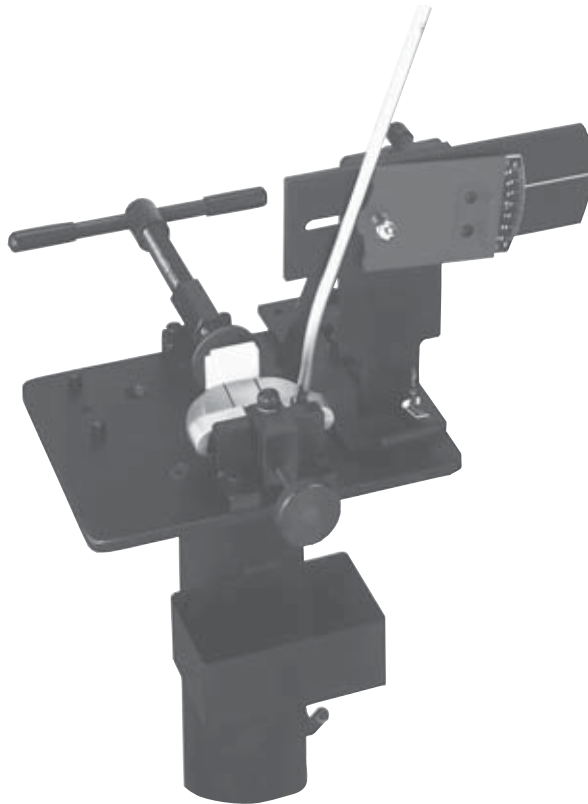




# Operating & Maintenance MANUAL



# **STEELCLUB®** Putter Angle Machine

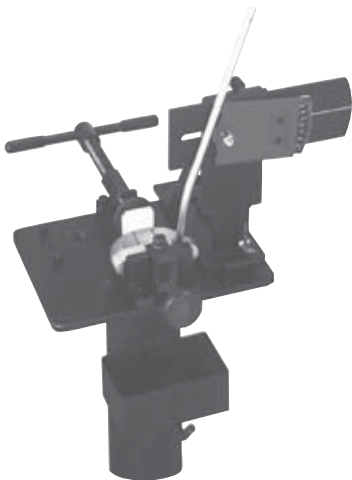
PATENTED



“Thank You for purchasing the golf industry’s state-of-the-art **STEELCLUB®** Putter Angle Machine. You should find it simple to operate. Please follow the instructions in this manual. If you have any questions, please call 1-800-437-1314.”

-Ed Mitchell

## IMPORTANT NOTICE



Your **STEELCLUB®** Putter Angle Machine is a precision gauge.

When measuring a particular putter in your **STEELCLUB®** Putter Angle Machine, the angle readings are correct. When these angle readings are compared to the published standards for that putter and are found to be different, then that particular putter does not meet those standards.

If you compare the loft/lie angles of a particular putter measured in other machines to a **STEELCLUB®** Putter Angle Machine there may be a difference. That is because some machines do not adjust for offset, progressive offset, non-offset, or face progression hosel positions and therefore give inaccurate and inconsistent readings. You can measure any putter in a **STEELCLUB®** Putter Angle Machine accurately.

“THE INDUSTRY STANDARD FOR ACCURACY™”

## GUARANTEE

All products manufactured by Mitchell Golf Equipment Company are guaranteed against defects and workmanship. Replacement or repair will be at the discretion of Mitchell Golf Equipment Company.

©1999 Mitchell Golf Equipment Company

This **STEELCLUB®** Putter Angle Machine  
Was Manufactured For:

Purchased by: \_\_\_\_\_

Date: \_\_\_\_\_

Serial Number # \_\_\_\_\_

## INDEX

PARTS .....	2
PUTTER FITTING GAUGE .....	3
PUTTER HEAD REGISTRATION & CLAMPING .....	4
CLAMPING ILLUSTRATIONS .....	5
MEASURING LOFT/LIE ANGLES .....	6
ADJUSTING LOFT/LIE ANGLES / PUTTER WITH HOSEL .....	7
ADJUSTING LOFT/LIE ANGLES / NO HOSEL PUTTER.....	8
CONVERT TO LEFT HAND .....	9

## MAINTENANCE

1. Clean occasionally with WD-40 to prevent corrosive build up.
2. Occasionally apply grease to the threaded **Worm Screw** (#30).

