Legacy 7

Hot Melt Adhesive Melter

Model HMS-0021 • 230 V AC • 7-Liter Tank Capacity

Customer Product Manual

This document contains important safety information. Read and understand all safety information in this manual, and the separate Safety Instructions document HMSC-SAF-001, before installing or operating this equipment.

Equipment Identification (record at installation or affix machine label)	
Serial number	
Manufacture date	
Date placed in service	
Installed location	

Table of Contents

About This Manual
Section 1 — Safety
- 1.1 Safety Alert Symbols
- 1.2 Responsibilities of the Equipment Owner
- 1.3 Applicable Industry Safety Practices
- 1.4 Equipment Safety Information
- 1.5 General Safety Warnings and Cautions
- 1.6 Other Safety Precautions
- 1.7 First Aid

Section 2 — Description
- 2.1 Product Description
- 2.2 Intended Use
- 2.3 Limitations of Use
- 2.4 Modes of Operation
- 2.5 Key Components
- 2.6 Optional Equipment
- 2.7 Lifting and Handling
- 2.8 Regulatory Status

Section 3 — Installation
Section 4 — Operation
Section 5 — Maintenance
Section 6 — Troubleshooting
Section 7 — Technical Data
Section 8 — Spare Parts
Section 9 — Warranty and Contact Information
Appendix A — Operating Parameters Reference
Appendix B — Quick Start Guide
Appendix C — Revision History

About This Manual

This Customer Product Manual covers the installation, operation, maintenance, and servicing of the Hot Melt Supply Company Legacy 7 Hot Melt Adhesive Melter (model HMS-0021). The information in this manual applies to all standard configurations of the Legacy 7.

Documentation Set

This manual is one part of a complete documentation set. Read each of the following that applies to your equipment:

Document	Coverage
HMSC-SAF-001	Safety Instructions for Hot Melt Adhesive Equipment — general safety information that applies to all HMSC hot melt equipment. Read first.
HMS-0021-USR-001 (this document)	Installation, operation, maintenance, and troubleshooting for the Legacy 7 melter.
Equipment nameplate	Authoritative source for ratings, serial number, and manufacture date. In case of conflict, the nameplate governs.
Legacy 7 wiring diagram (separate)	Electrical schematic and wiring connections for the Legacy 7. Available from Hot Melt Supply Company on request.

READ FIRST: Read document **HMSC-SAF-001 (Safety Instructions for Hot Melt Adhesive Equipment)** before installing, operating, or servicing this product. This manual supplements, but does not replace, HMSC-SAF-001.

Conventions Used in This Manual

Temperatures are stated in degrees Fahrenheit (°F) with Celsius (°C) in parentheses where conversion is helpful. Pressures are stated in pounds per square inch (psi) with kilopascals (kPa) or bar in parentheses. This manual follows the ANSI Z535.6 standard for safety messages — refer to Section 1.1 for the meaning of each signal word.

Common Abbreviations

Term	Definition
HMI	Human-Machine Interface — the touch-screen used to operate and configure the melter.
LOTO	Lockout / Tagout — OSHA procedure for isolating hazardous energy sources before service.
PPE	Personal Protective Equipment — heat-resistant gloves, safety glasses, face shield, etc.
RTD	Resistance Temperature Detector — a temperature sensor whose electrical resistance changes predictably with temperature. The Legacy 7 uses 120 Ω nickel RTDs to measure tank, manifold, hose, and gun temperatures.

Term	Definition
SDS	Safety Data Sheet — the document supplied by the adhesive manufacturer that describes hazards, handling, and first aid for the material.

Section 1 — Safety

This section provides safety information that applies to the installation, operation, and maintenance of the Legacy 7 Hot Melt Adhesive Melter. Read and understand all safety information in this section, and the separate Safety Instructions document HMSC-SAF-001, before attempting to install or use this equipment.

1.1 Safety Alert Symbols

This manual uses the four ANSI Z535.6 signal words to indicate the severity of hazards. Each panel identifies the hazard, the consequence of ignoring it, and the action required to avoid it.

DANGER	Indicates a hazardous situation that, if not avoided, will result in death or serious injury.
WARNING	Indicates a hazardous situation that, if not avoided, could result in death or serious injury.
CAUTION	Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.
NOTICE	Indicates information considered important but not related to personal injury (equipment damage, property damage).

1.2 Responsibilities of the Equipment Owner

Equipment owners are responsible for managing safety information, ensuring that all instructions and regulatory requirements for use of the equipment are met, and for qualifying all potential users.

Safety Information

- Research and evaluate safety information from all applicable sources, including the owner-specific safety policy, best industry practices, governing regulations, material manufacturer's product information, and this document.
- Make safety information available to equipment users in accordance with governing regulations.
- Maintain safety information, including the safety labels affixed to the equipment, in readable condition.

Instructions, Requirements, and Standards

- Ensure that the equipment is used in accordance with the information provided in this document, governing codes and regulations, and best industry practices.
- If applicable, receive approval from your facility's engineering or safety department before installing or operating the equipment for the first time.
- Provide appropriate emergency and first aid equipment.
- Conduct safety inspections to ensure required practices are being followed.
- Re-evaluate safety practices and procedures whenever changes are made to the process or equipment.

User Qualifications

Equipment owners are responsible for ensuring that users:

- Receive safety training appropriate to their job function as directed by governing regulations and best industry practices.
- Are familiar with the equipment owner's safety and accident prevention policies and procedures.
- Receive equipment- and task-specific training from another qualified individual.
- Possess industry- and trade-specific skills and a level of experience appropriate to their job function.
- Are physically capable of performing their job function and are not under the influence of any substance that degrades their mental capacity or physical capabilities.

1.3 Applicable Industry Safety Practices

Intended Use of the Equipment

- Use the equipment only for the purposes described and within the limits specified in this document.
- Do not modify the equipment.
- Do not use incompatible materials or unapproved auxiliary devices. Contact Hot Melt Supply Company if you have any questions on material compatibility or the use of non-standard auxiliary devices.

Installation Practices

- Install the equipment in accordance with the instructions provided in this document and in the documentation provided with auxiliary devices.
- Ensure that the equipment is rated for the environment in which it will be used. This equipment has not been certified for compliance with the ATEX directive nor as nonincendive and shall not be installed in potentially explosive environments.
- Ensure that the processing characteristics of the material will not create a hazardous environment. Refer to the Safety Data Sheet (SDS) for the material.
- Position the equipment for safe operation. Observe the requirements for clearance between the equipment and other objects.
- Install lockable power disconnects to isolate the equipment and all independently powered auxiliary devices from their power sources.
- Properly ground all equipment. Contact your local building code enforcement agency for specific requirements.
- Ensure that fuses of the correct type and rating are installed in fused equipment.

Operating Practices

- Familiarize yourself with the location and operation of all safety devices and indicators.
- Confirm that the equipment, including all safety devices (guards, interlocks, etc.), is in good working order.

- Use the personal protective equipment (PPE) specified for each task. Refer to Equipment Safety Information or the material manufacturer's instructions and SDS for PPE requirements.
- Do not use equipment that is malfunctioning or shows signs of a potential malfunction.

Maintenance and Repair Practices

- Allow only personnel with appropriate training and experience to operate or service the equipment.
- Perform scheduled maintenance activities at the intervals described in this document.
- Relieve system hydraulic and pneumatic pressure before servicing the equipment.
- De-energize the equipment and all auxiliary devices before servicing the equipment.
- Use only new, authorized, refurbished, or replacement parts from Hot Melt Supply Company.
- Read and comply with the manufacturer's instructions and the SDS supplied with equipment cleaning compounds.
- Confirm the correct operation of all safety devices before placing the equipment back into operation.
- Dispose of waste cleaning compounds and residual process materials according to governing regulations.
- Keep equipment safety warning labels clean. Replace worn or damaged labels.

1.4 Equipment Safety Information

This equipment safety information is applicable to the Legacy 7 hot melt adhesive melter and all related accessories, pattern controllers, timers, detection and verification systems, and other optional process control devices.

Equipment Shutdown

To safely complete many of the procedures described in this document, the equipment must first be shut down. Three levels of shutdown may be required.

Relieving System Hydraulic Pressure

Before disconnecting any hydraulic fitting or opening any pressurized port, always complete the following procedure to safely relieve hydraulic pressure that may be trapped inside the melter, hoses, and applicators. This procedure follows the General Pressure Relief Procedure in HMSC-SAF-001 Section 5, with Legacy 7–specific steps.

1. Disable the pump by pressing the Pump button on the HMI to stop pump rotation, and/or by closing the compressed air supply valve to the melter.
2. Switch the melter off using the main power switch.
3. Lower the drain chute and place a suitable, heat-resistant waste container under the drain port.
4. Using a flat-tip screwdriver, slowly turn the drain valve counterclockwise three turns.
5. Trigger the applicators into a waste container until hot melt no longer flows from the applicators and no further adhesive is dispensed.
6. Turn the drain valve clockwise until it stops (valve closed), then wipe off and raise the drain chute.

7. Wear required PPE before loosening any pressurized connection. If adhesive or air escapes when a connection is loosened, the system is not fully depressurized — re-tighten and repeat this procedure.

De-energizing the System

1. Switch the melter off using the main power switch.
2. Wait for all heated components to cool below 120°F (50°C) before touching.
3. Disconnect the main power supply at the disconnect switch or circuit breaker.
4. Lock out the power disconnect in accordance with your facility's lockout/tagout procedures (see HMSC-SAF-001 Section 6).

Disabling the Applicators

To prevent unintentional operation of any applicator connected to the melter, turn off the air supply to the applicators and disconnect any applicator driver, pattern controller, or timer that is connected to the melter inputs.

1.5 General Safety Warnings and Cautions

The following hazards are inherent to the Legacy 7 melter and cannot be eliminated by design. Read and observe every safety message before installing, operating, or servicing this equipment.

DANGER	**Electrical shock hazard.** The Legacy 7 operates at 230 V AC. Contact with energized parts will result in death or serious injury. *Disconnect and lock out all electrical power before opening covers or servicing the equipment. Only qualified electrical personnel may service electrical components. Ensure the machine is properly grounded. Never clean the melter with a direct stream of water or steam.*
WARNING	**Burn hazard from hot surfaces.** The tank, manifold, hoses, and applicators can exceed 450°F (230°C) during normal operation. Contact with heated surfaces will cause severe burns. *Wear heat-resistant gloves and eye protection when working near hot surfaces. Allow equipment to cool below 120°F (50°C) before servicing.*
WARNING	**Burn hazard from molten adhesive.** Molten hot melt adhesive can cause severe burns. Molten adhesive cools and solidifies rapidly on skin, trapping heat against the underlying tissue. *Never fill the tank with bare hands. Use a scoop or filling tool. Wear heat-resistant gloves and safety glasses at all times when filling, dispensing, or working near the open tank. Refer to Section 1.7 for first-aid procedures.*

WARNING	**Pressurized adhesive ejection hazard.** Adhesive in the system is held under pressure. Loosening fittings or opening the flow path on a pressurized system can release molten adhesive at high velocity, causing severe burns or eye injury. *Always relieve hydraulic pressure (Section 5.4) before loosening any fitting or opening the adhesive flow path. Wear a face shield in addition to safety glasses when working on pressurized components.*

CAUTION	**Compressed air hazard.** The melter uses compressed air to operate the pump. Operating above the maximum air pressure or releasing pressurized air without isolation can cause injury or equipment damage. *Do not exceed the maximum operating air pressure of 100 psi (689 kPa); operate within the recommended 40–60 psi (275–415 kPa) range. Relieve air pressure before servicing any pneumatic components.*

NOTICE	**Equipment damage from incompatible material or charring.** Allowing hot melt material to remain in the tank for extended periods at elevated temperatures may cause charring and degradation. Operating with incompatible material can damage the equipment and is not covered by warranty. *Always read and follow the Safety Data Sheet (SDS) for any hot melt material used in this equipment. Use only materials compatible with the melter. Do not operate above the rated temperature.*

1.6 Other Safety Precautions

- Do not operate the melter without all covers and panels in place.
- Do not operate the melter in areas where flammable gases or vapors may be present.
- Inspect hoses and applicators regularly for wear, damage, or leaks. Replace damaged components immediately.
- Do not allow hot melt material to remain in the tank for extended periods at elevated temperatures, as this may cause charring and degradation of the material.
- Use only cleaning compounds that are compatible with the melter materials and the hot melt material being used.

