BOSCH
Invented for life

Bosch Product
Reference Guide

bosch-climate.co.nz

Contents

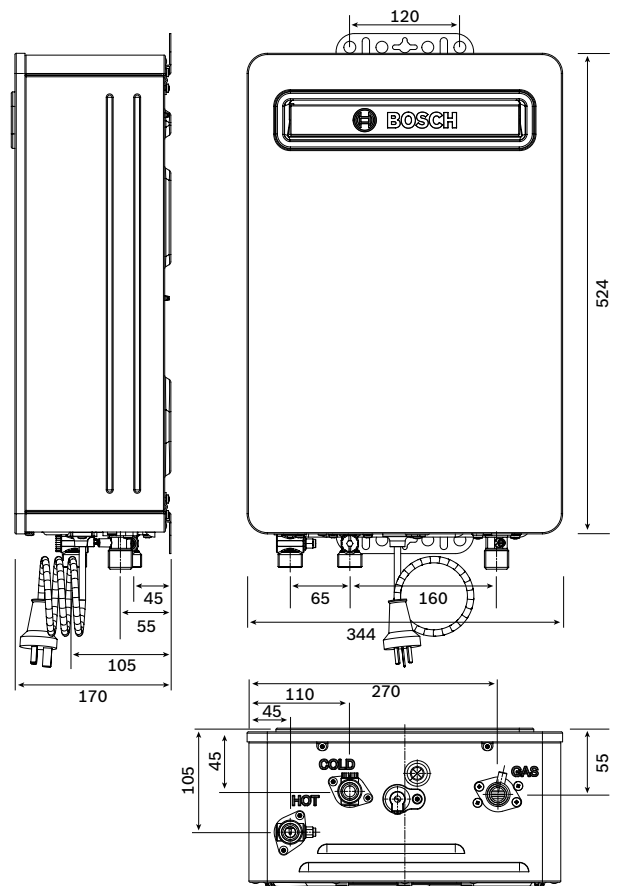# OptiFlow

Features & Benefits

▶ OptiFlow combustion management system
▶ Bluetooth enabled appliance
▶ Compatible with OptiFlow App
▶ 6 star efficiency
▶ Compact, lightweight
▶ Solar compatible water heater
▶ Electronically controlled modulation
▶ Up to 3 controllers can be installed in addition to the Bluetooth controller
▶ 3 year parts and labour warranty
▶ 12 year heat exchanger warranty (part only)

Specifications	Unit	Model		
		16L	**20L**	**26L**
Technical features				
Bluetooth Enabled Appliance		Yes		
Star Rating		6 Stars		
Solar Compatible		Yes		
Temperature Controllers		Up to 3 temperature controllers plus the Bosch OptiFlow App can be installed		
Maximum Temperature		Preset at 55°C. Adjustable to 60°C and 70°C		
Weight (unpacked)	kg	15	15	18
Gas supply data				
Max. Nominal Gas Consumption	Mj/h	122	149	199
Minimum Gas Supply Pressure - NG (in operation)	kPa	1.13		
Minimum Gas Supply Pressure - LPG (in operation)	kPa	2.75		
Water Supply Data				
Maximum Permissible Pressure (static)	kPa	1000		
Minimum Operating Pressure	kPa	100		
Minimum Operating Pressure for Max. Performance	kPa	300		
Minimum Water Flow	l/min	2		
L/min at 25°C Temperature Rise	l/min	16	20	26
Maximum Inlet Temperature	°C	80		
Electrical Circuit				
Power Supply Voltage	Vac	230/240		
Frequency	Hz	50		
Warranty Details (Domestic)				
Parts and Labour	Years	3		
Heat Exchanger (part only)	Years	12		
Pipe Connection Sizes				
Gas Connection - NG or LPG	mm	20mm		
Cold Water	mm	20mm		
Hot Water	mm	20mm		

Description	Part Number
OptiFlow 16L NG	7736503241
OptiFlow 16L LPG	7736503242
OptiFlow 20L NG	7736503249
OptiFlow 20L LPG	7736503250
OptiFlow 26L NG	7736503230
OptiFlow 26L LPG	7736503231

Bosch Water & ProWater Apps

FEATURES USER & SERVICE

Bosch have developed Bosch Water and Bosch ProWater apps to provide User and Tradesperson with features that until now have not been available on a water heater. Both Apps connect to OptiFlow Bluetooth enabled appliances from a range of up to 10m from the appliance.

Bosch Water for the User
► Temperature control
► Running cost information
► Energy usage information
► Water consumption information

Bosch ProWater for Install & Service
► Real-time performance monitoring
► Real-time diagnostics
► Setting adjustments
    ► Maximum set point limit
    ► 'At tap' temperature adjustment
    ► Altitude compensation
► Error codes with recommended service procedures
► Back-up of appliance parameters
► PLUS all User features

Pairing with Bluetooth
1   Download the Bosch Water or ProWater app from the App Store or Play Store.
2   Open the app and select: "Search for appliances".
3   Identify your appliance using the code located on the app label, located on the base of the appliance.
4   Enter the appliance password listed on the app label.
5   Enjoy using the Bosch Water app.

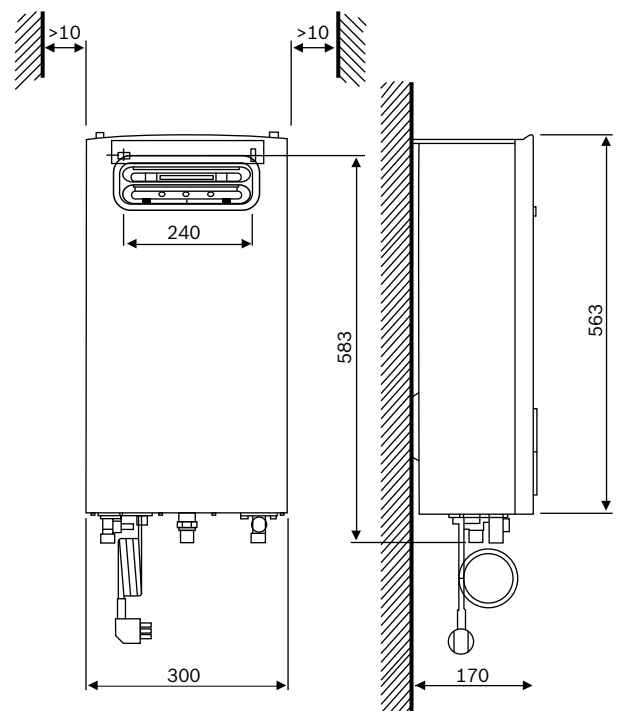*Note: Only works with OptiFlow models - not compatible with OptiFlow Professional models*