## TECHNICAL ASSISTANCE

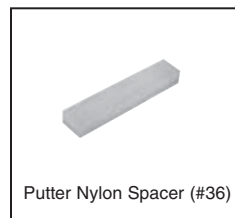
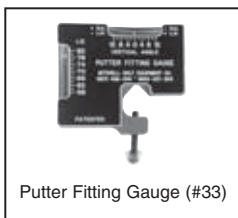
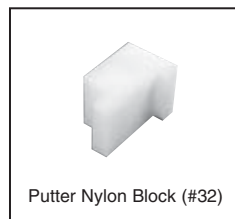
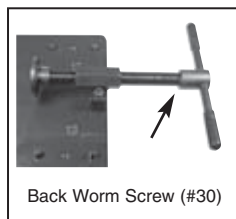
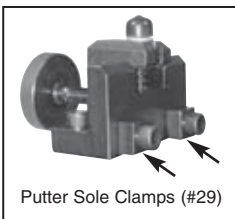
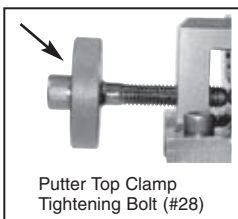
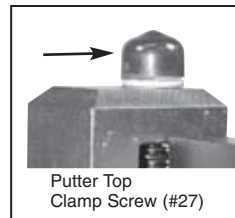
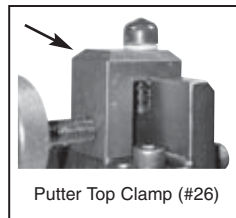
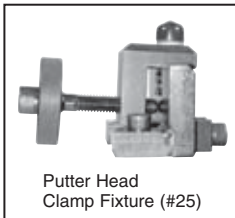
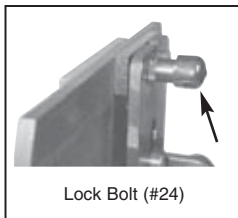
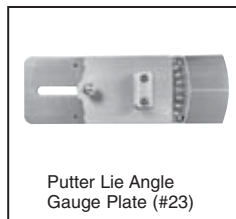
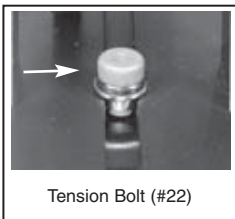
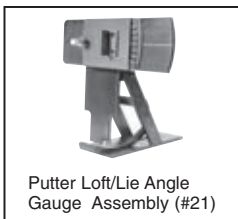
Call 1-800-437-1314 Monday – Friday 8:00 a.m.- 5:00 p.m. Eastern Time

EMAIL: [info@mitchellgolf.com](mailto:info@mitchellgolf.com)

# STEELCLUB® Putter Angle Machine

PATENTED

## PARTS



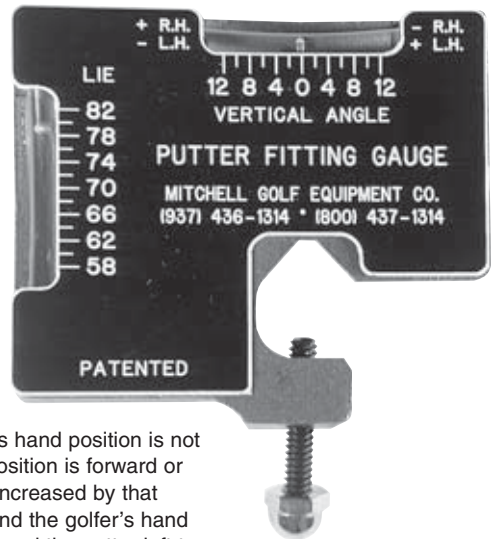
**STEELCLUB®**

Technology That Works In The New Millennium™

## OPERATING INSTRUCTIONS

### Putter Fitting Gauge

- STEP 1** Attach **Putter Fitting Gauge** (#33) to putter shaft just below the grip.
- STEP 2** Align **Putter Fitting Gauge** (#33) so that the top edge (vertical angle) is perpendicular to the putter face. Finger tighten to shaft.
- STEP 3** Have player address a golf ball in desired position.
- STEP 4** Read the golfer's ideal lie angle from the lie scale.
- STEP 5** Read the golfer's vertical hand position from the vertical angle scale.



