

Laser Sight, Post 1997

**Safety, Operation, Maintenance
& Parts Manual**

LS, Laser Kit, 97+ Sawmill rev. A.00 - D.01

Safety is our #1 concern!

March 1997

Form #899

USED WITH:

LT 30s (Built after 1997)

LT 40s (Built after 1997)

LT 50s (Built after 1997)



WARNING! Read and understand this manual before using this machine.

California

Proposition 65 Warning



WARNING: Breathing gas/diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Always start and operate the engine in a well-ventilated area.
If in an enclosed area, vent the exhaust to the outside.
Do not modify or tamper with the exhaust system.
Do not idle the engine except as necessary.

For more information go to www.P65warnings.ca.gov.



WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection.

For more information go to www.P65Warnings.ca.gov/wood.

Active Patents assigned to Wood-Mizer, LLC

Wood-Mizer, LLC has received patents that protect our inventions which are a result of a dedication to research, innovation, development, and design. Learn more at: woodmizer.com/patents

©2024 Wood-Mizer LLC

Printed in the United States of America, all rights reserved. No part of this manual may be reproduced in any form by any photographic, electronic, mechanical or other means or used in any information storage and retrieval system without written permission from

Wood-Mizer, LLC
8180 West 10th Street
Indianapolis, Indiana 46214

Table of Contents

Section-Page

SECTION 1 LASER INSTALLATION

1.1	Laser Installation.....	1-1
1.2	Switch Installation.....	1-2

SECTION 2 OPERATION & ALIGNMENT

2.1	Laser Operation.....	2-1
2.2	Laser Alignment.....	2-1

SECTION 3 REPLACEMENT PARTS

3.1	Laser Assembly.....	3-1
-----	---------------------	-----

SECTION 1 LASER INSTALLATION

Before installing the laser option, be aware that the laser beam can not be seen in direct sunlight. The laser option is best for indoor cutting applications.

1.1 Laser Installation

1. Remove the four lower slide pad mounting nuts (inside of mast post).
2. Install the laser assembly to the slide pad mounting bolts as shown in FIG. 1-1.
3. Use the provided 5/16" flat washers and 5/16-18 nylon locking jam nuts to secure in place.
4. Install the point tip ground screw to either one of the small holes in the laser assembly mounting brackets.
5. Turn the screw in far enough so that it contacts the slide pad bracket.

NOTICE Contact with the sawmill slide pad bracket is necessary to provide proper grounding for the laser. If proper contact is not made, the laser will not operate.

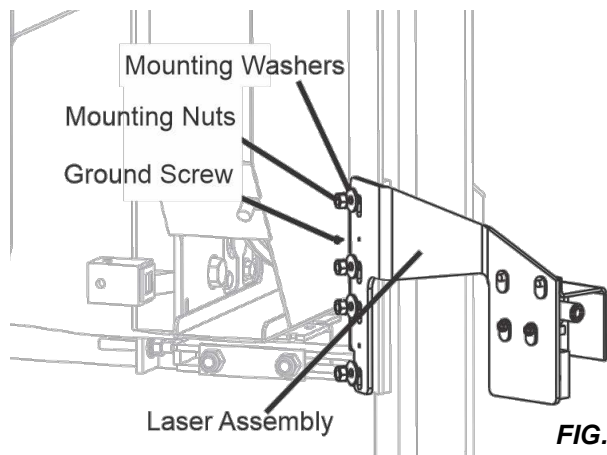


FIG. 1-1

6. Remove the drive pulley guard.
7. Route the cable from the laser assembly as shown:
 - a. Install one of the provided hose clamps to the laser assembly wire.
 - b. Remove the third slide pad nut from the bottom, install the hose clamp as shown and reinstall the slide pad nut.
 - c. Continue to route the wire downward, through the sawmill v-brace.
 - d. Route the wire upward, along the side mounting plate.
 - e. Secure with a wire tie to the outside of the side mounting plate brace.
 - f. Continue to route the wire upward and secure with a wire tie to the fuel line EMT clamp.
 - g. Connect to existing laser option wire.
8. Reinstall the drive belt guard, keeping the lower part of the laser assembly wire outside the guard as shown.

