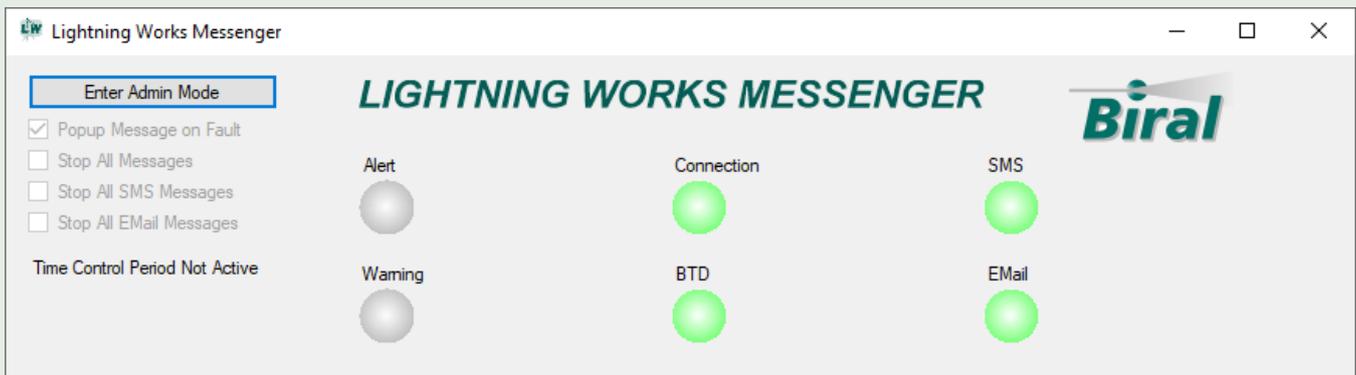


USER MANUAL

INSTALLATION - OPERATION - MAINTENANCE



PROPRIETARY NOTICE

The information contained in this manual (including all illustrations, drawings, schematics and parts lists) is proprietary to BIRAL. It is provided for the sole purpose of aiding the buyer or user in operating and maintaining the software. This information is not to be used for the manufacture or sale of similar items without written permission.

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1 HOW TO USE THIS MANUAL

The manual is organised so that if you read it from start to finish you will have a good understanding of how the Lightning Works Messenger operates, how it should be installed and how to use it. We realise however that different people may be involved in the installation and use of the system, so the following guidance is given.

Software Installation

Section 5, covers the installation of the software.

We have made the installation as easy as possible, so if you are generally happy installing software applications the process should not be too difficult. You may wish to consult your IT department about where to install the software and how to access your email account settings.

Configuration and Use

Section 5, covers configuring the Lightning Works Messenger to work in the way you want. Section 7, covers use of the Lightning Works Messenger software. Both these sections should be read by the person responsible for operating the system.

Choosing an SMS Service Provider

Section 6.2, discusses the SMS service providers supported by Lightning Works Messenger and how to configure them. This section should be read by the person responsible for administering and operating the system.

Email Service Provider Details

The procedure for configuring the Lightning Work Messenger to send email messages is described in Section 6.1. You may need to contact your email service provider or IT department to obtain the required information.

2 GENERAL INFORMATION

2.1 Equipment covered in this manual

BTD-200 Lightning Works Messenger

A software application that works with the BTD-200 Lightning Works software to provide SMS and email messages when thunderstorm activity is detected.

2.2 Lightning Works Messenger Description

The Lightning Works Messenger application works with the BTD-200 and the Lightning Works software to allow SMS and email messages to be sent automatically when thunderstorm activity is detected. Both SMS and email messages are sent via the internet, so a reliable internet connection is an essential requirement. Messages can be sent to an unlimited number of recipients, with each recipient receiving Warning, Alert or Fault messages by either SMS, email or both. The ability to inhibit the sending of messages out of hours is also included.

2.3 Customer Satisfaction

At Biral we set our standards high and only your complete satisfaction is acceptable to us. If you believe your experience has not met these standards, we would be grateful if you would contact us, so we can discuss any issues you may have. We are also pleased to hear of any positive experience.

2.4 After Sales Support

Biral offers support by telephone and email for the lifetime of our products, even if there has been a change of ownership, so please get in touch if you require help. Similarly, if you have any questions about your new software, we are only a mouse-click or telephone call away. Our contact details are given below. For your convenience our contact details are also on the label fixed to your equipment.

2.5 Safety

The Lightning Works Messenger uses the internet and third-party SMS messaging and email service providers to deliver Warning, Alert and Fault messages to recipients. Neither the internet, the SMS messaging or email services providers provide a guarantee of service provision, therefore the user should not rely solely on the Lightning Works Messenger to provide warnings of thunderstorm activity.

2.6 Contacting Biral

If you would like technical assistance, advice or you have any queries regarding the operation of the software please do not hesitate to contact us during normal business hours.

Contact us by telephone on: + 44 (0)1275 847787

Contact us by fax on: + 44 (0)1275 847303

Contact us by email at: service@biral.com

If you bought your system from a local agent, you may wish to contact them in the first instance. No matter how you got your system Biral is here to help.

3 SUPPLIED EQUIPMENT

The following equipment is supplied in the Lightning Works Messenger pack. Please check the contents carefully and immediately report any missing items to your supplier.

Picture	Part No.	No. Supplied	Description
	BTD20.LWM	1	USB Drive. Holds the software as well as an electronic copy of this manual
	107794	1	This Manual

4 BTD-200 LIGHTNING WORKS MESSENGER

This section explains the functionality of the Lightning Works Messenger and how it interacts with other parts of the BTD-200 Lightning Warning System. Please take time to read this section as it will help you to understand the detailed instructions in later sections.

