MiTek Machinery

Service Bulletin

Product(s) Affected	*Cyber®, Cyber® A/T, SmartSet®, SmartSet® Pro Saws*
Description	Replacing Adhesive-Backed Angle Scales With Polycarbonate Angle Scales
Date	03/20/2003

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SB 130	
Rev	—
Created by	rr
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Description	Replacing Adhesive-Backed Angle Scales With Polycarbonate Angle Scales
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The instructions provided by this Service Bulletin are to be used to install bolt-on polycarbonate angle scales to replace the original adhesive-backed angle scales located on the quadrant slides of the equipment listed above.

The SB130KIT contains the necessary parts. The contents of the SB130KIT are shown in Table 1. If any parts are missing, please contact MiTek Customer Service at (800) 523-3380. If a scale is needed for quadrant #6, you will need to order an additional Scale A (PN 563064) and two additional bolts (PN 310955).

Table 1: SB130KIT

Qty	P/N	Description
2	563064	Scale A, polycarbonate, for #2, #4
3	563065	Scale B, polycarbonate, for #1, #3, #5
10	310955	Hexagon washer head bolt, 1/4”-20x1/2”

The following tools will be required to install the polycarbonate scales:

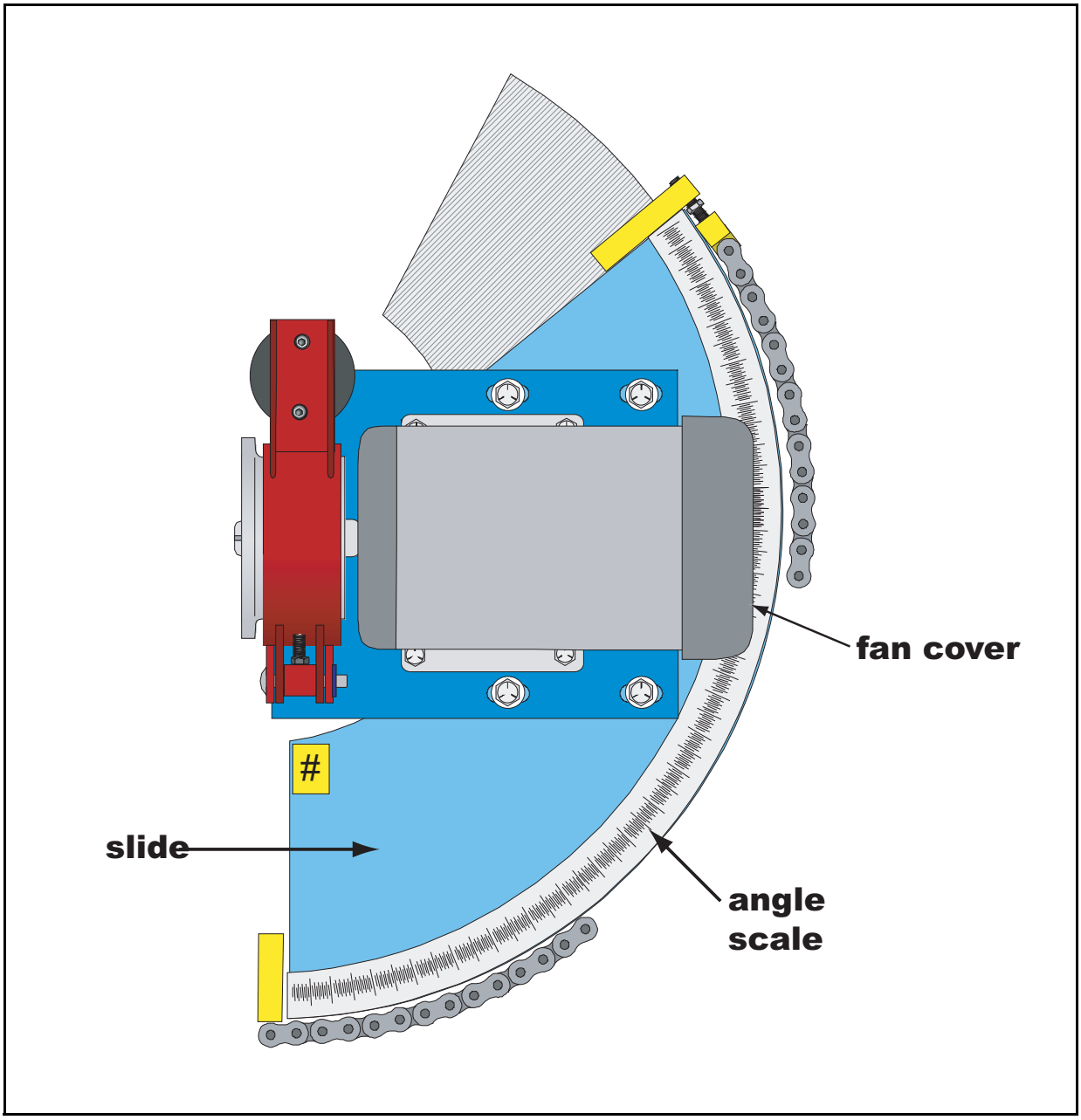
drill motor	1/4”-20 hand (bottom) tap	duct tape
#7 drill (.201” Dia.)	3/8” socket	countersink
1/8” drill	5/16” socket	center punch
drill stop, tape, or other method to limit drill depth	tap handle	cutting/tapping fluid