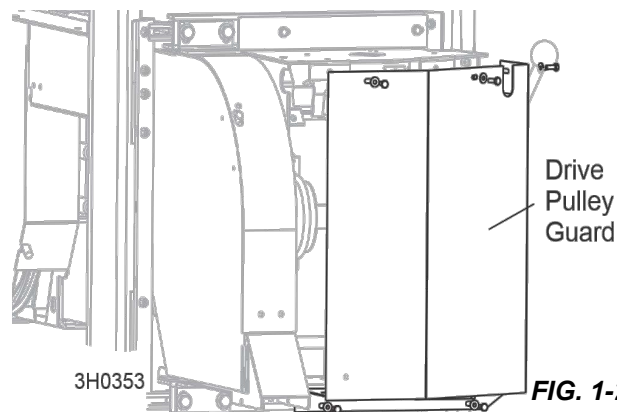


FIG. 1-2

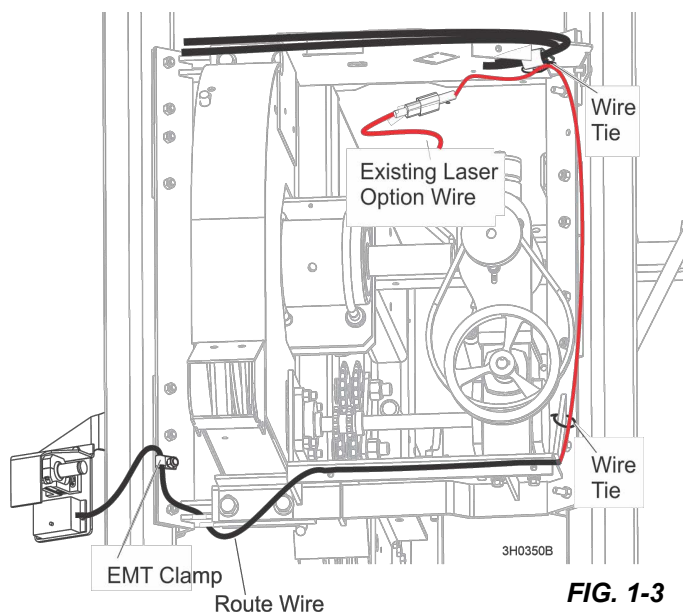


FIG. 1-3

9. Make sure the wire routes inside the guard at the lower right hand corner. **See Figure 1-4**
10. Install the provided two EMT clamps to the section of laser assembly wire which routes along the side mounting plate (underneath the pulley guard).
11. Use the guard's lower mounting washers and bolts to secure the EMT clamps in place.

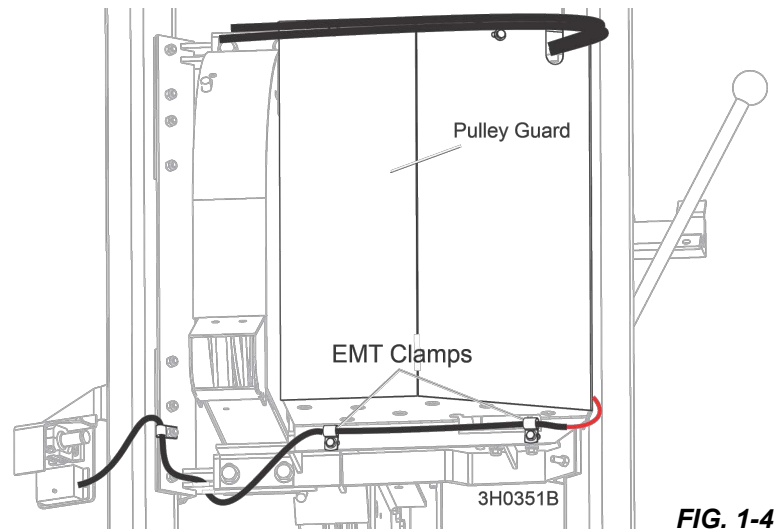


FIG. 1-4

1.2 Switch Installation

1. Unbolt the front panel from the control box.
2. Use the hole in the front panel as a template to cut out a hole in the decal for the laser option switch.

