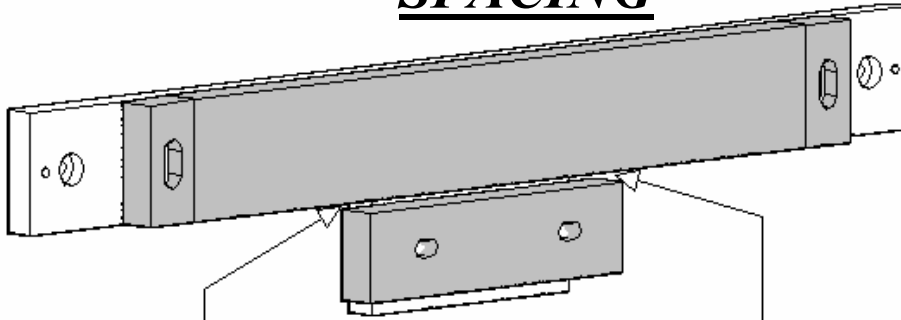


**** (SCREWS ARE SUPPLIED IN THE HARDWARE KIT TO MOUNT THE READER HEAD. THE METRIC SCREWS ARE NOT NECESSARY.) ****

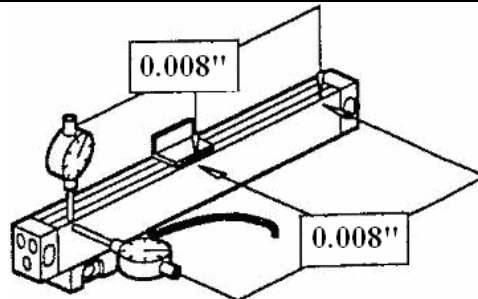
SPACING



For M Series scales, the spacing between the scale and the reader head MUST be 0.040 inches (1mm) \pm 0.02 inches (0.5mm)

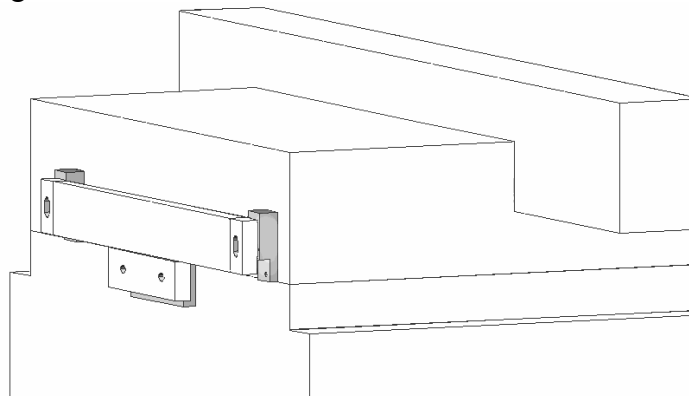
For C Series scales, the spacing between the scale and the reader head MUST be 0.060 inches (1.5mm) \pm 0.024 inches (0.6mm)

ALIGN THE SIDES OF THE SCALE by indicating the ends and the center.

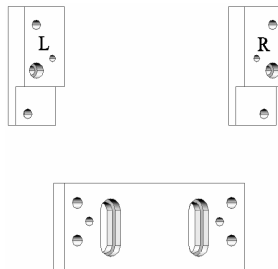


The following instructions are to be used with the instructions supplied with the scales.

1. Determine the best location for mounting the scale and the reader head on the side of the carriage. Check to make sure the machine still has full travel without over traveling the scale.

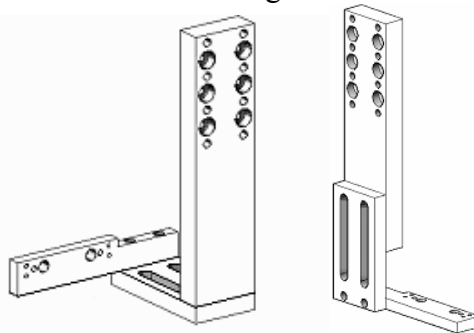


2. Mount the right and left scale base mounts to the carriage by tapping two holes for 10/32 SHCS. Mount the scale to the mounts. Adjust the scale parallel and square to the carriage travel per scale manual specifications for the scale alignment.

