

**SMITH MACHINE**



# **SMITH MACHINE ASSEMBLY INSTRUCTIONS**

## **IMPORTANT NOTICES**

**Read all warning labels and this manual before attempting to use this machine. Always consult your physician and an exercise professional before beginning any exercise program/regimen.**

**Before any test or use check for proper assembly of the machine including (but not limited to): bolts and other hardware fastened properly, cables in pulley grooves and routed correctly. For safety use the Weight Bar only – no weight plates - for the first machine movement.**

**Maintain your machine in good working order by following the maintenance schedule provided on the equipment.**

It is strongly recommended that a qualified dealer assemble this Smith Machine.

Should there be any question during assembly contact your authorized Inflight Fitness dealer or call direct to 714 821 4177.

Before beginning assembly read this instruction manual thoroughly. Unpack and verify all parts and hardware quantities against the parts and hardware lists.

Follow the assembly steps in sequence. Failure to follow the order of assembly will result in disassembly later and possible damage to the machine components.

The 3/8" nuts provided with this machine are "centerlocking". They provide a more secure assembly than nylon locking nuts. Please note they do require more force to tighten than nylon locking nuts.

# **SMITH MACHINE PARTS AND HARDWARE**

## **PARTS**

### **PLATINUM FRAME PARTS**

Side Supports (2)	Top Tubes (2)	Cross Beams (3)
Vertical Tube L/H	Vertical Tube R/H	
Base Tube L/H	Guide Rod Brackets (4)	
Base Tube R/H		

### **BLACK FRAME PARTS**

L/H Safety Stop	R/H Safety Stop
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### **CABLES AND PULLEYS**

Cables (2)	4 ½" Pulleys (2)
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### **MISCELLANEOUS**

Guide Rods (2)	Lube	Weight Stack Cushions (2)
Weight Horns (6)	Manual	Counter Weights (2)
Springs (2)	Guided Weight Bar Assembly	

# SMITH MACHINE PARTS AND HARDWARE

## HARDWARE

DESCRIPTION	QUANTITY
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### Bolts

3/8" x 5"	16
3/8" x 4 3/4"	12
3/8" x 2 3/4"	16

### Washers and Spacers

3/8" Flat Washers	52
3/8" Curved Washers	32
1" Washers	2
1 1/2" Step Spacers	4

### Nuts

3/8" Nuts	44
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# SMITH MACHINE ASSEMBLY INSTRUCTIONS

## MAIN STRUCTURE ASSEMBLY

**NOTE: WHEN ASSEMBLING THIS MACHINE, ONLY TIGHTEN THE BOLTS AND NUTS TO THE POINT WHERE THE WASHERS CAN STILL BE TURNED BY HAND. DO NOT FULLY TIGHTEN BOLTS UNTIL INSTRUCTED.**