4000S External 12L

Features & Benefits

▶ 6 Star efficiency

▶ Electronically controlled modulation

▶ Designed for easy change over from HydroPower & Pilot models

▶ 12L, low gas load appliance

▶ Solar compatible water heater

▶ Up to 4 optional temperature controllers

▶ 3 year parts and labour warranty

▶ 12 year heat exchanger warranty (part only)

Specifications	Unit	Model 12L
Technical features		
Bluetooth Enabled Appliance		No
Star Rating		6 Stars
Solar Compatible		Yes
Temperature Controllers		Up to 4 temperature controllers
Maximum Temperature		Preset at 55°C. Adjustable to 60°C and 70°C
Weight (unpacked)	kg	10
Gas supply data		
Maximum Nominal Gas Consumption	Mj/h	90
Minimum Gas Supply Pressure - NG (in operation)	kPa	1.13
Minimum Gas Supply Pressure - LPG (in operation)	kPa	2.75
Water Supply Data		
Maximum Permissible Pressure (static)	kPa	1000
Minimum Operating Pressure	kPa	100
Minimum Operating Pressure for Max. Performance	kPa	200
Minimum Water Flow	l/min	2.2
L/min at 25°C Temperature Rise	l/min	12
Maximum Inlet Temperature	°C	80
Electrical Circuit		
Power Supply Voltage	Vac	230 / 240
Frequency	Hz	50
Maximum Power - Frost Protection	W	165
Maximum Power - Normal Operation	W	48
Warranty Details (Domestic)		
Parts and Labour	Years	3
Heat Exchanger (part only)	Years	12
Pipe Connection Sizes		
Gas Connection - NG or LPG	mm	15mm
Cold Water	mm	15mm
Hot Water	mm	15mm

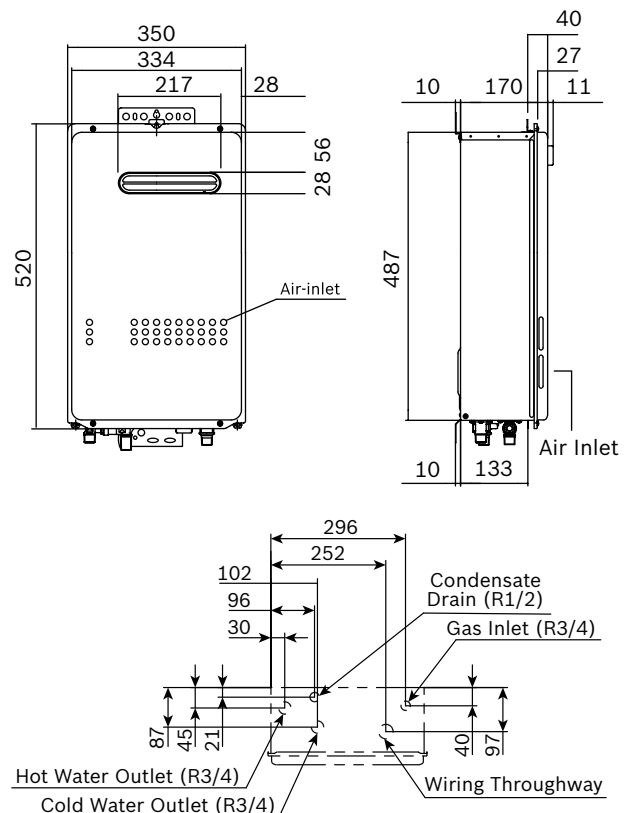| Description	Part Number
4000S External 12L NG	7736502491
4000S External 12L LP	7736502492

HighFlow Condensing

Features & Benefits

▶ 6 Star efficiency
▶ Saves 12% against equivalent non-condensing models
▶ Continuous flow technology
▶ Up to 4 temperature controllers
▶ Compact, lightweight design
▶ 3 year parts and labour warranty
▶ 10 year heat exchanger warranty (part only)

Specifications	Unit	C21		C26	
		NG	LPG	NG	LPG
Energy Star Rating		6.9	6.9	6.7	6.7
Operating Pressure	kPa	200 - 1000 kPa			
Minimum flow rate (at 20°C inlet temp)	L/min	2.5 L/min			
Weight	kg	17		18	
Maximum inlet water temperature	°C	50°C		50°C	
Connection Sizes					
Water inlet	mm	R ¾ (20mm)			
Power Supply					
Power Supply		230/240 VAC (50Hz)			
Power Consumption - Standard	W	40.6W		46.8W	
Power Consumption - Anti Freeze	W	130W			
Gas					
Maximum Gas Consumption	Mj/hr	145	149	175	185
Capacity					
Maximum Hot Water Capacity	25°C rise	21 L/min		26 L/min	
Accessories					
Maximum number of controllers		4		4	

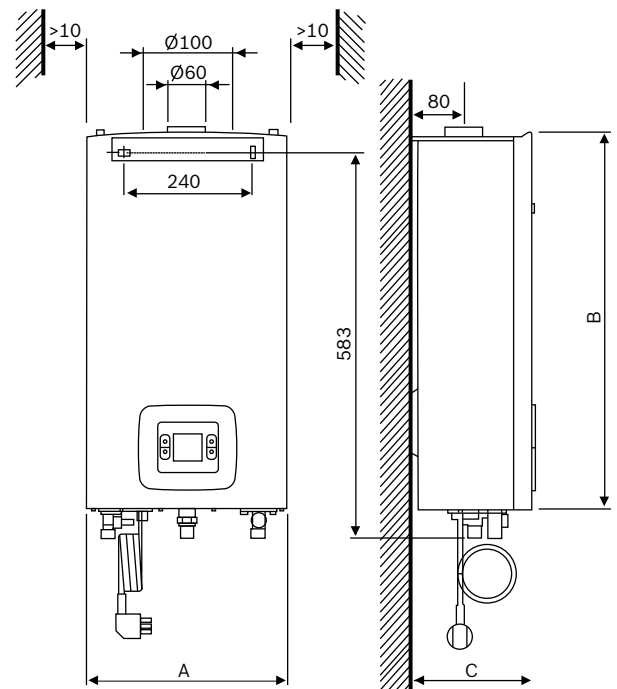| Description	Bosch Part Number
Bosch Condensing 21L 55°C NG	BC2180RANG
Bosch Condensing 21L 55°C LPG	BC2180RALP
Bosch Condensing 26L 55°C NG	BC2680RANG
Bosch Condensing 26L 55°C LPG	BC2680RALP

