Walk-Behind Trowels Handle/Throttle Assembly Installation

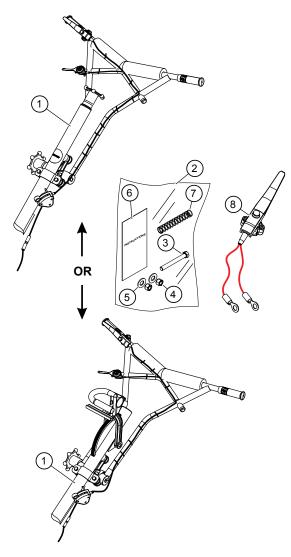
The following instructions are intended to assist the user in the installation of the Standard Handle (SXHS) and Quick Pitch<sup>™</sup> (QXHS) on the Multiquip walk-behind trowels. It is not intended to take the place of the Operation and Parts Manual shipped with the trowel. Refer to the Operation and Parts Manual for SAFETY, OPERATION, and MAINTENANCE Information. If you did not receive a manual with your trowel, contact Multiquip at (800) 421-1244 for a replacement.

# **REQUIRED TOOLS**

- Ratchet/Socket set
- Wrench
- Phillips Screwdriver

# PARTS

Verify that all parts are accounted for. See Figure 1 and Table 1.



# WORK SAFELY!

Only a **qualified service technician** with proper training should perform this installation. Follow all shop safety rules when performing this installation.

# PREPARATION

- 1. Make sure trowel is turned off and engine is cool.
- 2. Place the trowel in an area free of dirt and debris. Make sure it is on secure level ground.

Table 1. Handle Parts								
Item No.	Part No.	Description	Qty.	Remarks				
1	QXHS	Quick-Pitch™ Handle	1	Includes item 2,8				
1	SXHS	Standard Handle	1	Includes items 2,9				
1	SXHSe	Edger, Standard Handle	1	Includes items 2,10				
2	24010	Handle Installation Kit	1	Includes items 3-7				
3	1493	3/8-16 x 3 1/4 HHC Screw	1					
4	10133	3/8-16 Nyloc Nut	2					
5	10136	3/8 Flat Washer	2					
6	24011	Installation Instructions	1					
7	21746	Spring, Primary Throttle Return	1					
8	24072-45	Cable, Pitch Control, 45.1" Long	1					
9	24072-48	Cable, Pitch Control, 48.4" Long	1					
10	24072-43	Cable, Pitch Control, 43.5" Long	1					
11	24082	Operator Presence Kit	1	Optional				

Figure 1. Standard/Quick Pitch™Trowel Handle

# **UNPACKING THE TROWEL**

This trowel may be equipped with a folding upper handle (Figure 2). Trowels utilizing a folding handle are shipped with the handle in the folded or stowed position.

- 1. To place the folding upper handle in the operational position, simply turn the star wheel counterclockwise to release it from its folded or stowed position.
- 2. Next, pull back on the upper handle and place handle in the desired position. Turn star wheel clockwise to lock handle in place. Make sure handle is locked firmly in place so that the handle will not move or slip.

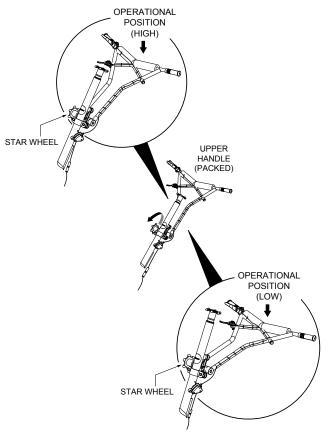


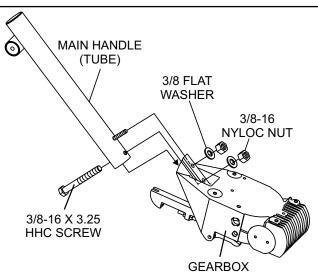
Figure 2. Unpacking the Trowel

# MAIN HANDLE TUBE INSTALLATION

1. Attach the main handle tube to the gearbox using the supplied hardware as shown in Figure 3.

#### NOTICE

The main handle tube fits tightly into the gearbox and may require holding the T-handle bar level while tightening the nut securing the handle to the trowel.



# Figure 3. Handle Installation

- 2. The upper handle is already attached to the main handle tube.
- 3. If readjustment is necessary, loosen the star wheel as shown in Figure 4 and move the upper handle to the desired position.

