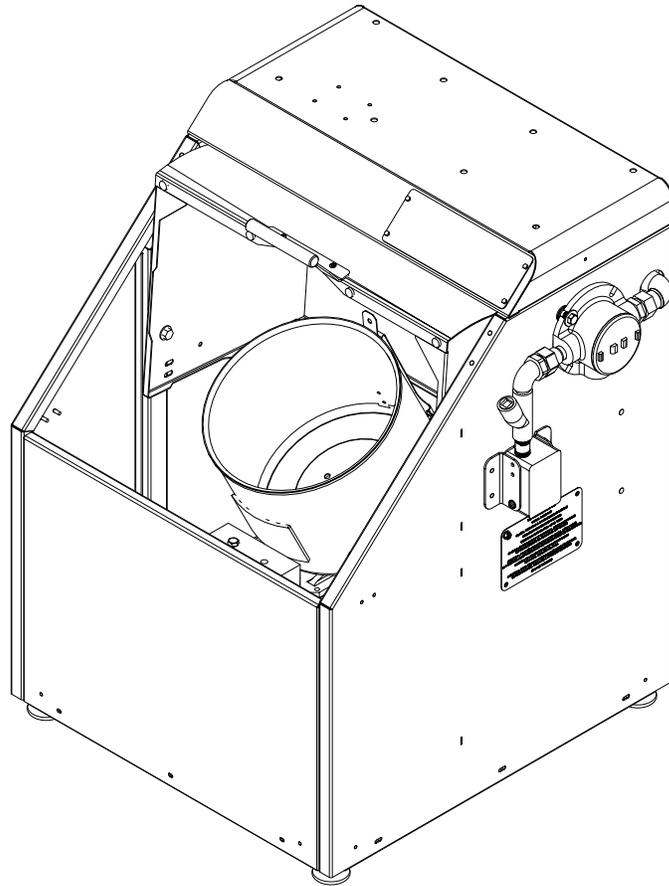


# Owner's Manual: 5315 X1

## Five-Gallon Vortex Mixer

Models 0-5315-X1



# Table of Contents

<b>1. Safety Information</b>	<b>3</b>	<b>6. Trouble Shooting</b>	<b>9</b>
1.1 Safety Precaution Labels	4		
1.2 Safety Precaution Summary	5	<b>7. Wiring Diagram</b>	<b>10</b>
<b>2. Introduction</b>	<b>6</b>	<b>8. Exploded Views</b>	<b>11</b>
2.1 Application	6	8.1 Electrical Assembly	11
2.2 Specifications	6	8.2 Enclosure Assembly	12
<b>3. Unpacking &amp; Install</b>	<b>7</b>	8.3 Drive, Bottom Assembly	13
<b>4. Operation</b>	<b>8</b>	8.4 Drive, Middle Assembly	14
4.1 Control Panel	8	8.5 Drive, Can Holder Assembly	15
4.2 Install a Container	8	8.6 Frame Assembly	16
<b>5. Care and Maintenance</b>	<b>8</b>	<b>9. Ordering</b>	<b>17</b>
5.1 Cleaning	8	Replacement Parts	17
		<b>10. Warranty</b>	<b>18</b>
		<b>11. Notes</b>	<b>19</b>

# 1. Safety Information

**Review this owner's manual and read all warning labels on the machine prior to use.**

The three main safety notifications used in this manual and on the warning labels are **WARNING**, **CAUTION** and **NOTICE**. They have specific meanings and indicate the potential dangers from misuse of the machine.

	<p><b>“WARNING!”</b> indicates a hazardous situation, which, if not avoided, could result in death or serious injury. These serious injuries could include permanent loss of function or significant disfigurement, disability, considerable pain and suffering, amputations, severe burns, and loss or impairment of vision or hearing. Take all necessary precautions to avoid unnecessary</p>
	<p><b>“CAUTION!”</b> indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.</p>
	<p><b>“NOTICE”</b> indicates practices that do not involve physical injury but may damage the machine.</p>

Safety Information, Continued..

## 1.1 Safety Precaution Labels

 <p><b>WARNING</b> <b>ADVERTENCIA</b> <b>AVERTISSEMENT</b></p>	<p><b>MOVING PARTS INSIDE</b> <b>PARTES EN MOVIMIENTO</b> <b>PIE'CES EN MOVEMENT</b></p>
<p>-Do not open door until machine comes to complete stop; moving parts inside could cause serious injury.</p>	
<p>-No abra la puerta hasta que la maquina se detenga completamente, las partes internas en movimiento pueden causar heridas graves.</p>	
<p>- Ne pas ouvrez la porte jusqu'a ce que la machine est comple'tement arre'te'; pi'eces en mouvement a l'int'erieur pourrait provoquer des blessures grave.</p>	

Part No. 1784963

 <p><b>WARNING</b> <b>ADVERTENCIA</b> <b>AVERTISSEMENT</b></p>	<p>- Machine must be properly grounded before use; improper grounding could cause electric shock and injury.</p> <p>-Disconnect power cord before servicing, cleaning or removing any cover, and follow lockout/ tagout procedures in owner manual; failure to disconnect power could cause electric shock and injury.</p> <p>-Review Owners Manual before installing or operating.</p>
<p>- La maquinaria debe ser apoyada correctamente en el suelo antes de usar, el no apoyarla puede casuar choque el'ctrico y da'os.</p> <p>-Desconecte la energ'ia antes de dar mantenimiento, limpiar o quitar cualquier cubierta, y siga los procedimientos de bloqueo/etiquetado del manual, Fallar en desconectar puede causar choque el'ctrico y da'os.</p>	
<p>- La machine doit e'tre correctement mis a' la terre avant de les utiliser mise a' la terre incorrecte peut provoquer un choc e'lectrique et de blessure.</p> <p>- De'branchez le cordon d'alimentation avant de proce'der a l'entretien, le nettoyage ou le retrait des capots: suivez la proce'dure d'isolation/ consignation proce'dures dans le manuel de l'opre'rateur; E'chec de</p>	

Part No. 1781570

Safety Information, Continued..

Safety Information, Continued..

## 1.2 Safety Precaution Summary

### **WARNING!**

-  **BE SURE** that the remote power switch is installed by a qualified electrician. Refer to local codes for proper placement of the remote power switch.
-  Review this owner's manual before installing or operating.
-  The machine must be properly grounded prior to use. In the case of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current.
-  Check with a qualified electrician if you don't completely understand these grounding instructions, or if you are not sure whether the machine is properly grounded.
-  Follow the lockout/tagout procedures of your company.
-  **DO NOT** open the door until the machine comes to a complete stop.
-  Review product label, Material Safety Data Sheet, and HMIS rating of materials prior to mixing to determine potential hazards.
-  **WARNING: This product may expose you to chemicals including DEHP, which is known to the State of California to cause cancer. For more information, go to [www.P65Warnings.com](http://www.P65Warnings.com).**

### **CAUTION!**

-  Keep the work area free of clutter and electrical cords.
-  **DO NOT** disable the limit switch. This switch interrupts power when the mixer door is opened.  
  
