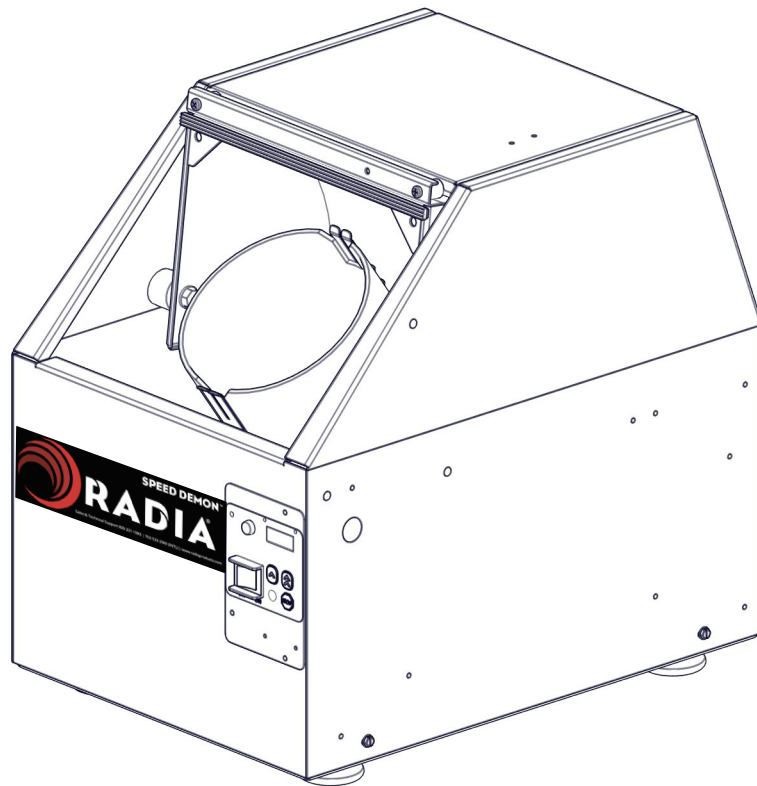


# Owner's Manual: 1015 Speed Demon

## One-Gallon Vortex Mixer

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Models 0-1015-PB (110V, 60Hz, Digital Display)  
0-1015-PBDL (110V, 60Hz, Digital Display with Door lock)






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# 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 injury.</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>PIÈCES 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 ouvrir la porte avant que la machine ne s'arrête complètement. Pièces en mouvement à l'intérieur pourraient provoquer des blessures graves.</p>	

Part No. 1784963

 <p><b>WARNING</b> <b>ADVERTENCIA</b> <b>AVERTISSEMENT</b></p>	<p>-This machine is not explosion proof rated. -Review product label, Material safety Data Sheet, and HMIS rating of materials and exposures prior to mixing to determine potential hazards. -Use in dry and well-ventilated environment where dust and flammable vapors are not present; risk of physical injury exists if used in hazardous environment. -All containers must be properly sealed and void of leaks.</p> <p>-Esta máquina no tiene la clasificación de prueba de explosión. -Revise la etiqueta del producto, la hoja informativa de datos de seguridad, su clasificación HMIS antes de mezclar y exposiciones de materiales peligrosos para determinar los peligros potenciales. -Use en un ambiente seco y bien ventilado donde polvo y vapores inflamables no estén presentes; Riesgo de daño físico existe si es utilizado en un ambiente peligrosos. -Todos los contenedores deben estar bien sellados y sin fugas.</p> <p>-Cette machine n'est pas classé antidéflagrant. -Examen e'tiquette du produit, Fiche de données de sécurité, Et matériel HMIS cote et expositions, avant de faire le mélange pour déterminer les risques potentiels. -Utilisation a'sec et bien aere' environnement ou/la poussière et les vapeurs inflammables ne sont pas présents; risque de blessure physique existe si utilise' en environnement dangereux. -Tous les conteneurs doivent être concenablement scellés pour éviter les fuites.</p>
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Part No. 1780899

 <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. -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. -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 eléctrico y daños. -Desconecte la energía antes de dar mantenimiento, limpiar o quitar cualquier cubierta, y siga los procedimientos de bloqueo/etiquetado del manual, Fallar en desconectar puede causar choque eléctrico y daños. - Revise el manual del usuario antes de instalar u operar.</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. - 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 manul de l'opre'rateur; E'chec de de'brancher la source d'alimentation peut provoquer shock and e'lectrique blesyres. -Re'examiner le fonctionnement manuel avant l'installation.</p>
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Part No. 1781570

Safety Information, Continued..


Safety Information, Continued..

## 1.2 Safety Precaution Summary


### **DO NOT WARNING!**


 **DO NOT** attempt to replace any damaged electrical wire or components. Improper replacement could result in electric shock and serious injury. Only a qualified service representative should attempt to repair or replace any damaged electrical components.


 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.

The machine's power cord has a grounding wire with an appropriate grounding plug. This plug must be inserted into an electrical outlet that is properly installed and grounded according to all local codes and ordinances.


 If you must repair or replace the power cord or plug, **DO NOT** connect the grounding wire to either flat-blade terminal. The wire with insulation having an outer surface that is green (with or without yellow stripes) is the grounding wire.


 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. **DO NOT** modify the plug provided; if it won't fit in the outlet, have a proper outlet installed by a qualified electrician.


 Disconnect the power cord before servicing, cleaning, or removing any covers

 Follow the lockout/tagout procedures of your company.


 **DO NOT** open the door until the machine comes to a complete stop.


 To avoid electric shock, don't get the timer, control panel, or wiring wet.

 This machine is not explosion proof rated. All containers must be properly sealed and void of leaks.

 Review product label, Material Safety Data Sheet, and HMIS rating of materials prior to mixing to determine potential hazards.


 **DO NOT** use solvent-based cleaners or thinners.


 Use in a dry and well-ventilated environment where dust and flammable vapors are not present.


 **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.ca.gov](http://www.P65Warnings.ca.gov)


### **CAUTION!**


 Keep the work area free of clutter and electrical cords.

