

# RWB9 Programmer

**Programming for daily operation  
(ie same times each day)**

**NB: These units are not suitable for control of immersion heaters.**

## Installation and configuration

1. First remove the backplate from the RWB9 by undoing the two small screws at the base of the unit and lift out from the bottom so that the two lugs at the top disengage from their positions. Turn unit over and dip switches and battery tray are on reverse. Select operating style with dip switches refer to section 8.

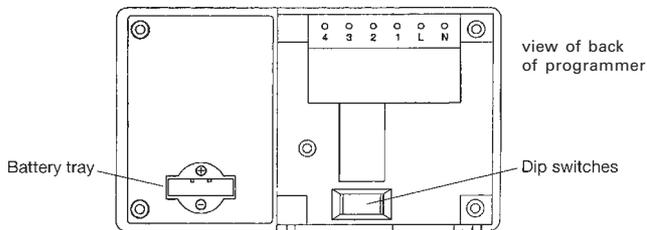


Fig. 1

### Technical Data RWB9

Supply	200/240V 50 Hz
Power consumption	50 mA
Contact rating	6A (resistive) 2A (inductive). Total switching 10 amps
Ambient temperature range	0 to 40°C
Environmental humidity	80% RH
Housing	Fire-retardant ABS material

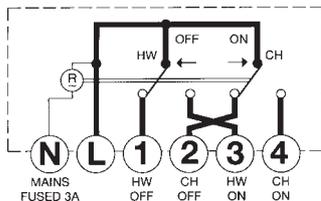
### 2. Mounting location

To ensure convenience of use, the RWB9 should be fitted in a position which allows easy access. It is recommended that the unit is placed at a height of 1.4 metres from the floor, and should not be installed where either extremes of heat or cold exist. Care should also be taken to ensure that steam, water or oil cannot splash onto or enter either the RWB9 or its backplate.

### 3. Backplate

The RWB9 is supplied with the industry standard backplate to which the system must be wired. The backplate can be fitted directly to the wall or onto a conduit box. Only conduit boxes which comply with BS1363 or BS4662 (single gang) should be used.

### 4. Programmer internal wiring diagrams



**The mains supply must be isolated before replacing an existing programmer, failure to do so could cause damage to the RWB9 and will invalidate all warranty claims.**

Line voltage is present on terminals 3 and 4 when the programmer is in the ON position for Hot Water (HW) and Central Heating (CH), and on terminals 1 and 2 when it is in the OFF position. Terminals N, L, 1, 2, 3 and 4 connect the controls for hot water and central heating applications. (For more information see separate wiring and interchange sheet).

**Note:** All external wiring must comply with current IEE regulations. Wiring of this unit should be carried out by a qualified electrician. Whilst every effort is made to ensure the accuracy of the instructions given, discrepancies may occur due to a variety of reasons outside our control. If, after wiring your system, you should find that it does not work properly you should:

- Check you have used the correct wiring system and wired it correspondingly.
- Check with the Technical Help line - there may be a simple explanation.

(Technical Help Line: 01952 602048 Mon - Fri 9am - 5pm)

5. Prior to installing onto the backplate, insert the battery into the battery tray (see Fig. 1) and ensure that positive + and negative - are correctly installed. The battery is a non-rechargeable lithium cell and in the event of power failure will protect your programme instructions for up to 365 continuous days of power loss.

6. Next select the mode of system control, ie gravity, hot water with pumped radiator circuit (10 mode) (in this case it is not possible to have heating only), or fully pumped with either mid position or zone valves controlling the circulation (16 mode). Please note the factory setting is 16 mode, to alter this simply move dip switch no. 5 down to the 10 setting.

7. The RWB9 is factory set to provide 2 on/off switching times per day in the 16 (fully pumped) mode and each day will be the same, ie daily operation. To select the other styles of switching you will have to alter the dip switches which are to be found at the bottom rear of the unit into the relevant position for the style of operation you require.

**NB: Press RESET after any dip switch change, using ball point pen or similar.**

RESET button will be found on the front of the unit under the flap.

### 8. Your operation styles are:

RWB9	Dip switch configurations				
Please note black bar shows position of dip switch, eg daily with two ON/OFF and 16 mode, dip switch 1 and 5 up, 2 to 4 down.	1	2	3	4	5
Daily with 2 on/off switching per 24 hr period (factory setting).					
Daily with 3 on/off switching per 24 hr period.					
16 mode (fully pumped HW & CH).					
10 mode (gravity HW pumped CH).					

