

HERO
INNOVATIVE COLOR TECHNOLOGY

- **S2650**
Automatic Shaker

USER MANUAL

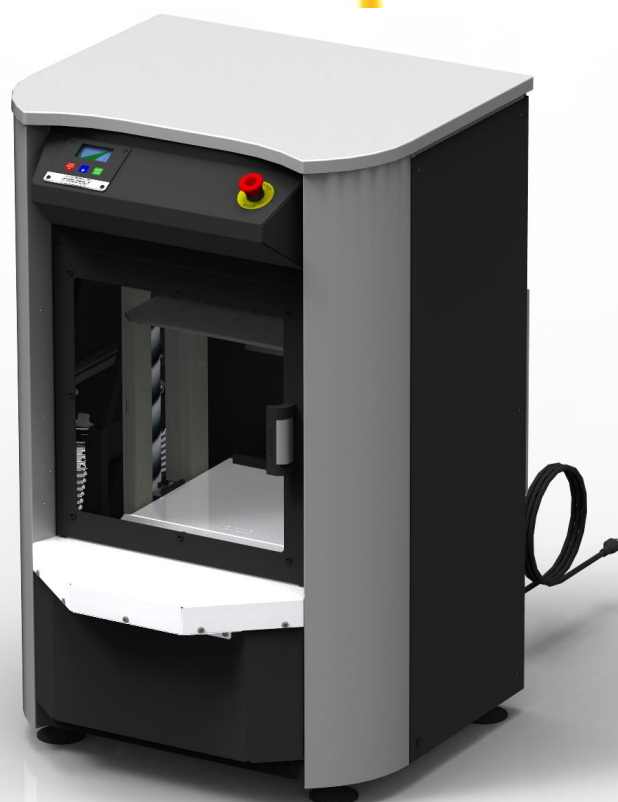


TABLE OF CONTENTS

➤ Declaration of Compliance with CE Regulations	3
➤ CSA Certificate of Compliance	4
➤ General Conditions	7
➤ Warranty Terms	8
➤ Safety Instructions	9
➤ Intended Use of the Equipment	11
➤ Product Description	12
➤ Technical Features	13
➤ Machine Positioning and Installation	14
➤ Residual Risks	15
➤ Instructions for Use	16
• Command Panel	17
• Buttons Functions	18
• Can Loading Operation	19
• Shaking Cycle	20
• Alarm Notice	21
➤ Maintenance and Cleaning	22
➤ Troubleshooting Guide	23

Declaration of Compliance with CE Regulations

HERO EUROPE S.r.l.
Via del Bricco, 1
12040 – Salmour (CN)
ITALY

Declares that:

The Automatic Shaker, model: **S2650**
Serial number:_____

Is in compliance with the EC Machinery Directives:

Machinery Directive 2006/42/EC
Low tension 2006/95/EC
Electromagnetic Compatibility 2004/108/EC

Is in compliance with the standardized European Regulations:

UNI EN ISO 12100-1:2005, UNI EN ISO 12100-2:2005
UNI EN ISO 13850:2007 & EN ISO 14121-1:2007
EN 60204-1
EN 61000-6-2, EN 61000-6-3, EN 61000-3-2 & EN 61000-3-3

HERO EUROPE S.r.l.
Via del Bricco, 1
12040 – Salmour (CN)
ITALY

Alessandro Sacchet

Chairman
HERO EUROPE S.r.l.



Certificate of Compliance

Certificate: 70003459

Master Contract: 242592

Project: 70003459

Date Issued: July 20, 2015

Issued to: **HERO Europe Srl**
Via del Bricco, 1
12040 Salmour (Cuneo)
ITALY

Attention: Mr. Alessandro Sacchet

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only



Issued by: Ahmad Ranadipura
Ahmad Ranadipura

PRODUCTS

CLASS – [Click here and type]

CLASS 8721 05 – LABORATORY ELECTRICAL EQUIPMENT

CLASS 8721 85 – ELECTRICAL EQUIPMENT FOR LABORATORY USE (Certified to U.S. Standards)

Paint shaker, Model Sxxxx, rated 115 V~, 60 Hz, 12 A, or 230 V~, 60 Hz, 6 A, where "x" stands for any letter, figure, or blank, denoting minor differences in cosmetic, mechanical, logic, SW and/or FW features not affecting compliance with the safety requirements.

