STRAVA SPLINT BATH USER MANUAL

REF 100.600 Standard Size

REF 100.600E

REF 100.600A

REF 100.600UK

This manual must be given to the user of the product. Before using this product, this manual must be read and saved for future reference.

PART NUMBER: 400.600 Rev 6 Strava User Manual

CONTENTS

STRAVA SPLINT BATH
USER MANUAL

Inspection

Prior to shipment, the water baths are subjected to a thorough safety-related and functional quality control and are carefully packed.

Check **ALL** parts for shipping damage. If shipping damage is noted, **DO NOT USE**. Contact dealer/ manufacturer for further instruction.
Products may only be returned in undamaged cardboard packaging – primarily the original cardboard packaging.

Contents of Box

1. Splint Bath – Standard REF 100.600
2. User Manual REF 400.600
3. One of the following:
   Power Cord (US) REF 300.107
   Power Cord (Euro) REF 300.154
   Power Cord (UK) REF 300.155
   Power Cord (AU) REF 300.156
   (do not use a detachable mains power cord with inadequate ratings to the Strava cord)
4. 8 ft Drain Hose REF 200.101
5. Strainer REF 300.128
6. Priming Bulb REF 300.127
7. Inline Filter 300.226

Safety

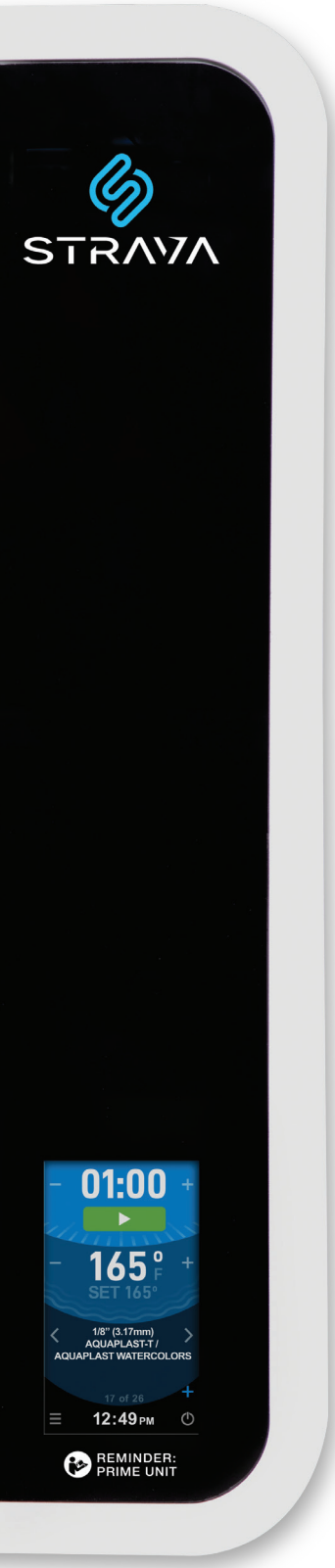
The safety section contains important information for the safe operation and use of this product. Read this information, the Care Card, and any other safety information included with the product before using the splint bath.

WARNING

To avoid electric shock, connect the instrument to properly earth-grounded, GFCI protected, 3-prong receptacles only. Failure to observe this precaution can result in severe injury.

The Electric Shock Symbol is used to indicate a hazard arising from dangerous voltage. Any mishandling could result in severe injury or death. The Exclamation Symbol appears in Warning and Caution statements.

SYMBOLS



Signal words are used in this manual and apply to hazards or unsafe practices which could result in personal injury or property damage. See the information below for definitions of the signal words.

This symbol designates where personal injury or damage to the equipment is possible.

DANGER!

DANGER!

Danger indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING!

WARNING!

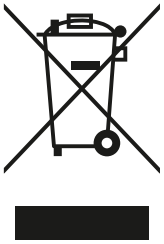
Warning indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

- *Failure to follow these instructions could result in damage to your new heating appliance and/or injury*

CAUTION!

CAUTION!

Caution indicates a potentially hazardous situation which, if not avoided, may result in property damage or minor injury or both.

