# Controls Launch Pack

This launch pack is full of information all about the current range of Glow-worm controls and our brand-new controls, MiPro Sense and MiSet

Glow-worm's innovative collection of heating controls communicates intelligently with Glow-worm boilers using our eBUS protocol. This enables Glow-worm systems to deliver optimal efficiency.

Glow-worm offers the whole range of heating controls, from a simple room thermostat up to an internet connected smart control, so there is a solution for every home.



## eBUS

Glow-worm's eBUS protocol allows our controls to fully communicate with Glow-worm boilers. With this communication, the system can operate at maximum efficiency by modulating the boiler output to ensure it only ever uses the energy that is required.

## Load compensation

Traditional thermostats work by telling the boiler to work at 100% until the room thermostat reaches the required temperature and it will continue to turn on and off to try to maintain the set temperature.

Glow-worm's controls have enhanced load compensation, meaning they will adjust the temperature of the water entering the heating system. By communicating with a room thermostat via eBUS, the boiler can calculate the amount of energy needed to reach the desired temperature. When necessary, the boiler will work at a reduced output to use the minimum amount of energy.



Traditional thermostat



**Glow-worm controls** 

# Technology

## Weather compensation

Weather compensation considers the external environment to adjust the flow temperature from the boiler.

If the temperature is low or dropping, the flow temperature from the boiler will be increased. Likewise, if the temperature is high or rising, the flow temperature from the boiler will be decreased. This ensures the boiler is always operating at it's most efficient.

Our current range of controls are able to weather compensate when an outdoor weather sensor is fitted.

The MiGo smart control uses data from local weather stations to weather compensate the system.



GWLFTB2BTECH0120

# Climastat





## **Key features and benefits**

#### **Boiler plus compliant**

When the Climastat is operated with a mechanical timer often fitted with a Glow-worm boiler, this ensure a simple and low cost solution to complying with boiler plus

#### **Enhanced load compensation**

The Climastat uses enhanced load compensation to adjust the output of the Glow-worm boiler, ensuring it only uses the energy it needs to

#### Service, maintenance and fault indicator

Appliance service, fault and maintenance indication is displayed on the screen

### **Clear digital display**

With 0.5°C temperature intervals

#### Wide range of temperatures for your comfort

The room temperature can be adjusted between 5 - 30°C

## Simple installation often utilising existing cable

Two core low voltage wired connection for simplicity

Technical data	Unit	Climastat
Article number		0020035402
Height	mm	96
Width	mm	96
Depth	mm	30
Power supply		eBUS 24V
Minimum cross-section of the eBUS and sensor wire	mm^2	0.75
Current consumption	mA	≤ 17
Level of protection		IP20
Adjustable temperature range	°C	5 - 30
Maximum ambient temperature	°C	50

## **Boiler Plus compatibility**

Combi						
Control	Time and temperature control	Load compensation	Weather compensation	Automated smart control	ErP benefit	Boiler Plus
Climastat & mechanical timer	$\checkmark$	$\checkmark$			+3%	$\checkmark$
Climapro <sub>1</sub> / RF	$\checkmark$	$\checkmark$	✓*		+4%	$\checkmark$
Climapro <sub>2</sub> RF	$\checkmark$	$\checkmark$	✓*		+4%	$\checkmark$
MiSet / RF	$\checkmark$	$\checkmark$	<b>√</b> *		+4%	$\checkmark$
MiPro Sense / RF	$\checkmark$	$\checkmark$	$\checkmark$		+4%	$\checkmark$
MiGo	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	+4%	$\checkmark$

\*outdoor sensor required.

## I would like to...

Control a combination boiler with one wired heating zone, a mechanical timer and a wired digital room thermostat

**Room thermostat** 

**Climastat** 0020035402





## How-to video

Scan the QR code to view our how-to video



# Climapro<sub>1</sub> / RF





## **Key features and benefits**

#### **Boiler modulation**

eBUS connection allows the boiler to modulate, ensuring peak performance and optimum efficiency for a Glow-worm heating system

#### **Enhanced load compensation**

The Climapro, and Climapro, RF uses enhanced load compensation to adjust the output of the Glow-worm boiler, ensuring it only uses the energy it needs to

