

GEW RHINO UV SYSTEM INSTALLATION MANUAL

MODULE 5: HMI Panel Installation Original Instructions



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MODULE 5: HMI Panel Installation

1	About This Manual	5
1.1	Introduction	5
1.2	Symbols, Warnings, Cautions and Information	5
1.3	Installation Manual Structure	5
2	About the GEW HMI	7
2.1	Description	7
2.2	Certifications	7
3	Direct Installation Procedure	9
3.1	Environmental Conditions	9
3.2	Preliminaries	9
3.3	Installation	9
3.4	Connection to the GEW RR	9
4	Installation Within the Host Press Instrumentation	13
4.1	Preliminaries	13
4.2	Installation	13
5	Connecting the HMI to the Internet	15
5.1	Equipment	15
5.2	Procedure	15
5.3	About the Embedded Service Package	16
6	Completion Checklist	17

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1.0	10.03.16	First issue-JNO.
2.0	17.03.16	Section 5.1, 512kbps was 256kbps-JNO.

1 About This Manual

1.1 Introduction

This Installation Manual provides Original Instructions, as defined in Machinery Directive 2006-42-EC, for the installation and commissioning of your GEW UV system. Read it carefully before attempting to install or commission the equipment it describes.

Always use trained and competent people for installation, operations, maintenance, repairs or modifications. Each GEW UV system is engineered to meet the requirements of a given installation. Any change in requirements may require re-commissioning or modification of the system.

Do not modify any GEW UV system without the prior written approval of GEW.

1.2 Symbols, Warnings, Cautions and Information

This document, and GEW equipment, use the symbols set out below. They highlight possible dangers where you need to take safety precautions and follow good practice. Failure to follow the Warnings and Cautions may invalidate your warranty.



WARNING: Risk of electric shock.



Caution: a reminder of safety practices, or directs attention to unsafe practices that could result in personal injury or damage to the equipment, or its components, or to the environment.



Caution: Hot surface.



WARNING: Risk of exposure to ultra violet light.



Additional information and/or essential documentation: Read before attempting to install or operate equipment.



Check list: Follow a structured set of checks to install or operate equipment.

Electronic copies of this document contain [underlined links](#) to essential documentation.

1.3 Installation Manual Structure

This installation manual is divided into modules. Each module describes the installation procedures for different types of GEW equipment, as follows:

- Module 1** Provides general and statutory information about installing GEW products, explains how to activate the GEW warranty and includes a glossary of terms.
- Module 2** Applies to the installation of GEW UV lampheads.
- Module 3** Applies to the installation of GEW and RHINO supplied cooling systems, including chillers, fans and ducting.
- Module 4** Applies to the installation of GEW RHINO power supply systems.
- Module 5** Applies to the installation of GEW HMI control panels.
- Module 6** Contains the commissioning checklist.

NOTE: The installation of GEW custom components including inert nitrogen systems may be detailed separately if appropriate.

2 About the GEW HMI

2.1 Description

The GEW HMI is used to control the operation of your GEW UV system. The panel is touchscreen operated, 24V DC powered, and connects to the GEW RHINO Rack (RR) via a single cable. Figure 1 shows a typical GEW HMI.



Figure 1: GEW HMI

The HMI panel is supplied either:

1. Mounted in a case for direct installation, or
2. Without a case for installation within the instrumentation panels of the host press.

Installation procedures for 1 and 2 above are described in Sections 3 and 4 of this Module.

2.2 Certifications



Refer to Module 1 of this Installation Manual for the HMI manufacturer certifications and compliance documents.

3 Direct Installation Procedure

3.1 Environmental Conditions

Environmental conditions for the installation location must be within the parameters set out below:

1. Temperature range: +5°C to +40°C.
2. Relative Humidity (RH): 0 - 95% at +40°C, non-condensing (HMI only).

3.2 Preliminaries



WARNING: Risk of electrocution if the press is not isolated from the mains supply.