SYMBOL	DESCRIPTION
CE	European Union CE mark. The CE mark indicates that this product satisfies the relevant requirements of EC Directives.
	Waste Electrical and Electronic Equipment (WEEE) This symbol on the product or on its packaging indicates that this product must not be disposed of with regular waste. Instead, it is the user's responsibility to dispose of waste equipment according to the local laws. Separate collection and recycling of the waste equipment at the time of disposal will help conserve natural resources and ensure it is recycled in a manner that protects human health and the environment. For information about where the user can drop off the waste equipment for recycling, please contact your local waste collection authority.
	Electric Shock The Electric Shock Symbol is used to indicate a hazard arising from dangerous voltage. Any mishandling could result in severe injury or death.
	Caution, consult the instructions for use.
	Keep dry
	Refer to User Manual
SGS	Product Certification Mark
	Year of Manufacture
REF	Catalogue Number

THE PURPOSE OF THIS MANUAL

This User Manual is mainly focused on the set up, cleaning, operation and routine maintenance of the Strava Splint Bath. These instructions help avoid dangers and repairs while increasing product reliability. Keep this manual for future reference.

Instructions for Proper Use

Please read these instructions carefully before using the water baths.

These instructions will help avoid dangers, unnecessary repair costs and down times. Following these instructions will increase the reliability and life of the product.

The water bath is only intended for the heating of thermoplastic material for medical use.

- This water bath is not suitable for direct heating without using water.
- The heating of food and drinks, as well as other pharmaceutical and medical products, is not allowed and constitutes improper use.
- Direct application on the patient is not allowed.

Indications for Use

The Strava Splint Bath is intended for use as a reservoir in hospitals, clinics and other medical facilities to heat and soften thermoplastic used in the splinting process. The device is intended for indoor use only.

Product Description

Strava Splint Bath is a reservoir made of a thermoset composite material that holds and heats water. The water bath allows for thermoplastic splint sheets to be softened and made pliable to form to the body. The Strava Splint Bath has a custom LCD touch display for accurate water temperature readings, user-controlled water temperature and time settings, thermoplastic sheet presets, user presets, sanitation cycles and automatic water evacuation. The Strava Splint Bath is equipped with three (3) modes of cleaning: continuous UV light, a sanitation cycle that heats the water temperature to kill levels, and quick water evacuation. The Strava splint bath has a transparent, fold-up glass lid, a custom strainer for debris collection, a thermostat water temperature regulator (+/-2F), and holds approximately 5 gallons of water.

TECHNICAL DATA

Technical Specifications Strava Splint Bath

Strava SPLINT BATH STD	UM	Spec
REF 100.600		
Operating Temperature Range	F	140° - 180° F
	C	60° - 82° C
Sanitation Mode	F	185°
	C	85°
Temperature Variability	F/C	2°
Set Time	Seconds	30 - 180
Over Voltage	W	11
Frequency	Hz	50/60 Hz
Mains Voltage (+/- 10% of nominal voltage)	V	100-120 VAC, 200-240 VAC
Power Consumption	W	1100W
AC Current (Max)	A	<10 Amps
Water Fill Capacity	Gallons	5.2 G
	Litres	20 L
Water Fill Height	in	5”
	cm	12.5 cm
Unit Weight	lbs	35 lbs
	kg	15.9 kg
Unit Dims Outer (LxWxH)	in	22.625”L 19.75”W 10”H
	cm	60cm L 52cm W 25.5cm H
Unit Dims Inner (LxWxH)	in	19”L 12”W 6”H
	cm	48cm L 30cm W 15cm H
Unit Shipping Weight	lbs	47 lbs
	kg	21 kg
Unit Shipping Dims (LxWxH)	in	26.5”L 23”W 16”H
	cm	67cm L 59cm W 41cm H
Standard		IEC 61010-1, -2
		UL 61010-1, -2
		CSA C22.2#61010-1, -2
		CB SCHEME
Environment (Altitude)		
Operation (Max)	ft	16,732 ft
	m	5100 m
Storage (Altitude)	ft	16,732 ft
	m	5100 m

Responsibility of the User

This product guarantees safe operation if installed, operated and maintained in accordance with general safety rules. The operator of this device must read and understand this manual and be trained in occupational therapy methods. All operators are to be aware of the relevant dangers of using a hot water bath and exercise measures to avert such dangers. In case of spillage of hazardous materials on or inside the bath, operator must properly decontaminate the unit.

