

IS40™

IntelliSpray™ Spray Foam Proportioner Installation and Quick Start Guide

READ BEFORE INSTALLATION. REFER TO IS40 USERS MANUAL AND QUICKHEAT HOSE MANUAL FOR COMPLETE INSTALLATION AND USE INSTRUCTIONS.



SPECIFICATIONS	
Maximum Fluid Pressure	2500 PSI (172 bar)
Air Pressure Range	70-130 PSI (4.8 - 9.0 bar)
Max Fluid Temperature	200 F 94 C
Wetted Parts	Stainless Steel, Aluminum, Plated Steel, Chemically Resistant Plastic, Chemically Resistant O-Rings

WARNINGS

Spray Foam equipment and materials operate under high pressure and temperature and should only be used by trained professionals. The fluids used to create polyurethane foam insulation are hazardous. Unprotected exposure during handling and use may cause lung, ear, and/or skin irritation, shortness of breath, sore throat, fever, and even permanent respiratory and/or skin damage and/or sensitization. Always refer to the material Safety Data Sheets for proper handling, transportation, storage, and disposal.

In this manual, the words WARNING, CAUTION, and NOTICE are used to emphasize important safety information as follows:

⚠ WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in serious personal injury or death, or product or property damage.

⚠ CAUTION

Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury or product or property damage.

NOTICE

Indicates important installation, operation, or maintenance information but not hazard related.

⚠ WARNING

Read and understand all the warnings in this section and elsewhere in this manual.



READ THE MANUAL Before operating this equipment, read and understand all safety, operation and maintenance information provided in the operation manual.



TIP/CRUSH HAZARD Do not tip unit. In mobile or seismic installations be sure unit is secured to floor and wall per instructions.



OPERATOR TRAINING All personnel must be trained before operating this equipment.



EQUIPMENT MISUSE HAZARD Equipment misuse can cause the equipment to rupture, malfunction, or start unexpectedly and result in serious injury.



NEVER MODIFY THE EQUIPMENT Do not modify the equipment unless the manufacturer provides written approval.



KNOW WHERE AND HOW TO SHUT OFF THE EQUIPMENT IN CASE OF AN EMERGENCY



AUTOMATIC EQUIPMENT Automatic equipment may start suddenly without warning.



LOCK OUT/TAG-OUT Failure to de-energize, disconnect, lock out and tag-out all power sources before performing equipment maintenance could cause serious injury or death.



WEAR SAFETY GLASSES Failure to wear safety glasses with side shields could result in serious eye injury or blindness.



WEAR A RESPIRATOR Toxic fumes can cause serious injury or death if inhaled. Wear a respirator as recommended by the fluid and solvent manufacturer's Safety Data Sheet.

WARNINGS (cont.)

 **WARNING**

Read and understand all the warnings in this section and elsewhere in this manual.



INSPECT THE EQUIPMENT DAILY Inspect the equipment for worn or broken parts on a daily basis. Do not operate the equipment if you are uncertain about its condition.



KEEP EQUIPMENT GUARDS IN PLACE Do not operate the equipment if the safety devices have been removed.



FIRE AND EXPLOSION HAZARD Improper equipment grounding, poor ventilation, open flame or sparks can cause a hazardous condition and result in fire or explosion and serious injury.



PROJECTILE HAZARD You may be injured by venting liquids that are released under pressure, or flying debris.



PINCH POINT HAZARD Moving parts can crush and cut. Pinch points are basically any areas where there are moving parts.



NOISE HAZARD You may be injured by loud noises from support equipment (generators, compressors, transfer pumps). Hearing protection should be used.



STATIC CHARGE Fluid may develop a static charge that must be dissipated through proper grounding of the equipment, objects to be sprayed and all other electrically conductive objects in the dispensing area. Improper grounding or sparks can cause a hazardous condition and result in fire, explosion or electric shock and other serious injury.



ELECTRICAL SHOCK HAZARD Disconnect all power sources before accessing any electrical connections in the Control Module, Fluid Modules, or Hoses. Equipment must be serviced by trained personnel only.



TOXIC FLUID & FUMES Hazardous fluid or toxic fumes can cause serious injury or death if splashed in the eyes or on the skin, inhaled, injected or swallowed. LEARN and KNOW the specific hazards or the fluids you are using.



MEDICAL ALERT Any injury caused by high pressure liquid can be serious. If you are injured or even suspect an injury:

- Go to an emergency room immediately.
- Tell the doctor you suspect an injection injury.
- Show the doctor this medical information or the medical alert card provided with your spray equipment.
- Tell the doctor what kind of fluid you were spraying or dispensing.
- Refer to the Material Safety Data Sheet for specific information.