1. Ensure that electrical power to the host press is off and that the power supply is isolated. If possible, lock the supply off. Place a warning notice beside the isolator advising that power is not to be restored until the installation is complete.
2. Ensure that the location selected to site the HMI is clean, level and vibration free.
3. Ensure that the press operator can access the HMI without having to reach over any moving parts of the host press.
4. Ensure that the length of the cable run between the HMI and the GEW RR is less than the maximum specified by GEW. The usual maximum length is 20 metres.

3.3 Installation



Refer to the Installation Drawings for details of how to secure the HMI to its mounting location.

1. Fix the HMI to mounting site using bolts in base of unit.
2. Tighten all installation fixings evenly.

3.4 Connection to the GEW RR



WARNING: Ensure the RR is isolated from the electricity supply before connection.

The HMI is connected to the GEW RR via a single connector cable that bundles together the power supply and the data bus. The cable terminates with a keyed male adaptor that plugs into a female socket on a GEW RR. Figure 2 shows the connection socket for 6 and 8-way RRs. For 1 and 2-way RRs connection is made directly to the socket marked "PRESS P1" on RPSU number 1.

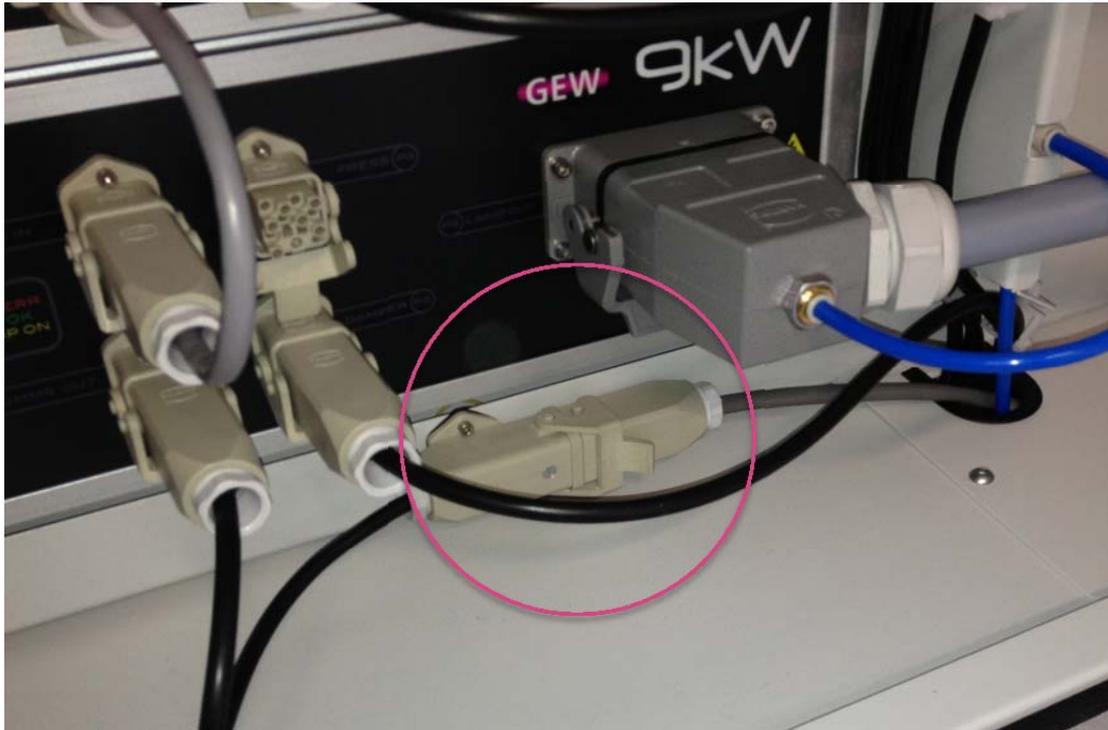


Figure 2: HMI cable connection to RR (circled), 6 and 8-way RR

4 Installation Within the Host Press Instrumentation

4.1 Preliminaries



WARNING: Risk of electrocution if the press is not isolated.