1.7 First Aid

CRITICAL: Hot melt adhesive can reach 450°F (230°C) or higher. It cools and solidifies quickly, adhering tightly to skin and trapping heat against the underlying tissue. Burns from hot melt adhesive can be deep and serious. DO NOT attempt to pull or peel adhesive from skin — doing so will remove skin with it.

If Hot Adhesive Contacts Skin

- Immediately flush the affected area with large quantities of clean, cold running water for at least 15 minutes to cool the adhesive and surrounding tissue.
- Do NOT attempt to remove the cooled adhesive from the skin.
- Do NOT apply ointments, butter, or home remedies.
- Cover the area loosely with a clean, dry, non-stick dressing.
- Seek medical attention immediately. Inform medical personnel that the burn is from molten hot melt adhesive and that the adhesive is still adhered to the skin — they will remove it under controlled conditions.

If Hot Adhesive Contacts the Eye

- Do not rub the eye.
- Flush the eye continuously with large amounts of clean, cool water for at least 15 minutes.
- Do not attempt to remove adhesive from the eye.
- Obtain emergency medical care immediately.

Section 2 — Description

2.1 Product Description

The Hot Melt Supply Company Legacy 7 is a pneumatically driven, electrically heated hot melt adhesive melter designed for industrial hot melt adhesive dispensing applications. The Legacy 7 features a 7-liter tank capacity, a touch-screen HMI controller, and a reciprocating piston pump capable of dispensing a wide range of hot melt adhesive materials.

The Legacy 7 is designed to replace or upgrade legacy hot melt melter platforms commonly used in packaging, assembly, product manufacturing, and related industries. It is built and serviced by Hot Melt Supply Company and uses HMS-manufactured components throughout.

2.2 Intended Use

The Legacy 7 melter is intended for use with thermoplastic hot melt adhesives in solid form (pellets, slugs, or blocks). It melts, heats, and delivers adhesive at controlled temperatures and pressures to applicators (guns) connected via heated hoses.

Intended Applications

- Carton and case sealing
- Product assembly and bonding
- Labeling and laminating
- Packaging and converting operations

2.3 Limitations of Use

- Do not use with reactive hot melt adhesives (e.g., PUR) unless the melter has been specifically configured for this purpose.
- Do not use with hot melt materials that have a required application temperature outside the range of 100°F to 450°F (40°C to 230°C).
- Do not use with materials that are incompatible with aluminum, stainless steel, or PTFE.
- Do not use this equipment for any purpose other than those described in this document.

2.4 Modes of Operation

Normal Operation

The melter heats the tank and all active zones (manifold, hoses, and guns) to their assigned set-point temperatures. Once all zones reach temperature, the system enters the ready state and the pump can be activated. The touch-screen HMI displays actual and set-point temperatures for all zones.

Standby Mode

In standby mode, zone temperatures are reduced by a user-defined offset (Setback Offset) to conserve energy and reduce material degradation during periods of inactivity. The pump is disabled in standby mode. Standby can be activated manually or automatically via idle timer or the 7-day clock scheduler.

Ready State

The melter enters the ready state when all active zones are within the defined tolerance of their set-point temperatures (typically within 5°F / 3°C). The HMI indicates the ready status. If 'Pump Engage on Ready' is enabled, the pump will start automatically.

2.5 Key Components

The Legacy 7 melter consists of the following major components:

Component	Description
Tank (7 L)	7-liter cast aluminum tank with integral heater. Equipped with a low-level adhesive sensor.
Manifold	Heated manifold block connecting the pump output to hose ports. Includes manifold heater and RTD temperature sensor.
Pump Assembly	Air-driven reciprocating piston pump with integrated filter assembly and purge valve.
Pump Shifter Assembly	Pneumatic cylinder and shifter mechanism that drives the pump piston.
Electrical Enclosure	Houses the main control board, hose/gun driver boards, HMI touch screen, air regulator, and stack light indicator.
Pressure Discharge Valve (PDV)	Safety valve that relieves hydraulic pressure when the melter is de-energized or during a fault condition.
Tank Lid	Hinged cover for the tank. Should be closed during operation to prevent contamination and retain heat.
Exterior Panels	Stainless steel panels (front, back, sides, top) that enclose the melter and protect internal components.
HMI Touch Screen	4-inch color touch-screen interface for setting temperatures, configuring parameters, and monitoring machine status.
Stack Light	Multi-color indicator light showing machine status at a glance: Ready (green), Alarm (red), Standby (yellow).
Air Pressure Regulator	User-adjustable regulator controlling the air pressure supplied to the pump.

2.6 Optional Equipment

The following optional features and accessories may be available for the Legacy 7:

- Additional hose/gun driver modules (for systems requiring more than 2 hose/gun pairs)
- Remote start/stop and interlock input connections
- Output signals for machine-ready status, fault indication, or low-glue alarm
- Custom hose and gun configurations

2.7 Lifting and Handling

The Legacy 7 weighs approximately 95 lb (43 kg) empty and approximately 110 lb (50 kg) with a full tank of adhesive. Improper lifting can cause back injury or equipment damage. Observe the following when handling the melter:

- Drain the tank completely before moving the melter whenever practical. The melter is significantly easier and safer to lift when empty.
- Lift with two persons minimum. The empty weight (95 lb) exceeds the single-person safe lifting limit recommended by most workplace ergonomics standards.
- Allow the melter to cool to below 120°F (50°C) before handling. Surfaces and internal components remain hot for an extended period after power is removed.
- Disconnect all power, air, and hose connections before lifting. Loose hoses or cables can snag during handling and cause loss of control.
- Lift using the base of the chassis or the integral mounting feet. Do not lift by the tank lid, hoses, electrical enclosure, or stack light.
- Keep the melter upright during transport. Tipping the unit can spill residual adhesive and damage internal components.
- Use mechanical lifting equipment (cart, hand truck, or pallet jack) for longer-distance moves. Secure the melter to the lifting equipment to prevent shifting.

WARNING	**Lifting hazard.** The Legacy 7 weighs up to 110 lb (50 kg) with a full tank. Improper lifting can cause serious back injury, dropped equipment, and burns from spilled adhesive. *Drain the tank, allow the melter to cool below 120°F (50°C), and use two-person lift or mechanical lifting equipment. Disconnect all utilities before moving.*

2.8 Regulatory Status

This equipment is currently in the process of CE conformity assessment under the EU Machinery Directive. UL or CSA listing is not currently held. Statements regarding regulatory status will be updated in future revisions of this manual as certifications are obtained.

Listing / Mark	Current Status
CE marking (EU)	In progress. CE marking and Declaration of Conformity have not yet been issued. Equipment is not currently approved for placement on the EU market.
UL listing (US)	Not currently listed. Equipment is not UL listed or recognized at the time of this document's release.
CSA listing (Canada)	Not currently listed.

Listing / Mark	Current Status
ATEX (explosive atmospheres)	Not certified. Do not install or operate this equipment in potentially explosive atmospheres.

Note: End users are responsible for confirming that this equipment is suitable for installation and operation under their local codes and regulations. Contact Hot Melt Supply Company for the current regulatory status before specifying this equipment for installations that require specific certifications.

Section 3 — Installation

WARNING	**Installation hazard.** Installation involves line voltage electrical connections and pressurized pneumatic and hydraulic systems. Improper installation can result in serious injury or death. *Installation must be performed by qualified personnel familiar with electrical and pneumatic systems. Follow this section and HMSC-SAF-001 in full.*

3.1 Quick-Start Overview

For a quick reference installation and startup guide, see Appendix B (Quick Start Guide) at the end of this manual. For detailed installation instructions, continue through this section.

3.2 Installation Requirements

Clearances

Maintain the following minimum clearances around the melter to ensure adequate airflow and safe access for operation and maintenance:

- All sides: 6 in (150 mm) minimum
- Top: 12 in (300 mm) minimum (for filling the tank)
- Front: 24 in (600 mm) minimum (for access to controls and service)

NOTICE	**Mounting surface requirements.** The melter must be placed on a level, heat-resistant surface that can support its weight plus a full tank of adhesive. *Ensure the supporting surface can hold at least 150 lb (68 kg) safely and is rated for contact with hot surfaces.*

Ventilation

The melter generates heat during operation. Ensure that the installation location provides adequate ventilation to prevent the ambient temperature from exceeding the melter's maximum operating temperature rating. Do not block ventilation openings on the melter.

Electrical Power

The Legacy 7 melter is supplied in a 230 V AC configuration. Confirm the supply voltage matches the rating on the machine nameplate before connecting power.

- Connect to a dedicated electrical circuit with an appropriate circuit breaker or fuse.
- Ensure all wiring is performed by a licensed electrician and complies with local codes and the National Electrical Code (NFPA 70).

- The melter must be properly grounded.
- Bring main power lines through the frame knockouts provided on the base of the electrical enclosure.
- Use the provided personality plugs for single-phase or three-phase power connection.

Configuration	Connections	Notes
Single Phase 230 V, 27 A	L1, L2 (no Neutral)	Use single-phase personality plug
Three Phase 230 V, 27 A	L1, L2, L3 (no Neutral)	Use three-phase personality plug

Note: On 230 V AC service there should be nothing connected to the Neutral (N) position on the terminal block.

Compressed Air

The Legacy 7 requires a clean, dry compressed air supply:

- Air supply connection: 6 mm push-fit fitting on the back of the electrical enclosure.
- Operating air pressure range: 10 to 100 psi (70 to 689 kPa).
- Minimum operating air pressure: 10 psi (0.7 bar). Operating below this minimum may cause the pump to function erratically.
- Recommended operating pressure: 40 to 60 psi (275 to 415 kPa) for most applications.
- Air supply must be free of moisture, oil, and contaminants. Use an air filter/regulator/lubricator (FRL) if the air supply quality cannot be confirmed.

NOTICE	**Maximum air pressure.** Operating above the maximum air pressure can damage the pump and pneumatic components. *Do not exceed the maximum operating air pressure of 100 psi (689 kPa).*

3.3 Unpacking the Melter

1. Carefully remove the melter from its shipping container.
2. Inspect all components for shipping damage. If damage is found, document it and contact Hot Melt Supply Company immediately.
3. Remove all packing materials, including any protective films or foam inserts from the exterior.
4. Verify that all components listed in the packing list are present.

3.4 Mounting the Melter

The Legacy 7 can be mounted directly to a production surface or installed on an existing sub-base mounting plate.

1. Position the melter on a level, heat-resistant surface.

2. If using the mounting plate, align the melter feet with the mounting holes and secure using appropriate hardware.
3. Confirm that all four feet are resting firmly on the mounting surface and the melter is level.

Note: A leveled melter is important for accurate low-level sensor operation and consistent adhesive delivery.

3.5 Configuring the Electrical Service

1. Confirm that the electrical supply is de-energized and locked out before beginning.
2. Remove the base panel to access the electrical knockout locations.
3. Select the appropriate knockout location for your power supply conduit.
4. Route the power conductors through the knockout and into the electrical enclosure.
5. Connect the power conductors to the terminal block (TB1) on the main control board. Connect L1, L2, and L3 as required for your service.
6. Install the appropriate personality plug for your power phase configuration (single-phase or three-phase).
7. Connect the equipment ground conductor to the ground lug in the enclosure.
8. Replace and secure all covers and panels before energizing.

WARNING	**Electrical shock hazard from improper grounding.** Improper grounding can result in electric shock or equipment damage. *Ensure the machine is properly grounded before energizing. Verify ground continuity per local electrical code.*

3.6 Connecting a Compressed Air Supply

1. Confirm that the air supply is de-pressurized before connecting.
2. Connect a 6 mm pneumatic line to the air inlet fitting on the back of the electrical enclosure.
3. Open the air supply and adjust the pump pressure regulator to the desired operating pressure.
4. Confirm that there are no air leaks at the connection point.

3.7 Connecting Hoses and Applicators

1. Ensure all heated hoses and applicators are compatible with the Legacy 7 (consult Hot Melt Supply Company if uncertain).
2. With the melter de-energized and cooled, connect heated hoses to the hose ports on the manifold. Ensure connections are fully seated and secure.
3. Connect the applicators (guns) to the hose ends.
4. Connect the hose and gun heater cables and RTD connectors to the corresponding gun board connectors inside the electrical enclosure. Match hose/gun pairs to the correct channel (e.g., Hose 1 and Gun 1 to channel 1).

