

MiTek Machinery

Service Bulletin

Product(s) Affected **Cyber[®], Cyber[®] A/T, SmartSet[®],
SmartSet[®] Pro Saws**

Description **Installation of STRONGARM Swingarm**

Date **10/17/03**



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Figure 1: STRONGARM mounted on a SmartSet Pro saw



The STRONGARM touch screen swingarm has a different mounting hole configuration than the swingarm previously used. The items in SB135KIT are needed to mount the STRONGARM swingarm to your current touch screen enclosure, and onto the saw frame. To do so, you will need all of the parts supplied in the SB135KIT as shown in Table 1, the tools listed in Table 2, and the instructions in this Service Bulletin.

Table 1: Parts Provided in the SB135KIT

PART # (PN)	QTY	PART DESCRIPTION
519685	1	STRONGARM swingarm w/ all accessories needed to attach to touch screen enclosure
327365	4	hex head cap screw 1/2"-13 x 1 1/2"
361609	4	nut, hex, 1/2"-13
365644	4	washer, flat, 1/2"
364050	4	washer, lock, 1/2"

Table 2: Tools Needed

pliers for electrical work	fish tape or wire
1/2-13 tap	1/8" drill
3/4" and 9/16" hex head sockets	21/64" drill
Phillips head screwdriver	27/64" drill
5 mm allen wrench	drill motor

**ELECTRICAL HAZARD!**

ALL ELECTRICAL WORK MUST BE PERFORMED BY A QUALIFIED ELECTRICIAN. FOLLOW APPROVED LOCKOUT AND TAGOUT PROCEDURES (OSHA 29 CFR 1910.147).

1. Shut down the **Cimplicity** Project.
2. Shut off power to the touch screen.
3. Turn off, lockout, and tagout all power to the saw.
 - a) Activate an emergency stop.
 - b) Turn the stationary enclosure disconnect switch to the “OFF” position.
 - c) Disconnect all power to the saw from the main power source. Follow all lockout and tagout procedures to ensure power is disconnected before opening the enclosure.
 - d) Open the touch screen enclosure, and verify that all incoming power to the enclosure has been disconnected by using a voltmeter or multimeter set to read “volts”.
4. Check to ensure that all wires inside the touch screen enclosure are labeled. If they are not, refer to your original electrical schematics and label them correctly.
5. Disconnect and remove the UPS.
6. Disconnect the remaining wires attached to the touch screen computer unit, paying close attention to how wires are connected. They will be reconnected in exactly the same way.
7. Remove the touch screen from its enclosure.



If the touch screen computer bezel or overlay needs to be changed, this is a good time to do it! Refer to your saw's instruction manual for the procedure.

- a) Loosen the eight (8) securing screws from inside the enclosure with a Phillips head screwdriver.
 - b) Pull the touch screen computer out of the enclosure. Carefully place it in an upright position in a safe location where there is no chance of being damaged.
8. Disconnect the wires that are running through the swingarm to the terminal block on the left side (when facing the back of the touch screen enclosure).



DO NOT BEND, KINK, OR TWIST THE FIBER OPTIC CABLE! IT IS MADE OF GLASS AND WILL NEED TO BE REPLACED IF NOT HANDLED CAREFULLY.

9. Pull all the wires that are running through the swingarm from the touch screen enclosure, through the swingarm to the mounting tube. Once the wires have passed through the first wall of the mounting tube, you can leave them hanging out of the top of the tube. Be careful not to damage the fiber optic cable.



REMOVING AND ATTACHING THE ENCLOSURE AND SWINGARM REQUIRES TWO PEOPLE IN ORDER TO PREVENT ANY DAMAGE OR INJURY.

10. To remove the touch screen enclosure from the swingarm, use a 5 mm allen wrench to loosen the four (4) cap screws found inside of the enclosure. Carefully support the touch screen enclosure from the bottom while removing the hardware. Set the enclosure aside.
11. Unbolt the swingarm from the mounting tube on the saw frame using a 9/16" hex head socket. Carefully support the extended end of the arm while removing the hardware.
12. Mark the location of the new holes to be drilled into the mounting tube on the machine, per Figure 2. The center hole should remain the same. Only the four (4) smaller holes need to be drilled.
13. Use the 1/8" drill to drill pilot holes in each marked spot on the mounting tube.
14. Drill the four (4) thru-holes with a 27/64" drill using the pilot holes drilled in the previous step as guides. Be careful not to damage any wires when drilling.
15. Tap all four (4) holes to full depth with a 1/2-13 tap.
16. Mark the location of the new holes to be drilled into the top of the touch screen enclosure, per Figure 3. The center hole should remain the same. Only the four (4) smaller holes need to be drilled.