 Avoid extension cords. To minimize the risk of improper electrical grounding, extension cords are not recommended. If an extension cord is unavoidable, consult a qualified electrician to determine what type of extension cord will satisfy the grounding, current capacity, and other requirements of the particular situation.

 Use the proper power source. Refer to the machine data plate on the right side panel or the section 2.1, Specifications, in this manual.

 Keep customers away from the work area. This machine should be used only by properly trained individuals.

 Clamp the can carefully to ensure that it is held securely during the mixing cycle.

 Do not operate the machine without a can installed.

**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 1 Vortex Mixer. This machine is designed to accommodate single round pint, quart, or gallon plastic or metal containers weighing up to 15 lb. (6.8 kg). It can also accommodate square quart cans when used in conjunction with the optional adapter, part no. 9784203. 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, 1015PB & PBDL:** W 15 in. (38.1 cm) D 21.5 in. (54.6 cm) H 20.5 in. (52.1 cm)

Machine Weight

**PB & PBDL: 76 lb.** (34.5 kg)

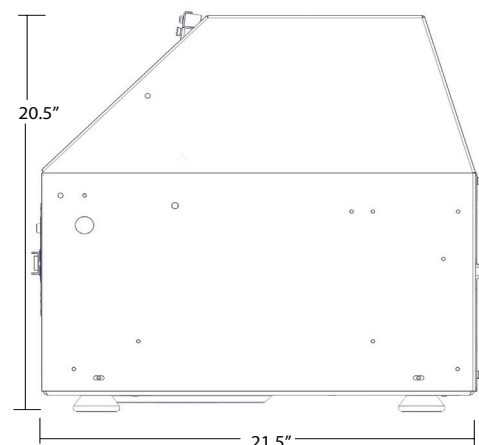
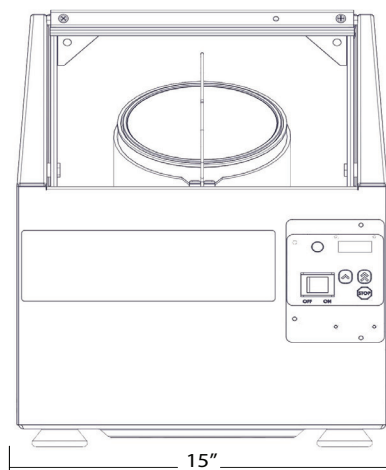
**Maximum Capacity:** 15 lb. (6.8 kg)

**Sizes Mixed:** One pt., one qt, one gal.

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.



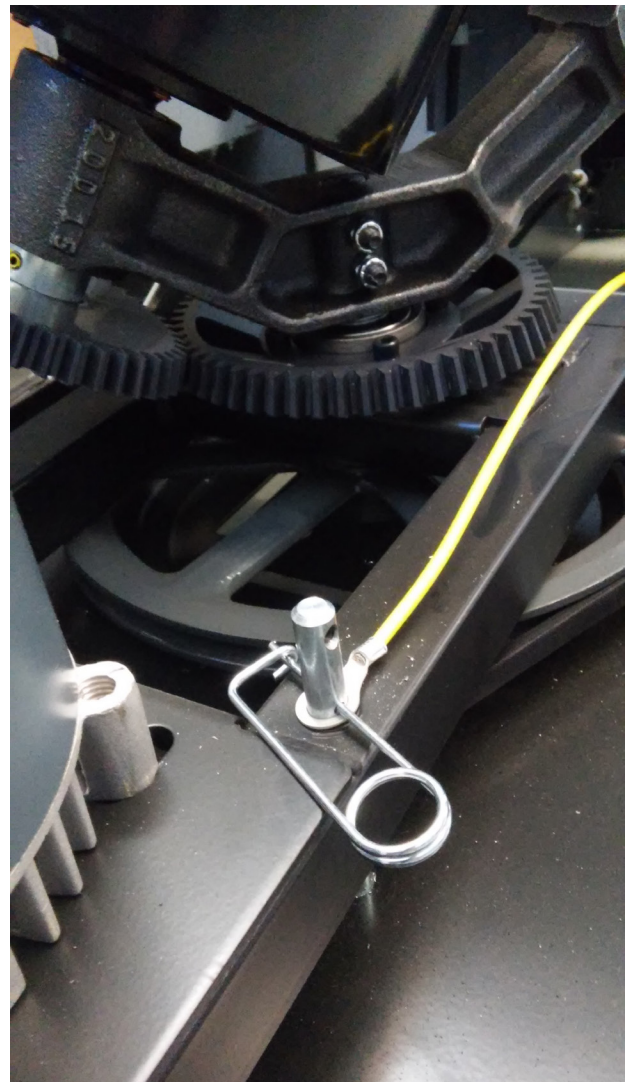
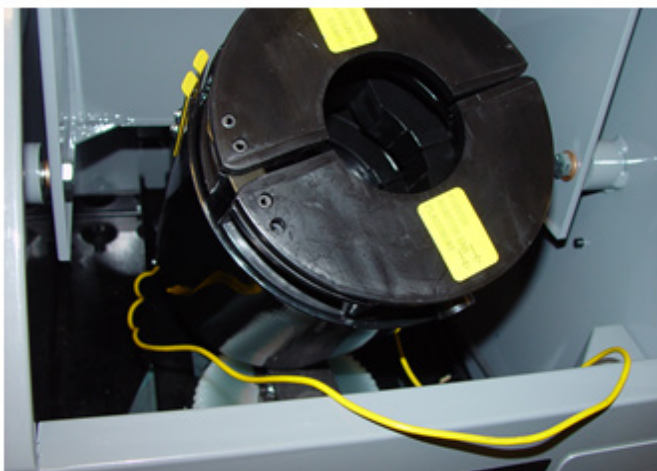
## 3. Unpacking & Installation

This machine was shipped fully assembled.

