

2112

Hanging Scale

Service Manual

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METTLER TOLEDO

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INTRODUCTION

This publication is provided solely as a guide for individuals who have received Technical Training in servicing the METTLER TOLEDO product.

Information regarding METTLER TOLEDO Technical Training may be obtained by writing, calling, or faxing to:

METTLER TOLEDO

1150 Dearborn Drive

Worthington, Ohio 43085-6712

ph: (614) 438-4400

fax: (614) 438-4444

**METTLER TOLEDO RESERVES THE RIGHT TO MAKE REFINEMENTS OR
CHANGES WITHOUT NOTICE.**

PRECAUTIONS

READ this manual BEFORE operating or servicing this equipment.



WARNING

ONLY PERMIT QUALIFIED PERSONNEL TO SERVICE THIS EQUIPMENT.

FOLLOW these instructions carefully.



WARNING

DO NOT ALLOW UNTRAINED PERSONNEL TO OPERATE, CLEAN, INSPECT, MAINTAIN, SERVICE, OR TAMPER WITH THIS EQUIPMENT.

SAVE this manual for future reference.

DO NOT allow untrained personnel to operate, clean, inspect, maintain, service, or tamper with this equipment.

CALL METTLER TOLEDO for parts, information, and service.

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Specifications

General Description

The Model 2112 Retail Hanging Scale uses two coil springs as the counterbalancing force. The oscillation of the indicator is controlled by an air cylinder type dashpot.

A 10 lb. x 1 oz. chart is standard and its 30 lb. total capacity is obtained by three complete revolutions of the indicator. Indications for 10 and 20 pounds appear below the chart housing and are exposed after the first and second revolution of the indicator, respectively.

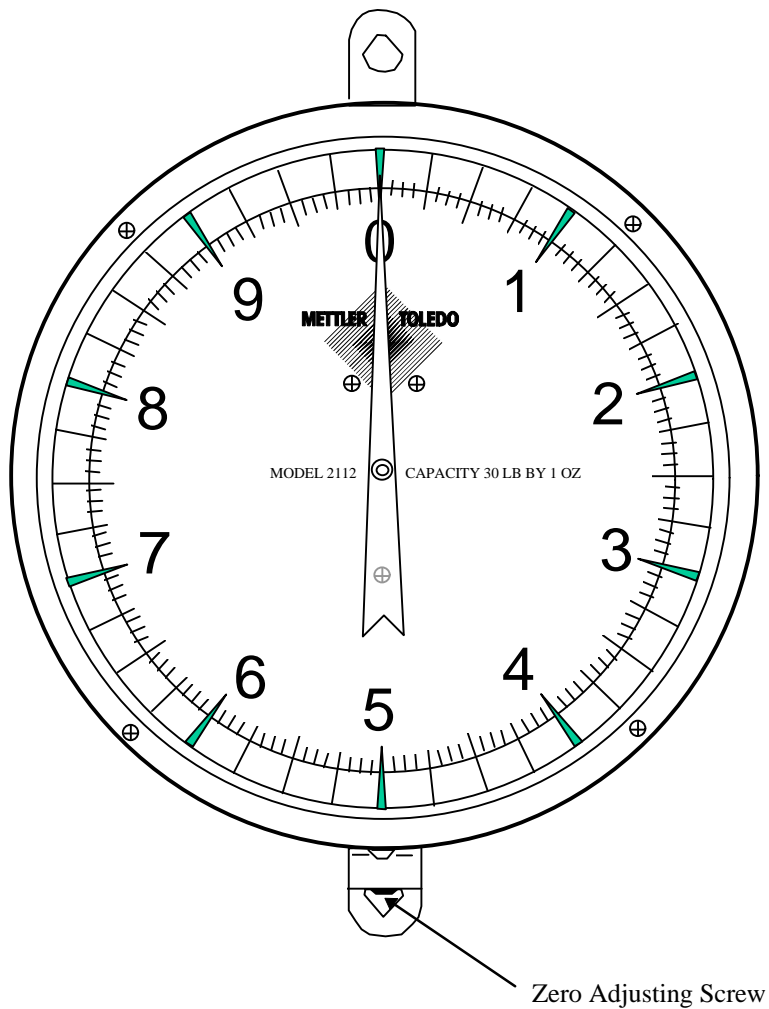


Figure 1-a

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Setup

Unpacking

1. Place box, top side up, on a table or bench.
2. Open the box by cutting the sealing tape down the middle of the box.
3. Remove the upper foam packing
4. Remove the pan, pan bail, and the pan support ring.
5. Remove the center foam packing.
6. Remove the scale.

