

Atmosorb

**Domestic ventilation system with heat
recovery and wired remote control**

Instructions for Use

To be left with the user

WARNING

SHEET METAL PARTS

This unit contains metal parts (components) and care should be taken when handling and cleaning, with particular regard to edges.

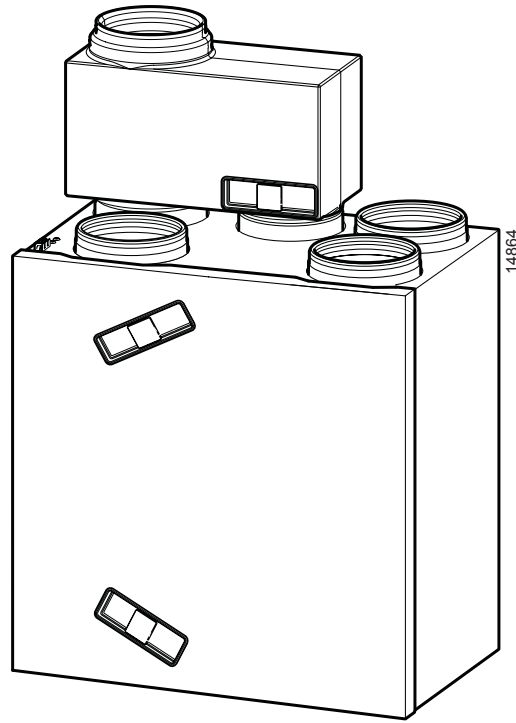
SEALED COMPONENTS

Under no circumstances must the User interfere with or adjust sealed parts.

Customer service call: 01773 596510 **Technical helpline:** 01773 828300
General and Sales enquiries Tel: 01773 824639 Fax: 01773 820569



HRD 275
HRD 350



CONTENTS

| | |
|---------------------------------------|----|
| Important Information | 5 |
| Ventilation/Heat Recovery Unit Design | 8 |
| Operating Instructions | 9 |
| Description | 10 |
| Operation | 11 |
| User Controls | 12 |
| Cleaning the Filters | 18 |

These instructions are an integral part of the appliance and must be left with the user.
Please read these instructions and follow them carefully for the safe and economical use of your boiler.

Important Information

Control of Substances Hazardous to Health

Under Section 6 of The Health and Safety at Work Act 1974, we are required to provide information on substances hazardous to health.

The adhesives and sealants used in this appliance are cured and give no known hazard in this state.

Electrical Connection

The unit **MUST** be earthed.

It **MUST** be connected to a permanent 230V ac, 50Hz supply.

Connection of the whole electrical system of the unit, including any heating controls, to the electrical supply must be through one common isolator and must be fused to 3 Amps maximum.

The colours of three core flexible cable are, blue - neutral, brown - live, green and yellow - earth.

The local mains power isolator must always be easily accessible.

Testing and Certification

The Atmosorb is tested and certificated for safety and performance. It is, therefore, important that no alteration is made to the unit, without permission, in writing, by Glow-worm. Any alteration not approved by Glow-worm, could invalidate the certification, unit warranty and may also infringe the current issue of the statutory requirements.

CE Label

The CE label shows that the Atmosorb ventilation unit complies with the basic requirements of the following directives and guidelines:

- Low-voltage Directive 73/23/EEC, modified with Directive 93/68/EEC.
- EMC-Directive 89/336/EEC, modified by the Directive 91/263/EEC, 92/31/EEC and 93/68/EEC.

Assembly and Installation

The installation of the device can only be carried out by a **competent person** approved at the time by the Health and Safety Executive who will be responsible for the correct installation and start-up.

The **competent person** approved at the time by the Health and Safety Executive, will also be responsible for the inspection and the corrective maintenance of the device as well as for the changes in the air flow adjustment.

If the system is used for ventilation in locations with room-dependent combustion equipment depending on the room air, the corresponding flue gas extraction systems must be checked and maintained by a trained technician. It is mandatory to prevent flue gas leakage from the combustion equipment.

Important Information

Operation

The Atmosorb can only be used if all ventilation pipes are connected and the unit is closed.

The Atmosorb unit must only be operated with the supplied filters installed. Regularly check whether the filters are dirty or damaged.

