



Magswitch Lifting Magnet E50 900/660 CE w/Remote Operation and Instruction Manual

Magswitch Technology Inc.
8774 Yates Drive #140
Westminster, CO 80031
www.Magswitch.com.au

Read All Instructions! Failure To Follow All Instructions Listed Below
May Result In An Unsafe Or Dangerous Condition.



Before Lifting Operation

- **Ensure that all operators are qualified to operate the lifting Magnet** and are familiar with ASME B30.20 lifting standards.
- **DO NOT use the Magswitch Lifter product if the unit or Remote is damaged or is not working properly.** Severe injury can occur if this device is not used properly and safely.
- **Always inspect the lifting device** to ensure that it is in good working order. Maintain inspection and records of same as per ASME B30.20.
- **Never operate** an unsafe or 'out-of-service' tagged Magnet, or one with missing parts or labels.
- **Never operate a lifting Magnet when Capacity, Weight or Safety Markings are missing, damaged or obscured.**
- **DO NOT attempt to disassemble** the Magswitch Magnet; there are no user serviceable parts inside the device.
- All Magswitch products are **designed for normal worksite/jobsite conditions**, do not use underwater or in a hazardous environment unless specifically designed for that purpose.
- **DO NOT attempt to alter the device** in any way. This will void the warranty and may result in an unsafe or dangerous condition.
- **Never exceed the rated load** of the Magswitch magnet. This may result in an unsafe or dangerous condition. See DeRating factors for more details of load rating factors. Magnet performance will vary based on type, thickness and length of steel you are lifting. We recommend when lifting Sheets over 8', use 2 or more lifts on a spreader bar to prevent sheet flexing, sagging or peel off.
- **Ensure all Electronics are working properly and battery is charged.** The green light on the power button of the unit will blink if the battery is low. If the Battery power is depleted, the light will not come on. Important: the magnet will stay in the position it was in before the battery drained – On or OFF, it will NOT shut off if power lost.
- Ensure that the Magnet is **stored in the "off" position** when not in contact with metals.
- **Never turn the Magnet 'ON' unless it is in contact with Ferro-Magnetic metal.** The magnets can be left ON or Off indefinitely without harm, however when they are in the ON position, and near ferromagnetic materials, there will be a powerful magnetic attraction.

Important Safety Information

- Always be aware of where the remote is while handling the unit. The unit can be actuated from the remote or on the Lifter.
- **Never turn the Magnet 'ON' unless it is in contact with Ferro-Magnetic metal.** The magnets can be left ON or Off indefinitely without harm, however when they are in the ON position, and near ferromagnetic materials, there will be a powerful magnetic attraction.
- **Always test the connection** before attempting to use the Magnet to ensure that it is capable of lifting the material securely.
- **Always perform a Test Lift of no more than 2-3 inches (10 cm) to ensure that the bond is sufficient to lift the load and that the load is not flexing.**
- Always ensure that **when stacked sheets are present, that only one sheet is being lifted** at a time.
- **When lifting, never exceed 33% of the Breakaway force of the Magnet.** All Magswitch lifting magnets are rated at 1/3 of their Breakaway force for safety. Please refer to the label on the individual magnet for the safe working load.
- Always ensure that the **lifting hoist is capable of lifting the combined weight** of the load plus the Magnet.
- Operator shall **immediately stop** using the lifting Magnet **if any improper performance or conditions exist** during the lift.
- This Magnetic lifter **is designed for straight, flat horizontal lifting**, never allow a lifted object to alter its plane from horizontal.
- **Avoid sudden jerking or Shock force** as this may cause the Magnet to lose its hold.
- **Use Caution to ensure that it is safe to release the Magnet, that people are clear** of Danger if the load should fall or become dangerous.
- **DO NOT expose the Magswitch Magnets to temperatures above 176 deg Fahrenheit (80 Celsius).** High temperatures will permanently degrade the Magnet's effectiveness and may result in an unsafe condition.
- **DO NOT Operate the Magnet at temperatures greater than 120 deg Fahrenheit (49 Celsius).**
- **Never use a Magswitch lifter for OVERHEAD LIFTING.**
- **Never stand under load** being lifted or place any part of your body under the load.
- **DO NOT lift a load higher than necessary.**

