

Pump Station Telemetry System

MessageMaxx™ (DMS-279)

Installation & Operating Instructions Rev 1 For Ground & Foul Water



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MessageMaxx

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MessageMaxx

1.0 MessageMaxx overview

This telemetry system is designed to be used in conjunction with the AlertMaxx high level alarm and has the ability to connect with the PowerMaxx battery backup, to give remote monitoring of a pump station when the home owner is away from their property. Messages are sent to predetermined phone numbers using GSM technology and are received in text format.

CAUTION!

The MessageMaxx should be installed by a qualified tradesperson.

2.0 Box contents

2.1 Cardboard box contents

- 1 x MessageMaxx Unit
- 1 x Chamber Location Sticker Sheet (For MessageMaxx)
- 1 x 3m length of MaxxConnect family cable
- 1 x GSM Aerial
- 1 x Aerial Mounting Plate
- 1 x Installation & Operating Instructions (this document)

2.2 MessageMaxx unit contents

- 1 x Large Cable Gland
- 1 x Large Blanking Plug
- 1 x Small Cable Gland
- 1 x Small Blanking Plug

3.0 Technical information

MessageMaxx Specification	
Size (without cable glands)	W: 115mm x D: 95mm x H: 60mm
Weight	400g
Visual Display	Red, Blue, Green LED
Operating temperature	5-35°C
Approximate Installation time	30 minutes

4.0 Unit location

The MessageMaxx must be positioned within 20m of the AlertMaxx unit it will be used in conjunction with, somewhere with a good GSM signal, within 3m of the aerial mounting point and be permanently accessible.

MaxxConnect cable can be purchased per 10m (DMS-288). **Do not join cables. Run full lengths only.**

CAUTION!

The MessageMaxx unit is not waterproof and must be installed indoors or inside a kiosk.

5.0 SIM card selection

1. Purchase a functioning traditional contract SIM card. This doesn't require a minutes or data allowance, just be enabled to send text messages. The SIM card must have no pin number assigned to it.
2. If possible, test the SIM card in an unblocked telephone on site and survey the area for the best signal strength for aerial placement.
3. Once an area of installation for the aerial has been chosen, proceed as below.

6.0 Mounting the MessageMaxx unit

1. Using the template provided on page 15 of this instruction manual (figure 1), mark the fixing positions on the wall.
2. Drill the two holes and fit suitable wall plugs (ensure correct wall plugs are used for the wall type).
3. Remove the screws from the front of the unit that secure the front fascia and remove the black GSM unit from the Velcro holding it within the casing.
4. Secure the MessageMaxx unit to the wall using appropriate screws.

PLEASE NOTE

When securing the unit to the wall, avoid over tightening the screws as this may cause the box to crack.

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7.0 Installing the MessageMaxx unit

1. Disconnect the battery and mains power to the AlertMaxx unit and ensure the PowerMaxx is switched off (if installed).
2. Remove the black sliding cover on the GSM box, slide the SIM hatch back, flip up, install the SIM card, push down and lock shut. Replace the black cover.
3. Install the supplied large cable gland into the far right hand hole and a small cable gland into the far left hand hole of the casing. Use the supplied blanking plugs to fill the remaining holes.
4. Feed the plug of the aerial through the large cable gland, screw into the silver socket on the GSM unit and tighten the cable gland (see figure 2).
5. Push and fix the GSM box on to the Velcro within the casing until a audible click is heard.
6. Feed the MaxxConnect family cable through the small cable gland and leave loose until wired in.
7. Strip the end of the MaxxConnect family cable to reveal the coloured wires.

