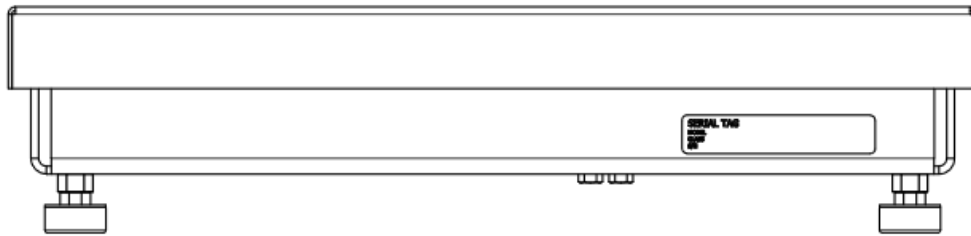




# **5100 Series Bench Scale Platforms Model PLB - 5100**



# **Amendment Record**

## **5100 SERIES Bench Scale Platforms Service / Installation Manual**

**Document 51540**

Manufactured by Fairbanks Scales Inc.

<b>Revision #</b>	<b>Date</b>	<b>Update</b>
Revision 1	04/21	Document release
Revision 2	08/21	Installation: Updated Wiring instructions

## **Disclaimer**

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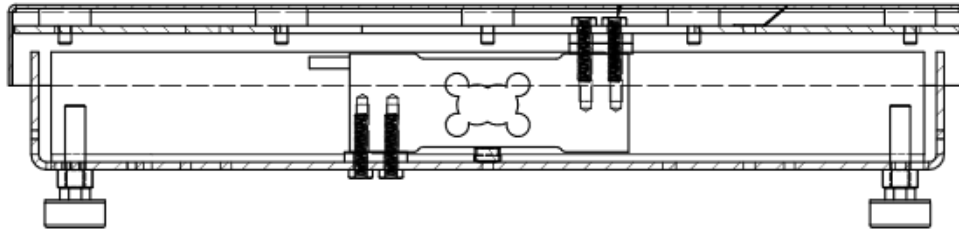
## Section 1: Introduction & Description

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The 5100 Series analog platforms are constructed of mild steel with a black powder coat paint. There is a wide variety of application uses. These bench scales are designed for general purpose, industrial applications and warehousing because of their ruggedness and durable construction.

Certifications include:

- NTEP CC: 21 - 033
- MC: AM-6172



## Section 2: Technical Specifications

Part Number	Platform Size	Capacity (lb)	Division Size			
			lb	oz	kg	g
38228	12" x 12"	25	25 x 0.01	400 x 0.2	11.3 x 0.005	11350 x 5
38174	12" x 12"	50	50 x 0.02	800 x 0.5	22.7 x 0.01	22700 x 10
38179	12" x 16"	50	50 x 0.02	800 x 0.5	22.7 x 0.01	22700 x 10
38188	12" x 16"	100	100 x 0.05	1600 x 1	45.4 x 0.02	45400 x 20
38229	15" x 15"	50	50 x 0.02	800 x 0.5	22.7 x 0.01	22700 x 10
38199	15" x 15"	100	100 x 0.05	1600 x 1	45.4 x 0.02	45400 x 20
38205	16" x 18"	100	100 x 0.05	1600 x 1	45.4 x 0.02	45400 x 20
38183	18" x 18"	100	100 x 0.05	1600 x 1	45.4 x 0.02	45400 x 20
38222	18" x 18"	250	250 x 0.1	4000 x 2	113 x 0.05	113500 x 50
38224	18" x 18"	500	500 x 0.2	8000 x 5	227 x 0.1	227000 x 100
38195	18" x 24"	100	100 x 0.05	1600 x 1	45.4 x 0.02	45400 x 20
38225	18" x 24"	250	250 x 0.1	4000 x 2	113 x 0.05	113500 x 50
38226	18" x 24"	500	500 x 0.2	8000 x 5	227 x 0.1	227000 x 100
38190	24" x 24"	100	100 x 0.05	1600 x 1	45.4 x 0.02	45400 x 20
38213	24" x 24"	250	250 x 0.1	4000 x 2	113 x 0.05	113500 x 50
38215	24" x 24"	500	500 x 0.2	8000 x 5	227 x 0.1	227000 x 100

---

## Section 3: Installation

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The platforms are shipped ready to interface to an analog instrument. Refer to the table below for wiring color codes.

1. Place the platform where it will be used.
2. Level the platform using the feet.
3. Connect the interface cable to the instrument. The load cell interface cable is identified as follows:

### Platform Wiring

Platform Size	+ Excitation	- Excitation	+ Signal	- Signal
<ul style="list-style-type: none"><li>• 12" x 12"</li><li>• 12" x 16"</li><li>• 15" x 15"</li><li>• 16" x 18"</li><li>• 18" x 18"</li><li>• 18" x 24"</li><li>• 24" x 24"</li></ul>	<b>Red</b>	<b>Black</b>	<b>Green</b>	<i>White</i>

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# Section 4: Parts Replacement


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## 4.1. LOAD CELL REPLACEMENT

### Tools required:

- Open-end wrench
- Side cutter
- Torque wrench

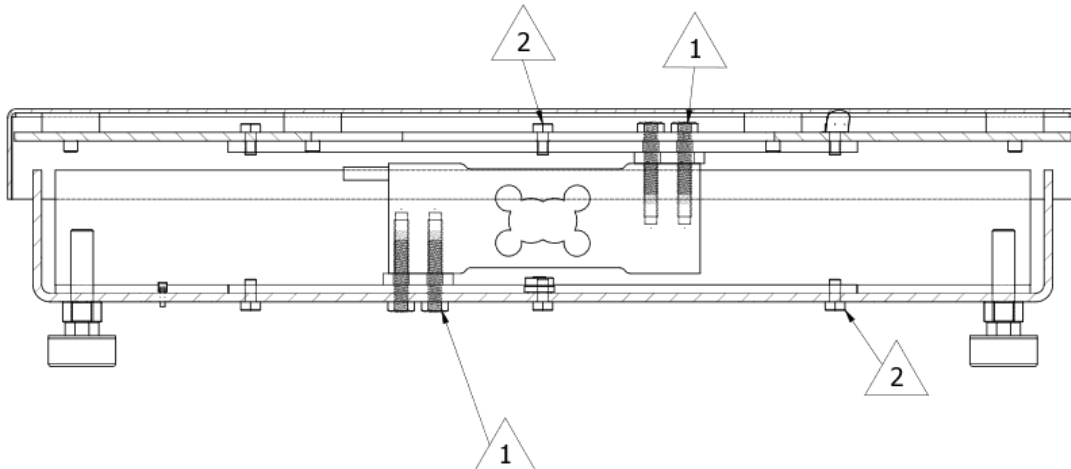
### Procedure:

1. Disconnect the instrument from the power supply.
2. Place the platform upright without the cover.
3. Remove the bolts holding the load cell and spacer in place.
4. Remove the load cell and cable **and note the cell and cable placement!**
5. Install the new load cell and the spacer(s).
6. Tighten the load cell mounting bolts to 150 INCH/LBS of torque. (See  *in drawing below*)

For the **24" x 24" platform (only)**, tighten Support Plate Bolts to 120

INCH/LBS of torque. (See  *in drawing below*)

7. Route the load cell cable exactly as the original cable and plug in the connector.
8. Calibrate the instrument.





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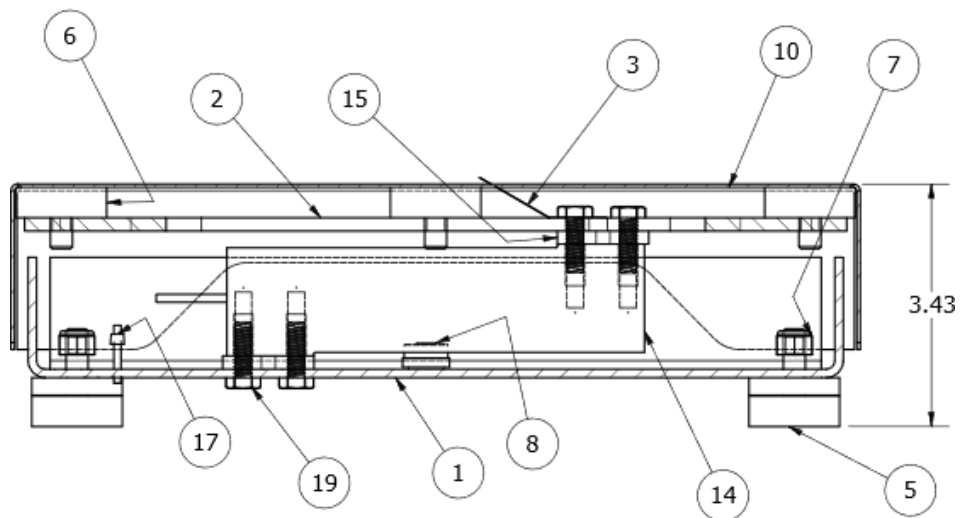
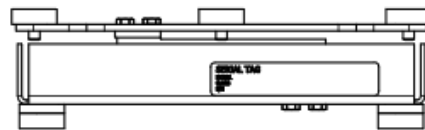
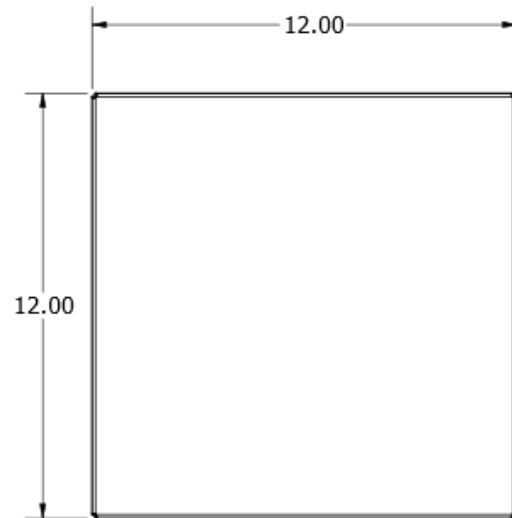
## **Section 5: Parts - 12" x 12" Platforms**