Use the proper power source. Refer to the machine data plate on the right side panel or the section 2.2, Specifications, in this manual.
-  Keep customers away from the work area. The machine should be used only by properly trained individuals.
-  Clamp the can carefully to ensure that it is held securely during the mixing cycle.
-  **Product safety labels should be inspected and cleaned periodically to maintain good legibility. Replace any labels that are no longer legible.**

## 2. Introduction

### 2.1 Application

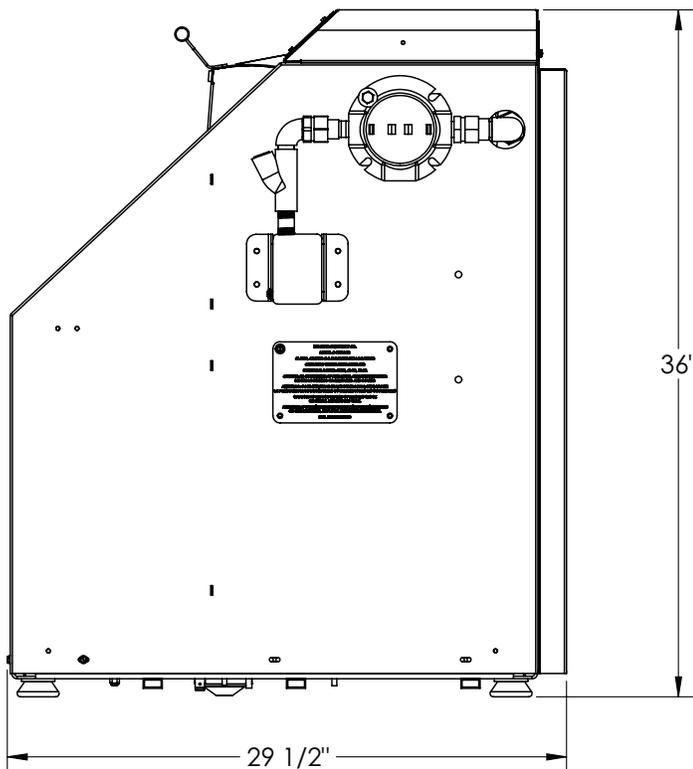
Congratulations on your purchase of the Speed Demon 5™ Vortex Mixer. This machine is designed to accommodate single round 5 gallon plastic or metal containers weighing up to 80 lb. (36.3 kg). It can also accommodate round and square gallon cans when used in conjunction with the optional adapter, part no. A1510. See section 9, Ordering, for ordering instructions.

Understand your machine's features and proper operation to take full advantage of its capabilities.

Read this entire manual completely before operating the machine. Practice installing and removing a pail before mixing for the first time.

Keep this manual for future reference.

**Always follow all safety instructions!**



### 2.2 Specifications

**Unit Size, 5315-X1 :** **W** 29.5 in. (75 cm) **D** 29.3 in. (73.7cm) **H** 36 in. (91.5 cm)

**Machine Weight**

**5315PB:** 267 lb. (121 kg)

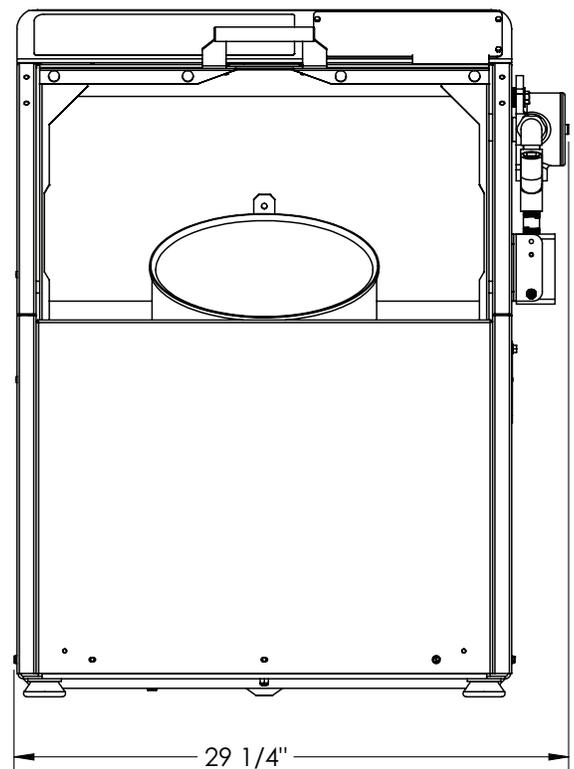
**Maximum Capacity:** 80 lb. (36.3 kg)

**Sizes Mixed:** Five gal., One gal. with adapter

**Electric Service:** 110 V 60 Hz

**110 V Units**

Machines rated at 110 V, 60 Hz are for use with a nominal 120 V circuit.



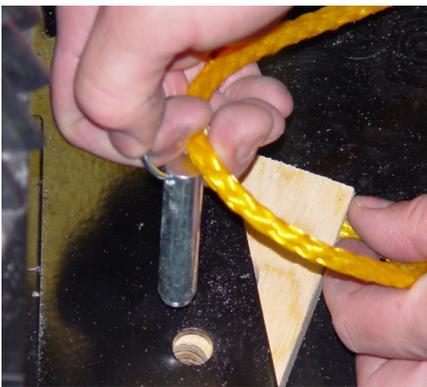
## 3. Unpacking & Installation

**WARNING!** Be sure that the remote power switch is installed by a qualified electrician. Refer to local codes for proper placement of the remote power switch.

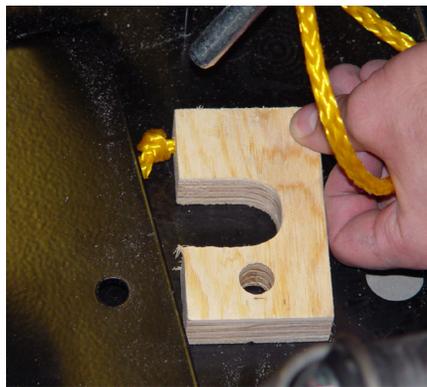
**IMPORTANT:** Before attempting to operate the machine:

1. Open the door and locate the shipping block and rope assembly. Remove the pin as shown by lifting straight up.
2. Remove the block by sliding outwards. Repeat steps 1 and 2 for the other side
3. Discard or store the shipping blocks and rope assemblies.
4. Set the machine on a stable, level surface.