**Black area shows position of switches.**

9. Once you have completed the above you are ready to connect the RWB9 to the backplate.

When replacing a Landis & Gyr or Landis & Staefa product as listed below, no wiring changes are required (except RWB20 backplate which may require the addition of a neutral connection).

RWB1, RWB2, RWB20, RWB40, RWB200, RWB200cw, RWB252, RWB252cw, RWB270, RWBXP. Gloworm Mastermind, Potterton Miniminder, Sankey Sunline.

### 10. Fitting the unit to the backplate

With the backplate installed and the dip switches positioned for your style of operation you can now locate the programmer onto its backplate. Tilt the bottom of the case away from the wall, locate the two slots in the top of the case over the two tabs at the top of the backplate. Push the bottom of the case towards the wall, slotting the two backplate screws into the bottom of the case and tighten the screws. Turn the power on, the display will then be lit and indicator lights will flash momentarily, you are now ready to commence programming.

#### Preset factory settings:

2 on/off 6.30 am to 8.30 am and 4.30 pm to 10.30 pm

3 on/off 6.30 am to 8.30 am, 12.00 pm to 2 pm and 4.30 pm to 10.30 pm

The above times are the same for all operating styles.

## Programming for daily operation (ie same times each day)

When switching the programmer on for the first time, or after pressing RESET, the status of the dip switches is displayed  
**2P 16 – (2P 2 ON/OFF periods – (16 fully pumped).**

**NB:** This is the standard factory style.

Drop the bottom door flap and with a ball-point pen or similar object, press the small Reset button to the right of the time adjustment button. The display will show the current states of the dip switch setting you have chosen:

**2P 10:** 2 programs per day, 10 mode

**3P 10:** 3 programs per day, 10 mode

**2P 16:** 2 programs per day, 16 mode

**3P 16:** 3 programs per day, 16 mode

**Mo Tu We Th Fr Sa Su:** Means all days are set to the same program

If while entering a switching time the word LIMIT should appear in the display you have tried to enter a switching programme that is not possible.

ie 1 ON 8.40AM

1 OFF 8.30AM

**When first time programming or after pressing the Reset button, you must first set the clock time before you can enter any programme times.**

### 1.1 Altering the clock

Move the vertical slider switch on the left, up to SET TIME, the time will flash. Now press either TIME+ or TIME- buttons to set the correct time. (Holding down the respective button will make the clock change at a fast speed.)

Once the correct time has been reached YES/NO appears. To store this time press YES and YES/NO will now disappear from the display.

Move the vertical slider switch back to RUN, thus completing the clock setting.

For Winter/Summer time changes **DO NOT PRESS RESET** follow normal operation above.

### 1.2 Changing the switching times (fully pumped systems) 16 mode with independant HW and CH switchings

To alter the switching times move the vertical slider switch to SET PRG. The display will now show CH YES/NO flashing.

Press YES - Display now shows ON 1 CH static, with 06.30 AM flashing.

**1.3** Using TIME+, TIME- buttons, adjust to required time setting (10 minute increments). Press YES to store and move onto next switching time.

**1.4** Repeat as in 1.3 to set remaining switching times.

You have now entered your programme times for your central heating.

The display shows HW and YES/NO flashing, and CH and COPY? static.

Press YES if you want the HW times to be identical to the CH times, press NO if you want different HW times - display shows HW 1 ON static and 6.30 AM flashing. Now set switching times for hot water HW as in 1.3.

**1.5** Having completed the above the display will show CH YES/NO flashing, you have completed your programming. Now move the vertical switch to RUN. The correct time of day will now display along with two small bars on the left and right of your screen which point to your programme selection (switching patterns).

Initially these bars will show against OFF and you must now make your selection of switching patterns - see **Selecting Switching Patterns.**

### 1.6 Changing the switching times (gravity HW pumped CH systems) (10 mode) note: CH is not available without HW.

To alter the switching times move the vertical slider switch to SET PRG. Display shows HW CH YES/NO flashing. Press YES display now shows HW 1 ON, ON 1 CH static and 6.30 AM flashing. To set combined switching times use the TIME+, TIME- buttons, adjust to required time setting (10 minute increments). Press YES to store and move onto next switching time and repeat through each switching time after entering your last OFF. HW, CH and YES/NO flash again, you have completed your programming. Now move the vertical switch to RUN. The correct time of day will now display along with two small bars on the left and right of your screen which point to your programme selection (switching patterns).

HW ON a gravity system. HW must always be ON if CH is required.