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### **5.1. P/N 38228 (25 LB. CAPACITY) - PARTS LIST**

<b>Item</b>	<b>Qty</b>	<b>Part No.</b>	<b>Description</b>
1	1	38176	Base, Platform, 12" x 12", MS
2	1	38175	Spider, Platform, 12 x 12, MS
3	1	24406	Clip, Ground
5	4	12777	Foot-125 x 43 x 138-m12777
6	6	14233	Foot-125 x 43 x 87-m14233
7	4	22963	Stop nut, M8, SS
8	1	11039	Bubble Level
10	1	23977	Cover, Platform, 12 x 12
14	1	38227	Load Cell, 10 KG
15	2	38178	Shim, for Cell, .185 thickness
17	1	17613	Tie, Wire, 4"
19	4	32518	Bolt, Hex Head M6-1x20mm, 304 SS

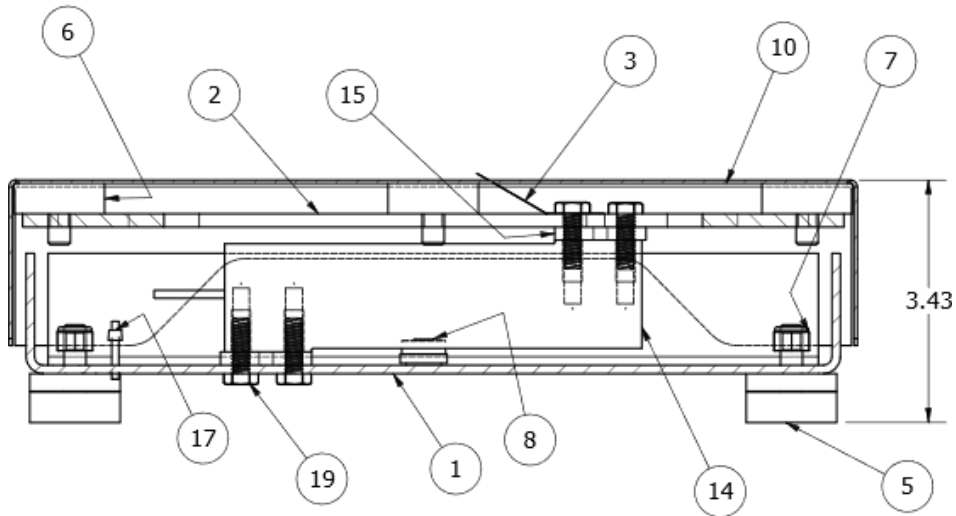
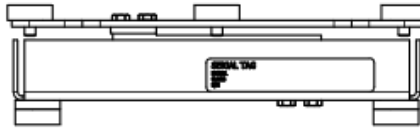
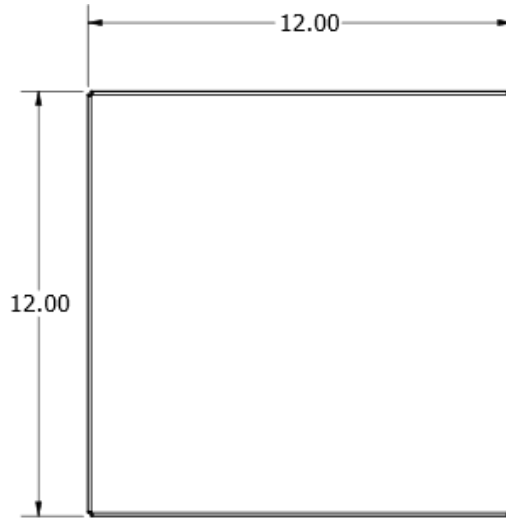
## 5.2. P/N 38228 (25 LB. CAPACITY) - PARTS DIAGRAM



### 5.3. P/N 38174 (50 LB. CAPACITY) - PARTS LIST

Item	Qty	Part No.	Description
1	1	38176	Base, Platform, 12" x 12", MS
2	1	38175	Spider, Platform, 12 x 12, MS
3	1	24406	Clip, Ground
5	4	12777	Foot-125 x 43 x 138-m12777
6	6	14233	Foot-125 x 43 x 87-m14233
7	4	22963	Stop nut, M8, SS
8	1	11039	Bubble Level
10	1	23977	Cover, Platform, 12 x 12
14	1	38227	Load Cell, 10 KG
15	2	38178	Shim, for Cell, .185 thickness
17	1	17613	Tie, Wire, 4"
19	4	32518	Bolt, Hex Head M6-1x20mm, 304 SS

### 5.4. P/N 38174 (50 LB. CAPACITY) – PARTS DIAGRAM



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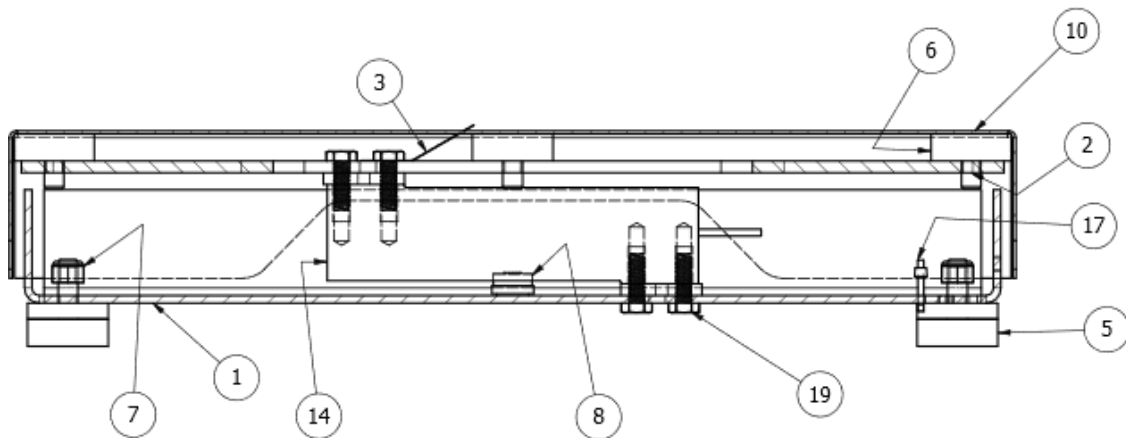
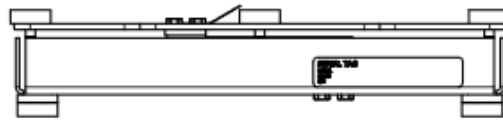
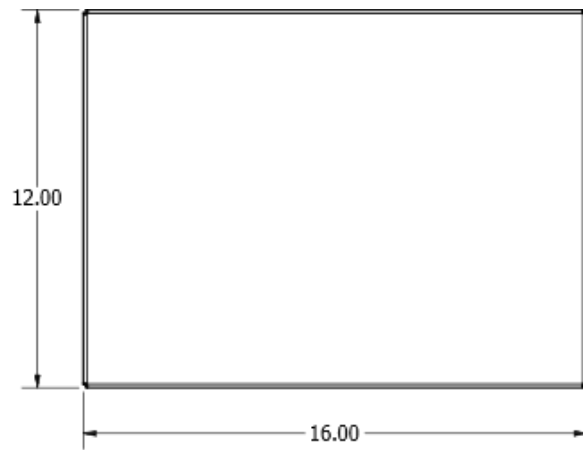
## **Section 6: Parts - 12" x 16" Platforms**

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### **6.1. P/N 38179 (50 LB CAPACITY) – PARTS LIST**