- **DO NOT leave a lifted load unattended** at any time.
- Lifting Magnets must be **centered on load**. Or use spreader bars and two lifters for steel loads over 8' in length. Refer to above section.
- **User and anyone else in proximity must stay clear of the suspended load**.
- Always ensure that the **full face of the Magnet is in contact with the load**. Maximum lifting capacity will only be achieved when the full face of the magnet is in contact with the load being lifted.
- **Not recommended for painted or finish coated surfaces** as these will reduce the magnetic bond and the finish may be damaged.
- Always ensure that the lifted materials **will not come in to contact with any obstruction** while being carried.
- **Never carry people** or allow people to ride on materials being lifted.
- **This product contains PTFE lubricant**. For MSDS information contact Magswitch.
- **Each Unit comes with a charger and two batteries**. Use the charger only in the approved voltage capacity. We recommend you keep one battery in the charger at all times.

DeRating the Rated Load Capacity

- **Numerous factors can negatively affect the strength** of the Magnetic bond, dirt, debris, oils and grease, painted surfaces and any gap between the Magnet and the metal surface will decrease the bond.
- **Additional factors include the type of Metals being lifted**.

Shown below is a Typical DeRating Chart, it shows how different metals are attracted to a Magnet. **Your results Will be Different**

depending on such conditions as;

- Surface Condition
- Surface Flatness
- Surface Smoothness
- Material Thickness
- Material Flex Or Sag (May Require A Spreader Bar).
- Percentage of Magnet in Contact.
- And Other Conditions.



Reduction factors for Materials Other than AISI 1020 Steel	
Material	REDUCTION FACTOR
Cast Steel	0.90
3% Silicon Steel	0.80
AISI 1095 Steel	0.70
416 Stainless Steel	0.50
Cast Iron Non-Chilled	0.45
Pure Nickel	0.10

After the Lift

- Always check Lifting Magnet to **ensure that no damage occurred and that is still complies with all requirements** above.
- Always **wipe off any debris or contaminants** that became attracted to the Magnet that would prevent a safe lift in the future.
- Always **notify the designated person** in your company of any **problems or concerns** regarding the operation of the Magnet.
- Always **store the Magnet in a safe location and in the "Off" position** to ensure that no damage can occur or accidental contact with metal be made. Ensure that the storage area is free of humidity, debris, shavings etc.
- **Wipe a light coating of oil on the Magnet** as needed to prevent rust.
- For safe operation, the **bottom surface of the Magnet must always be Flat and Smooth**. If necessary, it is possible to sand the Magnet face smooth using 400 grit sandpaper and a flat surface. **Always file any burrs** that would interfere with full contact.

For repair and recertification services: Send the magnet, postage paid, to:
 Magswitch Technology Inc. 8774 Yates Dr. #140, Westminster, CO 80031
 Magswitch Limited Warranty

Magswitch products are covered by a One Year Limited Warranty on Material and Workmanship. Warranty is Non-Transferable.
 Magswitch reserves the right to inspect all product claims under warranty. Any alteration of the device voids this warranty.
 User assumes all risk for the proper use of this device and for ensuring product suitability for intended application.
 This warranty shall not cover any incidental or consequential damages due to the improper use or failure of this device.

All Magswitch products are covered under International and U.S. Patents 6,707,360 & 7,012,495. Add'l patents pending.