Installation

1. Assemble pan bail (1) and pan support ring (2) as shown in figure 2-a.

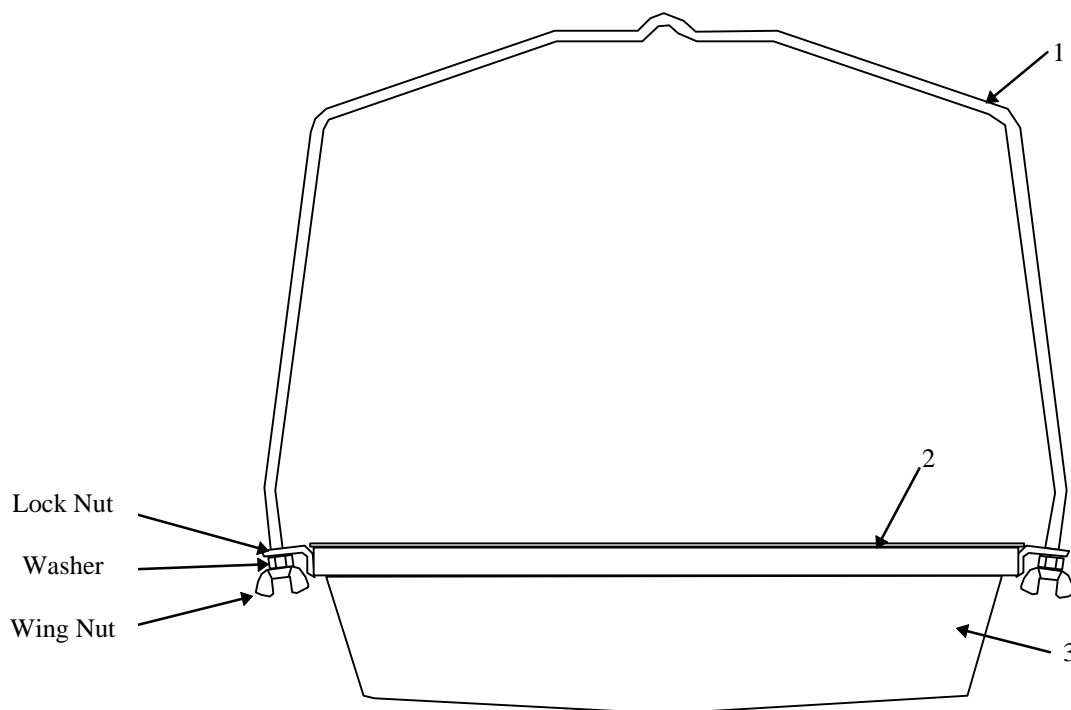


Figure 2-a

2. With the scale suspended properly, attach the pan bail and ring assembly to the scale.
3. Place pan (3) on the support ring.

3

Testing and Adjusting

1. After hanging scale in desired position depress the pan to the full capacity of the scale several times to align the inner mechanism of the scale.
2. Adjust the indicator to zero graduation on the chart by turning the zero adjustment screw, Figure 3-a. Depress the pan several times and recheck the zero indication. Always depress the commodity pan to full capacity and recheck zero after adjusting zero screw.