<b>Item</b>	<b>Qty</b>	<b>Part No.</b>	<b>Description</b>
1	1	38180	Base, Platform, 12" x 16", MS
2	1	38182	Spider, Platform, 12 x 16, MS
3	1	24406	Clip, Ground
5	4	12777	Foot-125 x 43 x 138-m12777
6	6	14233	Foot-125 x 43 x 87-m14233
7	4	22963	Stop nut, M8, SS
8	1	11039	Bubble Level
10	1	38181	Cover, Platform, 12 x 16
14	1	38177	Load Cell, 20 KG
15	2	38178	Shim, for Cell, .185 thickness
17	1	17613	Tie, Wire, 4"
19	4	32518	Bolt, Hex Head M6-1x20mm, 304 SS

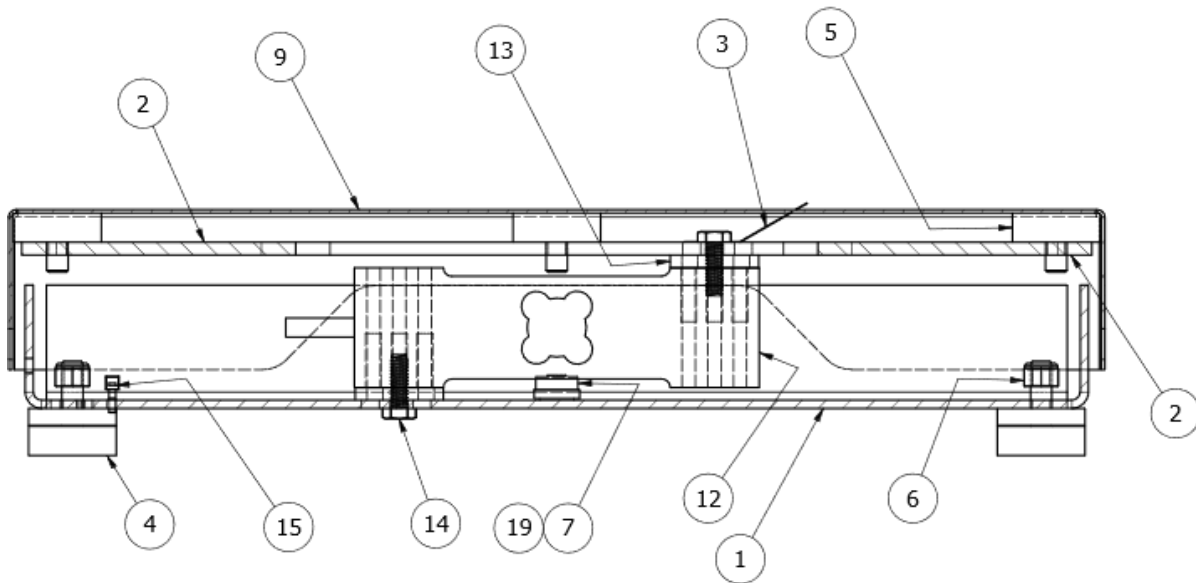
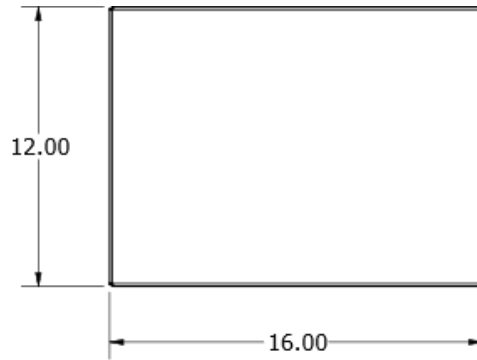
## 6.2. P/N 38179 (50 LB CAPACITY) – PARTS DIAGRAM



### 6.3. P/N 38188 (100 LB CAPACITY) – PARTS LIST

Item	Qty	Part No.	Description
1	1	38180	Base, Platform, 12" x 16", MS
2	1	38182	Spider, Platform, 12 x 16, MS
3	1	24406	Clip, Ground
4	4	12777	Foot-125 x 43 x 138-m12777
5	6	14233	Foot-125 x 43 x 87-m14233
6	4	22963	Stop Nut, M8, SS
7	1	11039	Bubble Level
9	1	38181	Cover, Platform, 12 x 16
12	1	38189	Load Cell, 50 KG
13	2	38178	Shim, for Cell, .185 thickness
14	4	32518	Bolt, Hex Head M6-1x20mm, 304 SS
15	1	17613	Tie, Wire, 4"

## 6.4. P/N 38188 (100 LB CAPACITY) – PARTS DIAGRAM





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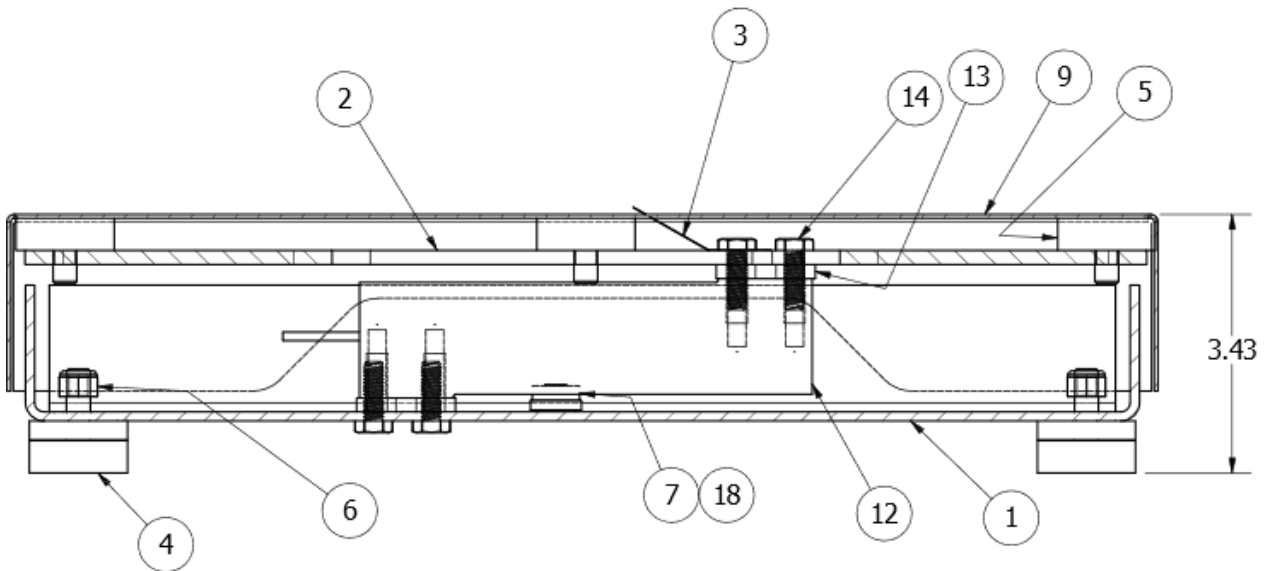
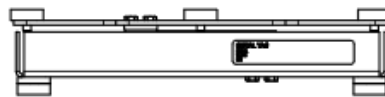
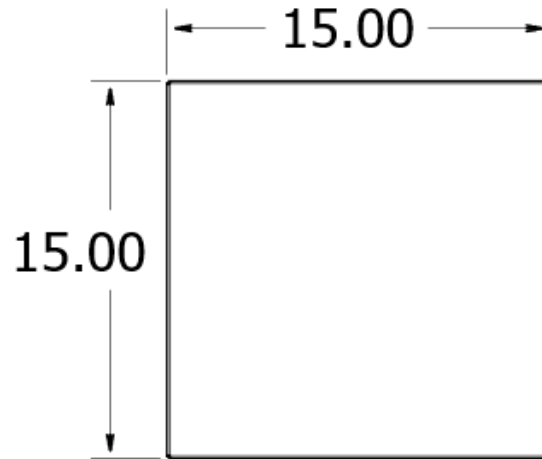
## **Section 7: Parts - 15" x 15" Platforms**

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### **7.1. P/N 38229 (50 LB CAPACITY) – PARTS LIST**

<b>Item</b>	<b>Qty.</b>	<b>Part No.</b>	<b>Description</b>
1	1	38201	Base, Platform, 15" x 15", MS
2	1	38202	Spider, Platform, 15 x 15, MS
3	1	24406	Clip, Ground
4	4	12777	Foot-125 x 43 x 138-m12777
5	6	14233	Foot-125 x 43 x 87-m14233
6	4	22963	Stop Nut, M8, SS
7	1	11039	Bubble Level
9	1	38200	Cover, Platform, 15 x 15
12	1	38177	Load Cell, 20 KG
13	2	38178	Shim, for Cell, .185 thickness
14	4	32518	Bolt, Hex Head M6-1x20mm, 304 SS

