



Wind Alarm Unit **WAU 100**



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1. Introduction

1.1 About the Installation instructions

1.1.1 General purpose

These are the Installation instructions for DEIF's Wind Alarm Unit 100, WAU 100. The Installation instructions provide information for the correct installation of WAU 100. The primary focus of these instructions is the physical installation of the equipment.



DANGER

Read these instructions before you install the WAU 100, to avoid personal injury and damage to the equipment.

1.1.2 Intended users of the Installation instructions

The Installation instructions are primarily for the people who mount and wire up the unit. The Installation instructions can be used during commissioning to check the installation. Designers may also find it useful to refer to the Installation instructions when developing the system's wiring diagrams. Operators may find it useful to refer to the Installation instructions while troubleshooting.

1.1.3 List of technical documentation for WAU 100

Document	Contents
Data sheet	<ul style="list-style-type: none">• System description• Technical specifications• Ordering information
Installation instructions	<ul style="list-style-type: none">• Mounting• Default wiring for the controller
Operator's manual	<ul style="list-style-type: none">• Unit push-buttons and LEDs• Operating the unit• Alarms and log• Using the unit• Troubleshooting

1.1.4 Technical support

You can read about service and support options on the DEIF website, <http://www.deif.com>. You can also find contact details on the DEIF website.

You have the following options if you need technical support:

- Technical documentation: Download all the product technical documentation from the DEIF website: <http://www.deif.com/documentation>
- Support: DEIF offers 24-hour support. See <http://www.deif.com> for contact details. There may be a DEIF subsidiary located near you. You can also e-mail [http://deif.com](mailto:mailto:deif.com).

1.2 Legal information

1.2.1 Trademarks

DEIF is a trademark of DEIF A/S.

All trademarks are the properties of their respective owners.

1.3 Warnings and safety

1.3.1 Safety during installation and operation

Installing and operating the equipment may require work with dangerous currents and voltages. The installation must only be carried out by authorised personnel who understand the risks involved in working with electrical equipment.

2. Preparing for the installation

2.1 Tools required for mounting and installation

Tools	Used to
Safety equipment	Personal protection, according to local standards and requirements.
OPTIONAL: Conducting wrist strap	Prevent electrostatic discharge damage to equipment during mounting.
Torque screwdriver	Wiring connectors and terminals.
Torque wrench*	Tighten the rack mounting bolts.
Wire stripper, pliers and cutters	Prepare wiring. Trim cable ties.

*Note: The size of the torque wrench attachment depends on the nut and bolt size of the mounting bolts. These parts are not supplied by DEIF.



CAUTION

Do not use power tools during the installation. Too much torque will damage the equipment.

2.2 Materials required

The following additional materials are required to install the unit.

Installation step	Materials	Purpose
Mounting	10 fasteners per unit	<ul style="list-style-type: none">• Mounting box<ul style="list-style-type: none">◦ Four fasteners• Front plate<ul style="list-style-type: none">◦ Six fasteners
Wiring	Wires	Wire the power supply, measurement points, and/or output relays to unit terminals
	Cable ties	Secure the wiring

2.3 Site requirements

The equipment is designed to be installed and operated in a clean and dry environment as specified in the Data sheet. If the equipment is installed in an area subject to constant high vibrations, sufficient precautions should be taken to isolate the equipment from the vibrations. As a minimum requirement it is recommended that the installation environment complies with the electrical, mechanical and environmental specifications of the equipment as described in the Data sheet.



CAUTION

If during or after installation of the equipment the electrical, mechanical or environmental specifications are exceeded, the lifetime of the equipment will be reduced.

3. Mounting the equipment

3.1 Introduction

The WAU 100 has two parts, the front plate and the mounting box.

- The front plate:
 - Holds the AGI display, printer, and push-buttons.,
- The mounting box:
 - Installed in the wall. Where the inputs for the power supply and NMEA are connected with PG connectors on the back of the box.