Before plugging in the machine or attempting to operate it:

1. Remove all packing material.
2. Remove the locking pins from the top of the shipping rods.
3. Push the shipping rods down far enough to remove the retaining pins and washers underneath the pallet.
4. Remove the shipping rods by sliding them up through machine frame. Set aside the rods, washers, yellow lanyard, and retaining pins in case they are needed for shipment of the mixer in the future.
5. Set the machine on a stable, level surface and plug it in an appropriately grounded outlet (see section 1.2, Safety Precaution Summary, for grounding information).

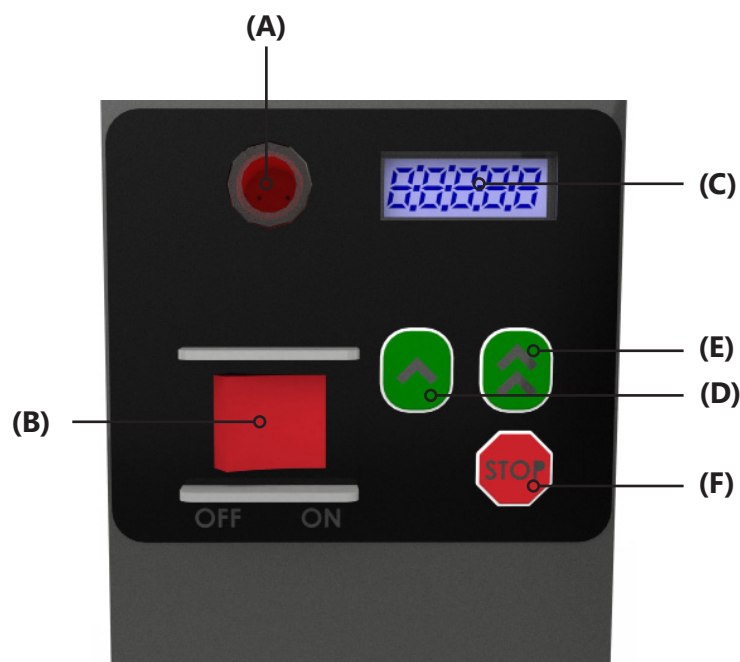
**NOTE:** If the machine needs to be shipped any time, contact RADIA to obtain the appropriate packaging kit, part no. 6784975. See section 9, Ordering, for ordering information.



## 4. Operation - 1015PB/PBDL

### 4.1 Control Panel

- **Operational Indicator (A):** This light is illuminated during machine operation.
- **Power Switch (B):** Turn the power off and on. (Note: Not used on the PBDL model)
- **Digital Display (C):** View programming revision and cycle time remaining.
- **Ninety-Second Cycle (D):** Push to set a 1:30 minute cycle. Press again to increase the cycles in 1:30 minute increments. (Note: On the PBDL model, the door locks until 9 seconds after the cycle completes.)
- **Three-Minute Cycle (E):** Push to set a 3:00 minute cycle. Press again to increase the cycles in 3:00 minute increments. (Note: On the PBDL model, the door locks until 9 seconds after the cycle completes.)
- **Stop (F):** Press to stop a cycle before the preset time expires.





## 4.2 Install a Container

1. Open the cabinet Door
2. Load the can into the machine for mixing:
  - **Gallon Cans:** Insert the can into the can holder. Slip the bail handle into the clip retainers (D).
  - **Quart Cans:** Place the can inside the quart adapter, **6783756** (A). Set the quart can horizontally with the lid up. (See Figure 1)
  - **Pint Cans:** Place round pint cans vertical, with the lid up. Close the **6783756** adapter around the can. (See Figure 2)
  - **Half Pint Cans:** Place the half pint can inside the 6786133 (E) foam adapter (Optional for this machine). Close the **6783756** adapter around the 6786133 foam adapter. (See figure 3)
3. For **Quarts, Pints & Half pints:** Insert the adapter into the can holder. Make sure the **6783756** adapter lugs (C) are lined up with the bail retainers and the adapter is all the way to the bottom of the can holder (B). (See Figure 4)
4. Close the cabinet door. The mixer has a safety switch that interrupts operation if the door is open.
5. Select the desired mix time.

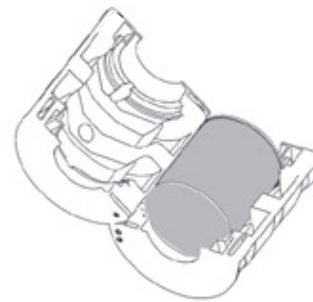


Figure 1

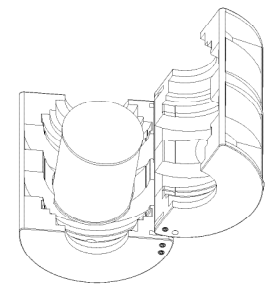
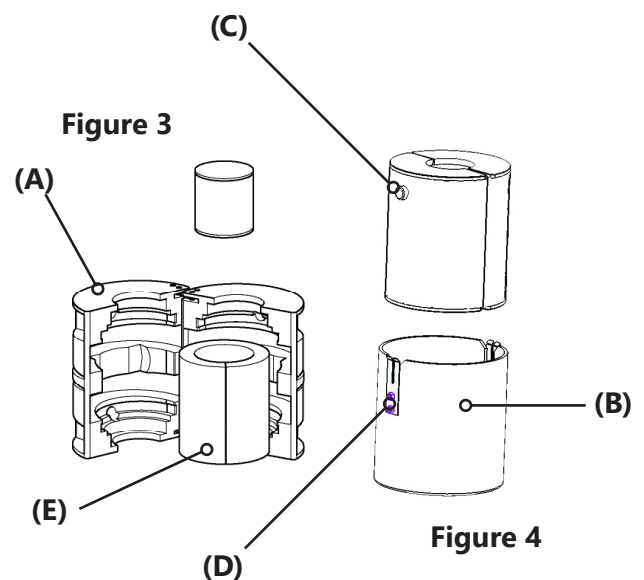