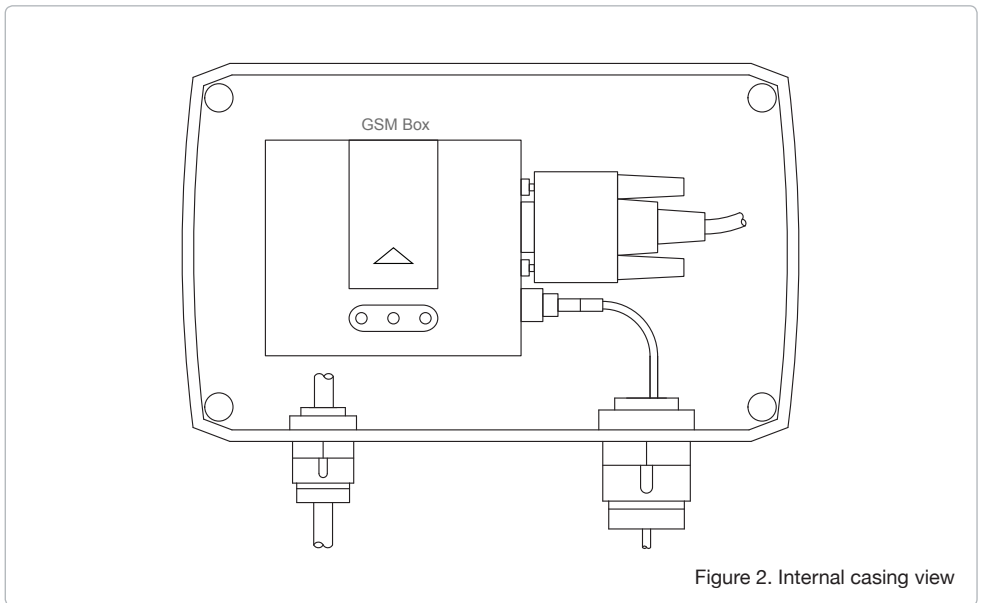


Figure 2. Internal casing view

8.0 Wiring the MessageMaxx unit

Please refer to the MaxxConnect Installation & Operating Instructions.

MaxxConnect™

Installation & Operating Instructions Rev 1



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9.0 Installing the GSM aerial

1. Prior to testing, position the aerial in the preferred mounting location - do not fix. The aerial is magnetic and should be stuck to the mounting plate (provided). This has been designed to boost the signal.
2. Set the internal switch on the PCB to the 'SIG' position (see figure 3).
3. The LED's will illuminate as below.

Red LED	Blue LED	Green LED	Signal Strength
	Solid	Quick flash	Very strong
	Solid	Medium flash	Sufficient
	Solid	Slow flash	Weak
	Solid	No flash	0%

4. If a sufficient signal strength isn't achieved, move the aerial and run the test again.
5. When complete, set the internal switch on the PCB to the 'RUN' position and refit the front fascia.

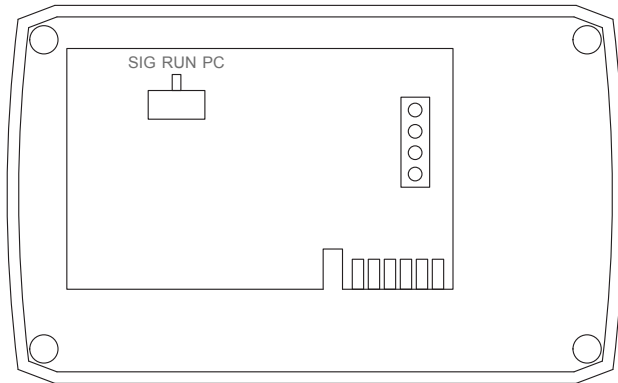


Figure 3. Configuring the PCB on the lid

10.0 Configuring the MessageMaxx unit

1. Using a mobile phone, text the units telephone number with a '?'.
2. The green LED will flash 4/sec as the response message is sent to your mobile phone. The reply from the unit will give you a STATUS message.
3. Ensure that all people who would like to be on the active list text the units telephone number with a '?'.

PLEASE NOTE

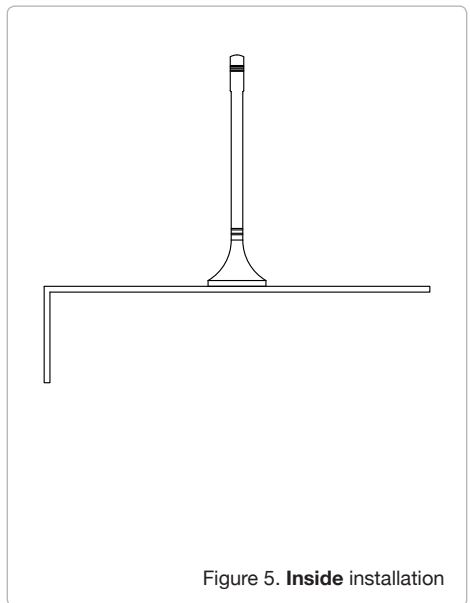
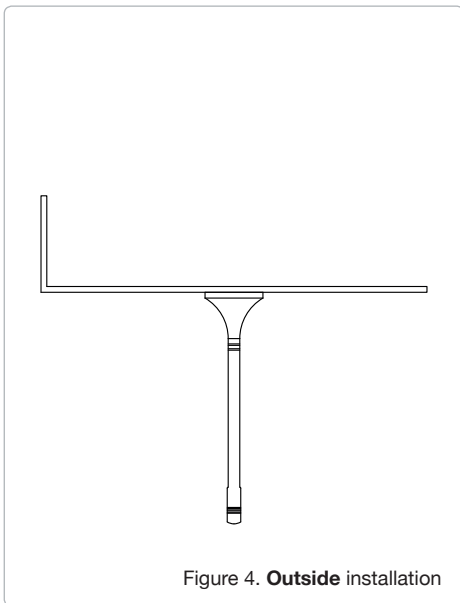
The active telephone list can store a maximum of five numbers.