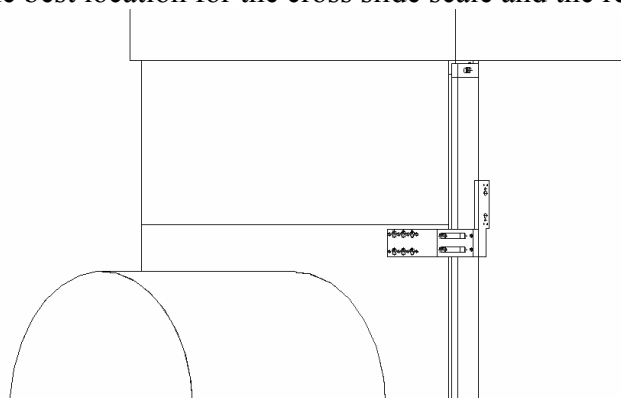


Note: May need spacers to offset reader head bracket.

3. Mount the reader head bracket to the carriage and set by shimming or by set screws. Adjust by using the scale manual for the reader head alignment.
4. Always carefully check for scale over travel.
5. Tie up cables properly so they won't be caught by the machine travel.
6. The reader head mounts using a 3-piece bracket assembly. Vertical bracket and horizontal bracket may be shortened simply by sawing to desired length. Reader head bracket may be off set right or left. Make any modifications needed to the bracket assembly and then install the assembly by using the scale manual specifications for the reader head alignment.



7. Determine the best location for the cross slide scale and the reader head.



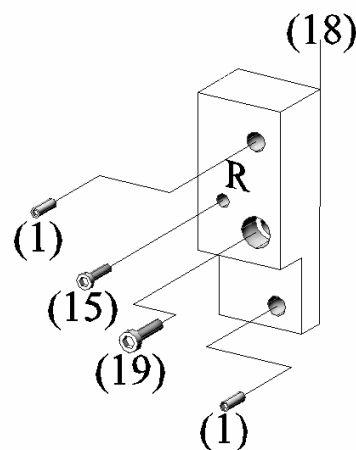
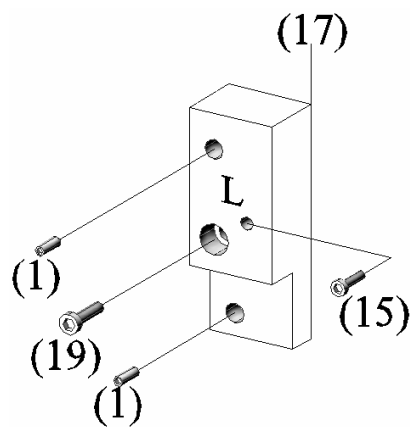
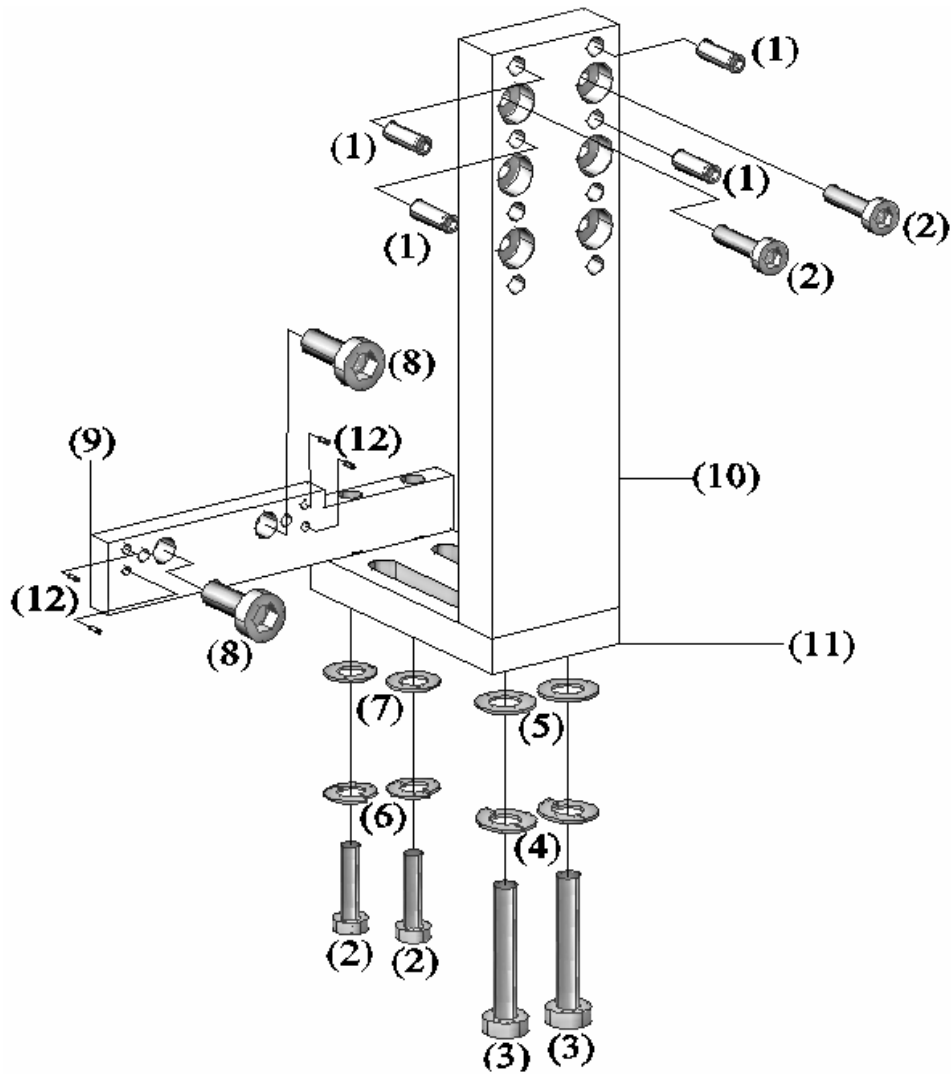