We recommend to visually check the filters every 6 months and to replace them every 12 months, or after 2000 operating hours at the latest. If the system is to be used for ventilation purposes in locations with room-dependent combustion facilities, the corresponding flue gas extraction systems must be checked and maintained by a **competent person** approved at the time by the Health and Safety Executive.

Do not modify:

- the unit,
- the outside air, fresh air, exhaust and discharge air ducts, the pipes for condensation water and the unit mains connection.

This also applies to alterations to structural elements in the vicinity of the unit which might affect its operational safety.

- do not obstruct the air inlets and outlets with doors, ceilings, windows and walls even temporarily. Do not cover the air inlets and outlets, e.g. with clothes or similar. When laying floor materials, do not block or reduce the vent apertures at the bottom of the doors.

To make alterations to the unit or to its environment, you must refer to the suitably qualified expert technician who is qualified to do this work.

Servicing

This product should be serviced regularly to optimise its safety, efficiency and performance. The service engineer should complete the relevant Service Record on the Benchmark Checklist after each service. The Benchmark Checklist may be required in the event of any warranty work and as supporting documentation relating to home improvements in the optional documents section of the Home Information Pack.

To ensure the continued efficient and safe operation of the boiler it is recommended that it is checked and serviced at regular intervals. The frequency of servicing will depend upon the site conditions and usage, but in general, once a year should be enough.

Only **competent persons** approved at the time by the Health and Safety Executive are authorised to execute repair and maintenance work (with the exception of replacing the filters). It is recommended that you carry out a visual inspection of the filters at least every 6 months and replace the filters every 12 months, or at least after 2,000 hours of operation.

To obtain service, please call your installer or Glow-worm's own service organisation using the telephone number on the inside front cover of this booklet.

Important Information

Cleaning

The Atmosorb casing can be cleaned using a mild liquid detergent with a damp cloth, then a dry cloth to polish.

Do not use any form of abrasive or solvent cleaner as you may damage the paintwork.

The filters on the Atmosorb or bypass, can be cleaned with a vacuum cleaner, DO NOT clean with water or any other liquid. See section "Cleaning the Filters".

Recycling and Disposal

The Atmosorb as well as the packaging, consist mainly of recyclable raw materials.

The filters used with the unit may be disposed of with the normal household waste.

Please ensure that the unit and the other accessories are disposed of properly, **DO NOT** dispose these with normal household waste.

Leave the disposal of the transport packaging to the qualified servicing company which installed your Atmosorb.

Ventilation/Heat Recovery Unit Design

Description

The domestic ventilation unit consists of a central ventilation appliance for air exchange with heat recovery and a remote control. For summer operation, you can obtain a bypass as an accessory. It can directly provide living rooms with cool external air whenever it is necessary. The external air flow bypasses the heat exchanger.

The unit is connected to an air ducting system, which is equipped with silencers, pre-filters, fresh-air and exhaust-air grilles and louvres.

Fresh air grilles supply fresh air to the living areas and stale moist air is extracted from the kitchen, bathroom and WC.

With the digital remote control the user is able to automatically switch and adapt the domestic ventilation unit power to their own requirements.

The unit ensures:

- A constant air exchange in the building.
- The hygienic minimum air exchange in accordance with UK building regulations Part F.
- Energy savings thanks to high efficiency heat recovery.
- A high hygiene standard due to the prevention of humidity and mould damages of the building.

The exact model description of the unit is to be found on the identification plate positioned below the unit.

Electrical Supply Failure

The appliance will not work without an electrical supply and normal operation should resume when the electrical supply is restored.

If the appliance does not resume normal operation, proceed in accordance with the fault finding table in this document. In case it is not possible to eliminate the fault contact Glow-worm's own service organisation using the telephone number on the inside front cover of this booklet.

Operating Instructions

Intended Use

The Glow-worm domestic ventilation units are built and designed according to accepted safety rules and regulations. Nevertheless, improper use can cause serious or fatal injury to the user or others, and the appliance or other property can be damaged.

This device is not designed to be used by persons (including children) unless they are supervised by someone who is responsible for their safety or have been instructed how to use the device.

Children must be supervised to ensure they do not play with the unit.

The domestic ventilation unit must have been installed by a **competent person** approved at the time by the Health and Safety Executive, who is responsible for the observance of the existing regulations, rules and guidelines.

Due to high level of dust, operation during the construction phase is not allowed.