Note: Refer to the electrical enclosure labeling and the separate Legacy 7 wiring diagram for connector locations and pin assignments.

3.8 Input and Output Connections

Input Connections

The Legacy 7 supports up to 4 user-configurable inputs (I1–I4) on terminal block TB2 in the electrical enclosure. Inputs are activated using a shielded 24 V DC signal cable. Inputs are not polarity sensitive.

Each input can be assigned to a specific function via the HMI Output Settings page. Available input functions include:

- Machine Enable / Disable
- Standby Activation
- Remote Pump On/Off
- Fault Reset
- No Assignment (default)

Output Connections

The Legacy 7 provides up to 3 user-configurable relay outputs (O1–O3) on terminal block TB2. Outputs are rated for 240 V AC, 3 A or 30 V DC, 2 A and are normally open (N.O.).

Each output can be assigned to a specific function via the HMI. Available output functions include:

- Ready Signal
- Fault / Alarm
- Low Glue Level
- Pump Running
- No Assignment (default)

Terminal	Pin Numbers	Signal Type
TB2 Outputs	1–7 (O1, O2, O3)	240 V AC 3 A / 30 V DC 2 A, normally open relay contacts
TB2 Inputs	8–14 (I1, I2, I3, I4)	24 V DC signal input, not polarity sensitive

3.9 Setting Up the Melter

Quick Setup

Follow these steps to complete the initial setup of the Legacy 7:

1. Turn on the main power switch. The HMI touch screen will illuminate and display the Home Page.
2. Press the wrench (maintenance) icon on the Home Page and enter the maintenance PIN (default: 1234) to access the Settings pages.

3. Navigate to the Temperature Settings page (Step 2). Activate all installed temperature zones by pressing the zone label to toggle activation (black = active, red = inactive). Set the desired set-point temperature for each zone.
4. Navigate to the additional parameter settings pages to configure Setback Offset, Ready Delay, Service Interval, Pump Engage on Ready, Temperature Units, Heaters on Powerup, Heating Stages, and any Input/Output assignments required for your application.
5. If using the 7-Day Clock, configure the calendar schedule on the Clock Settings page.
6. Press the Home key to return to the Home Page. Press the heater button (ON/OFF) to activate the heaters.
7. Allow the melter to heat to temperature. When all zones reach temperature, the system will indicate ready status.
8. Activate the pump by pressing the Pump button on the Home Page, or allow automatic pump engagement if Pump Engage on Ready is enabled.

3.10 Flushing the Melter

Before initial use, or when changing adhesive materials, flush the melter to remove any residual material, contaminants, or debris.

1. Heat the melter to the operating temperature of the flushing material.
2. Fill the tank with the appropriate hot melt cleaning fluid or the new adhesive material.
3. Activate the pump and flush the material through the hoses and applicators until clean material is observed at the applicator output.
4. Dispose of flushing material according to applicable environmental regulations.

Section 4 — Operation

4.1 Overview

This section describes day-to-day operation of the Legacy 7 melter, including filling the tank, starting and stopping the melter, monitoring operation, and using the HMI touch-screen controls.

4.2 Filling the Tank

The Legacy 7 has a 7-liter tank equipped with a low-level adhesive sensor. When the adhesive level drops to approximately half the tank capacity, the Low Glue indicator on the HMI Home Page will illuminate.

WARNING	**Burn hazard from hot adhesive.** Molten hot melt adhesive can cause severe burns. The tank, manifold, hoses, and applicators can exceed 450°F (230°C) during normal operation. *Use a scoop or filling tool to fill the tank. Never use bare hands to handle hot melt pellets, slugs, or molten material. Wear heat-resistant gloves and eye protection.*

1. Open the tank lid.
2. Use a scoop or filling tool to add hot melt material to the tank. Fill up to, but not beyond, the maximum fill line marked on the tank screen.
3. Close the tank lid when finished.

NOTICE	**Overfilling hazard.** Overfilling can cause hot melt overflow, equipment damage, and safety hazards. *Do not fill above the maximum fill line. Allow space for thermal expansion of the adhesive.*

Tank Capacity

Model	Tank Capacity (L)	Capacity (kg)	Capacity (lb)
Legacy 7	7	≈ 7	≈ 15

4.3 Starting the Melter

Before starting the melter for the first time, confirm that it is fully installed, all hose and gun connections are secure, and all operating parameters are configured.

1. Turn on the main power switch. The HMI Home Page will display.

2. If heaters are not set to turn on automatically at powerup, press the heater button on the HMI Home Page to activate heating.
3. Monitor the actual temperatures of all zones on the Home Page. The system will heat to the configured set-point temperatures.
4. Check the air pressure gauge and confirm that the operating air pressure is set correctly (minimum 10 psi / 0.7 bar).
5. Once all active zones reach their set-point temperatures, the melter enters the ready state. The system is now ready to dispense.
6. Activate the pump by pressing the Pump button on the Home Page (or by means of an external input, if configured). If Pump Engage on Ready is enabled, the pump will start automatically.

> **Note:** If the melter starts from a cold condition (tank temperature 50°F / 27°C or more below set-point), a Ready Delay may apply before the pump is enabled. The remaining delay time is displayed on the HMI.

4.4 Monitoring the Melter

The Legacy 7 provides multiple indicators for monitoring machine status:

- HMI Home Page: Displays actual and set-point temperatures for all active zones (Tank, Manifold, Hoses, Guns). Alerts for faults, low glue level, and clock status.
- Stack Light: Green = Ready / Normal operation. Yellow = Standby. Red = Alarm / Fault.
- Fault Reset button: Press to clear acknowledged faults after the root cause has been corrected.
- Pump Off button: Displays current pump state and allows manual pump activation/deactivation.
- Low Glue indicator: Illuminates when the adhesive level sensor detects low adhesive.
- Clock status indicator: Displays the current 7-day clock state and allows access to clock settings.

Temperature Monitoring

The Home Page continuously displays actual and set-point temperatures for all zones. If any zone falls significantly below or exceeds its set-point, an alarm may be generated. Refer to Section 6 (Troubleshooting) for information on temperature-related faults.

Fault Monitoring

If the melter detects a fault condition, the HMI will display an alarm indicator. Press the alarm indicator on the Home Page to review current active alarms. Correct the root cause of the fault before pressing Fault Reset to clear the alarm and resume normal operation.

Common fault types:

- Temperature Over-limit: A zone has exceeded its maximum safe temperature. Check RTD and heater components.
- Temperature Under-limit: A zone has failed to reach temperature within the expected timeframe. Check heater, RTD, and wiring.
- RTD Fault: A temperature sensor (RTD) has failed or is disconnected. Check sensor connections and replace if necessary.

- Thermostat Fault: The tank or manifold over-temperature thermostat has opened. Allow the unit to cool before resetting.

4.5 Using the HMI

Home Page

The Home Page is the primary operating screen. It displays:

- Temperature grid showing Set and Actual temperatures for all active zones (Tank, Manifold, Hoses 1–6, Guns 1–6)
- Fault Reset button (clears acknowledged faults)
- Pump Off/On button (activates or deactivates the pump)
- Low Glue alarm indicator
- Clock Status / Clock Settings button
- Heater On/Off button (activates or deactivates all heaters)
- Machine Status / Alarm Review button (the red alert triangle)
- Set Back Off button (enables/disables standby setback mode)
- Maintenance / Settings button (wrench icon, PIN required)

Temperature Settings Page (via wrench icon, PIN: 1234)

Displays all temperature zones with Set and Actual columns. Use the zone activation buttons to activate or deactivate individual zones. Press a zone's Set temperature field to enter a new set-point. Use 'Set All' to apply a common temperature to all zones simultaneously.

> **Note:** Inactive zones (shown in red) will not be monitored or heated. Only activate zones for which hoses and guns are physically connected.

System Parameters

Navigate through the settings pages using the arrow buttons. The following system parameters are available:

Parameter	Description	Default
Setback Offset	Temperature reduction applied to all zones in standby mode.	—
Ready Delay	Minimum time (minutes) after reaching temperature before the pump can be enabled. Prevents cold-start pump activation.	0 min
Service Interval	Heater-hours timer that triggers a service reminder. When the timer expires, a service fault is raised on the HMI. Press Fault Reset to clear the fault and reset the timer after performing maintenance.	0 hrs
Pump Engage on Ready	If enabled, the pump starts automatically when the melter reaches ready state.	OFF

Parameter	Description	Default
Temperature Units	Select Fahrenheit (°F) or Celsius (°C) for all temperature displays.	°F
Heaters on Powerup	If enabled, heaters activate automatically each time the machine is powered on.	OFF
Heating Stages	Sequential (SEQ) or Simultaneous (SIM) start-up. Sequential heats Tank first, then manifold and hoses.	SEQ

Standby / Idle Parameters

Parameter	Description	Default
Auto Standby Timeout	If no input signal is received within this time (minutes), the melter automatically enters standby mode. Set to 0 to disable.	0 min
Auto Heaters Off	If no input signal is received within this time (minutes), the heaters are automatically turned off. Set to 0 to disable.	0 min
Man Standby Timeout	Duration (minutes) the melter remains in manually-activated standby before returning to normal mode. Set to 0 to disable.	0 min

Input / Output Assignments

Each of the 4 user inputs (I1–I4) and 3 user outputs (O1–O3) can be assigned a function using the NEXT button on the respective settings page. Press NEXT to cycle through available assignment options. Select the desired function for each channel.

4.6 Day Clock (7-Day Scheduler)

Access the Day Clock from the Home Page via the Clock Status button. The clock allows the melter to automatically turn on, off, or enter standby at scheduled times on selected days of the week.

- Set the current Hour (24-hour format) and Minute.
- Set the current Weekday.
- Enable or Disable the Calendar clock.
- Running Hours and Running Minutes display the total machine life.
- Up to three timed events can be programmed per day, each with a Type (e.g., Heaters On, Heaters Off, Standby), a start time (HR and MIN), and the active days of the week (MON–SUN). Green = active day, Gray = inactive.

4.7 Shutting Down the Melter

Short-term Shutdown (End of Shift)

1. Press the Pump button to stop the pump.
2. If desired, activate Set Back (standby) mode to reduce zone temperatures.
3. Turn off the heaters using the Heater button if the melter will be idle for an extended period.

Note: If the 7-day clock is configured, the melter will automatically manage heater on/off cycles according to the programmed schedule.

Long-term Shutdown

1. Allow the melter to cool to room temperature.
2. Relieve system pressure using the drain valve procedure described in Section 5.
3. Turn off the main power switch.
4. Disconnect and lock out the main power supply.
5. Disconnect the compressed air supply.
6. If changing adhesive materials or the melter will be stored for an extended period, flush the tank and hoses with the appropriate cleaning material.

Section 5 — Maintenance

WARNING	**Maintenance hazard.** Hot melt equipment contains electrical, thermal, pneumatic, and pressurized hydraulic energy. Performing maintenance on energized or pressurized equipment can result in serious injury or death. *Always relieve system hydraulic pressure (Section 5.4) and de-energize the melter (Lockout/Tagout per HMSC-SAF-001 Section 6) before performing any maintenance.*

5.1 Preventive Maintenance Schedule

Task	Frequency	Reference
Inspect hoses and applicators for leaks or damage	Daily	Section 4
Clean exterior of melter, hoses, and applicators	Daily	5.5 Cleaning the Melter
Check and record air pressure	Daily	Section 3
Check adhesive level; refill as needed	As required	4.2 Filling the Tank
Lubricate the pump air section	Quarterly (minimum)	5.3 Lubricating the Pump
Replace the hot melt filter	As needed / when changing adhesive grades	5.2 Replacing the Filter
Clean the tank	When changing adhesive type, or when excessive charring occurs	5.5 Cleaning the Melter
Inspect all electrical connections and wiring	Annually	Section 6
Inspect pump seals and o-rings	Annually or when leaking observed	Contact HMSC

5.2 Replacing the Filter

The Legacy 7 is equipped with a 100-mesh (0.15 mm) disposable hot melt filter. The filter removes debris and char from the hot melt as it flows from the tank. Hot melt flows from the inside to the outside of the filter, trapping contaminants inside. There is no need to back-flush or clean the filter.

When to Replace the Filter

Replace the filter when any of the following conditions are observed:

- The service interval timer has elapsed and a service fault has been raised on the HMI.