scale. If the gauge reads "0" degrees, then the golfer's hand position is not influencing the actual putter loft. If the golfer's hand position is forward or behind "0" degrees, then the putter loft is reduced or increased by that amount. Example: If the putter has 5 degrees of loft and the golfer's hand position is 2 degrees forward, then the golfer has reduced the putter loft to 3 degrees. The putter loft should then be adjusted to the golfer's ideal loft. See recommended putter lofts for putter styles and putting green conditions.

### Recommended Putter Lofts

PUTTER DESCRIPTION	SLOW TO MEDIUM SPEED GREENS	FAST GREENS
NO OFFSET	3° – 4°	2° – 3°
SLIGHT OFFSET	4° – 5°	3° – 4°
OFFSET	5° – 6°	4° – 5°

**GENERAL GUIDELINES**

1. The more offset in the putter the more loft needed.
2. The slower the greens the more loft needed.

## OPERATING INSTRUCTIONS

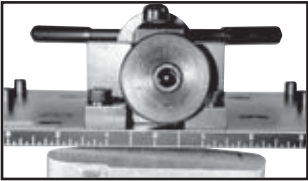


Illustration 1 –

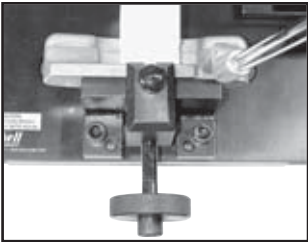


Illustration 2 –

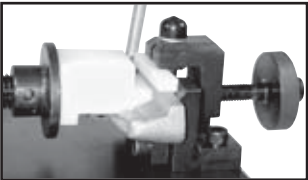


Illustration 3 –

### Putter Head Registration & Clamping

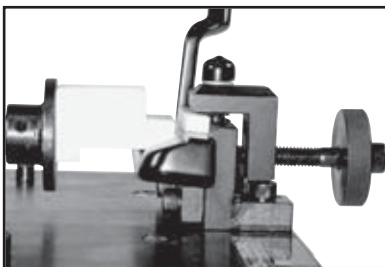
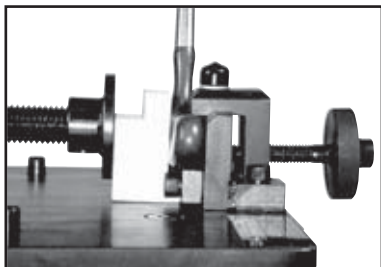
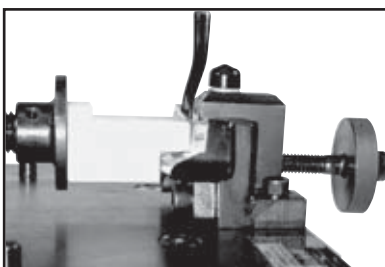
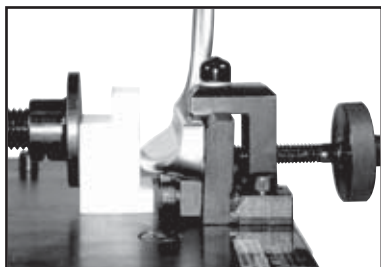
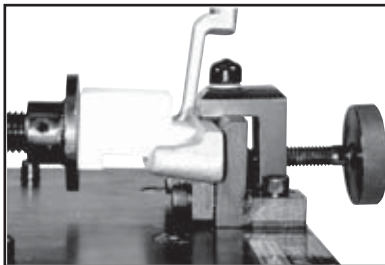
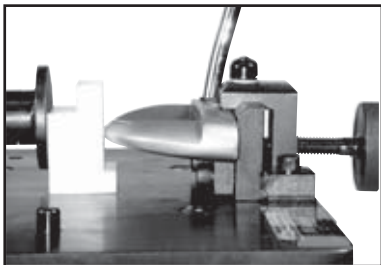
**STEP 1** To measure the center of a putter head use the progressive scale on the front edge of machine. Position putter head so it measures equally to the right and left of “0”. Mark the top line of the putter at “0” with a marking pen. Or use the existing center mark on putter, if available. See Illustration 1.

