

Optima 4 RS

Operational and Technical
Manual

OPERATIONAL TECHNICAL MANUAL

ORIGINAL INSTRUCTIONS

OPTIMA 4 RS



Intertek



Intertek



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2. Introduction

In choosing the Burlodge **Optima RS** product you have the most advanced, purpose designed unit of its kind available today. With careful use and regular maintenance, your unit will give you many years of trouble free service.

This manual is an integral part of the safety of your product and a guide for all operators and maintenance staff. It contains important information on the operation and maintenance of your Burlodge product.

Ensure all personnel read this manual carefully, are fully conversant with its contents and receive any additional training that may be required to enable them to operate and maintain the product in a safe and correct manner. Pay particular attention to the safety information included in the text.

Keep this manual in a safe place where it is accessible to all personnel at all times. This manual is a guide only and will be supplemented by on-site training designed for your individual requirements.

It is important to note that the program settings in this manual are purely an example and will vary to the actual settings for your product and site. When you receive your product, it will be programmed to the standard default factory settings but will be re-programmed to suit your specific conditions.

Please Note: Before installing or using your Burlodge product, it must be checked by a licensed electrician to ensure that it will be connected to an appropriate power supply. The voltage and frequency must correspond to the data plate. Refer to the instructions given in the "Installation" section.

It is important to use the product only in the way that is described in this manual. Burlodge will not be responsible for any damage that may result through incorrect use or failure to follow the instructions in this manual.

This manual relates to all products in the **Optima RS** series.

The following symbols are used in this manual to highlight important text:



Read carefully highlights text that is important to safety



Electrical Caution Required



Caution Required



Correct action or procedure



Prohibited action or procedure

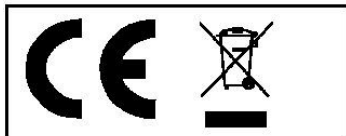
3. Product Identification

MANUFACTURER	BURLODGE S.r.l.
ADDRESS	Via CA' BERTONCINA No. 43 24068 Seriate (BG) - Italy Tel. 0039 035 4524900 Fax 0039 035 302994
TYPE OF DOCUMENT	Operating, Cleaning and Maintenance Instructions
TYPE	Hot and Cold Commercial Electric Cupboard
MODEL	Optima RS
SERIAL NUMBER	
YEAR OF MANUFACTURE	

A data plate as shown below is attached close to bottom cold side and contains all the data necessary for the identification of the product.

Under no circumstances should this plate be removed, as this would invalidate the warranty. It would also no longer be possible to identify the product for future technical assistance and correct spare parts.

 BURLODGE	OPTIMA RS BLO4S.100.0001
Date 7. 1.2015	Made in EC
Serial n. BLC 128636	Class Clim: 4
Supply: 220-240V~ 50/60Hz	IP X4
Amps 8,6A	Gas: R452a
Watts 1800W	
Gas Qty (oz) 350g	



 BURLODGE	OPTIMA RS BLO4S.501.0003
Date/Date 7. 1.2015	Made in EU
Serial n./N. de Série BLC 128636	
Supply/Alim. 120/240V - 3wire - 60Hz	
L1 Amp : 11.3A L2 Amp : 5.1A Watt : 1800W	
Gas/Réfrigérant R 507	Gas Qty/Quantité 12.35oz (350g)
Pressure/Pression: Low-Bas 180psi / High-Haut 344psi	

Cet équipement est prévu pour une utilisation à l'intérieur seulement

Cet équipement est prévu pour le maintien réfrigéré et en température des aliments couverts ou préconfectionnés et pour des aliments potentiellement à risque dans des contenants prévus à cet effet

This equipment is intended for indoor use only

This equipment is intended for holding hot and cold of potentially hazardous, covered or prepackaged food only.

	ETL LISTED / LISTE' ETL CONFORMS TO / CONFORME A' ANSI/UL STD 197 ANSI/UL STD 471 CERTIFIED TO / CERTIFIÉ A' CSA STD C22.2 NO.109 CAN/CSA STD C22.2 NO.120
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Other markets

North America only

4. General Safety Precautions



WARNING - The product must be properly connected to earth through the power supply cable.

Always disconnect the product from the power supply before attempting to move it.

Always hold the plug and not the cable when connecting and disconnecting the product.



Secure the trolley by using the parking brakes on the (two) swivel castors to prevent the trolley from rolling away. Avoid moving the trolley over uneven door thresholds, steps and irregular flooring to ensure that both the castors and the refrigeration system are not subjected to mechanical damage.



Never pull on the power cable to withdraw the plug.

Do not attempt to use the product if the power cable is damaged, worn or frayed. Call our Service Department or your Authorized Service Agent to replace the cable immediately.

Do not let the power cable rest on or touch hot surfaces or hang over sharp edges.

After a Cycle, take care in touching hot items or hot heaters surface: risk of burns.

Never place the product close to any sources of heat i.e. gas ranges, dishwasher's etc.

Never use sharp instruments on the control panel screen - always use your fingers.

WARNING. It is dangerous for anyone other than a fully trained authorized service agent or other fully trained personnel to perform a service repair.



This appliance should only be operated by qualified persons or those who have had the correct training and who are over the age of 18. A full risk assessment should be carried out subject to the specific site conditions of the installation.

Do not store explosive substances (e.g. aerosol cans with a flammable propellant) in this appliance.

When means shall be provided to ensure all-pole disconnection from the supply mains, such means shall have a contact separation in all poles, providing full disconnection under overvoltage category III conditions.

5. Standards and Certification

EU Directives and Standards Applied

European directives

The Optima RS has been designed to be in compliance to the following directives and standards.

- 2006/95/EC (Low Voltage)
- 2004/108/EC (EMC)
- 2006/42/EC (Machinery)
- 2011/65/EU (Restriction of the use of certain hazardous substances)
-

European safety standards

- EN60335-1: 2012, EN60335-2-89: 2010,
- EN60335-2-49:2003, EN60335-2-49/A1 :2008, EN60335-2-49/A11 :2012
- EN 62233:2008

European EMC standards

- EN55014-1:2006, EN 55014-1/A1:2009, EN 55014-1/A2:2011
- EN55014-2:1997, EN55014-2 Ec:1997, EN55014-2/A1:2001, EN55014-2/A2:2008
- EN 61000-3-2:2006, EN 61000-3-2/A1:2009; EN 61000-3-2/A2:2009
- EN61000-3-3:2013

USA & Canada

FCC Standard

- Title 47 , Part 15 (47 CFR 15)

UL & CSA Safety Standards

- ANSI/ UL 197 ISSUE 2010/03/17 Ed: 10 Rev: 2013/10/31
- ANSI/ UL 471 ISSUE 2010/11/24 Ed: 10 Rev: 2013/06/28
- CSA C22.2 No. 109 (R2013) ISSUE: 1981/06/01
- CAN/CSA C22.2 No. 120 ISSUE: 13 March 2013

NSF Safety Standards (after certification)

- NSF/ANSI 169 – 2012, Issue 2012/08/08 ***



6. Packaging, Handling, Forwarding and Transport

When received, all shipments must be inspected for any damage to the pallets or packaging. Any damage found or any discrepancy in the number of items delivered must be noted on the carrier's consignment note. This document shows the number of pallets and packages delivered while an itemized description of the goods is listed on the Burlodge packing slip attached to the consignment note. This documentation may vary.

