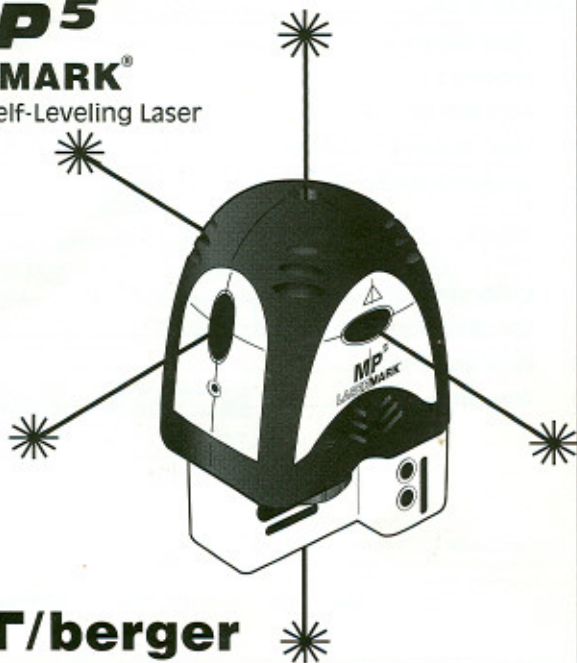


INSTRUCTION MANUAL

MP5 **LASERMARK®** Five Beam Self-Leveling Laser



CST/berger

FEATURES

5 Individual Laser Diodes produce 5 brilliant dots of light

Beams blink to warn you that the MP5 is beyond its leveling capability or if the batteries are low

ON/OFF switch that locks the lasers and pendulum in place when not in use

Two self calibration ports

(Fig.1)

ON/OFF SWITCH

The ON/OFF switch serves two purposes. Not only does it turn the power off and on, it also locks the lasers in place. This provides protection to the instrument during transportation.

OUT OF LEVEL INDICATOR

The MP5 has a warning to let you know that the unit is out of level beyond its self-leveling capability. If the lasers start blinking quickly, just move the MP5 to a more level position.

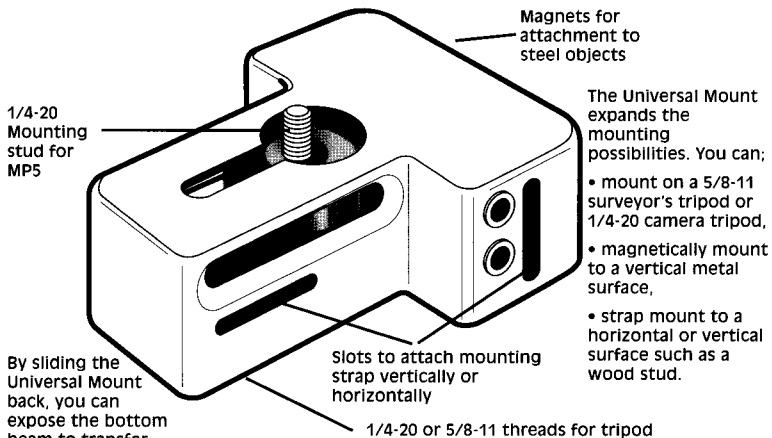
LOW BATTERY INDICATOR

The laser will blink on and off 4 times every 8 seconds when there is approximately 2 hours of battery life remaining. Average life of the 3 "AA" batteries is +/- 15 hours of intermittent use. It is always a good idea to put extra batteries in the carrying case. There is enough space in the case for a spare set of batteries.

ACCESSORIES

UNIVERSAL MOUNT

Once this is attached to the bottom of the MP5, the unit can be mounted on a 1/4-20 thread camera tripod, a 5/8-11 thread surveyor's tripod or attached to any ferrous metal surface (such as steel studs) using magnets (thread assembled into one side of the tripod mount), or a strap (supplied) for wood studs, etc.



TARGET

This target is used for enhancing the visibility of the laser dot.

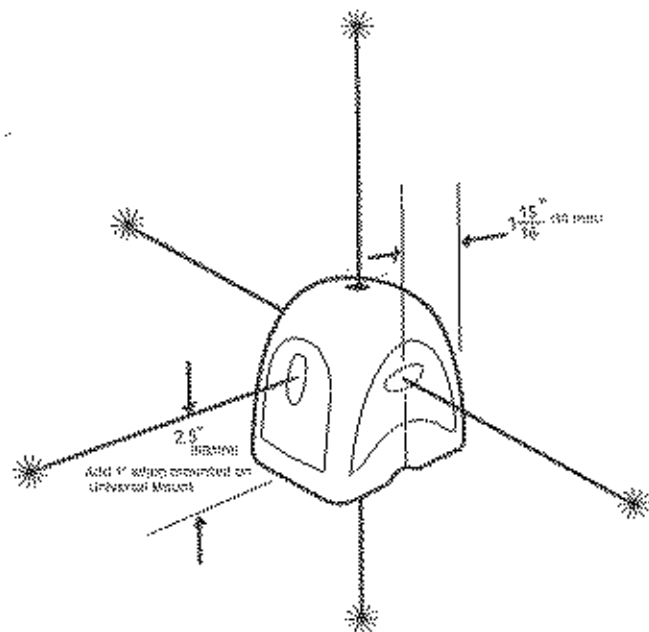
STRAP

This strap is used for mounting the universal base to any object 7 inches or smaller in diameter. Very useful when you don't have a free hand to hold the MP5.