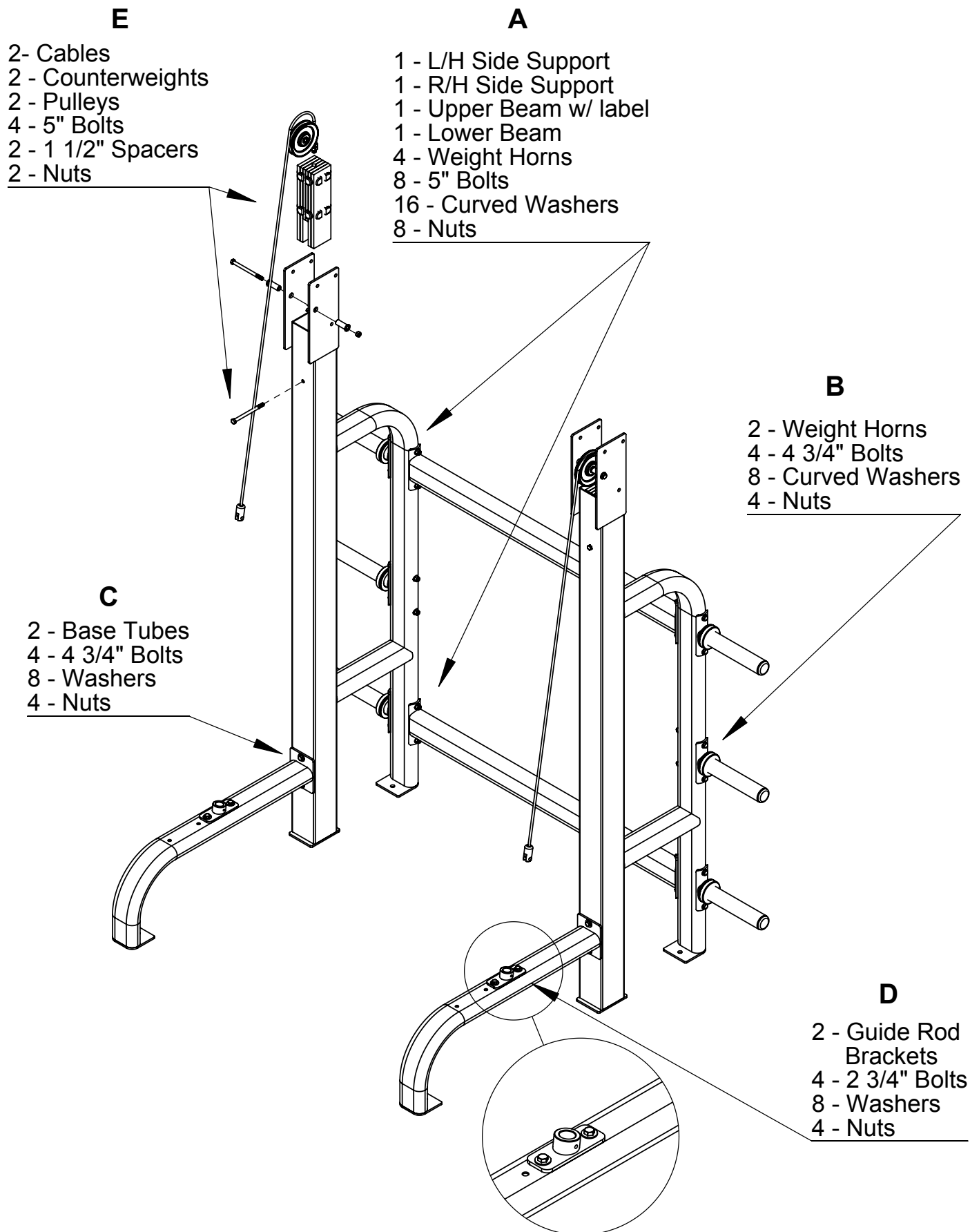
- A.** Assemble the two Side Supports to the Upper and Lower Cross Beams and four Weight Horns using 8 – 3/8" x 5" bolts, 16 – 3/8" curved washers, and 8 – 3/8" nuts.

The Inflight Fitness labels on the Side Supports face to the outside of the machine. The Upper Cross Beam is to be assembled with the Maximum Weight label facing forward to the inside of the machine.

- B.** Assemble the remaining two Weight Horns to the Side Supports using 4 – 3/8" x 4 3/4" bolts, 8 – 3/8" curved washers, and 4 – 3/8" nuts.
- C.** Attach the Base Tubes to the Side Supports using 4 - 3/8" x 4 3/4" bolts, 8 – 3/8" flat washers, and 4 – 3/8" nuts.
- D.** Attach two Guide Rod Brackets to the Base Tubes using 4 – 3/8" x 2 3/4" bolts, 8 – 3/8" flat washers, and 4 – 3/8" nuts. Make sure the Guide Rod Brackets angle the tubes back toward the Side Supports.
- E.** Install a Cable into the threaded hole in the top of each Counterweight and secure the cables by tightening the jam nuts.

Insert a 5" bolt into each of the holes found in the Side Supports about 8" below the top of the 4" square tube. Do not attach a nut. This bolt is temporary. Orient the Counterweight and Cable assembly so that the slot is parallel to the bolt you just installed. Gently lower each of the Counterweights into a Side Support until the slot rests upon the bolts.

Route the cable over a Pulley and install the pulley into the Side Supports using 2 – 1 1/2" Step Spacers, 2 – 3/8" x 5" bolts, and 2 – 3/8" nuts.



# SMITH MACHINE ASSEMBLY INSTRUCTIONS

## GUIDED WEIGHT BAR INSTALLATION

F. Insert the Guide Rods into the Bottom Guide Rod Brackets. Slide the L/H and R/H Safety Stops onto the Guide Rods to the bottom. Point the hook ends toward the center of the machine. Then slide a Spring down each rod to the Safety Stop, followed by a 1" Washer, and then a rubber Weight Cushion on top of the washer.