**STEP 2** To clamp putter head in machine, position center line or mark left by marking pen, so it is visible through notch in **Putter Top Clamp** (#26). With sole of putter head touching both **Putter Sole Clamps** (#29), tighten down **Putter Top Clamp Screw** (#27) using fingers only. Then turn the **Putter Top Clamp Tightening Bolt** (#28) (knurled knob) just enough to hold putter head. Turn **Back Worm Screw** (#30) to tighten **Putter Nylon Block** (#32) against back of putter. See Illustration 2.

**NOTE:** The **Putter Nylon Block** (#32) has 3 different cuts allowing for use with different putter shapes, i.e. cavity back, flange back, etc. See Illustrations on page 5.

**STEP 3** The **Putter Nylon Spacer** (#36) can be used to fill space between **Putter Top Clamp** (#26) and putter. The **Putter Nylon Spacer** (#36) can also be used under sole of putter to raise putter head if necessary. See Illustration 3.

**OPERATING INSTRUCTIONS**



**STEELCLUB®**

Technology That Works In The New Millennium™

## OPERATING INSTRUCTIONS



Illustration 5 –



Illustration 6 –



Illustration 7 –

### Measuring Loft/Lie Angles

**STEP 1** To read the loft and lie angles, slide the **Putter Loft/Lie Angle Gauge Assembly** (#21) forward and allow it to tilt on its vertical axis until the horizontal **Putter Lie Angle Gauge Plate** (#23) is flush against the shaft. See Illustration 5.

**STEP 2** Read the loft on the loft scale at the front edge of the vertical plate below where the word “LOFT” is stamped in the plate. See Illustration 6.

**STEP 3** Slide the **Putter Lie Angle Gauge** (#37) horizontally and allow it to pivot until the top and center points touch the shaft. Read the lie angle on the lie scale. See Illustration 7.



## OPERATING INSTRUCTIONS

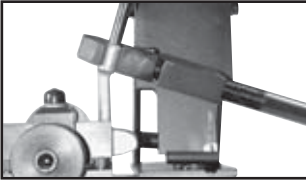


Illustration 8 –

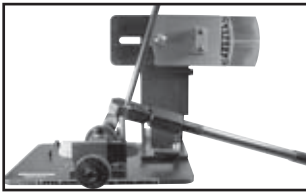


Illustration 9 –



Illustration 10 –

### Adjusting Loft/Lie Angles Putter With Hosel

**STEP 1** Slide **Putter Loft/Lie Angle Gauge Assembly** (#21) to back of machine. Place the **Putter Adjustable Bending Bar** (#34) on hosel as high as possible. Adjust bar to snug fit (finger tight) by turning handle of bar. See Illustration 8.

**STEP 2** To bend hosel apply light pressure to bending bar in the direction of desired bend until it is seated firmly against hosel. Apply short, quick jolts of bending pressure to bend hosel. Remeasure club and rebend if necessary to desired angles.

**STEP 3** To adjust lie angle bend up to make more upright and down to make flatter. The shaft should move in a plane parallel to the front of the machine. See Illustration 9.

**STEP 4** To adjust the loft angle bend back (up) to deloft the putter and bend forward (down) to add loft to the putter. The shaft should move in a plane parallel to the side of the machine. See Illustration 10.

**NOTE:** *Investment cast, forged, and machined putters made from steel, bronze alloy, brass or aluminum can be adjusted. It is not recommended to bend zinc or sand cast putters.*

## OPERATING INSTRUCTIONS



Illustration 11 –



Illustration 12 –

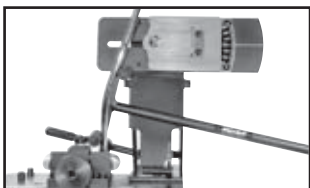


Illustration 13 –

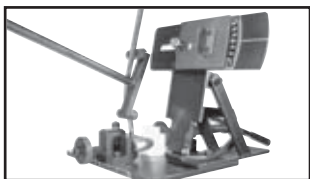


Illustration 14 –

### Adjusting Loft/Lie Angles No Hosel Putter

**STEP 1** Slide **Putter Loft/Lie Angle Gauge Assembly** (#21) to back of machine. Place **Putter Shaft Bending Bar** (#35) on shaft at the double or single bend. Position the top shaft post of bending bar on one side of the shaft and the bottom shaft post on the opposite side of shaft. The shaft bend should be between the two shaft posts of the **Putter Shaft Bending Bar** (#35). See Illustration 11.