Notes:

1. The above model is provided with non detachable power supply cord, Equipment Class I, Pollution Degree 2, Installation Category II.
2. Mode of operation: Continuous.
3. Environmental Conditions: Normal: 5 to 40 °C, 2000 m max, 80% to temperatures up to 31 °C decreasing linearly to 50% rH at 40 °C.
4. This equipment is not intended for usage as garage equipment and/or in areas exposed to flammable vapors.



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APPLICABLE REQUIREMENTS


- CAN/CSA-C22.2 No. 61010-1-04 (R 2009) - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements
- ANSI/UL 61010-1-2008 (2nd Edition) - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements

MARKINGS

The following markings appear on the product:

1. Submitter's identification (company name and/or file number and/or registered tradename);
2. Model designation;
3. Electrical rating;
4. Date of manufacture: Month and year of manufacture or date code. If a serial number is used instead of date of manufacture, a record of serial numbers shall be kept traceable to date of manufacture. (Not related to date of sale);
5. The CSA Monogram with C/US subscript; The product may bear one of the following CSA Markings:



6. Protective earthing TERMINAL is identified by the IEC 417 No 5019 symbol , adjacent to the TERMINAL;
7. "DISCONNECT POWER SUPPLY CORDS BEFORE SERVICING", and
"DEBRANCHER LES CORDONS D'ALIMENTATION AVANT DE FAIRE LE DÉPANNAGE";
8. "CAUTION: THE POWER SUPPLY CORD IS USED AS THE MAIN DISCONNECT DEVICE, ENSURE THAT THE SOCKET-OUTLET IS LOCATED/INSTALLED NEAR THE EQUIPMENT AND IS EASILY ACCESSIBLE", and
"ATTENTION: LE CORDON D'ALIMENTATION EST UTILISÉ COMME INTERRUPTEUR GÉNÉRAL. LA PRISE DE COURANT DOIT ÊTRE SITUÉE OU INSTALLÉE À PROXIMITÉ DE L'ÉQUIPEMENT ET ÊTRE FACILE D'ACCÈS".



Certificate: 70003459
Project: 70003459

Master Contract: 242592
Date Issued: July 20, 2015

Supplement to Certificate of Compliance

Certificate: 70003459

Master Contract: 242592

*The products listed, including the latest revision described below,
are eligible to be marked in accordance with the referenced Certificate.*

Product Certification History

Project	Date	Description
70003459	July 20, 2015	Original Certification of Paint shaker Model Sxxxx, where "x" stands for any letter, figure, or blank, denoting minor differences in cosmetic, mechanical, logic, SW and/or FW features not affecting compliance with the safety requirements.

General Conditions

The machine is in compliance with the 2006/42/EC directive regarding machinery, the 2004/108/EC directive regarding electromagnetic compatibility, as well as the 2006/95/EC directive regarding electrical equipment to be used within a specific voltage range compiled by the European Community Council of Ministers, and is provided with the EC trademark.

This handbook explains how to install a HERO automatic shaker and provides all the necessary information in order to insure easy use and proper maintenance.

It is very important to read the manual carefully and completely before completing any task on the shaker.

Failure to comply with the following listed requirements will invalidate the shaker's warranty.

For technical assistance, please contact the vendor's Customer Service department.

Range of environmental conditions:

- Pollution degree: 2
- Installation category: II
- Maximum altitude: 2000 m
- Maximum relative humidity 80% for temperatures up to 31 °C, decreasing linearly to 50% relative humidity at 40 °C
- Indoor use only
- Temperature: 5 °C to 40 °C
- Supply voltage: main supply voltage fluctuations are not to exceed -10% and +15% of the nominal supply voltage

This handbook should be kept in a safe place

Warranty Terms

HERO PRODUCTS EQUIPMENT WARRANTY CONTINENTAL USA & CANADA

Paint Mixers and Shakers

Parts Warranty⁰ – 2 years

Labor Warranty¹ – 1 year

HERO warrants its equipment to be free of material and workmanship defects to the original user, for the period of one (1) year with an additional one (1) year on parts. This warranty entitles the equipment owner to on-site parts repair or replacement at no charge under the conditions outlined in this document. Cleaning and general maintenance are the responsibility of the owner/operator and are not covered by the warranty. This includes the replacement of certain parts due to normal wear as determined by HERO.