Figure 3.1 Front plate

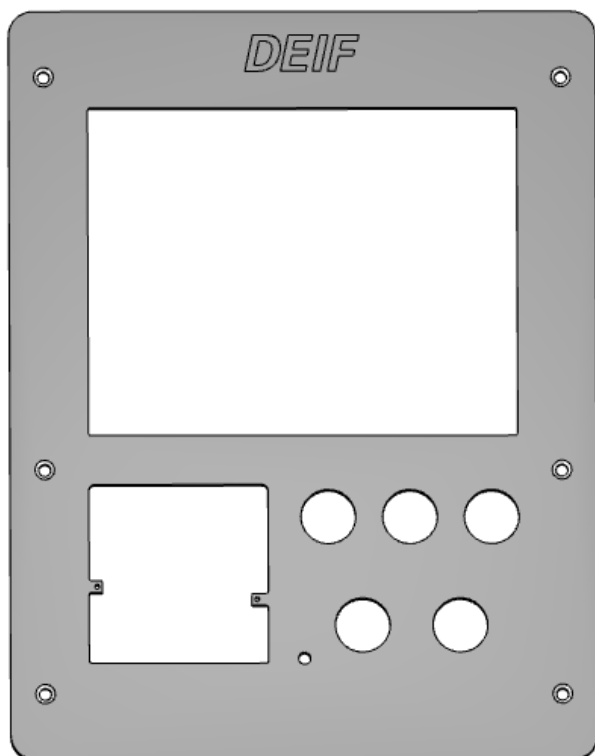