If the packaging is not removed while the carrier is present, the terms "Unopened" or "Contents Unexamined" or similar should be noted on the consignment note. The goods must be thoroughly checked for any physical signs of damage and any damage found must be reported to Burlodge by fax or telephone within 2 days from date of delivery. A written confirmation must follow within 5 working days together with a photocopy of the accompanying document on which the Model and Serial number of the damaged product/goods must be indicated.

Unloading and handling in the Shipping/Receiving warehouse is the responsibility of the client. Burlodge is not responsible for any damage that may occur within this area. For unloading and unpacking, proceed as follows:

Unloading

- Unloading must be carried out by qualified staff (forklift operator) using a forklift truck with a suitable load-bearing capacity for the weight of the product, which is indicated on the packaging.
- The product is packed on a single pallet and may contain other small items inside the product.

The following data is indicated on the packaging:

- Destination
- Order no.
- Pallet no.
- Gross weight
- Sender
- Contents

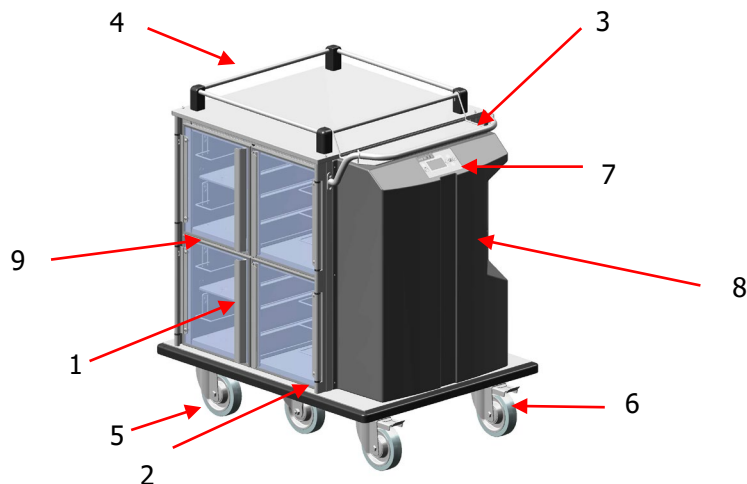
Unpacking

- Carefully cut the nylon straps.
- Remove the cardboard box.
- Cut the nylon straps holding the product to the wooden pallet.
- Unlock the parking brake
- At least 2 people may be required to unload the product from the pallet. Ensure that protective clothing and eyewear are worn and that the correct tools are used to carry out the above operation.
- NB: the consignee, in compliance with the local laws and regulations, must dispose of packaging material.

Cleaning

The product should be cleaned prior to being used. Follow the instructions that are given in the "Cleaning Procedure" section. If the product is to be stored, it must be repacked and protected by the original packaging.

7. Product Description



For identification purposes the section of the product where the control panel is located is referred to as the front of the product. This then identifies all right and left-hand components of the product.

Key to figures					
1	Left door (Fridge)	5	Fixed Castors	9	Door handle
2	Right door (Oven)	6	Swivel castors with parking brake		
3	Handle	7	Control panel		
4	Guard rail	8	Power cable & plug		

Void trolley weights:

- Medium: 187Kg/512lbs
- Short: 150Kg/330lbs

Maximum recommended food load for each tray: 3Kg / 6lbs and 10oz (tray included).

"Short" model tray capacity: 8, 12, 16

"Medium" model tray capacity: 12, 18, 24

The A-weighted emission sound pressure does not exceed 70 dB(A).

8. Safe Mode



It is essential to have the product in a safe condition before any cleaning or maintenance takes place.

This is referred to in this manual as the SAFE MODE.

The product is in the SAFE MODE under the following conditions:

- Fully isolated from any power source.
- The cable, if supplied, is correctly secured in the holder.
- The oven chamber is at ambient temperature, i.e. below 30 °C (86 °F).
- The product must be positioned on a flat and horizontal surface. If on its own stand, it must always be horizontal, the same if over positioned.

9. Correct Use

The **Optima RS** has been designed for the following uses:

- Maintaining the temperature of hot plated meals at +65°C (+149°F).
- Maintaining the temperature of cold meals below +10° (+50°F).

To achieve this performance all plates and food must be introduced at at least 65° for hot meals and under 10° for cold meals.

This product can be operated in two different ways, by either using it in an automatic mode (Period use) where the trolley starts and stops automatically or in a manual use.

Period use

1. Insert the plug into a wall socket.
2. If display is in off mode (yellow LED only) press ON button.
3. Display will show next automatic start and stop Period and the trolley will automatically begin heating and cooling accordingly.
4. Ensure that the trolley is plugged in for at least 20 minutes before loading trays.
5. Unplug trolley and take to food loading area where the trays can be loaded.
6. Plug trolley back in and select the set timer mode  - set for at least 20 minutes.
7. When buzzer sounds unplug and transport to the ward. The buzzer will sound 10 times and the display continues to show the programmed Period.

Please note that the trolley can also be operated with **split loading** whereby the cold items are loaded first and the hot meals at a later stage. In order to do this, please follow the steps ensuring that at step 5, the cold items are loaded during the programmed refrigeration time and the hot food at a later programmed time. This needs to be replicated in the programming of the operating mode ensuring that the refrigeration and the heating have been running for at least 20 minutes before loading the respective meals.

Manual use outside programed Periods

1. When additional time or holding is required outside Period times, press hourglass  and adjust Cycle.
2. Cycle length can be adjusted by pressing button + or – while Cycle time on left side is flashing. Please refer to chapter “Display during a Cycle”.



Close all doors during a manual or automatic Cycle

Ensure that all doors are closed while the machine is working. Failure to do so could cause the warning message which indicates that one of the chambers has gone above its operating range.



10. Working Environment

In order to guarantee the correct and safe functioning of your Burlodge trolley, it should be used in a clean, dry environment. The working ambient range should be greater than +10°C but should never exceed 30°C (86°F). Maximum relative humidity must not exceed 65%.

Failure to comply will invalidate the warranty and may reduce the life span of certain components of your trolley.

Your Burlodge trolley is designed for **indoor use only** and must be protected from external weather conditions at all times.

If Optima RS works in high humidity environmental conditions, some condensation can appear inside the cold and hot chamber.

Optima RS trolley has Climatic class: 4 (ISO 23953-2) but it will be submitted to safety test at 43°C temperature for the SASO conformity (Saudi Arabia).

11.Refrigerant Gas

The following information is given as suggested in the Regulation 517/2014/EU on fluorinated greenhouse gases.

Europe

Used refrigerant gas is R452a (59% HFC-125 + 30% HFC-1234yf + 11% HFC-32).

In accordance with the 517/2014/EU, Annexes I and IV, it is possible to classify the R452a gas GWP (Global Potential Warming) value as:

$$GWP_{R452a} = 59\% GWP_{HFC-125} + 30\% GWP_{HFC-1234yf} + 11\% GWP_{HFC-32} = 2131$$

USA & Canada

Used refrigerant gas is R507 (50% HFC-143a + 50% HFC-125).