The warranty is applicable to the original owner and/or location only and is non-transferable without prior written approval from HERO.

The warranty period begins when the equipment is shipped from HERO's manufacturing facilities.

The warranty does not cover damage and repairs to same due to improper use or non-completion of recommended daily maintenance procedures, unauthorized service and/or modifications, AC power problems, or other manufacturers' interfaced equipment. Damage and subsequent repairs due to fire and other man-made calamities or any acts of God such as, but not limited to, floods and lightning, are also not covered. All service work completed by HERO due to damage not covered by the equipment warranty will be billed at HERO's standard service rates.

I.C.T.C.'s/HERO's liability is limited to the repair or replacement of parts found to be defective and does not include other damages or expenses of any kind incurred in connection with the purchase and operation of the equipment.

All warranty work requests or claims must be directed to HERO Customer Service at any of the following:

720 Eaton Way, Delta, B.C. V3M 6J9, Canada

P.O. Box 75, Custer, WA 98240-0075, U.S.A.

Fax: 604-522-8735

Customercare@hero.ca

Help Desk: 800-494-4376, Option 1

⁰ Parts warranty includes shipping via a carrier and service type compatible with the nature of the equipment failure and as determined by an authorized HERO Customer Service Representative. When expedited delivery is not warranted, the customer may request and pay for the difference between such service and HERO's standard shipping method.

¹ The labor warranty on units covers on-site and travel labor to and from the customer's location. **An authorized HERO Customer Service Representative must approve all warranty repairs before any work is performed**

Safety Instructions



Please read the instructions carefully before installing and operating the shaker, as a personal safety measure as well as to avoid needless damage to the equipment.

HERO declines any responsibility should the following instructions not be followed:

- Do not turn ON a damaged machine (for example, if the machine is damaged during transportation). If in doubt, first contact HERO's service department.
- Position and connect the machine by carefully following the installation instructions and by respecting the conditions stated in this manual.
- All the instructions and local safety regulations must be observed.
- The machine must only be connected to a wall electrical socket installed according to regulations, with the grounding circuit and the voltage value in compliance with what is written on the machine's information plate.
- The machine must be connected to a dedicated electrical circuit, with no other electric devices connected to it.
- The shaker must be installed into an area in compliance with local standard rules. It could be necessary the request of an authorization from local competent authority.
- In order to avoid accidents to personnel, verify that all the removable covers are correctly assembled and fixed, except in case of maintenance operations.
- In case of emergency, press the red button for the emergency stop.
- Utilization and maintenance of the Automatic Shaker Machine must be done by authorized and specialized personnel. Any improper utilization, or incorrect maintenance, could be the causes of dangerous situations or accidents.
- Utilization and maintenance of the Automatic Shaker Machine must be done by authorized and specialized personnel. Any improper utilization, or incorrect maintenance, could be the causes of dangerous situations or accidents.
- Any service on the machine, other than routine, can only be carried out by a qualified technician. Make sure that the power cable is not plugged into the socket while the machine is being repaired.
- The user must maintain the machine in good working condition and replace any broken components.
- The machine is not explosion-proof or flameproof. Do not load the machine with inflammable or explosive substances; do not use inflammable or explosive substances for the cleaning of the machine.
- Do not store any inflammable substances or any other dangerous substances into the machine or in the area immediately surrounding the machine. The area where the machine has to be installed must be clear by flames, incandescent light sources or any other devices that could generate sparks.



Do not load the machine and do not shake cans of more than 30 kg (66 lb) of weight.

Do not load the machine with, or shake, damaged cans; they could break during the machine operations, and damage the shaker.

At the end of the shake cycle, it is recommended to not leave the can in the machine.

When maintenance is needed, please follow the procedures explained in this manual.