The domestic ventilation units are specifically designed for the ventilation of residential spaces. The remote control including the operating mode selector and the timer must only be used for controlling the domestic ventilation unit as described in these instructions; it is not designed for any other purpose.

Any other or additional use is considered to be improper. The domestic ventilation unit is not suitable for ventilating swimming pools.

The manufacturer/supplier shall not be responsible for any damages resulting from such improper use.

The user alone bears the risk.

Intended use includes observing the operating and installation manual and all other applicable documents, as well as adhering to the maintenance and inspection conditions.

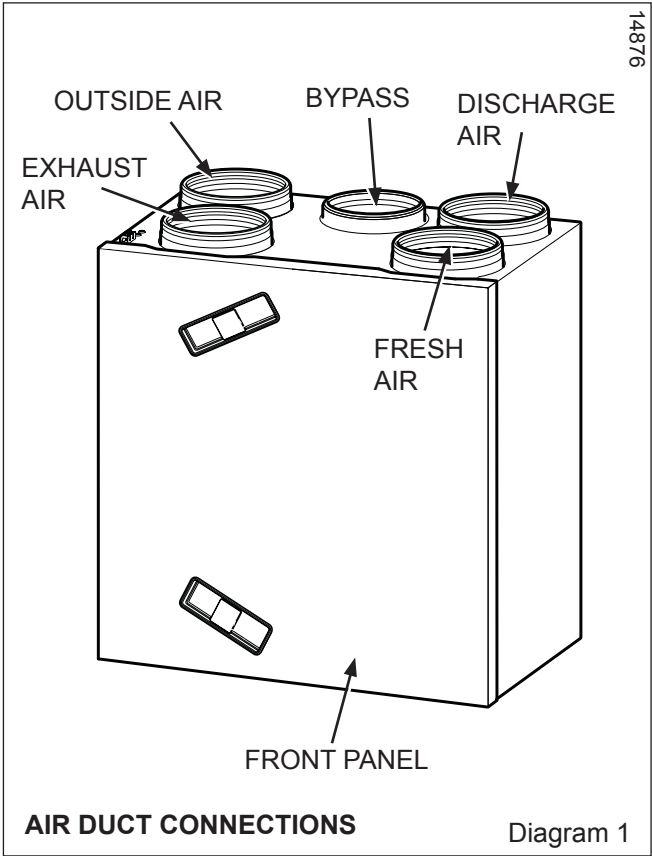
Energy Saving

Although this unit is used to increase comfort and energy savings, it is possible to maximise energy savings if you observe the following.

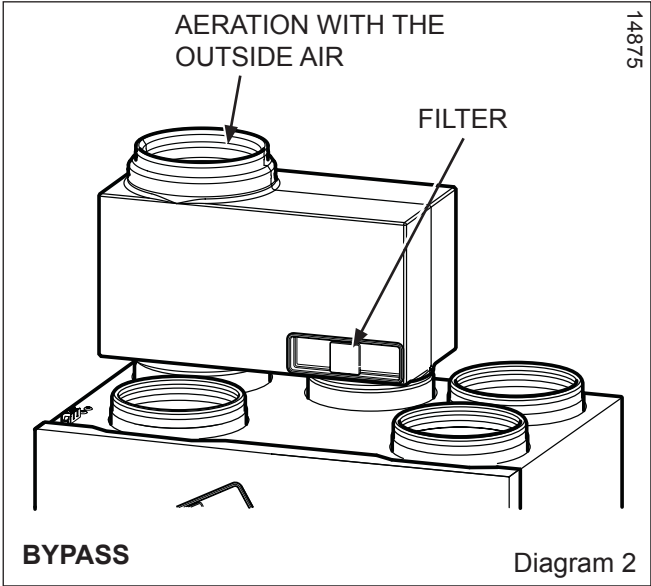
At low ambient temperatures below the room temperature, you will reach the maximum energy saving if you keep the windows closed and ensure the necessary air exchange by the operation of the domestic ventilation unit.

Venting the room is always possible by opening the windows.

Description



| Designation | Explanation |
|---------------|---------------------------------------|
| Fresh air | From the Atmosorb to the living room |
| Exhaust air | From the living space to the Atmosorb |
| Outside air | From outside to the Atmosorb |
| Discharge air | From the Atmosorb to outside |



Operation

Bypass (optional)

The Atmosorb can be equipped with a bypass, which is fitted on the top of the device, see diagram 2.