Figure 2



**⚠** If the container handle wasn't properly secured, press the STOP button on the control panel.

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

## 5. Cleaning

**⚠** Always unplug the power cord before cleaning! **DO NOT** get the timer, control panel, or wiring wet.

### 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.

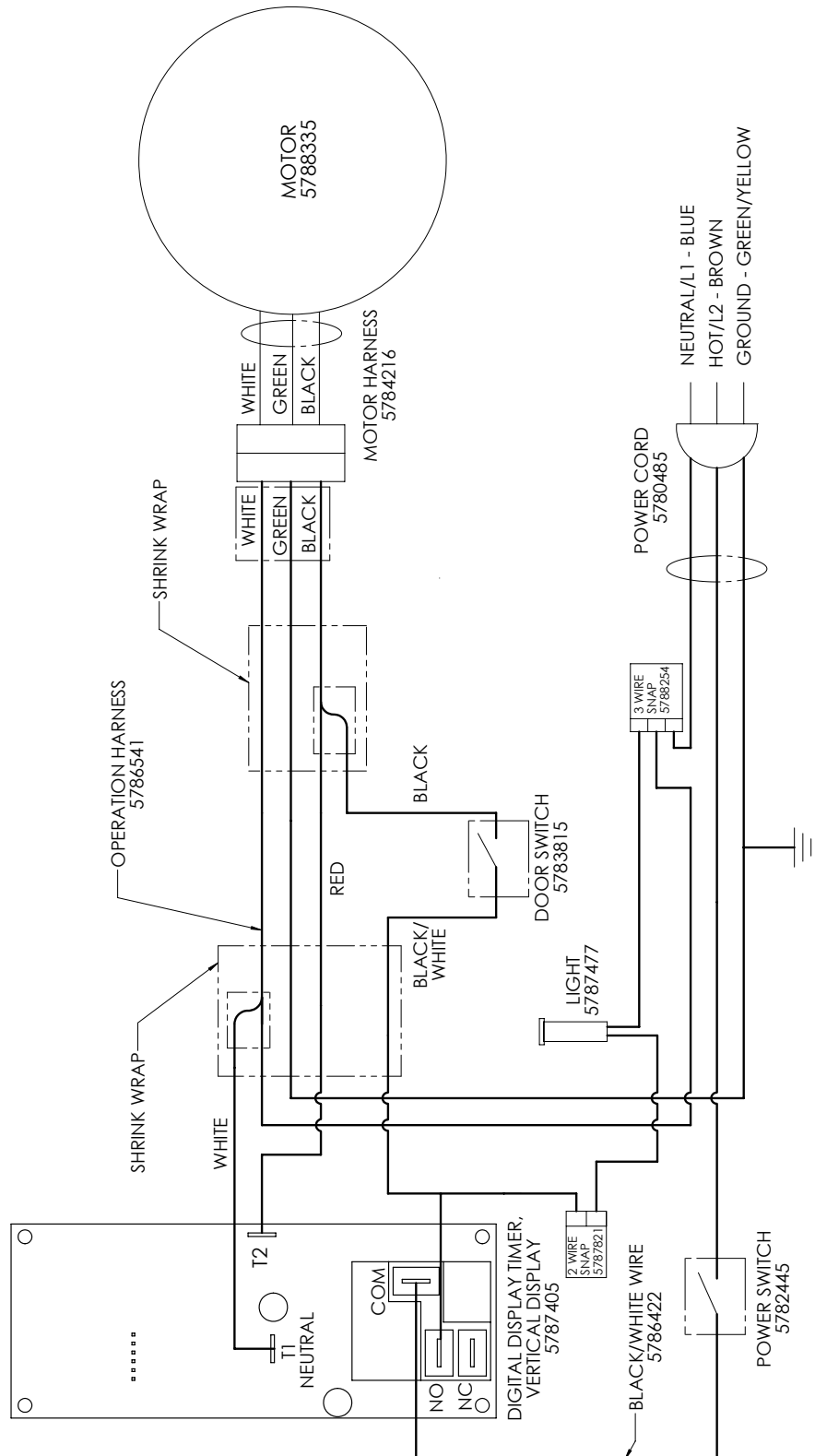
## 6. Troubleshooting

 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
	Machine door does not make contact with limit switch	Adjust lever arm on the switch to make contact with door bracket tab when door is closed
	Motor Thermal Protector Activated	Allow to cool, then restart the machine
	Faulty motor	Contact Radia Customer Care
	Faulty controller	Contact Radia Customer Care
	Faulty door limit switch	Contact Radia Customer Care
	Worm, Damaged, or Loose drive belt	Contact Radia Customer Care
Excessive Vibration	Pail damaged	Fix or replace pail
	Pail not properly seated	Reset pail into holder
	Feet are not level	Adjust and level feet
Machine doesn't shut off at end of mixing cycle	Faulty controller	Contact Radia Customer Care
Machine doesn't shut off when door is opened	Faulty door limit switch	Contact Radia Customer Care
Increasing mechanical noise	Bearings worn or damaged	Contact Radia Customer Care