#### Flexible time programs

Three heating and hot water periods can be set for each week or 24 hour period

#### Clear, high contrast backlit display

Blue backlit display offers outstanding contrast and low energy consumption

#### **Easy navigation**

Simple operation makes it easy to set heating and hot water programs

#### Control traditional S and Y plan systems

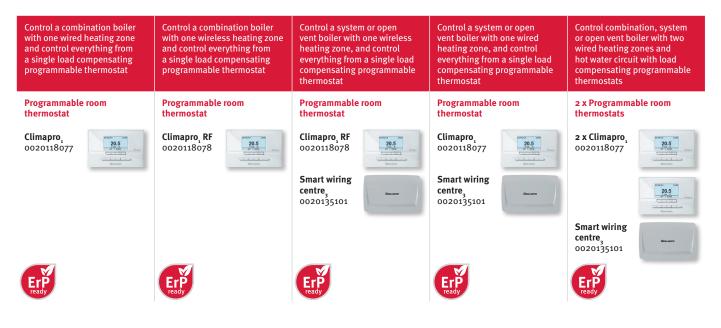
Can control either an S or a Y plan system when used with our Smart wiring centre

#### Weather compensation\*

When the outdoor sensor is fitted, it will provide an understanding of the thermal behaviour in and around the property and adjusts the flow temperatures to ensure optimal efficiency

Technical data	11-14	Load compensating controls			
Technical data	Unit	Climapro		Climapro, RF Receiver	
Article number		0020118077 002		0118078	
Height	mm	97	115	20	
Width	mm	146.5	146.5	171	
Depth	mm	35	41	58	
Power supply		eBUS 24V	4 x 1.5V(AA)	eBUS 24V	
Battery life	Years	-	≈1.5	0.75	
Minimum cross-section of the eBUS and sensor wire	mm^2	0.75	-	0.75	
Level of protection			IP20		
Adjustable temperature range	°C	5 -	30	-	
Maximum ambient temperature	°C		50		
Transmissions frequency	MHz	-	8	68	
Maximum communication range (outdoor)	m	- 100		00	
Maximum communication range (indoor)	m	- ≈25		25	
ErP class		5		-	
ErP contribution %		1	3		

## I would like to...



## How-to video

Scan the QR code to view our how-to video



# Climapro<sub>2</sub> RF





## **Key features and benefits**

#### **Boiler modulation**

eBUS connection allows the boiler to modulate, ensuring peak performance and optimum efficiency for a Glow-worm heating system

### **Enhanced load compensation**

The Climapro<sub>2</sub> RF uses enhanced load compensation to adjust the output of the Glow-worm boiler, ensuring it only uses the energy it needs to

#### Ergonomic design for ease of use

Designed to be easy to operate with large buttons and a simplistic menu layout to perform simple operations

#### Flexible time programs

Three heating and hot water periods can be set for each week or 24 hour period

### Clear, high contrast backlit display

Blue backlit display offers outstanding contrast and low energy consumption

#### **Easy navigation**

Simple operation makes it easy to set heating and hot water programs

#### Weather compensation\*

When the outdoor sensor is fitted, it will provide an understanding of the thermal behaviour in and around the property and adjusts the flow temperatures to ensure optimal efficiency

Technical data	11-34	Load compens	sating controls
Technical data	Unit	Climapro <sub>2</sub> RF	Climapro <sub>2</sub> RF Receiver
Article number		00200	85221
Height	mm	173	20
Width	mm	62.5	171
Depth	mm	34	58
Power supply		4 x 1.5V(AA)	eBUS 24V
Battery life	Years	≈1.5	-
Minimum cross-section of the eBUS and sensor wire	mm^2	-	0.75
Level of protection		IP	20
Adjustable temperature range	°C	5 - 30	-
Maximum ambient temperature	°C	50	
Transmissions frequency	MHz	8	68
Maximum communication range (outdoor)	m	100	
Maximum communication range (indoor)	m	~	25
ErP class		5	-
ErP contribution %		3	-

## I would like to...

Control a combination boiler with one wireless heating zone and control everything from a single programmable thermostat		Control a system or open vent boiler with one wireless heating zone, and control everything from a single load compensating programmable thermostat		
Programmable room the	ermostat	Programmable room thermostat		
<b>Climapro<sub>2</sub> RF</b> 0020085221	Glow-worm   Westering   Water   Water   Composition   Composition   Composition   Composition	Climapro_RF 0020085221 Smart wiring centre 0020135101		
ErP		ErP		