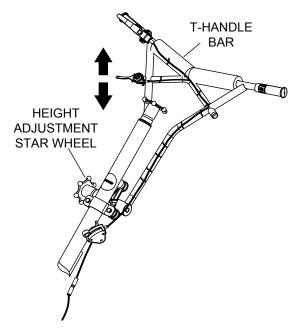


Figure 4. T-Handle Bar Adjustment

# QXHS AND SXHS BLADE PITCH CABLE INSTALLATION

1. For trowels equipped with a *Standard* handle (SXHS), simply turn the **star wheel** counterclockwise to pitch the blades flat. This will release the tension on the blade pitch cable (Figure 5).

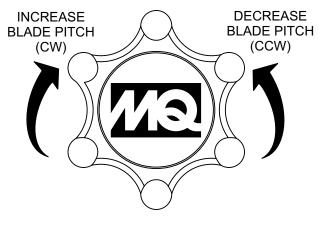
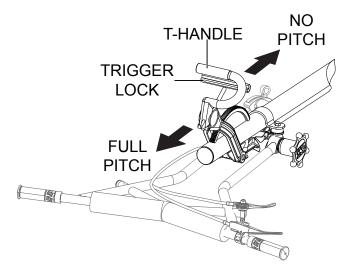


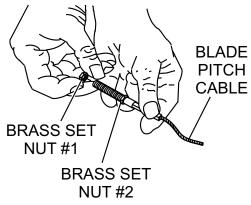
Figure 5. Adjusting Cable Blade Pitch (Standard Handle)

 For trowels equipped with a *Quick Pitch<sup>™</sup>* T-handle (QXHS), simply squeeze the trigger lock and push the T-handle towards the engine to pitch the blades downward. Pushing the T-handle towards the engine will cause the blades to lay flat (Figure 6). This will release the tension on the blade pitch cable.



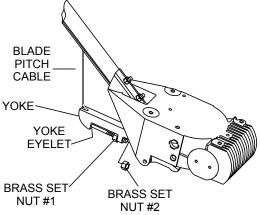
# Figure 6. Adjusting Cable Blade Pitch (Quick-Pitch<sup>™</sup> Handle)

3. Remove brass set nut #1 from the blade pitch cable end. See Figure 7.



#### Figure 7. Blade Pitch Cable

- 4. Thread the brass set nut #2 towards the cable as far as possible. See Figure 7.
- 5. Insert the cable end through the yoke eyelet (Figure 8). Tighten brass set nut #1 by hand to remove all the slack from the cable.



# Figure 8. Cable Yoke Attachment

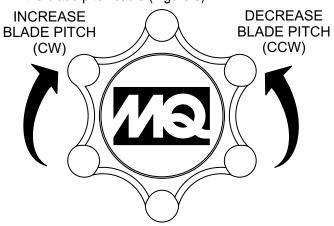
6. Using a wrench, tighten the brass set nut #2 up against the yoke boss. This will lock the cable in place.

# 

**DO NOT** operate handle unitl it is securely fastened to the trowel. With Quick-Pitch<sup>™</sup> handles, injury could result if trowel is lifted without handle latch firmly engaged.

# SXHSe BLADE PITCH CABLE INSTALLATION

1. For trowels equipped with a *Edger-Standard* handle (SXHSe), simply turn the **star wheel** counterclockwise to pitch the blades flat. This will release the tension on the blade pitch cable (Figure 8).



#### Figure 9. Adjusting Cable Blade Pitch (Edger-Standard Handle)

2. Remove brass set nuts #1 and #2 from the blade pitch cable end as shown in (Figure 9).

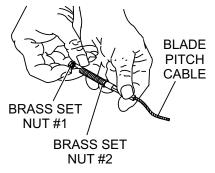
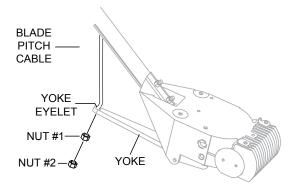


Figure 10. Blade Pitch Cable

3. Insert the cable end through the yoke eyelet (Figure 10). Tighten conical nut #1 by hand to remove all the slack from the cable.

#### NOTICE

Nut #1 has a chamfer (taper) on the top. Put the nut on with the chamfer (taper) against the yoke.

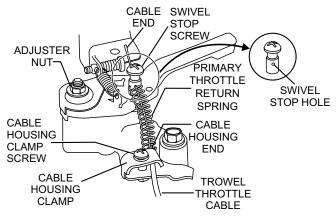


# Figure 11. Pitch Cable Yoke Attachment

4. Using a wrench, tighten the brass set nut up against the conical nut. This will lock the cable in place.

# THROTTLE CABLE INSTALLATION

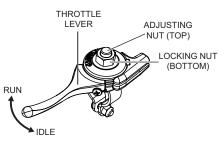
Refer to Figure 9 for the location of components.



