



Switches

Wire
HarnessesBulb
SocketsInjection
MoldingDesign &
Assembly

Focus-Lite™

Home

Heat Shrink Processing Machines

Instruction Manual for FL10, FL30, FL80, FL160, FLG2



Heat Shrink Tube Processing Machine Instruction Booklet



www.judcomfg.com

FOCUS-LITE™ INSTRUCTIONS

1

Caution: For best results, cycle the Focus-Lite™ on-off. Leaving the Focus-Lite™ in a continuous on position may result in surfaces too hot to touch.

Overview

The Judco Focus-Lite™ series heat shrink tube processing machine is a benchtop tool that will significantly streamline your heat shrink operation. High intensity light (contained in a semi-closed housing) is focused and reflected so that heat energy is applied simultaneously to all sides of the workpiece. This provides a uniform reduction in tube diameter and a very short cycle time compared to other methods. The unit is available in three standard shrink lengths: 2.25", 8.0", and 15.5". It fits comfortably on a single operator bench top workstation. The standard model can accept shrink tube up to 5/8" in diameter (maximum diameter to be determined by the customer).

Operation is simple. The unit plugs into a standard 120 VAC grounded outlet (NEMA 5-15). A foot-switch applies power to high intensity lamps. The lamps reach optimum temperature within milliseconds while directing heat energy to all sides of the workpiece. For visual control, the operator can see the shrinking taking place.

The Focus-Lite™ 30 will shrink up to 2.25" length tube in three seconds or less. Feed the wire through the tube, then lower the tube to the bottom of the slot while holding the wires in one hand. Then press and hold the foot switch for three seconds. The actual time required for full shrink will depend on the shrink tube material, wall thickness, and cleanliness of the Focus-Lite™ reflectors (see Maintenance below).

The Focus-Lite™ 80 and Focus-Lite™ 160 will also shrink longer lengths of shrink tube in three seconds or less*. Feed the wire(s) through the tube, grasp the wire(s) at each end of the shrink tube, lower the tube to the bottom of the slot while maintaining slight outward pressure to keep the tube from sagging. The foot switch is then actuated to apply power to the lamps and shrink the tube.

Timer, Dimmer switch, and Foot Pedal Operation: for improved process control there is a timer located underneath the unit. Adjust the timer for satisfactory results and document/record for repeatability.

*shrink time based on polyolefin. Other materials may take longer.



If you do not wish to use the timer, set the slide switch located under the unit to the "timer off" position. In this state, both starting and stopping of the heat cycle is controlled by the foot pedal. With the slide switch in the "Timer On" position, the foot pedal initiates the heat cycle, but the timer turns it off. The foot pedal must be pressed and released again to cycle. Your Focus-Lite may also be equipped with a dimmer switch for operations with thicker tubing or a slow controlled shrink is required. The dimmer switch (located underneath the unit) can be used to slow down power deliver. For high temperature operations (such as Kynar, Silicone Rubber, Teflon, etc.) Your Focus-Lite can be reconfigured for much higher rates of power delivery. Please consult the factory for more details.

The Focus-Lite™ is mounted on top of a six inch tall housing. The unit contains a cooling fan, and a foot switch cord. The cooling fan draws in room air through the shrink slot at the top, and exhausts it out the bottom of the unit. Cooling air does not affect efficiency. The radiant energy from the lamps produces the necessary temperature within the unit.

Options

1. For custom sizes (length and/or diameter) please consult your Judco sales representative.
2. A dimmer switch can be added to help control your process as well as ensuring a precise shrink when using larger diameter heat shrink tubing.

Safety & Efficiency

The Ground Fault Circuit Interrupter and enclosed wiring make the Focus-Lite™ electrically safe. The Ground Fault Circuit Interrupter (GFCI) needs to be reset after the unit is unplugged or power is interrupted. The temperature of Focus-Lite parts is minimized by the cooling fan and the intermittent nature of power application.

Other shrink methods such as heat guns, will be left on for long periods of time generating high temperature air and hot parts. They also take an excessive amount of time to warm up after shut-off (typically 15-20 seconds).