1. Ensure that electrical power to the host press is off and that the power supply is isolated. If possible, lock the supply off. Place a warning notice beside the isolator advising that power is not to be restored until the installation is complete.

4.2 Installation



Refer to the Installation Drawings for details of how to mount the HMI within the host press instrumentation.

The Installation Drawings include a mounting template that provides the dimensions of the aperture needed to accommodate the HMI. Figure 3 shows a typical mounting template.

1. Create aperture for the HMI using mounting template.
2. Fix panel following instructions in Installation Drawings.
3. Tighten all fixings evenly.
4. Connect cable to GEW RR following instructions in Section 3.4.

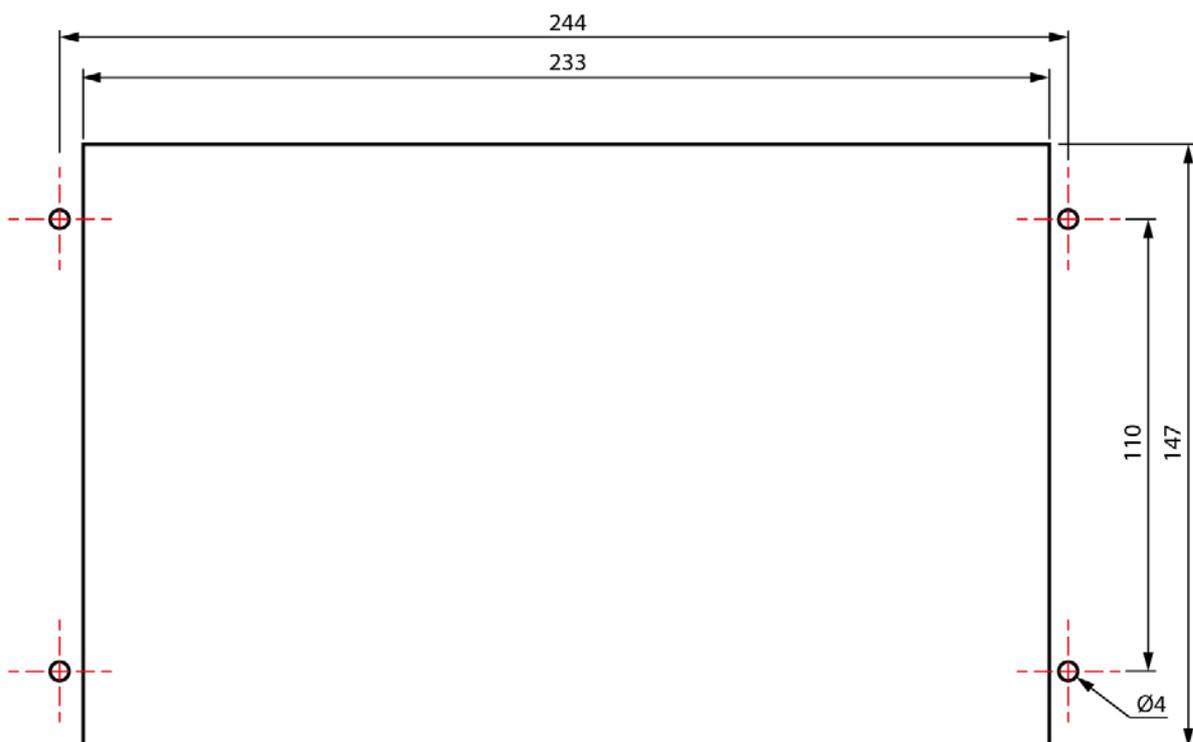


Figure 3: Sample HMI mounting template. Dimensions in mm.



Do not scale off this Figure.

5 Connecting the HMI to the Internet

The HMI must be connected to the Internet in order to complete the installation and commissioning of your GEW UV system and to activate and maintain any extended guarantee arrangements that may exist. Internet connection is also required to enable the Embedded Service Package.