#### Figure 12. Throttle Cable Installation

- 1. Uncoil the throttle cable and housing.
- 2. Check that the throttle cable is fed through the tube on the underside of the handle and secured to the upper handle and main tube with the zip ties.
- 3. Place the throttle in the idle position.
- 4. Back off both the cable housing clamp screw and the swivel stop screw.
- 5. Place the primary throttle return spring (P/N 21746) between the cable housing clamp and the swivel stop screw.
- 6. Feed the cable assembly through the cable housing clamp, primary throttle return spring, and swivel stop hole, until the cable housing extends under the housing clamp to its far edge.

- 7. Ensure that the cable housing is seated in the throttle cable receiver. Tighten the cable housing clamp screw.
- 8. Pull cable end with pliers to remove slack.
- 9. Tighten swivel stop screw to clamp cable.
- 10. Adjust cable tension by loosening the lock nut on the throttle cable receiver (see Figure 10), loosening or tightening the adjusting nut below it, then retightening the lock nut.



# Figure 13. Adjusting Cable Tension

#### NOTICE

If the throttle lever does not return to the "neutral" position with throttle backed off, loosen adjusting nut 1/2 turn at a time, tighten and recheck. Readjust throttle tension as necessary.

# Centrifugal Stop Switch and Operator Presence Switch Connection

# NOTICE

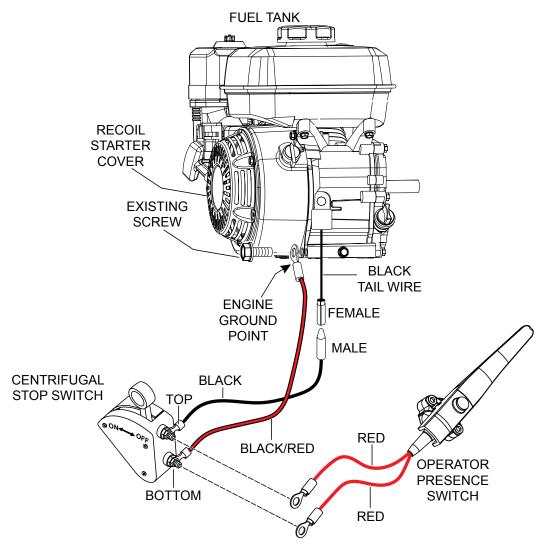
Centrifugal Safety Stop switches are equipped with 2 wires. Connect bottom **BLACK/RED** wire (Figure 11) directly to engine ground.

# NOTICE

Operator Presence switches are equipped with 2 wires. Connect bottom **RED** wires (Figure 11) directly to the Centrifugal Stop Switch top and bottom connections.

1. Connect the two operator presence switch red wires to the centrifugal stop switch terminal ring connections. One red wire will connect to top and the other to the bottom terminal ring connection.

- 2. Connect the black tail wire from the engine to the *top black* safety stop wire from the centrifugal stop switch as shown in Figure 11.
- Using a 10MM socket, remove the existing bottom mounting screw on the recoil starter cover (Figure 11) and connect the *bottom black/red* wire from the centrifugal stop switch.
- 4. Reinstall mounting screw and tighten securely.
- 5. Check that the wires are secured to the main tube with zip ties.







# **HERE'S HOW TO GET HELP**

# PLEASE HAVE THE MODEL AND SERIAL NUMBER ON-HAND WHEN CALLING

UNITED STATES								
Multiquip Corporate Office	MQ Parts Department							
18910 Wilmington Ave. Carson, CA 90746 Contact: mq@multiquip.com	Tel. (800) 42 Fax (310) 53		800-427-1244 310-537-3700		800-672-7877 310-637-3284			
Service Department		Warranty Department						
800-421-1244 Fax: 310-5 310-537-3700		7-4259	800-421-1244 310-537-3700	Fax: 3	310-943-2249			
Technical Assistance								
800-478-1244	Fax: 310-94	3-2238						
<u>CANADA</u>		UNITED KINGDOM						
Multiquip			Multiquip (UK) Limited Head Office					
4110 Industriel Boul. Laval, Quebec, Canada H7L 6V3 Contact: infocanda@multiquip.com		Tel: (450) 625-2244 Tel: (877) 963-4411 Fax: (450) 625-8664	Unit 2, Northpoint Industrial Estate, Globe Lane, Dukinfield, Cheshire SK16 4UJ Contact: sales@multiquip.co.uk		Tel: 0161 339 2223 Fax: 0161 339 3226			

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