Installation and maintenance operations must be done by HERO authorized personnel. HERO will not be responsible for damages or accidents caused by the non-compliance with the procedures explained in this manual, or caused by improper transportation, utilization or repair. In addition, HERO will not be responsible for damages or accidents caused by modifications done to the machine without prior notification and authorization from HERO.

GROUNDING CONNECTION: connect the machine to a dedicated electrical circuit, protected by a circuit breaker rated 15A and with an appropriate grounding connection; do not connect any other electric devices to this connection.

Do not use the machine if its covers and protections have been removed for maintenance, or if they are not correctly assembled and fixed.

Intended Use of the Equipment

By choosing the S2650 automatic shaker manufactured by HERO, you have selected a product which represents the result of intensive research. Top quality materials, modern designing tools such as the use of CAD three-dimensional parametrical systems, together with the attention given to ergonomics, guarantee an easy to use, long lasting machine.

The S2650 is a floor-standing, cord-connected, oscillating paint mixer, that is capable of mixing paint cans up to 30 kg (66 lb) of weight.

The S2650 is an automatic mixing system for non-combustible coatings and paints, and thanks to the way it has been designed, the machine can shake products in round, oval or square shaped buckets or cans made of metal or plastic. Allowed dimensions and weight of the paint cans are listed in the “Technical Features” section.

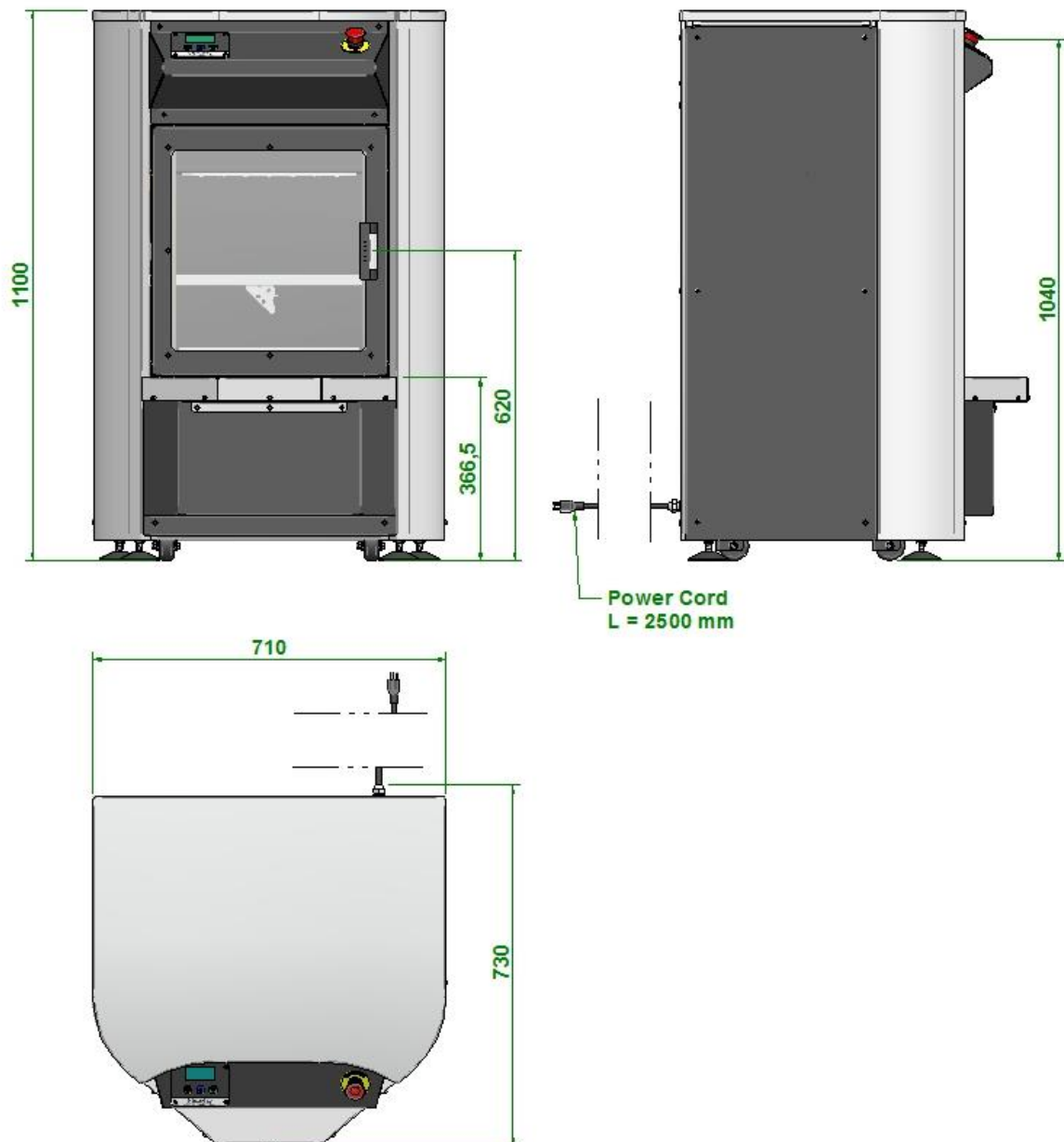
Any improper use of the S2650 shall relieve the manufacturer from all and every liability due to damage to persons or property and shall immediately void all warranty conditions.

