

Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

18f

ELECTRIC ENGRAVER With Quick Change Engraving Bit

Model 46099



Visit our website at: <http://www.harborfreight.com>
Email our technical support at: productsupport@harborfreight.com

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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⚠WARNING

Read this material before using this product.
Failure to do so can result in serious injury.
SAVE THIS MANUAL.

Specifications

Motor	120VAC, 60Hz, 12W, 0-7200 RPM
Reciprocating Distance	0.0036 - 0.0195 inches
Tool Length	6-1/4 inches
Engraving Bit	One Carbide-Tipped Bit Included
Line Cord	6 Feet, 18 AWG, 2-prong plug

Safety Warnings and Precautions

WARNING: When using tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.

Read all instructions before using this product!

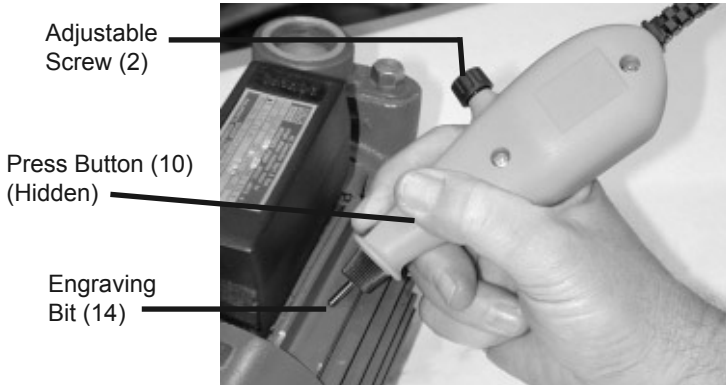
1. **Avoid working alone.** If an accident happens, an assistant can bring help.
2. **Avoid electrical shock.** Prevent body contact with grounded surfaces such as pipes, radiators, ranges, and cabinet enclosures when testing voltages.
3. **Keep work area clean.** Cluttered areas invite injuries.
4. **Observe work area conditions.** Don't expose to rain. Keep work area well lighted.
5. **Keep children away.** Children must never be allowed in the work area. Do not let them handle machines, tools, or extension cords.
6. **Store idle equipment.** When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
7. **Dress properly.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically nonconductive clothes and nonskid footwear are recommended when working. Wear restrictive hair covering to contain long hair.
8. **Use eye and ear protection.** Always wear ANSI approved impact safety goggles.
9. **Do not overreach.** Keep proper footing and balance at all times. Do not reach over or across electrical cables or frames.
10. **Maintain tools with care.** Inspect tool cords periodically and, if damaged, have them repaired by an authorized technician.
11. **Use the right tool for the job.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. Do not modify this tool and do not use this tool for a purpose for which it was not intended.

12. **Stay alert.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
13. **Check for damaged parts.** Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if any switch does not turn On and Off properly.
14. **Replacement parts and accessories.** When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool. Approved accessories are available from Harbor Freight Tools.
15. **Do not operate tool if under the influence of alcohol or drugs.** Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
16. **Use proper size and type extension cord.** If an extension cord is required, it must be of the proper size and type to supply the correct current to the tool without heating up. Otherwise, the extension cord could melt and catch fire, or cause electrical damage to the tool. This tool requires use of an extension cord of 0 to **10 amps** capacity (up to 50 feet), with wire size rated at **18 AWG**. Longer extension cords require larger size wire. If you are using the tool outdoors, use an extension cord rated for outdoor use (signified by "WA" on the jacket).
17. **Maintenance.** For your safety, maintenance should be performed regularly by a qualified technician.
18. **Prevent tool overheating and damage.** The Electric Engraver should not be run continuously for over 12 minutes at a time.
19. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
20. **Note:** Performance of this tool may vary depending on variations in local line voltage. Extension cord usage may also affect tool performance.
21. The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Operation

The carbide tipped Electric Engraver can be used to permanently mark glass, brass, PVC, wood, copper, and other metals.

1. Plug the Electric Engraver into an electrical outlet.
2. Hold the Electric Engraver as shown below.



3. With your thumb, push down on the Press Button (10).
4. With a steady hand, slowly mark the object.
First, practice on a piece of similar scrap material.