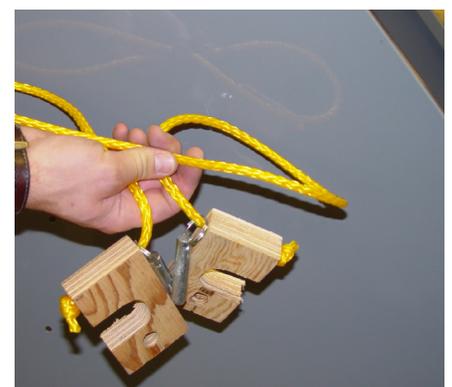
**NOTE:** If the machine needs to be shipped any time, contact Radia Products to obtain the appropriate instruction sheet, part no. 1785025 and shipping block assembly, part no. 9784291. See section 9, Ordering, for ordering information.



**Step 1**



**Step 2**



**Step 3**

## 4. Operation

### 4.1 Install a Container

**NOTE:** Mixer has been designed and tested for mixing full pails of paint. Mixing partial pails can result in damage to the mixer.

1. Open the cabinet Door
2. Load the can into the machine for mixing:
  - **5 Gallon Pail:** Insert the pail into the holder. Slip the bail handle into the clip retainer **(A)** (See Figure 1).
  - **1 Gallon Round Cans:** Place the can inside the gallon adapter (optional), A1510 **(B)**. Set the gallon can as shown with the lid up. (See Figure 2)
  - **1 Gallon Square Cans:** Place the square can inside the gallon adapter with the lid up. (See Figure 3)
3. Close the cabinet door. The mixer has a safety switch that interrupts operation if the door is open.
4. Turn on the remote switch



If the container handle wasn't properly secured, turn off the remote switch.

**NOTE:** If colorant has been added to the paint, be sure to reattach paint can lid tightly (using the RADIA PRODUCTS Lid Press, Part No. 0-5080).

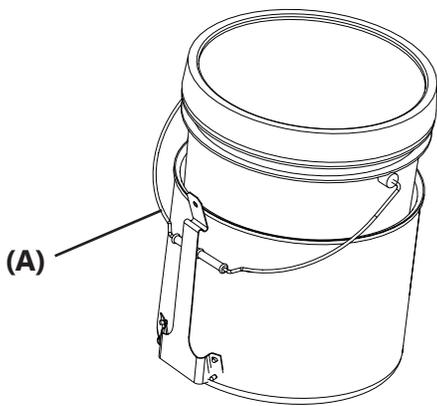


Figure 1

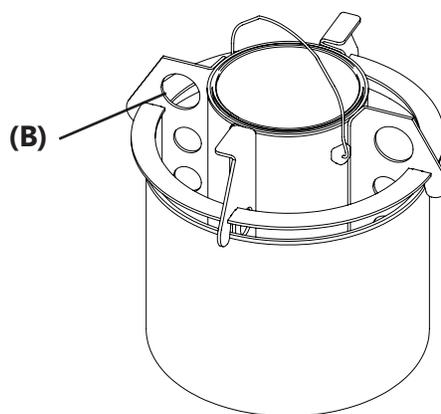


Figure 2

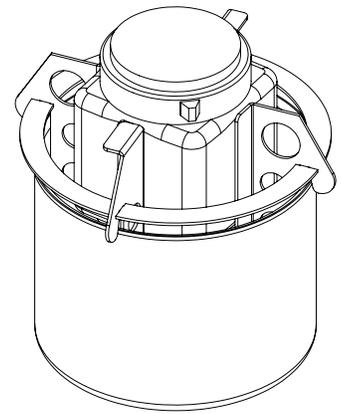


Figure 3

## 5. Care and Maintenance

### 5.1 Cleaning

**⚠ WARNING!** Avoid electric shock. Always remove power from the machine per your company's lock out/tag out procedures before performing cleaning and maintenance tasks.

#### CLEANING:

Keeping the machine clean is important for reliable operation.

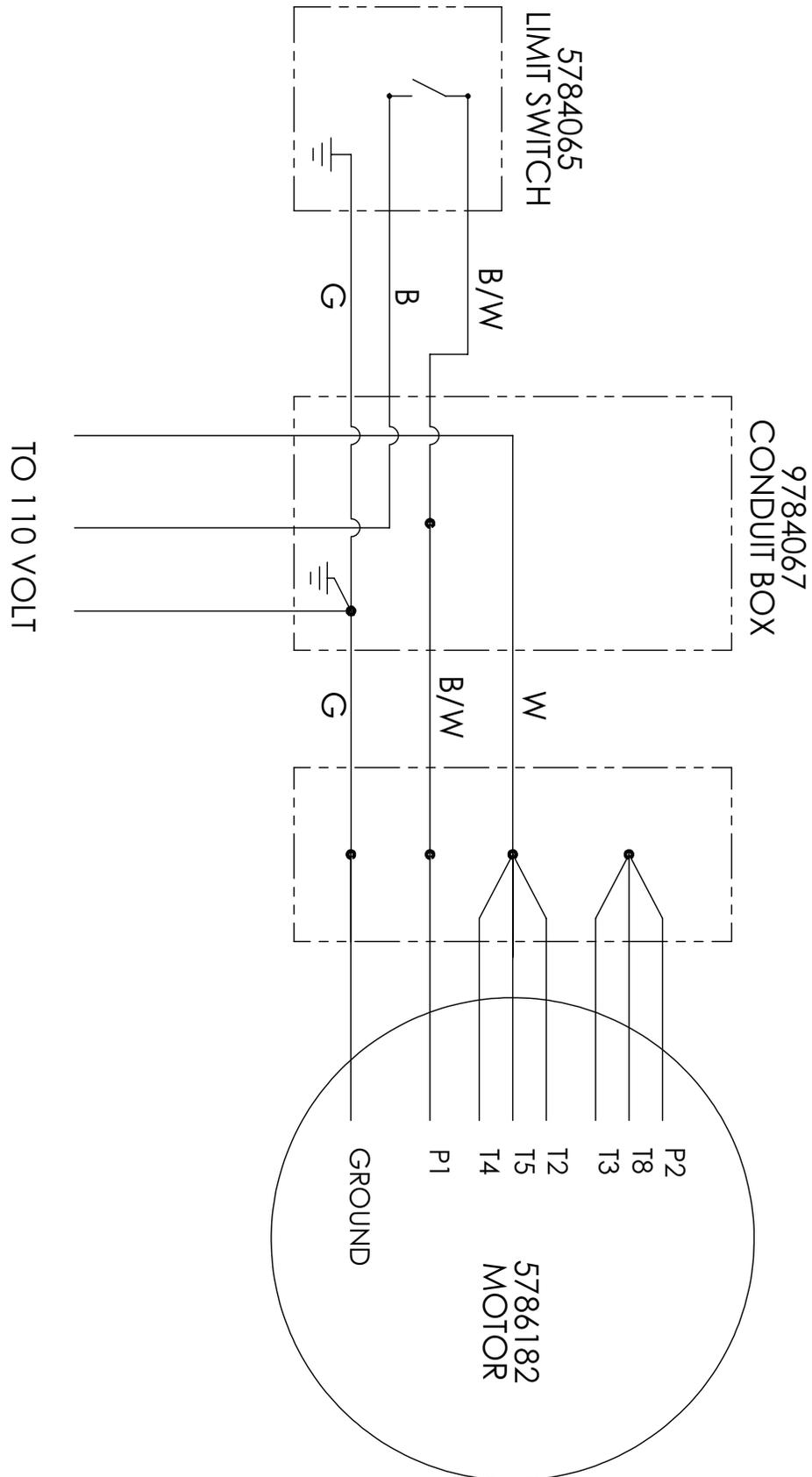
- Colorant or base paint spilled on machine surfaces can be removed using lukewarm water and mild detergent for water-based/glycol colorants.
- To preserve the appearance of the machine, do not use abrasives to clean machine surfaces.