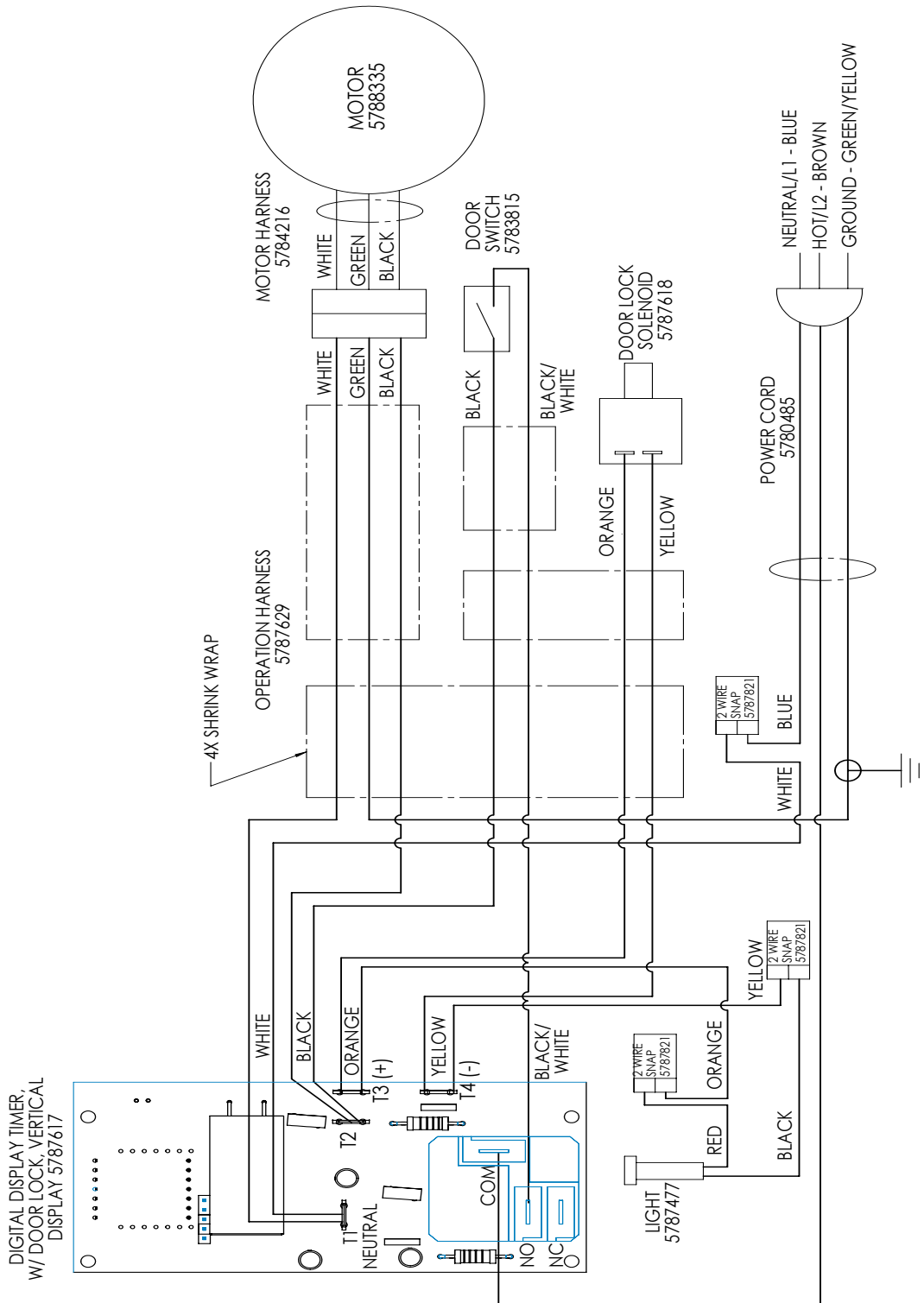
## 7. Wiring Diagrams

### 7.1 1015 PB (Digital Display)



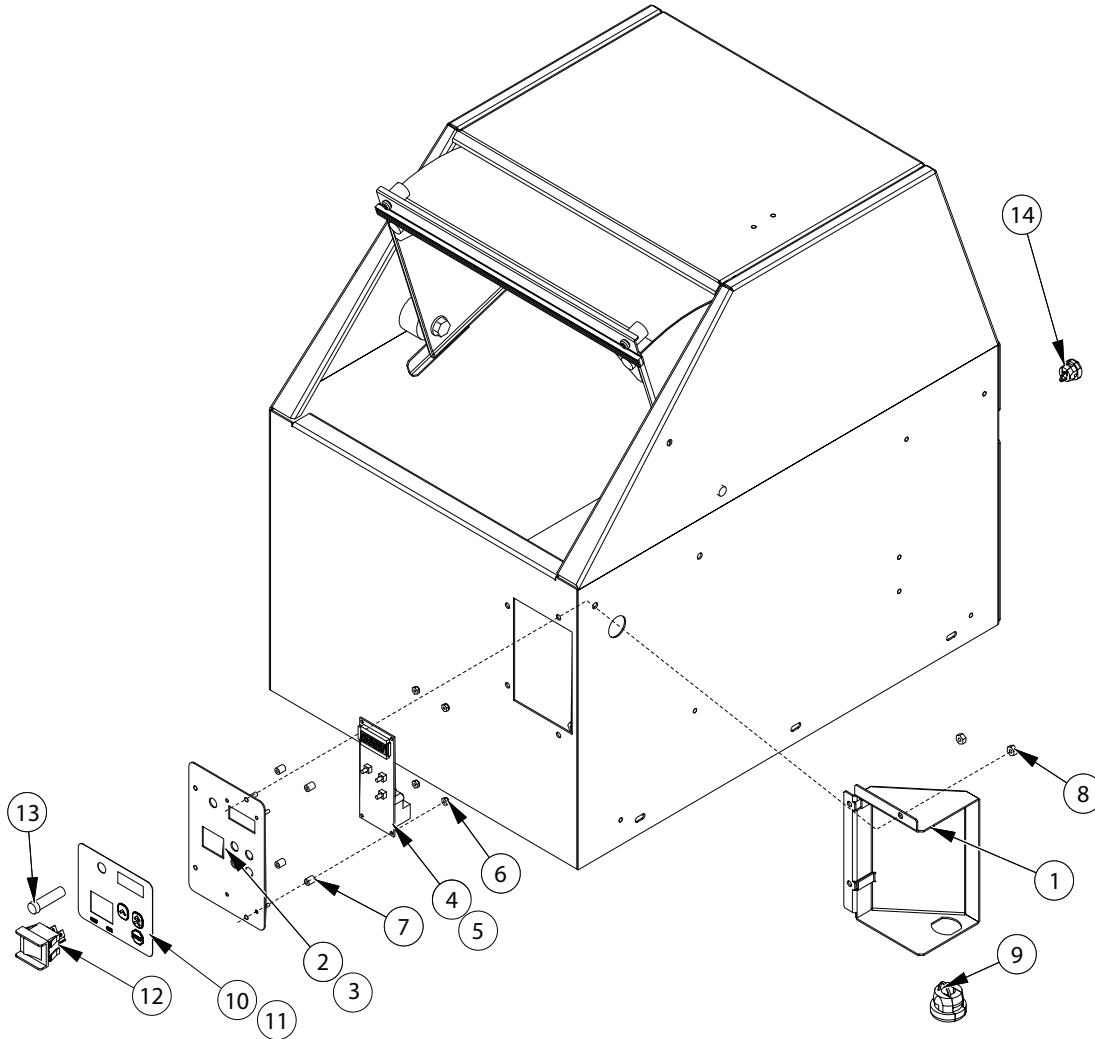
## 7. Wiring Diagrams

### 7.2 1015 PBDL



## 8. Exploded Views

### 8.1 PB & PBDL Electrical Assembly



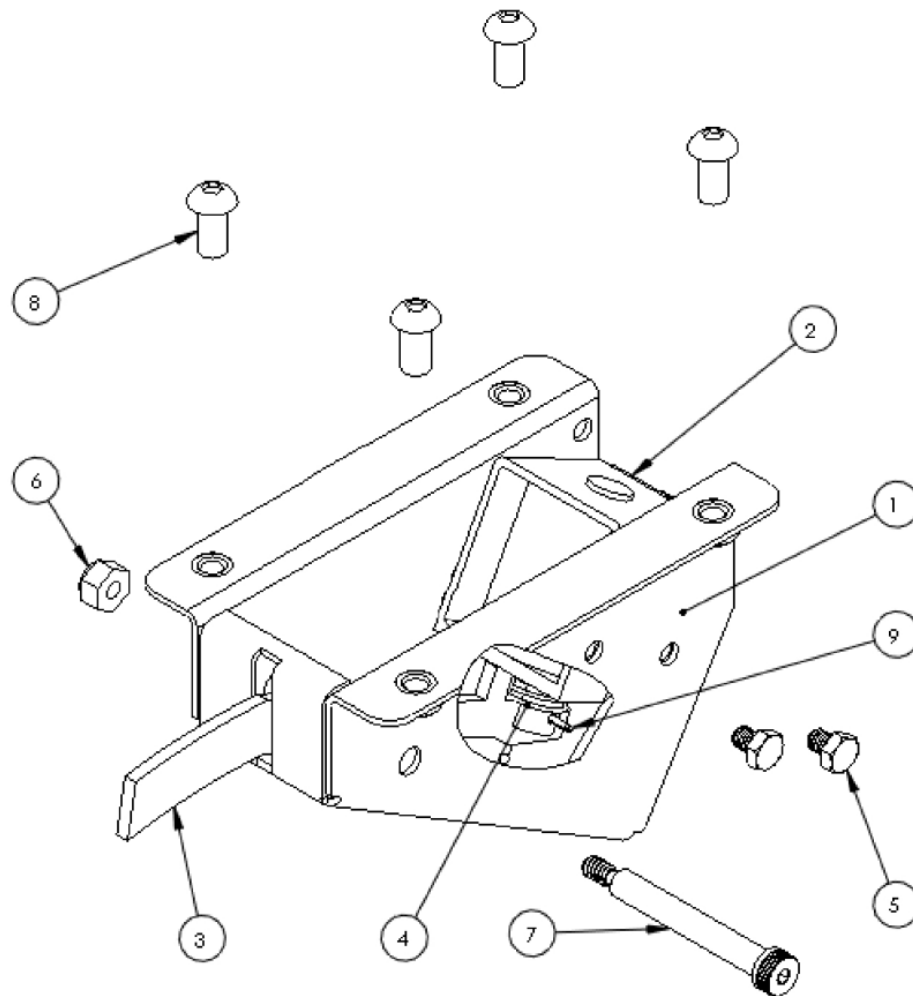
ID	Description
1	9786423 BOX, DIGITAL DISPLAY - 1015
2	9787479 PANEL, CONTROL, DIGITAL DISPLAY - 1015-PB
3	9787635 PANEL, CONTROL, DIGITAL DISPLAY - 1015-PBDL
4	5787405 TIMER, DIGITAL, VERTICAL, 120V
5	5787617 TIMER, DIGITAL, VERTICAL, 120V - 1015-PBDL
6	9783595 Nut, Lock, Nylon 4-40
7	9786232 SPACER
8	9781840 Nut, Keps #8-32

ID	Description
9	9782603 STRAIN RELIEF 5300 PB
10	1787763 LABEL, DIGITAL DISPLAY - 1015-PB
11	1787619 LABEL, DIGITAL DISPLAY - 1015-PBDL
12	5782445 POWER SWITCH
13	5787477 LED INDICATOR, PANEL MOUNT
14	9102519 BUSHING,STR.RELIEF

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

...Exploded Views, Continued

## 8.2 PBDL Door Lock Assembly



ID	Description
1	9787630 SOLENOID BRACKET - 1015
2	5787618 SOL, 120VDC, DOOR LOCK
3	9787631 1015 DOOR LOCK LEVER
4	9787624 SPRING, .526 ID X .50 LG