Material

The outer chassis material is a thermoset composite material. The unit consists of a tempered glass lid, drainage hose, water strainer, water pump, power supply and ultraviolet (UV) light.

Control Panel

1 – Target temperature display

2 – Actual temperature display

3 – Temperature display mode °C/°F

4 – Time control up or down

5 – Timer START/STOP button

6 – Timer – time count down display

7 – Presets wheel

8 – Temp control up or down

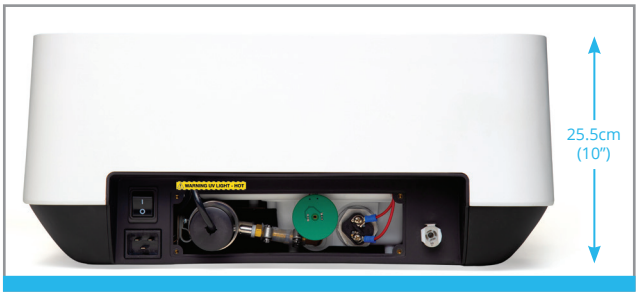
9 – Menu

10 – Add a new preset

11 – Power down unit

Side of Unit

Rear of Unit



Top Side of Unit

INSTRUCTIONS

WARNING: Do not start the unit if the cable or plug is damaged, or if there are obvious, visible defects to the unit.

NOTE: USE TAP WATER TO FILL UNIT. IF YOU ARE IN A HARD WATER ENVIRONMENT WHERE DISTILLED WATER IS PREFERRED, ADD ONE CUP OF TAP WATER TO EVERY GALLON OF DISTILLED. UNIT WILL NOT FUNCTION PROPERLY IF DISTILLED WATER IS EXCLUSIVELY USED.

Initial Set Up

1. Unpack the splint bath and place on a level surface that is capable of bearing the bath and water load. Be sure there is adequate space between the vent and wall for ventilation. Make sure that all packaging materials are cleared from the reservoir.
2. Plug the Strava supplied power cord (do not use any other power cord other than supplied by Strava) into the back of the unit and a dedicated wall receptacle. (Protective Earthing - a dedicated electrical circuit is required). Fill the reservoir with water just above the water sensor (approximately 2”/5cm). Flip the switch at the back of the unit to turn the unit “on”. At initial powering up of the bath, the start up wizard will display on the LCD screen.
   - Start up wizard will prompt user to set time, day of the week, and temperature.
3. Unit must be primed before operation. Insert the supplied priming bulb into the priming port. Squeeze the bulb once and hold it until the bulb is fully inflated. Release the tip of the priming bulb from the port. You should see the water start to bubble at the port. You will also notice a slight change in the sound of the motor. If this doesn’t occur, repeat up to 3 times. Once the water bubbles , the unit is primed. This process removes any trapped air in the tubes and allows the pump to engage.
4. Continue filling the tank to desired water level or to the bottom of the internal hinge line.

Priming bulb

Control panel:

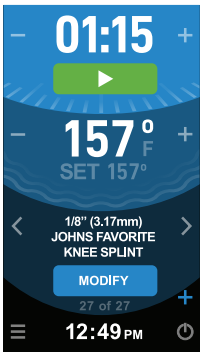
The touchscreen LCD display lights up when the unit is turned on. The control panel functionality provides the user with options to customize the device for their needs.

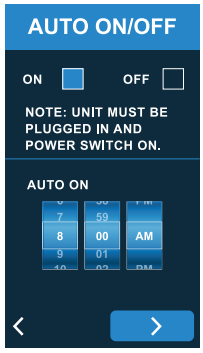
- The home screen consists of the session time, current water temperature, set temperature, presets, real time, and a menu icon.
- Presets are factory installed temperature and time suggestions that are specific to the thermoplastic selected. These are recommendations provided by the thermoplastic manufacturer. Time and temperature can be changed prior to or during a session by depressing – or + on the home screen. View all factory presets with the horizontal scroll on the home screen with < or >
- **Note**: the wavy white lines indicates that the water is heating up. It will change to green box with > symbol when the set temp is reached and the session can begin.