In accordance with the 517/2014/EU, Annexes I and IV, it is possible to classify the R507 gas GWP (Global Potential Warming) value as:

$$GWP_{R507} = 50\% GWP_{HFC-143a} + 50\% GWP_{HFC-125} = 3985$$

12.Ecological Disposal



It is the responsibility of the user to ensure that local laws and regulations are complied with when dismantling the product and disposal of all packaging and freight materials.

All fluorinated greenhouse gases contained in the equipment (excluding those contained in foams) shall be recovered. The recovery of these gases shall be as provided for in the Regulation 517/2014/EU.

13.Connecting to the Power Supply



Connecting

Proceed as follows:

- Allow adequate space around so that it is safe.
- Ensure that the power cord is clear of any hazards and not being stretched.
- Insert the plug in wall socket.
- The display will switch on in standby mode.

Disconnecting

Proceed as follows:

- Press OFF button on control panel so the trolley is switched off completely (display is still active).
- Unplug.

The above are given as general guidelines, but may vary depending on the type of plug and socket used. Therefore, it is essential that you follow the instructions given by the manufacturer of the specific type and model of plug and socket used.



- Always check the power cord before every use.
- Always hold the plug body and not the power cable to withdraw the plug.

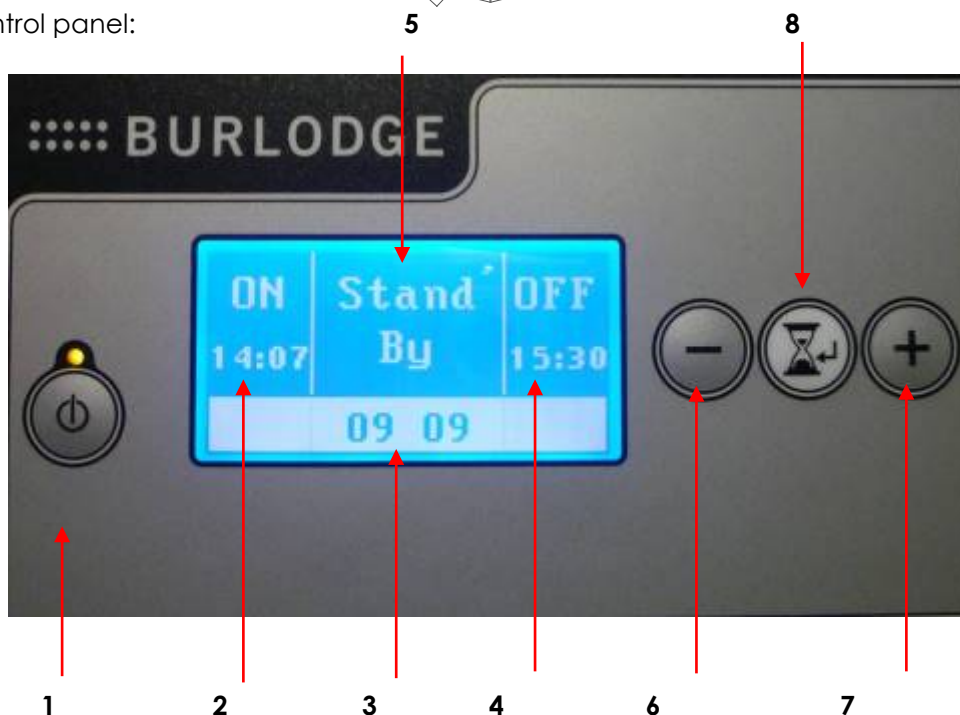


- Never use the product if there are any signs of damage or fraying to the power cord.
- Never use wet hands and ensure that both the plug and wall sockets are dry.
Never disconnect the product during a Cycle. ALWAYS stop the Cycle and turn the product off before disconnecting from the power supply.

14. Control Panel



OPTIMA RS control panel:



Keyboard

- | | |
|----------------------|--|
| 1. On/Off | 5. Equipment status |
| 2. Next Period start | 6. Decrease a value or back to previous parameter |
| 3. Current time | 7. Increase a value or jump to next parameter |
| 4. Next Period end | 8. Confirm and/or select programming or manual Cycle |

15. Optima Stand-by & OFF

Stand-By mode when no Period is scheduled

The screen on the right appears when the trolley is plugged in.
NB: No Periods have been programmed and therefore to be used in manual mode.



Stand-By mode with Periods programmed

The screen on the right appears when the trolley is plugged in. In this case a Period between 14:07 and 15:30 has been programmed.
A manual Cycle can still be used outside Period times in this mode.



Display in Sleep mode

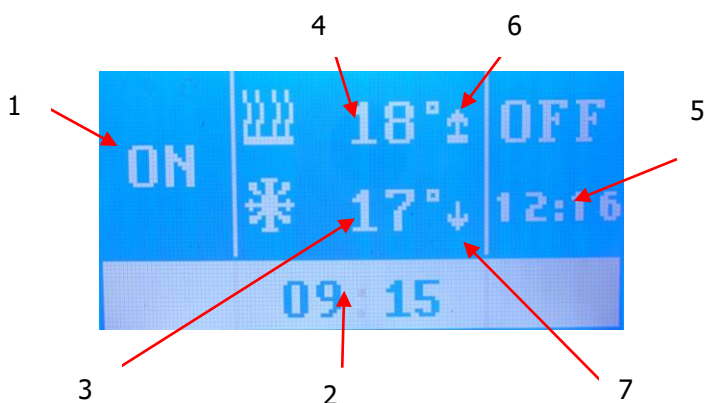
The display can be switched off and put into sleep mode by pressing the OFF button

16. Possible use of the Optima trolley

Period: A Period is whereby a machine will start and automatically stop at pre-set times. This can be done three times daily. A Period can be set to a maximum of 180 minutes (or 210 minutes if using firmware version 1.05 or later). In this option the fridge and oven section can be programmed to be off-set one from the other. An additional manual Cycle can be selected.

Cycle: A Cycle can be selected either during an active Period or in manual mode.

17. Display during a Period



Key to figures			
1	Period in progress	5	Time of Period switch-off
2	Current time	6	Heating in progress
3	Cold side temperature	7	Cooling in progress
4	Hot side temperature		

Period operation sequence

1. The display shows a Period programmed between 09:30 and 12:30. At 9:10 the machine is therefore in Stand-by mode.
2. At 09:30 the display will show ON on the left hand-side and start heating and cooling. It will display the temperature on the hot side (e.g. 33°) and on the cold side (e.g. 24°) and the Period will end at 12:30.



3. At Period end, the buzzer will beep and the word OFF will flash, indicating that the Period is over.
4. When the buzzer stops beeping, the display changes its status and shows 'Stand-By' and the next programmed Period.

18. Display during a manual Cycle

How to set up and start a Cycle

A Cycle can be selected either during an active Period or in manual mode.

Cycle display during a Period



Cycle display without a Period (in manual mode)



Period end
time is
displayed

The length of a Cycle can be adjusted by:

- Pressing hourglass button.
- Adjusting Cycle time by buttons + or – until desired value.

After a few seconds Cycle will start.

Cycle length can be adjusted between a minimum of 0 minutes to a maximum of 60 minutes.

At Cycle end, the time value 0 on the left of the display flashes and the buzzer beeps. When the buzzer stops beeping, the display reverts back to its operating mode (Period or manual-use).

NB: The settings of the previous Cycle are memorized.

What are the hot and cold temperature parameters which a Cycle uses?