4. If you would like your telephone number removed from the MessageMaxx, text the unit with a 'R'.

11.0 Mounting the GSM aerial

An aerial mounting plate has been provided which should be fixed in your chosen location after testing the GSM signal (see section 8.0).

1. Select the correct installation method for your chosen application using the figures below (4 & 5).
2. Using the two holes on the plate, mark the fixing positions on the wall.
3. Drill the two holes and fit suitable wall plugs (ensure correct wall plugs are used for the wall type).
4. Secure the mounting plate to the wall using appropriate screws.
5. Attach the magnetic aerial as pictured below.



MessageMaxx

12.0 Text commands

The MessageMaxx can be interrogated using a number of different text message commands. The table below shows those that can be used.

PLEASE NOTE

To be able to execute these commands, you must already be on the active telephone list. In order to do this, text the units telephone number with a '?'

Command	Description
?	Status - This command gives an overall status of the system. It also adds your telephone number to the active list.
L	Log - This command sends the last 8 log entries held on the AlertMaxx. This log is consolidated from all the units installed in the Maxx Family.
R	Remove - This command removes your telephone number from the active list.
RA=IDIDID*	Remove all - This command removes all telephone numbers from the active list. 'IDIDID' is the MessageMaxx ID.
AT=+44	Add telephone - This command adds a telephone number to the active list.
SP=	Set property - This command will set the property name related to the MessageMaxx. This is limited to 10 characters and will be displayed on messages from the unit.

The command letter must be in the first position on the text message - no other characters are permitted.

PLEASE NOTE

*The MessageMaxx ID can be found on the white label located on the bottom right side of the unit.

13.0 Text message structure

Content	Purpose	Example
Urgency	This informs you of the urgency for action (if required).	*CRITICAL*
Property	This informs you of the property address (if assigned using the SP= command).	12PIGLANE
Event	This informs you of the event or action taken place.	MAINS DOWN AND BATTERIES LOW
Report	This informs you of the system status.	WATER LEVEL=OK MAINS : AMAXX=OK PUMP1=OK PUMP2=DWN BACKUP BATT=019% CURRENTS : PUMP1=080% PUMP2=085%

A periodic message will be delivered to the first active telephone number once every 25 days.

MessageMaxx

14.0 Limitations

The text message response time of the unit is normally <20 seconds. The network operators and Delta Membranes do not give 100% guarantee of delivery. This implies that there will be no guarantee that a text message will be forwarded in a timely manner, or even at all.

15.0 Servicing

The MessageMaxx unit will alert home owners when their pump station requires servicing. This is indicated by the blue LED flashing every second. The service interval light is driven by the other units installed in the MaxxConnect family.

The AlertMaxx unit has a factory default service interval of 12 months.

The PowerMaxx unit has a factory default service interval of a maximum of 3 years (this will reduce depending on the battery usage).