CARRYING CASE

The soft sided carrying case provides ample storage for the MP5, targets, universal mount, laser glasses, manual 2 sets of batteries and adjusting wrench. The case can be belt mounted or comes with a carrying strap and handle for easy handling.

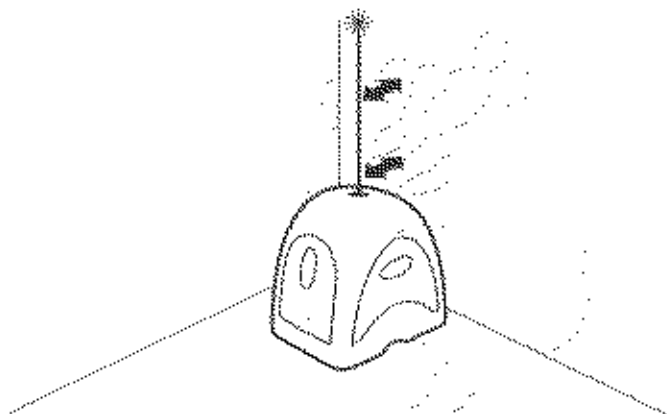
LASER BEAM LOCATIONS



APPLICATIONS

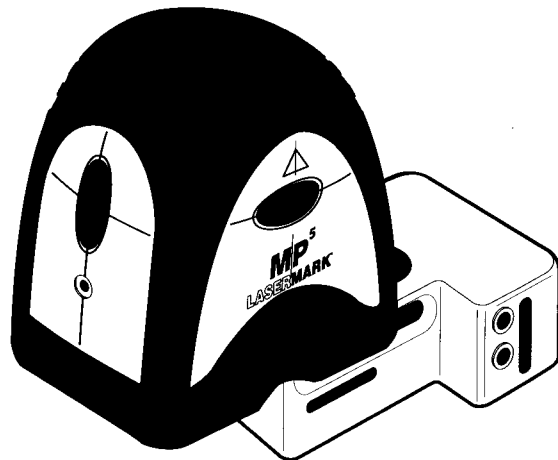
PLUMB

Place the MP5 on the floor or a fairly level surface near the object to be plumbed. Measure from the surface being plumbed to the laser beam at two points. One point near the MP5 and at another point farther away. (Note: the greater the distance between the two points, the greater the possible accuracy.)



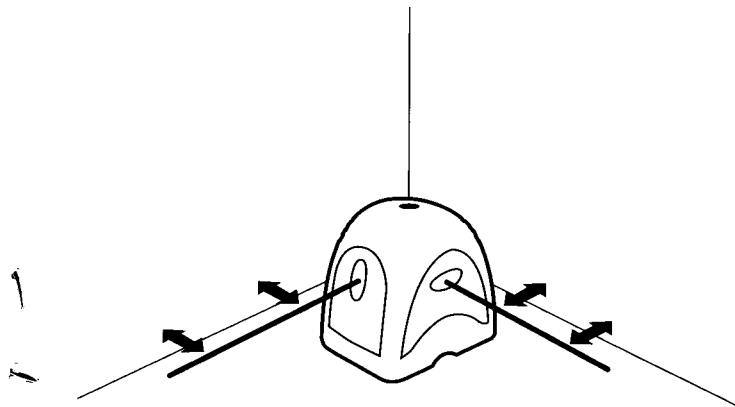
If the measurements of the two points are the same, then the surface is plumb. If not, pull the surface in or push it out until the upper and lower measurements are equal.

If you want to transfer a point from the floor to a point on the ceiling or vice versa, mount the MP5 on the universal mount as shown. Move the MP5 until the point you wish to transfer is centered on the laser dot. Mark the other point as required.



SQUARE

Place the MP5 on the floor or a fairly level surface near the objects to be squared. Measure from one surface to the laser beam at two points. One point near the MP5 and at another point farther away. (Note: the greater the distance between the two points, the greater the possible accuracy.) Rotate the MP5 until the two measurements are equal. Do not move the



MP5 until the rest of the measuring is completed. Now take two measurements from the other surface to that laser beam. If the measurements of these two points are the same, then the surfaces are square. If they are not equal, move the surface until the two measurements are equal.