#### How-to video Scan the QR code to view our how-to video



# MiGo



## **Key features and benefits**

#### **Boiler modulation**

eBUS connection allows the boiler to modulate, ensuring peak performance and optimum efficiency for a Glow-worm heating system

#### Your personal heating assistant

With the easy to use app, control heating and hot water from your home or on the go

#### Internet weather compensation

Optimises system flow temperatures and efficiency based on the temperature outside your home

#### Android and Apple iOS application

Easy remote control of heating and hot water via a mobile app

#### **ErP class VI**

High ErP performance for up to 4% increased efficiency



#### **Boiler Plus compatible**

Meets Boiler Plus requirements with ease due to being a smart, weather compensating and modulating control

#### Intelligent self-learning

Immediately begins to learn the thermal behaviour of the building to better respond to your requirements

## Multi-user sharing and multi-home control

The app allows for multiple users to access one control. You can also use one app to connect to multiple controls, e.g. family home and holiday home

Technical data	11-24	Load compens	ating controls	
Technical data	Unit	MiGo	MiGo gateway	
Article number		00202	23275	
Height	mm	83	84	
Width	mm	105	83	
Depth	mm	26	25	
Power supply		3 x 1.5V (AAA)	240v	
Battery life	Years	≈2	-	
Frequency	Hz	-	50 / 60	
Minimum cross-section of the connection lines	mm^2	-	Plug supplied	
Minimum cross-section of the eBUS and sensor wire	mm^2	-	0.75	
Current consumption	W	-	<2	
Level of protection		IP	20	
Adjustable temperature range	°C	7 - 30	-	
Maximum ambient temperature	°C	5	0	
Transmissions frequency	MHz	80	68	
WLAN type		802.11 (2.4 GHz)		
Maximum communication range (outdoor)	m	100		
Maximum communication range (indoor)	m	≈	25	
ErP class		6	-	
ErP contribution %		4	-	

## I would like to...

Control a combination boiler with one wired heating zone and operate this from a thermostat in the home and remotely via smartphone or tablet		Control a system or open vent boiler with one wired heating zone, and control everything from a single programmable thermostat		
Programmable room thermost	at	Programmable room therm	nostat	
<b>MiGo combi pack</b> 0020223275	LIS COD Glow-worm	MiGo system / open vent pack 0020223276	Clis 200 Glow-worm	
ErP		ErP	Glow-worm	

## **Introduction to MiGo**

Scan the QR code to view more about MiGo



# **MiSet / RF**

	Glow•worm	
-2.0°C	<i>۳</i> ۵	06:30
	20.0	°C
Desire	ed heating temper rent room temp. 1	rature
?	MiSet	+
	- = 、	



## **Key features and benefits**

#### **Boiler modulation**

eBUS connection allows the boiler to modulate, ensuring peak performance and optimum efficiency for a Glow-worm heating system

### **Touch interface**

The responsive, yet refined interface provides a simplistic method of navigating the control to undertake simple tasks

### Time programme assistant

Easily set heating programmes within minutes using the time programme assistant

## Two heating circuits with domestic hot water control

The wired MiSet can control up to two heating circuits with the SR 92 as the additional room thermostat

## Easily control traditional S and Y plan systems

Can control either an S or a Y plan system when used with our smart wiring centre,

Technical data	Unit	Load compen	sating controls	Receiver
Technical data	Unit	MiSet MiSet RF		
Article number		0020260999 0020261004		261004
Height	mm	122	122	115
Width	mm	122	122	142.5
Depth	mm	26	26	26
Power supply		eBUS 24V	4 x 1.5V(AA)	eBUS 24V
Battery life	Years	-	≈1.5	-
Minimum cross-section of the eBUS and sensor wire	mm^2	0.75	-	0.75
Current consumption	mA	<50	-	<50
Level of protection		I	P20	IP21
Adjustable temperature range	°C	5	- 30	-
Maximum ambient temperature	°C		60	
Transmissions frequency	MHz	-	8	68
Maximum transmission power	mW	- <25		25
Maximum communication range (outdoor)	m	- ≤100		
Maximum communication range (indoor)	m	- <u>≤</u> 25		
ErP class		5 -		
ErP contribution %		- 3		