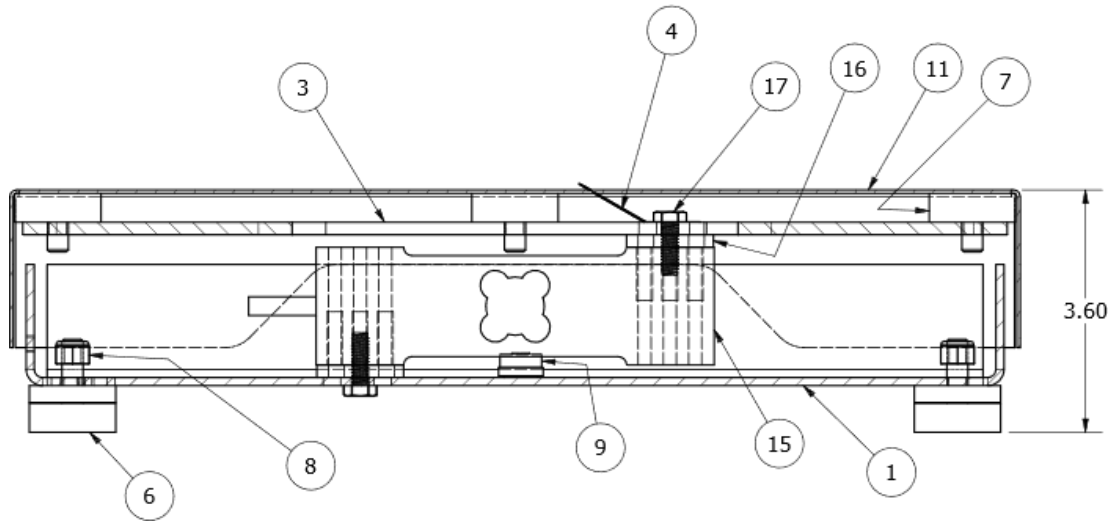
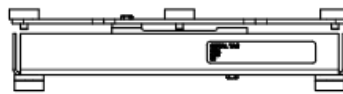
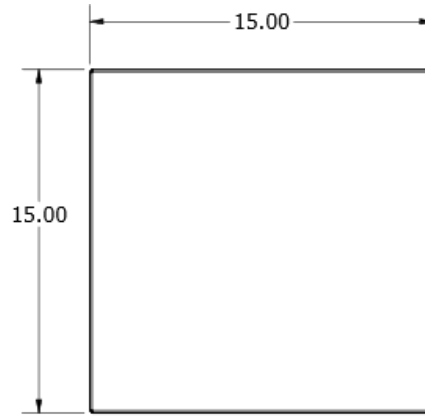
## 7.2. P/N 38229 (50 LB CAPACITY) – PARTS DIAGRAM



### 7.3. P/N 38199 (100 LB CAPACITY) – PARTS LIST

Item	Qty.	Part No.	Description
1	1	38201	Base, Platform, 15" x 15", MS
3	1	38202	Spider, Platform, 15 x 15, MS
4	1	24406	Clip, Ground
6	4	12777	Foot-125 x 43 x 138-m12777
7	6	14233	Foot-125 x 43 x 87-m14233
8	4	22963	Stop Nut, M8, SS
9	1	11039	Bubble Level
11	1	38200	Cover, Platform, 15 x 15
15	1	38189	Load Cell, 50 KG
16	2	38178	Shim, for Cell, .185 thickness
17	4	32518	Bolt, Hex Head M6-1x20mm, 304 SS

### 7.4. P/N 38199 (100 LB CAPACITY) – PARTS DIAGRAM



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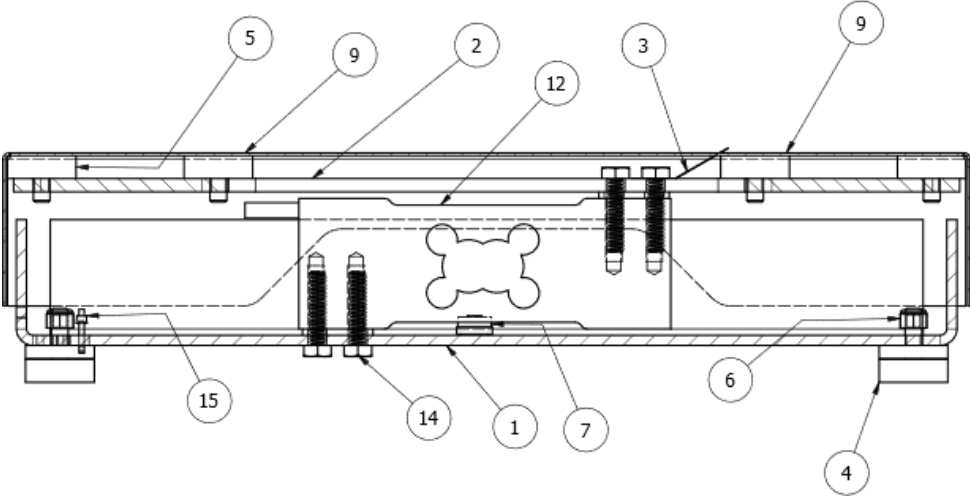
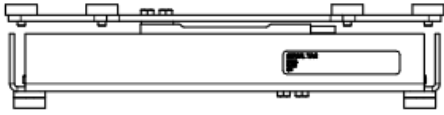
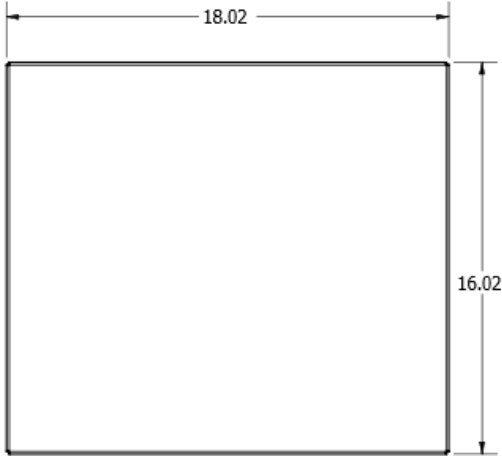
## **Section 8: Parts - 16" x 18" Platforms**

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### **8.1. P/N 38205 (100 LB. CAPACITY) – PARTS LIST**

<b>Item</b>	<b>Qty.</b>	<b>Part No.</b>	<b>Description</b>
1	1	38206	Base, Platform, 16" x 18", MS
2	1	38207	Spider, Platform, 16 x 18, MS
3	1	24406	Clip, Ground
4	4	12777	Foot-125 x 43 x 138-m12777
5	6	14233	Foot-125 x 43 x 87-m14233
6	4	22963	Stop Nut, M8, SS
7	1	11039	Bubble Level – 11039
9	1	38208	Cover, Platform, 16 x 18
12	1	38240	Load Cell, 60 KG
13	2	38187	Shim, .120 Thick for Cell
14	8	37024	Screw, Cap, Hex HD, M8-1.25 x 35MM
15	1	17613	Tie, Wire, 4"

# 8.2. P/N 38205 (100 LB CAPACITY) – PARTS DIAGRAM



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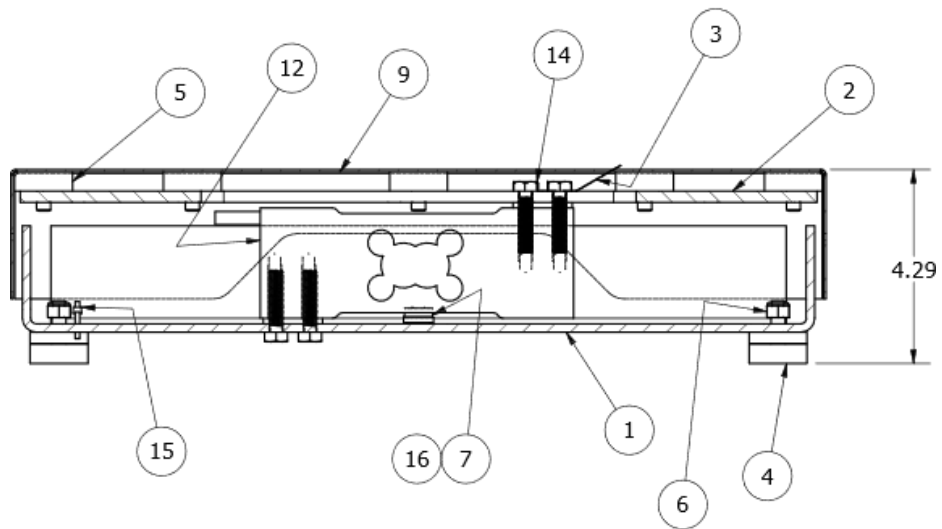
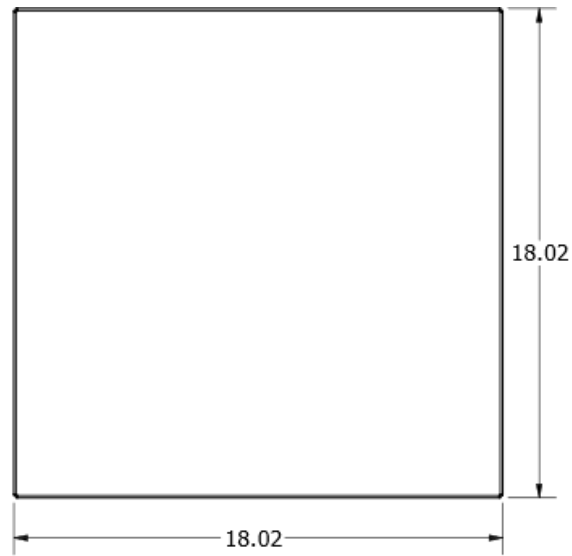
## **Section 9: Parts - 18" x 18" Platforms**