**NOTE:** *The top shaft post of the **Putter Shaft Bending Bar** (#35) should be positioned on the side of the shaft in which the bending pressure will be applied.*

**STEP 2** To bend shaft, hold the end of the **Putter Shaft Bending Bar** (#35) with one hand and place the other hand around the two shaft posts and shaft. This will secure the **Putter Shaft Bending Bar** (#35) on the shaft and will concentrate the bending pressure between the two shaft posts. Apply light pressure to bending bar in the direction of desired bend. Then apply short quick jolts of bending pressure to bend the shaft. Remeasure putter and rebend if necessary to desired angle. See Illustration 12.

**STEP 3** To adjust lie angle bend up to make more upright and down to make flatter. The shaft should move in a plane parallel to the front of the machine. See Illustration 13.

**STEP 4** To adjust the loft angle bend back (up) to deloft the putter and bend forward (down) to add loft to the putter. The shaft should move in a plane parallel to the side of the machine. See Illustration 14.

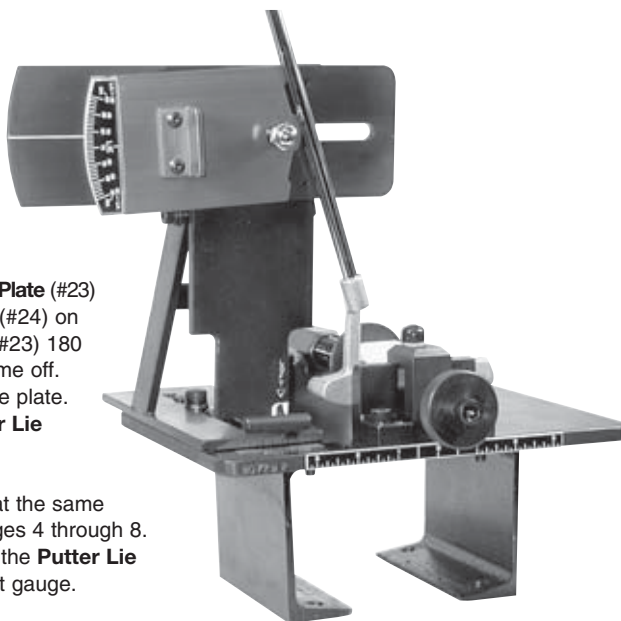
## OPERATING INSTRUCTIONS

### Convert to Left Hand

**STEP 1** Remove **Tension Bolt (#22)** from **Putter Loft/Lie Angle Gauge Assembly (#21)**. Place entire assembly on left side of machine, over the two dowel pins exactly like it was on the right hand side. Replace **Tension Bolt (#22)**.

**STEP 2** Remove the **Putter Lie Angle Plate (#23)** by loosening the **Lock Bolt (#24)** on back. Turn **Putter Lie Angle Gauge Plate (#23)** 180 degrees and replace it exactly the way it came off. The lie scale should be on the left side of the plate. Retighten the **Lock Bolt (#24)** on the **Putter Lie Angle Gauge Plate (#23)**.

**STEP 3** To measure and bend, repeat the same steps per instructions on pages 4 through 8. Read the lie angle denoted by the "L.H." on the **Putter Lie Angle Gauge (#37)**. Read the loft on the loft gauge.



**We Make Equipment That Make Golf Clubs Play Better™**

***Mitchell***<sup>®</sup>  
**GOLF EQUIPMENT COMPANY**

954 Senate Drive  
Dayton (Centerville), Ohio 45459  
Phone: (937) 436-1314 • FAX: (937) 436-1325