During a Period, if a Cycle is selected, it will use the temperature settings programmed for that period. Outside of a Period and if there are more than one automatic Period timings set up, when a Cycle is activated, it will use the temperature settings of the Period just elapsed.

For example: It is 18:00 and a manual Cycle of 20 minutes is launched, the parameters will automatically be taken from the last Period elapsed which was P2 in this case.

			☀	☾
P1	09:15	12:16	80°C	3°C
P2	14:08	15:30	70°C	10°C
P3	20:20	21:20	90°C	5°C

If no Period is set up, the Cycle will use set programmed temperatures of P1.

	ON	OFF	☀	☾
P1	---	---	80°C	5°C
P2	---	---	80°C	5°C
P3	---	---	80°C	5°C

19. User menu and Period programming

In the user menu there are several screens where the following parameters can be set up.

- Period set up
- Date and time set up
- Selection of the scale of temperature: °C or °F
- Display of the current version of firmware and trolley's serial number

20. Period programming

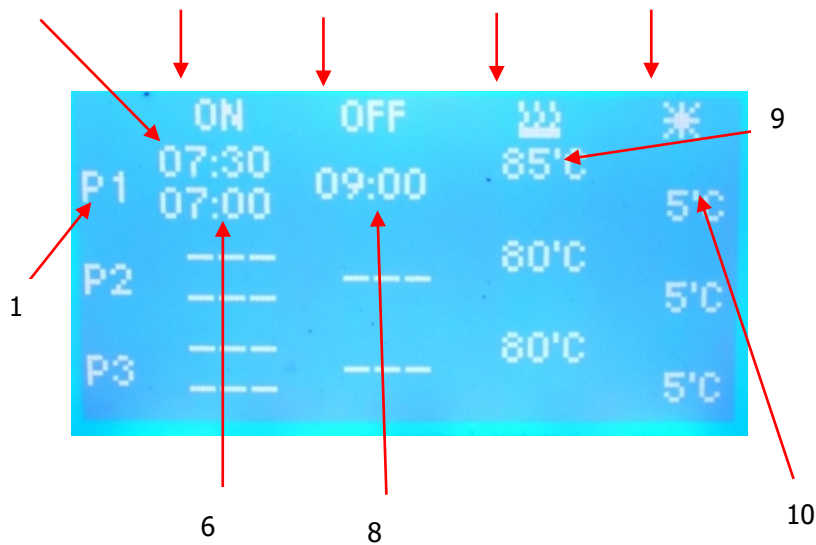
7

2

3

4

5



Key to figures			
1	Period number	6	Start time of P1 cold side set up
2	Activation time	7	Start time of P1 hot side set up
3	Switching-off time	8	End time of P1 period
4	Hot icon	9	P1 hot side temperature
5	Cold icon	10	P1 cold side temperature

As default or following a reset of the electronic board, the default values will be 80°C and 5°C with no periods programmed.

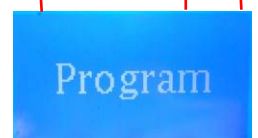
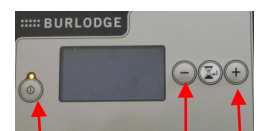
Range of programming parameters for the Periods

Period	Description	Default	Range
P1,P2,P3	Fridge set up	5°C (41°F)	0°C (32°F) ⇔ 25°C (68°F)-26=OFF
	Oven set up	85°C (185°F)	0°C (32°F)=OFF ⇔ 90°C (194°F)
	Period Time	0 min	0 ⇔ 210 minutes

Period	Description	Default	Range
P1,P2,P3	Fridge time start	2:00 = ---	0:00 23:59 ⇔ 2:00=---=OFF
	Oven time start	2:00 = ---	0:00 23:59 ⇔ 2:00=---=OFF
	Period Stop	2:00 = ---	0:00 23:59 ⇔ 2:00=---=OFF

Programming a Period

- Switch off the display by pressing the OFF button twice. Yellow LED is on.
- Press the + and - buttons simultaneously and keeping them pressed press the ON button
- "Program" appears
- Quickly press the confirmation/hourglass button



- The Period programming screen appears



	ON	OFF	🕒	⌘
P1	---	---	80°C	5°C
P2	---	---	80°C	5°C
P3	---	---	80°C	5°C

As an example, let's program the Period P1 with the following parameters where the cold starts before the hot section:

Hot side switching on at: 7:30
Cold side switching on at: 7:00
P1 Period switching off at: 9:00
Hot side temperature during the P1 Period: 85°C
Cold side temperature during the P1 Period: 5°C

	ON	OFF	🕒	⌘
P1	07:30	09:00	85°C	5°C
P2	---	---	80°C	5°C
P3	---	---	80°C	5°C

- Once on the Period set up screen, ON & OFF on top of the screen will flash
- Press the + button, P1 flashes. (If you want to pass to P2 or P3, press the + button once or twice)
- Press the hourglass button, the oven side starting time flashes. Press the + or – to select desired time i.e. 7:30
- Confirm using the hourglass button
- The fridge side start time flashes. Press the + or – to select desired time i.e. 7:00
- Confirm using the hourglass button
- P1 Period switching off time flashes. Press the + or – to select desired time i.e. 9:00. NB: P1 switching off time is the same for both hot and cold sides.
- Confirm using the hourglass button
- Oven side set up temperature flashes. Press the + or – to select desired temperature i.e. 85°C
- Confirm using the hourglass button
- Cold side set up temperature flashes. Press the + or – to select desired temperature i.e. 5°C
- Confirm using the hourglass button
- P2 flashes. Repeat steps 1-12 to set up new Period with appropriate settings.
- If you need to exit programming at this stage press OFF, otherwise press + until the date and time window appears (see next Section 23).

21. Programming date and time

1	→ Y	2015	DST Eur. 🕒 → 🕒 29/03 🕒 → 🕒 25/10
2	→ M	02	
3	→ D	12	
4	→ 🕒	11:09	

Key to figures			
1	Year	3	Day
2	Month	4	Time

Date and time programming procedure

- When accessing this screen, Y (year) flashes
- By pressing the hourglass to confirm, the year (2015) flashes. Press + or - to choose correct year and confirm with hourglass button.
- The parameter M (month) will flash. Press confirm to set this parameter and then you can press + or - to adjust to the correct month and confirm.
- The parameter D (day) will flash. Press confirm to set and then press + or - to adjust to the correct day and confirm.

- The clock icon will flash. Press the confirm button and the hour value will flash. Press + or – to set the hour and then confirm to jump to the minute value. The minute value will flash, set using + or – and then confirm.

NB: To move between year, month, date and, press + or – when the icon is still flashing.

The reset of the electronic board does affect time and date setting.

If the battery is removed from the display panel (or in case it must be replaced), the date and time parameters will reset and will have to be re-programmed.

DST (Day light saving time) settings

The firmware of the Optima RS trolley is programmed to automatically update during daylight saving time.

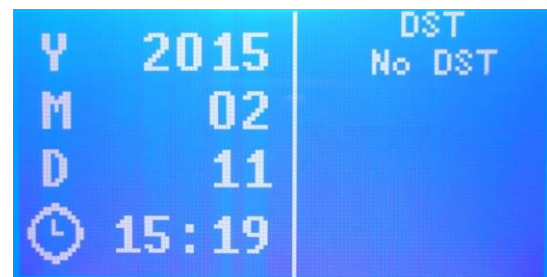
The firmware can be set to either of the following areas:

- Europe
- North America
- South America
- Australia
- No DST
- Manual

Below are two images which show the settings for DST in Europe or when DST is not necessary. In this latter case the time will not be automatically updated at any point in the year.