4.1 BTD-200 System Overview

The BTD-200 sensor detects the presence of lightning flashes and the possibility of overhead lightning even before the first flash. The sensor must be mounted outside in an open area where it can sense changes in the Earth's electrostatic field caused by thunderstorms. The sensor can provide you with lightning warnings in the following ways:

- By direct connection to your site warning system using the internal relays
- By warnings on your computer using the supplied Lightning Works software
- By using the indicators and sounder on the BTD-200 Base Control Box
- By using the BTD-200 Wide Area Sounder
- By SMS and email messages via Lightning Works Messenger
- Or any combination of the above

A full description of the BTD-200 system components is provided in the BTD-200 Lightning Warning System manual.

Use of the Lightning Works Messenger requires as a minimum the BTD-200 sensor connected to a user computer with an internet connection running the Lightning Works Software.

BTD-200 Lightning Works Software

The Lightning Works Software is a multi-user application that runs on Microsoft operating system computers. It enables up to five users on a local network to view the status of the BTD-200 system and receive lightning Warnings and Alerts. The administrative user can configure the system and cancel Warnings and Alerts.

The application has two parts, a server and a client. The server runs in the background on the computer that is connected to the BTD-200 sensor, this can either be a user's PC or a local server. The client software runs on each computer that requires access to the system. Any number of clients can be installed but only five can be connected at any time.

4.2 Lightning Works Messenger Overview

Lightning Works Messenger is a software application that runs on Microsoft operating system computers. It connects to the Lightning Works Server and can be installed on

any computer on the same local network. It enables SMS and email messages to be sent automatically to a predefined list of recipients when the BTD-200 issues thunderstorm Warnings or Alerts, or when a fault condition is detected. Each recipient can be configured to receive notifications of Warnings, Alerts and faults by SMS, email or both. The sending of messages outside of working hours can be enabled or disabled on a recipient by recipient basis.

Lightning Works Messenger can be configured to run automatically when the computer is started. It can be configured to run minimised and pop to the front of the desktop on fault conditions. Access to configuration parameters and recipient's details is password controlled. SMS and email messages are sent via the internet using SMS message and email service providers. It is therefore essential that a reliable internet connection is available to the computer on which Lightning Works Messenger is installed and that the computer and Lightning Works Messenger is always running when warnings of thunderstorm activity are required.

4.3 BTD-200 System Compatibility

4.3.1 Hardware

The minimum system required for use of the Lightning Works Messenger is a BTD-200 connected to a user computer running the Lightning Works server software. The Lightning Works Messenger may be installed on the same computer as the Lightning Works Server or any other current Microsoft operating system computer on the same local network. The computer must have a reliable internet connection.

Use of the Lightning Works Messenger is controlled by an activation code which is linked to the serial number of the BTD-200 sensor in the system. Activation codes are available from Biral as described in Section 5.8.1.

4.3.2 Software

The minimum software revisions of the BTD-200 sensor firmware and the Lightning Works Server and Client software for operation with Lightning Works Messenger are as follows:

BTD-200 Sensor	3.0.0.0
LW Server	2.0.0.0
LW Client	2.0.0.0

The latest versions of BTD-200 sensor firmware and Lightning Works software along with full installation instructions are available to download from the Service Support pages of the Biral website www.biral.com.

5 LIGHTNING WORKS MESSENGER INSTALLATION

5.1 Introduction

The Lightning Works Messenger software should be installed after the BTD-200 sensor and the associated Lightning Works software are installed and configured.

5.2 Software Licences

5.2.1 Lightning Works Messenger Licence

The Lightning Works Messenger software remains the property of Biral and is protected by appropriate copyright law and international treaty provisions. The Licensee is granted the right to use the software, but not to de-compile or to in anyway alter the composition of the software. The software contains information of commercial value and worth to Biral.

In no event will Biral, its Directors or employees be liable for direct, indirect, incidental, exemplary or consequential damages, expenses, or losses arising out of the use or inability to use the Lightning Works Messenger.

No other warranties except those expressly set out above are implied or should be inferred. Biral makes no warranty concerning the fitness of the BTD-200 Thunderstorm Detector, its Lightning Works software or the Lightning Works Messenger for a particular purpose or use. Biral does not warrant, guarantee or make any representations regarding the use or the results of the use of the BTD-200 Thunderstorm Detector or the software.

5.2.2 Software Activation Code

Use of the Lightning Works Messenger requires a software activation code. The activation code is linked to the BTD-200 sensor serial number and will not be valid for use with other BTD-200 sensors.

Full details on how to obtain an activation code and activate the software are given in Section 5.8.1.

5.3 Data Privacy

The Lightning Works Messenger stores recipient details including names, telephone numbers and email addresses in an encrypted database. Access to the data is only available through the Lightning Works Messenger following entry of a password. Additional security measures are included to ensure the database cannot be decrypted without a password that was valid at the time Lightning Works Messenger was last used.

The capability of exporting the recipient data in .CSV file format is provided. Files exported using this facility are not encrypted and it is therefore the user's responsibility to ensure local data protection requirements are met.

5.4 Compatible Operating Systems

The Lightning Works Messenger has been tested for use with the following Microsoft operating systems:

- Windows 7
- Windows 10
- Windows Server 2012 R2
- Windows Server 2016 Standard

The software may work with other Microsoft operating systems, but this has not been tested.

Please make sure that the version of Windows used has all the latest updates.

5.5 Choosing the Computer

The Lightning Works Messenger may be installed on the same computer as the Lightning Works Server or any compatible computer on the same local network. It may also be installed on a computer with the Lightning Works Client software.