NOTE: The cut hole will be slightly smaller than indicated by the dotted line on the decal.

3. Install the toggle switch, nylon washer, and rubber boot to the front panel as shown.
4. Connect the quick connect terminal on the existing laser option wire (labeled #25) to the bottom tab on the toggle switch.
5. Connect the quick connect terminal on the provided fuse assembly to the side tab on the toggle switch.
6. Connect the ring terminal on the fuse assembly to the 'BAT' terminal of the unused circuit breaker in the control box (CB7 on non-remote mills; CB6 on remote mills).

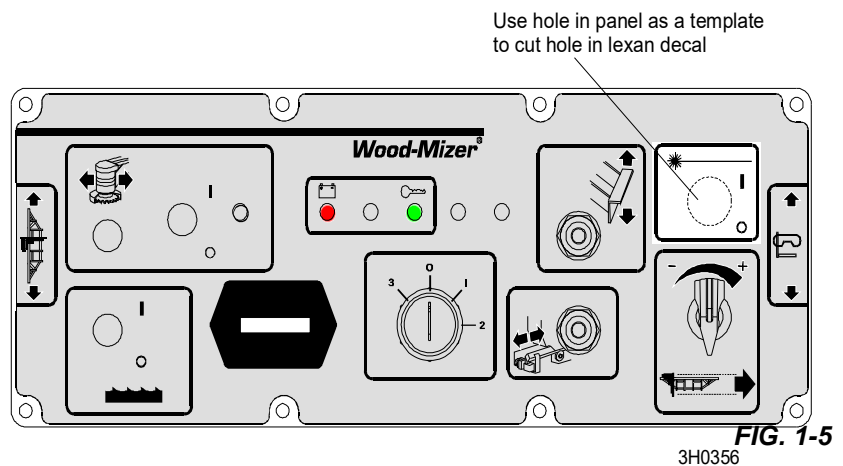


FIG. 1-5

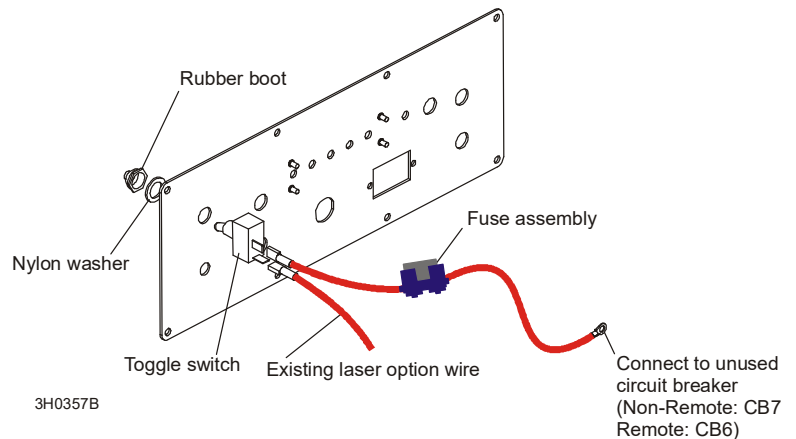


FIG. 1-6

SECTION 2 OPERATION & ALIGNMENT

2.1 Laser Operation

To turn on the laser, raise the laser toggle switch laser toggle switch to the ON position.

To turn off the laser, lower the laser toggle switch to the OFF position.