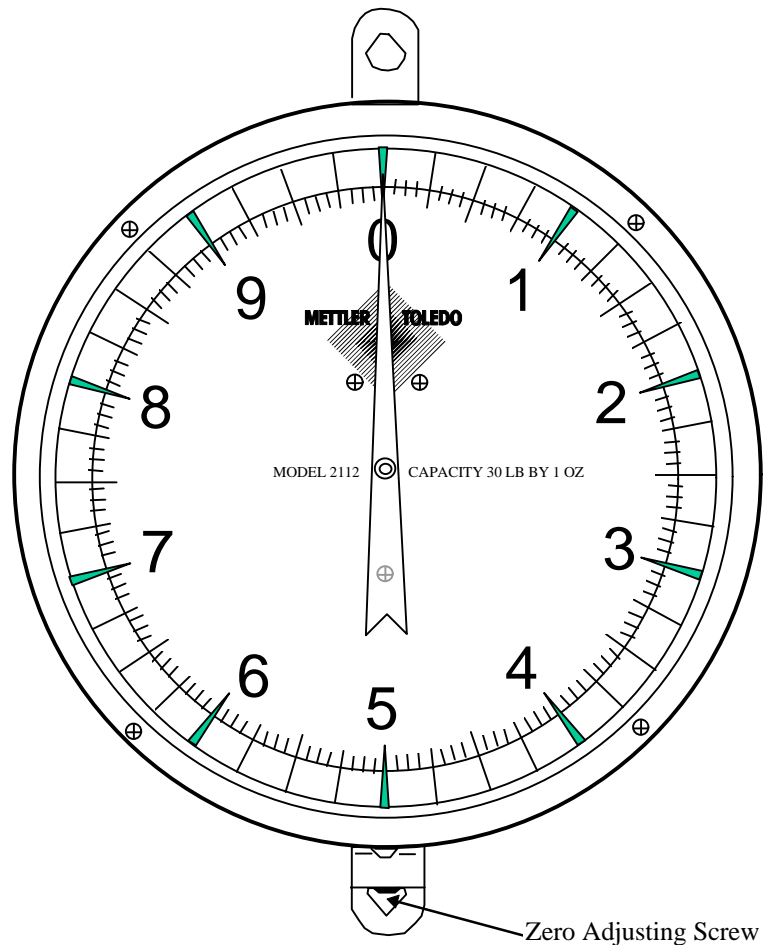


Figure 3-a

3. Check the scale for weighing accuracy pound by pound to full capacity.
4. If the indication is not correct, within one division, at any point throughout the scale capacity, proceed as outlined under calibration

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Note: Glass is not fastened to either trimming or housing.

Note: The front of the scale is the side with the clockwise chart and the back of the scale is the side with the counterclockwise chart.

Calibration

1. Place the scale on a clean flat working surface and remove both trim rings and glass by removing eight housing screws and four rod supports (Figure 4-a).
2. Note the location of the back indicator. Remove the retaining nut and washer. Remove the indicator, taking care not to bend it.
3. Remove three screws holding back chart to frame. Remove chart to expose inner mechanics of the scale (Figure 4-a).