The computer on which the software is installed must have reliable internet access and must always be running when thunderstorm warning messages are required to be sent.

The chosen computer should have sleep mode and hibernation disabled as these power saving options stop the computer from running applications when it is not being actively used.

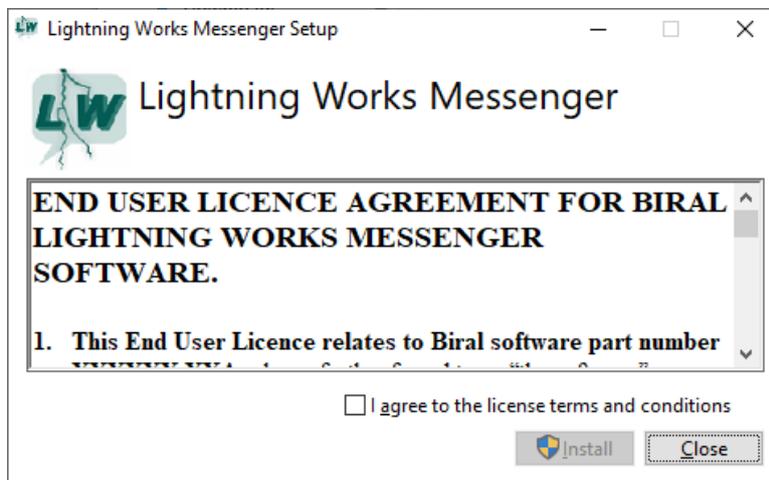
The Lightning Works Messenger may be run on a maximum of five computers on the same local network. This may be required when multiple SMS message or email service providers are needed to provide an enhanced level of message delivery confidence. Only one installation of Lightning Works Messenger per computer is possible.

5.6 Installing the Software

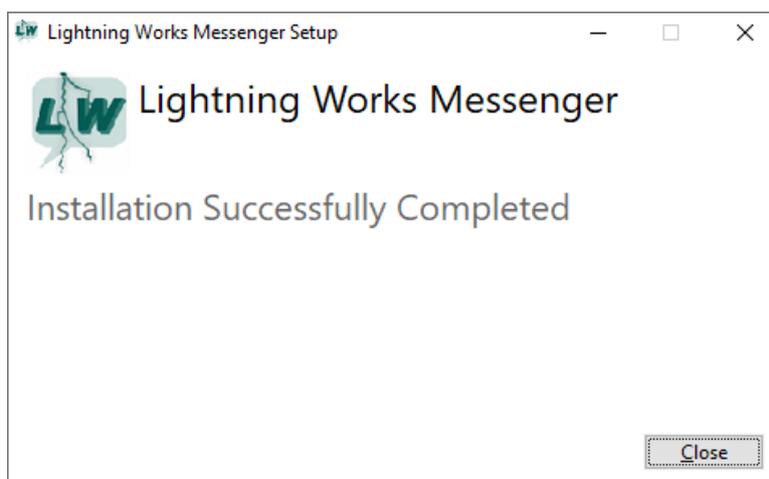
5.6.1 Installation

To install the Lightning Works Messenger software on a computer, follow the steps below.

1. Insert the BTD20.LWM USB Drive into a suitable USB port of the computer, wait for the drive to be recognised and then use file explorer to locate the Lightning Works Messenger folder. Open the folder.
2. Double click on the **Lightning Works Messenger Setup** application to start installation.
3. The software will install in the default program directory of your computer. It is not possible to install the software in another location.
4. To install the software, you must accept the End User licence terms and conditions. Please read the licence terms and check the agree box to proceed with installation.



5. When the software has successfully installed you will see the following window.



The software is now ready to use.

5.6.2 Running the Lightning Works Messenger Software

To start the software for the first time, see section 5.7.

The Lightning Works Messenger can be configured to start automatically with the computer, or it can be started by doubling clicking on the desktop icon. The software may also be configured to start minimised to the system tray area of the task bar. See section 6.8 for details of how to configure these options.

5.6.3 Removing the Lightning Works Messenger Software

To remove the Lightning Works Messenger software, select Programs and Features in your computer's Control Panel. Locate the Lightning Works Messenger entry in the list and click on it. Use the Uninstall option at the top of the list to remove the Lightning Works Messenger software.

5.7 Running the Software for the First Time

The first time the program starts a dialog box will appear asking for the default username and password to be entered. Enter the following:

Username: admin

Password: admin

Once the default details have been entered a new dialog box will open to create an administrator login. The username may be any length, the password must have between 6 and 12 characters. The password is case sensitive and may include numbers and special characters.

Once a valid username and password have been provided the software will open in Admin mode and appear as shown in Figure 5-1 below. Additional administrators may be added as described in section 6.9.