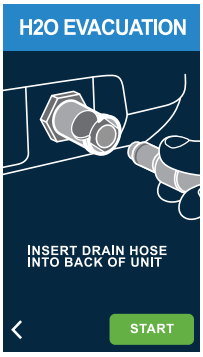
The menu consists of the following features:

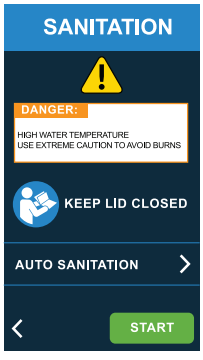
- Set auto on/off – this feature automatically sets "on" time and "off" time for specific days of the week. Factory default for this is off. This feature preheats the water to reach set temperature prior to a session starting and to save energy in the evening when not in use.
- Water evacuation – when "start" button is pushed, the pump will evacuate the water via the drain hose. Important: be sure that the drain hose is properly inserted in the back of the unit. Drainage can be stopped at any time by pushing the "stop" button. The pump will automatically stop once the water level has sufficiently dropped. It takes approximately 4 minutes to drain a full tub of water.
- Sanitation cycle – The sanitation cycle is an optional, secondary disinfection of the unit by increasing the water temperature to an extreme high heat to kill microbes. Strava Solutions highly recommends daily sanitation of the splint bath. The sanitation cycle factory default is "off". A nightly sanitation cycle can be set by engaging the "auto sanitation" feature to set days and time. After the sanitation cycle is completed, the unit will return to last preset used.

Home Screen









INSTRUCTIONS CONT.

If sanitation cycle is manually turned on, the 5 minute cycle will run when the “start” button is depressed and sanitation water temperature is reached. The water temperature is displayed on the control panel during the sanitation cycle. At the conclusion of the cycle, the water temperature last used will be resumed.

Only if auto on/off has been set will the unit go into sleep mode after auto sanitation.

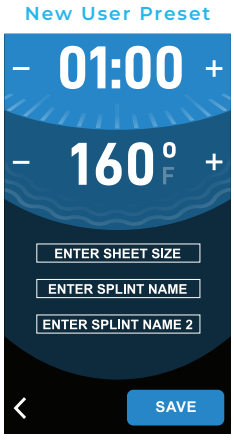
CAUTION! WARNING! DANGER!

- **RISK OF SEVERE BURN!**
- Keep the lid closed during sanitation cycle. Do not insert any thermoplastics or any other materials into the bath during sanitation cycle. Do not put hands or appendages in the water.

- Helpful tips – this screen provides the user with helpful tips and information about the Strava splint bath.
- Presets – in addition to the factory presets, the user can program desired presets by name. Up to 50 user-defined presets can be stored in the unit. The default time for a new user preset is 1:00 minute and the default temperature is 155° F/68° C.
  - To add a new user preset: 1. go to user presets in the menu, click +, enter the material size (if desired), the sheet name, and adjust the time and/or temperature with – and +. Click save after each selection. 2. From the home screen, click the + in the bottom right corner beside the displayed preset. Enter the material size (if desired), the sheet name, and adjust to the desired time and/or temperature with the – and +. Click save.
  - To modify an existing preset: go to user presets in the menu, click on modify, make desired time and/or temperature change with – and +. Click save.
  - **Note**: factory preset names cannot be changed or deleted. User defined presets can be removed.
- Temp setting – set in degrees Fahrenheit (F) or Celsius (C). Factory default is F.
- Set time - set the real time clock with scroll wheel in either 12 hour or 24 hour time display. Factory default is 12 hour display mode.
- Audio/visual – adjust the screen brightness and the volume of auditory signals. A beeping sound engages the last ten seconds of a session to alert the user.

Note: audio can be shut off except on certain error message screens.

- Factory reset – **CAUTION!** by clicking reset, all factory defaults will be restored and all user-defined presets will be erased.