Maintenance

Periodic replacement of the high intensity lamps may be required. The Focus-Lite™ 30 uses two NAED lamps (part #200105). The Focus-Lite™ 80 uses two NAED lamps (part #238675). The Focus-Lite™ 160 uses two NAED lamps (part #294835). The lamps are wired to run at half power in all units to increase lamp life.

Some shrink tube materials out-gas during the shrink operation. This out-gassing may in time dull the reflective surface of the Focus-Lite™ reflectors. This may increase the time to achieve full shrink. Users should monitor their process to determine how often the reflectors must be cleaned.

Cleaning or lamp replacement is accomplished by disconnecting the power cord, then removing two screws from each reflector. Slide out the reflectors while being careful not to damage the lamps. The reflectors can then be cleaned with a quality glass cleaner and a lint free industrial wipe. Lamps can be removed by first removing the two end caps, then loosening the two lamp holder screws on one side, then carefully lifting one end of the lamp. The new lamp surface must be clean before use (may be carefully cleaned with glass cleaner). Fingerprints or other contaminants will cause localized heating and lamp failure. Reassemble the unit when finished.

The Ground Fault Circuit Interrupter (GFCI) needs to be reset after the unit is unplugged or power is interrupted.

One (1) year limited warranty (replacement of lamps not included.) See terms and conditions of sale for full warranty details.



Judco Manufacturing, Inc. 1429 West 240th Street, Harbor City, California 90710 Ph: (310) 534-0999 Fax: (310) 534-9430
Automotive Division: 2000 Oakley Park Road, Suite 208, Walled Lake, Michigan 48390 Phone: (248) 624-8840
www.judco.com

Instruction Manual for FLG3

Focus-Lite™

Heat Shrink Tube Processing Machine



FLG3 Instruction Booklet



FOCUS-LITE™ G3 INSTRUCTIONS

1

For best results, cycle the Focus-Lite™ on-off. Leaving the Focus-Lite™ in a continuous on position may result in surfaces too hot to touch.

Overview

The Judco Focus-Lite™ G3 series heat shrink tube processing machine is a tool that will significantly streamline your heat shrink operation. High intensity light (contained in a semi-closed housing) is focused and reflected so that heat energy is applied simultaneously to all sides of the workpiece. This provides a uniform reduction in tube diameter and a very short cycle time compared to other methods. It fits comfortably on a single operator bench top workstation and can also be used in hand held operations. The standard model can accept shrink tube up to 5/8" in diameter and up to 1.375 in length.

Operation is simple. The unit plugs into a standard 120 VAC grounded outlet (NEMA 5-15). A foot-switch or trigger applies power to two high intensity lamps. The lamps reach optimum temperature within milliseconds while directing heat energy to all sides of the workpiece. For visual control, the operator can see the shrinking taking place through the glare shield.

The Focus-Lite™ G3 will shrink up to 1.375" length tube in three seconds* or less. For bench top applications just mount the G3 onto the stand, set the timer and intensity control, then place the shrink tube into the "U" shaped opening while holding the wires. Depress the foot switch. For hand held operations such as a harness board, place the FLG3 opening over the shrink tube section and press the trigger switch. The actual time required for full shrink will depend on the shrink tube material and wall thickness.

Timer, Dimmer switch, and Foot Pedal Operation: for improved process control there is a timer and intensity control located on the back of the unit. Adjust the timer and intensity control for satisfactory results, then document/record for repeatability. If you do not wish to use the timer, set the rotary switch to the "8" position. In this state, both starting and stopping of the heat cycle is controlled by the foot pedal or trigger switch. With the rotary switch in the 1-7 position, the foot pedal or trigger switch initiates the heat cycle, but the timer turns it off. The foot pedal or trigger must be pressed and released again to cycle. Your Focus-Lite is also equipped with a dimmer switch to adjust the bulb intensity. For high temperature operations the recommended setting is 7. All other materials should start at 4-5 and increase if necessary. Always attempt to shrink your material at the lowest setting which gives a satisfactory time result.