Grinder Kit Installation Instructions

8. Mount the right and left scale base mounts to the cross slide by tapping two holes for 10/32 SHCS, and then install the scale parallel and square to the cross slide travel, per the scale manual specifications for the reader head alignment.
9. Mount the reader head to the bracket and set by shimming or by set screws.
Adjust using the scale manual specifications for the reader head alignment.
10. Always carefully check for scale over travel.
11. Tie up cables properly so they won't be caught by the machine travel.

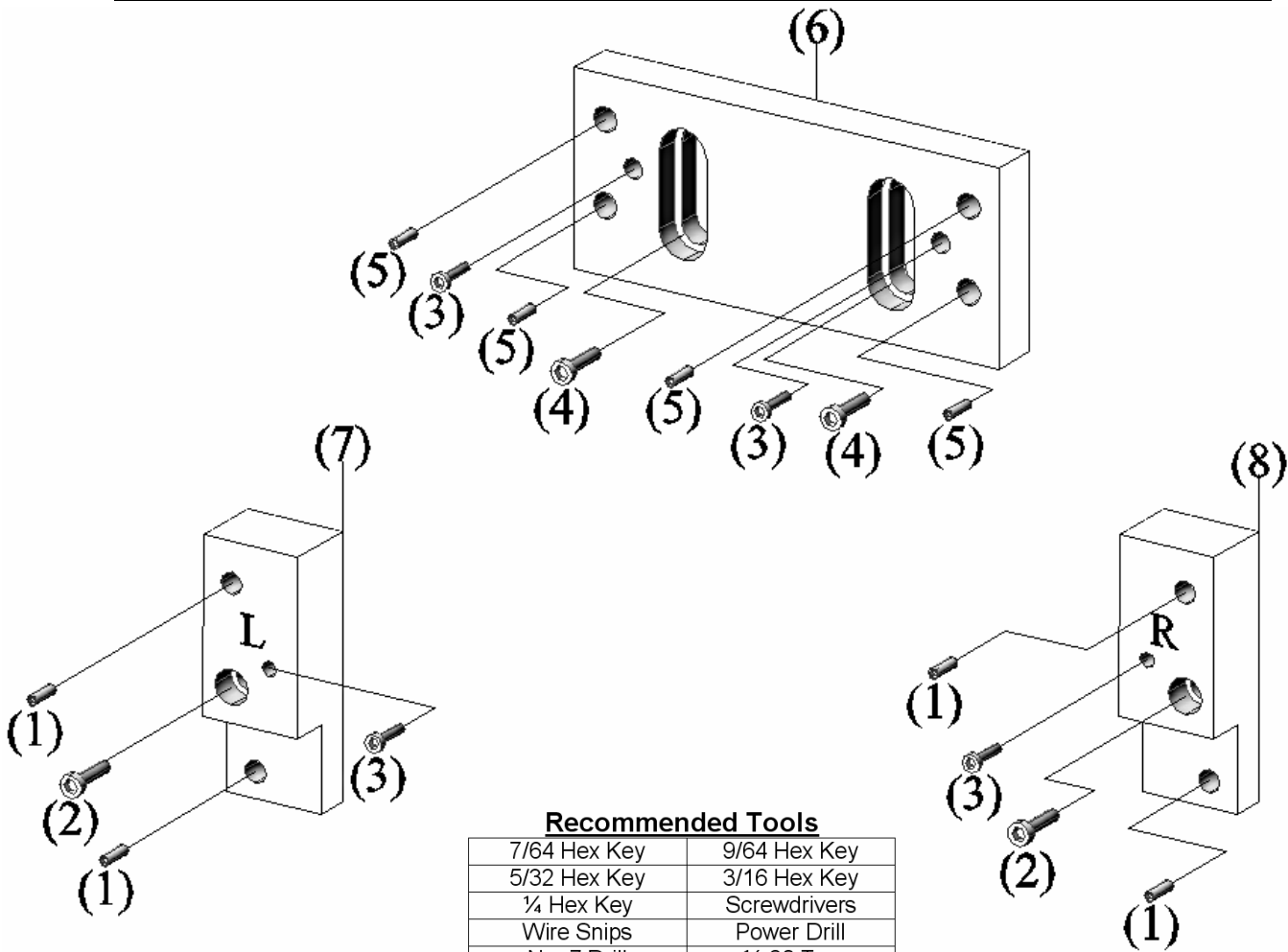
Brackets and Hardware

Code #	Quantity	Size	Description
1	8	¼-20 x ¾	S.S.S.
2	4	¼-20 x 1	S.H.C.S.
3	2	5/16-18 x 1 ½	S.H.C.S.
4	2	5/16-18	LOCK WASHER
5	2	5/16-18	FLAT WASHER
6	2	¼-20	LOCK WASHER
7	2	¼-20	FLAT WASHER
8	2	M8 – 1.25mm x 40mm	S.H.C.S.
9	1	-	READER HEAD BRACKET
10	1	-	LONG VERTICAL BRACKET
11	1	-	LONG HORIZONTAL BRACKET
12	4	6-32 x 3/8	S.S.S.
13	4	¼-20 x ¾	S.H.C.S.
14	2	3/8-16 x 1 ½	S.H.C.S.