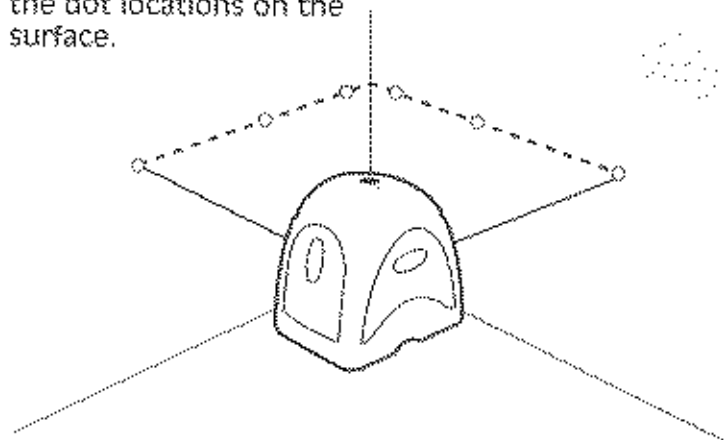
You can also square vertical surfaces to horizontal surfaces by using a plumb beam and a level beam.

LEVEL

Set the MP5 on a surface that is at a convenient height for marking a level reference plane on walls or other surfaces. Mark the laser dot's location. You can now turn the MP5 to move the laser dot to another location and continue marking. These marks can then be connected together with a straight edge to give you a level line.

Be careful not to change the height of the MP5 during the process or your level line will vary in height.

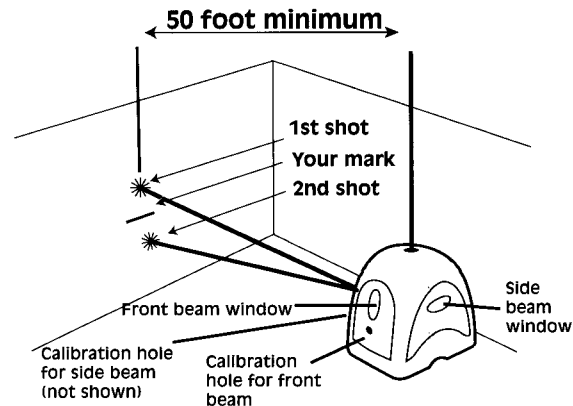
Rotate the MP5 and mark the dot locations on the surface.



CALIBRATION

The MP5 is a precision instrument and needs to be handled carefully. If the MP5 is treated roughly or accidentally dropped, it may need to be re-calibrated. If the need arises, calibration is easy to check and correct.

1. Put the MP5 on a stable, smooth surface and turn it on. Aim one of the side beams at a vertical surface that is at least 50 feet away from the MP5. Mark the beam's location on the wall.
2. Turn the MP5 180 ° so the other side beam is now aimed at the original spot. Mark this new spot. If the two spots are at the same height, then move on to step 4.
3. If the two spots are at different heights, mark a spot half way between the two. Remove the two calibration hole covers. Use the appropriate adjusting tool (screwdriver) to insert in the side calibration hole and turn the adjusting screw until the laser dot is on the new mark you made. (see "self calibration ports" on Fig.1, page 2)



3. Turn the MP5 so the front beam is pointed at the mark you made. If the laser dot is not lined up with the mark, insert the adjusting wrench in the front calibration hole and turn the adjusting screw until the laser dot is on the mark you made.
 5. Start at step 1 again and re-check your adjustments. If the three laser dots stay on the same mark, then calibration is complete.
 6. Push on the calibration port covers.
- Your MP5 is calibrated and ready to go.

SPECIFICATIONS

Accuracy:	$\pm 1/4"$ at 100' (6mm at 30 meters)
Visibility Range:	Up to 100' (30 meters) (depending upon ambient lighting conditions)
Self-leveling Range:	
Side to Side:	$\pm 5^\circ$
Front to Back:	$\pm 5^\circ$
Indicating lights:	
Low Power:	Laser Blinks 4 Times Every 8 Seconds
Out Of Level:	Laser Blinks Rapidly
Power Requirements:	5 "AA" batteries (4.5VDC)
Laser Output:	5 Laser Diodes, 650nm at $\pm 8-2.0mW$ Each Class II or Class IIIa
Weight:	116.3.2 OZ. Batteries Included (545-grams)
Universal Base:	7.3 OZ. (202 gms.)

CARE AND USE

It will pay dividends to treat your precision instrument well.

- The MP5 is not waterproof. Do not allow the unit to get wet. Damage to internal circuits will result.
- Do not leave the MP5 out in direct sunlight or expose it to high temperatures. The housing and some internal parts are made from plastic and may become deformed at high temperatures.
- Do not store the MP5 in a cold environment. Moisture will form on interior parts when warming. This moisture could fog up laser windows and cause corrosion of internal circuit boards.
- Store your MP5 in its case when not in use.
- When working in dusty locations, some dirt will collect on the laser windows. Never scrub the dirt off, but rather dust it off with a clean soft rag. If further cleaning is required, use alcohol and a cotton swab.
- The MP5 produces laser radiation so extreme care should be used when this product is around small children.