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### **9.1. P/N 38183 (100 LB. CAPACITY) – PARTS LIST**

<b>Item</b>	<b>Qty.</b>	<b>Part No.</b>	<b>Description</b>
1	1	38184	Base, Platform, 18" x 18", MS
2	1	38185	Spider, Platform, 18 x 18, MS
3	1	24406	Clip, Ground
4	4	12777	Foot-125 x 43 x 138-m12777
5	8	14233	Foot-125 x 43 x 87-m14233
6	4	22963	Stop Nut, M8, SS
7	1	11039	Bubble Level
9	1	23548	Cover, Platform, 18 x 18
12	1	38240	Load Cell, 60 KG
13	2	38187	Shim, .120 Thick for Cell
14	8	37024	Screw, Cap, Hex HD, M8-1.25 x 35MM
15	1	17613	Tie, Wire, 4"

## 9.2. P/N 38183 (100 LB. CAPACITY) – PARTS DIAGRAM

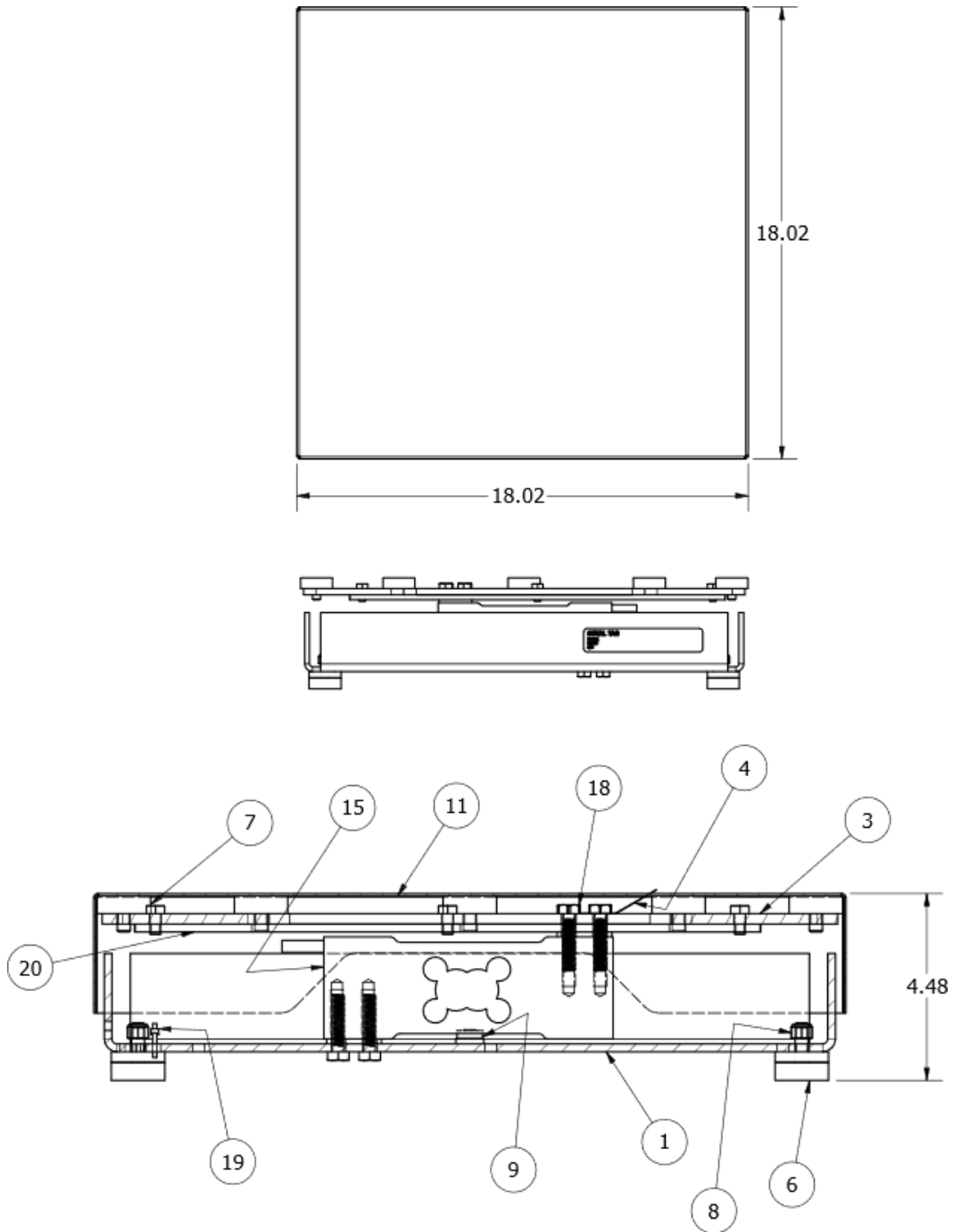




### 9.3. P/N 38222 (250 LB. CAPACITY) – PARTS LIST

Item	Qty.	Part No.	Description
1	1	38184	Base, Platform, 18" x 18", MS
3	1	38185	Spider, Platform, 18 x 18, MS
4	1	24406	Clip, Ground
6	4	12777	Foot-125 x 43 x 138-m12777
7	8	14233	Foot-125 x 43 x 87-m14233
8	4	22963	Stop Nut, M8, SS
9	1	11039	Bubble Level
11	1	23548	Cover, Platform, 18 x 18
15	1	38239	Load Cell, 100 KG
17	2	38187	Shim, .120 Thick for Cell
18	8	37024	Screw, Cap, Hex HD, M8-1.25 x 35MM
19	1	17613	Tie, Wire, 4"
20	1	38223	Plate, Support, For MS 18x18
21	6	11066	Screw, Hex, 1/4-20 x .50", SS

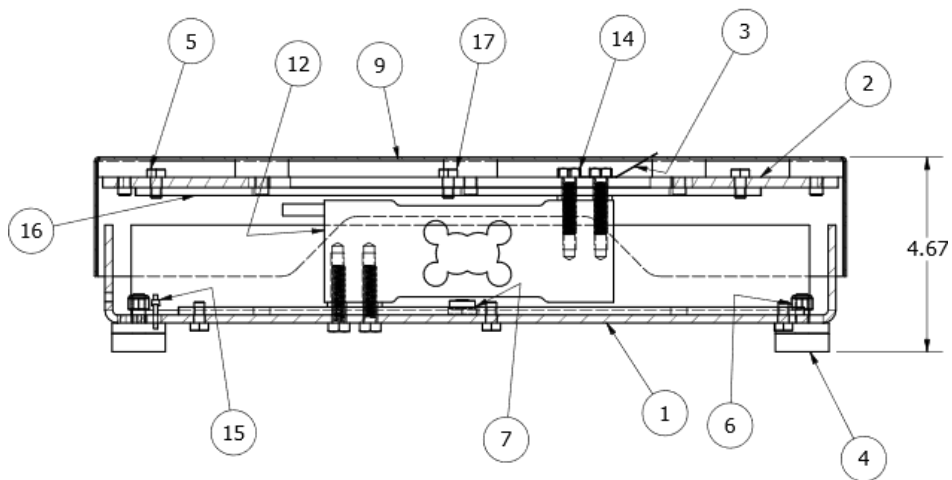
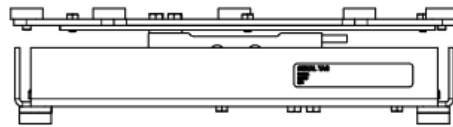
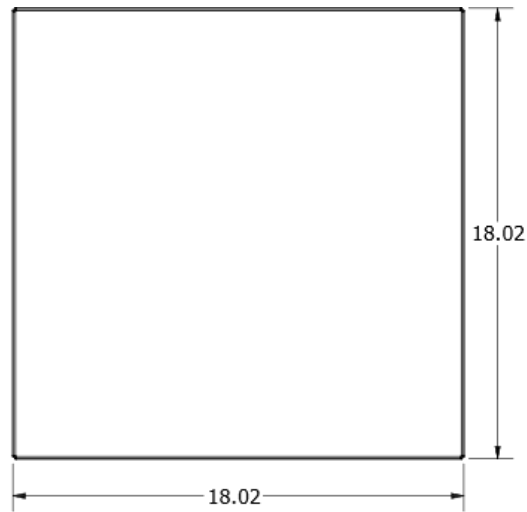
### 9.4. P/N 38222 (250 LB. CAPACITY) – PARTS DIAGRAM