GET IMMEDIATE MEDICAL ATTENTION To prevent contact with the fluid, please note the following:

- Never point the gun/valve at anyone or any part of the body.
- Never put hand or fingers over the spray tip.
- Never attempt to stop or deflect fluid leaks with your hand, body, glove or rag.
- Always have the tip guard on the spray gun before spraying.
- Always ensure that the gun trigger safety operates before spraying.
- Always lock the gun trigger safety when you stop spraying.



PROP 65 WARNING This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

INSTALLATION - OVERVIEW

⚠ WARNING

Installation of the IS40 exposes installers to high voltages and high fluid pressures. Severe injury or death could result from improper installation or installation techniques.

NOTICE

The IS40 requires QuickHeat™ hoses for operation. Do not attempt to substitute any other hose.

Note: IS40 installation requires that a QuickHeat™ hose is fully assembled and ready for connection to the IS40. See "QuickHeat Hose Manual" for more information.

Installation of the IS40 should only be performed by individuals with prior knowledge of installing and servicing spray foam equipment. Installation involves mechanical, electrical and fluid connections. Default out-of-box software settings are usually adequate for initial system use, but can be changed by the installer to meet specific needs. Every IS40 is equipped for remote support and can be accessed by authorized Intellispray service agents to assist in system installation, configuration, and/or service.

The following steps outline installation of the IS40. Additional details for each step are contained in the IS40 Users manual.

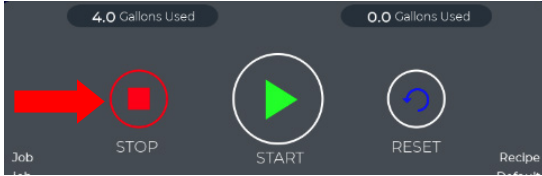
1. Unpack unit and remove from shipping pallet.
2. Place unit in desired location.
3. For mobile or seismic environments make mechanical connections to floor and wall of structure.
4. Check to be sure power to the IS40 circuit is off (turn off breaker at distribution or main panel).
5. Make electrical connections inside IS40 Control Module:
 - For 200 - 240V system, make electrical and ground connections inside IS40 Control Module.
 - For 380 - 415V system, make electrical, neutral and ground connections inside IS40 Control Module.
6. Connect fully assembled QuickHeat hose master modem to fluid jumper hoses.
 - Make all hose electrical connections (EtherCat, 24VDC and power)
7. Connect fluid supply and recirculation hoses to A and B fluid modules.
8. Set fluid module valves to spray position for purging.
9. Close gun manifold material control valves and remove spray gun from hose.
10. Open fluid supply lines and pressurize drum pumps to provide inlet fluid pressure of 150 - 200 psi
 - 2:1 drum pump air pressure of 75 - 100 psi
 - 3:1 drum pump air pressure of 50 - 70 psi
11. Energize IS40 power circuit at distribution or main panel.
12. Turn on IS40 power switch (side of control panel). Startup screen will appear in 30 - 60 seconds..
13. If the Proportioner and Hoses were configured together at the factory skip steps 13a to 13d
 - a. From Main Menu, open Settings > Hose Config > Settings
 - b. Select hose configuration
 - c. Press Unpair Modems - Once completed press Pair Modems - Ensure no other Intellispray Machines are On and Press Pair Modems
 - d. Scan and select a recommended communication frequency
14. Purge A and B fluid sections (and hoses if new or empty) to eliminate any air.
15. Follow Quick Start instructions to begin spraying.

INITIAL SYSTEM BLEED

When the proportioner and/or hoses are installed, an initial system bleed is required to completely replace air with fluid in the supply hoses, proportioner, and distribution hoses. In addition, if air is introduced to the system (e.g. running the drum pump dry) the same procedure must be performed. If air is not removed from the system properly, the gear pumps, preheaters, and/or hose heaters can be damaged. Air pockets can also create off-ratio conditions.

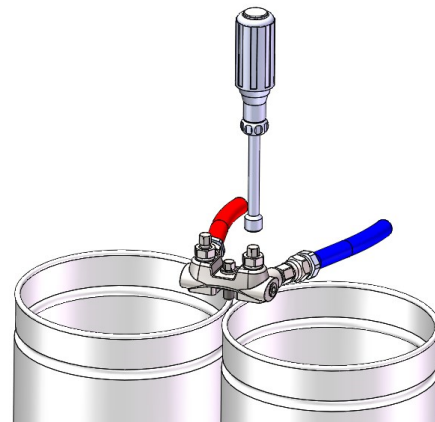
In this example the operation is shown for the B side. The same procedure would also be used for the A side.