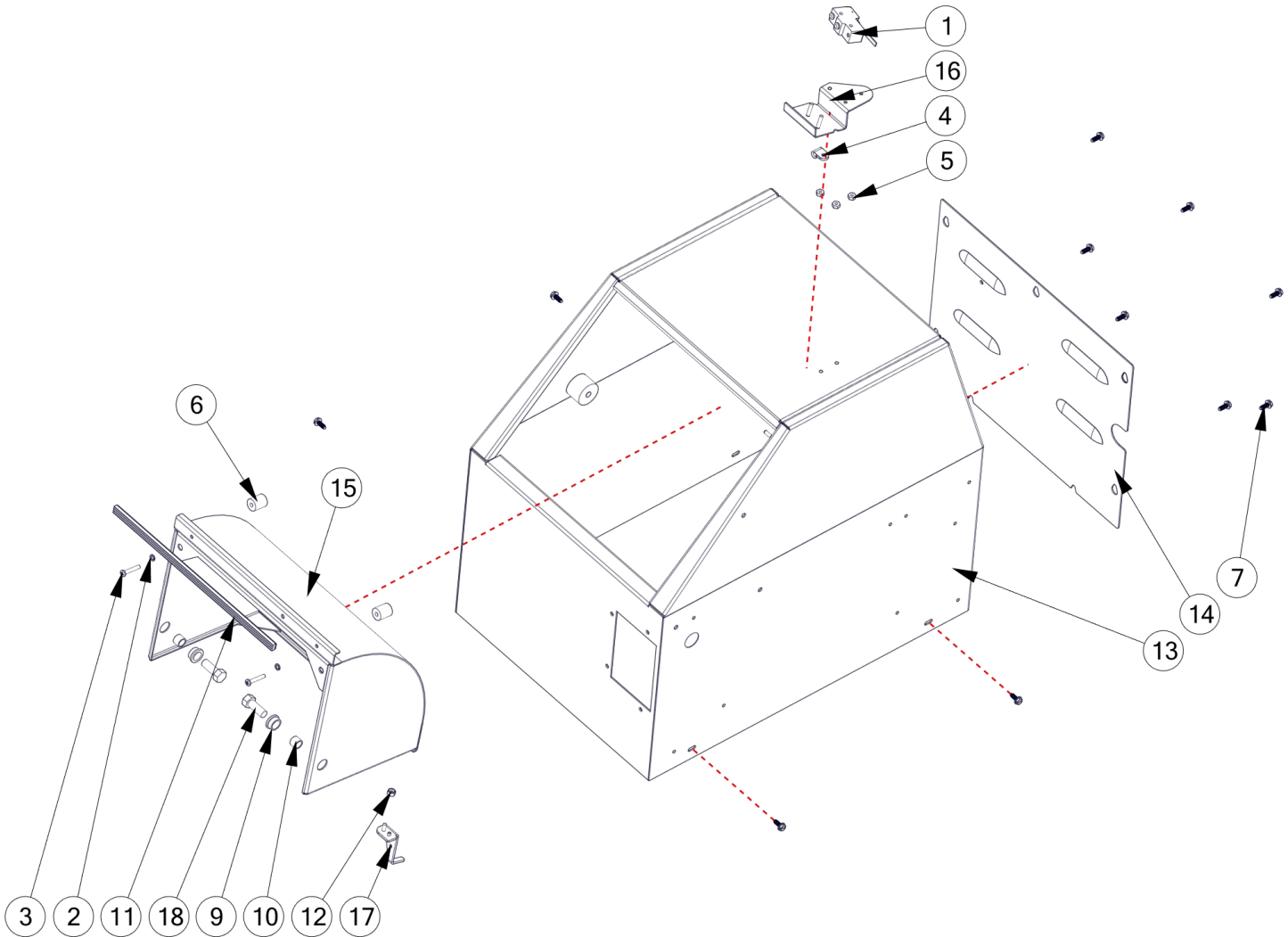
ID	Description
5	9787634 SCREW, HEX #10-32 X .25
6	9782004 Nut #10-24 Nylon Lock
7	9787633 SHLD BOLT, .25 DIA X 1.75
8	9783365 Screw Button 1 4 x .5
9	9787632 COTTER PIN, 1/16 X

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

Exploded Views, Continued..

...Exploded Views, Continued

## 8.3 Enclosure Components



ID	Description
1	5783815 Switch, Limit 1hp
2	9780633 Washer #10 LOCK
3	9781142 Screw, Pan-Head, 10-32 X .50
4	9781548 CLAMP, CABLE 1_4 HEYCO 3324
5	9781840 Nut, Keps #8-32
6	9782681 BUMPER, DOOR - 5300
7	9783385 Screw, #10-32 SHWH Tap
9	9784425 Bearing, Bronze Flanged
10	9784426 Sleeve, Steel

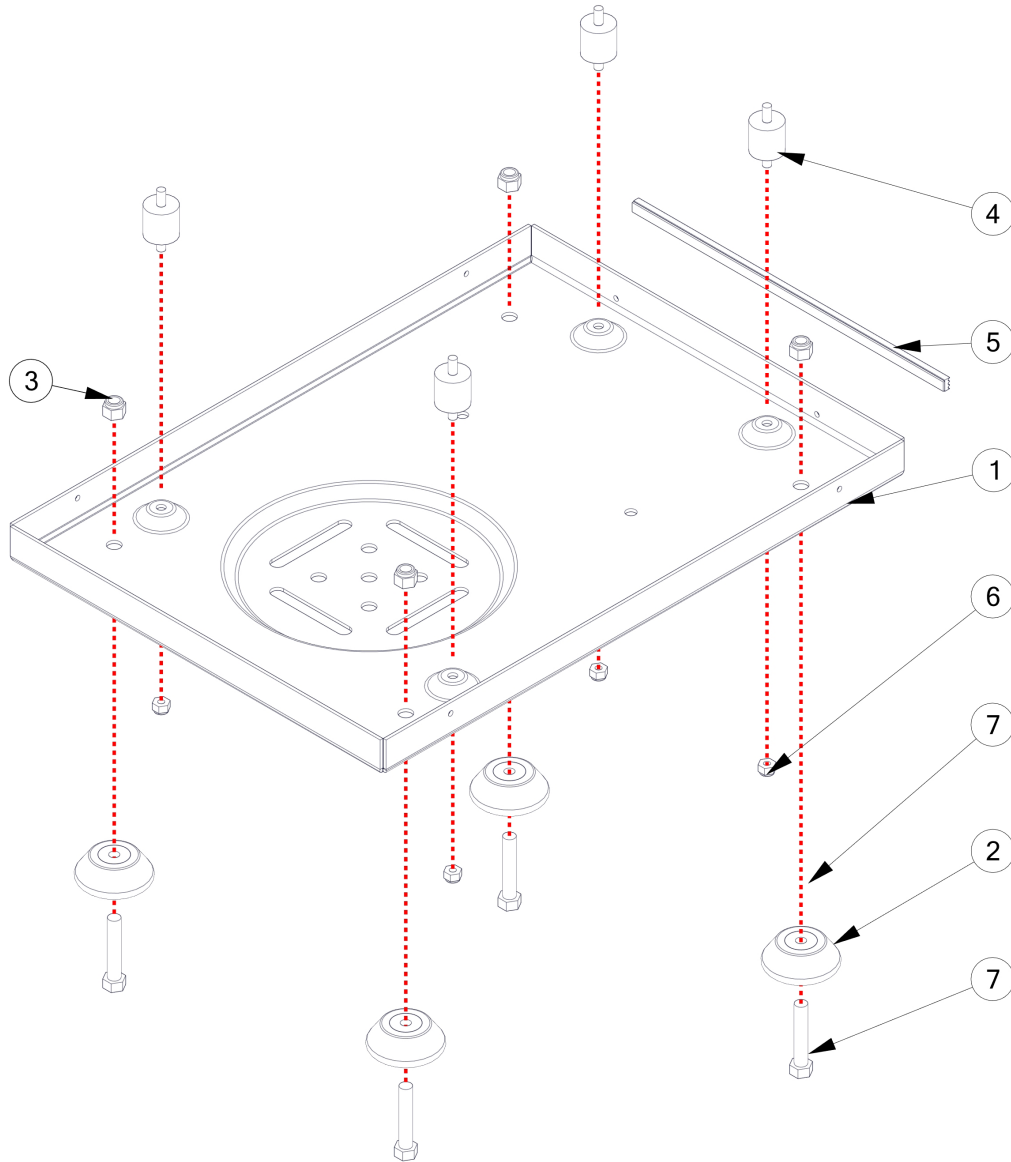
ID	Description
11	9784589 SEAL, DOOR - 1015
12	9785126 Nut #8-32 Nylon Lock
13	9787239 Enclosure Weldment - 1015
14	9787240 BACK PANEL 1015
15	9787253 DOOR WELDMENT - 1015
16	9787770 BRACKET, DOOR CLOSED SWITCH - 1015
17	9787772 ACTUATOR, DOOR CLOSED - 1015PB
18	9788040 Screw Hex Hd 3_8-16 x 1.00 Gr8 ZP Patch