	ON	OFF	
HW	6.20AM	8.30AM	<b>X</b>
CH	6.00AM	8.30AM	
if you attempt to do this, LIMIT will appear.			
	ON	OFF	
HW	6.00AM	8.30AM	<b>✓</b>
CH	6.20AM	8.30AM	

## Selecting switching patterns

These are the various styles of switching available to you by use of the following buttons:

- AUTO** - Programmer will operate across ALL programmed switching times.
- OFF** - Always off - only + 1hr. operative.
- ON** - Constant On. Never Off.
- ONCE** - From first On to last Off.

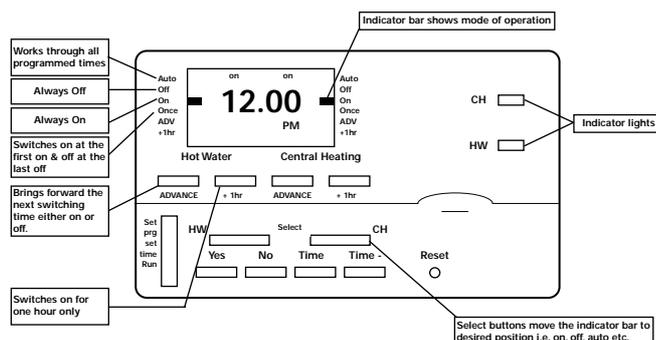
**ADV (Advance)** - Only operates in AUTO or ONCE. Pressing **ADV** brings forward the next automatic switching time, eg from an ON time to the next OFF time and will automatically cancel at next switching time. **If you wish to cancel Advance push ADV again.** When Advance is in operation a black bar shows against **ADV** in the display.

**+ 1hr. (also known as 'boost')** - This button when pressed will either bring the unit on one hour if OFF, or extend by one hour in ON. To cancel just press **+ 1hr.** again. When **+ 1hr.** is in operation a black bar shows against **+ 1hr.** in the display. Please note **+ 1hr.** will also work when the unit is in any OFF position.

### AUTO, OFF, ON, ONCE

To select the four positions listed above, push the buttons marked Select HW or CH located under the flap until the black bar for either the CH or HW systems are adjacent to your switching demands.

If you have set your programmer for 10 mode operation, ie gravity hot water with pumped central heating - **please note the following** - the system needs HW to be available for the CH to operate. The programs automatically adjust for this. Selecting AUTO, ON or ONCE for CH will automatically change the HW position to allow the central heating to operate. The RWB9 is fitted with 2 red LED's which will light only when the relevant relay is on, ie only when the central heating or hot water are on. If the HW is set to OFF, it will automatically set the CH to OFF as well and **no** central heating will be available.



# RWB9 Programmer

## Programming for 5 day/2 day operation (ie weekday/weekend)

**NB: These units are not suitable for control of immersion heaters.**

### Installation and configuration

1. First remove the backplate from the RWB9 by undoing the two small screws at the base of the unit and lift out from the bottom so that the two lugs at the top disengage from their positions. Turn unit over and dip switches and battery tray are on reverse. Select operating style with dip switches refer to section 8.

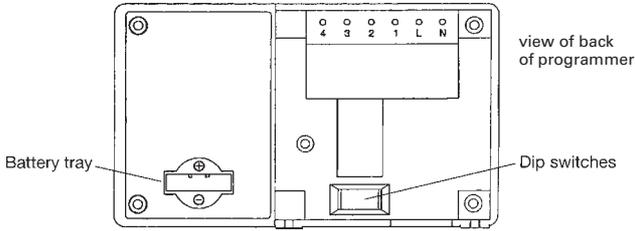


Fig. 1

#### Technical Data RWB9

Supply	200/240V 50 Hz
Power consumption	50 mA
Contact rating	6A (resistive) 2A (inductive). Total switching 10 amps
Ambient temperature range	0 to 40°C
Environmental humidity	80% RH
Housing	Fire-retardant ABS material

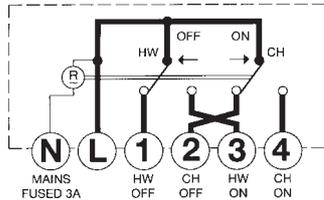
### 2. Mounting location

To ensure convenience of use, the RWB9 should be fitted in a position which allows easy access. It is recommended that the unit is placed at a height of 1.4 metres from the floor, and should not be installed where either extremes of heat or cold exist. Care should also be taken to ensure that steam, water or oil cannot splash onto or enter either the RWB9 or its backplate.