1. Be sure the system is in STOP state.



2. Check that supply lines, recirculation hoses, and distribution hoses are properly connected.
3. Check the analog pressure gage on the fluid module to be bled. Relieve pressure by turning the outlet valve to the recirculation position. Once pressure is relieved, turn the outlet valve back to the gun position.

6. Remove the spray gun from the hose manifold. Secure or hold the manifold over a waste container and open the B-side material control valve to catch fluid. Fluid may begin flowing out of the manifold at this point. This is acceptable.



⚠ WARNING

Fluid in hoses and proportioner may be under high pressure. System must be depressurized prior to performing any service function.

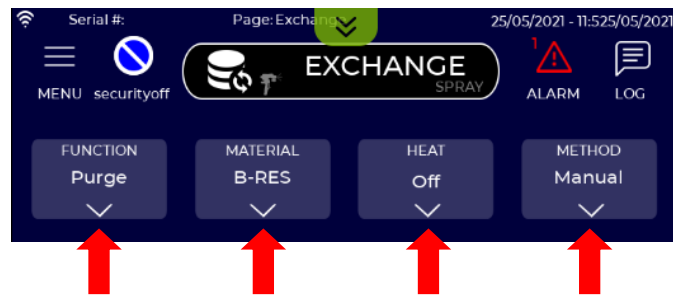
4. Set filter valve to open position and set the output valve to spray position as shown in the following figure.



Filter inlet and outlet valves in open position

Outlet valve in spray position

7. After selecting Exchange Mode from the main menu:
 - Select Purge from the FUNCTION menu.
 - Select B-RES from the MATERIAL menu.
 - Select Off from the HEAT menu.
 - Select Manual from the METHOD menu.

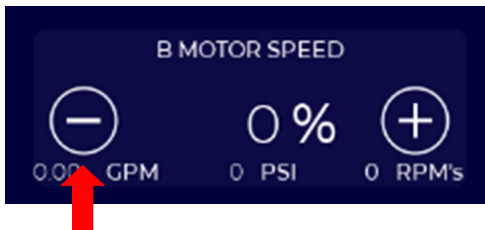


⚠ WARNING

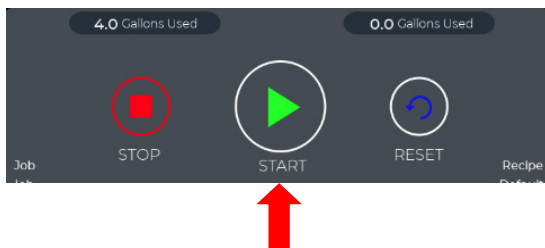
Never activate heating when air or gas is present in the Proportioner or Hoses. This can cause heater elements to fail and may create a fire hazard.

INITIAL SYSTEM BLEED (Continued)

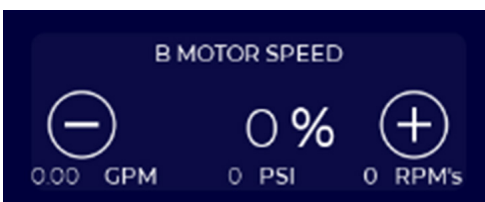
8. Set B motor speed to 0% by pressing the - button in the Motor Speed Widget.



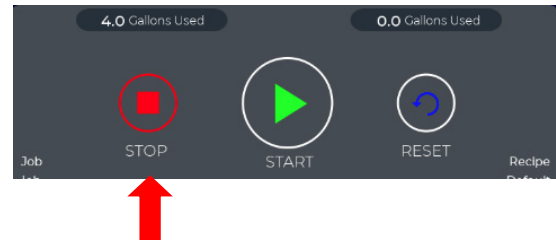
9. Press the START button.



10. Increase B motor speed by pressing the + button in the Motor Speed Widget. Motor speeds should be limited to 5% or less until fluid has filled the Fluid Modules to avoid damage to the pump bearings and internal surfaces. Once pressure starts to build motor speed can be increased but should remain below 50% until distribution hoses are filled.