Magswitch E50 900/660 CE w/Remote

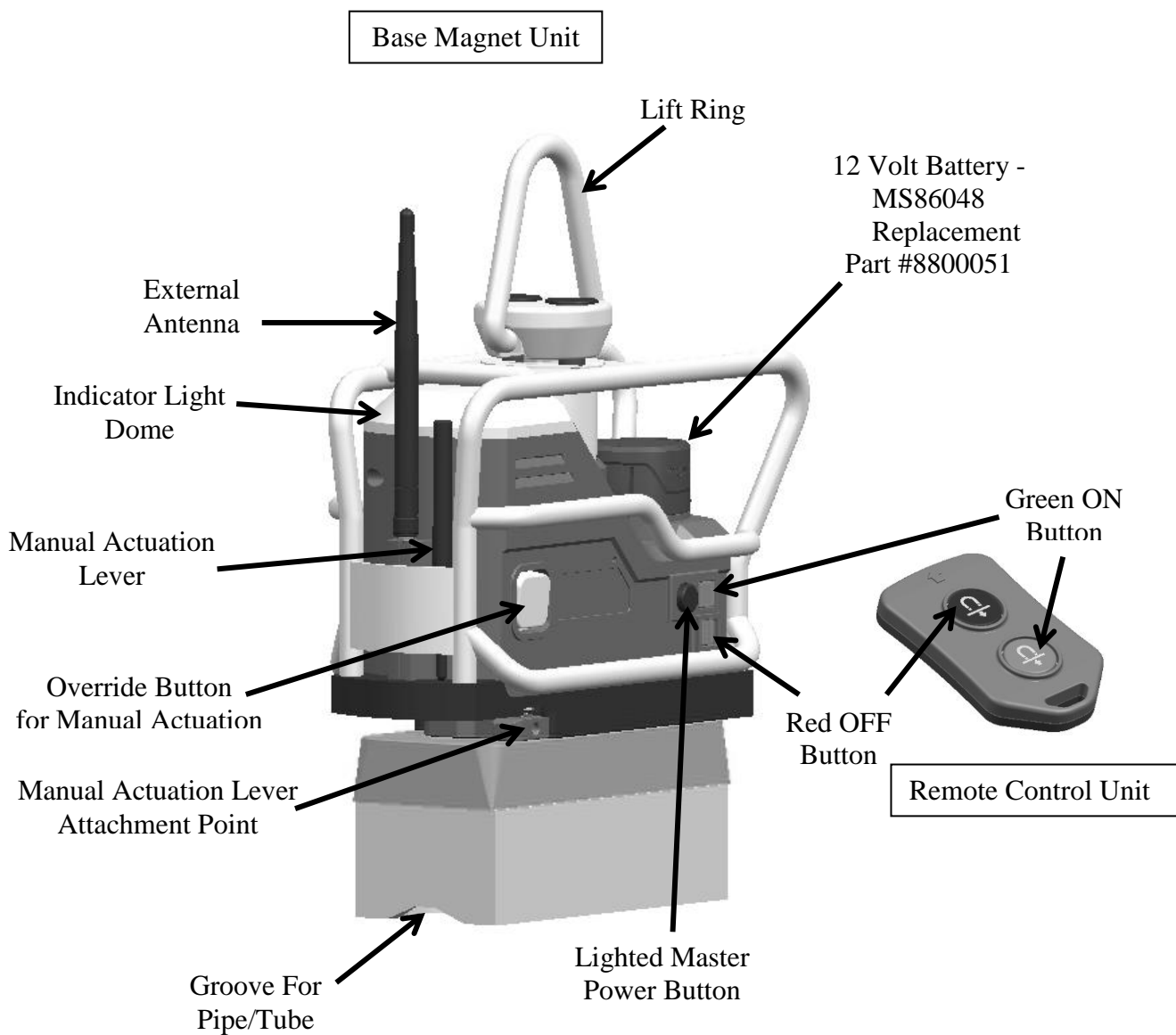
Operating Instructions



Read All Instructions In The Owner's Manual!
Failure To Follow All Instructions May Result In An Unsafe Or Dangerous Condition.

Duty Cycle is 100%--Magnet can be left ON or OFF indefinitely without harm.