Product Description



Technical Features

MACHINE DIMENSIONS	See drawings below	
MACHINE WEIGHT	220 kg (484 lb)	
CAN MAX. WEIGHT	30 kg (66 lb)	
CAN MAX. TOP DIAMETER	340 mm (13.4")	
CAN MAX. HEIGHT	400 mm (15.7")	
CAN MIN. HEIGHT	70 mm (2.8")	
POWER SUPPLY	115 Vac / 60 Hz - 12 A	230 Vac / 60 Hz - 6 A
SOUND POWER LEVEL	≤ 65 dB	



Machine Positioning and Installation

Machine unpacking

- Remove the external nylon film from the package
- Remove the fastening straps placed around the outside of the packaging box
- Remove the packaging box by lifting it above the unit

Pallet removal and machine positioning

Due to its weight, this must be done with the support of a forklift; put the forks under the base of the machine (be careful to avoid damage to the feet and wheels located under the machine). Place the machine where it is intended to be used.

The plug is used to disconnect the apparatus from the AC main supply. In final installation the outlet shall be installed near the equipment and shall be easily accessible.

Instructions for correct positioning

Be certain to respect the following details while positioning the machine:

- Place the machine on a steady, horizontal surface by using a level.
- The area must be well ventilated.
- The surrounding temperature should be kept as constant as possible, around 18°C (65°F) (and always between 5 and 40 °C [40 and 104°F]).
- Make sure the machine is connected only to a wall socket installed according to regulations, with its grounding circuit and voltage value in compliance with what is written on the machine's information plate.

REMOVE ALL PACKAGING AND SHIPPING BRACKETS FROM THE CAN LOADING AREA !

- Adjust the four feet so that the wheels do not touch the floor and so that the machine is levelled. Once adjusted, secure the feet lock nuts against the base plate.
- Connect the electrical power supply cord, following the safety instructions previously explained in this manual.

The machine does not have a general on/off switch, so when the power cord is connected, the shaker is ready to operate.

Residual Risks

POTENTIAL RISKS FOR THE OPERATOR

Despite all the safety measures adopted in the development of the S2650 and outlined in this manual, reasonably foreseeable situations could occur. For these situations the risk has been reduced but not completely eliminated.

RISK	PRECAUTION
Injuries or crushing during can loading and unloading operations.	Use safety gloves and shoes during can loading and unloading operations.
Skin abrasions and injuries caused by sharp edges or can protuberances.	Use safety gloves and shoes during can loading and unloading operations.
Leakage of liquids / paint from the cans	Carefully clean the operator workspace.

OPERATOR PERSONAL PROTECTION

If used correctly, the S2650 does not generate risks or dangerous situations for the operator; however, the operator should wear the recommended safety devices (safety glasses, safety gloves and shoes), especially during can loading and unloading.