2.2 Laser Alignment

1. All sawmills should be setup on firm, level ground before proceeding with alignment.
2. Shim the feet of stationary mills so the weight of the sawmill is evenly supported.
3. Set up portable sawmills on firm, level ground:
 - a. **LT30/LT30HD:** Adjust the two middle outriggers on the main frame tube down just enough to lift weight from the trailer tire.
 - b. **LT40/LT40HD:** Adjust the two end outriggers on the main frame tube down just enough to lift weight from the trailer tire.
 - c. **All Portable Sawmills:** Adjust the two outer outriggers down just so they touch the ground but do not bear weight.
4. Make sure the sawmill is properly aligned (see the Alignment Section of your Sawmill Operator's Manual.)
5. Load a cant onto the bed of the sawmill.
6. Make a cut.
7. Without raising the carriage head, return it to the front of the sawmill so that blade remains level with the top of the cant and the carriage head is 1' behind the front of the cant.
8. Align the laser.

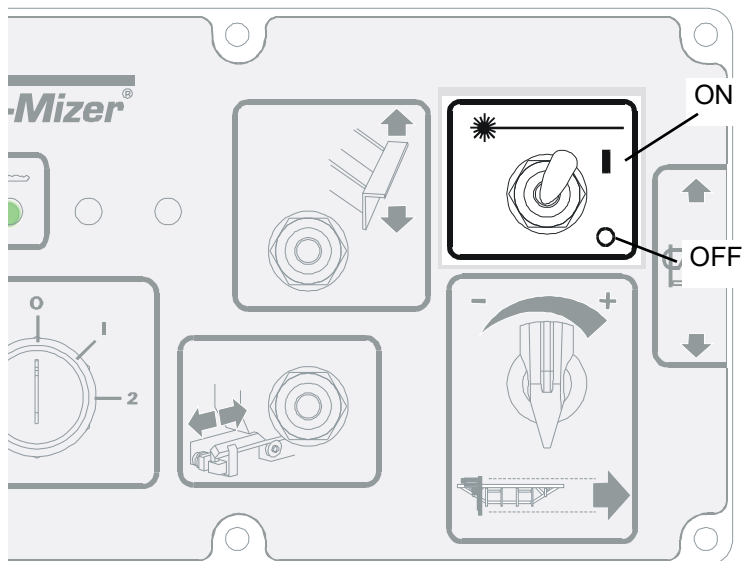


FIG. 2-1

When the laser is properly aligned, approximately 10" of beam will show across the front of the cant.

- a. Loosen the assembly mounting fasteners and laser assembly grounding screw to adjust the laser vertically.
 - b. Move the entire laser assembly up or down as necessary.
 - c. Retighten the fasteners to secure the assembly in position.
 - d. Retighten the grounding screw to ensure laser operation.
- NOTICE** The laser cannot operate without proper grounding.
- e. To fine tune vertical alignment, the laser diode mounting bracket may be moved up or down as necessary.
 - f. Retighten the diode mounting screws to secure the laser in place if any adjustments are made.

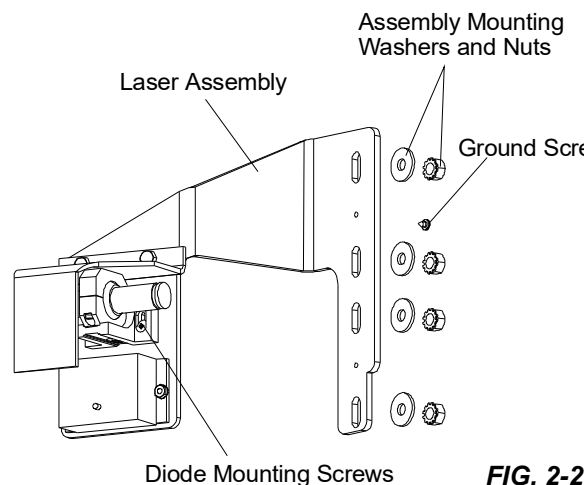


FIG. 2-2

If the laser beam is adjusted too high, it will not show against the side of the cant.