## 6. Troubleshooting

 Disconnect the machine from its power source before servicing .

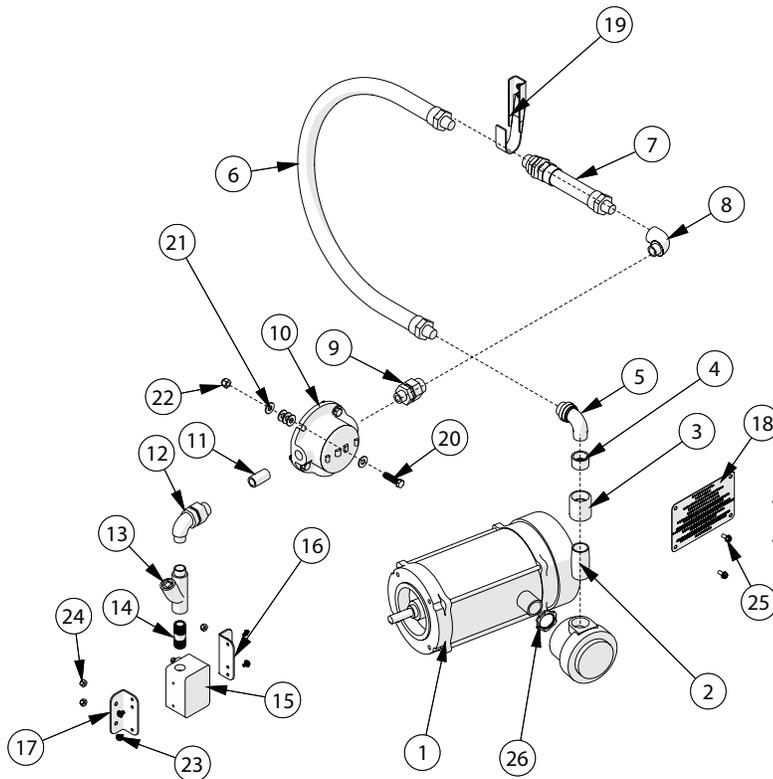
PROBLEM	CAUSE	REMEDY
Machine won't operate	Not connected to power source	Connect to power source
	Building circuit breaker or fuse blown	Reset breaker or replace fuse
	Faulty door limit switch	Contact Radia's Customer Care
	Machine door does not make contact with limit switch	Re-adjust switch to make contact with limit switch screw when door is closed
	Motor thermal protector activated	Allow to cool, then restart
	Faulty motor	Contact Radia's Customer Care
	Worn, damaged, or loose drive belt	Unplug power cord, open mixer door, and visually inspect the drive belt
Excessive Vibration	Pail Damaged	Fix or replace pail
	Can not properly seated	Reset can into holder
	Feet are not Level	Adjust and level feet
Machine doesn't shut off when door is opened	Faulty door limit switch	Contact Radia's Customer Care
Increasing mechanical noise	Bearings worn or damaged	Contact Radia's Customer Care

# 7. Wiring Diagrams



## 8. Exploded Views

### 8.1 Electrical Assembly



ID	Description
1	5786182 motor, x-proof, 1 hp, 56c
2	9786184 PIPE NIPPLE, 1 NPT X 2.50
3	9786455 COUPLING, CONDUIT, 1.00
4	9786454 REDUCER, CONDUIT, 1.0-.75
5	9784909 ELBOW, UNION, .75M-.50F
6	9784661 CONDUIT, FLEXIBLE -.50NPT, 36 LG, M-M
7	9784660 CONDUIT, FLEXIBLE -.50NPT, 4 LG, M-F
8	9784702 ELBOW, 90°, .5NPT, M-F
9	9782429 UNION, 5 NPT

ID	Description
10	9784067 Conduit Box, T 0.50
11	9785035 NIPPLE, 1 2 NPT X 1.50
12	9784659 ELBOW, 90° UNION, .50NPT, M-F
13	9784068 Fitting, Seal 0.50 M-F
14	9682000 PIPE NIPPLE .5 X 2 GALV
15	5784065 Switch, Limit Explosion Proof - 20A Rating
16	9787221 BRACKET, LIMIT SWITCH MOUNT - 5315 X1
17	9787221 BRACKET, LIMIT SWITCH MOUNT - 5315 X1
18	1784658 NAMEPLATE, METAL- 5315-X1