GENERAL DANGEROUS SITUATIONS

There are no general dangerous situations (as for example fire, emission or leakage of dangerous substances). However, it is recommended to have a fire extinguisher available in the work area.

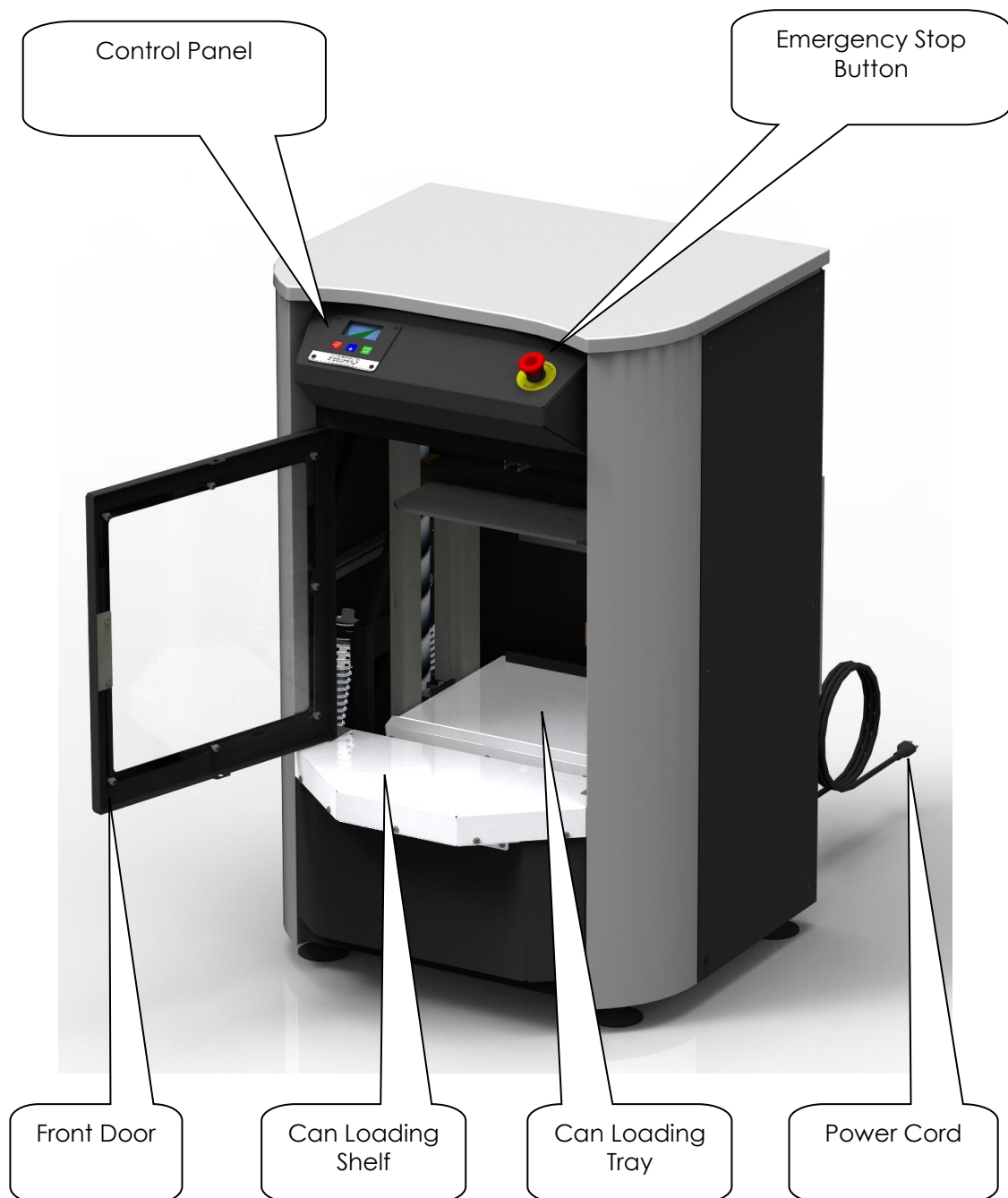
SAFETY DEVICES OF THE MACHINE

The S2650 is equipped with the following safety devices:

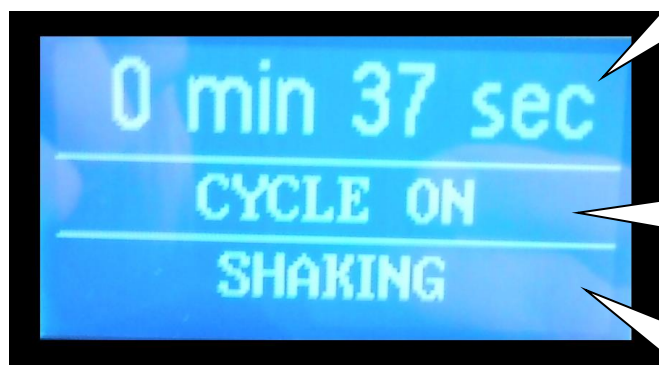
- **Red button for shaker emergency stop:** this device cuts off the electrical power supply to the shake motor; when it is pressed the machine stops shaking as well as stopping any movement of the can clamping system. The emergency button can be reset by rotating it clockwise.
- **Electric lock for front door:** this device is used to keep the front door closed during any operation of the machine when mechanical parts are moving.
- **Electric sensor for front door:** this device works similar to the emergency button, in case of accidental opening of the front door; the door sensor does not allow any machine operation.

Instructions for use

- Connect the electrical power supply cord, following the safety instructions previously explained in this manual.
- The machine does not have a general on/off switch, so when the power cord is connected, the shaker is ready to operate.
- When initially powered on, the shaker will perform a check cycle, in which the clamp plate performs a repositioning operation.
- Shown below are the control devices for operating the shaker:



CONTROL PANEL



TIMER / ALARMS

This portion of the display shows:

- the time chosen for the shaking cycle
- the countdown when the machine is shaking
- alarm notice

MACHINE STATUS

This portion of the display shows the status of the machine, and explains the alarm reasons when an alarm occurs

OPERATION in PROGRESS / OPERATION TO DO

This portion of the display shows the current shaker operation or the action required when an alarm occurs

BUTTON FUNCTIONS

UP / + and DOWN / -

These buttons have the following functions:

- Increase the timer
- Decrease the timer



RED BUTTON
(STOP / RESET)

- Stops the shaking cycle prior to timer running out
- Reset any alarm notice
- Stop the clamp plate in the desired position when it is raising

GREEN BUTTON
(START / ENTER)

- Start the shaking cycle

BLUE BUTTON (SHIFT)

- Raise the clamp plate (when held down with door closed)

CAN LOADING



If loading is not possible due to the clamp plate being too low, raise the plate by pressing and holding the BLUE (SHIFT) button (door must be closed) until the plate begins to move up.



Use the hook to secure the can handle to prevent damage during shaking

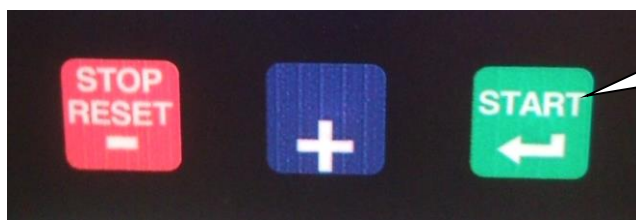
Close the front door

SHAKING CYCLE

After loading a can, close the front door carefully.
The shaker must be in "STAND BY" (no alarms) to initiate a shake cycle.



Set the desired shaking time by using the "UP / +" button to increase the time, or the "DOWN / -" button to decrease it. The timer goes from a minimum of 15 seconds to a maximum of 5 minutes.

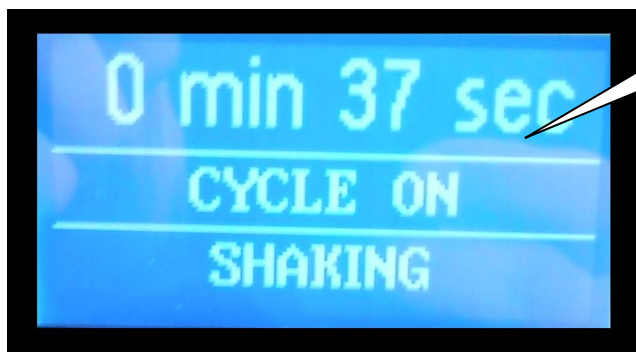


Press the GREEN button (START) to start the shaking cycle. When the START is pressed, the door locks automatically.

