings as required.

Due to the variation of possible fixing requirements fixings are not supplied. The type and size of these fixings to be supplied by the user/installer and must be suitable for the specific installation requirements.

The Back Plate has six fixing points with slotted $\varnothing 9$ mm holes, see figures 1 & 2 for sizes.

Fig.1 XWW25 GA showing fixing points

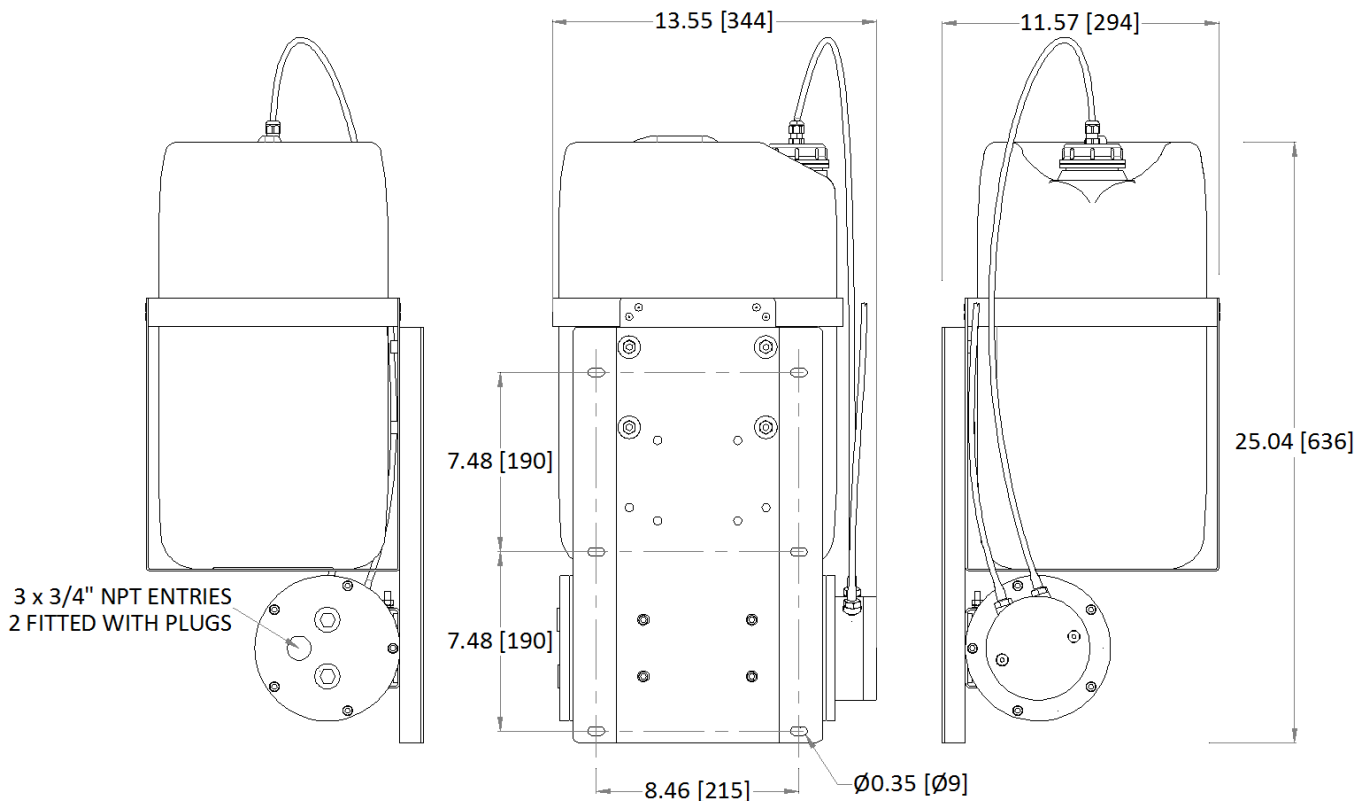
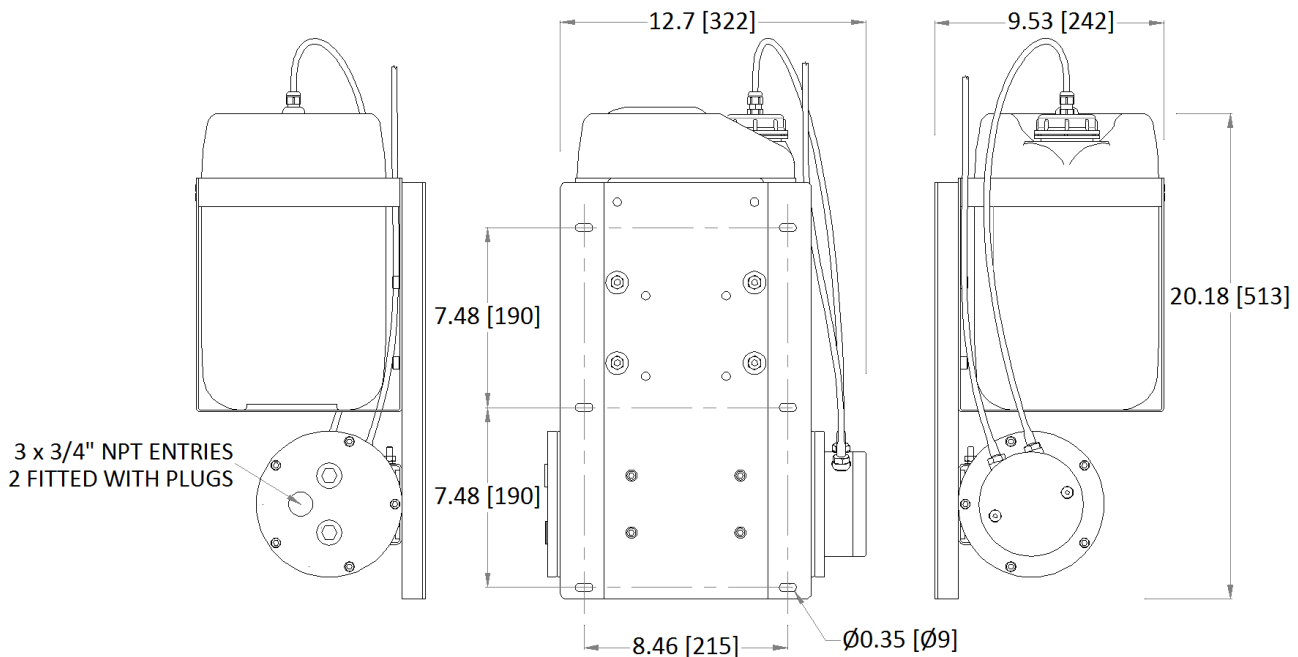