- g. Place an object on top of the cant so that the laser will be visible above the cant. (Folded paper is used in the example in FIG. 2-3.)
 - h. Turn on the laser.
 - i. Use steps **a** through **f** to adjust the bracket up or down so that the laser is at the correct height.
9. Adjust the laser horizontally.
- a. Loosen the laser pivot screws.
 - b. Pivot the laser diode side to side, or up and down, as necessary.
 - c. Retighten the pivot screws to secure the diode in place.

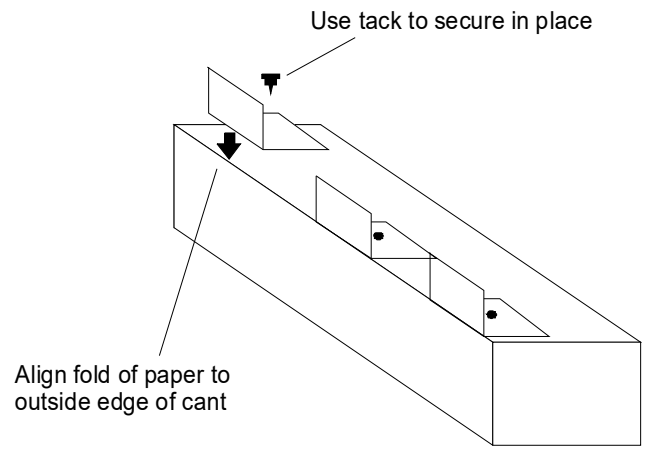


FIG. 2-3

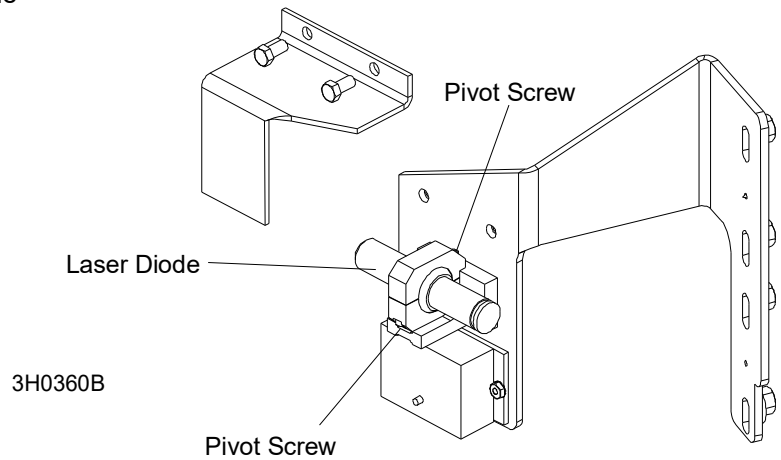
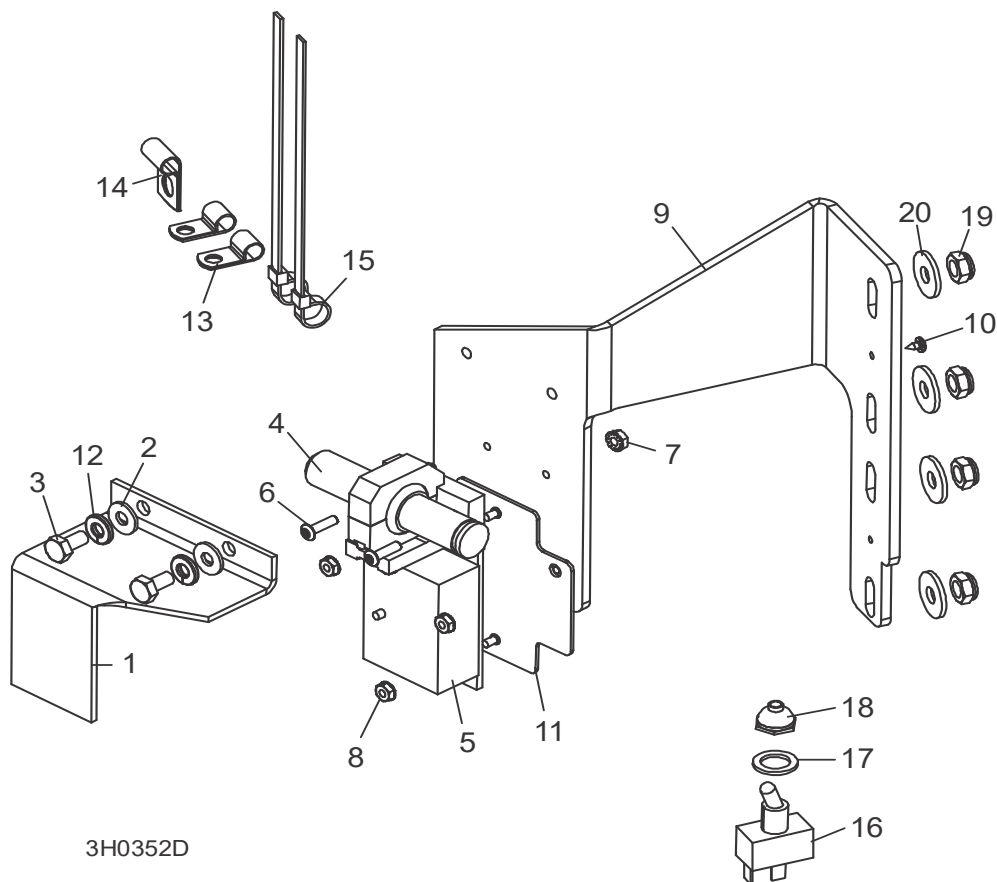