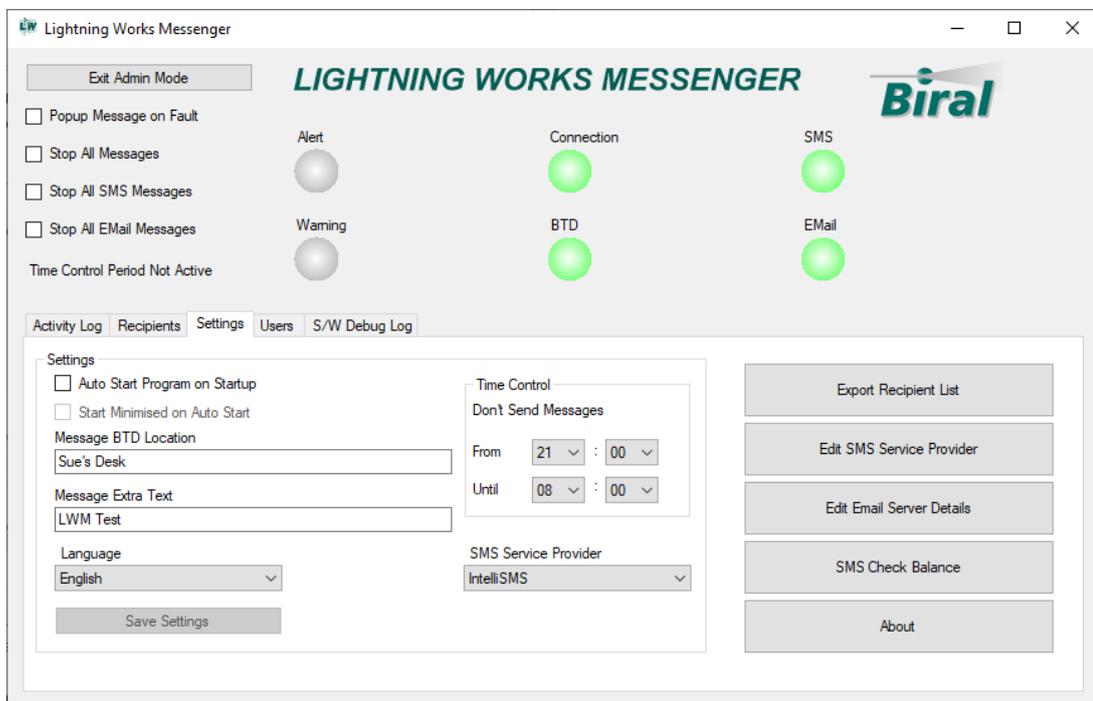


Figure 5-1 LWM Admin Mode

Note: The default username and password are only valid the first time the program runs. If the administrator username or password is lost it will be necessary to reinstall the software, all recipient details and configuration settings will be lost.

5.8 Activating the Lightning Works Messenger Software

Before the Lightning Works Messenger software can be used the licence must be activated with a code supplied by Biral. The activation code links the Lightning Works Messenger software serial number to the serial number of the BTD-200 sensor with which it is used. The activation code will not work if the Lightning Works Software is used with another BTD-200 sensor.

5.8.1 Obtaining an Activation Code

To obtain an activation code send an email with the title "Lightning Works Messenger Activation" to enquiries@biral.com. It is essential to include the following information:

Lightning Works Messenger software serial number: xxxxxxxx
BTD-200 Sensor serial number: Jxxxxxx-xx

The Lightning Works Messenger software serial number is shown on the envelope containing the USB drive.

The BTD-200 serial number can be found on the label on the sensor, on the sensor test certificate or in Help\About window of the Lightning Works Client. The BTD-200 serial number is also shown in the "About Lightning Works Messenger" window of the Lightning Works Messenger, this is accessed using the "About" button of the "Settings" tab. The BTD-200 serial number is of the form Jxxxxx-xx.

Keep a secure copy of the activation code as it will be required if you need to reinstall the software.

5.8.2 Entering an Activation Code

To enter an activation code the Lightning Works Messenger software must be in Admin Mode. To enter Admin Mode click on the "Enter Admin Mode" button and enter a valid user name and password. Click on the "Settings" tab and then the "About" button in the right hand side of the window. A new window will open entitled "About Lightning Works Messenger". Enter the activation code in the "Activation Code" box and click on "Check Code". If the activation code is accepted, click "OK" to return to the main window. If the code is not accepted contact Biral for assistance.

6 CONFIGURING LIGHTNING WORKS MESSENGER

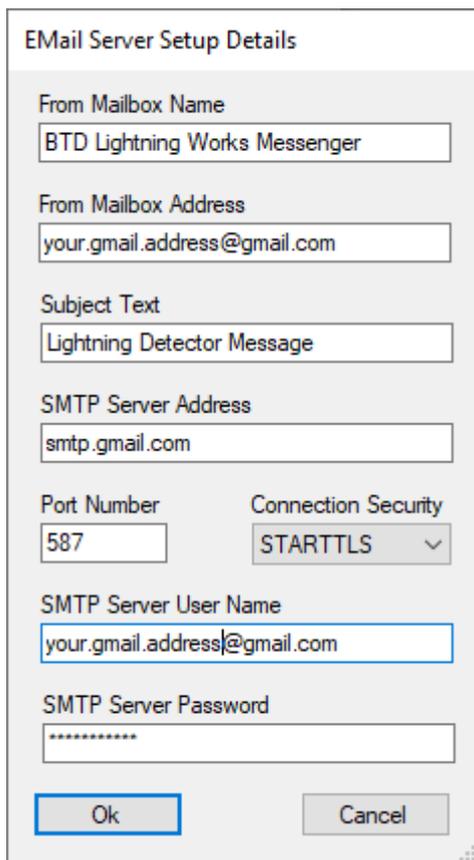
Once the Lightning Works Messenger software has been activated it must be configured. All configuration actions are performed in Admin Mode, essential configuration activities include entering a list of recipients and the SMS and/or email service provider details.

6.1 Entering the Email Service Provider Details

To send thunderstorm warning emails an email account is required, this may be an existing email account or a new one dedicated to issuing thunderstorm warnings. You will need the email account details to configure the Lightning Work Messenger, these will be available from your IT department or your email service provider. If you do not wish to use an existing email account, it is possible to use a Gmail account. If a Gmail account is used the Gmail account must be configured to allow automatic sending of emails on the Gmail website.