## 9.5. P/N 38224 (500 LB. CAPACITY) – PARTS LIST

Item	Qty.	Part No.	Description
1	1	38184	Base, Platform, 18" x 18", MS
2	1	38185	Spider, Platform, 18 x 18, MS
3	1	24406	Clip, Ground
4	4	12777	Foot-125 x 43 x 138-m12777
5	8	14233	Foot-125 x 43 x 87-m14233
6	4	22963	Stop Nut, M8, SS
7	1	11039	Bubble Level
9	1	23548	Cover, Platform, 18 x 18
12	1	38241	Load Cell, 250 KG
13	2	38187	Shim, .120 Thick for Cell
14	8	37024	Screw, Cap, Hex HD, M8-1.25 x 35MM
15	1	17613	Tie, Wire, 4"
16	1	38223	Plate, Support, For MS 18x18
17	6	11066	Screw, Hex, 1/4-20 x .50", SS

## 9.6. P/N 38224 (500 LB. CAPACITY) – PARTS DIAGRAM



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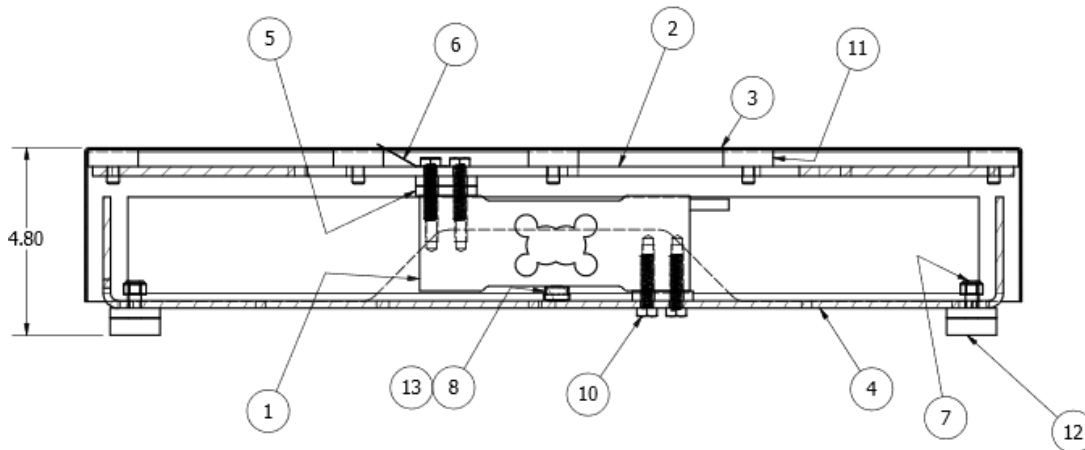
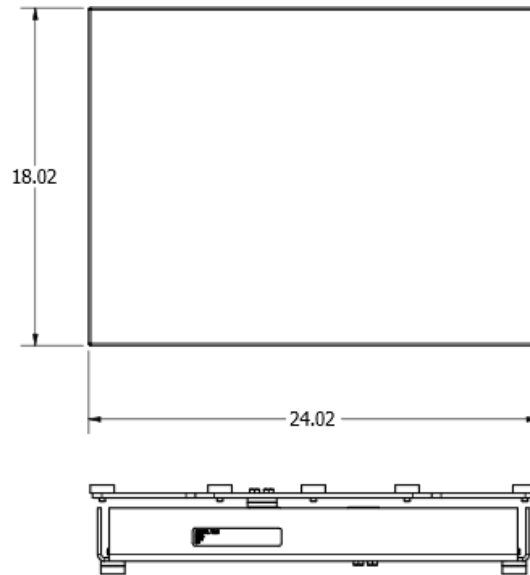
## **Section 10: Parts - 18" x 24" Platforms**

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### **10.1. P/N 38195 (100 LB. CAPACITY) – PARTS LIST**

<b>Item</b>	<b>Qty.</b>	<b>Part No.</b>	<b>Description</b>
1	1	38240	Load Cell, 60 KG
2	1	38196	Spider, Platform, 18 x 24, MS
3	1	24429	Cover, Platform
4	1	38197	Base, Platform, 18" x 24", MS
5	3	38194	Spacer, .250 Thick, For Cell
6	1	24406	Clip, Ground
7	4	22963	Stop Nut, M8, SS
8	1	11039	Bubble Level
10	8	37024	Screw, Cap, Hex HD, M8-1.25 x 35MM
11	8	14233	Foot-125 x 43 x 87-m14233
12	4	12777	Foot-125 x 43 x 138-m12777

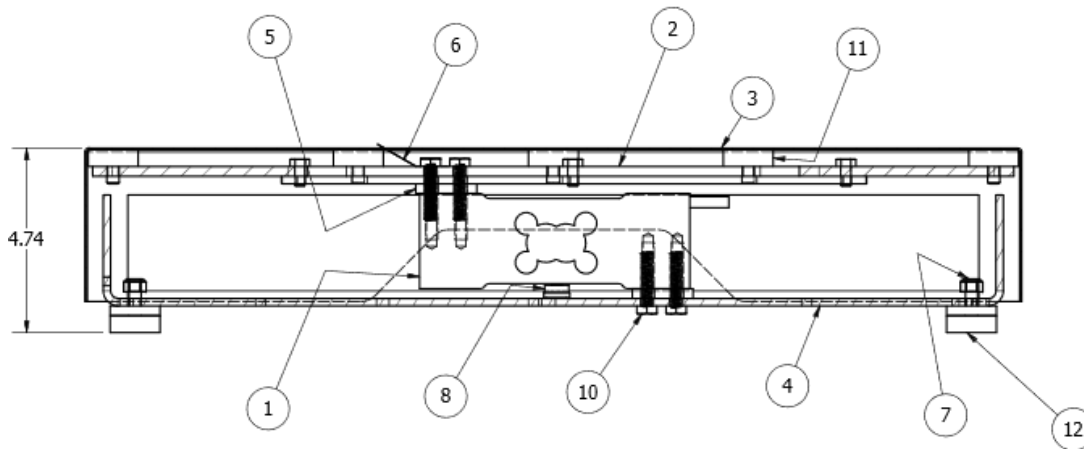
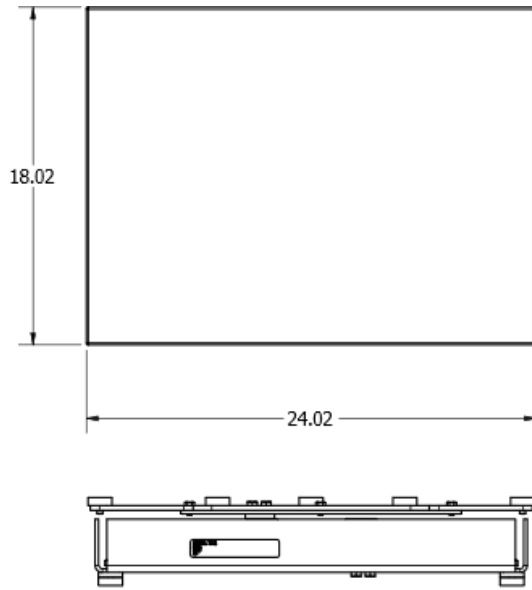
## 10.2. P/N 38195 (100 LB. CAPACITY) – PARTS DIAGRAM



### 10.3. P/N 38225 (250 LB. CAPACITY) – PARTS LIST

Item	Qty.	Part No.	Description
1	1	38239	Load Cell, 100 KG
2	1	38196	Spider, Platform, 18 x 24, MS
3	1	24429	Cover, Platform
4	1	38197	Base, Platform, 18" x 24", MS
5	2	38194	Spacer, .250 Thick, For Cell
6	1	24406	Clip, Ground
7	4	22963	Stop Nut, M8, SS
8	1	11039	Bubble Level
10	8	37024	Screw, Cap, Hex HD, M8-1.25 x 35MM
11	8	14233	Foot-125 x 43 x 87-m14233
12	4	12777	Foot-125 x 43 x 138-m12777
14	1	38223	Plate, Support, For MS 18x18
15	6	11066	Screw, Hex, 1/4-20 x .50", SS