DST Europe



No DST

In the case of the Australia or South America setting, the icons are reversed. The jump forward or backwards of the time in these areas will take place in the opposite way to Europe or North America.

Setting the area is a technical parameter and must be set by a Burlodge technician. The same applies in a scenario where the installation is in a region which is not indicated in the above table. Please contact Burlodge technical assistance for further information.

23 Centigrade or Fahrenheit settings

When accessing this screen, the tick sign is on °C. If no modification is necessary press +, if you wish to change the temperature scale, press the hourglass button and then either + or – until the tick is on the desired scale. Confirm using the hourglass button.

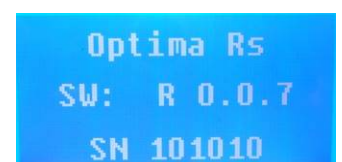


24 Visualization of serial number, firmware type and release version installed

This screen displays the firmware type, its version and the serial number of the trolley.

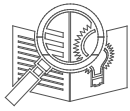
It is not possible to modify these values.

Press the – button to jump to the previous menu or wait approx. 10 seconds and the display returns to Stand-by.



22.Safety Features

Your Optima RS includes the following built-in safety features:



Active Safety Features:

- High limit temperature thermostats with automatic trolley power switch off
- Microprocessor with dedicated software
- Error codes
- Display showing on oven and fridge temperatures
- Castors with parking brakes

Passive Safety Features:

- Fixed fan guards inside technical panel

23.Tray Layout

Keep the products that are to be kept cold and the products that are to be heated or boosted on separate sides of the tray allowing a space for the divider between the two sets of products.

24.Tray Loading

Tray loading direct into the Optima RS.

- Open the doors and load the trays.
- Ensure that when the loading the tray the hot items are in the hot section (The hot and cold section are indicated by labels in the appropriate sections).
- Ensure all the doors are closed before a manual or automatic Cycle



- **Never force the tray.**
- **Never leave trays NOT fully inserted. Failure to do this could consequently damage the door, the tray or dividers!**
- **Ensure that trays are correctly supported by both wires support.**
- **Ensure that nothing obstructs the opening of the doors**

25.Operational process

- Connect the trolley to the mains
- Display automatically switches on in Stand By mode and trolley will start function as programmed on Period mode. If no Period is programmed, a Cycle time must be manually set up. Ensure that this is done at least 25 minutes before trays are loaded.
- Load trays into Optima RS.
- Reconnect to power and select a Cycle time –this should be at least 20 minutes.
- Disconnect and transport to ward.



26. Daily Cleaning Procedures

- Ensure the product is in the SAFE MODE before commencing cleaning.
- When required, the silicon door gaskets can be easily removed. Remember to do this one section at a time and remember which one goes where!

- Use a hot soapy solution to wipe both compartments, then rinse with water. Cleaning solutions should be food safe and must be thoroughly rinsed and wiped dry.
- Leave heavily soiled surfaces to soak for about fifteen minutes, in order to allow ease of cleaning.
- All exterior panels can be cleaned with hot soapy water and rinsed with clean water.
- Clean the display panel and the doors with a damp cloth only.
- Once all cleaning has been completed, polish s/s exterior surfaces of the product with food safe stainless steel polish. Do not polish any interior surfaces, including the faces of the doors.
- Never use any type of abrasive cleaning pads or abrasive cleaners, as these will damage, for example, the surface of the doors.
- Be sure that the detergents used during washing operations are not abrasive or corrosive.

27. Hose Washing

The Optima RS was designed with an **IPX5** water protection degree and can be hose washed

Suggested parameters :

- Nozzle generating a fan-shaped jet ;
- Temperature 60 °C;
- Maximum pressure 3.5 bar;
- Minimum distance of the monitor nozzle from the trolley = 500 mm for inside and 2500 for outside.

28.Cleaning by hand



Use two containers: one containing water plus detergent and one containing clean warm water with an added sanitizer (hard water should be avoided wherever possible), with separate soft lint free cloths. Each cloth should be rinsed and wrung in its appropriate container. Clean with a cloth using the water with the added detergent, wringing the cloth so that all the water is removed, then rinse with the clean cloth, using clean warm water in conjunction with a sanitizing agent and dry.

If there is any spillage of water into the electrical components (e.g. the power supply plug) under no circumstances should the product be used until it is completely dry and an authorized electrician has checked and passed it safe to use. Burlodge, or its authorized service agents, are permitted to carry out any repairs during the period of warranty. Failure to comply with this requirement may invalidate the warranty of the product.

29.Cleaning Schedule

Cleaning Schedule after Every Meal Service

COMPONENT	HANDWASH	SANITIZE	DISHWASH	JETWASH	POLISH	NOTES
Oven Compartment	✓	✓	✗	✗	✗	Wipe dry after cleaning
Chilled Compartment	✓	✓	✗	✗	✗	Wipe dry after cleaning
Interior Surfaces	✓	✓	✗	✗	✗	Never use polish
Silicon Gaskets	✓	✓	✗	✓	✗	Can be left to soak before cleaning
Exterior HPL & plastic Panels	✓	✓	✗	✗	✓	Wipe dry after cleaning and use non abrasive hard surface cleaner
Exterior st. steel Panels	✓	✓	✗	✗	✓	Use non abrasive hard surface cleaner
Display Controls	✓	✗	✗	✗	✗	Use slightly damp cloth only

Trays	✓	✓	✓	✓	✗	Do not use abrasive cleaning pads
Doors	✓	✗	✗	✗	✗	Use water and neutral detergent

Failure to carry out daily cleaning may lead to discoloration of the stainless steel and silicon gaskets.

Caution! Any over spray of polish or other cleaning products on the floor can cause a serious hazard.

Deep cleaning should be scheduled so that the product is maintained at the correct level of cleanliness. Under normal conditions, deep cleaning should be carried out at monthly intervals. This may be varied to suit site conditions.

Remove the fan protection panels every six months for cleaning. For safety reasons trained staff only should remove these panels, with the use of the correct hand tools.

Caution! Do not use any abrasive or caustic products for cleaning. Use of these products will permanently damage the components and surfaces of the product.

The pH of the products used must be within 4.5 and 8.0.

30.Dividers

- To remove each single divider, unscrew completely the hand grip shown in Figure 2 (below), so that the aluminum part can be taken off. The divider can be cleaned either in a dishwasher or by hand.