With a bypass installed the user may operate the so-called "free cooling mode" during the summer months with the outside temperature falling below room temperature during the night. The cooler outside temperature will not be warmed by the device before it was blown into the room. To protect the bypass valve from dirt, we recommend an outside air filter of the filter class at least G3. The filter is installed on site into the outside air duct, possibly close to the air inlet.

Switching on and off

The Atmosorb is supplied with electrical power via a 230 V mains line.

- Insert the mains plug into the 230-V socket.

The electronics of the ventilation appliance is starting. The display shows the unit type (display "275 or 350") and then, after about 3 seconds, the indication switches to the basic display.

- To switch off the unit, pull the mains plug out of the plug socket. Using the "off" menu point on the remote control switches the unit to the lowest fan speed. To set the remote control to the off position, press "mode" and then the "+" button until "off" is displayed.

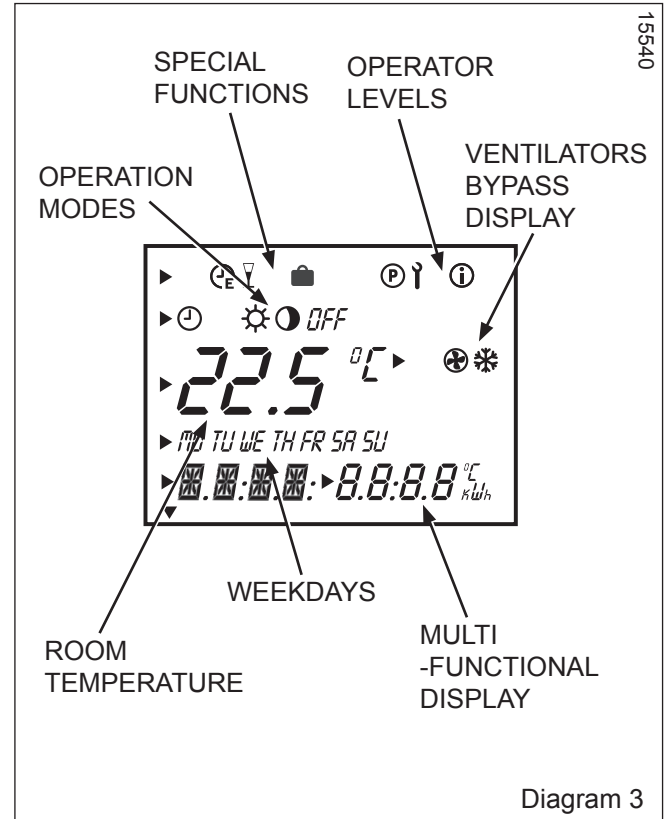
Functional Overview of the Digital Remote Control

The Atmosorb is equipped with a digital remote control to operate the unit.

The remote control allows you to set various operating programs. In addition, you can set special functions as well as a time-controlled function of the ventilation unit, please see the "User Controls" section.

User Controls

| Symbol | Meaning |
|-----------------------------|------------------------------------------------------------------------------------------------------|
| | Special function - Energy-saving |
| | Special function - Advance |
| | Special function - Holidays |
| | Static: 2nd fan stage (day mode) Flashing: 3rd fan stage (HIGH) Off: 1. fan stage (night mode) |
| | Static: Cooling required Flashing: Bypass open (summer mode) Off: Bypass not fitted or closed |
| | Automatic mode |
| | Day mode (2nd fan stage) |
| | Night mode (1st fan stage) |
| <i>OFF</i> | Mode with fan stage holidays (minimum) |
| <i>22.5 °C</i> | Actual room temperature |
| <i>MO TU WE TH FR SA SU</i> | Day of week |
| | Multi-function display left (time ...) |
| <i>8.8.8.8</i> | Multi-function display right (KWh) |
| | Information level |
| | Time programming level |
| | Installer level |
| | Service/diagnostic level |