4000S Internal

Features & Benefits

▶ Room-sealed appliance
▶ Inbuilt temperature controller
▶ Electronically controlled modulation
▶ 6 Star efficiency
▶ Solar compatible water heater
▶ Up to 4 optional controllers
▶ 3 year parts and labour warranty
▶ 12 year heat exchanger warranty (part only)

Specifications		Model		
	Unit	12L	16L	20L
Technical features				
Bluetooth Enabled Appliance		No		
Star Rating		6 Stars		
Solar Compatible		Yes		
Temperature Controllers		Up to 4 temperature controllers		
Maximum Temperature		Preset at 55°C. Adjustable to 60°C and 70°C		
Weight (unpacked)	kg	10	11	12
Gas supply data				
Maximum Nominal Gas Consumption	Mj/h	90	120	149
Minimum Gas Supply Pressure - NG (in operation)	kPa	1.13		
Minimum Gas Supply Pressure - LPG (in operation)	kPa	2.75		
Water Supply Data				
Maximum Permissible Pressure (static)	kPa	1000		
Minimum Operating Pressure	kPa	100		
Minimum Operating Pressure for Max. Performance	kPa	200		
Minimum Water Flow	l/min	2.0		
L/min at 25°C Temperature Rise	l/min	12	16	20
Maximum Inlet Temperature	°C	80		
Electrical Circuit				
Power Supply Voltage	Vac	230 / 240		
Frequency	Hz	50		
Maximum Power - Frost Protection	W	165		
Maximum Power - Normal Operation	W	40	40	50
Warranty Details (Domestic)				
Parts and Labour	Years	3		
Heat Exchanger (part only)	Years	12		
Pipe Connection Sizes				
Gas Connection - NG or LPG	mm	15mm		
Cold Water	mm	15mm		
Hot Water	mm	15mm		

Measurements (mm)	A	B	C
12L model	300	570	170
16L model	364	570	175
20L model	364	570	175

Description	Part Number
4000S Internal 12L NG	7736502487
4000S Internal 12L LPG	7736502488
4000S Internal 16L NG	7736502495
4000S Internal 16L LPG	7736502496
4000S Internal 20L NG	7736502499
4000S Internal 20L LPG	7736502500

Accessories

Which type of flue to use
4000S Internal flue must be used with these appliances. Any installations with the incorrect flue will not be approved and could pose a risk. The flue used for the 4000S Internal is a 60/100 Ø coaxial flue. This flue allows the appliance to draw air in from outside, and expel flue gas back outside, making the appliance room sealed.

The flue materials used
Inner and outer layers are extruded aluminium. The outer layer is painted white.

Cutting the flue to length
Flue extensions can be cut to length. Care should be taken to remove burrs to maintain the integrity of the seal to the adjoining fitting.

Straight Flue Length Table

	12/16L	20L
Maximum vertical flue length	12m	8m
Maximum horizontal flue length	10m	6m

Reduction in lengths for bends
For every bend added to a flue configuration, the maximum acceptable flue length will reduce by the amount shown.

Flue Bend reduction Table	
45° Bend	1m
90° Bend	2m

Condensate Traps
Condensate is more likely to form in longer lengths of flue, or when the outside ambient air temperature is low. The table below shows the length and temperature combinations when a condensate trap should be used. Condensate trap kits are supplied with all components required for installation.
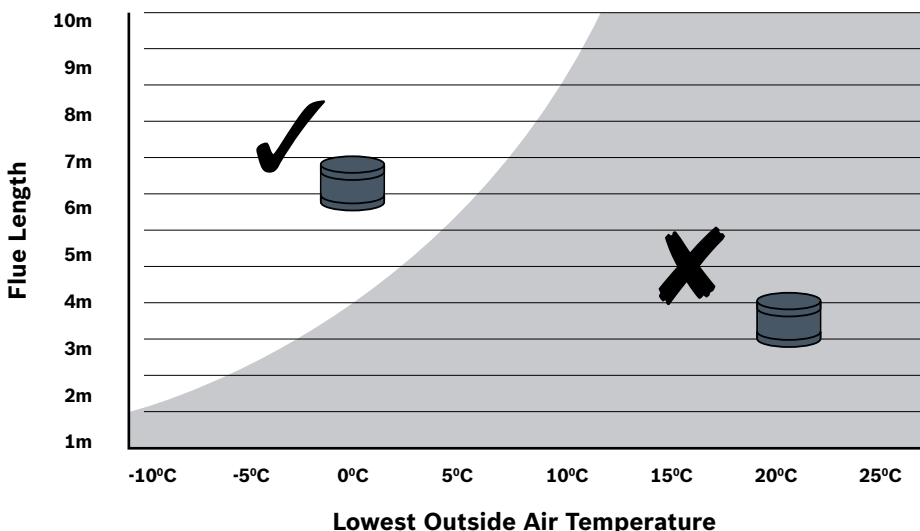
Selecting the Right Flue

1 Map your flue configuration.

2 Check that the configuration, including bends, is within the maximum flue length limits.

3 Calculate whether a condensate trap is required using the table on page 8.

4 Choose the flue kit that best suits your application.
   (The kit includes the appliance adaptor and terminal.)

5 Add any flue lengths, bends, or condensate traps required for your configuration.

6 Place your order using the Bosch part numbers shown below.
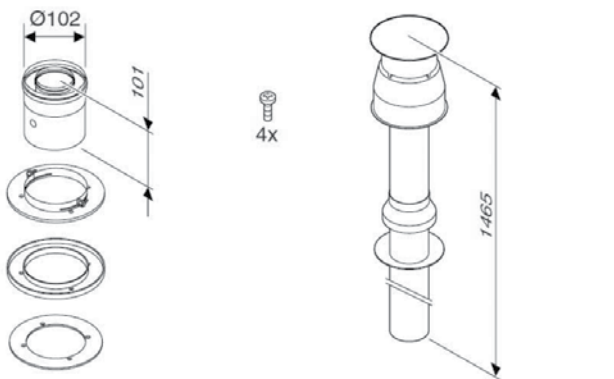
Vertical Flue Kit

Part No: 7716050071
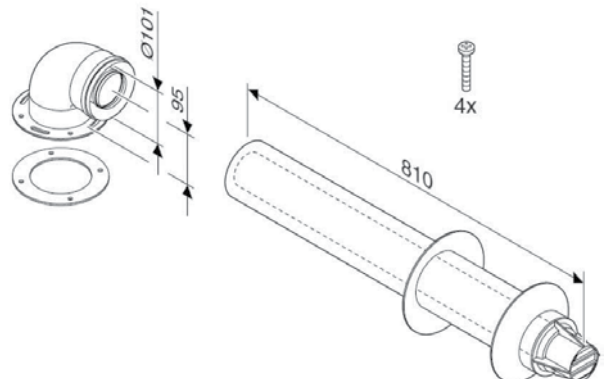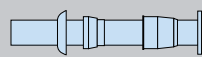
Fixed Length Horizontal Flue Kit