- A change in adhesive type or grade is being made.
- Dispensing pressure has increased noticeably without a change in application parameters.
- Adhesive purity at the applicator has diminished.

Filter Replacement Procedure

1. Relieve system pressure as described in Section 5.4.
2. Allow the melter to cool to a safe handling temperature.
3. Using an 8 mm hex wrench, loosen and remove the filter from the pump body (counterclockwise).
4. Properly dispose of the old filter.
5. Inspect the O-ring on the new filter and confirm it is in good condition.
6. Thread the new filter into the pump body and tighten to 40 in-lb (4.5 Nm).
7. Return the melter to normal operation and check for leaks.
8. Press Fault Reset on the HMI to clear the service-interval fault and reset the service-interval timer.

5.3 Lubricating the Pump

The air section of the pump requires periodic lubrication to prevent wear and maintain reliable operation.

1. Remove the pump top cover.
2. Disconnect the air inlet line from the pump air section.
3. Place 3–4 drops of light machine oil (e.g., pump lubricating oil) in the air inlet elbow.
4. Reconnect the air line.
5. Open the drain valve and operate the pump at high speed for 10–15 seconds to distribute the lubricant.
6. Close the drain valve and resume normal operation.
7. Replace the pump cover.

5.4 Relieving System Pressure

Before disconnecting any hydraulic fitting or opening any pressurized port, always relieve system pressure. This procedure aligns with the General Pressure Relief Procedure in HMSC-SAF-001 Section 5, with steps specific to the Legacy 7.

1. Disable the pump by pressing the Pump button on the HMI to stop pump rotation, and/or by closing the compressed air supply valve to the melter. Close the pump's adhesive supply path if applicable.
2. Turn off the main power switch.
3. Lower the drain chute and place a heat-resistant waste container under the drain port.
4. Using a flat-tip screwdriver, slowly turn the drain valve counterclockwise three turns.
5. Trigger all applicators into a heat-resistant waste container until no more material flows from the applicators or the drain port.

6. Turn the drain valve clockwise to close. Wipe off and raise the drain chute.
7. Allow the equipment to cool to below 120°F (50°C) before opening any pressurized component or making physical contact with adhesive flow-path components.
8. Wear required PPE (heat-resistant gloves, safety glasses, face shield) when loosening any pressurized connection. If adhesive or air escapes when a connection is loosened, the system is not fully depressurized — re-tighten and repeat this procedure.

5.5 Cleaning the Melter

Exterior Cleaning

Regularly remove any hot melt that collects on the exterior surfaces of the melter, hoses, and applicators to prevent heat build-up and maintain a safe work environment.

WARNING	**Electrical and fire hazard from improper cleaning.** Cleaning the melter with a direct stream of water, steam, or a flammable solvent can cause property damage, electric shock, or fire. *Do not clean the melter with a direct stream of water or steam. Use only a damp cloth with a compatible cleaning compound.*

- Use citrus-based or other cleaning compounds compatible with the materials used in the melter.
- Apply cleaning compounds using a soft cloth only.
- Do not use pointed or sharp tools to clean exterior surfaces.

Cleaning the Tank

Clean the tank when changing to a different type of hot melt material, or when excessive charring is observed. To clean the tank when changing adhesive:

1. Operate the melter normally until the tank is as empty as possible.
2. Allow the melter to heat or cool to the temperature recommended by the manufacturer of the hot melt cleaning fluid.
3. Stop the pump using the Pump button on the HMI.
4. While wearing appropriate PPE, wipe any residual hot melt from the inside of the tank using a suitable tool.
5. Add the appropriate type and quantity of hot melt cleaning fluid to the tank.
6. Start the pump and pump all of the cleaning fluid through the system.
7. Return the melter to normal operation and pump at least one full tank volume of the new adhesive through the system before production use.

Section 6 — Troubleshooting

WARNING	**Troubleshooting hazard.** Internal components are at line voltage and may be at elevated temperature or under hydraulic pressure. *Before performing any troubleshooting that requires accessing internal components, relieve system pressure (Section 5.4) and de-energize the melter following the lockout/tagout procedure in HMSC-SAF-001 Section 6.*

6.1 Before You Begin

Before using the troubleshooting information in this section, confirm the following:

- Whether service was recently performed on the melter, or the melter's settings were recently adjusted.
- The correct personality plug (voltage configuration) is installed.
- External inputs (if used) are functioning properly.
- The standby or clock functions are not engaged unexpectedly.
- All hose and gun connections are fully seated and secure.
- The compressed air supply is at the correct pressure.

6.2 Returning to Factory Settings

If the melter's settings have been incorrectly configured, you can return all operating parameters to their factory defaults. This can help isolate whether a problem is caused by a settings issue or a hardware fault.

To reset to factory settings: navigate to the reset button on the HMI. Hold the button and approve the reset, then cycle the main power switch off and back on.

NOTICE	**Settings reset will erase configuration.** Resetting to factory settings will erase all configured temperatures, clock schedules, and operating parameters. *Document your settings before performing a reset.*

6.3 Fault Code Reference

The Legacy 7 HMI displays fault information on the alarm review screen. Common fault conditions and their typical corrective actions are listed below.

Symptom / Fault	Possible Cause	Corrective Action
Melter does not power on	No power supply; blown fuse; tripped circuit breaker	Check power supply, fuses on main board (F1–F4), and circuit breaker. Replace fuses or reset breaker as needed.
Heaters do not turn on	Heaters set to OFF; active input disabling heaters; thermostat open	Check heater button on HMI; check input assignments; check thermostat continuity and replace if open.
Zone not reaching set-point (under-temp)	Heater element failure; RTD failure; wiring fault	Measure heater resistance; confirm RTD readings; check wiring and connections.
Zone over-temperature alarm	Set-point too high; RTD failed short; thermostat failed	Reduce set-point; test RTD resistance at room temperature; replace thermostat if open.
RTD fault (temperature sensor error)	RTD disconnected; RTD failed open or short	Check RTD connector; measure RTD resistance (should match 120 Ω Ni RTD curve). Replace if out of specification.
Thermostat fault	Over-temperature thermostat has opened	Allow melter to cool. Check thermostat continuity. Replace if failed open.
Pump does not start	Pump set to OFF; insufficient air pressure; pump seized	Check Pump button state; verify air supply pressure (min. 10 psi / 0.7 bar); check for pump mechanical obstruction.
Pump cycles erratically or slowly	Low air pressure; clogged filter; worn pump seals	Increase air pressure; replace filter; inspect and service pump seals.
No adhesive output from applicator	Empty tank; clogged filter or applicator; pump not running	Refill tank; replace filter; check pump operation; inspect applicator for clogs.
Adhesive leaking from pump area	Worn pump shaft seal or o-rings	Relieve pressure and de-energize. Inspect and replace pump seals as needed. Contact HMSC for pump service kits.
Low Glue alarm active	Adhesive level below sensor threshold	Refill the tank.
Service Interval fault	Service-interval timer has elapsed	Perform scheduled maintenance per Section 5. Press Fault Reset to clear the fault and restart the service-interval timer.
Stack light red / alarm active	One or more active faults	Review alarm list on HMI. Correct root cause, then press Fault Reset.

6.4 RTD Diagnostics

The Legacy 7 uses 120-ohm Nickel (Ni) RTDs (Resistance Temperature Detectors) for temperature sensing. An RTD is an electrical sensor whose resistance increases predictably as temperature rises; the control board converts the measured resistance to a temperature reading. To verify RTD operation:

1. De-energize the melter and allow it to cool to room temperature.
2. Disconnect the RTD connector from the control board.
3. Measure the resistance across the RTD leads using a multimeter.
4. Compare the measured resistance to the expected value for the known room temperature. A 120 Ω Ni RTD should read approximately 120 Ω at 32°F (0°C) and approximately 154 Ω at 122°F (50°C).
5. If the measured resistance is out of range (open, shorted, or significantly incorrect), replace the RTD.

> **Note:** Contact Hot Melt Supply Company for the correct RTD replacement part number for your specific configuration.

6.5 Contacting Technical Support

If the troubleshooting procedures in this section do not resolve the issue, contact Hot Melt Supply Company technical support. Please have the following information available when calling:

- Machine model and serial number (from the nameplate)
- Description of the problem, including any fault codes displayed on the HMI
- Machine operating parameters (temperatures, air pressure, etc.)
- Recent maintenance performed on the machine
- Adhesive material being used

Section 7 — Technical Data

7.1 General Specifications

Item	Data	Notes
Tank capacity	7 liters	—
Melt rate (approx.)	18 lb/hr (8.2 kg/hr)	Depends on adhesive type and temperature
Maximum throughput rate	24 lb/hr (10.9 kg/hr)	—
Noise level	64 dB(A) at maximum pump speed	Measured at 1 m from melter surface
Operating ambient temperature range	23°F to 122°F (-5°C to 50°C)	—
Weight (empty)	≈ 95 lb (43 kg)	—
Weight (full tank)	≈ 110 lb (50 kg)	—

7.2 Electrical Specifications

Item	Data	Notes
Supply voltage	230 V AC	See nameplate for specific machine configuration
Phase	Single-phase or three-phase	Configured by personality plug
Maximum current (1-phase, 2 zones)	27 A	—
Maximum current (3-phase, 2 zones)	16 A per phase	—
Hose/gun heating capacity	2, 4, or 6 hose/gun pairs	Depends on installed modules
Control temperature range	100°F to 450°F (40°C to 230°C)	—
Temperature control accuracy	± 2°F (± 1°C)	—
Ingress Protection rating	IP54	—
Input voltage tolerance	+10%, -15%	—
Output relay rating	240 V AC, 3 A / 30 V DC, 2 A	Normally open contacts

Item	Data	Notes
Input signal	24 V DC, not polarity sensitive	—

7.3 Pump Specifications

Item	Data
Air pressure operating range	10 to 100 psi (70 to 689 kPa)
Minimum air pressure	10 psi (0.7 bar)
Recommended operating pressure	40 to 60 psi (275 to 415 kPa)
Viscosity range	800 to 10,000 cps
Maximum hydraulic pressure (15:1 pump)	1,500 psi (10.3 MPa)
Air consumption at 60 psi, max speed	1.6 scfm (46 L/min)
Displacement per stroke	0.44 in³/stroke (7.20 ml/stroke)
Maximum pump speed	90 strokes/min
Air inlet connection	6 mm push-fit fitting

7.4 Dimensions

Refer to the Legacy 7 dimensional drawings provided separately or contact Hot Melt Supply Company for current dimensional specifications. Approximate overall dimensions are shown below:

Dimension	Approximate Value
Width (front to back)	24.48 in (622 mm)
Depth (left to right)	20.26 in (514 mm)
Height (overall)	17.10 in (434 mm)

> **Note:** Dimensions are approximate and subject to change. Contact Hot Melt Supply Company for certified dimensional drawings.

7.5 Power Requirements

The table below summarizes the typical current draw for the Legacy 7 at various zone configurations. Actual power draw will vary depending on ambient temperature, adhesive temperature, and hose/gun wattages.

Number of Hose/Gun Pairs	1-Phase Power Draw (A)	3-Phase (No Neutral) (A)
2	18	16
4	27	24
6	35	31

> **Note:** Always calculate the actual power requirements based on the specific hoses and applicators to be connected. Contact Hot Melt Supply Company if you need assistance calculating power requirements.

Section 8 — Spare Parts

Using the Illustrated Parts List

The parts lists provided in this section are organized into the following columns:

- Item — Identifies illustrated parts that are available from Hot Melt Supply Company.
- Part Number — Provides the HMS part number for each saleable part shown in the illustration. A series of dashes (- - - - - -) means the part cannot be ordered separately.
- Description — Provides the part name, as well as its dimensions and other characteristics when appropriate. Bullets in the description indicate the relationships between assemblies, subassemblies, and parts.
- Quantity — The quantity required per unit, assembly, or subassembly. The code AR (As Required) is used if the part number is a bulk item ordered in quantities or if the quantity per assembly depends on the product version or model.

Fasteners are called out in each illustration. Lubricants and small consumables are listed as 'AR' (as required).

Ordering Parts: Use only genuine Hot Melt Supply Company replacement parts. Using unauthorized parts may void the warranty and may result in equipment damage or safety hazards. Contact Hot Melt Supply Company at 1-888-202-1788 or sales@hotmeltsupplyco.com with the machine serial number and the figure and item numbers from the lists below.