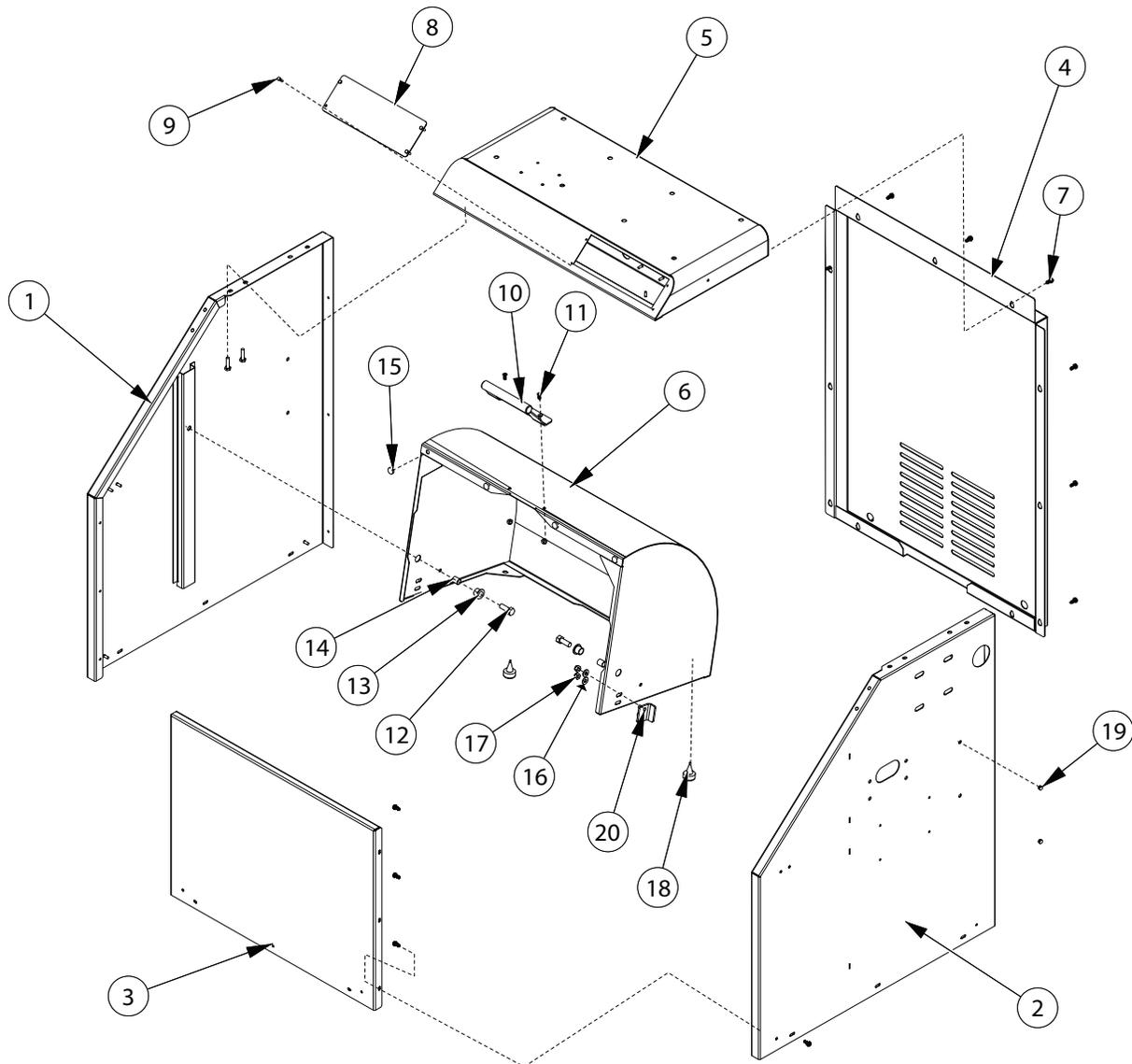
ID	Description
19	9787226 HANGER, CONDUIT - 5315 X1
20	9784439 Screw Hex 3 8-16 X 1.50 Full Thd
21	9100023 WASHER, FLAT 5 .16 USS
22	9780193 NUT, NYLOCK 3 8-16
23	9784079 Screw, Machine Washer HD #10-32 x .375
24	9780343 Nut 1 4-20 Nylon Lock
25	9780366 SCREW HEX THD CUT 1 4-20 X .50
26	9787290 CONDUIT LOCKNUT, 1.00

**PART NUMBERS LISTED MAY ONLY BE AVAILABLE IN KIT FORM OR AS AN ASSEMBLY**

Exploded Views, Continued..

...Exploded Views, Continued

## 8.2 Enclosure Assembly



ID	Description
1	9787214 PANEL WELDMENT, LEFT - 5315
2	9787215 PANEL WELDMENT, RIGHT - 5315 X1
3	9787216 PANEL, FRONT-5315
4	9787217 PANEL, BACK - 5315 X1
5	9787218 COVER WELDMENT - 5315
6	9787225 DOOR WELDMENT - 5315
7	9783385 Screw, #10-32 SHWH Tap
8	9782581 COVER PLATE
9	9781367 Screw Hex Thd Form #8 X .50
10	9784303 HANDLE WELDMENT, DOOR - 5315
11	9784285 SCREW, FLAT HD, 82 DEG, PH #10-32 x .50

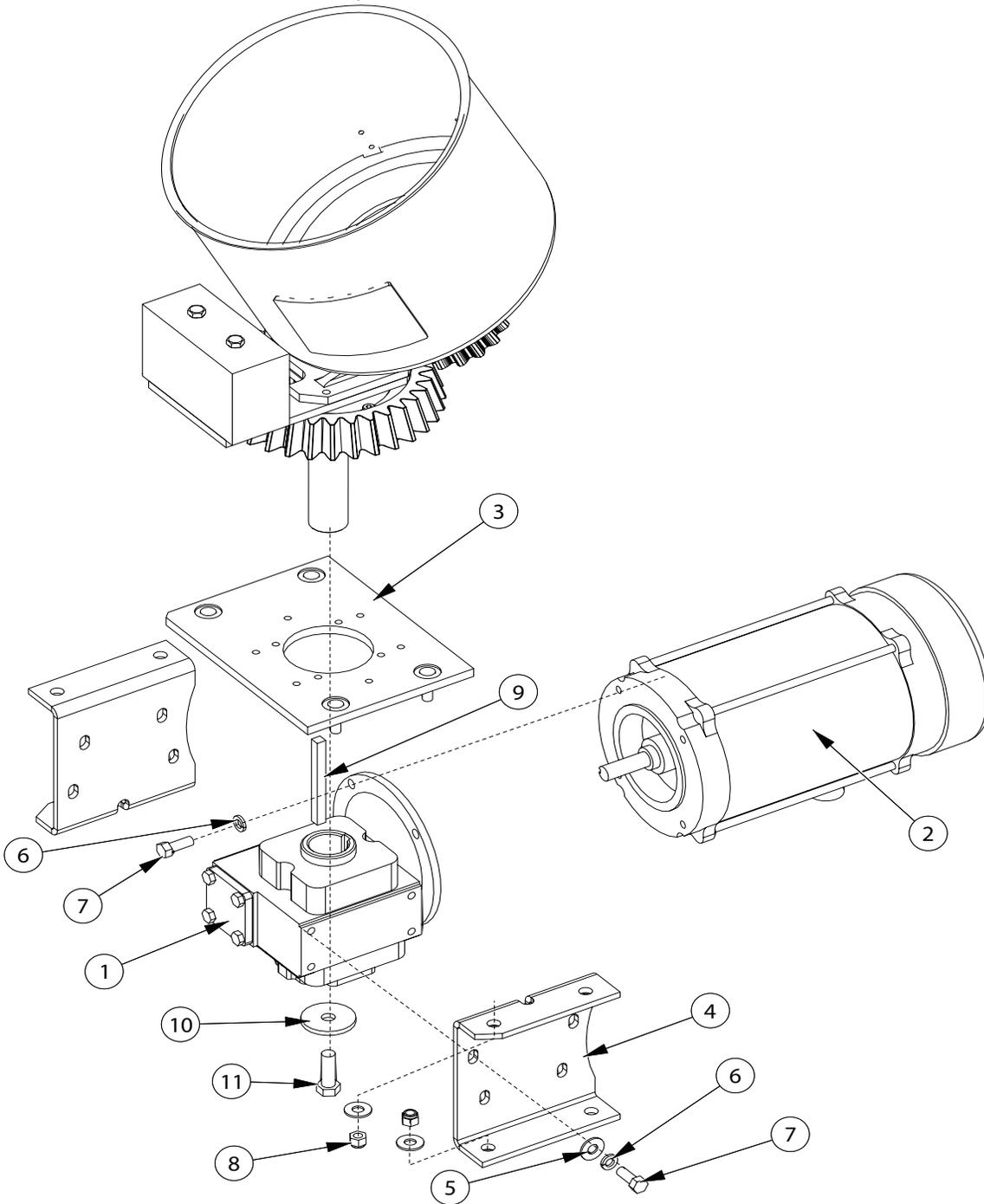
ID	Description
12	9780886 SCREW HEX 3_8-16 X 1.00
13	9782362 BUSHING, BRONZE
14	9784361 BUSHING, STEEL
15	9780789 BUMPER, PAD
16	9760514 Washer 1_4 SAE .281 ID
17	9780343 Nut 1_4-20 Nylon Lock
18	9106254 Bumper, Foot
19	9784338 Plug, Nylon
20	9787220 ACTUATOR, LIMIT SWITCH - 5315 X1