Part No: 7716050064
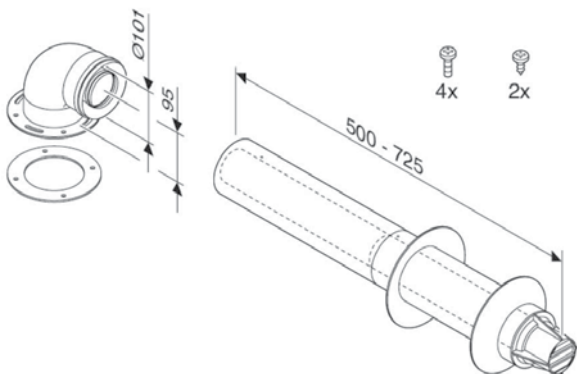
Telescopic Horizontal Flue Kit

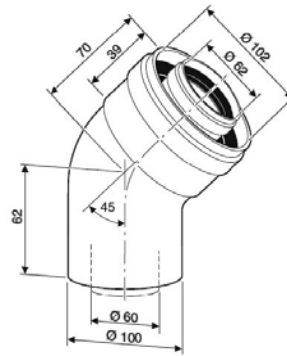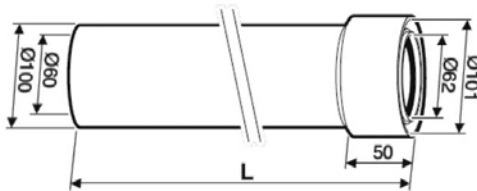Part No: 7716050063
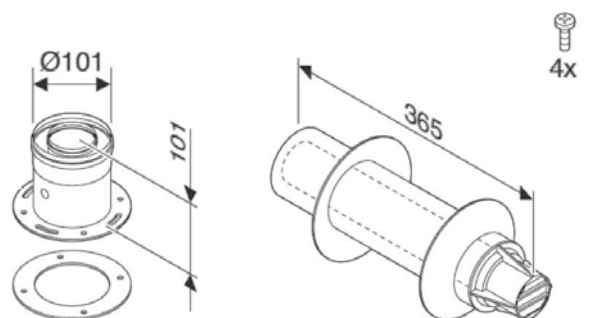
Highline Horizontal Flue Kit

Part No: 7736995083
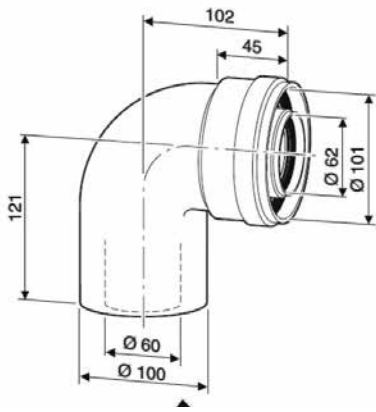
90° elbow	
Part No: 7736995079	

45° elbow	
Part No: 7736995071	

Straight Pipe 350 mm	
Part No: 7736995059	
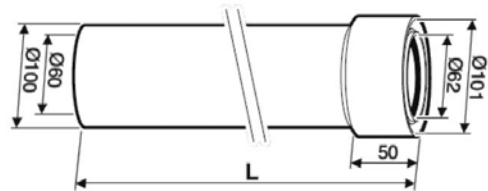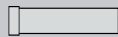
Straight Pipe 750 mm	
Part No: 7736995063	
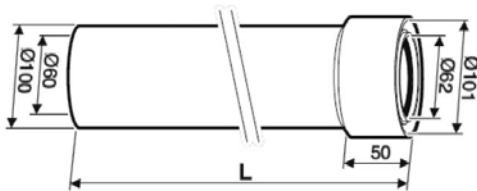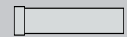
Straight Pipe 1500 mm	
Part No: 7736995067	
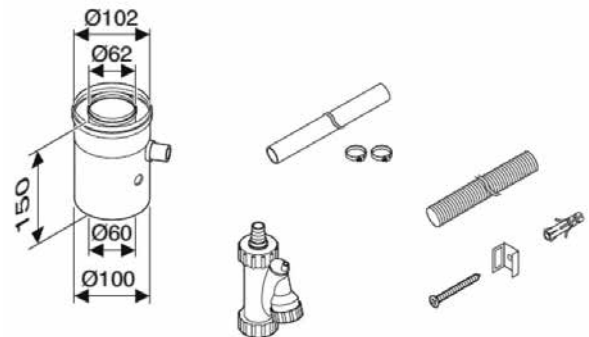
Horizontal Condensate Collector	
Part No: 7736995087	
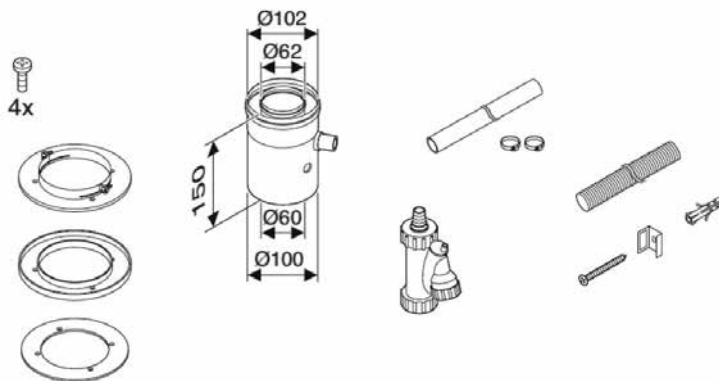
Vertical Condensate Collector	
Part No: 7736995089	
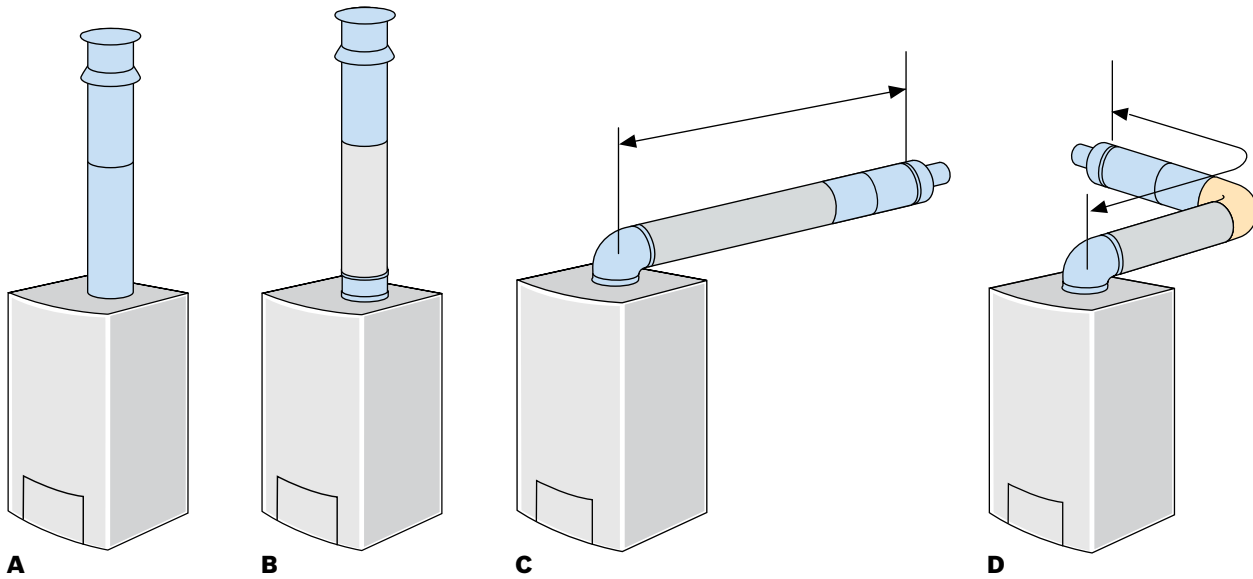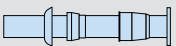
A Standard vertical flue – Minimum length