FIG. 2-4

SECTION 3 REPLACEMENT PARTS

3.1 Laser Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	024193	BRACKET ASSEMBLY, 97 LASER	Available in assemblies only.	1
1	015508	Hood, Laser Bracket		1
2	F05011-11	Washer, 1/4" SAE Flat		2
3	F05005-15	Bolt, 1/4-20 X 1/2" Hex Head		2
	050500	Laser Kit, Replacement w/Power Supply		1
4	050367	Laser, 60deg Line w/Std Bkt & Connector		1
	045250	Bracket, Laser Mount (Plastic)		1
5	050368	Power Supply, Laser w/Connector		1
	F05089-1	Tie Wrap, 1/4" x 6"		2
	050500-1069	Instruction Sheet, Laser Replacement		1
6	F05004-98	Screw, #8-32 X 5/8" Socket Button Head Stainless Steel		2
7	F05010-41	Nut, #8-32 Self Locking		2
8	F05010-59	Nut, #6-32 Self Locking		2
9	015509	Bracket Weldment, Laser		1
10	F05015-4	Screw, #6 X 1/4" Philips Head Met		1
11	075750	Mount Weldment, Power Supply		1
12	F05011-14	Washer, 1/4" Split Lock		2
	024194	BAG ASSEMBLY, 97 LASER PARTS		1
13	025671	Clamp, 1/4" Wire 9/32" Mounting Hole		2
14	024155	Clamp, 1/4" Wire 13/32" Mounting Hole EMT		1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
15	F05089-1	Tie Wrap, 1/4" x 6"		2
16	P03027	Switch, Toggle		1
17	P05251-1	Washer, 1/2" x 3/4" x 1/16" Nylon		1
18	P02575	Boot, Toggle Switch		1
	024151	Fuse Assembly		1
	024150-1	Fuse, ATO 1A Dark Grey		1
19	F05010-121	Nut, 5/16-18 Nylon Lock Jam		4
20	F05011-16	Washer, 5/16" Standard Flat		4