Figure 8-1 • Tank, Pump, and Manifold Assembly

PARTS LIST "TANK, PUMP and MANIFOLD"

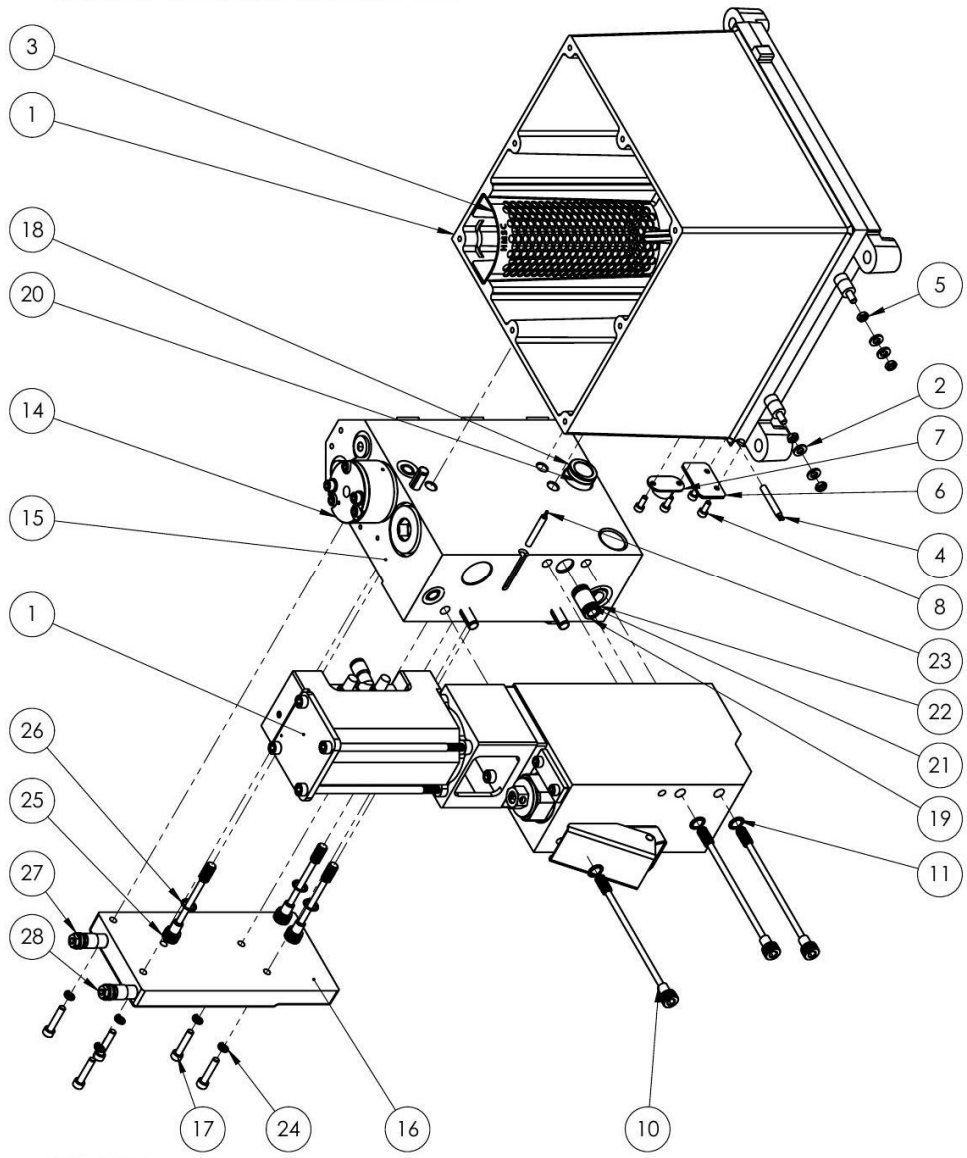


FIGURE 7-1

Item	Part Number	Description	Qty
1	HMS-0021-300-10-000	Tank, molded 7L, 230 V heater	1
2	B18.22M	Plain washer, 5 mm, narrow (fastener)	4
3	HMS-0021-300-10-003	Tank screen	1
4	T10B83B0S	RTD service kit	1

Item	Part Number	Description	Qty
5	B18.2.4.5M	Hex jam nut, M5 × 0.8 (fastener)	4
6	HMS-0021-300-10-004	RTD clamp plate	1
7	T10B83B1S	Thermostat service kit	1
8	B18.3.1M	M4 × 0.7 × 10 hex SHCS (fastener)	4
9	HMS-1028303	Complete pump assembly	1
10	HMS-0021-000-00-009	Pump mounting screw, M8 × 133 mm L (modified)	3
11	—	Lock washer (fastener)	3
12	—	Lubricant, Never-Seez, 8 oz can	AR
13	—	Lubricant, Parker High-Temp, 11208	AR
14	T10B83P8S	Pressure discharge valve	1
15	HMS-0021-000-07-001	Pump manifold	1
16	HMS-0021-000-07-002	Manifold heating element	1
17	B18.3.1M	M5 × 0.8 × 25 hex SHCS (fastener)	5
18	T10A71M6S	Crossover, tank to manifold	1
19	T19A71M9S	Crossover, pump to manifold	1
20	T9E11H1S	Chemical-resistant Viton O-ring (seal)	2
21	T9F40A3S	Ultra-chemical-resistant PTFE backup ring (seal)	2
22	T9E01C3S	Chemical-resistant Viton O-ring (seal)	2
23	T10B83B0S	RTD service kit	1
24	—	18-8 SS split lock washer, M5 (fastener)	6
25	HMS-0021-000-00-010	Pump mounting screw, M8 × 133 mm L (modified)	3
26	90895A208	M8 / 5/16 in spring lock washer (fastener)	3
27	—	Preferred narrow flat washer, 0.19 (fastener)	4
28	—	Hex nut 0.190-32 (fastener)	4

Figure 8-2 • Manifold Assembly

PARTS LIST MANIFOLD ASSEMBLY

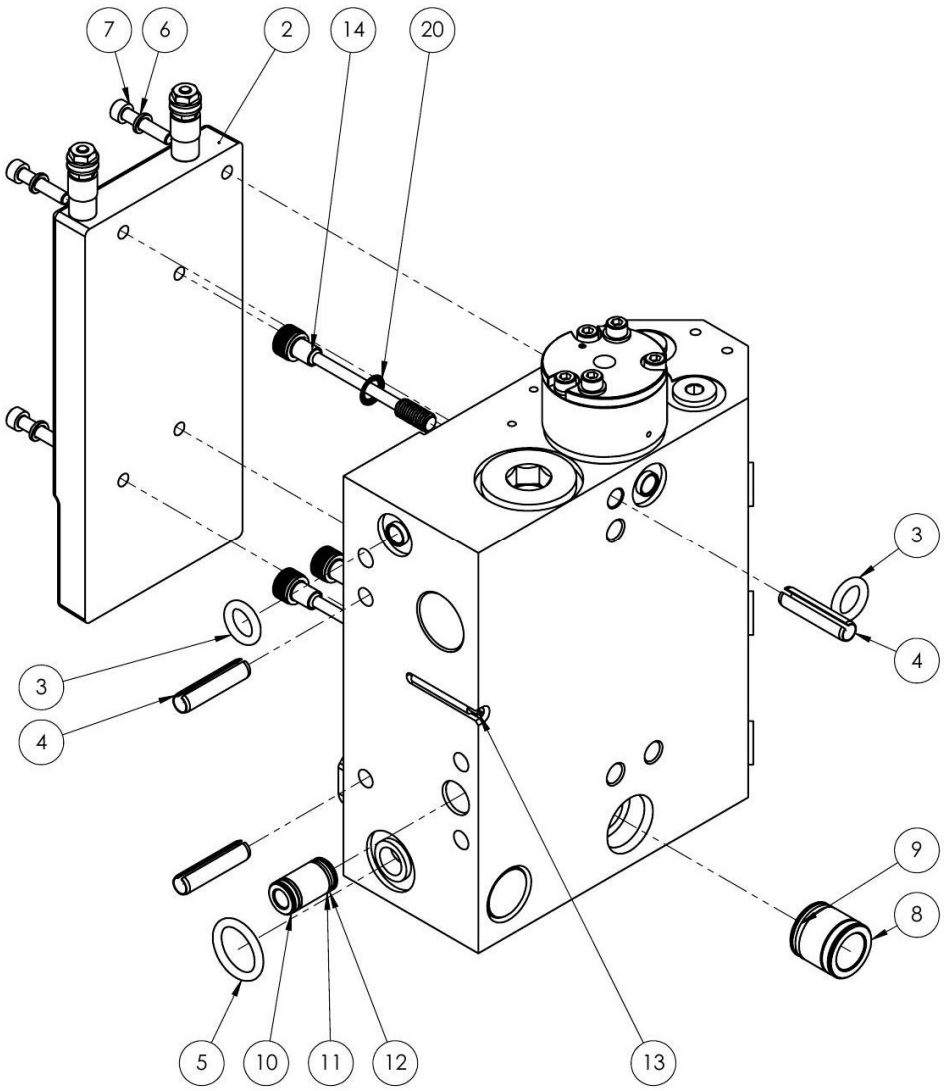


FIGURE 7-2

Item	Part Number	Description	Qty
2	T10H46E9S	Manifold heating element, 230 V AC	1
3	T10A95A5S	Viton O-ring, DASH 206, 0.484 × 0.762 × 0.139 (seal)	3
4	97161A215	Slotted spring pin, 8 mm × 36 mm L (fastener)	3
5	T9E20M0S	Viton O-ring, 0.796 × 1.074 × 0.139 (seal)	1

Item	Part Number	Description	Qty
6	91111A124	18-8 SS split lock washer, M5 (fastener)	6
7	B18.3.1M	M5 × 0.8 × 25 hex SHCS (fastener)	5
8	T10A71M6S	Crossover, tank to manifold	1
9	T9E11H1S	Chemical-resistant Viton O-ring (seal)	2
10	T10A71M9S	Crossover, pump to manifold	1
11	T9F40A3S	Ultra-chemical-resistant PTFE backup ring (seal)	2
12	T9E01C3S	Chemical-resistant Viton O-ring (seal)	2
13	T10B83B0S	RTD service kit	1
14	HMS-0021-000-00-010	Pump mounting screw, M8 × 133 mm L (modified, fastener)	3
20	90895A208	M8 / 5/16 in spring lock washer (fastener)	3
25	T10B83P8S	Pressure discharge valve	1