General Use:

- Once the unit is filled to desired water level, the power is on, the preset is fixed, and the set temperature has been reached, the unit is ready for the thermoplastic materials.
- Insert the splinting material into the reservoir, being careful not to splash hot water outside the tank.
- Press start (green button with arrow on home screen). At any time during a session, the timer can be paused and restarted from the beginning or from the time the unit was paused.
- To maintain an accurate water temperature, retain heat, and minimize evaporation, keep lid closed.
- Use caution when retrieving the material from the bath. Apply the material to the patient as er the splint manufacturer's instruction.
- Maintain sufficient water level at all times. (approx 3"/7.62cm deep).

Note: The UV bulb is always on during normal operation of the unit.

Emptying the Water:

- Allow the water to cool before water evacuation. Water will not drain unless the water temperature is below 165° F/74° C.
- Be sure that the drain hose is properly inserted at the back the unit. The water will not drain if the hose is not connected.
- In the menu on the control panel, click on H2O Evacuation and press start.
- Once the bath is empty, proceed with tank cleaning.

Cleaning the bath:

see detail cleaning instructions on the Care Card included with your splint bath or online

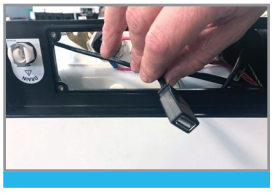
- Strava recommends cleaning the water reservoir two or more times monthly. Each facility should determine its cleaning frequency based on usage, water grade, visual inspection, and sanitation protocols protocols that apply to your facility and/or JACHO.
- Evacuate water then turn the power switch off and unplug the unit from the wall receptacle.
- Add Water & Cleaning Solution (Vinegar -OR- Coffee Machine/Commercial Descaler).
- Turn unit back on and run for run for 10 minutes @ 135°F/57°C.
- Evacuate water then turn the power switch off and unplug the unit from the wall receptacle.
- Clean inside water basin Using a Scotchbrite® Scour Pad or cloth, wipe the inside tub with warm water. To remove scum, waterlines, mineral deposits, etc., add a mild detergent. Be sure to rinse throughly and wipe dry. **Do NOT use bleach or extra abrasive products such as steel wool.**
- Remove the thermocouple inline filter found inside the water basin beneath the grate to clean debris. (see Care Card)
- Return the cleaned inline filter to the thermocouple. (see Care Card)
- Refill with water – Please note special instructions if using distilled water.
- Turn unit back on and run for run for 5 minutes.

Software Upgrades:

In the event a software upgrade is required, the manufacturer will provide you with a new version of software to upload via USB stick.

- Make sure the unit is off.
- Remove the back panel of the unit by removing the four screws with a #2 phillips screwdriver (cross tip)
- Locate the USB connector. It will a black cable tethered to the drain hose.
- Insert the USB stick into the connector.
- Turn the unit on.
- The software upgrade is complete when the set up wizard appears on the screen.

USB connector



Troubleshooting

Over temp:

If the unit exceeds 195° F (91° C) turn off main power and contact technical service at technicalsupport@stravasolutions.com.

Low water:

1. If there is water in the reservoir, make sure that the tank is NOT filled exclusively with distilled water. The unit must have (1) cup of tap water per (1) gallon of distilled water for the sensor to register the water level. If there is tap water in the reservoir, turn off the main power and contact technical service.
2. If there is no water in the reservoir, turn off the main power and investigate possible causes - water evaporation or unit leakage.
    - **Water evaporation** - always maintain adequate water volume in the tank.
    - **Water leakage** - turn off main power and contact technical service.

UV lamp defective:

Turn main power off. Unplug cord from unit and wall. Remove rear access panel via 4 screws. Carefully remove black rubber boot from UV housing, allowing the lamp to slide out of the housing. Disconnect lamp from connectors on both ends. Replace bulb. Reconnect at both ends and insert new bulb back into the housing. Attach rear access panel. Dispose of defective bulb according to local regulation. In the event the error message “UV Lamp Defective” remains after the new bulb replacement, contact technical service to obtain a software upgrade.

Pump occlusion:

Refers to blockage in the water system.

1. If evacuating the water, stop evacuation mode and contact technical service.
2. In standard operation, turn off the main power and contact technical service.