G. **IMPORTANT: This is a task for two people.**

Make sure the hooks on the Weight Bar Assembly are pointed up. Align the linear bearings to the top of the Guide Rods and slide the bearings evenly onto the Guide Rods and lower to the Weight Cushions.

H. Attach L/H and R/H Vertical Tubes (with the chrome rods pointing to the inside of the machine) to the Base Tubes using 4 – 3/8" x 2 3/4" bolts, 8 – 3/8" flat washers, and 4 – 3/8" nuts.

The Safety Stops and the Weight Bar Ass'y may now be hooked over the chrome rods.

I. Route the clevis end of the Cable to the plate welded to the back of the Weight Bar Ass'y. Use the clevis pin and E-clip retaining ring pre-installed in the clevis end to attach the Cable to the Weight Bar Ass'y.

J. Place the Top Guide Rod Brackets on each Guide Rod



**H**

- 1 - L/H Vertical Tube
- 1 - R/H Vertical Tube
- 4 - 2 3/4" Bolts
- 8 - Washers
- 4 - Nuts

**J**

- 2 - Guide Rod Brackets

**G**

- 1 - Weight Bar Ass'y

**I**

- Clevis Pin
- E-Clip

**F**

- 2 - Guide Rods
- 1 - L/H Safety Stop
- 1 - R/H Safety Stop
- 2 - Springs
- 2 - Washers
- 2 - Rubber Cushions

# SMITH MACHINE ASSEMBLY INSTRUCTIONS

## FINAL ASSEMBLY

**K.** Attach the last Cross Beam to the Top Tubes using 4 – 3/8" x 43/4" bolts, 8 – 3/8" curved washers, and 4 – 3/8" nuts.

**L.** Attach the Top Tubes/Cross Beam to the Vertical Tubes using 4 – 3/8" x 2 3/4" bolts, 8 – 3/8" flat washers, and 4 – 3/8" nuts.

Attach the Top Tubes to the Side Supports above the Pulley using 4 – 3/8" x 5.00" bolts, 8 – 3/8" flat washers, and 4 – 3/8" nuts.

Attach the Top Guide Rod Brackets to the Top Tubes using 4 – 3/8" x 2 3/4" bolts, 8 – 3/8" flat washers, and 4 – 3/8" nuts.

**M.** At this time pull down on each Cable to slightly lift the Counterweight and remove the bolts installed at step **E.** to support the Counterweights. Gently lower the weight until cable is taut.

**N.** Install the 2 - 3/8" x 5" bolts, 4 – 3/8" flat washers, 2 – 3/8" nuts into the last hole in the welded plates on the Side Supports. This bolt will protect the pulley from the counterweight if the Weight Bar is dropped.

## ADJUSTMENT

Check that the frame is set square. The outside dimension of the frame should be 53.50" (+/- .25"). Tighten the bolts installed on steps **A.** through **C.**

Hook the Safety Stops to the lowest Chrome Pin possible. Rotate the Weight Bar hooks to a vertical position – not hooked to a Chrome Pin. The slot in the Safety Stops should fit symmetrically over the Chrome Pin. Move the Vertical Tube or Bottom Guide Rod Bracket on both Base Tubes until the Safety Stop aligns correctly over the Chrome Pin. Tighten the lower bolts only until the Vertical Tube and Bottom Guide Rod Brackets do not move easily.

Raise the Weight Bar and hook the Safety Stops over the highest Chrome Pin possible. Do not hook the Weight Bar to a Chrome Pin. Move the Vertical Tube and Top Guide Rod Bracket on the Top Tube until the slot in the Safety Stop is fitting symmetrically over the Chrome Pin. Tighten the top bolts only until the Vertical Tube and Top Guide Rod Brackets do not move easily.

Check that the Guided Weight Bar Assembly moves freely and that the Safety Stops do not bind on any of the Chrome Pins. Hook the Weight Bar to a pin and tighten the set screws in the Guided Weight Bar. Now tighten every bolt fully.

**K**

- 1 - Cross Beam
- 2 - Top Beams
- 4 - 4 3/4" Bolts
- 8 - Curved Washers
- 4 - Nuts

**L**

- 4 - 5" Bolts
- 8 - 2 3/4" Bolts
- 24 - Washers
- 12 - Nuts

**N**

- 2 - 5" Bolts
- 4 - Washers
- 2 - Nuts

**M**

Remove bolts supporting the counterweights and use for step N.