The following items are recommended to clean the slide thoroughly to ensure accurate results:

compressed air	clean rags	mineral spirits or denatured alcohol
scraper		

Separate procedures are provided for the cases when the mylar adhesive-backed scales are still affixed to the quadrant and for when the adhesive-backed scales have become damaged or fallen off the quadrant. Refer to the appropriate procedure for each quadrant.

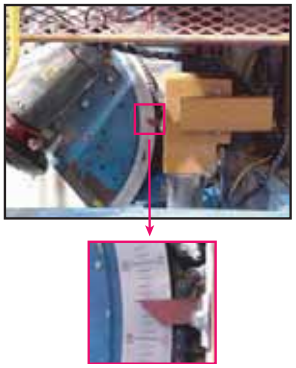
Figure 1: Diagram of Quadrant on Cyber A/T



This diagram is a good representation of all equipment referred to in this Service Bulletin. The labeled items are referred to in the procedures enclosed.

Procedure to Use When the Adhesive-Backed Scale Is Still in Place

1. Use Scale A (PN563064) for quadrants #2 and #4. Scale B (PN563065) is for quadrants #1, #3, and #5.
2. Move each quadrant to 45º. This position will allow you to reach the location of the bolts in the slides with the least difficulty. Newer saws already have holes pre-drilled into the slide for the bolts holding the polycarbonate scales; older models do not.
3. Turn off, lockout and tagout all power to the saw and touch screen.
4. If necessary, remove the fan covers (See Figure 1) with a 5/16” socket, to allow easy access to each slide.
5. Place a polycarbonate scale against a corresponding slide, directly over the old scale. Use the lines on the old scale that show through the slotted holes in the polycarbonate scale to line it up correctly.



6. If holes already exist in the slides, proceed to step #20. If holes were not pre-drilled at the factory, continue with step #7.
7. Tape each scale in place with duct tape.
8. Turn the power back on. Move each quadrant angle up and down, comparing the angle indicated by the touch screen to that indicated by the pointer on the scale.
9. If a scale must be adjusted, turn off and lockout and tagout all power to the saw. Repeat steps #5–#8 until each angle is in the proper position.
10. When satisfied with the accuracy of the full range on all five scales, move each quadrant back to the positions indicated in step #2.
11. Turn off, lockout and tagout all power to the saw and touch screen.
12. Locate and mark each slide at the following two points:
    - The center of the slotted hole near the 0º (red scale) line.
    - The center of the slotted hole near the 60º (red scale) line.
13. Using a center punch, punch the holes marked in step #12, to prevent the drill from walking.
14. Set the drill stop on the 1/8” drill bit (or apply tape) to limit the drill depth to 1/2”.

CAUTION
DRILLING COMPLETELY THROUGH THE SLIDE MAY DAMAGE THE SLIDE AND CAUSE PREMATURE FAILURE!