Temp sensor error:

Refers to the water temperature exceeding 195°F (90.5°C). If the over temp error message displays:

1. While evacuating the water, pause evacuation, wait for the water to cool, then resume evacuation. Unplug cord from unit and wall. Contact technical service.
2. During standard operation, unplug cord from unit and wall. Contact technical service.

Consult manufacturer if there is any doubt of the compatibility of decontamination or cleaning agents.

Replacement Parts

Heating Element	REF 300.100
UV Lamp	REF 300.105
Mains Power Cord (US Hospital Grade)	REF 300.107
Mains Power Cord (Euro Hospital Grade)	REF 300.154
Mains Power Cord (UK Hospital Grade)	REF 300.155
Mains Power Cord (AU Hospital Grade)	REF 300.156
Hose	REF 200.101
Strainer	REF 300.128
Priming Bulb	REF 300.127
Inline Filter	REF 300.226

Warranty/Replacements

Strava Solutions warrants that its products are free from defects in material or workmanship. Under normal use and following all guidelines defined in this manual, Strava splint baths are warrantied for a period of one year from when product is received (two years outside the USA). Should replacement or repair be required, purchaser must notify dealer or manufacturer in writing. After obtaining an RA (returned goods authorization), product must be returned in original packaging.

Service Life

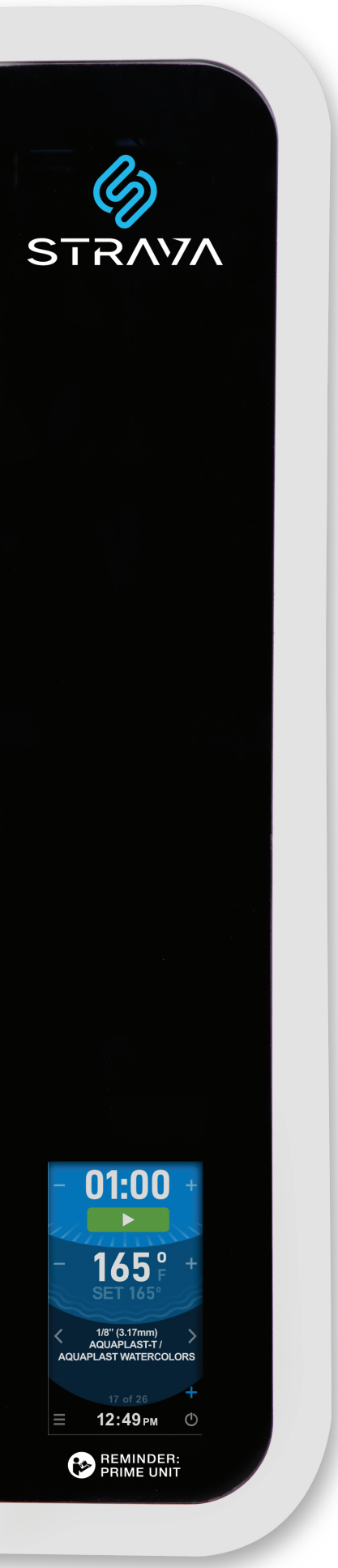
We estimate a service life of five years for this product, provided it is used in strict accordance with the intended use as set out in this document and all maintenance and service requirements are met. The estimated service life can be exceeded if the product is carefully used and properly maintained, and provided technical and scientific advances do not result in technical limitations. The service life can also be considerably reduced by extreme or incorrect usage. The fact that we estimate a service life for this product does not constitute an additional warranty. Strava Solutions will provide replacement parts for up to 10 years from date of purchase.

Storage and Handling

- Check the power cord and plug for excessive wear or fraying. Replace as needed. Do not use a detachable mains power cord with inadequate ratings. Only replace with a Strava power cord.

It is recommended the following guidelines are used whenever this system is being stored or transported to another location:

Pollution degree	2
Environment (Temperature)	Operation: 32° F – 104° F (0° C – 40° C)
	Storage: 32° F – 140° F (0° C – 60° C)
Environment (Humidity)	Operation: Up to 80%
	Storage: Up to 90%, non-condensing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SET 165°
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AQUAPLAST-T /
AQUAPLAST WATERCOLORS
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REMINDER:
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