Components	
Part Numbers	7716050071
Number of components required	
Ø60/100	1.4m	1

B Standard vertical flue

Components			
Part Numbers	7716050071	7736995059 (350mm) 7736995063 (750mm) 7736995067 (1500mm)	7736995089
Maximum length and number of components required			
Ø60 / 100	12m (12/16L) 8m (20L)	1	Up to 10.6m (12/16L) Up to 8.6m (20L)	1 (if required)

C Standard horizontal flue assembly

Components		
Part Numbers	7716050064 (fixed length kit) or 7716050063 (telescopic kit)	7736995059 (350mm) 7736995063 (750mm) 7736995067 (1500mm)
Maximum length and number of components required		
Ø60/100	10m (12/16L) 6m (20L)	1	Up to 9.5m (12/16L) Up to 5.5m (20L)

D Standard horizontal flue assembly with 90º

Components			
Part Numbers	7716050064 (Fixed length kit) or 7716050063 (Telescopic kit)	7736995079	7736995059 (350mm) 7736995063 (750mm) 7736995067 (1500mm)
Maximum length and number of components required			
Ø60 / 100	8m (12/16L) 4m (20L)	1	1	Up to 7.5m (12/16L) Up to 3.5m (20L)

A **B** **C** **D**

A Extension flue horizontal and upwards

Components				
Part Numbers	7736995083	7736995079	7736995059 (350mm) 7736995063 (750mm) 7736995067 (1500mm)	7736995089
Maximum length and number of components required				
Ø60 / 100 8m (12/16L) 4m (20L)	1	2	Up to 7.5m (12/16L) Up to 3.5m (20L)	1 (if required)

B Extension flue horizontal and upwards

Components				
Part Numbers	7736995083	7736995079	7736995059 (350mm) 7736995063 (750mm) 7736995067 (1500mm)	7736995089
Maximum length and number of components required				
Ø60 / 100 10m (12/16L) 6m (20L)	1	1	Up to 9.5m (12/16L) Up to 5.5m (20L)	1 (if required)

C Vertical flue – two 45° bends

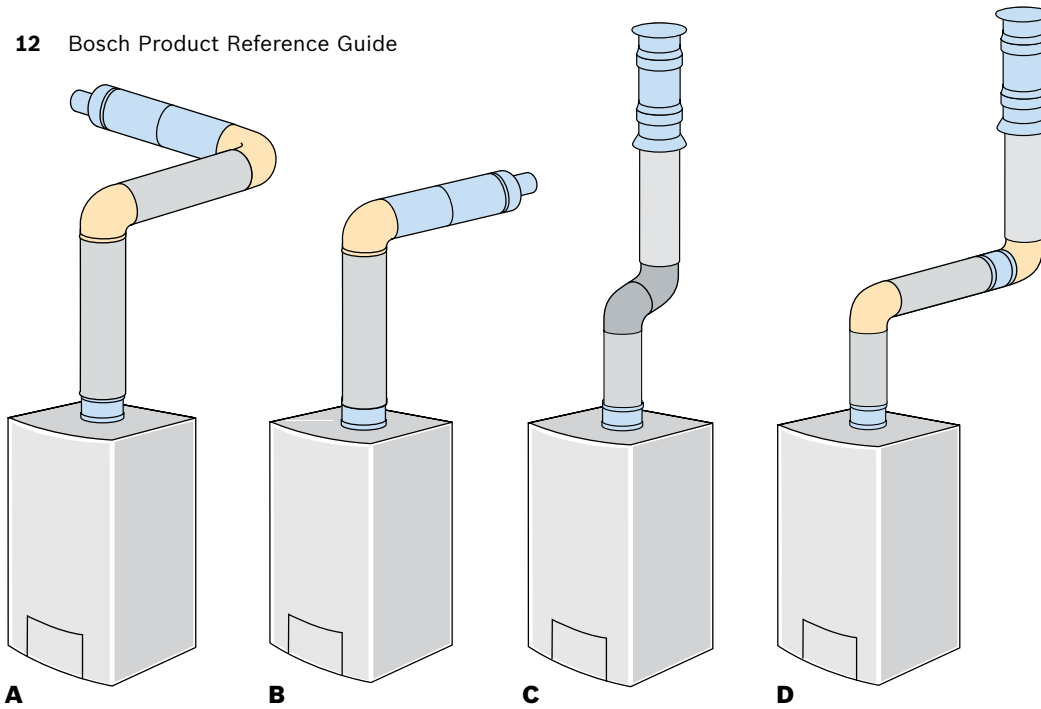| Components				
Part Numbers	7716050071	7736995071	7736995059 (350mm) 7736995063 (750mm) 7736995067 (1500mm)	7736995089
Maximum length and number of components required				
Ø60/100 10m (12/16L) 6m (20L)	1	1 (2 x bends per pack)	Up to 8.6m (12/16L) Up to 4.6m (20L)	1 (if required)