11. Press STOP when a steady stream of fluid flows from the manifold and all air has been replaced with fluid.



12. Close the B-side material control valve on the gun manifold.
13. Repeat the process for the A-side.

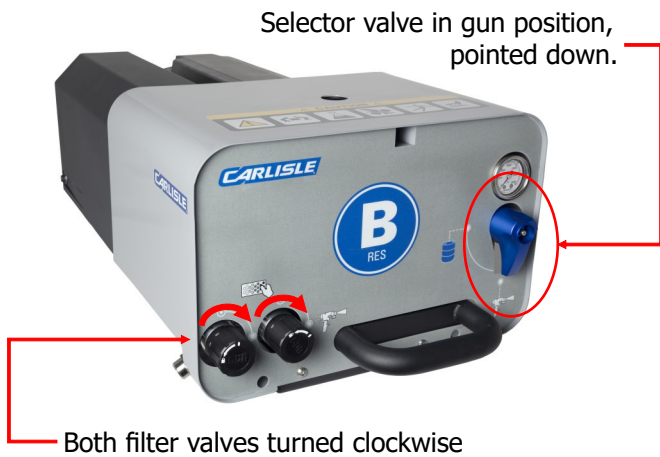
⚠ WARNING

Never run gear pumps faster than the 5% speed in Exchange Mode when dry, and do not run for more than 10 seconds when dry at this speed. Presence of fluid in the pump is essential to protect bearings and seals

QUICK-START GUIDE

Due to the IS40's efficient heating systems and simplified startup process, operators will usually be ready to spray within 10-15 minutes from powering on the system. The following are the minimal steps involved in starting up the IS40 with Job Reporting turned off. See the IS40 Users Manual for additional steps required when Job Reporting is turned on.

1. Before starting the IS40, remove all hose from the rack and position for spraying. Be sure the drum pumps are on and A and B fluid module valves on are in the proper position for spraying.



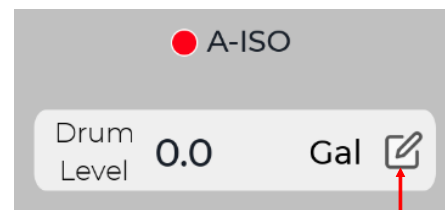
2. Turn on the IS40 by rotating the power switch on the right side of the control module clockwise to the ON position (indicated by the character "I").



The IS40 will display a startup screen while it performs internal system checks. Once completed, the Spray Mode screen will be displayed. Note that the Exchange Mode screen can be set as the default startup screen if desired (see Systems Settings in the User Manual).



3. Check the A-ISO and B-RES fluid levels using a dip-stick and enter the amount by pressing the respective drum icon on the screen.



Press to enter drum level.

QUICK-START GUIDE (Continued)

- Enter the desired pressure and temperature set-points using the on-screen "+" and "-" buttons.

Pressure setpoint

Press "-" to decrease or "+" to increase pressure.

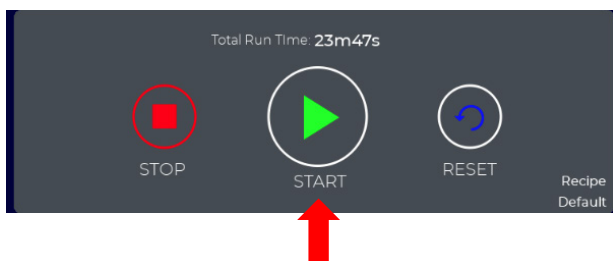
Press "-" to decrease or "+" to increase A temperature.

A-side temperature setpoint

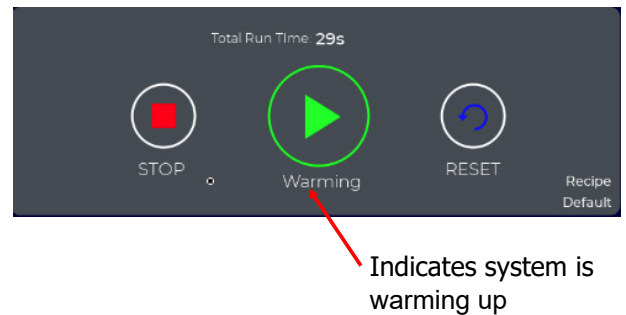
Press "-" to decrease or "+" to increase B temperature.

B-side temperature setpoint

- Press the START button to begin warming up the system.



The center button will change from START to WARMING, and the button boundary will change from solid white to flashing green to indicate the system is warming up.



When the center button changes from WARMING to READY the pumps will automatically pressurize the system to the desired setpoint.



- If required, spray out any cold material in the unheated whip, then proceed with spraying.
- If drums are changed, enter the new fluid level and continue spraying. (see step 3).
- If errors occur, correct the issue, press the RESET button, then the START button (see step 5).
- When finished spraying, press the STOP button.
- To power off the unit, rotate the power switch on the right side of the control module of the OFF position (indicated by the character "0").