5.1 Equipment

- An Ethernet network with internet access at a minimum connection speed of 512 kbps with a network connection socket adjacent to the RHINO HMI.
- A standard CAT5 RJ45 Ethernet cable of sufficient length to connect the HMI to the network connection socket.

5.2 Procedure

- 1) The ethernet connection on the HMI is located on its lower face as shown in Figure 4. To gain access to the connection, open or remove any enclosure panels as appropriate.

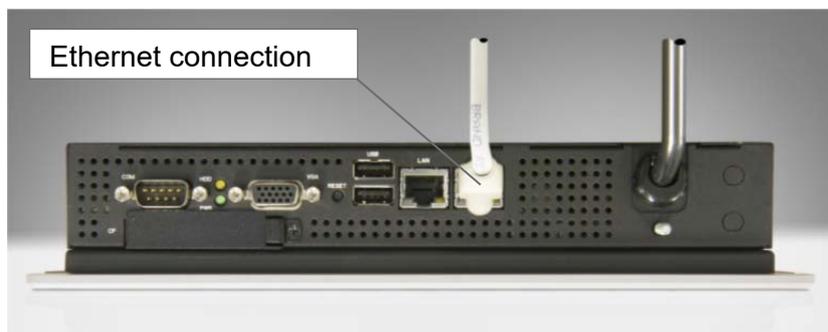


Figure 4: HMI LAN Port

- 2) Connect the ethernet cable to the LAN socket marked “ETHERNET REMOTE LINK” and connect the other end to the network connection socket.
- 3) HMI SETUP:
 - A. Automatic mode – If a DHCP server is present on the network, the HMI will receive the necessary settings automatically.
 - B. Manual input – If a DHCP server is not used, the following settings should be provided to the installation technician for manual entry:
 - The IP address assigned to the HMI.
 - The corresponding subnet mask.
 - The DNS server address.
 - The gateway address.
- 4) NETWORK SETUP:

The IT infrastructure must be setup to allow all HTTP and HTTPS traffic to/from gewuv.com and all subdomains thereof. No additional firewall ports need opening.
- 5) If the setup screen on the HMI displays the assigned IP address, satisfactory connection is confirmed.

* The Embedded Service Package regularly sends system performance data to GEW for analysis. Any out-of-tolerance parameters requiring maintenance attention are identified.

5.3 About the Embedded Service Package

The Embedded Service Package regularly sends system performance data to GEW for analysis. Any out-of-tolerance parameters requiring maintenance attention are identified.

What We Collect

The HMI, when operating, records various data about the operating conditions of the lamps, lampheads and power supplies on the UV system. This includes how the lamp is performing during burn-in and when the lamp is running. This is used to present warnings and faults to the operator, but also to report to GEW summarised information about the performance of the system. Reports include a history of operator events (starting and stopping lamps, for instance) when a fault has occurred.

How We Collect It

The HMI stores data in its internal memory. Periodically, the system attempt to connect and upload data to the secure GEW server. It does this via a standard HTTP web request that is inherently no different from a person browsing to a specific web page. Once uploaded, data is saved to GEW's on-site remote monitoring database.

Why We Collect It

Having access to this valuable information allows GEW to offer an extended level of support to the end user by diagnosing problems quicker and with a higher degree of accuracy. Down-time and costs to the customer can be minimised if problems can be detected and resolved remotely, without requiring a visit from a GEW engineer.

Software Updates

When a system contacts the GEW server, it also has the opportunity to download an updated software version if one is available. This is also sent via an encrypted package that has been verified and virus scanned by GEW.

Data Security

Data is encrypted at all times between GEW and the HMI, using a unique secure key. Recorded data can only be access by authorised GEW personnel, and all activity on our system is logged. There is no ability for the HMI to record information about the press or what is being printed.

GEW cannot initiate a remote connection to, or remotely control a specific HMI, nor is it possible to access or record information from a customer's network or IT infrastructure.

6 Completion Checklist



When installation of the HMI is complete fill out the relevant section of the Commissioning Checklist in Module 6 of this Manual.

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