15. Drill a pilot hole 1/2” deep at each marked point with the 1/8” drill.

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Cont'd....Adhesive-Backed Scale Is Still in Place

16. Set the drill stop on the #7 drill bit (or apply tape) to limit the drill depth to 1/2".

CAUTION
DRILLING COMPLETELY THROUGH THE SLIDE MAY DAMAGE THE SLIDE AND CAUSE PREMATURE FAILURE!

17. Drill 1/2" deep at each marked point with the #7 drill.
18. If a countersink is available, lightly countersink the drilled holes to provide a lead-in for the tap and screws.
19. Tap each hole to full depth using the 1/4"-20 hand (bottom) tap.
20. Scrape off all residue and loose remnants of the old scale from each slide, and blow out the drilled holes with compressed air.
21. Wipe down the slides with a rag dampened in mineral spirits or denatured alcohol to remove exposed adhesive.
22. Secure the proper scale to each quadrant using two 1/4"-20x1/2" hexagon washer head bolts (PN310955) and a 3/8" socket.
23. Ensure all tools and material are removed from saw, replace fan covers, and turn on power to saw.
24. Examine the accuracy on the full range of each scale by comparing the angle indicated by the touch screen to the angle indicated by the guide on the scale.
25. If adjustment is needed, the slotted holes and hexagon washer head bolts allow for minor adjustments.

Procedure to Use When Adhesive-Backed Scale is Not In Place

1. Check angle calibration of all blades and adjust if needed. Instructions can be found in the equipment manual.

2. Use Scale A (PN563064) for quadrants #2 and #4 . Scale B (PN563065) is for quadrants #1, #3, and #5.

3. Move each quadrant to 45º, per the touch screen. This position will allow you to reach the location of the bolts in the slides with the least difficulty. Newer saws already have holes pre-drilled into the slide for the bolts holding the polycarbonate scales; older models do not.

4. Turn off, lockout and tagout all power to the saw and monitor.

5. If necessary, remove the fan covers (See Figure 1) with a 5/16” socket, to allow easy access to each slide.

6. Place a polycarbonate scale against a corresponding slide, with the pointer at exactly 45º.

7. If holes already exist in the slides, proceed to step #21. If holes were not pre-drilled at the factory, continue with step #7.

8. Tape each scale in place with duct tape.

9. Turn the power back on. Move each quadrant angle up and down, comparing the angle indicated by the touch screen to that indicated by the pointer on the scale.

10. If a scale must be adjusted, turn off and lockout and tagout all power to the saw. Repeat steps #5–#8 until each angle is in the proper position.

11. When satisfied with the accuracy of the full range on all five scales, move the quadrant back to the positions indicated in step #2.

12. Turn off, lockout and tagout all power to the saw and monitor.

13. Locate and mark the following two points:
    - The center of the slotted hole near the 0º (red scale) line.
    - The center of the slotted hole near the 60º (red scale) line.

14. Using a center punch, punch the holes marked in step #12 to prevent the drill from walking.

15. Set the drill stop on the 1/8” drill bit (or apply tape) to limit the drill depth to 1/2”.

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Cont'd...Adhesive-Backed Scale is Not In Place

CAUTION
DRILLING COMPLETELY THROUGH THE SLIDE MAY DAMAGE THE SLIDE AND CAUSE PREMATURE FAILURE!

16. Drill a pilot hole 1/2" deep at each marked point with the 1/8" drill.

17. Set the drill stop on the #7 drill bit (or apply tape) to limit the drill depth to 1/2".

18. Drill 1/2" deep at each marked point with the #7 drill bit.

19. If a countersink is available, lightly countersink the drilled holes to provide a lead-in for the tap and screws.

20. Tap each hole 1/2" deep using the 1/4"-20 hand (bottom) tap.

21. Scrape off all residue and loose remnants of the old scale from each slide, and blow out the drilled holes with compressed air.

22. Wipe the slides with a rag dampened in mineral spirits or denatured alcohol to remove exposed adhesive.

23. Secure the proper scale to each quadrant using two 1/4"-20 x1/2" hexagon washer head bolts (PN310955) and a 3/8" socket.

24. Ensure all tools and material are removed from saw, replace fan covers, and turn on power to saw.