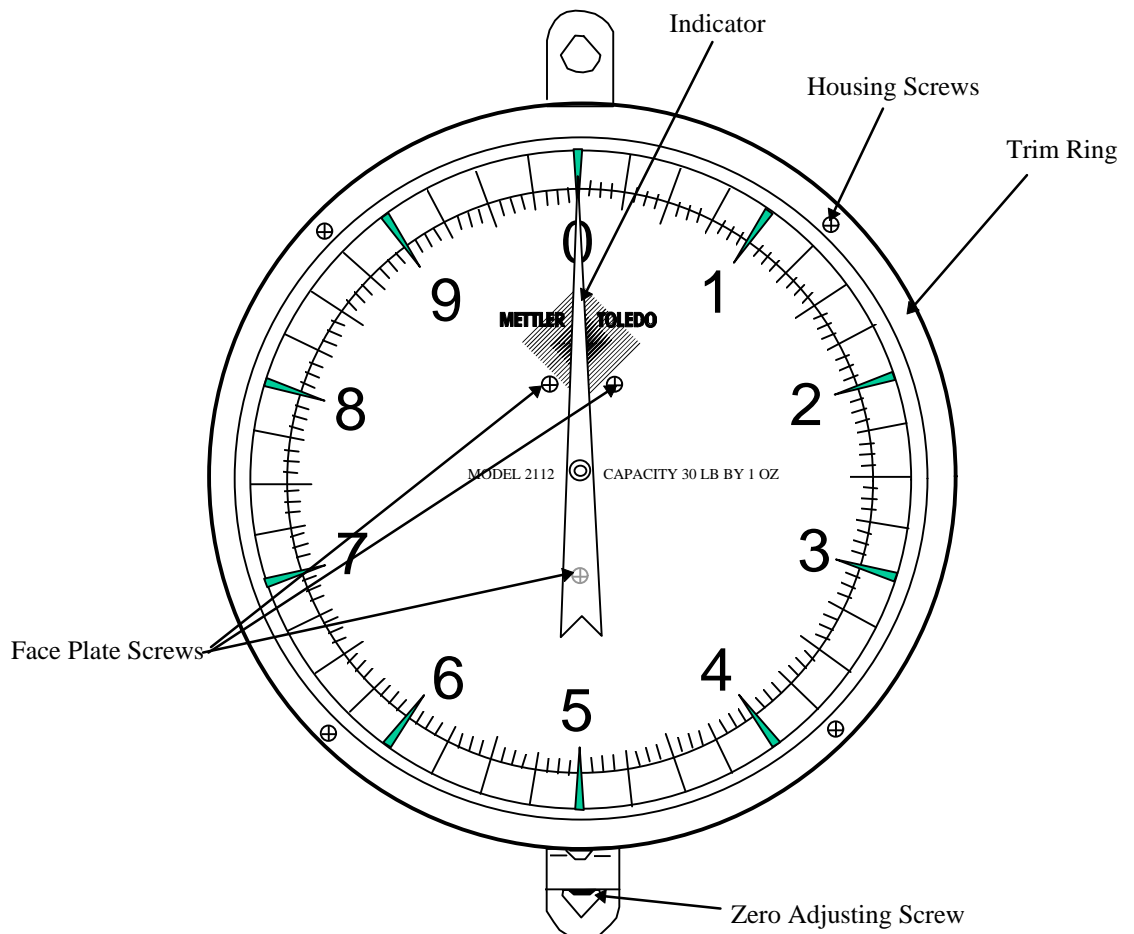


Figure 4-a

Note: Attach a 7R vise grip to the center of the channel as a counterweight during calibration. (See Figure 5b)

Note: Refer to Figure 4-c for location of calibrators.

4. Reposition the scale in the desired hanging position and reconnect the pan assembly.
5. Adjust the scale to zero with the zero calibration screw with no weight applied.
6. Apply a 30 lb. load to the scale.

Note: Always adjust both calibrators the same distance.

7. If the weight indication is over the applied load turn the calibrators within the spring so the calibrators move toward the top of the scale. Use a screw driver as shown in Figure 4-b. If the weight indication is low, turn the calibrators the opposite way.

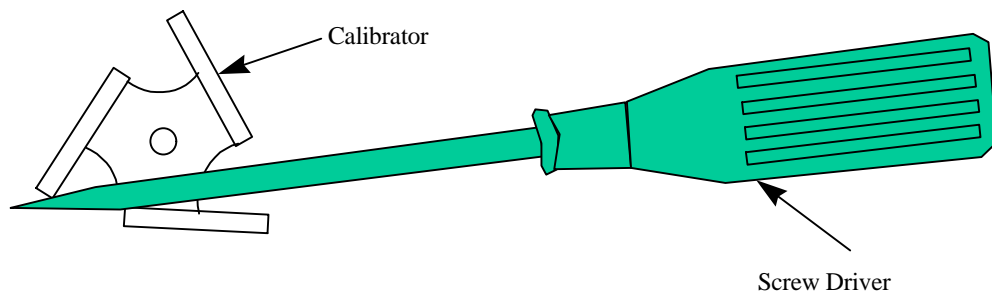


Figure 4-b

8. Remove the load and adjust the scale to zero with the zero calibration screw.
9. Reapply the load and check the weight indication. If it is not correct, go back to step 7.