Figure 8-3 • Pump Assembly

PARTS LIST PUMP ASSEMBLY

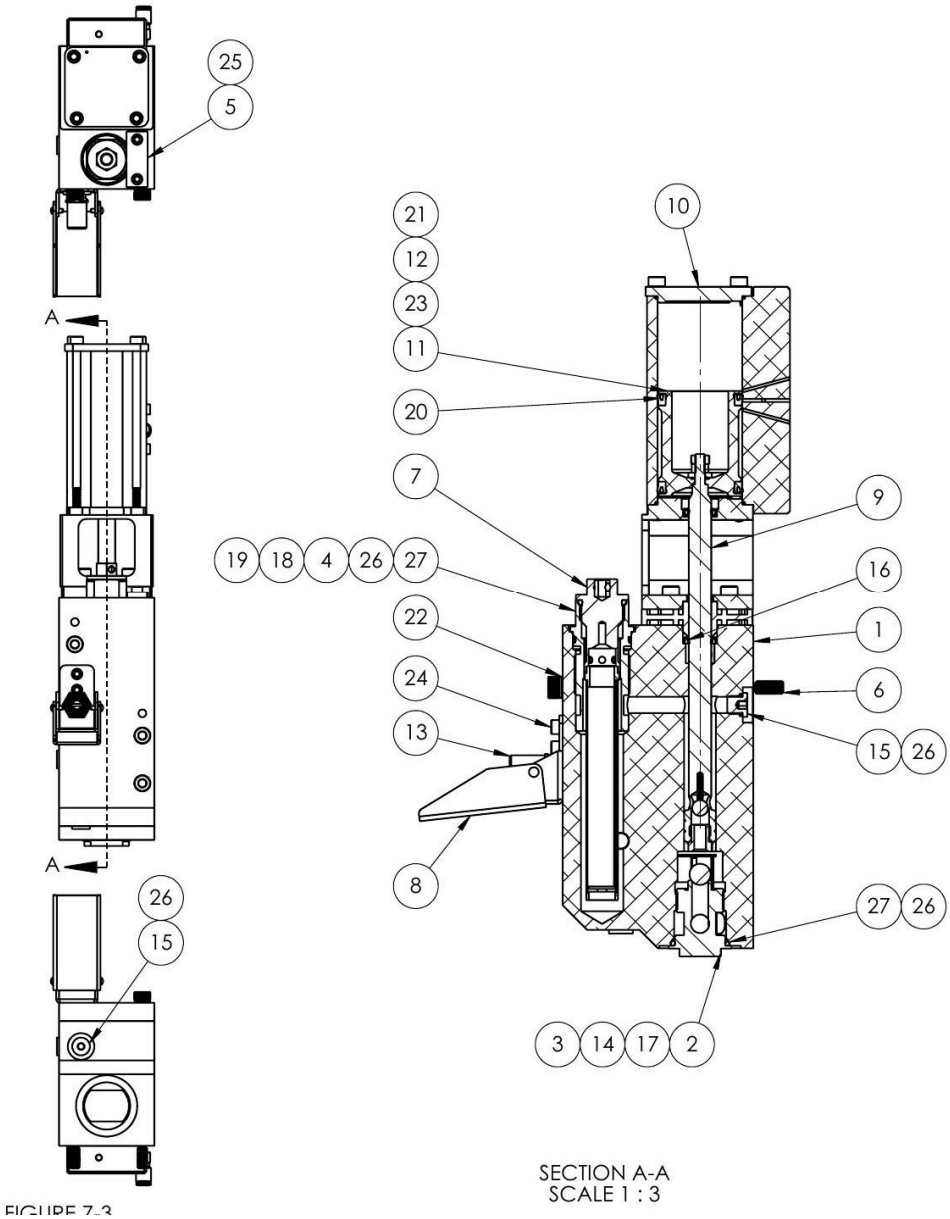


FIGURE 7-3

Item	Part Number	Description	Qty
1	T10A68H3S	Body, pump-filter	1
2	T10A73B0S	Lower ball seat	1
3	T5P36N6S	Siphon ball cage	1
4	T10B19F5S	Filter housing	1

Item	Part Number	Description	Qty
5	T10B12K0S	Retainer plate	1
6	T10A70H0S	Pump mounting screw, M8 × 133 mm L (modified, fastener)	3
7	T10B83P5S	Filter assembly	1
8	T10B27K9S	Purge valve cover	1
9	HMS-0021-000-20-000	Piston assembly (see Figure 8-5)	1
10	HMS-0021-200-05-000	Shifter assembly (see Figure 8-4)	1
11	HMS-0021-200-05-005	Air piston	1
12	HMS-0021-200-05-006	Washer	1
13	T2K60B4S	Drain valve	1
14	T9P00P1S	Stainless-steel ball, 0.5 in dia	1
15	T9K35E3S	Steel plug with hex drive, 7/16-20 UN/UNF male (plug)	3
16	T2K31C9S	Shaft seal	1
17	T9E50C7S	Viton O-ring (seal)	1
18	T9E02H1S	Viton O-ring (seal)	1
19	T10A78E9S	PTFE backup ring (seal)	1
20	HMS-0021-200-05-008	Air piston seal, 41.35 mm ID, 6.85 mm wide V-seal	2
21	5233T274	High-temperature silicone O-ring (seal)	1
22	90895A208	M8 / 5/16 in spring lock washer (fastener)	3
23	B18.2.4.1M	Hex nut, Style 1, M6 × 1 (fastener)	2
24	B18.3.1M	M5 × 0.8 × 8 hex SHCS (fastener)	2
25	—	SHCS M5 × 0.8 × 12 mm L (fastener)	2
26	—	Lubricant, Never-Seez, 8 oz can	AR
27	—	Lubricant, Parker High-Temp, 11208	AR

Figure 8-4 • Pump Shifter Assembly

PARTS LIST PUMP SHIFTER ASSEMBLY

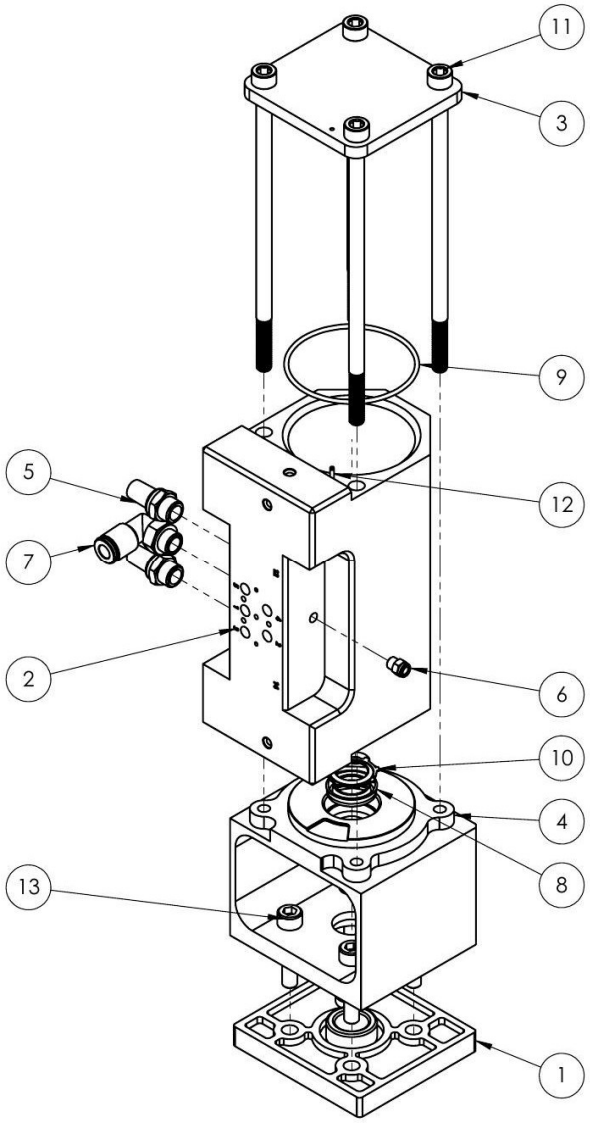


FIGURE 7-4

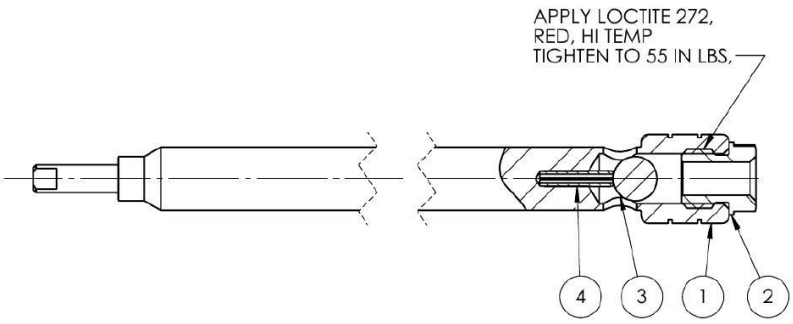
Item	Part Number	Description	Qty
1	T10A73P7S	Insulator, pump	1
2	HMS-0021-200-05-001	Air cylinder	1
3	HMS-0021-200-05-002	Head, cylinder, machined	1
4	HMS-0021-200-05-007	Frame, pump, machined	1

Item	Part Number	Description	Qty
5	HMS-0021-200-05-029	Muffler	2
6	1206621	AMTE-M-H-M5 muffler	1
7	T10B33P7S	L-fitting	1
8	T2K31C9S	Shaft seal	1
9	T9E03C2S	Chemical-resistant Viton O-ring (seal)	2
10	HMS-0021-200-05-036	Push-on internal retaining ring (fastener)	1
11	HMS-0021-200-05-037	Air cylinder mount screw (fastener)	4
12	HMS-0021-200-05-038	18-8 stainless slotted spring pin (fastener)	1
13	T9M21C5S	B18.3.1M M6 × 1.0 × 30 hex SHCS (fastener)	4
14	HMS-D3X	Pilot valve, ball-detent, double air pilot (not shown)	1

Figure 8-5 • Piston Shaft Assembly

Sheet 10 of 15 HMSC

PARTS LIST PISTON SHAFT ASSEMBLY



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	TYPE
1	HMS-0021-200-05-004	PISTON SHAFT, PUMP	1	
2	HMS-0021-000-00-006	SEAT, BALL, PRESSURE	1	
3	9529K19	BALL, SS 420C HARDENED, .37" DIA	1	
4	92383A695	1/16" SPRING DOWEL	1	

FIGURE 7-5

Figure 8-6 • Electrical Enclosure

PARTS LIST

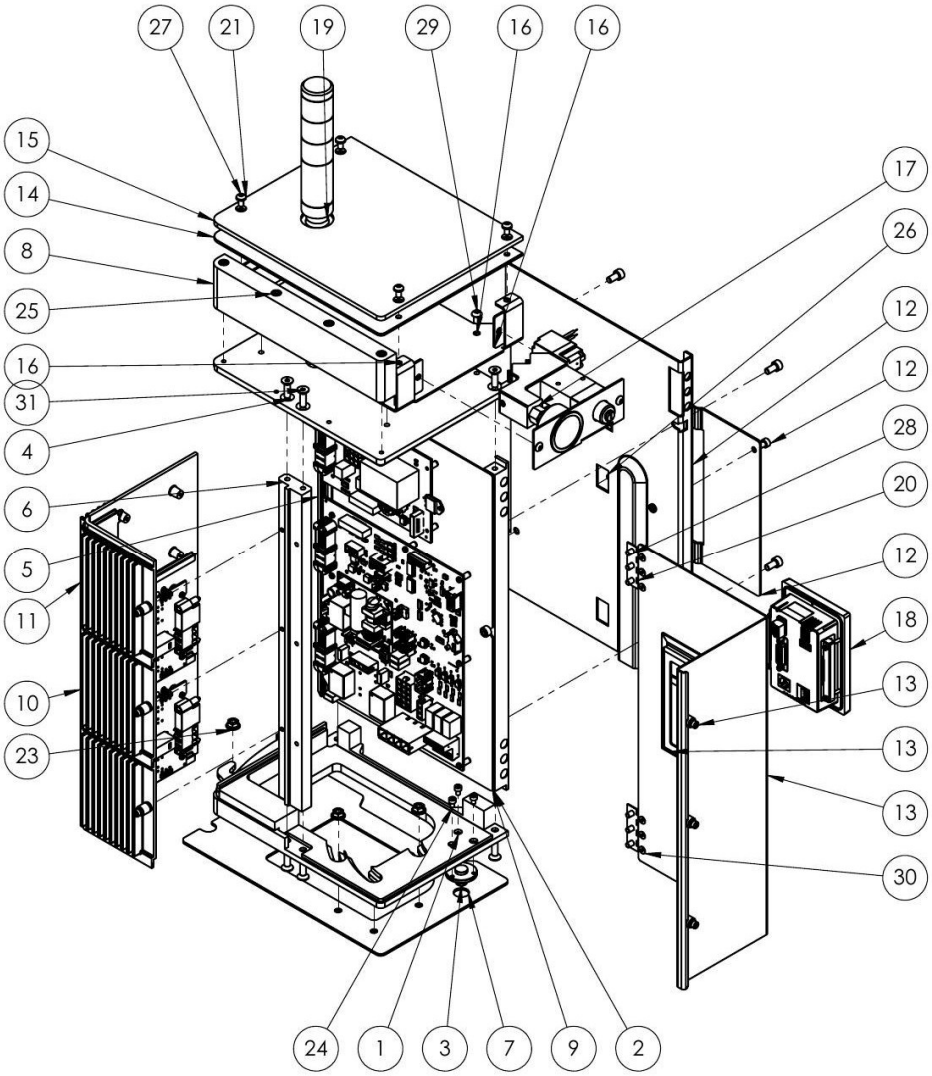


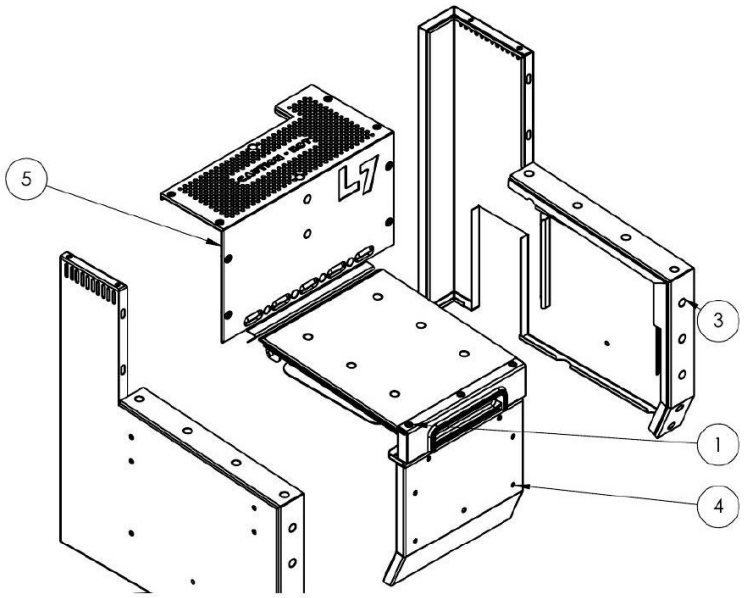
FIGURE 7-6

Item	Part Number	Description	Qty
1	HMS-0021-500-10-001	Base – mount plate	1
2	HMS-0021-500-10-002	Flat bar	1
3	HMS-0021-500-10-003	Pivot pin	1
4	HMS-0021-500-10-004	Top plate	1