Product Diagram

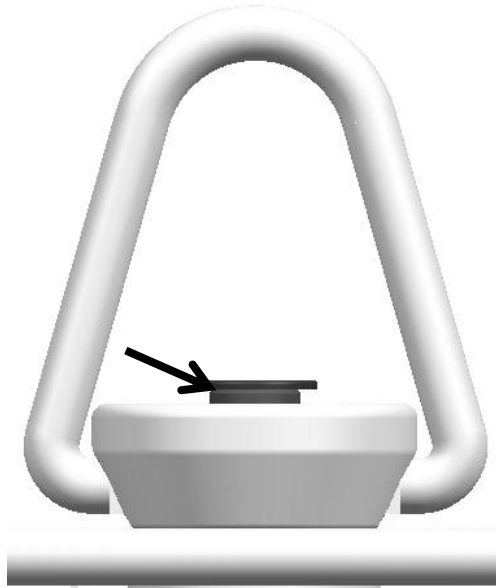


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Operating Instructions cont'd

Lockout Mechanism

- This cordless electric lifter is equipped with a control lockout mechanism which is triggered while the unit is under load
- When lifting a load, this lifter's controls will not function manually or remotely until the load is completely supported, and the lift ring is resting on the top of the unit
- To enable the electronics, the ring must not be supported by any chains, cables, shackles, or other method of attachment



A. Controls Active (Lockout Disengaged) Note Fastener Heads Visible



B. Controls Inactive (Lockout Engaged) Fastener Heads Hidden, Gap Visible Below Ring

Actuating the magnet remotely "ON" (Must Have External Antenna Installed)

- Ensure magnet is positioned correctly in full contact with target
- Ensure power is on (Power button light is active)
- Press green ON button on remote once to actuate magnet
- LOOK for amber lights to become active on indicator light dome
- LISTEN for motor sound
- TEST small lift before moving load

Actuating the magnet manually "ON"

- Ensure magnet is positioned correctly in full contact with target
- Ensure power is on (Power button light is active)
- Press green ON button once
- LOOK for amber lights to become active on indicator light dome
- LISTEN for motor sound
- TEST small lift before moving load

Magswitch E50 900/660 CE w/Remote

Operating Instructions cont'd

Releasing the load remotely "OFF"(Must Have External Antenna Installed)

- Ensure target is settled and lift ring is has slack
- Press the release sequence on the remote control once: OFF > ON > OFF
- LOOK for amber lights to begin flashing
- WAIT Three seconds
- LISTEN for motor sound
- LOOK for amber lights to become inactive
- TEST small lift to ensure target is fully released

Releasing the remote manually "OFF"

- Ensure target is settled and lift ring is has slack
- Press the release sequence on the lifter once: OFF > ON > OFF
- LOOK for amber lights to begin flashing
- WAIT Three seconds
- LISTEN for motor sound
- LOOK for amber lights to become inactive
- TEST small lift to ensure target is fully released



Before attempting any troubleshooting, verify load is secured in a safe condition.

If the E50 900/660 CE malfunctions and cannot deactivate, immediately cease operations with this magnet assembly. Follow the steps outlined below to deactivate the magnet. If problems persist, please call 303-468-0662 for help with further troubleshooting or servicing.

Troubleshooting Deactivation

- Check that load completely settled and lift ring is in lowest position
 - Lower cable for additional slack
- If using remotely, attempt to deactivate device with buttons on the lifter
 - Replace remote batteries if needed
- Turn power to unit off, wait 10 seconds, turn power to unit on
 - Check that power button is solid green, replace battery if necessary

Manual Release Operation

- Ensure target load is settled and lift ring has slack
- Remove the manual actuation pin by pulling up vertically on the black knurled cylinder next to the indicator light dome
- Screw manual actuation lever into Manual actuation lever attachment point
- Ensure lever is completely screwed in
- Depress the override button (silver) with one hand and rotate the lever 180 degrees counter clockwise with the other.
- The magnet should now be deactivated.
- Release the override button
- Unscrew the lever and replace in the storage sleeve

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.

OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND

(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

Heavy Lifter Performance Charts

All performance testing is done in compliance with Magnet Distributors and Fabricators Association test method for determining Breakaway Force. Your actual results may vary greatly depending on numerous factors as discussed in the owner's manual. *For Your Safety, User Must Read And Understand The Owner's Manual* and perform test lifts as required.

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