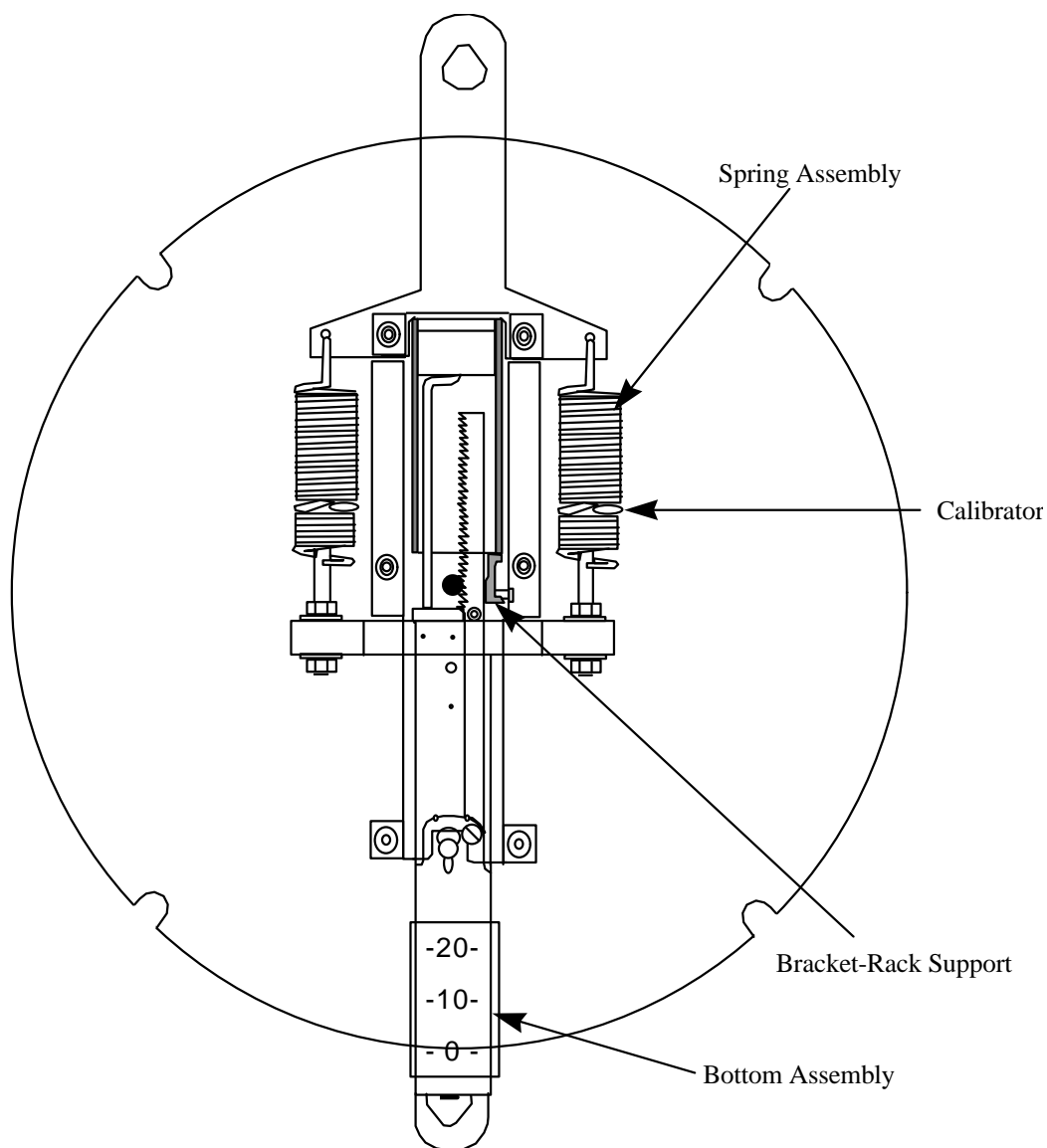


Figure 4-c

Figure 4-d