### 3. Backplate

The RWB9 is supplied with the industry standard backplate to which the system must be wired. The backplate can be fitted directly to the wall or onto a conduit box. Only conduit boxes which comply with BS1363 or BS4662 (single gang) should be used.

### 4. Programmer internal wiring diagrams



**The mains supply must be isolated before replacing an existing programmer, failure to do so could cause damage to the RWB9 and will invalidate all warranty claims.**

Line voltage is present on terminals 3 and 4 when the programmer is in the ON position for Hot Water (HW) and Central Heating (CH), and on terminals 1 and 2 when it is in the OFF position. Terminals N, L, 1, 2, 3 and 4 connect the controls for domestic hot water and central heating applications. (For more information see separate wiring and interchange sheet).

**Note:** All external wiring must comply with current IEE regulations. Wiring of this unit should be carried out by a qualified electrician. Whilst every effort is made to ensure the accuracy of the instructions given, discrepancies may occur due to a variety of reasons outside our control. If, after wiring your system, you should find that it does not work properly you should:

- Check you have used the correct wiring system and wired it correspondingly.
- Check with the Technical Help line - there may be a simple explanation.

(Technical Help Line: 01952 602048 Mon - Fri 9am - 5pm)

5. Prior to installing onto the backplate, insert the battery into the battery tray (see Fig. 1) and ensure that positive + and negative - are correctly installed. The battery is a non-rechargeable lithium cell and in the event of power failure will protect your programme instructions for up to 365 continuous days of power loss.

6. Next select the mode of system control, ie gravity, hot water with pumped radiator circuit (10 mode) (in this case it is not possible to have heating only), or fully pumped with either mid position or zone valves controlling the circulation (16 mode). Please note the factory setting is 16 mode, to alter this simply move dip switch no. 5 down to the 10 setting.

7. The RWB9 is factory set to provide 2 on/off switching times per day in the 16 (fully pumped) mode and each day will be the same, ie daily operation. To select the other styles of switching you will have to alter the dip switches which are to be found at the bottom rear of the unit into the relevant position for the style of operation you require.

**NB: Press RESET after any dip switch change, using a ball point pen or similar.**

RESET button will be found on the front of the unit under the flap.

### 8. Your operation styles are:

RWB9	Dip switch configurations				
Please note black bar shows position of dip switch, eg daily with two ON/OFF and 16 mode, dip switch 1 and 5 up, 2 to 4 down.	1	2	3	4	5
5 Day/2Day with 2 on/off switching per day.					
5 Day/2Day with 3 on/off switching per day.					
16 mode (fully pumped HW & CH).					
10 mode (gravity HW pumped CH).					

Black area shows position of switches.

9. Once you have completed the above you are ready to connect the RWB9 to the backplate.

When replacing a Landis & Gyr or Landis & Staefa product as listed below, no wiring changes are required (except RWB20 backplate which may require the addition of a neutral connection).

RWB1, RWB2, RWB20, RWB40, RWB200, RWB200cw, RWB252, RWB252cw, RWB270, RWBXP. Gloworm Mastermind, Potterton Miniminder, Sankey Sunline.

### 10. Fitting the unit to the backplate

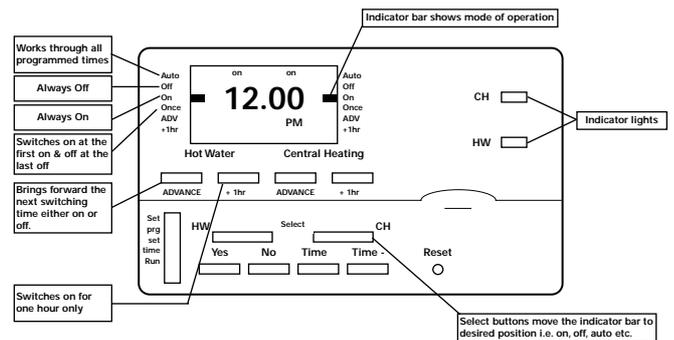
With the backplate installed and the dip switches positioned for your style of operation you can now locate the programmer onto its backplate. Tilt the bottom of the case away from the wall, locate the two slots in the top of the case over the two tabs at the top of the backplate. Push the bottom of the case towards the wall, slotting the two backplate screws into the bottom of the case and tighten the screws. Turn the power on, the display will then be lit and indicator lights will flash momentarily, you are now ready to commence programming.