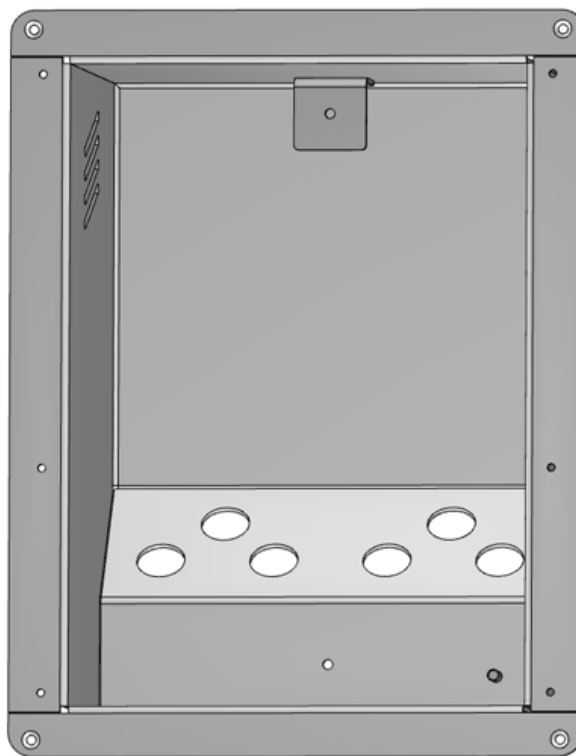
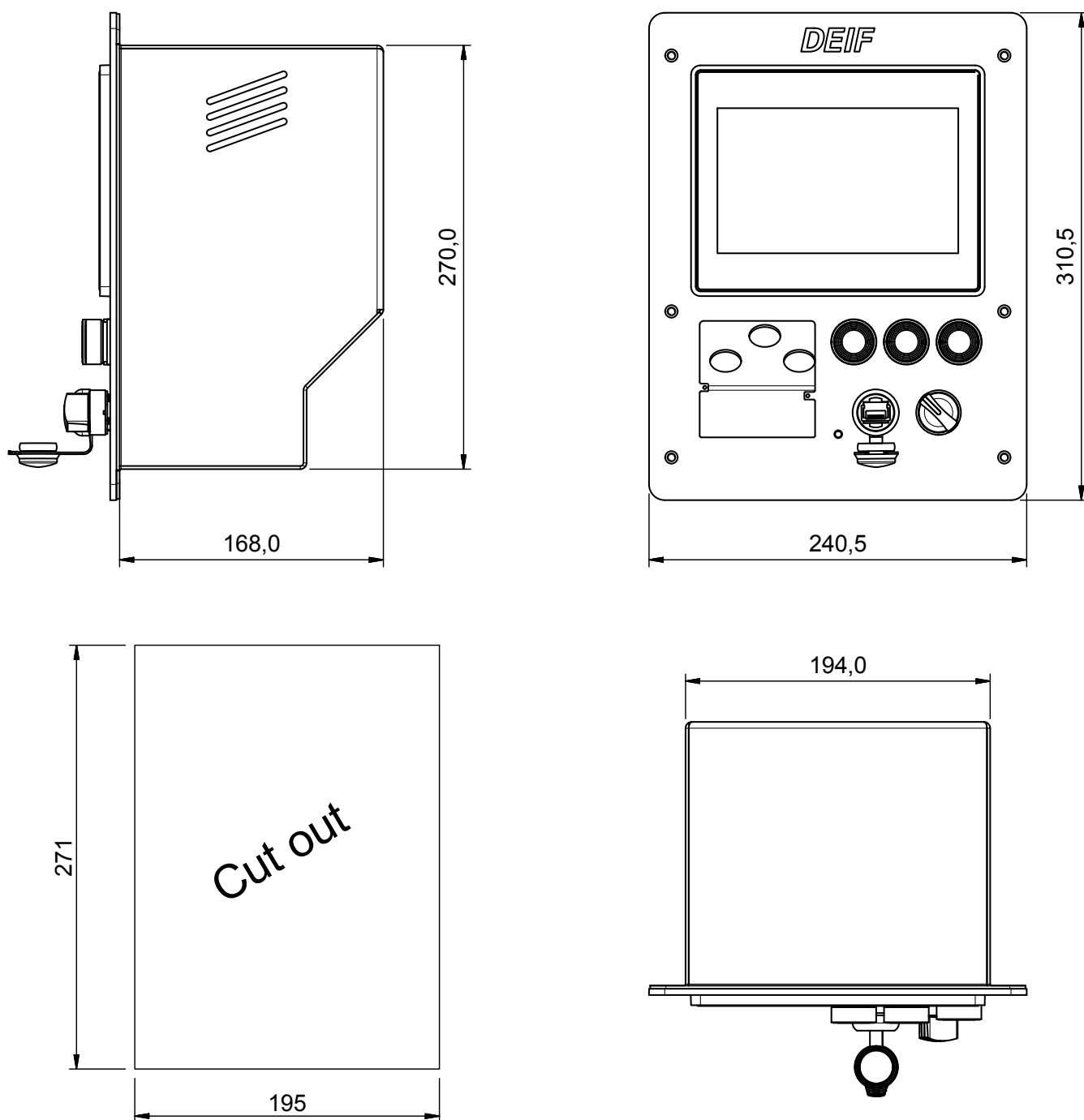