D Vertical flue – two 90° bends

Components					
Part Numbers	771650071	7736995079	7736995059 (350mm) 7736995063 (750mm) 7736995067 (1500mm)	7736995087	7736995089
Maximum length and number of components required					
Ø60 / 100 8m (12/16L) 4m (20L)	1	2	Up to 7.5m (12/16L) Up to 3.5m (20L)	1 (if required)	1 (if required)

Controllers – for all OptiFlow & 4000S models

Note: OptiFlow and 4000S Controllers are each supplied with a 20m cable. Any combination of bathroom and main controllers can be used, however at least one main controller must be used if a set temperature above 50°C is required.

Main Controller (Part no: 7736502925)   *Bathroom Controller (Part no: 7736503406)*

HighFlow Condensing Controllers

Suitable for Highflow C21 & C26 models. Note: Each supplied with a 10m cable. A Main Controller must be installed as the first controller so that the maximum temperature can be reached. The bathroom controller has a maximum temperature of 50°C, as do the Sub Controllers which can be used as the third & forth controller.

Main Controller (Part no: YPRM67XBN)   *Bathroom Controller (Part no: YPRS67XBN)*   *Sub Controller (Part no: YPRP62XBN)*
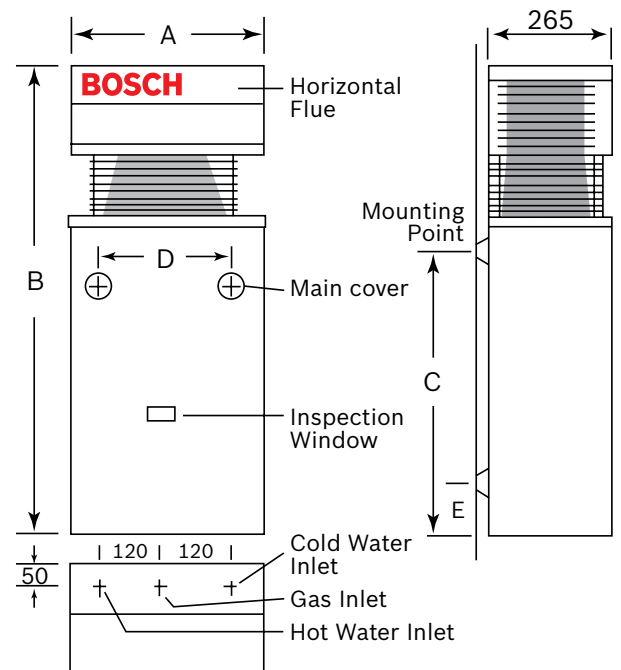
HydroPower

Features & Benefits

▶ HydroPower ignition – no electricity supply required
▶ Continuous flow technology – heats only when required
▶ Constant, reliable source of hot water
▶ Energy efficient
▶ External installation
▶ 2 year parts and labour warranty
▶ 10 year heat exchanger warranty (part only)

Specifications	Model		
	Bosch 10H	**Bosch 13H**	**Bosch 16H**
Part Number	TF250-8G	TF325-8G	TF400-8G
Installation	External		
Ignition	Hydro		
L/min at 25°C Temperature Rise	10	13	16
Number of bathrooms	1	1	1-2
Min. inlet water pressure (kPa)	30	40	50
Min. constant water pressure for Max. flow (kPa)	60	100	130
Max. inlet water pressure (kPa)	800	800	800
Max gas consumption Mj/H	79	104	130
Star Rating	5.3	5.2	5.0
Min. Flow (L/min)	3.5	3.5	3.5
Gas Type	NG/LPG	NG/LPG	NG/LPG
Unit Height (mm)	845	845	936
Unit Width (mm)	405	405	460
Unit Depth (mm)	265	265	265
Carton Weight (Kg)	21	22	25
Domestic Warranty			
Parts and Labour	2 Years		
Heat Exchanger (part only)	10 Years		
Pipe Connection Size			
Natural gas (NG)	20 mm		
LP gas	15 mm		
Cold Water	15 mm		
Hot Water	15 mm		

Dimensions			
	10H (mm)	**13H (mm)**	**16H (mm)**
A	405	405	460
B	845	845	936
C	533	533	533
D	240	240	240
E	68	68	82

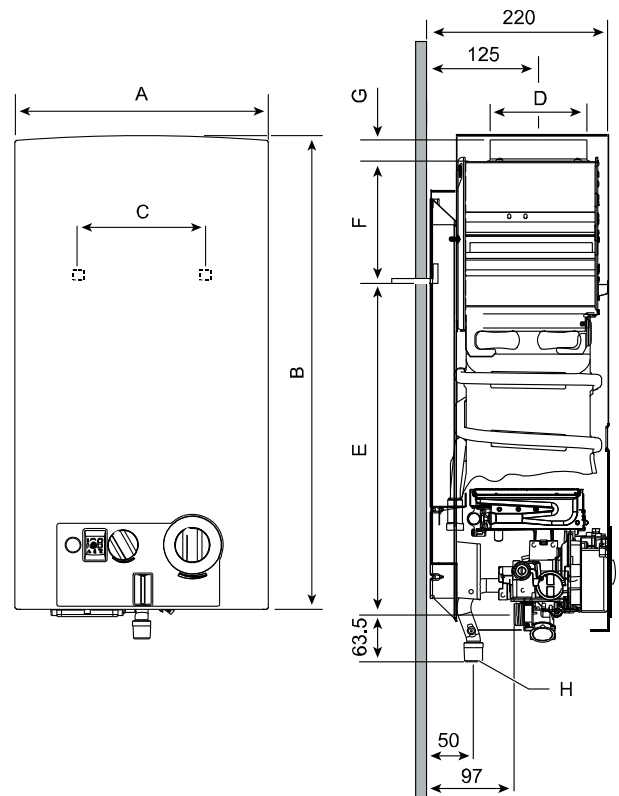| Description	Bosch Part Number
Bosch 10H External NG	TF250-8GNG
Bosch 10H External LPG	TF250-8GLP
Bosch 13H External NG	TF325-8GNG
Bosch 13H External LPG	TF325-8GLP
Bosch 16H External NG	TF400-8GNG
Bosch 16H External LPG	TF400-8GLP