Item	Part Number	Description	Qty
5	HMS-0021-500-10-005	Back post bar – custom profile	1
6	HMS-0021-500-10-006	Vertical post	1
7	HMS-0021-500-10-007	Bottom slide sheet	1
8	HMS-0021-500-10-008	Boards rack side bar	1
9	HMS-1028322-V2	Main board panel	1
10	HMS-1028328-V2	Gun board bracket, molded, assembled	2
11	HMS-0021-500-31-000	Blank bracket, molded	1
12	HMS-0021-500-40-000	Back plate, assembled	1
13	HMS-0021-500-51-000	Tool rack door, fabricated	1
14	HMS-0021-500-60-003	Air box top cover	1
15	HMS-0021-500-60-007	Air box top thermal isolator, black	1
16	HMS-0021-500-60-002	Air regulator bracket	1
17	T10B83P7S	Regulator assembly (replaces 1028307)	1
18	HMS-1028322-006	HMI panel	1
19	1577T43	LED stack light (optional)	1
20	1603A24	Hinge	2
21	93475A240	18-8 stainless steel washer (fastener)	4
22	94000A035	18-8 SS cap nut (fastener)	6
23	B18.2.2.4M	Hex flange nut, M6 × 1 (fastener)	4
24	B18.3.1M	M4 × 0.7 × 6 hex SHCS (fastener)	3
25	B18.3.1M	M5 × 0.8 × 55 hex SHCS (fastener)	4
26	B18.3.1M	M6 × 1.0 × 12 hex SHCS (fastener)	5
27	B18.3.4M	M5 × 0.8 × 10 SBHCS (fastener)	4
28	B18.3.4M	M5 × 0.8 × 8 SBHCS (fastener)	6
29	B18.3.4M	M6 × 1.0 × 10 SBHCS (fastener)	4
30	B18.3.5M	M4 × 0.7 × 8 socket FCHS (fastener)	6
31	B18.3.5M	M6 × 1.0 × 20 socket FCHS (fastener)	8

Figure 8-7 • Exterior Panels

PARTS LIST EXTERIOR PANELS



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	TYPE
1	HMS-0021-600-50-000	TANK LID SERVICE KIT 7L/10L	1	
2	HMS-0021-607-10-000	SIDE COVER - FRONT, 7L	1	
3	HMS-0021-607-20-000	SIDE COVER - BACK, 7L	1	
4	HMS-0021-607-30-000	TANK SIDE COVER, 7L	1	
5	HMS-0021-607-40-000	TOP COVER, 7L	1	

FIGURE 7-7

Item	Part Number	Description	Qty
1	HMS-0021-600-50-000	Tank lid service kit, 7L / 10L	1
2	HMS-0021-607-10-000	Side cover – front, 7L	1
3	HMS-0021-607-20-000	Side cover – back, 7L	1

Item	Part Number	Description	Qty
4	HMS-0021-607-30-000	Tank side cover, 7L	1
5	HMS-0021-607-40-000	Top cover, 7L	1

Figure 8-8 • Chassis

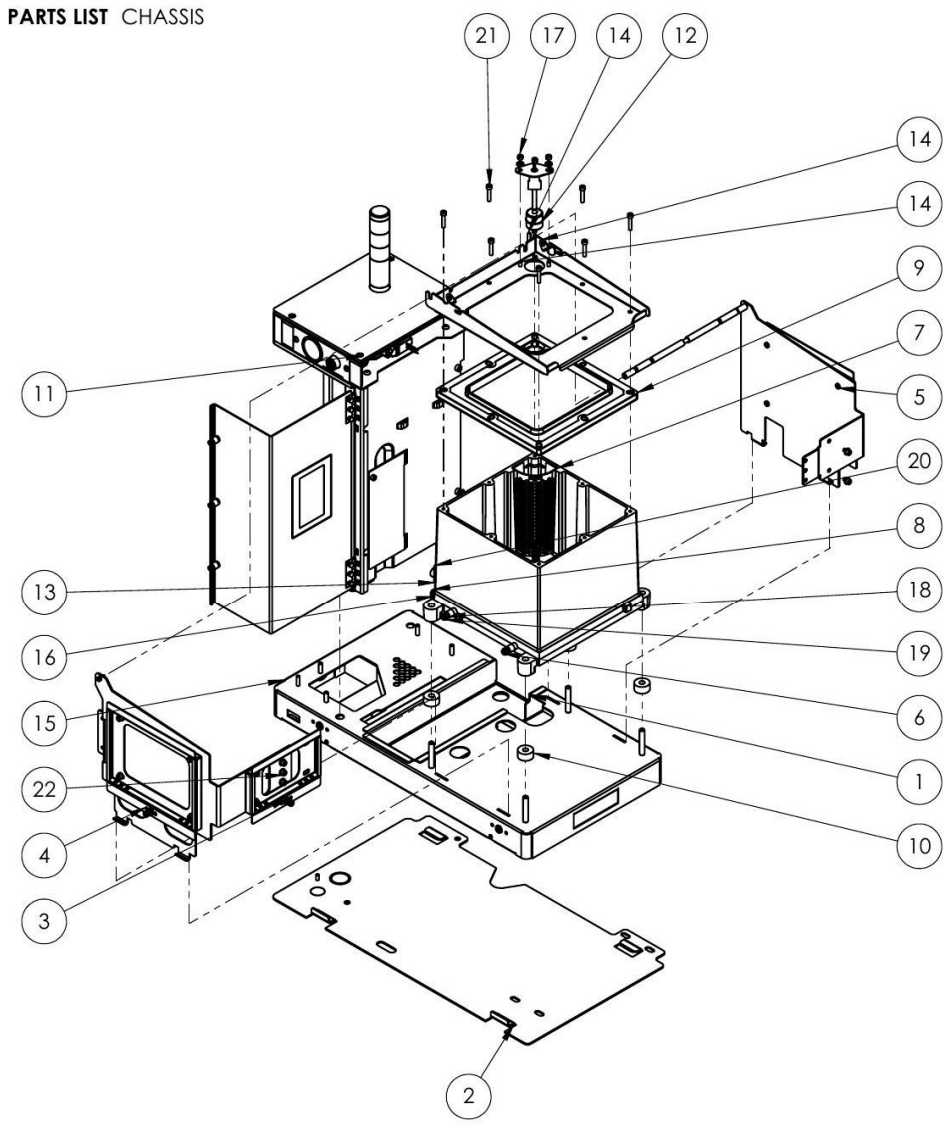


FIGURE 7-8

Item	Part Number	Description	Qty
1	HMS-0021-400-10-000	Base frame, spot welded	1
2	HMS-0021-400-11-000	Clamp-on plate with grounding stud	1
3	HMS-0021-707-00-002	Tank side cover mount flange, 7L	1
4	HMS-0021-707-10-000	Tank bracket, front, 7L	1
5	HMS-0021-707-20-000	Tank bracket, back, 7L	1
6	HMS-0021-300-10-000	Tank, molded 7L, 230 V heater	1
7	HMS-0021-300-10-003	Tank screen	1
8	HMS-0021-300-10-004	RTD clamp plate	1
9	HMS-0021-300-13-000	Tank flange gasket, universal	1
10	HMS-0021-400-00-002	Tank spacer, isolator	4
11	HMS-0021-500-00-000	Complete electrical cabinet assembly	1
12	T10K89K1S	Tank adhesive level sensor	1
13	T10B83B1S	Thermostat service kit	1
14	HMS-0021-300-12-000	Tank flange, welded (universal)	1
15	—	Electrical cover (standard)	1
16	T10B83B0S	RTD service kit (standard)	1
17	B18.2.4.1M	Hex nut, Style 1, M5 × 0.8 (fastener)	2
18	B18.2.4.5M	Hex jam nut, M5 × 0.8 (fastener)	4
19	B18.22M	Plain washer, 5 mm, narrow (fastener)	13
20	B18.3.1M	M4 × 0.7 × 10 hex SHCS (fastener)	4
21	B18.3.1M	M5 × 0.8 × 25 hex SHCS (fastener)	8
22	B18.3.1M	M5 × 0.8 × 8 hex SHCS (fastener)	7
23	B18.3.4M	M6 × 1.0 × 10 SBHCS (fastener)	2

Section 9 — Warranty and Contact Information

9.1 Warranty

Hot Melt Supply Company, LLC warrants this equipment to be free from defects in materials and workmanship for a period of one (1) year from the date of shipment. This warranty covers parts and labor for repairs performed at Hot Melt Supply Company facilities. The warranty does not cover damage caused by char, contamination, misuse, improper voltage, lack of routine maintenance, or modifications. The warranty does not cover the electric heater, solenoid coil, or other electronic components against issues related to char, overheating, or operator misuse.

Use only genuine Hot Melt Supply Company replacement parts and service kits. Using unauthorized parts may void the warranty and may result in equipment damage or safety hazards. Contact Hot Melt Supply Company or your authorized service representative to order parts.

9.2 Technical Support and Contact

For technical support, replacement parts, service, or other inquiries, contact Hot Melt Supply Company. When contacting support, please have the serial number (from the machine nameplate or the Equipment Identification block on the cover of this manual), a description of the issue and any fault codes displayed, the current operating parameters, and the adhesive material in use.

Toll-free	**1-888-202-1788**
Email	sales@hotmeltsupplyco.com
Web	www.hotmeltsupplyco.com
Mail	Hot Melt Supply Company, LLC • 506 B Plantation Park Dr • Loganville, GA 30052

Disclaimer: This document provides information for the installation, operation, and maintenance of the Legacy 7 melter. It does not replace the safety information contained in HMSC-SAF-001, the equipment nameplate, or applicable codes and standards. The end user is responsible for compliance with all federal, state, and local regulations governing the use of industrial equipment, including OSHA 29 CFR 1910 and the National Electrical Code (NFPA 70). Hot Melt Supply Company, LLC disclaims liability for damage or injury resulting from failure to observe these instructions, from use of the equipment outside its rated parameters, or from modification of the equipment.

Appendix A — Operating Parameters Reference

This appendix provides a complete reference for all user-configurable operating parameters on the Legacy 7 HMI.

A.1 Temperature Control Parameters

Parameter	Range	Default	Description
Zone Set-point	100–450°F (40–230°C)	—	Set-point temperature for each individual zone (Tank, Manifold, Hoses, Guns).
Set All	100–450°F (40–230°C)	—	Applies a single temperature to all active zones simultaneously.
Zone Active/Inactive	Active / Inactive	Active	Toggles individual zones on (black) or off (red). Inactive zones are not heated or monitored.

A.2 System Parameters

Parameter	Range	Default	Description
Setback Offset	1–450°F (1–230°C)	—	Temperature reduction applied when melter enters standby (setback) mode.
Ready Delay	0–999 min	0	Minimum time after reaching temperature before pump can be enabled. Prevents cold-start pump activation.
Service Interval	0–9999 hrs	0	Heater-on-time before service reminder fault is triggered. Set to 0 to disable.
Pump Engage on Ready	ON / OFF	OFF	Automatically engages the pump when melter reaches ready state.
Temperature Units	°F / °C	°F	Unit of measurement for all temperature displays.
Heaters on Powerup	ON / OFF	OFF	Automatically activates heaters when the machine is powered on.
Heating Stages	SEQ / SIM	SEQ	Sequential (Tank first, then manifold/hoses) or Simultaneous startup.