To enter the email account details, open the "Settings" tab in Admin Mode. Click the "Edit Email Server Details" button located on the righthand side of the window. A new window will appear, as shown below.

The entries shown are typical for a Gmail account, settings may be different for different email service providers.



From Mailbox Name

Free text that will appear as the from email address. Not all email service providers allow the use of alternative text for the From Mailbox name, if this is the case enter your email address.

From Mailbox Address

The email address of the account to be used. Some service providers allow the use of alternative email addresses.

Port Number and Connection Security

Must be set according to information supplied by the Email Service Provider. Typically, 465 SSL/TLS.

SMTP Server User Name

The username of the email account. Often the same as the email address.

SMTP Server Password

The email account password.

Once valid email account details have been entered the Email indicator in the top section of the Lightning Works Messenger window will turn green provided message sending is not disabled by the checkboxes in the top left of the main window. If message sending is disabled, the Email indicator will remain grey.

6.2 Selecting an SMS Service Provider

To send SMS messages you must have an account with one of the SMS message service providers supported by Lightning Works Messenger. The following SMS messaging service providers are supported.

- Twilio
- IntelliSMS
- Nexmo
- TextMagicAPI

Your choice of service provider will depend on your location, your expected usage and whether you wish your SMS messages to come from a dedicated local phone number. Please study the service provider websites carefully to ensure they meet your requirements. All SMS service providers charge for use of their service. **The cost of the SMS message service is not included in the purchase price of the Lightning Works Messenger software.**

Navigating the SMS service provider websites can be daunting as they offer many different services, but only an account and some basic settings are necessary. To help you, information is provided for each supported service provider in the following sections. The service provider websites change frequently so it is not possible to provide web links in this manual. Please read the configuration section for each service provider before visiting their website as this will help you navigate to the correct section and service.

Most of the SMS service providers offer a free trial of their services. You can use this to see which is most appropriate for your needs.

6.2.1 SMS Messaging Basics

The Lightning Works Manager uses an Application Program Interface or API to talk to the SMS service provider. When looking through the supplier website this is the type of service you need. Don't worry if you come across a lot of technical details, we have taken care of all the difficult technical stuff.

Lightning Works Messenger uses the API to talk to the service provider over the internet. When a message is sent, Lightning Works Messenger establishes a connection to the SMS service provider and sends the message text and optionally

the Sender ID along with the recipient's phone number. The SMS service provider then sends the message as an SMS over the phone network.

The Sender ID is what the recipient sees to tell them who the SMS message came from. The Sender ID can either be a telephone number or a text string such as BTDD200. All the SMS service providers supported by Lightning Works Manager allow you to use text for the Sender ID.

Note: Some countries do not allow the use of text for the Sender ID.

When setting up your account you only need basic SMS message sending capability. There is no need to pay for extra features that allow you to receive replies to the SMS messages. Lightning Works Messenger does not support replies sent in response to its SMS messages.

As with all SMS messages, there may be a delay between Lightning Works Messenger sending the message request to the service provider and the SMS message arriving at the recipient's phone. These delays occur in the mobile phone network and are beyond the control of either the Lightning Works Messenger or the SMS service provider. Most messages will be received almost immediately but on occasions delays will occur. For this reason, it is recommended that a local warning system such as a sounder is used in addition to Lightning Works Messenger.

The configuration of Lightning Works Messenger for your selected service provider is described in the following sections.

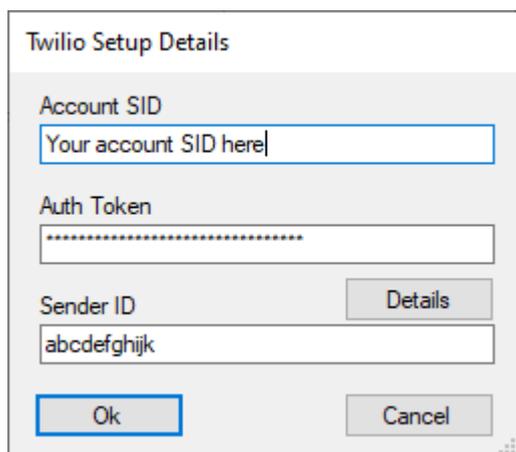
6.2.2 Twilio SMS Service Provider

Twilio describe the required SMS service as *Programmable SMS* on their website. They offer local telephone numbers in a wide range of countries as well as allowing you to enter text for the Sender ID.

6.2.2.1 Configuring the Twilio SMS Service

Select "Twilio" from the dropdown list by clicking on the button below the "SMS Service Provider" heading in the "Settings" tab when in Admin mode. Click the "Save Settings" button to confirm your choice.

The SMS account details are then entered by clicking on the "Edit SMS Service Provider" button in the righthand section of the window. A new window will open allowing entry of the account details.



Account SID & Auth Token

Enter the Account SID and Authorisation Token, these can be found in the Settings, General section of your Twilio account on the Twilio website.

Sender ID

Enter any text you wish to use for the Sender ID; limited to 11 characters. Alternatively, enter the telephone number assigned by Twilio. It is not possible to

enter another telephone number in this field or to leave it blank.

Click on the OK button to confirm your entries.

Once valid account details have been entered the SMS indicator in the top section of the Lightning Works Messenger window will turn green, as long as sending of SMS messages is enabled in the checkboxes in the top left of the main screen.