Internal Compact

Features & Benefits

▸ Automatic ignition
▸ Internal installation (vertical flueing required) making it perfect for frost prone areas
▸ Improved safety features to provide reassurance for your family
▸ Flexible water connections for easy installation
▸ Small, compact and attractive design making it ideal for small homes where space is limited
▸ Lower flow rate available which allows water to be heated when only a small amount of water is being consumed
▸ Digital temperature display and user friendly controls
▸ 2 year parts and labour warranty
▸ 10 year heat exchanger warranty (part only)

Specifications	Model		
	Ci10	Ci13	Ci16
Part Number	GWH10-2G	GWH13-2G	GWH16-2G
Installation	Internal	Internal	Internal
Ignition	Automatic	Automatic	Automatic
L/min at 25°C Temperature Rise	10	13	16
No. of bathrooms	1	1	1-2
Min. inlet water pressure (kPa)	50	50	50
Min. constant water pressure for Max. flow (kPa)	100	140	170
Max. inlet water pressure (kPa)	1000	1000	1000
Mj/H	79	100 NG /97 LP	127
Star Rating	5.3	4.5	4.6
Min. Flow (L/min)	2.5	2.5	2.5
Gas Type	NG/LPG	NG/LPG	NG/LPG
Unit Height (mm)	580	655	655
Unit Width (mm)	310	350	425
Unit Depth (mm)	220	220	220
Dry Weight (Kg)	10.2	11.8	13.65
Flue Pipe Sizes (mm)	100	125	125
Domestic Warranty			
Parts and Labour	2 Years		
Heat Exchanger (part only)	10 Years		
Pipe Connection Size			
Natural gas (NG)	20 mm		
LP gas	15 mm		
Cold Water	15 mm		
Hot Water	15 mm		

Dimensions			
	Ci10 (mm)	Ci13 (mm)	Ci16 (mm)
A	310	350	425
B	580	655	655
C	228	228	334
D	115	140	140
E	463	510	540
F	60	95	65
G	25	30	30

| Description	Bosch Part Number
Bosch Ci10 Internal NG	GWH10-2GNG
Bosch Ci10 Internal LPG	GWH10-2GLP
Bosch Ci13 Internal NG	GWH13-2GNG
Bosch Ci13 Internal LPG	GWH13-2GLP
Bosch Ci16 Internal NG	GWH16-2GNG
Bosch Ci16 Internal LPG	GWH16-2GLP

Compress 3000

Features & Benefits

▸ Highly efficient heat pump – reduces energy by up to 65%*

▸ Smart Controls to take advantage of:
  ▸ Cheaper overnight power prices
  ▸ PV Solar energy generation systems
  ▸ Noise reduction mode

▸ Designed for easy and low-cost installation and servicing

▸ The heat pump operates from -7°C to +40°C, delivering energy efficient hot water even in colder climates

|		Model
	Unit	270L
Part Number		7736501960
Specifications		
HeatPump operating temperatures	°C	-7 to 40
Complete appliance operating temperatures	°C	-10 to 40
Outlet Water Temperature	°C	37 to 65
Outlet water set temperature range	°C	37 to 60
Storage capacity (L)	L	270
Hot water delivery at °40C	L	335 ± 20
Max water relief pressure	kPa	1000
Max water relief pressure	kPa	800
COP**		3.3
Heat Pump Module		
Max power input	kW	0.6
Max current	A	2.6
Heat pump heating capacity	kW	1.5
Back Up Electric Element		
Maximum power input	kW	1.65
Total maximum current	A	7.2
Appliance Total		
Maximum heating capacity	kW	3.15
Maximum power input	kW	2.25
Maximum current	A	9.8
Product Dimensions		
Net empty weight	kg	130
Refrigeratiuon type / mass	kg	R134a / 0.375
Domestic Warranty		
Parts & Labour	Years	2
Tank (part only)	Years	5
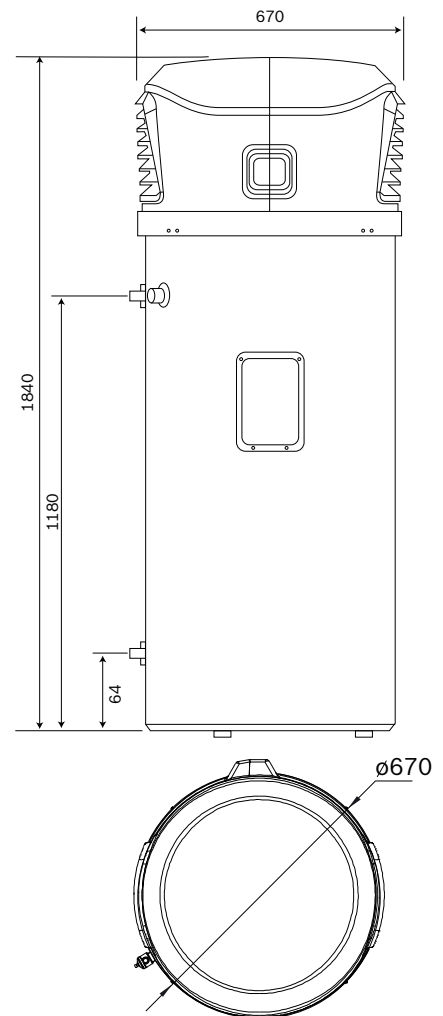
Note: Heat pumps use the ambient temperature in surrounding air to heat water in the tank. This means as the air temperature around the tank decreases, the time taken to heat the full tank increases. Customers in colder climates and frost prone areas should consider this when deciding which type of Bosch system is best for their circumstances.

*   When compared with a conventional electric storage system.