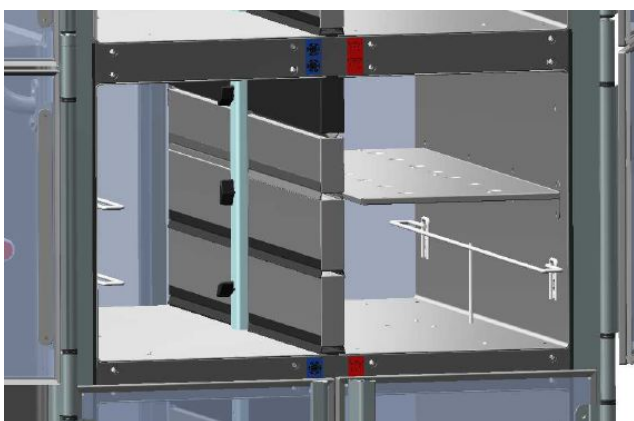


Figure 1

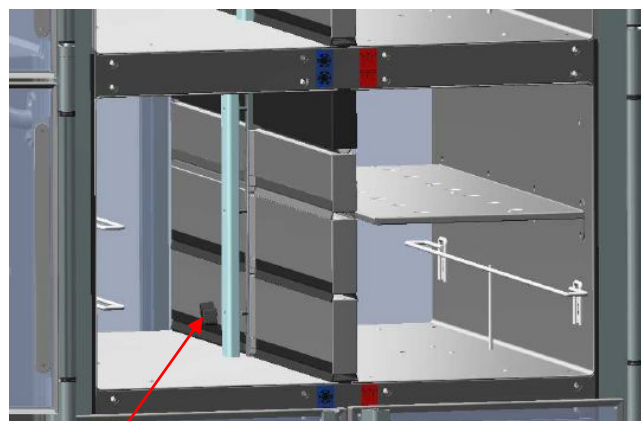


Figure 2

- To replace the gasket simply pull the gasket and remove it (see Figure 3 and Figure 4). Be careful to correctly home reposition the gasket.

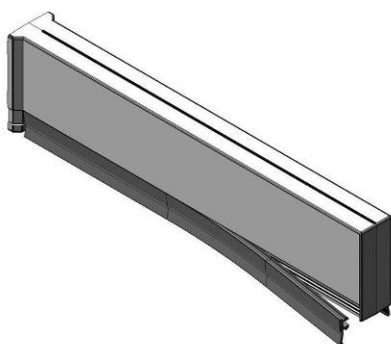


Figure 3

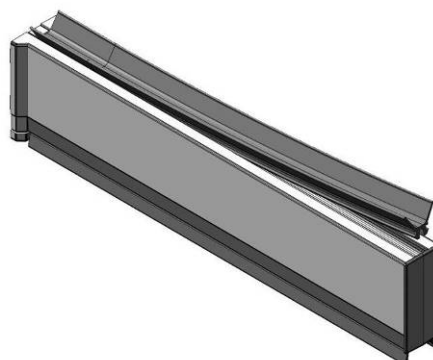


Figure 4

31. Door gasket cleaning

To clean the door gasket remove them starting from the corners. Follow cleaning instructions as per the table into Cleaning Schedule paragraph. Then to put them back onto the door start placing the gasket around the corners and then press the gasket all along the perimeter to make it fit to the door.

32. Washing Detergent Compatibility

A few items of the products are made of alkali sensitive materials, such as aluminum alloys and silicone rubber. Heavy duty caustic alkaline liquid detergents which are specific for kitchen ware washing and soil removal may cause damage to these items.

The use of such products will cause discoloration and surface alteration to metals and lead to early tear of silicone rubber parts (gaskets). The compatibility of the products can be assessed consulting their technical documentation or the Material Safety Data Sheet at paragraph "Handling and disposal Procedures", point "Incompatibility (material to avoid)".

Most washing detergent producers make available an "aluminum safe" grades of their products, which is not affecting the cleaning features. In order to avoid the above mentioned issues these grades should be specified if the product is washed in systems common to the kitchen ware. In any case, accurate rinsing is required.

For any question please get in touch with your Burlodge interface.

33. Fault Finding

The two tables below are a guide for authorized technical personnel and should only be carried out by a competent electrician.

Both tables refer to checks that should be made before placing any service calls.

TABLE ONE		
PROBLEM	EXPLANATION	POSSIBLE CAUSE
H1	Fridge probe failure	Open probe, broken sensor
ACTION replace the probe		
H2	Heater control probe failure	Open probe, broken sensor
ACTION replace the probe		
H3	Heaters probe failure	Open probe, broken sensor
ACTION replace the probe		
H4 (NA only)	Heaters probe failure	Open probe, broken sensor
ACTION replace the probe		
WARNING	heaters overheating	heaters temperature exceed safety thermostat trip value
ACTION open all oven doors and wait till WARNING disappears, trolley returns operative		

Table two refers to checks that can only be carried out by Authorized technical personnel during the period of warranty.

TABLE TWO		
PROBLEM	EXPLANATION	POSSIBLE CAUSE
No display	No power on Optima.	Line fuse blown.
ACTION Find and rectify cause for the failure, then replace the line fuse.		
No display	No supply from the transformer.	Transformer safety fuse blown.
ACTION Find and rectify cause for the failure, then replace transformer safety fuse.		
WARNING	Internal fridge pressostat tripped.	Pressure in fridge circuit exceed max allowed value
ACTION Find and rectify cause check fridge circuit pressure		

WARNING	Heaters overheating	heaters temperature exceed safety thermostat trip value
ACTION	Find and rectify cause for the failure. The thermostat will automatically reset when the temperature of the heating elements cools down.	

34.Regular Maintenance

The maintenance checks listed in the table below should be carried out as an interim service between the full six monthly service. It is also valid as quarterly checks in the first twelve months of use. At the end of this period a full service is required to the manufacturer's specification.

Optima RS			
COMPONENT	VISUAL	OPERATIONAL	NOTES
Power Supply Plug	✓		Check the plug for damage to the pins or strain relief and that all screws are tight.
Power Supply Cable	✓	✓	Check for any damage, abrasion, cuts, or fraying which could compromise the insulation and the integrity of the power supply cable.
Cable gland	✓	✓	Check the cable gland nut is tight and the power supply cable is firmly gripped in the connector.
Display Controls	✓	✓	Ensure all the displays, LED and touch pads function correctly.
Magnetic Latches	✓	✓	Check the latch for correct operation.
Doors	✓	✓	Check that they close correctly against the silicon gaskets.
Door Hinges	✓	✓	Check that the screw of hinges are not loose.

35.Maintenance

Safety Precautions and Preparing For Maintenance

A maintenance program to maintain the product in optimal condition is clearly defined in four different categories.

- Daily cleaning (refer to Daily Cleaning Procedure and Cleaning By Hand sections)
- Periodic cleaning (refer to Daily Cleaning Procedure and Cleaning By Hand sections)
- User maintenance (refer to Interim Maintenance section)

Maintenance schedule to manufacturer's recommendations. Contact Burlodge Technical Department for specialized training.

Checks before Every Use

EQUIPMENT	VISUAL	OPERATIONAL	NOTES
Power Supply Plug	✓		Do not use if there are any signs of damage
Power Supply Cable	✓		Do not use if there are any signs of damage
Display Controls	✓	✓	Do not use if there are any signs of damage
Magnetic Latches	✓	✓	Report any defect for immediate repair
Doors	✓	✓	Do not use if there are any signs of damage

The product operator should carry out the checks referred to in the above table.

Servicing

All servicing must be performed by Burlodge authorized agents and must be to the manufacturer's specification and at the required intervals.

36. Technical Assistance after Sales Service

Technical Assistance

Burlodge offers a wide range of service contracts. Standard, Comprehensive and Fully Comprehensive contracts are available along with the option to have your in-house staff trained to act as Burlodge Service Agents.