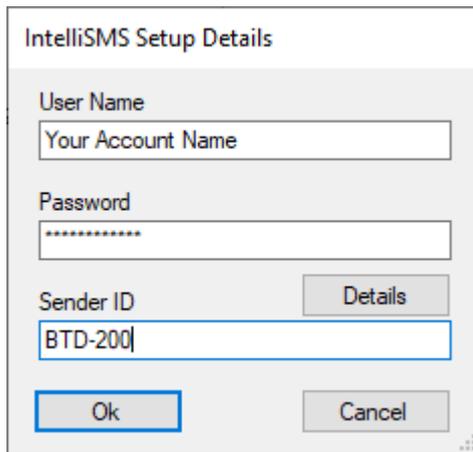
6.2.3 IntelliSMS Service Provider

IntelliSMS describe the required SMS service as *SMS Message Sending* on their website. They offer local telephone numbers in a wide range of countries as well as allowing you to enter text and telephone numbers for the Sender ID.

6.2.3.1 Configuring the IntelliSMS Service

Select "IntelliSMS" from the dropdown list by clicking on the button below the "SMS Service Provider" heading in the "Settings" tab when in Admin mode. Click the "Save Settings" button to confirm your choice.

The SMS account details are then entered by clicking on the "Edit SMS Service Provider" button in the righthand section of the window. A new window will open allowing entry of the account details.



The dialog box titled "IntelliSMS Setup Details" contains the following fields and buttons:

- User Name:** A text input field containing "Your Account Name".
- Password:** A password input field with masked characters (dots).
- Sender ID:** A text input field containing "BTD-200".
- Buttons:** "Ok", "Cancel", and "Details" (located next to the Sender ID field).

User Name & Password

Enter your IntelliSMS account username and password.

Sender ID

Enter any text you wish to use for the Sender ID; limited to 11 characters. Alternatively enter a telephone number in the format +441275847787. Alternatively, leave the field blank to use the text from the Settings, Options, Default Senders ID entry of your

account on the IntelliSMS website.

Click on the OK button to confirm your entries.

Once valid account details have been entered the SMS indicator in the top section of the Lightning Works Messenger window will turn green, as long as sending of SMS messages is enabled in the checkboxes in the top left of the main screen.

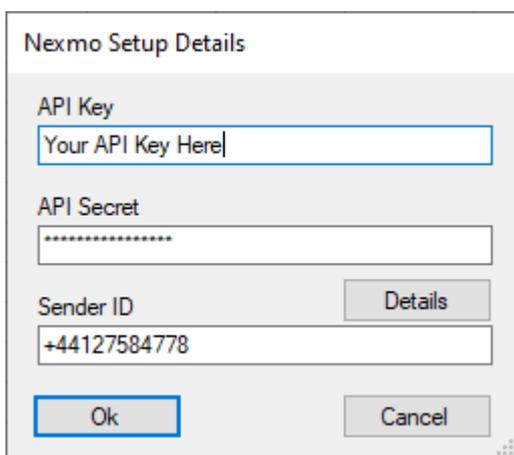
6.2.4 Nexmo Service Provider

Nexmo describe the required SMS service as simply *SMS* or *SMS API* on their website. They offer local telephone numbers in a wide range of countries as well as allowing you to enter text and telephone numbers for the Sender ID.

6.2.4.1 Configuring the Nexmo Service

Select "Nexmo" from the dropdown list by clicking on the button below the "SMS Service Provider" heading in the "Settings" tab when in Admin mode. Click the "Save Settings" button to confirm your choice.

The SMS account details are then entered by clicking on the "Edit SMS Service Provider" button in the righthand section of the window. A new window will open allowing entry of the account details.



API Key & API Secret

Enter the API Key and API Secret code, these can be found in the Settings, API Key section of your account on the Nexmo Website.

Sender ID

Enter any text you wish to use for the Sender ID; limited to 11 characters. Alternatively enter a telephone number in the format +441275847787. This field must not be left blank.

Click on the OK button to confirm your entries.

Once valid account details have been entered the SMS indicator in the top section of the Lightning Works Messenger window will turn green, as long as sending of SMS messages is enabled in the checkboxes in the top left of the main screen.

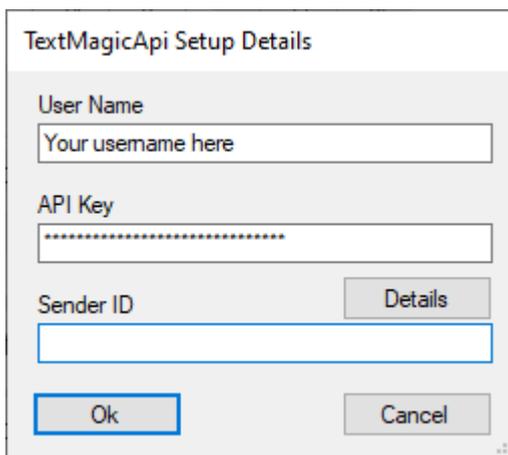
6.2.5 TextMagic API Service Provider

TextMagic describe the required SMS service as *SMS Gateway API* on their website. They offer local telephone numbers in a wide range of countries as well as allowing you to enter text for the Sender ID or use their default number.

6.2.5.1 Configuring the TextMagic API Service

Select "TextMagicAPI" from the dropdown list by clicking on the button below the "SMS Service Provider" heading in the "Settings" tab when in Admin mode. Click the "Save Settings" button to confirm your choice.

The SMS account details are then entered by clicking on the "Edit SMS Service Provider" button in the righthand section of the window. A new window will open allowing entry of the account details.



User Name & Password

Enter your TextMagic account username and API Key here. You can find your username and API key in the Services, API section of your account on the TextMagic website.

Sender ID

This field should be left blank. The Sender ID must be setup in the Services, Sender Settings, Sender IDs section of your account on the TextMagic website. If no

default Sender ID is setup in your account, the default TextMagic telephone number will be used. You may enter the Sender ID as setup in your TextMagic account in this field.