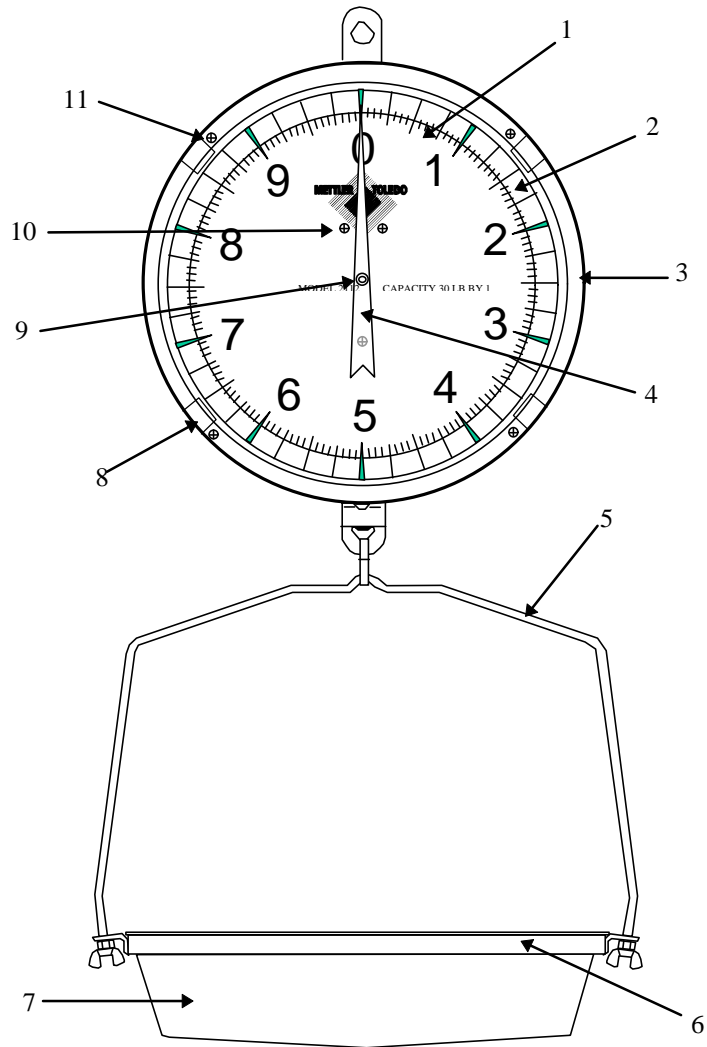
Note: Be sure both indicators are at the same point.