#### Preset factory settings:

2 on/off 6.30 am to 8.30 am and 4.30 pm to 10.30 pm

3 on/off 6.30 am to 8.30 am, 12.00 pm to 2 pm and 4.30 pm to 10.30 pm

The above times are the same for all operating styles.



## Programming for 5/2 day operation (ie weekdays different to week-ends)

**NB:** If you have selected this style of operation for the first time, **you must** press the Reset button before making any entries.

When switching the programmer on for the first time, or after pressing RESET, the status of the dip switches is displayed.

**2P 16 – (2P 2 ON/OFF periods – (16 fully pumped)).**

**NB:** This is the standard factory style.

Drop the bottom door flap and with a ball-point pen or similar object, press the small Reset button to the right of the time adjustment button. The display will show the current states of the dip switch setting you have chosen:

**2P 10:** 2 programs per day, 10 mode

**3P 10:** 3 programs per day, 10 mode

**2P 16:** 2 programs per day, 16 mode

**3P 16:** 3 programs per day, 16 mode

**Mo Tu We Th Fr/Sa Su:alternately:** Means weekday/weekend programming is selected

If while entering a switching time the word LIMIT should appear in the display you have tried to enter a switching programme that is not possible.

ie 1 ON 8.40AM  
1 OFF 8.30AM

**When first time programming or after pressing the Reset button, you must first set the clock time before you can enter any programme times.**

### 2.1 Altering the clock

Move the vertical slider switch on the left up to SET TIME and Mo will flash. If today is Monday press YES, if not then press NO repeatedly until the correct day is displayed. Then press YES.

Now the time will flash. Press either TIME+ or TIME- buttons to set the correct time. (Holding down the respective button will make the clock change at a fast speed.)

Once the correct time has been reached YES/NO appears. To store this time press YES and YES/NO will now disappear from the display.

Move the vertical slider switch back to RUN, thus completing the clock setting.

For Winter/Summer time changes **DO NOT PRESS RESET** follow normal operation above.

### 2.2 Changing the switching times (fully pumped systems) 16 mode with independent HW and CH switching

To alter the switching times move the vertical slider switch to SET PRG. The display will now show - Mo, Tu, We, Th, Fr YES/NO flashing.

Press YES twice to set CH switching times for Monday to Friday. Display shows ON 1 CH static, 6.30 AM flashing.

Using TIME+, TIME- buttons, adjust to required time setting (10 minute increments). Press YES to store and move onto next switching time and repeat for each switching operation.

You have now entered your programme times for the Central Heating.

The display now shows HW and YES/NO flashing and Mo-Fr, CH and COPY? static. The answer to COPY must be NO to produce independent time switchings. AND YES for same time settings HW and CH.

IF NO. Display shows HW 1 ON, Mo-Fr static and a time flashing. Now set switching times for HW by repeating as for CH above.

On completion of the above, display shows Mo-Fr, COPY? static and Sa-Su flashing. To enter different times for Saturday/Sunday Press NO. Display now reads YES/NO Sa-Su flashing. Press YES twice, and repeat as previous instructions for Mo-Fr CH switching times for the weekend.

Press NO to set HW switching times for the weekend, and repeat previous instructions for Mo-Fr switching times for the weekend.

Having completed the above, the display will show either Mo-Fr YES/NO alone flashing or with COPY? Sa-Su static, you have completed your programming. Now move the vertical switch to RUN. The correct time and day will now display along with two small bars on the left and right of your screen which point to your programme selection (switching patterns).

Initially these bars will show against OFF and you must now make your selection of switching patterns - see **Selecting Switching Patterns**.

### 2.3 Changing the switching times (gravity HW, pumped CH systems) (10 mode)

To alter the switching times move the vertical slider switch to SET PRG.

**2.4** The display will now show Mo-Fr YES/NO flashing. Press YES. Display shows HW 1 ON, ON 1 CH, Mo-Fr static and 6.30 AM flashing.

**2.5** To set combined switching times use the TIME+, TIME- buttons, adjust to required time setting (10 minute increments). Press YES to store and move onto next switching time and repeat through each switching time.

**2.6** Display now shows Mo-Fr COPY? static with Sa-Su flashing. Press NO to enter different times for Sat/Sunday. Display now shows YES/NO Sa-Su flashing. Press YES twice. Display now shows HW 1 ON, ON 1 CH, Sa-Su static, 6.30 AM flashing. Now refer to **2.5** to enter times.