Click on the OK button to confirm your entries.

Once valid account details have been entered the SMS indicator in the top section of the Lightning Works Messenger window will turn green, as long as sending of SMS messages is enabled in the checkboxes in the top left of the main screen.

6.2.6 Checking the SMS Account Balance

You can check the balance of your SMS account by clicking on the "SMS Check Balance" button in the righthand side of the "Settings" tab when in Admin mode. The information provided will vary depending on your chosen service provider.

6.3 Entering and Editing Recipient Details

Recipients are people who will receive notifications when thunderstorm activity is detected. To enter recipient details, select the "Recipient" tab and click on "Add", a new window will open with the following fields.

Field Name	Description	Entry Type
Recipient Name	Name of recipient	Free text
Job Description	Optional	Free text
Mobile Phone Number	Recipients phone number. Required if SMS messages are to be sent	Format +(Country Code)(Phone Number)
Email Address	Recipients email address. Required if email messages are to be sent	
Notes	Optional	Free text
Recipient Enabled	Tick to enable SMS and/or email messages to be sent to this recipient	
Send Alerts	Tick to enable sending of Alert messages	
Send Warnings	Tick to enable sending of Warning messages	
Send Faults	Tick to enable sending of Fault warning messages	
Send SMS	Tick to enable sending messages by SMS	
Send Emails	Tick to enable sending messages by email	
Time Control	Tick to enable time control of message sending to this recipient	

To change recipient details, click on the recipient to highlight the entry and then select "Edit". A new window opens allowing changes to the recipient details.

To delete a recipient, click on the recipient to highlight the entry and then select "Delete". You will be asked to confirm the deletion.

6.3.1 Testing Recipient Details

Once a recipient has been added you may send a test message using either SMS and/or email to confirm the details have been entered correctly.

To send test SMS and/or email messages to all recipients click on the "Send Test to All" button. To test recipients individually, click on a recipient to highlight the entry and then click on "Send Test to Selected". An SMS and/or email message will be sent to the recipient according to how their entry has been configured.

Note: Test SMS and/or email can only be sent once the service provider details have been entered as described in sections 6.1 and 6.2. The sending of test SMS and/or emails is not controlled by the tick boxes in the top left of the main window.

6.3.2 Exporting the Recipient List

The Recipient data including phone numbers and email addresses may be exported in CSV format.

Note: The exported file is not encrypted. Ensure the file is saved in such a way as to protect the personal data of recipients.

To export the recipient list, click the "Export Recipient List" button in the "Settings" tab in Admin mode. You will be asked to confirm that the recipient's details will be protected, you will be asked if you wish to include phone numbers in the exported data. A file dialog window will open to allow you to save the recipient list to the location of your choice.

6.4 Message Sending Controls

The sending of SMS and email messages is controlled by three tick boxes in the top left-hand side of the window. The controls are only enabled in Admin mode.

- Check the "Stop All Messages" box to stop sending both SMS and email messages.
- Check the "Stop All SMS Messages" to stop sending SMS messages. Email messages may still be sent.
- Check the "Stop All Email Messages" to stop sending email messages. SMS messages may still be sent.

6.5 Setting the Message Text

The text included in each SMS and email message is set in two text boxes in the "Settings" tab when in Admin mode.

The "Message BTM Location" should be used to describe the location of the BTM-200 sensor, such as "Watleys End Golf Club".

The "Extra Message Text" text can be used for any other text.

Click the "Save Settings" button to confirm the entered text.

6.6 Time Control

The Time Control function is used to stop Lightning Works Messenger sending SMS and email messages during a user defined period of the day, such as during the night. One time period can be set, but each recipient can have the Time Control function enabled or disabled individually.

The Time Control period is set in the "Time Control" section of the "Settings" window in Admin mode. Enter the start and end time of the period when messages should not be sent. Click the "Save Settings" button to save the entered times.

To enable or disable Time Control for individual recipients use the "Recipients" tab in the Admin mode window. See section 6.3.

The status of the Time Control function is shown in the top left of the main Lightning Works Messenger window. The text is highlighted in yellow when the time control period is active.

6.7 Selecting the Language

To select the language used by Lightning Works Messenger use the "Language" dropdown menu in the "Settings" tab when in Admin mode. Click the "Save Settings" button to confirm your choice.

6.8 Auto Start and Jump to Front Function

Lightning Works Messenger can be configured to start automatically when the host computer is switched on. It can also be configured to run minimised in the system tray to avoid cluttering the desktop. To ensure important faults are not missed Lightning Works Messenger can be configured to jump to the front of the desktop if a fault condition is detected.

To enable automatic starting, tick the "Auto Start Program on Startup" check box in the "Settings" tab of the Admin mode window.

To enable minimised starting, tick the "Start Minimised on Autostart" check box in the "Settings" tab of the Admin mode window.

To enable popup messages when faults are detected, tick the "Popup Message on Fault" tick box located in the top left section of the main window. This tick box is only enabled in Admin mode.

Click the "Save Settings" button to confirm your selections.

6.9 Adding Administrators

Administrative users may be added or edited using the "Users" tab when in Admin mode.

- To add additional administrators, click the "Add" button. A username and valid password must be entered.
- To edit an administrator's username or password, click the "Edit" button.
- To delete an administrator, click on the administrator's user name to highlight it, then click on the "delete" button. A dialogue box will appear to confirm the deletion.