For further information and for specialized contracts contact our Service Department. The Burlodge support team is unrivalled in its experience in the field. Burlodge technical service has been designed to ensure our customers experience the minimum delay possible when a fault or problem is encountered.

This brings you the benefit of after sales support with a strong technical network. Burlodge is well aware that down time must be minimized. Our Authorized Service Agents are in your locality to provide comprehensive, quick service.

37.Preventative Maintenance

All equipment must be serviced at six monthly intervals. Correct preventative maintenance is essential to ensure the reliable and safe operation of the Optima RS and to ensure the longest economical life of the equipment. Competent and fully trained personnel only may carry out servicing to the manufacturer's specifications.

Burlodge offers a wide range of service contracts covering this equipment provided such equipment is operated and maintained in accordance with the manufacturer's recommendations. You will have the peace of mind that comes with having a fully trained service force able to support this product anywhere it is located through preventive maintenance contracts and after sales service.

For further information and for specialized contracts, please contact the Burlodge Technical Department.

38.Warranty and Service Calls

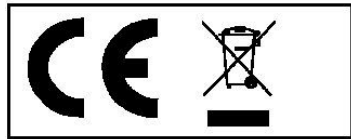
Before you contact the Burlodge Service Department or Authorized Service Agent, please make sure that a competent electrician has carried out the following checks:

- check the power supply
- check the power cable, plug and internal fuses
- check for any visual damage

Under no circumstances remove or interfere with any part of the Optima RS even if it is disconnected from the power supply. If the product still does not operate, contact your local service agent or Burlodge Service Department.

Please ensure that you give the following information when placing a call with the Service Department (refer to the rating plate at the rear of the product): (ID_PLATE)

 BURLODGE		OPTIMA RS
Date 7.1.2015		BLO4S.100.0001
Serial n. BLC 128636		Made in EC
Supply: 220-240V~ 50/60Hz		Class Clim: 4
Amps 8,6A		IP X4
Watts 1800W		Gas: R452a
Gas Qty (oz) 350g		



 BURLODGE		OPTIMA RS
Date/Date 7.1.2015		BLO4S.501.0003
Serial n./N. de Série BLC 128636		Made in EU
Supply/Alim. 120/240V - 3wire - 60Hz		
L1 Amp : 11.3A L2 Amp : 5.1A Watt : 1800W		
Gas/Réfrigérant R 507		Gas Qty/Quantité 12.35oz (350g)
Pressure/Pression: Low-Bas 180psi / High-Haut 344psi		

Cet équipement est prévu pour une utilisation à l'intérieur seulement

Cet équipement est prévu pour le maintien réfrigéré et en température des aliments couverts ou préconfectionnés et pour des aliments potentiellement à risque dans des contenants prévus à cet effet

This equipment is intended for indoor use only

This equipment is intended for holding hot and cold of potentially hazardous, covered or prepackaged food only.

- The Series name (i.e. Optima RS)
- Model code
- Date of manufacture
- Serial number
- The location of the equipment
- A detailed description of the problem
- Your name, department, position and phone number



Caution:

Any electrical testing by untrained personnel is extremely hazardous and may cause permanent damage to the onboard electronics if not carried out correctly.

39.Spare Parts

Use only original Burlodge spare parts, they are an exact replacement. Use of other spare parts may compromise the safety and performance of the product. Burlodge, or its authorized service agents, must carry out any repairs during the period of warranty.

Failure to comply with these requirements may invalidate the warranty and all certifications of the product.

How to Order Spare Parts

The Spare Parts Table section is divided into different categories to assist you in identifying the parts you may require.

This table also highlights the parts that we recommend you keep in your stock.

Refer to the Diagrams in the Spare Parts section to initially identify the component.

When ordering spare parts or requesting technical assistance, always refer to the data plate to identify the product.

This information is essential to identify correctly the parts required for the product.

Please supply the following information:

BURLODGE		OPTIMA RS BLO4S.100.0001	
Date: 7.1.2015 Serial n. BLC 128636 Supply: 220-240V~ 50/60Hz Amps: 8,6A Watts: 1800W Gas Qty (oz) 350g	Made in EC Class Clim: 4 IP X4 Gas: R452a		

BURLODGE		OPTIMA RS BLO4S.501.0003	
Date/Date: 7.1.2015 Serial n./N. de Série BLC 128636 Supply/Alim. 120/240V - 3wire - 60Hz L1 Amp : 11.3A L2 Amp : 5.1A Watt : 1800W Gas/Réfrigérant R 507 Gas Qty/Quantité 12.35oz (350g) Pressure/Pression: Low-Bas 180psi / High-Haut 344psi	Made in EU Supply/Alim. 120/240V - 3wire - 60Hz L1 Amp : 11.3A L2 Amp : 5.1A Watt : 1800W Gas/Réfrigérant R 507 Gas Qty/Quantité 12.35oz (350g) Pressure/Pression: Low-Bas 180psi / High-Haut 344psi		
Cet équipement est prévu pour une utilisation à l'intérieur seulement Cet équipement est prévu pour le maintien réfrigéré et en température des aliments couverts ou préconfectionnés et pour des aliments potentiellement à risque dans des contenants prévus à cet effet.	This equipment is intended for indoor use only This equipment is intended for holding hot and cold of potentially hazardous, covered or prepackaged food only.		

- The Series name (i.e., Optima RS etc.)
- Model code
- Date of manufacture
- Serial number
- Part number
- Description of part
- Quantity required
- Your name, department, position and phone number
- Delivery address
- Invoicing address
- Purchase Order number

40.Warranty

Standard Warranty

The standard warranty is one-year parts and labor or as per contract. Commencing 14 months from the date of delivery or 12 months from the date of commissioning which ever expires first. All equipment except china, trays and consumable components is covered against faulty material or workmanship. In the unlikely event of any valid failures, Burlodge or its authorized agents will repair the product free of any charges.

The following will not be covered by the warranty and may invalidate it:

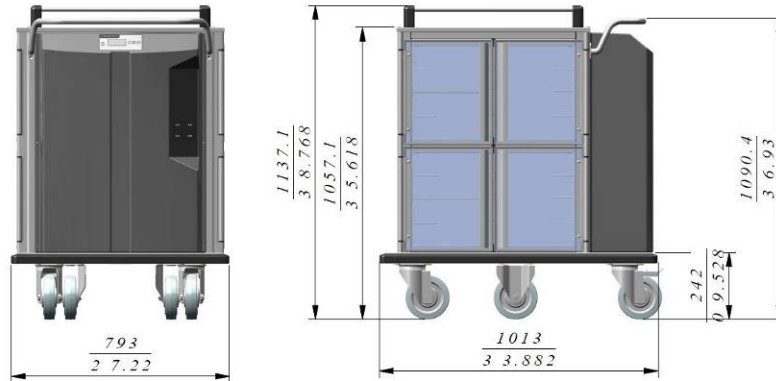
- **Damage during unloading or storage.**
- **Incorrect installation.**
- **Neglect or misuse of the equipment.**
- **Use of the Optima RS other than described in this manual.**
- **Fire, water or frost damage.**
- **Using parts not supplied by Burlodge/Authorized Service Agent.**
- **Service carried out by service companies not authorized by Burlodge.**
- **False calls.**
- **Voltage fluctuations exceeding $\pm 10\%$ of the nominal voltage.**
- **Power failure.**
- **Damaged power cord or plug.**
- **Re-programming after commissioning and after initial training will not be covered by the warranty**

Only authorized persons may carry out repairs during the warranty period or in compliance with the Burlodge contract. Should the Customer fail to comply with these requirements, both the initial warranty period and all certification of the product will automatically become invalid.