## I would like to...

Control a combination boiler with one wired/wireless heating zone and control everything from a programmable thermostat	Control a system or open vent boiler with one wired/wireless heating zone and control everything from a programmable thermostat	Control a combination, system or open vent boiler with two wired heating zones using programmable thermostats
Programmable room thermostat	Programmable room thermostat	Programmable room thermostat
MiSet 00202609999 Or	MiSet 00202609999 0r	MiSet 0020260999
<b>MiSet RF</b> 0020261004	MiSet RF 0020261004	SR 92 0020260987
	Smart wiring centre <sub>3</sub> 0020135101	Smart wiring centre 0020135101
ErP	ErP	ErP ready

## How-to video

Scan the QR code to view our how-to video





**Controls simulator** 

# MiPro Sense / RF





## Key features and benefits

#### **Boiler modulation**

eBUS connection allows the boiler to modulate, ensuring peak performance and optimum efficiency for a Glow-worm heating system

### Weather compensating

MiPro Sense / RF comes with an outdoor sensor which provides an understanding of the thermal behaviour in and around the property and adjusts the flow temperatures to ensure optimal efficiency

### **Touch interface**

The responsive, yet refined interface provides a simplistic method of navigating the control to undertake simple tasks

## Time programme assistant

Easily set heating programmes within minutes using the time programme assistant

## Three heating circuits with domestic hot water control

The MiPro Sense / RF can control up to three heating circuits with the SR 92's as the additional room thermostats

Technical data	11-24	System	1 control	System zo	ne control
Technical data	Unit	MiPro Sense	MiPro Sense RF	SR 92	SR 92f
Article number		0010038313	0010038314	0020260987	0020260990
Height	mm	1	22	12	22
Width	mm	1	22	12	22
Depth	mm		26	2	6
Power supply		eBUS 24V	4 x 1.5V (AA)	eBUS 24V	4 x 1.5V (AA)
Battery life	Years	-	~ 1.5	-	~ 1.5
Minimum cross-section of the eBUS and sensor wire	mm^2	0	.75	0.	75
Current consumption	mA	<50	-	<50	-
Level of protection			IP	20	
Adjustable temperature range	°C	5 -	- 30		-
Maximum ambient temperature	°C	60	45	60	45
Transmissions frequency	MHz	-	868	-	868
Maximum transmission power	mW	-	25		25
Maximum communication range (outdoor)	m	-	100	-	100
Maximum communication range (indoor)	m	-	25	-	25
ErP class			6		-
ErP contribution %			4		

## I would like to...

Control a combination boiler with one wired/wireless heating zone and control everything from a single programmable thermostat	Control a system or open vent boiler with one wired/ wireless heating zone and hot water, and control everything from a single programmable thermostat	Control a combination, system or open vent boiler with two wired/wireless heating zones and hot water using programmable thermostats	Control a combination, system or open vent boiler with three wired/wireless heating zones and hot water using programmable thermostats	
Programmable room thermostat	System control pack	System control pack	System control pack	
MiPro Sense 0010038313 Or	MiPro Sense 1 Zone & DHW Pack 0010036829	MiPro Sense 2 Zones & DHW Pack 0010036830	MiPro Sense 3 Zones & DHW Pack 0010036831	
<b>MiPro Sense RF</b> 0010038314	or MiPro Sense RF 1 Zone & DHW Pack 0010036832	or MiPro Sense RF 2 Zones & DHW 0010036833	or MiPro Sense RF 3 Zones & DHW Pack 0010036834	
ErP ready	ErP	ErP	ErPready	
How-to video	Controls simulator			

**TOW-TO VIGEO** Scan the QR code to view our how-to video





## Controls compatibility finder

## Controls compatibility finder

		Heating system					
Boiler	Zones	Weather/load compensation	Wired/ wireless	App availability	Climapro <sub>1</sub> *	Climapro <sub>1</sub> RF*	Climapro <sub>2</sub> RF*
		Load	Wired	No			
		Load	Wired	No	$\checkmark$		
		Load	Wireless	No		$\checkmark$	
		Load	Wireless	No			$\checkmark$
	1	Load	Wired	No			
		Load	Wireless	No			
		Weather	Wired	No			
Combi		Weather	Wireless	No			
		Weather	Wireless	Yes			
		Load	Wired	No	<ul><li>✓ **</li></ul>		
	2	Load	Wired	No			
	Z	Weather	Wired	No			
		Weather	Wireless	No			
	2	Weather	Wired	No			
	3	Weather	Wireless	No			
		Load	Wired	No	$\checkmark$		
		Load	Wireless	No		$\checkmark$	
		Load	Wireless	No			$\checkmark$
	1	Load	Wired	No			
	1	Load	Wireless	No			
		Weather	Wired	No			
System or		Weather	Wireless	No			
open vent		Weather	Wireless	Yes			
		Load	Wired	No	<ul><li>✓ **</li></ul>		
	2	Load	Wireless	No			
	2	Weather	Wired	No			
		Weather	Wireless	No			
	2	Weather	Wired	No			
	3	Weather	Wireless	No			