# 10.4. P/N 38225 (250 LB. CAPACITY) – PARTS DIAGRAM

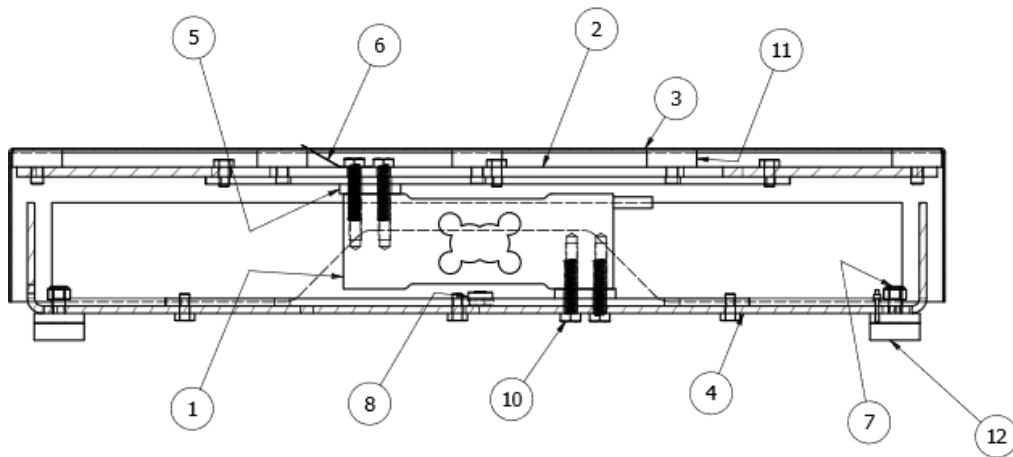
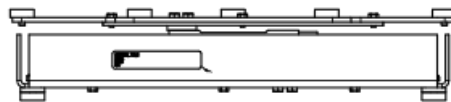




## 10.5. P/N 38226 (500 LB. CAPACITY) – PARTS LIST

Item	Qty.	Part No.	Description
1	1	38241	Load Cell, 250 KG
2	1	38196	Spider, Platform, 18 x 24, MS
3	1	24429	Cover, Platform
4	1	38197	Base, Platform, 18" x 24", MS
5	2	38194	Spacer, .250 Thick, For Cell
6	1	24406	Clip, Ground
7	4	22963	Stop Nut, M8, SS
8	1	11039	Bubble Level
10	8	37024	Screw, Cap, Hex HD, M8-1.25 x 35MM
11	8	14233	Foot-125 x 43 x 87-m14233
12	4	12777	Foot-125 x 43 x 138-m12777
14	2	38223	Plate, Support, For MS 18x18
15	12	11066	Screw, Hex, 1/4-20 x .50", SS
18	1	17613	Tie, Wire, 4"

## 10.6. P/N 38226 (500 LB. CAPACITY) – PARTS DIAGRAM



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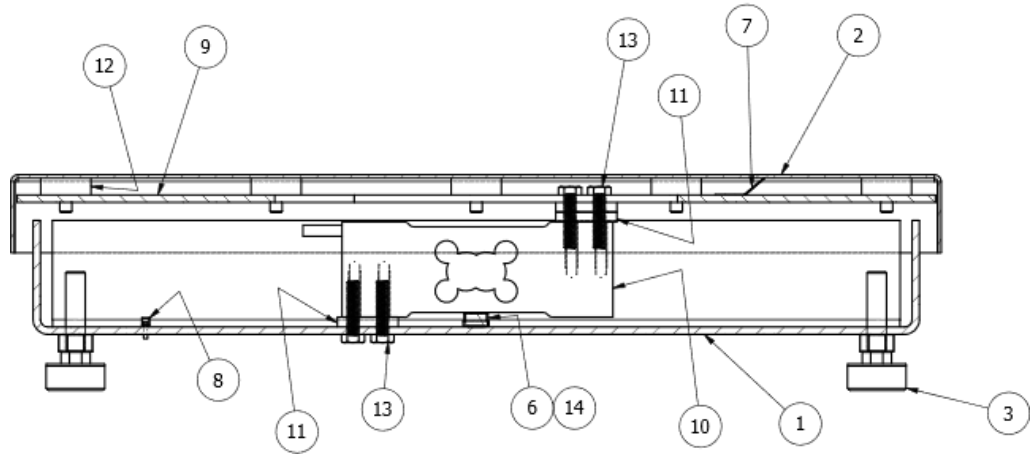
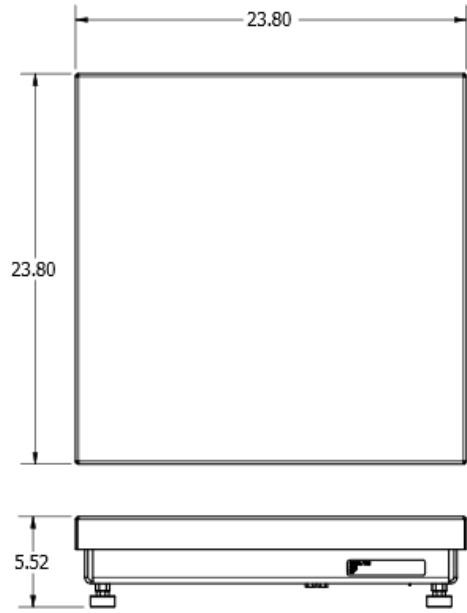
# Section 11: Parts - 24" x 24" Platforms

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## 11.1. P/N 38190 (100 LB. CAPACITY) – PARTS LIST

Item	Qty.	Part No.	Description
1	1	38191	Base, Platform, 24 x 24, MS
2	1	24448	Cover
3	4	11480	Foot Sub Assy, ½-13 SS
4	4	11101	Nut, Hex, ½-13, SS
6	1	11039	Bubble Level
7	1	15017	Clip, Ground H500x's
8	1	17613	Tie, Wire, 4"
9	1	38193	Spider, Platform, 24x24 MS
10	1	38240	Load Cell, 60 KG
11	3	38187	Spacer, .250 thick, For Zemic L6G
12	10	14219	Foot-125 x 43 x 88 – s14219
13	8	37024	Screw, Cap, Hex HD, M8-1.25 x 35MM

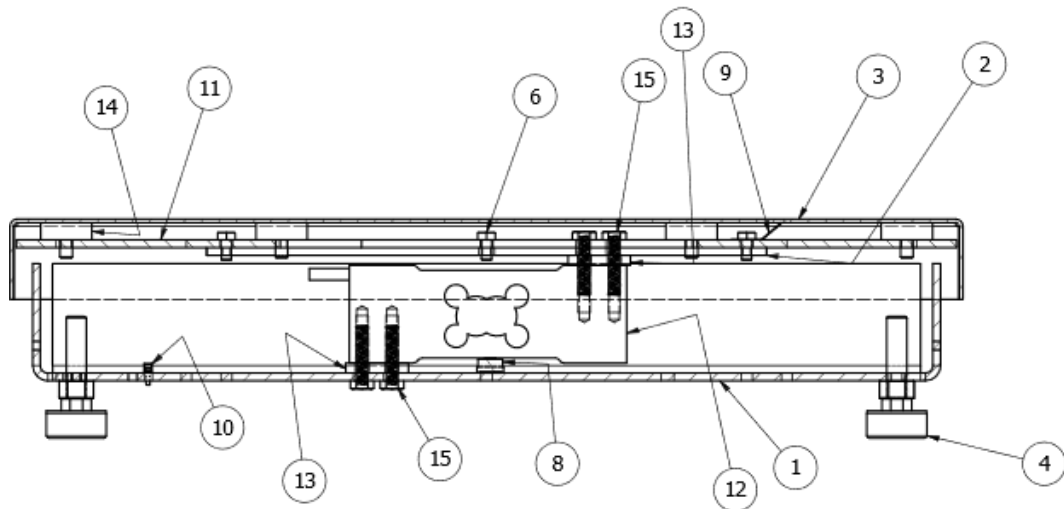
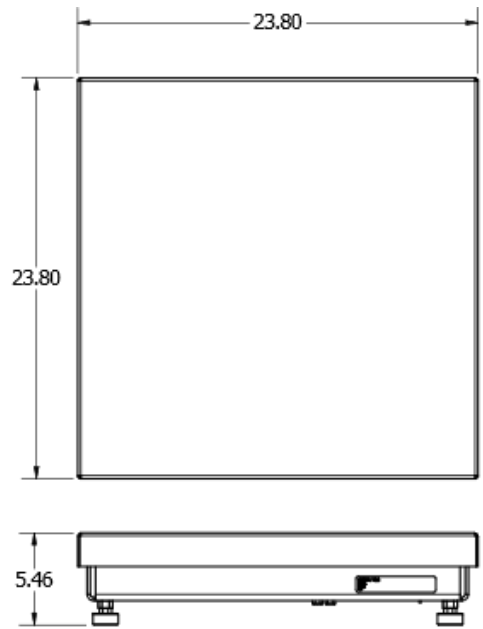
## 11.2. P/N 38190 (100 LB. CAPACITY) – PARTS DIAGRAM