**PART NUMBERS LISTED MAY ONLY BE AVAILABLE IN KIT FORM OR AS AN ASSEMBLY**

Exploded Views, Continued..

...Exploded Views, Continued

## 8.3 Drive, Bottom Assembly



ID	Description
1	6784582 kit, Speed Reducer - 5315
2	5786182 Motor, X-PROOF, 1 HP, 56C
3	9784259 Plate, Top - Mix Frame
4	9784258 Bracket, Gearbox
5	9161100 Washer, Flat 3_8 USS
6	9780402 Washer 3_8 split lock

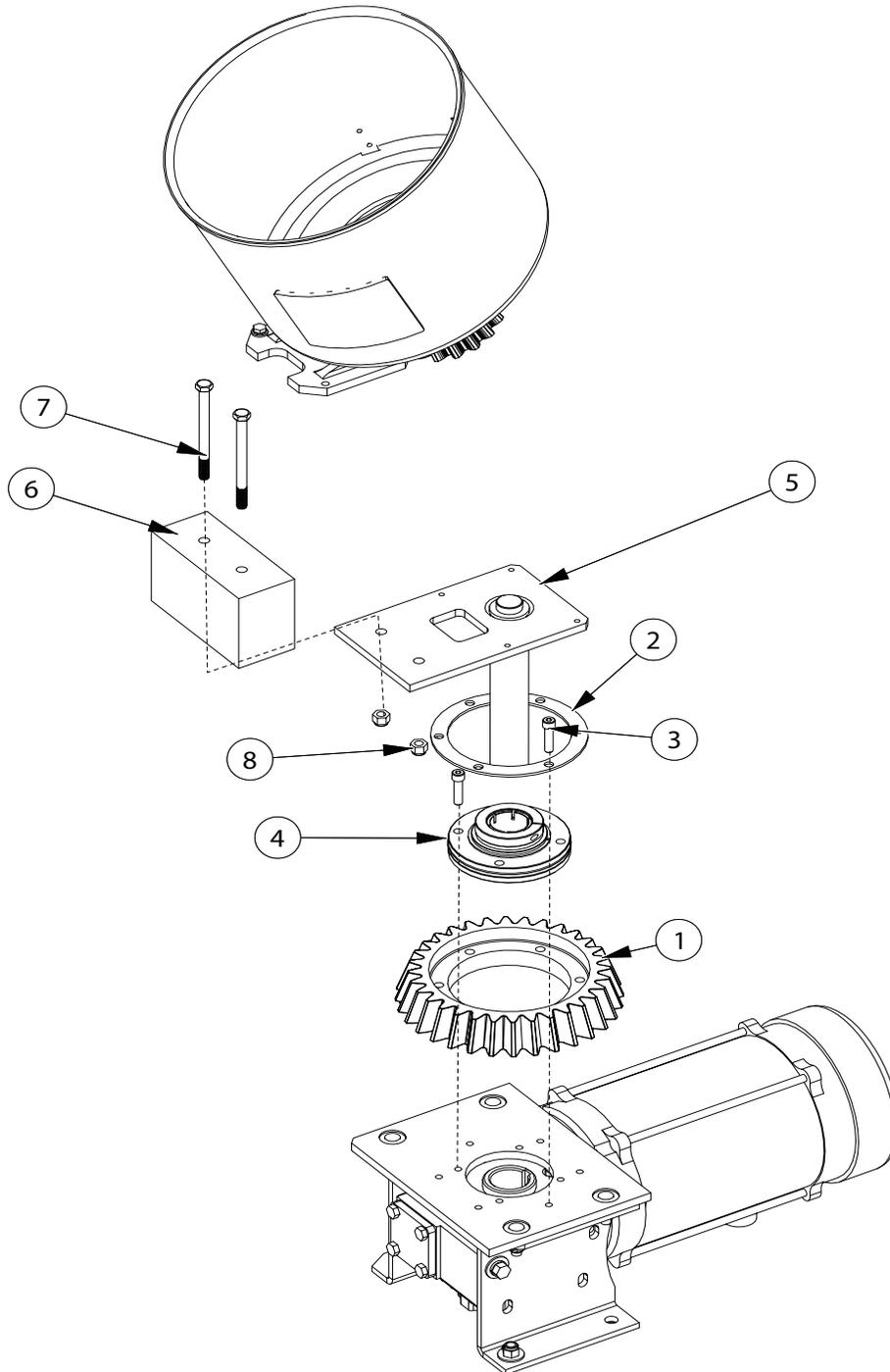
ID	Description
7	9780886 SCREW HEX 3_8-16 X 1.00
8	9780193 Nut, Nylock 3_8-16
9	9782319 KEY STOCK 3_8 X 3_8 X 4.00
10	9781083 Washer, Flat .507 ID x 2.00 OD x .19 Thk
11	9782154 Screw Hex 1_2 X 1_50

**PART NUMBERS LISTED MAY ONLY BE AVAILABLE IN KIT FORM OR AS AN ASSEMBLY**

Exploded Views, Continued..