Fig.1 XWW10 GA showing fixing points



3.2.1 Mounting of the hose

The washer tanks are supplied with 30 feet of anti-static hose that should be connected to the washer nozzle of an Eaton camera housing and routed as to prevent the risk of mechanical damage or to obstruct the camera housing.

The hose has an OD of 6mm and should be secure at 3 feet intervals to prevent sagging.

3.3 Electrical Installation



Electrical installation and servicing should only be carried out by qualified skilled personnel the class of wiring shall be marked adjacent to the terminals and in accordance with all local/national codes of practice and standards e.g. UL 1203 Edn. 5, CSA22.2 No30-M1986 reaffirmed 2014, CSA C22.2 No25-1966 reaffirmed 2014, CSA C22.2 No 60065-03 Edn. 1, UL60065 Edn. 7,

Units must be supplied with 24VAC~ Supply; $\pm 10\%$ from a switch source.

The unit is designed to work with Eaton CCTV cameras that have a suitable, time limited, supply. If an alternative supply is used, it must have a timer function to limit on time to 15 seconds maximum.



The life of the pump will be reduced if allowed to run continuously

The units should only be powered from the specified voltage; no allowance is made for varying voltage supply.



Warning : Irreparable damage to the unit will result from the application of incorrect Power Supply Voltage

3.3.1 Electrical Installation connections



1. Always use colour-coded conductors or other identification of conductors for ease of wiring and identification of function at a later date.
2. Keep a wiring diagram with the system for later use and reference.
3. Provision is made for one, two or three cable entries, in the XF26JP housing.(Fig 1 & 2)
To maintain the certification requirements of the unit, all cables/conduits must be fitted at the entry, with certified Class / Div Flameproof, compound filled barrier glands, or conduit sealing fittings within 2" or 50mm of the enclosure.
4. The cable entry to the unit is via 3 x 3/4" NPT thread entries.
5. A minimum of 5 fully engaged threads must be maintained for all glands and plugs.
6. All unused threaded openings shall be closed by suitably approved threaded plugs, recommended UL EBNV/7 approved.
7. All glands/reducers must be ingress protected to IP67 or better, to maintain the weatherproof rating of the equipment.