### 11.3. P/N 38213 (250 LB. CAPACITY) – PARTS LIST

Item	Qty.	Part No.	Description
1	1	38191	Base, Platform, 24 x 24, MS
2	1	38192	Plate, Support, for MS 24 x 24
3	1	24448	Cover
4	4	11480	Foot Sub Assy, ½-13 SS
5	4	11101	Nut, Hex, ½-13, SS
6	8	11066	Screw, Hex, ¼-20 x .50", SS
8	1	11039	Bubble Level
9	1	15017	Clip, Ground H500x's
10	1	17613	Tie, Wire, 4"
11	1	38193	Spider, Platform, 24 x 24 MS
12	1	38239	Load Cell, 100 Kg
13	2	38194	Spacer, .250 Thick, for Cell
14	8	14219	Foot-125 x 43 x 88 -s14219
15	8	37024	Screw, Cap, Hex HD, M8-1.25 x 35 MM

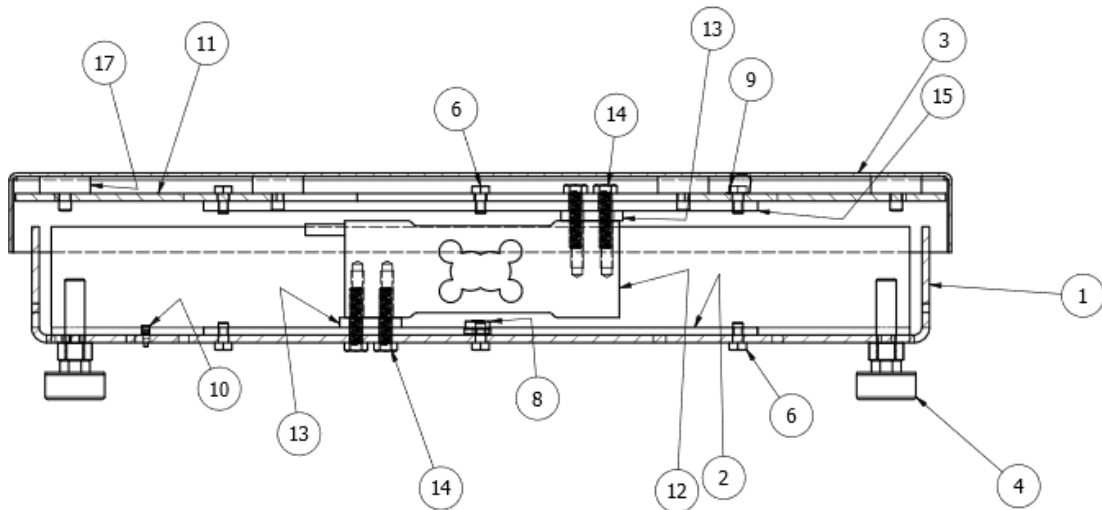
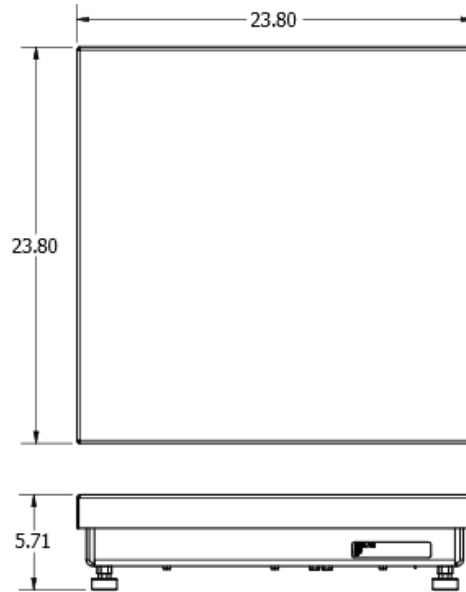
# 11.4. P/N 38213 (250 LB. CAPACITY) – PARTS DIAGRAM



## 11.5. P/N 38215 (500 LB. CAPACITY) – PARTS LIST

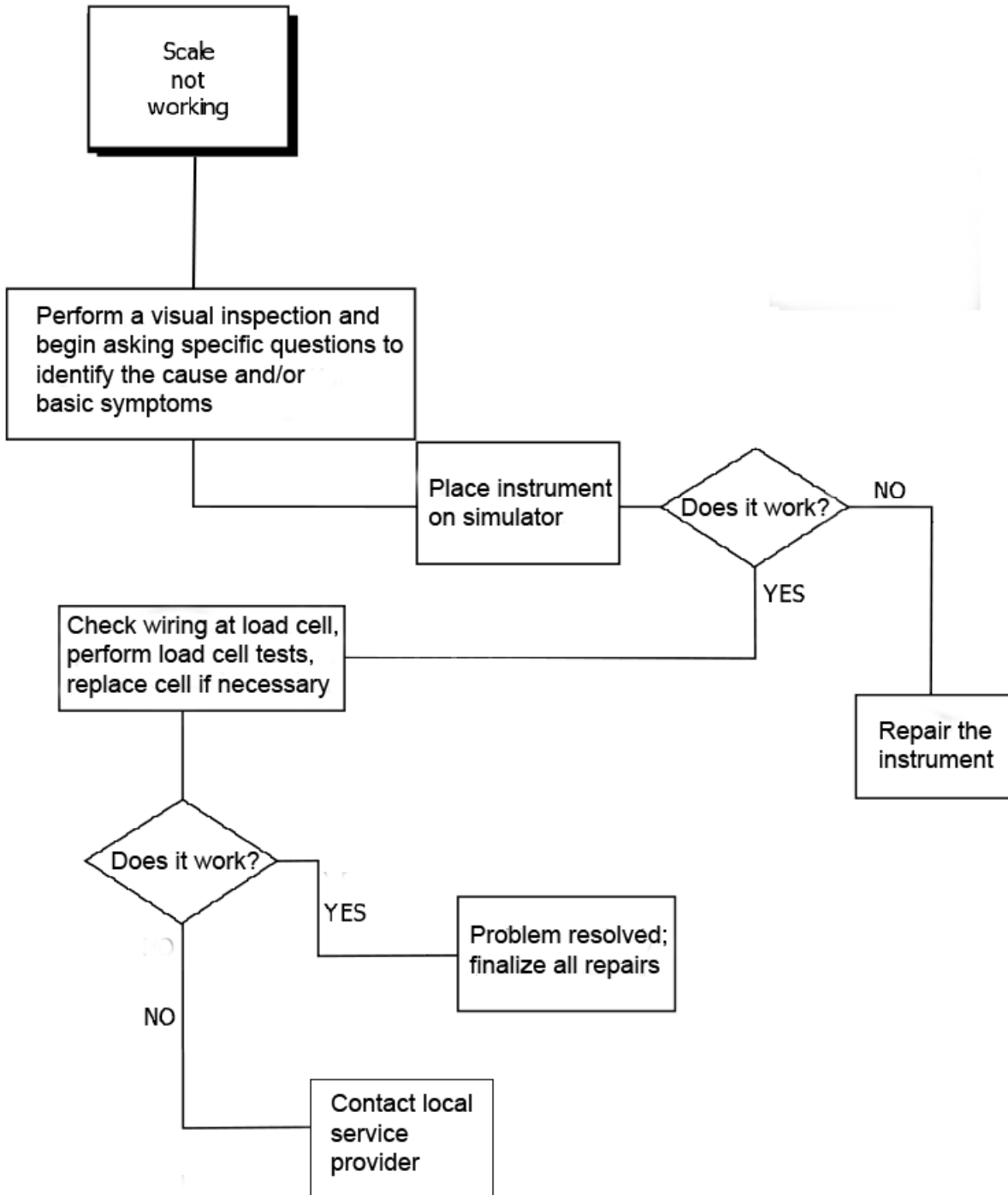
Item	Qty.	Part No.	Description
1	1	38191	Base, Platform, 24 x 24, MS
2	1	38192	Plate, Support, for MS 24 x 24
3	1	24448	Cover
4	4	11480	Foot Sub Assy, ½-13 SS
5	4	11101	Nut, Hex, ½-13, SS
6	16	11066	Screw, Hex, ¼-20 x .50", SS
8	1	11039	Bubble Level
9	1	15017	Clip, Ground H500x's
10	1	17613	Tie, Wire, 4"
11	1	38193	Spider, Platform, 24 x 24 MS
12	1	38241	Load Cell, 250 Kg
13	2	38194	Spacer, .250 Thick, for Load Cell
14	8	37024	Screw, Cap, Hex HD, M8-1.25 x 35 MM
15	1	38211	Plate, Support, 24 x 24 MS
17	8	14233	Foot-125 x 43 x 87-m14233

# 11.6. P/N 38215 (500 LB. CAPACITY) – PARTS DIAGRAM





# Section 12: Troubleshooting Flow Chart





Manufactured by Fairbanks Scales, Inc.

[www.fairbanks.com](http://www.fairbanks.com)

# 5100 Series Platforms

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**Service/Installation Manual**

**Document 51540**