\*Weather compensating with outdoor weather sensor.

\*\*Two Climapro1's required for the two heating circuit solution.

Notes:

Unless stated otherwise all controls are digital and have 7 day programming.

Climastat used with a mechanical timer will comply to Boiler Plus.

Con	trol				Wiring	centre		Thermostat	
<sup>2</sup> MiSet*	MiSet RF*	MiPro Sense	MiPro Sense RF	MiGo	Smart wiring centre 3	RED 5	Climastat*	SR 92	SR 92f
							$\checkmark$		
$\checkmark$	$\checkmark$								
	V	$\checkmark$							
		•	$\checkmark$						
				$\checkmark$					
					$\checkmark$				
$\checkmark$					$\checkmark$			$\checkmark$	
		$\checkmark$				$\checkmark$		$\checkmark$	
			$\checkmark$			$\checkmark$			$\checkmark$
		$\checkmark$				$\checkmark$		$\checkmark$	-
			$\checkmark$			$\checkmark$			$\checkmark$
					$\checkmark$				
					▼ √				
$\checkmark$					$\checkmark$				
	$\checkmark$				$\checkmark$				
		$\checkmark$				$\checkmark$			
			$\checkmark$			$\checkmark$			
				$\checkmark$	$\checkmark$				
					<b>√</b>				
$\checkmark$		1			$\checkmark$			$\checkmark$	
		$\checkmark$				$\checkmark$		✓	1
		$\checkmark$	$\checkmark$			$\checkmark$		$\checkmark$	$\checkmark$
		V	$\checkmark$			v √		v	$\checkmark$

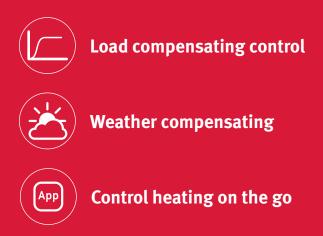


# Everything you need to know about Boiler Plus

## What is Boiler Plus?

A new piece of legislation called Boiler Plus has been introduced in the UK and came into effect on the 6th April 2018. The new standard requires the following:

- Requirement of all gas boilers installed into existing systems in England to have an ErP efficiency of at least 92%.
- Requires all time and temperature controls to be installed at the same time, if not already present and working.
- Requires combination boiler replacements to include the provision of an additional energy efficiency measure to be installed at the same time.



### **Glow-worm controls**

Due to the eBUS technology used by Glow-worm controls, it makes the controls range one of the most advanced in the marketplace. The table below shows how Glow-worm controls already adhere to the boiler plus standards:

Control	Time and temperature control	Time and temperature control	Load compensation	Weather compensation	Automated smart control	ErP benefit	Boiler Plus
Climastat with mechanical timer		$\checkmark$	$\checkmark$			+3%	$\checkmark$
Climapro <sub>2</sub> RF		$\checkmark$	$\checkmark$	<b>✓</b> *		+4%	$\checkmark$
Climapro <sub>1</sub> RF		$\checkmark$	$\checkmark$	<b>✓</b> *		+4%	$\checkmark$
MiSet / RF	200	$\checkmark$	$\checkmark$	<b>✓</b> *		+4%	$\checkmark$
MiPro Sense / RF		$\checkmark$	$\checkmark$	$\checkmark$		+4%	$\checkmark$
MiGo	215225	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	+4%	$\checkmark$

\*outdoor sensor required.