Product Description / Object of Declaration:	IS 30, IS 40
This Product is designed for use with:	Non Flammable Materials Only
Suitable for use in hazardous area:	
Protection Level:	Not Applicable
Notified body details and role:	TUV SUD America Inc 141 14th St NW New Brighton MN 55112 USA
	Low Voltage and EMC Assessment
This Declaration of Conformity / Incorporation is issued under the sole responsibility of the manufacturer:	Carlisle Fluid Technologies Inc 7166 4th St. N. Oakdale, MN 55128 USA


EU Declaration of Conformity



This Declaration of Conformity / Incorporation is issued under the sole responsibility of the manufacturer:

EMC Directive 2014/30/EU
 Low Voltage Directive 2014/35/EU
 RoHS Directive 2011/65/EU
 by complying with the following statutory documents and harmonised standards:
 EN 61000-6-2:2005/AC:2005 Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments
 EN 61000-6-4:2007/A1:2011 Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments.
 EN 61000-3-11:2000 (>16A) Electromagnetic compatibility (EMC) - Part 3-11: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems
 EN 61000-3-12:2011 (>16A) Electromagnetic compatibility (EMC) - Part 3-12: Limits - Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current.
 EN 63000: 2018 Technical documentation for the assessment according to REACH
 EN 60204-1:2018 Safety of Machinery. Electrical equipment of machines
 FCC 47 CFR Part 15-Radio Frequency Devices, Subpart B – Unintentional Radiators
 ICES-001, Issue 5:2020 Class A Industrial, Scientific, and Medical (ISM) Equipment

Providing all conditions of safe use / installation stated within the product manuals have been complied with and also installed in accordance with any applicable local codes of practice.

Signed for and on behalf of Carlisle Fluid Technologies:		F. A. Sutter	Executive President: Engineering and Operations, Scottsdale, AZ, 85254. USA
Document Part No. EN		09/11/2023	

	Ref. Certif. No.
	US/9719/ITS

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

CB TEST CERTIFICATE

Product	IntelliSpray Spray Foam Proportioner
Name and address of the applicant	Carlisle Fluid Technologies, Inc. 16430 N. Scottsdale Rd. Suite 450 Scottsdale, AZ, 85254 United States of America
Name and address of the manufacturer	Motion Tech Automation LLC 7166 4th St. N. Oakdale, MN, 55128 United States of America
Name and address of the factory	Motion Tech Automation LLC 7166 4th St. N. Oakdale, MN, 55128 United States of America
<i>Note: When more than one factory, please report on page 2</i>	<input type="checkbox"/> Additional information on page 2
Ratings and principal characteristics	IS30: 200-240Vac, 67A, 50/60Hz, 3 Phase IS40: 200-240Vac, 78A, 50/60Hz, 3 Phase
Trademark / Brand (if any)	 CARLISLE FLUID TECHNOLOGIES // IntelliSpray
Customer's Testing Facility (CTF) Stage used	CTF Stage 1
Model / Type Ref.	IS30, IS40
Additional information (if necessary may also be reported on page 2)	<input type="checkbox"/> Additional information on page 2
A sample of the product was tested and found to be in conformity with	IEC 61010-1:2010/AMD1:2016, IEC 61010-2-010:2019, IEC 61010-2-051:2018
	Comments: Refer to the Test Report for the Summary of Compliance with National Deviations
As shown in the Test Report Ref. No. which forms part of this Certificate	105047444MIN-001, 105047444MIN-002, 105047444MIN-003

This CB Test Certificate is issued by the National Certification Body

Intertek Testing Services NA, Inc. 545 E. Algonquin Road Arlington Heights IL 60005 United States of America	 Signature: John Quigley
Date: 2022-12-14	

WARRANTY POLICY

This product is covered by Carlisle Fluid Technologies' materials and workmanship limited warranty.

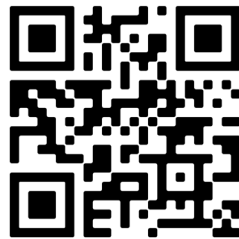
The use of parts or accessories from sources other than Carlisle Fluid Technologies will void all warranties. Failure to follow reasonable maintenance guidance provided can invalidate the warranty.

For specific warranty information, please contact Carlisle Fluid Technologies.

For technical assistance or to locate an authorized distributor, contact one of our international sales and customer support locations listed below.

REGION	INDUSTRIAL/ AUTOMOTIVE	AUTOMOTIVE REFINISHING
Americas	Tel: 1-800-992-4657	Tel: 1-800-445-3988
Europe, Africa Middle East, India	Tel: +4401202571111	
China	Tel: +862133730108	
Japan	Tel: +81457856421	
Australia	Tel: +61085257555	





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