**Caution should be taken when removing and inserting the cable entry flange to avoid internal cable becoming snagged on corners or screws.
THE CABLE ENTRY FLANGE SHOULD NEVER BE REMOVED WHEN THE UNIT IS ENERGISED**

3.3.2 Opening enclosure

To make the electrical connections it is recommended to remove the pump flange and slide out the terminal rail (fig 3)

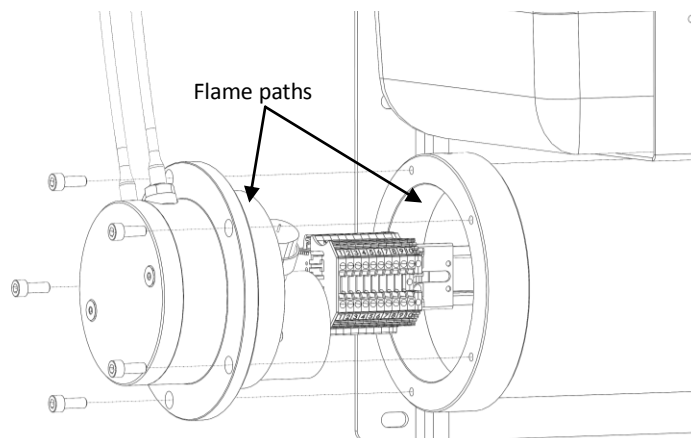
This is done by removing the 5 x M6 cap head screws and carefully sliding out the pump flange, then sliding out the terminal rail to reveal the terminals.

Caution should be taken when removing the pump flange because internal wiring will remain connected to the terminal rail.



Extra care should be taken to ensure the enclosure flame paths are not damaged

Fig.3 Gaining access to the connection rail



Warning : Covers must not under any circumstances be removed until at least 5 minutes after the disconnection of power source.

3.3.3 Electrical Installation Terminals

The pump unit is operated by the supply of a 24VAC switched supply which is connected to terminals 1 and 2 (fig 4).

Allowance is also made for the through connection of signal cables from the camera housing to aid in the installation of the system (fig 5).

Fig.4 Wiring connections

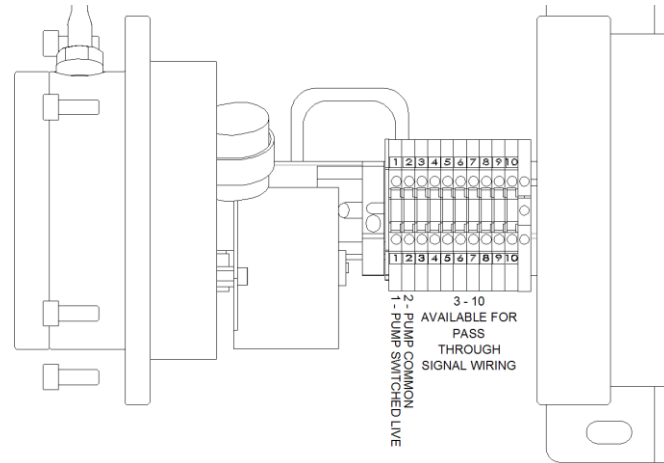
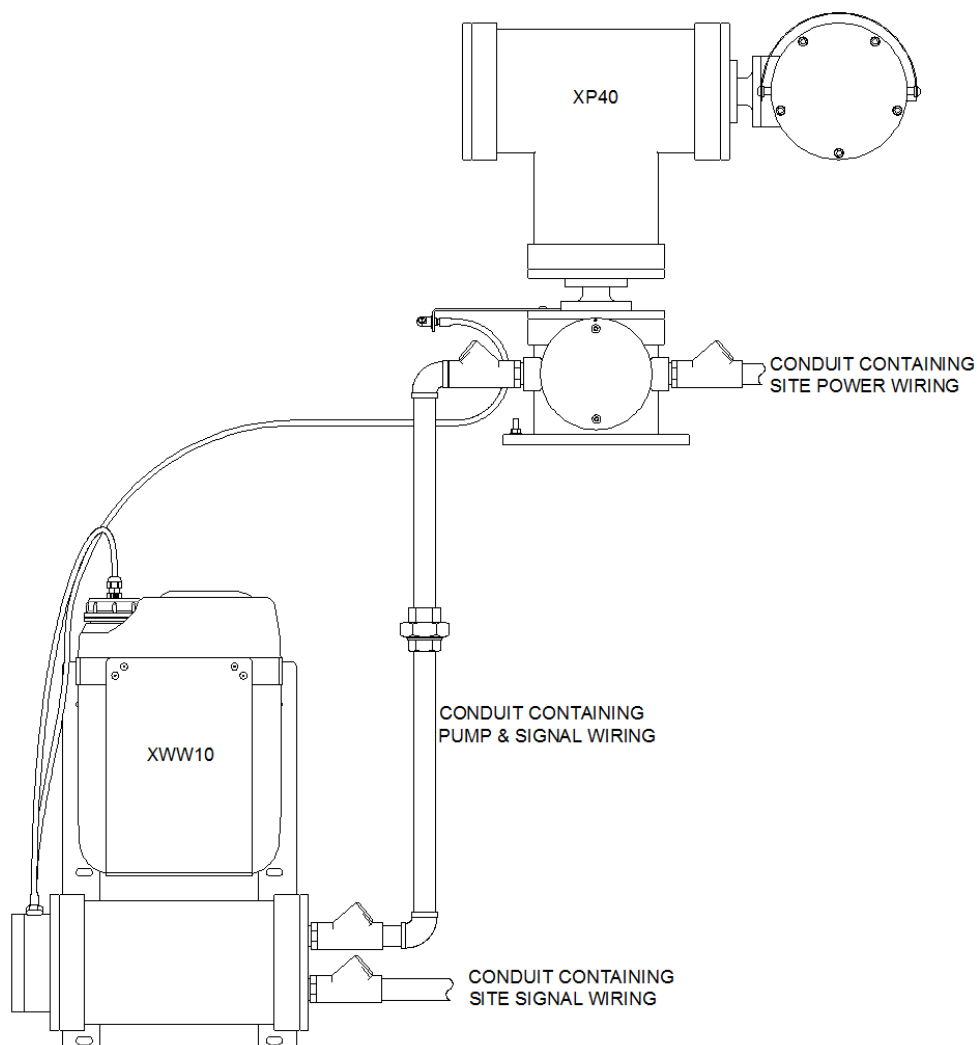