Figure 2: Side view of mounting tube

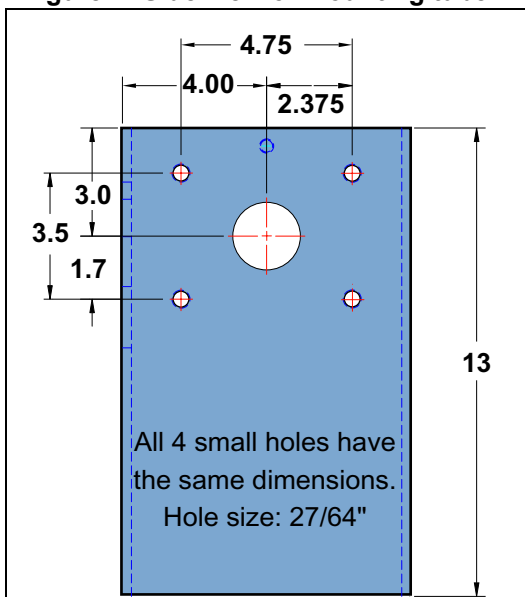
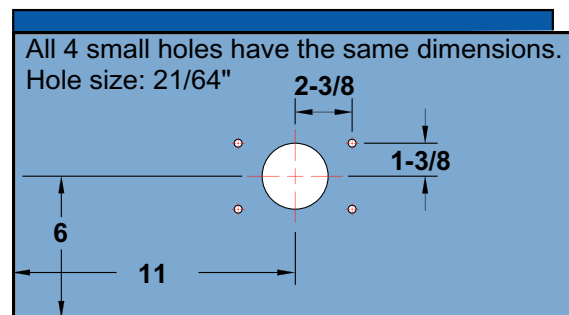


Figure 3: Top view of touch screen enclosure



17. Use the 1/8" drill to drill pilot holes in each marked spot on the top of the touch screen enclosure.
18. Drill the four (4) thru-holes with a 21/64" drill using the pilot holes drilled in the previous step as guides.
19. Refer to Figure 4. Mount the new STRONGARM swingarm (519685) to the saw frame with four each of the supplied 1/2-13 x 1 1/2 cap screws (327365), 1/2-13 nuts (361609), and 1/2" flat washers and lock washers (365644 and 364050). Install one flat washer on the outside of the tube directly under the head of each screw, and one lock washer and nut on each screw on the inside of the tube. Use a 3/4" hex head socket wrench to thread the cap screw into the tapped hole.
20. Mount the touch screen enclosure to the STRONGARM swingarm with the hardware that is supplied with the swingarm. When complete, it should look like Figure 5 on the outside, although the actual hardware sent by the STRONGARM manufacturer may vary.
21. Inside the touch screen enclosure, each screw should have the following hardware attached in the order listed below, from top to bottom:
 - square, metal wedge with thicker side toward the back of the enclosure (closest to you when looking in the open door on the back of the enclosure)
 - flat washer
 - lock washer
 - hex nut

Figure 4: Swingarm at mounting tube on saw

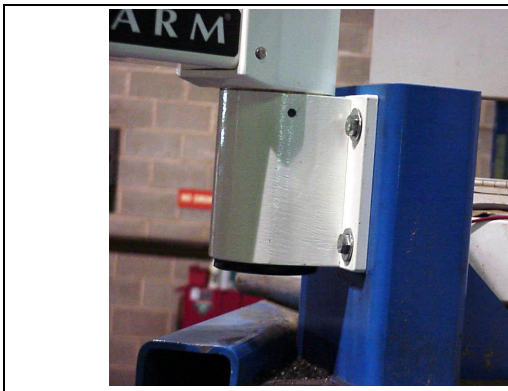
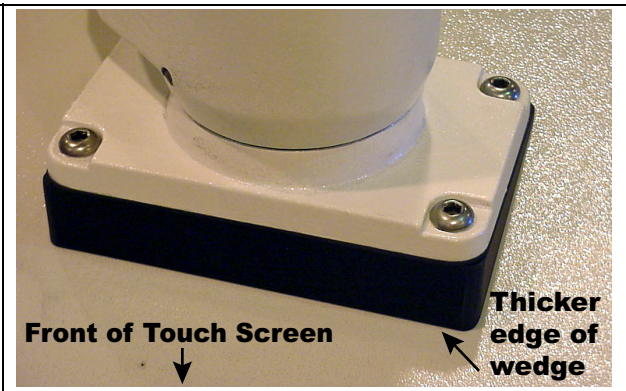


Figure 5: Swingarm at touch screen enclosure



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22. Run the wires back through the hole in the mounting tube, through the new swingarm, and into the touch screen enclosure, using a fish tape or pull-wire. Handle the fiber optic cable carefully.
23. Reconnect the wires that are running through the swingarm to the terminal block on the left side (when facing the back of the touch screen enclosure), in the same order they were before starting this procedure. Refer to your original electrical schematics for assistance.

24. Place the touch screen back in it's enclosure.
25. Tighten the eight (8) screws that hold it in place with a Phillips head screwdriver.
26. Reconnect the wires to the touch screen exactly as they were connected before beginning the procedure.
27. Reconnect the UPS. Place it inside the enclosure in a stable position.
28. Close and secure the touch screen enclosure door.
29. Remove the lockout and tagout devices.
30. Turn on the saw and the touch screen to make certain the wire connections are complete and the saw is operating properly.