16.0 Spares

Part No.	Description
DMS-288	MaxxConnect family cable extension - sold per 10m
DMS-293	MessageMaxx Aerial - 3m
DMS-294	MessageMaxx Aerial Base Plate

MessageMaxx

17.0 LED codes

Red LED	Blue LED	Green LED	Fault
3/sec			High water alarm
1/5sec		1/sec	Mains failure
Any	Solid	Any	Error - Call support
Any	1/sec	Any	Service required
		4/sec	Transmitting
		1/sec	All OK
All flash in sequence			Battery too low to start up
		8/sec	Trying to find other MaxxConnect units
1/sec	Solid	1/sec	Cannot find other units
1/sec	Solid		Network or signal problem
2/sec	Solid	1/sec	Error on PowerMaxx - check unit
3/sec	Solid	1/sec	Error on AlertMaxx - check unit

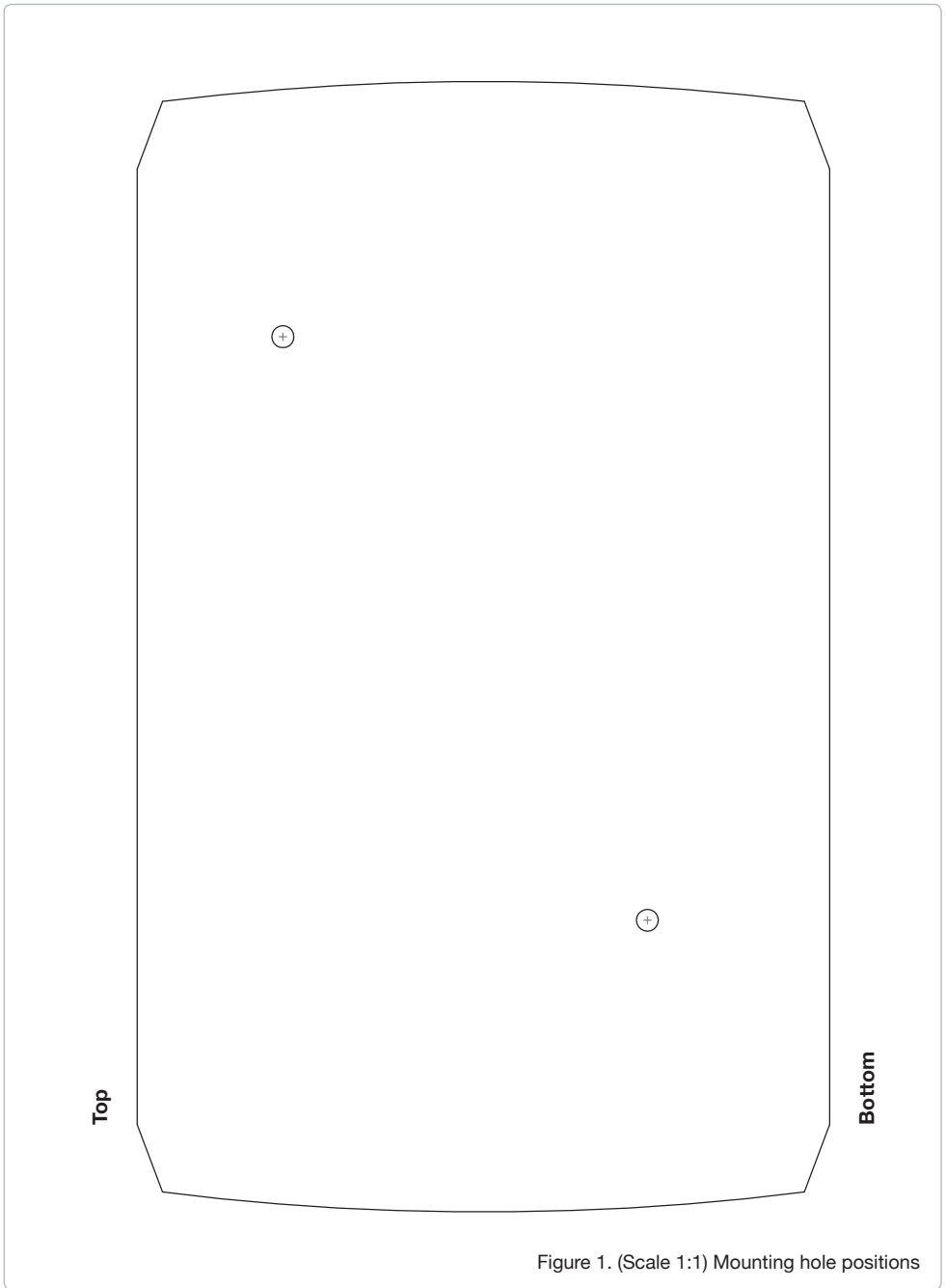


Figure 1. (Scale 1:1) Mounting hole positions



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