10. After scale is weighing correctly, proceed as follows:

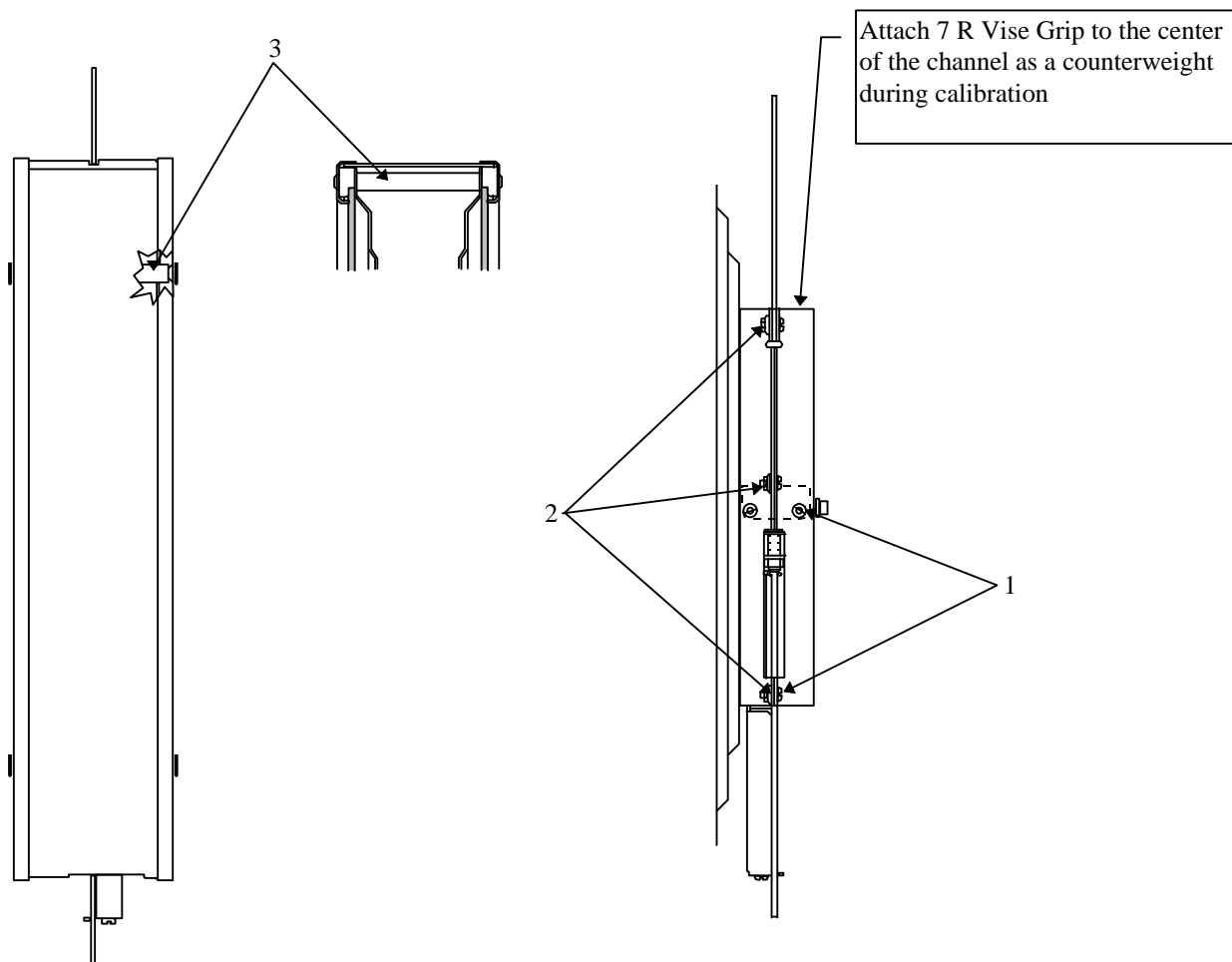
- a) Reassemble the back chart to the housing, aligning the three center screw holes and installing the screws.
- b) Reinstall indicator with washer and nut.
- c) Place scale on flat surface and reassemble the trim rings and glass. Be sure to insert four support post and all eight screws to secure housing.
- d) Reposition scale in the hanging position and attach pan assembly.
- e) Scale is now ready for operation.