Adjustments

Depending on the material being marked, it may be necessary to change the reciprocation of the Engraving Bit (14).

1. Turn the Adjustable Screw (2) counterclockwise for a finer mark.
2. Turn the Adjustable Screw clockwise for a courser mark.

Maintenance

Caution: Before any maintenance on this tool, unplug the Line Cord (15) from the electrical outlet. Maintenance should only be performed by a qualified electrician.

1. Periodically wipe the Electric Engraver with a clean, damp cloth.
2. Store in a clean and dry location.

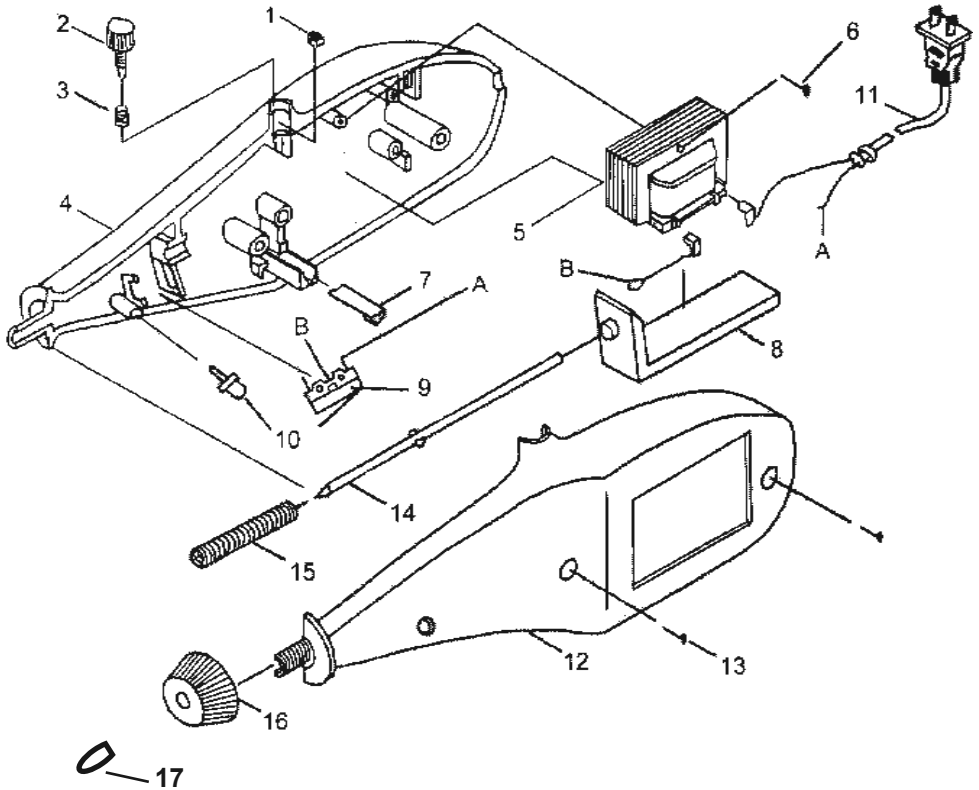
Removing and Replacing the Engraving Bit

1. Make sure the unit is OFF and the electrical connection is unplugged.
2. **Caution:** When removing the Engraving Bit (14), do not tamper with any electrical parts.
3. To replace the Engraving Bit (14), unscrew and remove the Nut (16), pull the Engraving Bit (14) and the Spring (15) out of the Engraver.
4. When replacing the Engraving Bit (14), make sure that you remove Spring (15) and attach it back to the new Engraving Bit.
5. With the Spring (15) on the new Engraving Bit, put the Engraving Bit and Spring back inside the unit.
6. Put back on Nut (16).
7. When not in use, replace Protective Tip (17) on the Engraving Bit (14).

Parts List

Part	Description	Qty
1	Nut	1
2	Adjustable Screw	1
3	Spring	1
4	Right Case	1
5	Electromagnet	1
6	Stud Screw	1
7	Plate	1
8	Electromagnet Frame	1
9	Switch	1
10	Press Button	1
11	Line Cord	1
12	Left Case	1
13	Stud Screw	2
14	Engraving Bit	1
15	Spring	1
16	Nut	1
17	Protective Tip	1

Assembly Diagram



NOTE: Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

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To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.