Fig.5 Conduit Connections Example



4.0 Maintenance

Recommended inspection interval: 6 Months.

Inspect the unit every six months to ensure trouble free operation and extend product life.

Due to the rugged construction of the unit, little or no maintenance should be required.

However when the unit is exposed to extreme weather conditions the 'O' ring weather seals may need replacement approximately every five years.

Fixings and fastenings should be checked for tightness and integrity at regular intervals.

All cable entries and cables should be checked for integrity at regular intervals.

Extremely Harsh Environments may require more frequent inspection and maintenance checks.

At every Inspection carry out the following:

- Clean the unit.
- Check the 'O' ring weather seals and replace if necessary.
- Check and if necessary replace the internal pump hose section (see separate installation Note IMF-INTERNAL HOSE REPLACEMENT).
- Check and if necessary replace the washer nozzle.
- Check and if necessary replace the washer bottle.

Please read and be familiar with the instructions before servicing the Pan/Tilt or housing.

4.1 Corrosion Protection

Although all external metal components are produced from 316L Stainless Steel, if the units are not correctly maintained, handled and cleaned there is the possibility of mild discolouration due to Oxidation.

If ferrous metal equipment is used when handling the units, small ferrous deposits could be left on the stainless steel or if ferrous metal particles come to rest upon the units from nearby works, this can cause accelerated corrosion of the ferrous deposits and discolour the units due to oxidation. In the event of ferrous deposits, the units should be cleaned immediately following EATON guidelines.

In atmospheres that are high in corrosive particles the units should be cleaned every 3 to 4 months using only water.



EATON takes no responsibility for oxidation due to failure in correctly following cleaning procedures.

5.0 Labelling

Certification Labels are made from stainless steel and affixed to the product using rivets.

The label shows:

- Name of Manufacturer
- Model/Type and Reference
- Operating Voltage
- Area Classification
- Serial Number, Year/Month/SN
- UL File Number

6.0 Specifications, Technical data & Special conditions for safe use.

Coding	Class I Div 1 Group B,C,D Class II Div 1 Groups E,F,G T4A IP67 -50°C to +70°C = Certified Ambient Temperature range
Construction:	Stainless Steel AISI 316L Poliethylene with anti-UV additive Anti-static polyurethane tubing
Ingress Protection rating:	IP 67 (XF26 housing only)
Supply voltage:	24VAC, 50/60Hz