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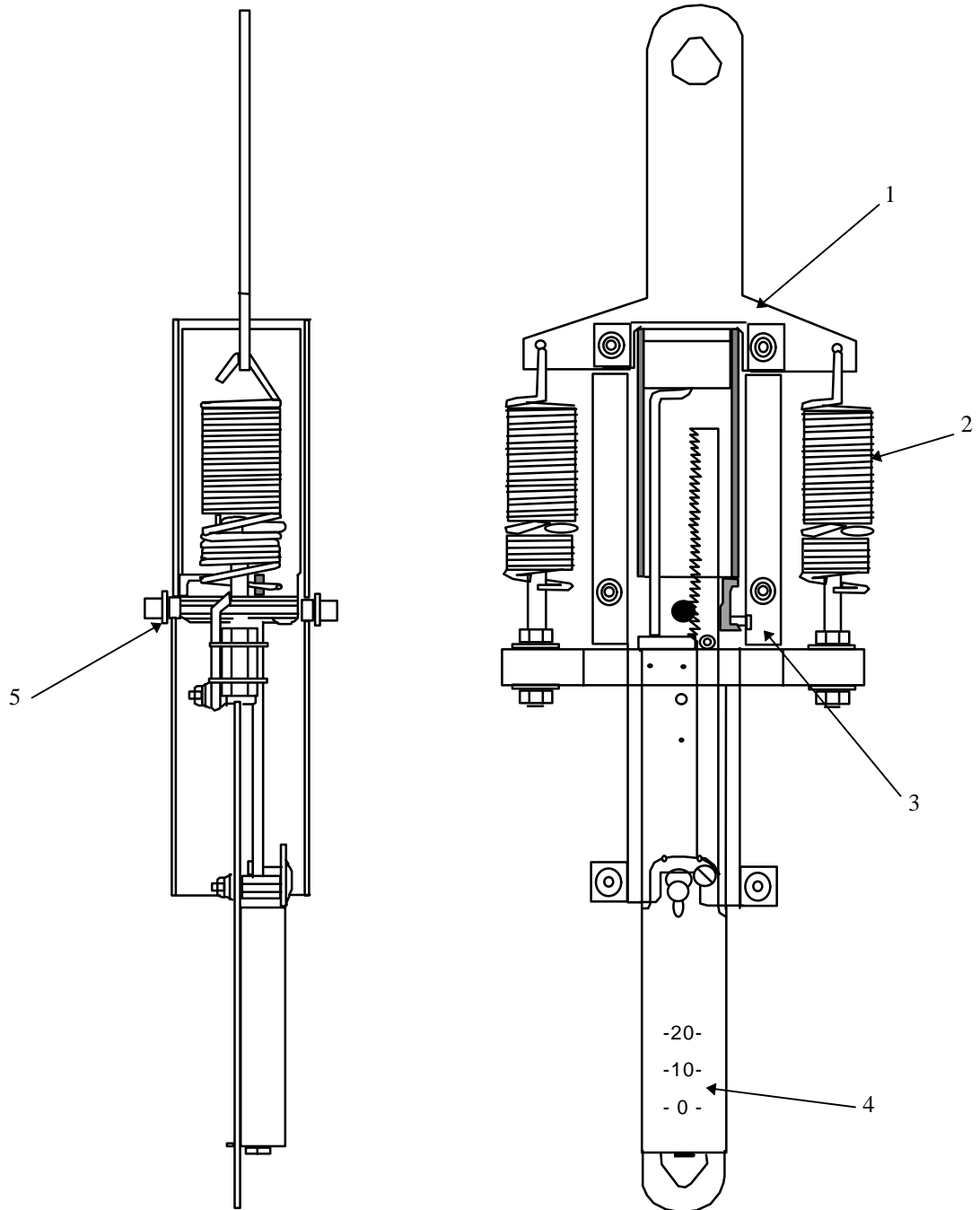
Parts



Ref. No.	Part Number	Description	Qty.
1	82615000A	Chart - 10 lb Clockwise	1
	82615100A	Chart - 10 lb Counterclockwise	
	82627200A	Chart - 15 kg Clockwise	
	82627300A	Chart - 15 kg Counterclockwise	
2	032136020	Glass	2
3	82619400A	Trim Ring	2
4	03213341R	Indicator	1
5	032108050	Bail Assembly	1
6	032102050	Ring - Pan Support	1
7	032104250	Pan	1
8	82627700A	Gasket	8
9	039709020	Nut - Indicator	1
10	82673600A	Screw #6-32 x 3/8	3
11	82809900A	Screw #10-24 x 1/4	8



Ref. No.	Part Number	Description	Qty.
1	R0508400A	Screw - #8-32 x 3/8	5
2	82625700A	Nut - #8-32 Whiz Lock	6
3	82809700A	Rod - Support	4



Ref. No.	Part Number	Description	Qty.
1	82768500A	Spring Support	1
2	82603900A	Weighing Spring Assembly	2
3	82605600A	Bracket - Rack Support	1
4	82870000A	2112 Scale Mechanism (lb)	1
	82873600A	2112 Scale Mechanism (kg)	
5	003190130	Washer	1

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