User Controls

15641

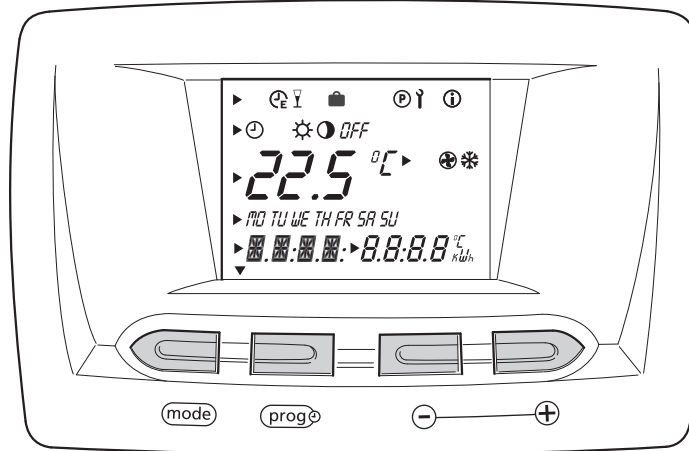


Diagram 4

From the basic display you can select and change the major functions by pressing the "mode" button and then the - or + buttons to change their values. By pressing the "mode" button you can move from one menu item to another.

Press the "mode" button until you have reached the desired function/menu. Press the - or + buttons to achieve the desired value.

NOTE: After the necessary settings have been made, no confirmation is required.

10 seconds after the last input the indicated function is automatically activated and then the display returns to the basic display.

Press "mode" in order to change the operating mode. You can select the following settings using the - or + buttons:

☀ Day mode:

Irrespective of the time programme the remote control switches the fans into day mode: high fan.

🌙 Night mode:

Irrespective of the time programme the remote control switches the fans into night mode: low fan.

User Controls

🕒 **Automatic operation:**

The change between the day and night operation occurs automatically. Additionally, the current operating mode is displayed.

OFF **Minimum operation:**

Irrespective of the time programme the remote control switches the fans into the lowest stage.

Press "mode" twice.

Fan stage 3

Display shows: HIGH.

Press - or + in order to set the period of time. The 3rd fan stage is active at this time. You can have a 0 to 24 hrs boost, use the - or + buttons to set.

To deactivate this function, set the period of time to "0.0".

Press "mode" three times.

Bypass in stand-by

Display shows: COOL

If the bypass unit is not fitted, this menu point will not show.

Press - or + to set the number of days between 0 and 60, during which the bypass shall be in stand-by mode. Under the correct temperature conditions the bypass engine switches to summer mode.

Check and setting of the time

Press "mode" several times in order to select days of the week, hours and minutes as required. The selected category flashes in the display.

Press - or + to change days of the week, hours and minutes.

Check and reset of the filter timer

Press "mode" six times.

Display shows: FILT

The timer indicates the number of days after the last reset since the filter has been used.

Press "mode"

Return to basic display

If no new setting is executed for more than 10 seconds, the display will automatically return to the basic display.

User Controls

Programming of the Clock Timer

With the programming button you can change the times for the timer mode. With activated timer function, Atmosorb will switch between the first and the second stage (time-controlled).

- Outside the time window: Stage 1 = 🌙 night mode
- Within the time window: Stage 2 = ☀️ day mode

It is possible to set up to three different switching-on and -off times (time windows) for each day of the week. In the display of the remote control these time windows are shown as: **H1**, **H2** or **H3**.

You can combine individual days in groups or a week block. The following groups are possible:
MO - FR; SA - SU; MO - SU.

The operating times are set as follows, refer to diagram 4 for the layout of the control panel:

- From the basic display, press the "mode" button several times until a flashing **H1** is displayed.
- Select the time window, **H1**, **H2** or **H3** using the - and + buttons.
- Press the "prog" button to select day or a week block, press the - or + to change the flashing value.

- Press the "prog" button again to show the starting time, press the - or + to change the flashing value. Do this for hours then minutes. Press "prog" to change from hours to minutes.
- Press the "prog" button again to show the end time, press the - or + to change the flashing value.
- Terminate programming of the operating time by pressing the "mode" button.

Factory-set operating times are:

| Time window | Day of the week/Block | Start time | End time |
|-------------|-----------------------|------------|----------|
| H1 | MO-FR | 6:00 | 22:00 |
| H1 | SA | 7:30 | 22:30 |
| H1 | SU | 7:30 | 22:00 |

NOTE: Within the programming level you can navigate with the "mode" and - or + push buttons.

With the "mode" : you can change within one programming level from one menu item to the other. Push the mode button several times in order to reach the desired function. The parameter you want to change is flashing and an indication arrow appears.