A.3 Standby / Idle Parameters

Parameter	Range	Default	Description
Auto Standby Timeout	0–999 min	0 (OFF)	Time with no input signal before melter automatically enters standby. 0 = disabled.
Auto Heaters Off	0–999 min	0 (OFF)	Time with no input signal before heaters are automatically turned off. 0 = disabled.
Man Standby Timeout	0–999 min	0 (OFF)	Duration of manually-activated standby before returning to normal mode. 0 = disabled.

A.4 Input Assignments

Each of the 4 user inputs (I1–I4) can be assigned one of the following functions:

Assignment	Description
No Assignment	Input has no effect (default).
Machine Enable	Heaters and pump operate only while signal is active.
Standby	Places melter in standby mode while signal is active.
Remote Pump On	Turns pump on when signal is activated.
Remote Pump Off	Turns pump off when signal is activated.
Fault Reset	Clears acknowledged faults when signal is activated.

A.5 Output Assignments

Each of the 3 user outputs (O1–O3) can be assigned one of the following functions. Outputs are normally open (N.O.) relay contacts:

Assignment	Description
No Assignment	Output is never activated (default).
Ready	Output closes when all active zones are at temperature and the melter is in ready state.
Fault / Alarm	Output closes when an active fault or alarm condition exists.
Low Glue Level	Output closes when the low-level adhesive sensor is triggered.
Pump Running	Output closes when the pump is active.
Standby Active	Output closes when the melter is in standby mode.

A.6 7-Day Clock Settings

The 7-day clock allows the melter to automatically manage heater on/off cycles and standby modes on a programmable weekly schedule. Up to three timed events can be programmed.

Setting	Options	Description
Hour	0–23	Current hour in 24-hour format.
Minute	0–59	Current minute.
Weekday	Mon–Sun	Current day of the week.
Calendar (Enable)	Enabled / Disabled	Enables or disables the 7-day clock scheduler.
Event Type	Heaters On, Heaters Off, Standby, etc.	The action to perform at the scheduled time.
Event HR / MIN	0–23 / 0–59	The time at which the event occurs (24-hour format).
Active Days	MON–SUN	Days on which the event is active. Green = active, Gray = inactive.

A.7 Power Calculation

To calculate the total power required by the hoses and applicators connected to your Legacy 7, add the wattages of each hose and each applicator. Ensure that:

- No single hose or applicator exceeds the per-component maximum wattage rating for the hose/gun module.
- Each hose/gun pair does not exceed the pair maximum wattage.
- The total wattage of all pairs on a given board module does not exceed the module maximum.

Contact Hot Melt Supply Company to confirm that your hose and gun configuration is within the power limits of the Legacy 7 before installation.

Appendix B — Quick Start Guide

The following pages reproduce the Legacy 7 Quick Start Guide. This guide provides a concise visual reference for installation, electrical connection, HMI parameter setup, and day clock configuration. The full procedures are in Sections 3 (Installation) and 4 (Operation).

B.1 Safety Precautions

Appendix B — Quick Start Guide

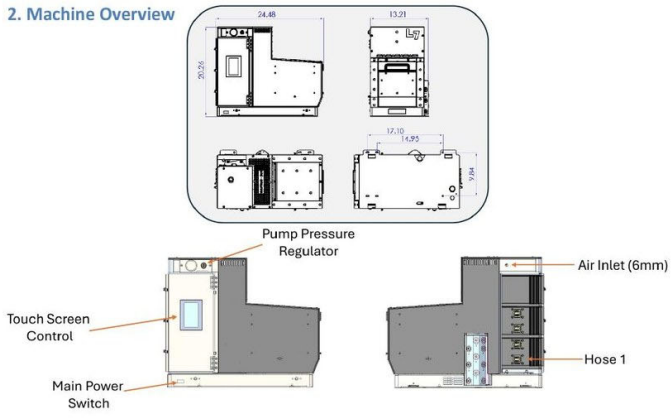
The following pages reproduce the Legacy 7 Quick Start Guide in full. This guide provides a concise visual reference for installation, electrical connection, HMI parameter setup, and day clock configuration.

Quick Start Guide – Legacy Series Melter

1. Safety Precautions

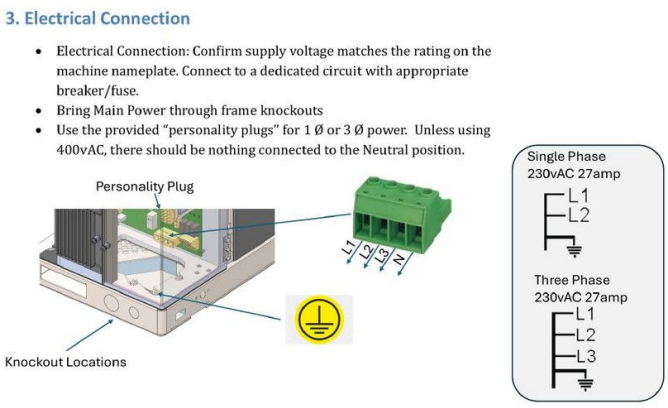
- Read Before Use – Review the full user manual and follow all safety instructions.
- Protective Equipment – Always wear heat-resistant gloves, eye protection, and long sleeves.
- Power Safety – Ensure the machine is grounded. Disconnect power before servicing.
- Hot Surfaces – Surfaces may exceed 350° F (177 ° C). Allow to cool before maintenance.
- Positioning: Place the unit on a level, heat-resistant surface. Maintain at least 6 in (150 mm) clearance for airflow.
- Securely mount the mounting plate or use existing mounting plate.

B.2 Machine Overview



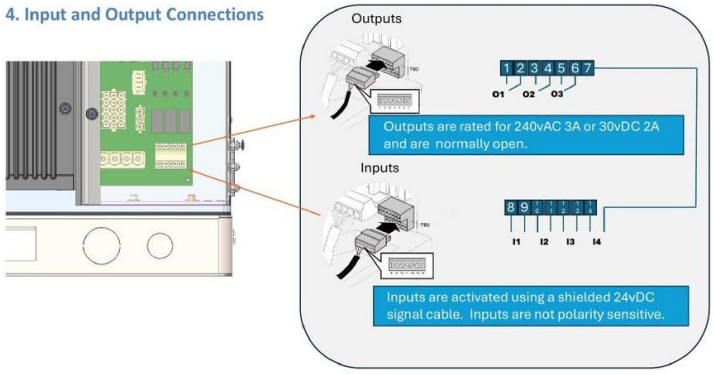
Quick Start – 2. Machine Overview

B.3 Electrical Connection



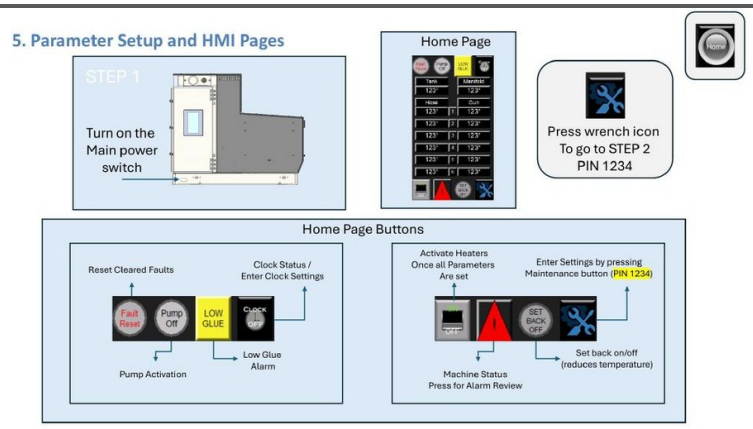
Quick Start – 3. Electrical Connection

B.4 Input and Output Connections



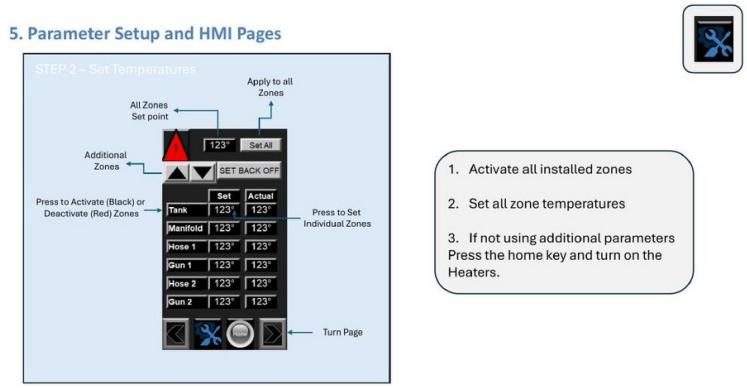
Quick Start – 4. Input and Output Connections

B.5 HMI Home Page



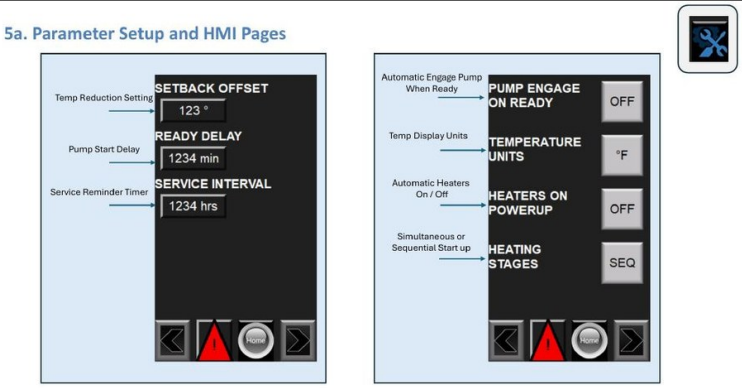
Quick Start – 5. Parameter Setup and HMI Pages — Home Page

B.6 HMI Step 2 — Set Temperatures



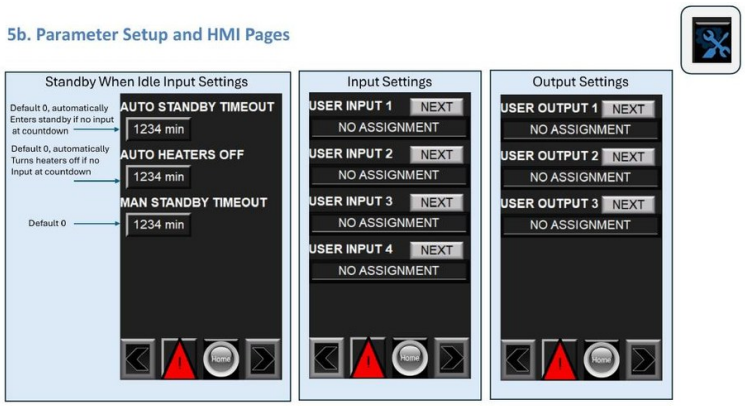
Quick Start – 5. Parameter Setup and HMI Pages — Step 2: Set Temperatures

B.7 System Parameters



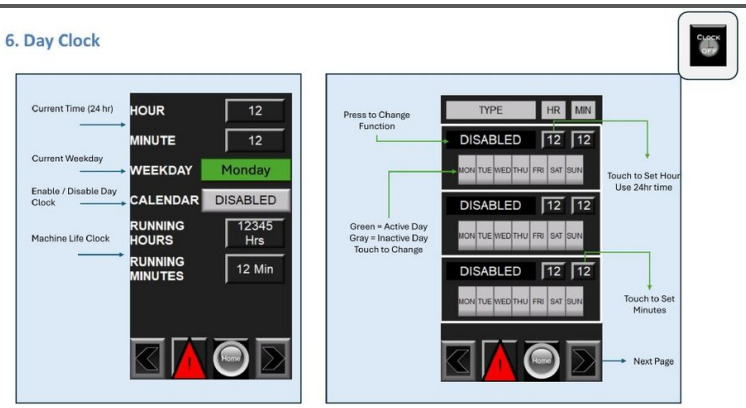
Quick Start – 5a. Parameter Setup and HMI Pages — System Parameters

B.8 Standby / Input / Output Settings



Quick Start – 5b. Parameter Setup and HMI Pages — Standby / Input / Output

B.9 Day Clock



Quick Start – 6. Day Clock

Appendix C — Revision History

Rev.	Date	Description
A	2026-05-13	Initial release.