15	2	8/32 x 1	S.H.C.S.
16	2	¼-20 x 3/8	S.S.S.
17	1	-	LEFT SCALE BASE MOUNT
18	1	-	RIGHT SCALE BASE MOUNT
19	2	10/32 x 1	S.H.C.S.
-	2	1"	SPACERS
-	10	6"	CABLE TIES
-	2	11"	CABLE TIES
-	2	3/8	CABLE CLAMPS
-	2	8-32 X 1 1/8	S.H.C.S. FOR OPTIONAL READER HEADS
-	2	8-32 X ¼	S.H.C.S. FOR CABLE CLAMPS
-	2	5/16-18 X 1 ¼	S.H.C.S.
-	2	10/32 X ¾	B.H.C.S. FOR OPTIONAL READER HEADS
-	2	8-32	NYLOCK NUTS
-	2	8-32	FLAT WASHERS



Crossslide Hardware

Code #	Quantity	Size	Description
1	4	¼-20 x ¾	S.S.
2	2	10-32 x 1	S.H.C.S.
3	4	8-32 x 1	S.H.C.S.
4	2	10-32 x 5/8	S.H.C.S.
5	4	10-32 x ½	S.S.
6	1	-	READER HEAD BRACKET
7	1	-	LEFT SCALE BASE MOUNT
8	1	-	RIGHT SCALE BASE MOUNT



Recommended Tools

7/64 Hex Key	9/64 Hex Key
5/32 Hex Key	3/16 Hex Key
¼ Hex Key	Screwdrivers
Wire Snips	Power Drill
No. 7 Drill	¼-20 Tap
No. 29 Drill	8-32 Tap
No. 21 Drill	10-32 Tap
F Drill	5/16-18 Tap
Indicator with Base	6mm Hex Key
3mm Hex Key	1.5mm Hex Key

TROUBLESHOOTING: Scale does not count. Verify spacing and alignment.