HW ON a gravity system. HW must always be ON if CH is required.

ie.		ON	OFF	
	HW	6.20AM	8.30AM	<b>X</b>
	CH	6.00AM	8.30AM	
	if you attempt to do this, LIMIT will appear.			
		ON	OFF	
	HW	6.00AM	8.30AM	<b>✓</b>
	CH	6.20AM	8.30AM	

**2.8** Having completed the above the display will show either Mo-Fr YES/NO alone flashing, or with COPY? Sa-Su static, you have completed your programming. Now move the vertical switch to RUN. The correct time and day will now display along with two small bars on the left and right of your screen which point to your programme selection (switching patterns).

Initially these bars will show against OFF and you must now make your selection of switching patterns.

## Selecting Switching Patterns

These are the various styles of switching available to you by use of the following buttons:

- AUTO** - Programmer will operate across ALL programmed switching times.
- OFF** - Always off - only + 1hr. operative.
- ON** - Constant On. Never Off.
- ONCE** - From first On to last Off.

**ADV (Advance)** - Only operates in AUTO or ONCE. Pressing **ADV** brings forward the next automatic switching time, eg from an ON time to the next OFF time and will automatically cancel at next switching time. **If you wish to cancel Advance push ADV again.** When Advance is in operation a black bar shows against **ADV** in the display.

**+ 1hr. (also known as 'boost')** - This button when pressed will either bring the unit on one hour if OFF, or extend by one hour in ON. To cancel just press **+ 1hr.** again. When **+ 1hr.** is in operation a black bar shows against **+ 1hr.** in the display. Please note **+ 1hr.** will also work when the unit is in any OFF position.

### AUTO, OFF, ON, ONCE

To select the four positions listed above, push the buttons marked Select HW or CH located under the flap until the black bar for either the CH or HW systems are adjacent to your switching demands.

If you have set your programmer for 10 mode operation, ie gravity hot water with pumped central heating - **please note the following** - the system needs HW to be available for the CH to operate. The programs automatically adjust for this. Selecting AUTO, ON or ONCE for CH will automatically change the HW position to allow the central heating to operate. The RWB9 is fitted with 2 red LED's which will light only when the relevant relay is on, ie only when the central heating or hot water are on.

# RWB9 Programmer

**Programming for 7 day operation  
(ie every day different)**

**NB: These units are not suitable for control of immersion heaters.**

## Installation and configuration

1. First remove the backplate from the RWB9 by undoing the two small screws at the base of the unit and lift out from the bottom so that the two lugs at the top disengage from their positions. Turn unit over and dip switches and battery tray are on reverse. Select operating style with dip switches refer to section 8.

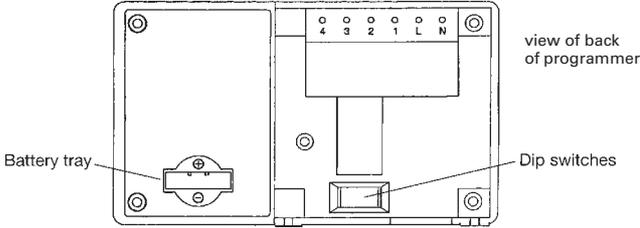


Fig. 1

### Technical Data RWB9

Supply	200/240V 50 Hz
Power consumption	50 mA
Contact rating	6A (resistive) 2A (inductive). Total switching 10 amps
Ambient temperature range	0 to 40°C
Environmental humidity	80% RH
Housing	Fire-retardant ABS material

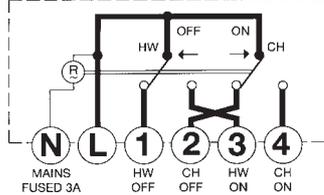
### 2. Mounting location

To ensure convenience of use, the RWB9 should be fitted in a position which allows easy access. It is recommended that the unit is placed at a height of 1.4 metres from the floor, and should not be installed where either extremes of heat or cold exist. Care should also be taken to ensure that steam, water or oil cannot splash onto or enter either the RWB9 or its backplate.

### 3. Backplate

The RWB9 is supplied with the industry standard backplate to which the system must be wired. The backplate can be fitted directly to the wall or onto a conduit box. Only conduit boxes which comply with BS1363 or BS4662 (single gang) should be used.

### 4. Programmer internal wiring diagrams



**The mains supply must be isolated before replacing an existing programmer, failure to do so could cause damage to the RWB9 and will invalidate all warranty claims.**

Line voltage is present on terminals 3 and 4 when the programmer is in the ON position for Hot Water (HW) and Central Heating (CH), and on terminals 1 and 2 when it is in the OFF position. Terminals N, L, 1, 2, 3 and 4 connect the controls for domestic hot water and central heating applications. (For more information see separate wiring and interchange sheet).