The cycle begins with the clamping of the can. The clamp plate goes down to clamp the can tightly.



When the can is clamped, the machine starts to shake. The display counts down the remaining shake time until the end of the cycle.



When the shake cycle is finished, the machine waits for all motion to stop before the clamp plate moves up to allow can removal. When the repositioning operation is complete, the door lock is released, allowing the door to be opened.



If it is necessary to raise the clamp plate to accommodate different can sizes, press and hold the BLUE (SHIFT) button until the clamp plate begins to move. It is possible to stop the plate in the desired position by pressing the RED (STOP/RESET) button, otherwise it will fully raise.

ALARM CONDITIONS

The possible alarm situations that can occur when using the shaker are:



EMERGENCY PRESSED

This alarm condition is shown when the emergency button has been pressed; in this case the machine immediately stops any movement. Release the button by rotating it clockwise. Press RED (STOP/RESET) to clear the alarm and reset the machine.



DOOR OPEN

This alarm condition is shown if the front door is accidentally opened during the shaking cycle; in this case the machine immediately stops any movement. Close the front door carefully and press RED (STOP/RESET) to clear the alarm and reset the machine.



CAN NOT PRESENT

This alarm condition is shown when the shaking cycle is started without a can in the machine; in this case the clamp plate goes all the way down and returns automatically to the top because no can was detected. Press RED (STOP/RESET) to clear the alarm and reset the machine.

Maintenance and Cleaning

Maintenance and cleaning operations described in this chapter will keep your machine in good operating condition and help to avoid the need for more significant repairs.

If any aspect of the shaker fails to operate correctly, begin by ensuring that all instructions in the previous sections have been reviewed and followed.

Maintenance work must be carried out immediately following the detection of any fault in order to ensure safety and to prevent possible further damage to the shaker.

**All maintenance and cleaning operations must be carried out with the machine switched off:
DISCONNECT THE POWER CORD FROM POWER SOURCE BEFORE SERVICING!**

ROUTINE MAINTENANCE OPERATIONS:

- **Daily: GENERAL CLEANING OF THE MACHINE**
Clean all parts that may have come into contact with the products being mixed. To do this, proceed as described by the manufacturer of the mixed product and take all the recommended personal precautions (e.g.: wear gloves, a mask, goggles, etc.).
The control panel and display must only be cleaned with a damp cloth.
- **Weekly: LUBRICATE THE LEAD SCREWS OF THE CLAMPING SYSTEM**
Make sure that the two lead screws of the clamping system are clean of debris/paint; lubricate them thoroughly with a general purpose spray grease containing PTFE (Teflon™).
- **Monthly: LUBRICATE THE SPRINGS OF THE SHOCK ABSORBERS**
Lubricate the four springs of the shock absorbers thoroughly with a general purpose spray grease containing PTFE (Teflon™).

Troubleshooting Guide

The following troubleshooting chart can be referenced when trying to solve potential issues. When in doubt, please contact HERO's customer service department before any attempts are made to repair the equipment.

PROBLEM	SOLUTION
The machine does not turn ON	<ul style="list-style-type: none">• Check the electrical power supply connection• Check the electrical plug and the power supply wiring
The machine vibrates excessively or moves/walks on the floor	<ul style="list-style-type: none">• Make sure that the machine is positioned onto a solid floor• Make sure that the machine is supported by the four base feet and not on the wheels• Check that the machine is well levelled and the feet are locked in position
The clamp plate makes abnormal or excessive noise when it is moving up / down	<ul style="list-style-type: none">• Clean and lubricate/grease the two lead screws for the clamp plate movement
The operator receives electrical shocks during operation	<ul style="list-style-type: none">• Verify the correct electrical grounding connection of the machine• Contact an electrician in case of persistent problems

HERO Customer Care:

customercare@hero.ca

Help Desk: 800-494-4376, Option 1