...Exploded Views, Continued

## 8.4 Drive, Middle Assembly



ID	Description
1	9784228 Gear, Ring
2	9784261 Retainer, Ring Gear
3	9784282 SCREW, SOC HD CAP 5_16-18 X 1.25
4	6787072 Bearing Housing Assy, Drive Shaft - 5315
5	9784263 Shaft, Drive - 5315

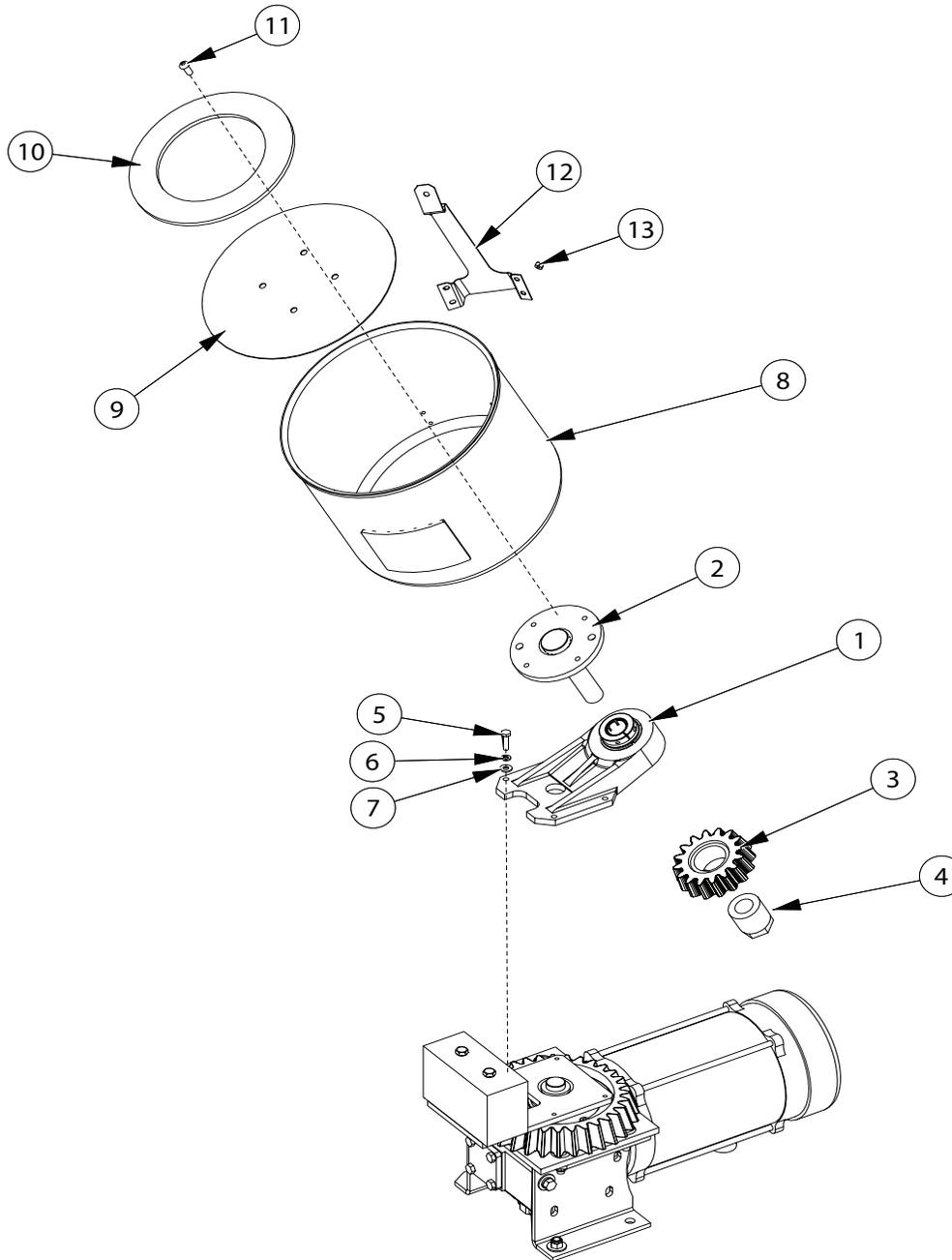
ID	Description
6	9784360 COUNTERWEIGHT - 5315
7	9784299 Screw Hex 3_8-16 x 4.50 Partial Thread
8	9780193 Nut, Nylock 3_8-16

**PART NUMBERS LISTED MAY ONLY BE AVAILABLE IN KIT FORM OR AS AN ASSEMBLY**

Exploded Views, Continued..

...Exploded Views, Continued

## 8.5 Drive, Can Holder Assembly



ID	Description
1	9784230 Arm, Orbit
2	9784348 CAN DRIVE WELDMENT 5315
3	9784229 Gear, Pinion
4	9782316 Bushing, Trantorque
5	9781831 Screw, Hex 1_4 X 1
6	9780164 Washer 1_4 LOCK
7	9760514 Washer 1_4 SAE .281 ID