With the - or + : you can change the flashing value.

User Controls

Special functions

From the basic display you select the function by pressing the "prog" button.

NOTE: After the necessary settings have been made, no confirmation is required 10 seconds after the last input the indicated function is automatically activated and then the display returns to the basic display.

By pressing the "prog" button once you can also deactivate an active special function.

The deactivation takes 2 seconds.

By selecting another special function the currently activated special function is terminated.

It is only possible to operate one special function at a time.

Energy-saving function:

With the energy-saving function the activated fan stage is set to night mode for a limited period of time. You can alter the period in hours and minutes (minimum 2:30 h). Then the remote control switches back to the timer mode.

Advance function:

The advance function is used to alter the set timer program and activate day mode. The function will remain activated till the next programmed switch-over to day mode starts.

Holiday function:

If you select the holiday function, the fan stage is set to a minimum value for a period (in days) of up to 99 days.

At 0:00 hours (midnight), a day is subtracted from the period of days you have chosen.

User Controls

Information Level

Press and hold the "prog" button to reach the info level. In addition to identifying the controller, the information level is used to quickly and easily check the set operating times. Each time window may be individually opened.

To return to the basic display press and hold the "prog" button.

To scroll through the information levels press "prog", the information will be displayed as follows:

- **HRD 275/350**

Displays the unit type.

- **FILT**

Filter days

Indication of number of days that the filter has been operated since the last filter reset.

- **AIR**

Current air flow supply in m³/h.

- **BYP**

Display of the fresh air temperature in oC, if a bypass has been installed.

- **DATE**

The current date is displayed.

Prerequisite is to activate the calendar first.

- **H1, H2 and H3**

Timer settings.

Cleaning the Filters

Continued efficient operation, reliability and a long service life as well as safety, require inspections and maintenance work to be regularly carried out by a **competent person** approved at the time by the Health and Safety Executive and on an annual basis.

We recommend making a maintenance agreement. The operational reliability of the device can be impaired, resulting in damage to property or personal injury, if maintenance work is not carried out.

You, as the owner or user, may execute the following maintenance work yourself:

- Clean and replace the filters in the domestic ventilation unit.
- Clean and replace the filter in the bypass casing (if used).
- Clean the fresh air or exhaust air valves in the living space.
- Reset the time interval for filter replacement in accordance with section "User Controls"

It depends on the contamination levels how often the filters must be cleaned or replaced. We recommend to regularly check the filters during the initial operational period and assess the need to clean them, e.g. every three months. If you then feel that the filters are only slightly contaminated or dirty, you may extend the interval.

NOTE: Replace the filters at least once a year or after a maximum of 2000 operating hours.

You can clean the filters with a vacuum cleaner. If this is not enough, the filters must be replaced.

DO NOT clean the filters with water or other liquids.

Dispose of the used filters with the domestic waste.

Cleaning or Replacing the Filter

To check and clean the filters, please proceed as follows:

- Unplug the Atmosorb from the mains.
- Pull the filter out of the unit.
- Remove the filter handles from the filters.

NOTE: Before inserting the filters, please ensure the correct positioning in order to avoid damaging the filters.

- Position the filter handles on the clean or new filters.

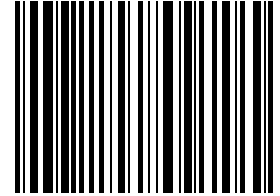
On the one side, the filter handles are fitted with guides which must be pushed into the grooves in the unit.

- The upper filter of the Atmosorb and the bypass filter are mounted with these guides pointing to the bottom.
- The lower filter is mounted with the guide pointing to the top.
- Push the filters back into the unit.
- To operate, plug the mains plug back into its socket.

There are fine filters available as well as the standard filters:

| Description | Filter class | Ordering number |
|--------------------|--------------|-----------------|
| Filter set | G3 | 0020023930 |
| Filter Bypass | G3 | 0020023931 |
| Fine filter set | F6 | 0020026061 |
| Fine filter Bypass | F6 | 0020026118 |

If you intend to use these filters, please contact an expert technician.



0020088554

Because of our constant endeavour for improvement, details may vary slightly from those shown in these instructions.

Glow-worm, Nottingham Road, Belper, Derbyshire. DE56 1JT

0020088554-01 08.09