GWLFTB2BBPLUSD0120

Customer Segmentation

ME

## **MiPro Sense**

Glow-worm	45 %		36	%	53 %
-2.0°C Doi:0 20.0°C Desired hating temperature Current room temp. 19°C	of Climapro <sub>2</sub> RF's sold in 2017/18 was to customers who represent		of UK homes, of which		are families
(← ≡ ✓) -	Age 45 and over	Abov	e average £	AB	Semi-detached

## **MiSet**

Glow-worm	Glow-worm 50 %		34	%	52 %
-2.0°C IN O 06:30 <b>20.0</b> °C Desired heating temperature Current room temp. 19°C <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>	Of Climapro,'s sold in 2017/18 was to customers who represent		of UK home	es, of which	are families
	Age 30 to 59	A	verage £	C2	Semi-detached

## MiGo

	48 %		36	5%	53 %
Glow-worm	of MiGo's sold in 2018 was to customers who represent		of UK homes, of which		are families
	Age 45 and over	Abov	ve average £	C2	Semi-detached

Customer Segmentation

MIL

## Climapro<sub>2</sub> RF

Glow-worm Nednesday 1325 0012014	45 %		36	%	53 %
	of Climapro <sub>2</sub> RF's sold in 2018 was to customers who represent		of UK home	es, of which	are families
	Age 45 and over	Abov	e average £	C2	Semi-detached

## Climapro<sub>1</sub>

	52 %		36	%	50 %
01/01/14 1928 20.5 Tret 3* 80* + 230 Cimpto, Glow-worm	20.5		of UK home	es, of which	are families
	Mixed ages	Abov	ve average £	C2	Semi-detached

## Climastat

Glow-worm	48 %		39	39 %		52 %
22.0"	Of Climastat's sol 2018 was to custo who represent	mers	of UK home	es, of which		are families
	Age 30 to 59	Abov	ve average £	C2		Semi-detached

GWLFTB2BSEGMENT0120



# New Controls Packs

## **MiPro Sense packs**

## **MiSet solutions**



## **MiPro Sense RF packs**



GWLFTB2BNCPACKS0120



# New Controls Packs

## Associated Article No.'s / Packs for MiPro Sense

Control/Pack Name	Model No.	Article number
MiPro Sense	SRC 720	0010038313
Remote Control - SR 92	SR 92	0020260987
Pack 1 - MiPro Sense, 1 Rad Zone & DHW	-	0010036829
Pack 2 - MiPro Sense, 2 Rad Zone & DHW	-	0010036830
Pack 3 - MiPro Sense, 3 Rad Zone & DHW	-	0010036831

## Associated Article No.'s / Packs for MiPro Sense RF

Control/Pack Name	Model No.	Article number
MiPro Sense RF	SRC 720f	0010038314
Remote Control - SR 92f	SR 92f	0020260990
Pack 1 - MiPro Sense RF, 1 Rad Zone & DHW	-	0010036832
Pack 2 - MiPro Sense RF, 2 Rad Zone & DHW	-	0010036833
Pack 3 - MiPro Sense RF, 3 Rad Zone & DHW	-	0010036834

## Associated Article No.'s for MiSet

Control/Pack Name	Model No.	Article number
MiSet	SRT 380	0020260999
MiSet RF	SRT 380f	0020261004

## Associated wiring centre's

Model No.	Article number	
-	0020135101	
-	0020257510	
	Model No.	

GWLFTB2BNCPACKS0120



To continue to support our installers and making their lives easier we have created a schematics booklet which covers the basic of installations to very complex installations.

The below table references the most popular system installation in the UK:



ĺοη

Two heating zones

Single heating zone



Multi heating zones

Schematic No.	Combination boiler schematics	Page No.
90010-1001	Combination boiler, 1 radiator zone	4
90020-1002	Combination boiler, 2 radiator zones	6
90030-1003	Combination boiler, 3 radiator zones	8

Schematic No.	System boiler schematics	Page No.
90060-1011	System boiler, Domestic Hot Water, 1 Radiator zone	10
90070-1012	System boiler, Domestic Hot Water, 2 Radiator zones	12
90080-1013	System boiler, Domestic Hot Water, 3 Radiator zones	14



For the relevant system configuration settings in the MiPro Sense wired or wireless controller, refer to page 28. Care must be taken going through each setting diligently and adjust as necessary in accordance to system configuration and property requirements.

Only key settings are listed in the schematics booklet, refer to the MiPro Sense installation manual for further guidance.

## Where to find the schematics booklet:

You can scan the QR Code below which will directly take you the schematics booklet for the MiPro Sense.



GWLFTB2BNCSCHEMGUIDE0120