



Operations Manual

M-124-Li-Ion Rechargeable 9V Battery Pack

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HAMAR LASER INSTRUMENTS, INC.
www.hamarlaser.com

Five Ye Olde Road, Danbury, CT 06810
Phone: (800) 826-6185 Fax: (203) 730-4611

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Table of Contents

M-124-Li-Ion Rechargeable 9V Battery Pack	1
Laser Battery Life* with M-124-Li-Ion	1
Using the Battery Indicator	1
Charging the M-124 Battery Pack.....	1
Connecting the Laser via the DC Jack (Output).....	2
CE Declaration of Conformity	2
Battery Pack Specifications.....	3

M-124-Li-Ion Rechargeable 9V Battery Pack

Hamar Laser's M-124-Li-Ion Rechargeable 9V Battery Pack provides an alternate power source to our 9V A/C power supply. The rechargeable battery pack can be used to power most of our scanning and straight-line lasers.

Features of the battery pack include:

- Powers all L-730/L-740 Series Scanning Lasers and the L-705/L-706/L-708 straight-line lasers.
- 11,100 mAh of capacity with LED battery life indicator with very long battery life for all our lasers.
- Retractable hook to hang the unit on any surface, such as the L-106 Instrument Stand
- Powerful magnets secure the battery pack to any magnetic surface
- Lasers can be used while the battery pack is plugged into the A/C charger.



Figure 1 – M-124-Li-Ion Rechargeable 9V Battery Pack

Laser Battery Life* with M-124-Li-Ion

L-730/L-740	26 hours
L-732-L-742	22 hours
L-733/L-743	18 hours
L-705/L-706/L-708	100 hours +

*Estimated times with continuous use and all laser planes turned on.

Using the Battery Indicator

- Press the button (I/O) to turn on the M-124 Li-Ion Battery Pack and see the charge indication (see **Figure 2**).
- The four LEDs indicate the current state of charge.

Charging the M-124 Battery Pack

The M-124-Li-Ion Battery Pack comes partially charged. Please charge the new battery pack *completely* before using. Connect the battery pack with the power adapter using the DC Input port, (see **Figure 3**) being careful not to confuse it with the Output port (the connectors are different sizes – see **Figure 4**). The active charging function is indicated by a flashing LED. The number of lit LEDs indicates the current charge level of the battery pack during charging. When the M-124 is fully charged, all four LEDs are illuminated.

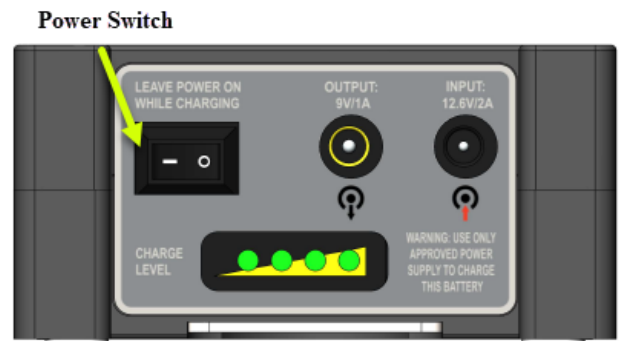


Figure 2 – M-124 Charging Indicators

NOTE: Do not store the battery pack in a fully discharged state for long periods of time.

Connecting the Laser via the DC Jack (Output)

1. Connect the laser adapter cable to the **Output (9V/1A)** port of the M-124. There are two cables: a 4 ft. curly and a 2 ft. straight cable - see **Figure 4**.
2. Connect the other end of the adapter cable to the laser, as shown in **Figure 5**.
3. Power on the M-124 and the laser. The device is now ready to use.

Once the battery capacity is used, the M-124 turns off automatically. If devices connected to the M-124 draw a current that is above the specified values, the battery pack turns off for safety reasons.



Figure 3 – Output/Input ports on M-124-Li-Ion Battery Pack



Figure 4 - Cables to connect unit to Output on laser.