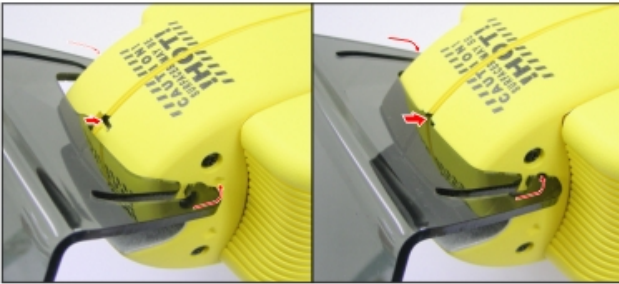
*shrink time based on polyolefin. Other materials may take longer.

Safety & Efficiency

The Ground Fault Circuit Interrupter and enclosed wiring make the Focus-Lite™ electrically safe. The Ground Fault Circuit Interrupter (GFCI) needs to be reset after the unit is unplugged or power is interrupted. The temperature of Focus-Lite parts is minimized by the cooling fan and the intermittent nature of power application.

Attaching the Glare Shield:

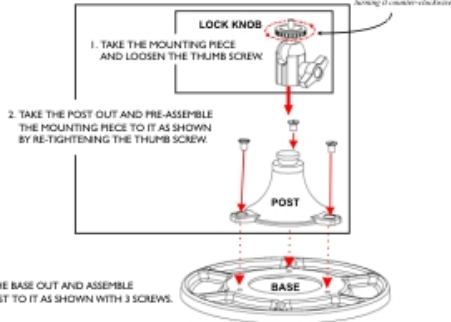
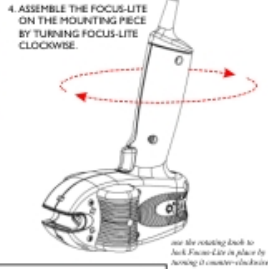
Align the 3 Tabs to the Focus-Lites slots and snap in the Glare Shield as shown.



Attaching the Foot Switch Pedal:



Assembling the Bench Top Mount:



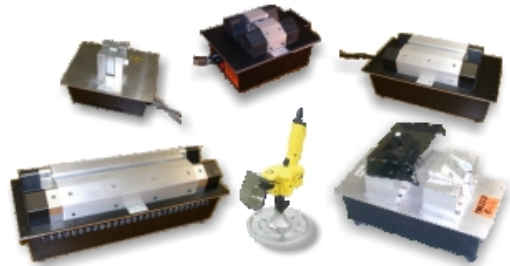
Maintenance

Periodic replacement of the high intensity lamps may be required. The replacement part number is 59-1600-00. Lamp replacement is accomplished by disconnecting the power cord, then removing the screw from the side cap. Slide out the side cap while being careful not to damage the lamps. Remove the bulb(s) that need to be replaced by gently rocking at the base, then pull out. Insert the new bulb(s) making sure that the new lamp surface is clean and free from fingerprints (may be carefully cleaned with glass cleaner). Fingerprints or other contaminants will cause localized heating and lamp failure. Reassemble the unit by inserting the bulbs and side cap making sure to seat the bulbs into the retainer clips at the base.

Some shrink tube materials "out-gas" during the shrink operation. This out-gassing may in time dull the reflective surface of the Focus-Lite™ reflectors, increasing the time to achieve full shrink. Users should monitor their process to determine how often the reflectors must be cleaned. Reflectors can be cleaned with a cotton swab and glass cleaner.

The Ground Fault Circuit Interrupt (GFCI) needs to be reset after the unit is unplugged or power is interrupted.

All Focus-Lite machines are covered by a one (1) year limited warranty (replacement of lamps not included.) See terms and conditions of sale for full warranty details.



Judco Manufacturing, Inc. 1429 West 240th Street, Harbor City, California 90710 Ph: (310) 534-0959 Fax: (310) 534-9420
Automotive Division: 2000 Oakley Park Road, Suite 208, Walled Lake, Michigan 48390 Phone: (248) 624-6840
www.judco.net

Call (310) 534-0959 or Fax (310) 534-9420 / Automotive: (248) 624-6840

1429 West 240th Street, Harbor City, CA 90710

[\[Switches\]](#)[\[Wire Harnesses\]](#)[\[Sockets\]](#)[\[Molding\]](#)[\[Stampings\]](#)[\[Design\]](#)[\[News\]](#)[\[Feedback\]](#)

Send e-mail to judcosales@judco.net with questions or comments.