Figure 3.2 Mounting box



3.2 Mounting

Figure 3.3 WAU 100 Dimensions *



Mount the WAU 100 first by cutting a hole for the mounting box. This is secured with four fasteners one in each corner.

The front plate attaches to the mounting box with six fasteners. The fasteners are intended to be attached to the mounting box and then pass through to the wall where the WAU 100 is mounted.



CAUTION

Make sure there is drilled hole diameter 6 mm behind each of the six fasteners used to secure the front plate so the fasteners can go through.

* NOTE: Dimensions are shown in millimetres (mm).

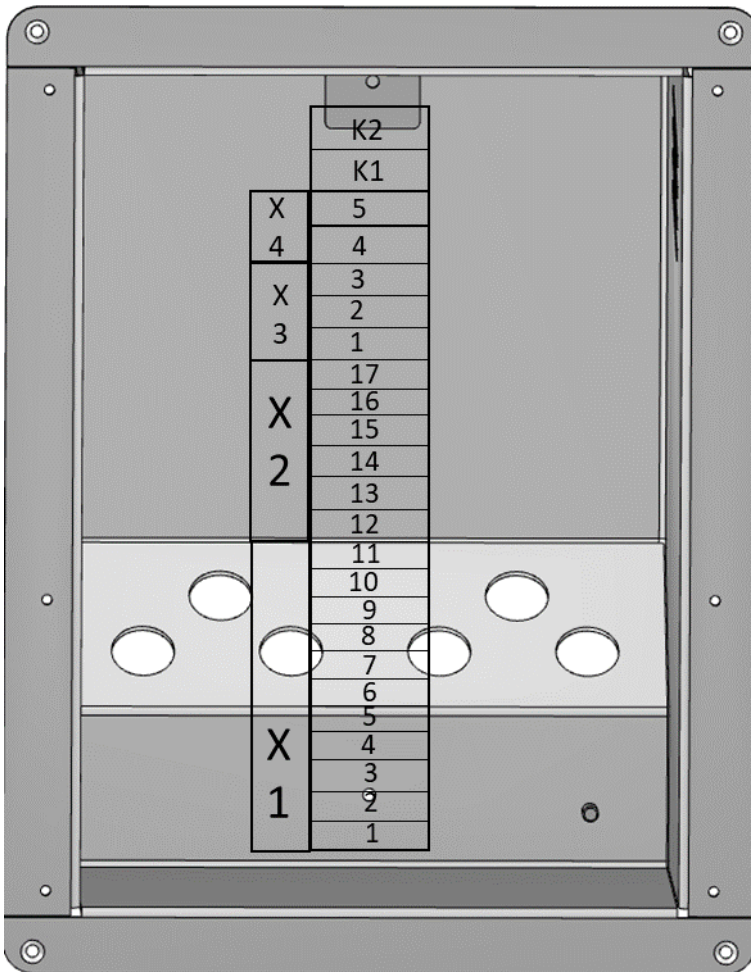
4. Wiring the unit

4.1 Introduction

The WAU 100 requires a power supply and NMEA input(s). You can also connect an external horn, for alarm notification, by using the relay outputs.

All wires are inserted through the PG glands on the back of the mounting box. The connectors are placed at the bottom of the mounting box in row.

Figure 4.1 Mounting box with connectors shown



The connector in the middle of the box connects all the components mounted in the front plate. The front plate is easily removed by taking out the connectors X1 and X2. The input power supply, NMEA signal and the relay outputs are also connected using the terminals.

4.2 Power supply wiring

The terminals in **bold** are the terminals which need to be used.

Table 4.1 Connector X1 - Power supply

Terminal No.	Description
1	Input supply 24 V DC
2	Not connected
3	24 V
4	24 V
5	24 V
6	24 V
7	Not connected
8	Input supply 0 V DC
9	0 V DC
10	0 V DC
11	0 V DC

4.3 NMEA input wiring

The terminals in **bold** are the terminals which need to be used.

Table 4.2 Connector X2 - NMEA input

Terminal No.	Description	Wind sensor WSS 550 cable colour
12	NMEA input for wind RX-A	Orange
13	NMEA input for wind RX-B	Brown
14	Do not connect, internal use	
15	NMEA input for UTC time RX-A *	
16	NMEA input for UTC time RX-B	
17	Do not connect, internal use	

* Only to be used if an external sync of UTC time is needed.

Table 4.3 Connector X3 - Do not connect

Terminal No.	Description
1	Do not connect, internal use
2	Do not connect, internal use

Table 4.4 Connector X4 - Do not connect

Terminal No.	Description
4	Do not connect, internal use
5	Do not connect, internal use

4.4 Relay wiring (External horn)

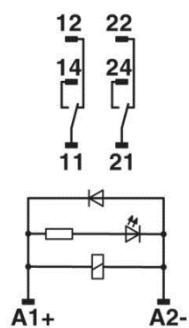
The 2 relays can be used to connect an external horn or siren to each alarm, that is to say Low alarm and High alarm. When an alarm low or high is activated the corresponding relay output is activated.

The relay mounted for each alarm is a double potential free contact relay.

Table 4.5 Relays

Relay	Description	Note
K1	Relay 1	Alarm high 1
K1	Relay 1	
K2	Relay 2	Alarm high 2
K2	Relay 2	

Figure 4.2 Schematic of the relay



Connecting of the external horns/sirens is done using the screws terminal on each relay. The below picture show the screw terminal which is connected to each relay.

Figure 4.3 Screw terminals