**Note:** All external wiring must comply with current IEE regulations. Wiring of this unit should be carried out by a qualified electrician. Whilst every effort is made to ensure the accuracy of the instructions given, discrepancies may occur due to a variety of reasons outside our control. If, after wiring your system, you should find that it does not work properly you should:

- Check you have used the correct wiring system and wired it correspondingly.
- Check with the Technical Help line - there may be a simple explanation.

(Technical Help Line: 01952 602048 Mon - Fri 9am - 5pm)

5. Prior to installing onto the backplate, insert the battery into the battery tray (see Fig. 1) and ensure that positive + and negative - are correctly installed. The battery is a non-rechargeable lithium cell and in the event of power failure will protect your programme instructions for up to 365 continuous days of power loss. (However, please note in the event of premature battery failure you can **write** to the address below for a replacement.)

6. Next select the mode of system control, ie gravity, hot water with pumped radiator circuit (10 mode) (in this case it is not possible to have heating only), or fully pumped with either mid position or zone valves controlling the circulation (16 mode). Please note the factory setting is 16 mode, to alter this simply move dip switch no. 5 down to the 10 setting.

7. The RWB9 is factory set to provide 2 on/off switching times per day in the 16 (fully pumped) mode and each day will be the same, ie daily operation. To select the other styles of switching you will have to alter the dip switches which are to be found at the bottom rear of the unit into the relevant position for the style of operation you require.

**NB: Press RESET after any dip switch change.**

RESET button will be found on the front of the unit under the flap.

### 8. Your operation styles are:

RWB9	Dip switch configurations				
Please note black bar shows position of dip switch, eg daily with two ON/OFF and 16 mode, dip switch 1 and 5 up, 2 to 4 down.	1	2	3	4	5
7 Day with 2 on/off switching per day.					
7 Day with 3 on/off switching per day.					
16 mode (fully pumped HW & CH).					
10 mode (gravity HW pumped CH).					

**Black area shows position of switches.**

9. Once you have completed the above you are ready to connect the RWB9 to the backplate.

When replacing a Landis & Gyr or Landis & Staefa product as listed below, no wiring changes are required (except RWB20 backplate which may require the addition of a neutral connection).

RWB1, RWB2, RWB20, RWB40, RWB200, RWB200cw, RWB252, RWB252cw, RWB270, RWBXP. Gloworm Mastermind, Potterton Miniminder, Sankey Sunline.

### 10. Fitting the unit to the backplate

With the backplate installed and the dip switches positioned for your style of operation you can now locate the programmer onto its backplate. Tilt the bottom of the case away from the wall, locate the two slots in the top of the case over the two tabs at the top of the backplate. Push the bottom of the case towards the wall, slotting the two backplate screws into the bottom of the case and tighten the screws. Turn the power on, the display will then be lit and indicator lights will flash momentarily, you are now ready to commence programming.

### Preset factory settings:

2 on/off 6.30 am to 8.30 am and 4.30 pm to 10.30 pm

3 on/off 6.30 am to 8.30 am, 12.00 pm to 2 pm and 4.30 pm to 10.30 pm

The above times are the same for all operating styles.

## Programming for 7 day operation (ie every day different)

**NB:** If you have selected this style of operation **you must** press the Reset button first before making any entries.

Drop the bottom door flap and with a ball-point pen or similar object, press the small Reset button to the right of the time adjustment button. The display will show the current states of the dip switch setting:

**2P 10:** 2 programs per day  
**3P 10:** 3 programs per day  
**2P 16:** 2 programs per day, 16 mode  
**3P 16:** 3 programs per day, 16 mode  
**Mo Tu We Th Fr Sa Su: successively:** individual day programming

When switching the programmer on for the first time, or after pressing RESET, the status of the dip switches is displayed:  
 eg. **2P 16 – (2P 2 ON/OFF periods – (16 fully pumped).**

**NB:** This is the standard factory style.

If while entering a switching time the word LIMIT should appear in the display you have tried to enter a switching programme that is not possible.  
 ie 1 ON 8.40AM  
 1 OFF 8.30AM

**When first time programming or after pressing the Reset button, you must first set the clock time before you can enter any programme times.**

### 3.1 Altering the clock

Move the vertical slider switch on the left up to SETTIME and Mo will flash. If today is Monday press YES, if not then press NO repeatedly until the correct day is displayed. Then press YES.