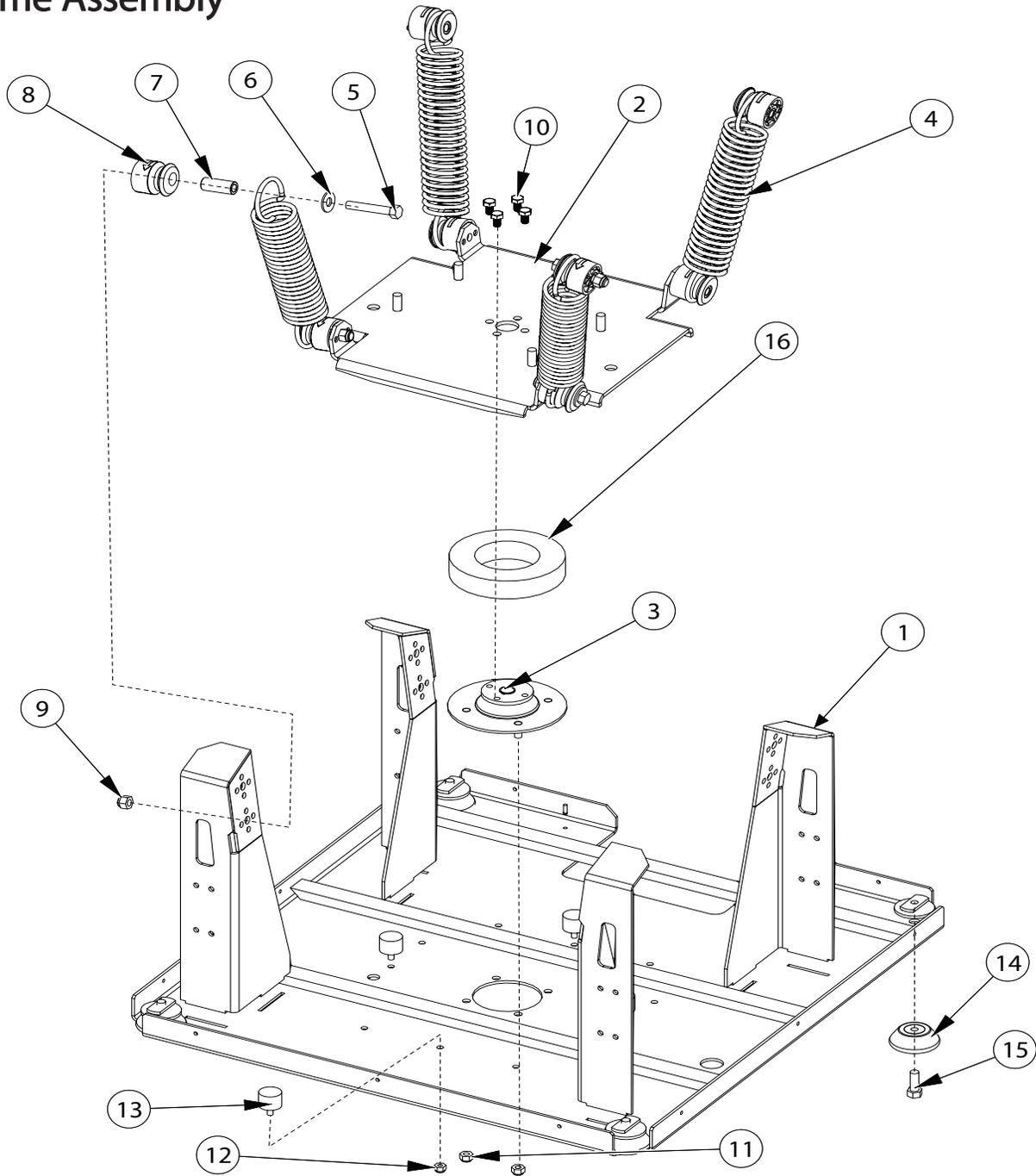
ID	Description
8	9784264 Holder, Can - 5315
9	9784327 Plate, Round - 5315
10	6785232 Ring, Rubber
11	9782904 Screw Button 5_16-18 x .75
12	9784268 Retainer Bar, Bail
13	9781383 NUT, NYLON LOCK #10-32

**PART NUMBERS LISTED MAY ONLY BE AVAILABLE IN KIT FORM OR AS AN ASSEMBLY**

Exploded Views, Continued..

...Exploded Views, Continued

## 8.6 Frame Assembly



ID	Description
1	9784714 Base Weldment - 53150X
2	9784250 FRAME, SUSPENDED - 5315
3	6784738 ISOLATOR ASSEMBLY - 5315
4	9784252 Spring, Extension
5	9781543 Screw Hex 3_8 X 2_25
6	9161100 Washer, Flat 3_8 USS
7	9784357 BEARING, SLEEVE
8	9784349 Cam, Spring Mount - 5315
9	9780193 Nut, Nylock 3_8-16

ID	Description
10	9784358 Screw Hex 5_16-18 X .50
11	9780182 Nut, Nylock 5_16-18
12	9780343 Nut 1_4-20 Nylon Lock
13	9784326 Bumper, Single Round Stud
14	9782044 Foot, Floor Stand
15	9780886 SCREW HEX 3_8-16 X 1.00
16	9784255 Damper, Disc

**PART NUMBERS LISTED MAY ONLY BE AVAILABLE IN KIT FORM OR AS AN ASSEMBLY**

## 9. Ordering

### Replacment Parts

#### HOW TO ORDER REPLACEMENT PARTS

Replacement parts can be ordered from Radia by telephone, fax, or email:

#### **RADIA**

800-221-1083

763-533-2969

763-533-0015 (FAX)

orders@radiaproducts.com

If you need help in determining the proper part(s) to order, please call Customer Care at 1-800-221-1083. Always indicate the Model and Serial numbers of the machine when ordering replacement parts.

#### GENERAL PARTS REPLACEMENT POLICIES

While your machine is under warranty, do not attempt on-site repair or parts replacement without first contacting RADIA. (to protect your warranty). After the warranty expires, replacement parts and recommendations for on-site servicing are available from RADIA. Please contact Customer Care for assistance.

#### RESTOCKING FEE

A restocking fee will be charged on all unused parts which are returned.



For instructional "How To" videos please visit:

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



## 10. Warranty

### Equipment Covered Under This Warranty

Models 5315-X1

### Warranty

Radia warrants equipment manufactured by it and bearing its name to be free from defects in material and workmanship.

**EXCEPT FOR THE WARRANTY SET FORTH HEREIN, RADIA MAKES NO WARRANTY WHATSOEVER WITH RESPECT TO THE EQUIPMENT, INCLUDING ANY (a) WARRANTY OF MERCHANTABILITY; (b) WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE; OR (c) WARRANTY AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OF A THIRD PARTY; WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE.**

This warranty applies only when the equipment is installed, operated and maintained in accordance with written Radia instructions as appearing in the owners' manuals.

This warranty does not cover, and Radia shall not be liable for, any malfunction, damage, or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering or substitution of non-Radia component parts, modification or use for non-intended purposes. Nor shall Radia be liable for malfunction, damage or wear caused by the incompatibility of Radia equipment with structures, accessories, equipment, or materials not supplied by Radia.

Subject to the limitations set forth above, Radia shall (i) repair or replace the equipment (or the defective part) or (ii) credit or refund the price of such equipment. Costs of labor and transportation for service of machines under this warranty will also be covered during the warranty period if Radia elects to repair or replace the equipment. Normal ground freight will be covered for replacement parts sent within the warranty period. For customers outside of the US and Canada, the warranty is for parts only. Ground or common carrier ground freight will be covered for the return of defective items only. In no case shall Radia's liability exceed the amount of the purchase price.

\*All warranty repairs must be executed by a Radia Authorized Service Center or warranty will be voided.

**THE REMEDIES SET FORTH HEREIN ARE PURCHASER'S SOLE AND EXCLUSIVE REMEDY and RADIA'S ENTIRE LIABILITY FOR ANY BREACH OF THE LIMITED WARRANTY SET FORTH HEREIN.**

Please contact your Radia Relationship Manager at 800-221-1083 for specific questions regarding specific questions regarding warranty terms.



For sales or service, please contact

RADIA  
Attn: Customer Service Department  
14900 21st Ave N  
Plymouth, Mn 55447  
USA

**U.S. Telephone:** 800.221.1083  
**International Telephone:** 763.533.2969  
**Fax:** 763.533.0015  
**E-mail:** [info@radiaproducts.com](mailto:info@radiaproducts.com)

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



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