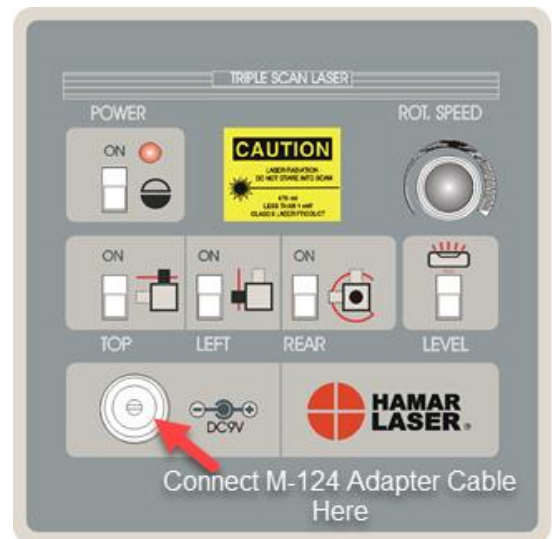
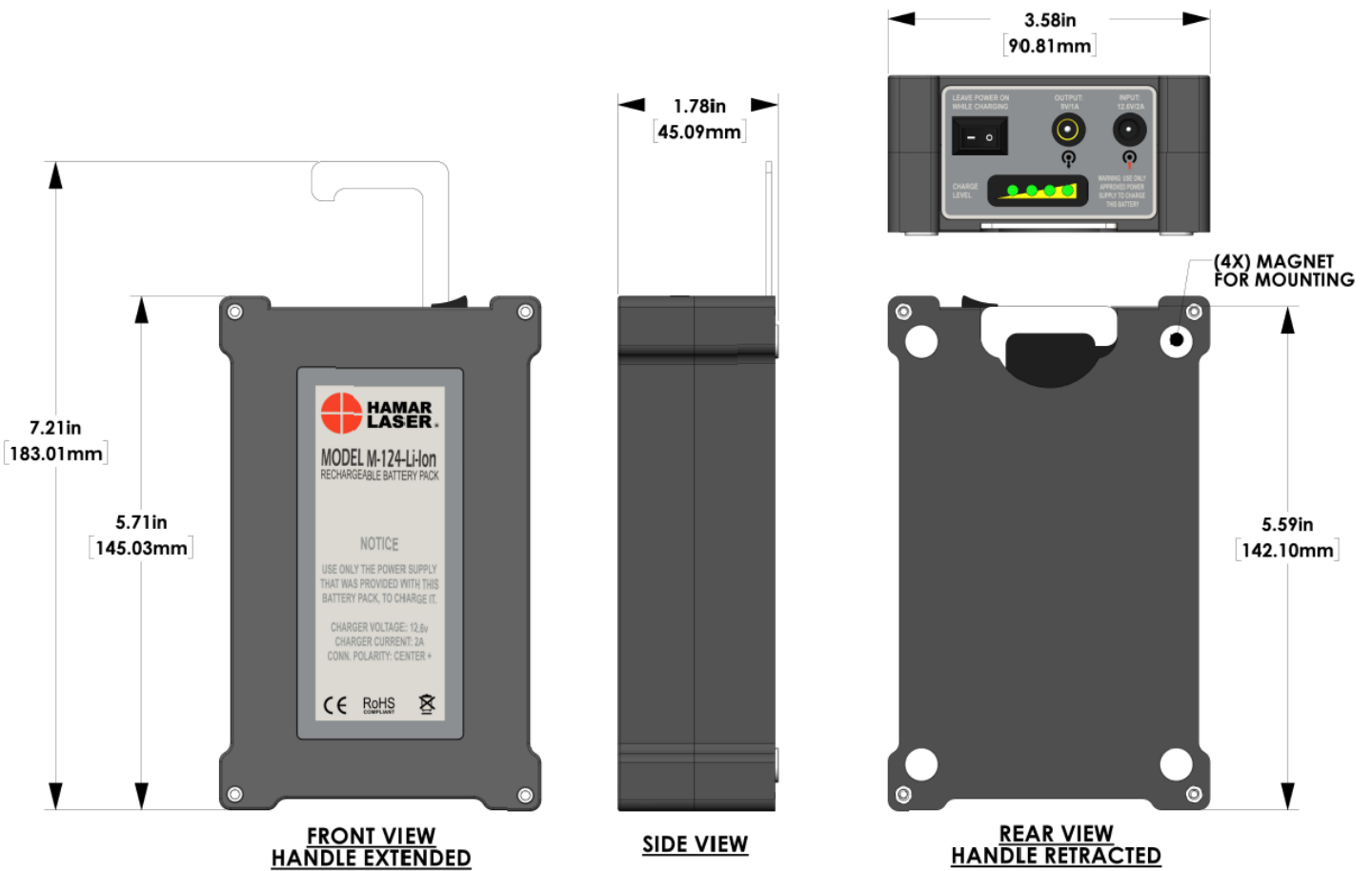


Figure 5 – Connection to Laser

Battery Pack Specifications

Technology	Lithium-Polymer
Capacity	11,100 mAh/3.7V/37 Wh
Output Voltage	9V
Output Current	1 mA
Recharging Time	7-8 hours
Operating Temperature	Charging: 32° to 113° F (0 to 46° C) Operating: 14° to 140° F (-10° to 60° C)
Connections	1 x DC Out (9V OUTPUT) 1x DC In (12V INPUT)
AC Adapter	Charging voltage: 12 V/2A A/C Adapter: 100-240V 50/60 Hz



CE Declaration of Conformity

This product bears the required CE marking according to Directive 2004/108/EC. The product meets the essential requirements of the European directives and regulations.

Safety

- Use only the provided power adapter for charging, otherwise you may cause damage to the device.
- The product is not suitable for children as it contains fragile and small parts that can be swallowed easily.
- Do not drop or immerse in water as the unit will be damaged.
- Do not expose to high temperatures or flammable gases.
- Please do not remove the housing.
- Do not directly contact metal to any ports, as this can lead to short circuits.

Warnings

- The unit may explode near or in an open flame.
- The unit should not be opened.
- Do not allow rechargeable batteries to come in contact with liquids.
- The Battery Pack connectors should not be short-circuited or brought into contact with metal.