Now the time will flash. Press either TIME+ or TIME- buttons to set the correct time. (Holding down the respective button will make the clock change at a fast speed.)

Once the correct time has been reached YES/NO appears. To store this time press YES and YES/NO will now disappear from the display.

Move the vertical slider switch back to RUN, thus completing the clock setting.

For Winter/Summer time changes **DO NOT PRESS RESET** follow normal operation above.

### 3.2 Changing the switching times (fully pumped systems) (16 mode) with independant HW & CH times.

To alter the switching times move the vertical slider switch to SET PRG. The display now shows Mo and YES/NO flashing.

### 3.3 Press YES twice to set CH times for Monday.

Using TIME+, TIME- buttons, adjust to required time setting (10 minute increments). Press YES to store and move onto next switching time. Repeat through each switching operation.

Display now shows Mo COPY? and CH static and YES/NO HW flashing.

Press NO and input HW switching times for Monday as above.

Display shows Mo COPY? static and Tu YES/NO flashing. To copy Monday's switching times to Tuesday press YES and repeat for each day that you require these same times, or press NO, selected day YES/NO flashes. Press YES twice and enter your new times. Please note that the copy facility will work through all days except Sunday to Monday. Continue until all the week's programmes are entered.

Having completed the above the display will show either Mo, YES/NO alone flashing, or with COPY? Su static, you have completed your programming. Now move the vertical switch to RUN. The correct time and day will now display along with two small bars on the left and right of your screen which point to your programme selection (switching patterns).

### 4.0 Changing the switching times (gravity HW pumped CH systems) (10 mode) CH is not available without HW.

**4.1** To alter the switching times move the vertical slider switch to SET PRG. The display will now show Mo YES/NO flashing. Press YES twice. Display shows HW 1 ON, ON 1 CH, Mo static, and 6.30 AM flashing.

**4.2** To set combined switching times use the TIME+, TIME- buttons, adjust to required time setting (10 minute increments). Press YES to store and move onto next switching time and repeat through each switching time.

**4.3** Display shows Mo COPY? static and Tu YES/NO flashing. To copy Monday's switching times to Tuesday press YES and repeat for each day that you require these same times, or press NO then YES twice and enter new times. Please note the copy facility will work through all days except Sunday to Monday. Continue until all the week's programmes are entered.

**4.4** HW ON a gravity system. HW must always be ON if CH is required.

	ON	OFF	
HW	6.20AM	8.30AM	✗
CH	6.00AM	8.30AM	
if you attempt to do this, LIMIT will appear.			
	ON	OFF	
HW	6.00AM	8.30AM	✓
CH	6.20AM	8.30AM	

**4.5** Having completed the the above the display will show either Mo, YES/NO alone flashing, or with COPY? Su static, you have completed your programming. Now move the vertical switch to RUN. The correct time and day will now display along with two small bars on the left and right of your screen which point to your programme selection (switching patterns).

Initially these bars will show against OFF and you must now make your selection of switching patterns - see **Selecting Switching Patterns.**

## Selecting Switching Patterns

These are the various styles of switching available to you by use of the following buttons:

**AUTO** - Programmer will operate across ALL programmed switching times.

**OFF** - Always off - only + 1hr. operative.

**ON** - Constant On. Never Off.

**ONCE** - From first On to last Off.

**ADV (Advance)** - Only operates in AUTO or ONCE. Pressing ADV brings forward the next automatic switching time, eg from an ON time to the next OFF time and will automatically cancel at next switching time. **If you wish to cancel Advance push ADV again.** When Advance is in operation a black bar shows against ADV in the display.

**+ 1hr. (also known as 'boost')** - This button will either bring the unit on one hour if in OFF, or extend by one hour in ON. To cancel just press + 1hr. again. When + 1hr. is in operation a black bar shows against + 1hr. in the display. Please note + 1hr. will also work when the unit is in any OFF position.

### AUTO, OFF, ON, ONCE

To select the four positions listed above, push the buttons marked Select HW or CH located under the flap until the black bar for either the CH or HW systems are adjacent to your switching demands.

If you have set your programmer for 10 mode operation, ie gravity hot water with pumped central heating - **please note the following** - the system needs HW to be available for the CH to operate. The programs automatically adjust for this. Selecting AUTO, ON or ONCE for CH will automatically change the HW position to allow the central heating to operate. The RWB9 is fitted with 2 red LED's which will light only when the relevant relay is on, ie only when the central heating or hot water are on.