This manual is provided to assist you to resolve some of the problems you may incur. Please make sure that you refer to this manual before placing a service call as we reserve the right to charge for any calls that could have been resolved by reading this manual.

41. Dimensions

Optima RS S



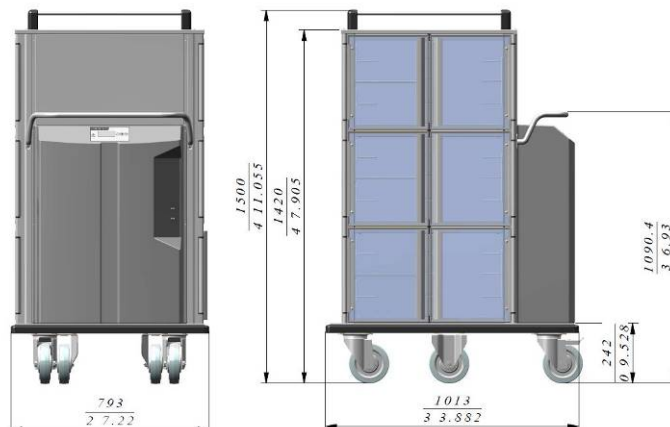
Description

Optima RS S 8 Tray
Optima RS S 12 Tray
Optima RS S 16 Tray
Optima RS S 12 PLUS
Tray
Gross weight: 170 Kg

Pitch

160 mm/6,3 In
87 mm/3,42 In
75 mm/2,95 In
87 mm/3,42 In

Optima RS M – EU MODEL ONLY



Description

Optima RS S 12 Tray
Optima RS S 18 Tray
Optima RS S 24 Tray
Optima RS S 18 PLUS Tray
Gross weight: 207 Kg

Pitch

160 mm/6,3 In
87 mm/3,42 In
82 mm/3,62 In
82 mm/3,22 In

42. Towing Attachment

A tow bar can be installed to the Optima RS. The tow bar attachment is designed to be used together with a tow hook and can tow a maximum of two Optima RS trolleys at a time at a maximum speed of 4km/ 2.5 miles per hours.

43.Installation

The plug and cord on the Optima-RS will be of a type and rating that meet the required electrical voltage and current requirements of the product. The measured supply voltage must be within 10% of the name plate rating. Check the rating plate on each piece of equipment for further details. If the power supply available does not suit the electrical requirements of the product, contact our Service Department or an Authorized Service Agent.

Check that the wall plug or cord set has been installed by a qualified electrician and is correctly connected to Earth. Ensure the power supply is compatible to that which is stated on the rating plate. Ideally the product should be connected to an interlocked switched socket incorporating both earth fault device and over current protection.

Ensure the plug or cord set is located so that the product cannot damage it, yet remains easily accessible to the operator without stressing the power cable.



The electrical installation must conform to the National and local Electrical Codes

The access should be checked for any obstructions that may cause damage to the appliance

Europe:

Plug Connections Optima-RS 230V 50Hz 1P+N+E

N.B.: If the plug is to be replaced, ensure that the plug is of the appropriate rating to correspond with the product data plate and that the conductors are connected to conform with the table below. The product is fitted as standard with a 16 amp 230V, 1P+N+E plug (BS4343 - IEC/EN60309-2)

Single Phase, Neutral and Earth

Phase L1: Brown

Neutral N: Blue

Earth E: Yellow/Green



Do not use extended cables

Always avoid long cables or extended cable

Cordset :

Cordset:



In case of cordset use, if you have to replace the standard plug supplied on the trolley Optima RS with a different plug, the IP grade of the trolley will be degraded to the value of the final plug fixed at cordset end.

I.E.: If the plug fixed on the cordset is of IP44 type, the trolley is degraded to IPX4 (if used with connected cordset)



Every socket where Burlodge Optima-RS will be connected shall be provided with the appropriate differential magnetothermic switch with intervention limit complying with electrical regulations in force in the country where the product is installed.

Canada/US:

Plug Connections Optima RS 120/240V 3 wire 60Hz

NOTE. If your product is supplied without a plug on the power supply cable or the plug must be replaced, ensure that the plug is an exact NEMA replacement (L14-20P) and that it corresponds with the product data plate. The conductors must be connected to conform to the table below.

Double Phase, Neutral and Earth

PLUG	SUPPLY
Phase X:	Black
Phase Y :	Red
Neutral W :	White
Earth E:	Green



Do not use extended cables

Always avoid long cables. It is much safer to reposition the plug to a more appropriate location.

44.Equipotential Connector

On the bumper at the bottom of the trolley there is a screw clamp terminal block used as terminal for the connection of external equipotential bonding conductors having nominal cross-sectional areas **up to 10mm²** wire to allow equipotential connections. It shall not be possible to loosen the conductors without the aid of a tool.



45.How to use Optima RS NA with a cordset

Plug Connections Optima RS 120V 60Hz

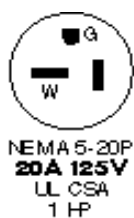
Nema L5-20P

It is possible to connect the Optima RS to a single-phase 120V L5-20R Nema type socket by using the appropriate cordset consisting of a L14-20R type movable socket and a L5-20P Nema single-phase plug. In this case, the refrigeration side of the trolley is fully operating whereas in the oven side, only the heating elements on the vertical side of each room are working. Those on the bottom (of each room) are disabled not to exceed the 16 Amperes power maximum allowed.

N.B.: If the plug is to be replaced, ensure that the plug is of the appropriate rating to correspond with the trolley data plate and that the conductors are connected to conform with the National and local Electrical Codes

One Phase, Neutral and Earth

Phase L1 :	Black
Neutral N :	White
Earth E :	Green



46.Electrical Specifications

EUROPE

RIF.	DESCRIPTION	Total		Refrigeration only	
		Amp.	KW	Amp.	KW
BLO4S.101,2,3	Optima RS single refrigeration 220V-240 50/60 Hz 1 Ph	8.6	1.8	5.0	0.7
BLO4M.101,2,3	Optima RS single refrigeration 220V-240 50/60 Hz 1 Ph	12	2.4	5.0	0.7
BLO4S.104	Optima RS single refrigeration 220V-240 50/60 Hz 1 Ph	11.3	2.6	5.0	0.7
BLO4M.104	Optima RS single refrigeration 220V-240 50/60 Hz 1 Ph	15.9	3.5	5.0	0.7

RIF.	DESCRIPTION	Total		Refrigeration only	
		Amp. L1; L2	KW	Amp.	KW
BLO4S.501	Optima RS single refrigeration 120V-208 60 Hz 2 Ph	11.3; 5.1	1.8	7.5	0.6
BLO4S.502	Optima RS single refrigeration 120V-208 60 Hz 2 Ph	11.3; 5.1	1.8	7.5	0.6
BLO4S.503	Optima RS single refrigeration 120V-208 60 Hz 2 Ph	11.3; 5.1	1.8	7.5	0.6
BLO4S.504	Optima RS single refrigeration 120V-208 60 Hz 2 Ph	12; 10	2.4	7.5	0.6

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