7 USING LIGHTNING WORKS MESSENGER

7.1 Running Lightning Works Messenger

It is recommended the Lightning Works Manager application is configured to auto start so that it is always running when the computer is on. See Section 6.8 for details of configuring Auto Start.

Note: The auto start function only applies when the user who installed the Lightning Works Messenger logs on to the computer. If the user logs off, or if another user starts the computer Lightning Works Messenger will no longer run.

To manually start the software double click on the Lightning Works Messenger icon. The application does not start in Admin mode to protect settings and personal data. The application will appear as in Figure 7-1.

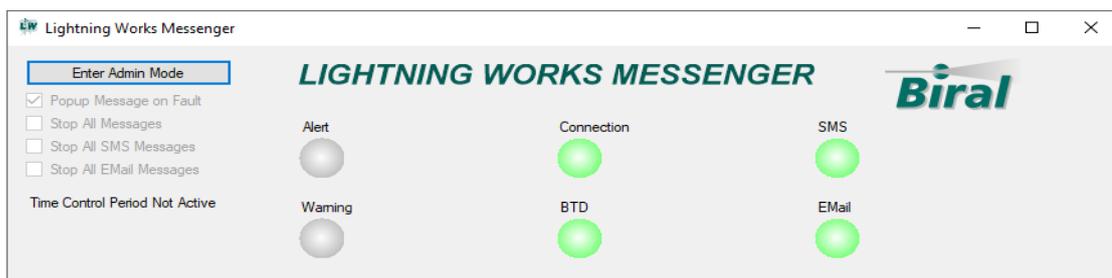


Figure 7-1 LWM Normal Mode

When the application initially starts all the indicators will be grey. The function of the indicators is explained below. No application controls are available until Admin mode is selected. To enter Admin mode, click on the "Enter Admin Mode" button, a dialog box will appear requesting a username and password.

Note: The Connection, BTM, SMS and Email indicators may take some time to change state when the application starts or a setting is changed. This is caused by the synchronisation of the BTM-200 system components and the response time of the SMS and email service providers.

7.2 Lightning Works Messenger Indicators

7.2.1 Alert

The Alert indicator may be in the following states:

- Grey No Alert, or too many clients, or BTM-200 not connected
- Flashing Red Alert active
- Solid Red Licence not activated

7.2.2 Warning

The Warning indicator may be in the following states:

- Grey No Warning, or too many clients, or BTD-200 not connected
- Flashing Red Warning active
- Solid Red Licence not activated

7.2.3 Connection

The Connection indicator shows the state of the connection between the Lightning Works Messenger and the Lightning Works Server. The following states are possible:

- Solid Green Connected to Lightning Works Server and BTD-200
- Flashing Green Messenger Connected to Server but BTD- 200 not connected
- Solid Red Maximum number of Clients exceeded
- Flashing Red No Server Connection

7.2.4 BTD

The BTD indicator shows the status of the BTD-200 and the connection from the Lightning Works Server to the BTD-200. The following states are possible:

- Solid Green BTD-200 connected and operational
- Flashing Green BTD-200 connected but not sampling
- Solid Red BTD-200 not connected to the Server, or Messenger not connected to Server, or licence not activated
- Flashing Red BTD-200 in fault condition

7.2.5 SMS

The SMS indicator shows the status of the connection between the Lightning Works Messenger and the SMS service provider. For the connection to be established the computer must be connected to the internet. The following states are possible:

- Grey SMS messaging disabled or system initialising
- Solid Green Connection with the SMS service provider established.
- Flashing Red Network error, no connection to SMS Service Provider
- Solid Red Permanent error, SMS service provider connection rejected

7.2.6 Email

The Email indicator shows the status of the connection between the Lightning Work Messenger and the email service provider. For the connection to be established the computer must be connected to the internet. The following states are possible:

- Grey Email messaging disabled or system initialising
- Solid Green Connection with the email service provider established.
- Flashing Red Network error, no connection to the email Service Provider
- Solid Red Permanent error, SMS service provider connection rejected

7.2.7 Configuration Indicators

In the top left section of the application window four check boxes and a single text line show the current message sending status. The meaning of the four check boxes and text line is as follows:

Popup Message on Fault	Check Box	When checked, the application jumps to the front of the desktop when a fault condition is detected
Stop All Messages	Check Box	When checked, no SMS or email messages will be sent
Stop All SMS Messages	Checkbox	When checked, no SMS messages will be sent. Email messages may be sent as usual
Stop All Email Messages	Checkbox	When checked, no email messages will be sent. SMS messages may be sent as usual
Time Control Period	Text Line	The time control period can be shown as active or not active. The text is highlighted when the time control period is active. When Time Control is active the sending of SMS and email messages is controlled by the Time Control setting of each Recipient

Note: When the sending of messages by SMS or email is disabled the associated indicator in the main program panel will be grey. SMS and email test messages may be sent even when normal messaging is disabled.

7.3 Activity Log

The Activity Log records important information about the operation of the Lightning Work Messenger and errors associated with connections to the BTM-200 and SMS and Email Service providers. The Activity Log may be useful in helping to diagnose reported errors.

The Activity Log is only available when in Admin mode. To view the Activity Log, click on the "Activity Log" tab.

The contents of the Activity Log will be retained when the application is closed, but only those entries generated since the application was last started are shown in the display area of the application.

All Activity Log entries for the last 30 days are retained. The content of the Activity Log can be exported as plain text using the "Export to File" button below the Activity

Log display area. A file dialogue window will appear to allow you specify the required file name and location, this will be followed by a dialogue box that allows the start and end dates to be specified.

The "Clear" button below the Activity Log display area clears the display. The information stored in the Activity Log is not cleared and may still be exported.

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