**   COP as measured under the following conditions:
     air 15°C; RH 70%; water 15°C-60°C.

Clearances

Heatpumps draw heat from the air surrounding the appliance. For this reason they must have sufficient clearance on both sides (at least 400mm) to allow air to pass through the appliance. Bosch also recommends that the a clearance of at least 50mm from the wall, and 600mm above the appliance is allowed so that components are easily accessible for servicing.
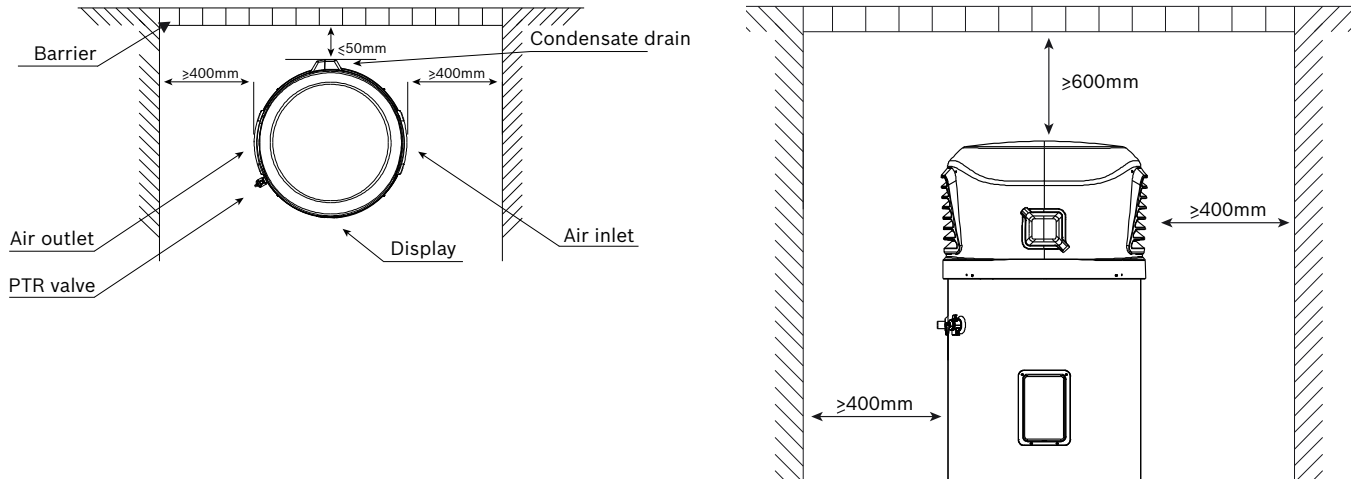
Heat pump module purge

During installation the water loop in the heat pump module must be purged to expel possible air locks. This process should be followed once the appliance has been connected to water lines and electricity, and the heat pumps tank has been filled.

Step 1   Turn the appliance on at the electrical isolating switch. Program the date and time into the appliance.

Step 2   Rotate the circulation pump speed selector to position "III".

Step 3   Make sure that appliance is in Manual (man) mode. Activate the Purge (Purg) function in the appliance controls. Press the "menu" button then use the '+', '-' and 'ok' buttons to select the Purge function using the following pathway: select "Set" -> select "Purg". -> select "OK"

Step 4   Open the brass bleed valve at the top of the water-loop inside the module (see fig 1) and allow water and bubbles to escape. Leave open for 30 to 60 seconds.

Step 5   When no air bubbles are visible in the stream, close the brass bleed valve.

Step 6   Open the purge screw on the side of the circulation pump (see fig 2) and leave open until water drains uniformly without air bubbles. Close the purge screw.

Step 7   The Purge mode will continue to run for 5 mins. When complete, return the pump speed selector to position "I".
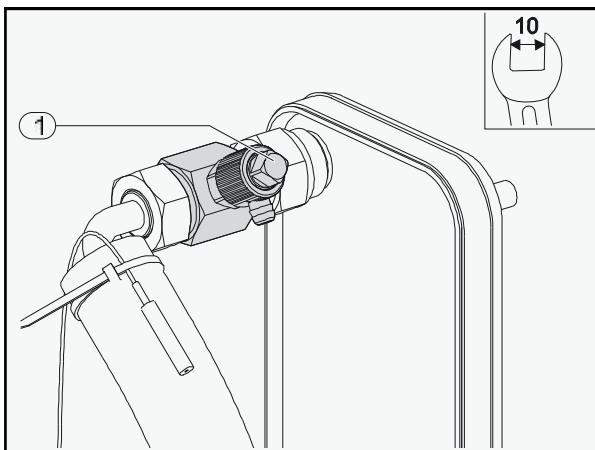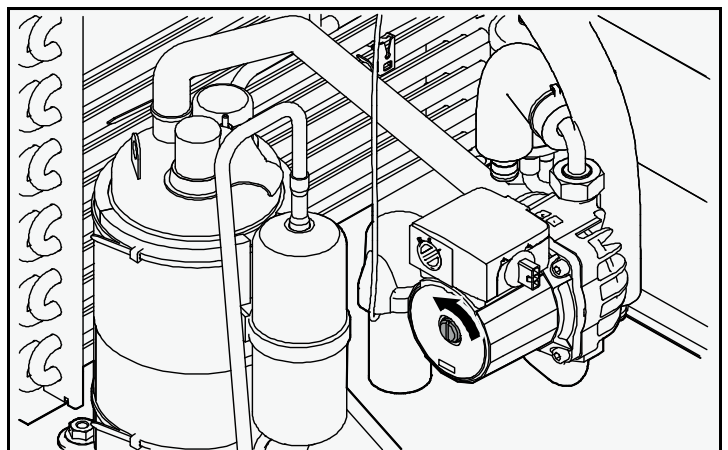

Figure 1

Figure 2

Warranty & Service Information

Warranty

The OptiFlow models are covered by a comprehensive 3 year parts and labour warranty, and a 12 year heat exchanger (part only) warranty. The Bosch Highflow Condensing models are covered by a 3 year parts and labour, and a 10 year heat exchanger (part only) warranty. The Bosch HydroPower and Internal Compact ranges are covered by a 2 year parts and labour warranty, and a 10 year (part only) warranty.

For a full copy of the Bosch Warranty Statement, please visit our website www.bosch-climate.co.nz or call 0800 54 33 52.

Servicing

To ensure your appliance's quality and performance is optimised, Bosch recommends having your unit serviced no less than once every 2 years. Having your product inspected and cleaned periodically by an authorised Bosch service technician not only ensures peak operation but also extends the life of the appliance.

For contact details of your nearest service agent please phone our Customer Contact Centre on 0800 54 33 52.

Bosch e-Learning Program

Bosch Hot Water and Heating has introduced a new and exciting initiative for providing training for people involved in the sales, installation, and service of hot water products.

The e-Learning system provides a comprehensive training solution where you can:

▶ book into face to face training courses
▶ participate in e-Learning courses
▶ download technical and spare parts information.

The e-Learning Program is on line and live which ensures you have the most up to date and current Bosch hot water and heating information.

We welcome you to our community and encourage you to explore our system by visiting:
www.boschhotwatertraining.co.nz