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

Exploded Views, Continued..

...Exploded Views, Continued

## 8.4 Frame Assembly



ID	Description
1	9784556 BASE - 1015
2	9782044 Foot, Floor Stand
3	9780193 Nut, Nylock 3_8-16
4	9781929 ISOLATOR, RUBBER - 5300
5	9784589 SEAL, DOOR - 1015
6	9780343 Nut 1_4-20 Nylon Lock
7	9788040 SCREW HEX HD 3/8-16X1 GR8 ZP PATCH

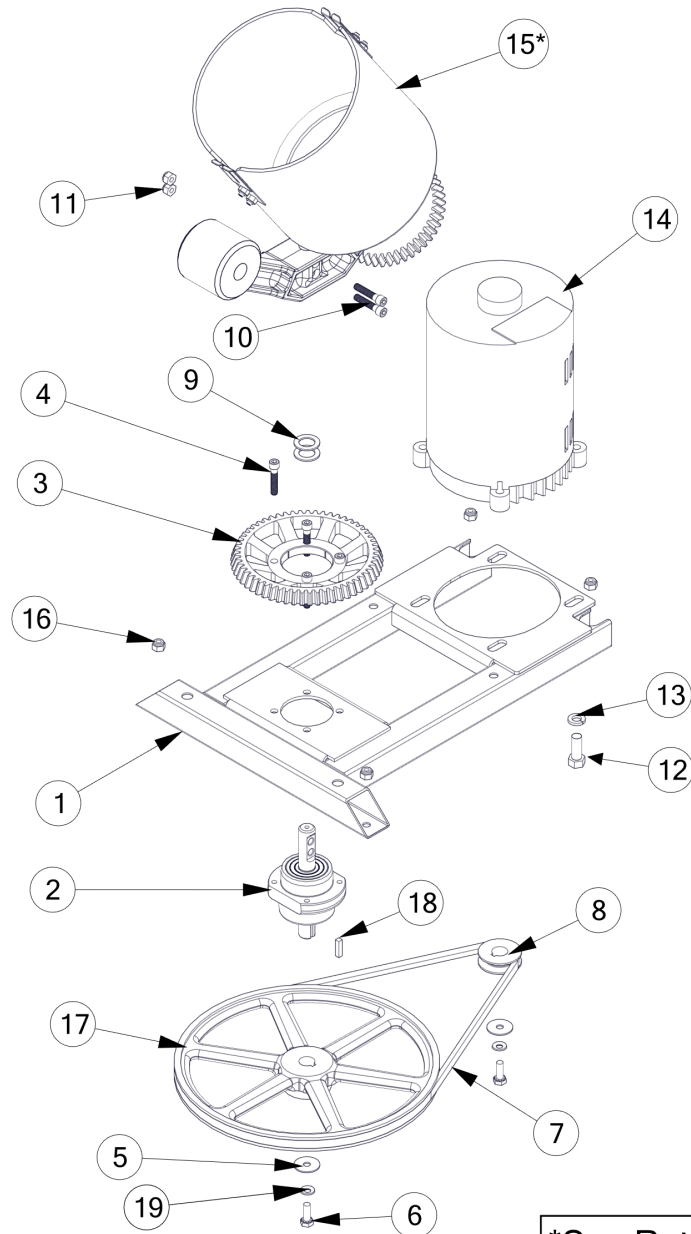
**PART NUMBERS LISTED MAY ONLY BE AVAILABLE IN KIT FORM OR AS AN ASSEMBLY**

Exploded Views, Continued..



...Exploded Views, Continued

## 8.5 Drive Assembly



\*See Rotating Arm Assembly

ID	Description
1	9784523 FRAME, MIX - 1015
2	6784807 Bearing Housing Kit - 1015
3	9784639 GEAR, BIG BEVEL, FIXED - 1015RND
4	9788089 Screw Socket Hd 1_4-20 x1.25 Patch
5	9781414 Washer Fender 1_4
6	9788088 Screw Hex Hd 1/4-20x.75 GR8 ZP Patch
7	9784527 BELT - 1015
8	9784652 PULLEY, SMALL - 1015
9	9781904 WASHER, SPACER
10	9788089 Screw Socket Hd 1_4-20 x1.25 Patch

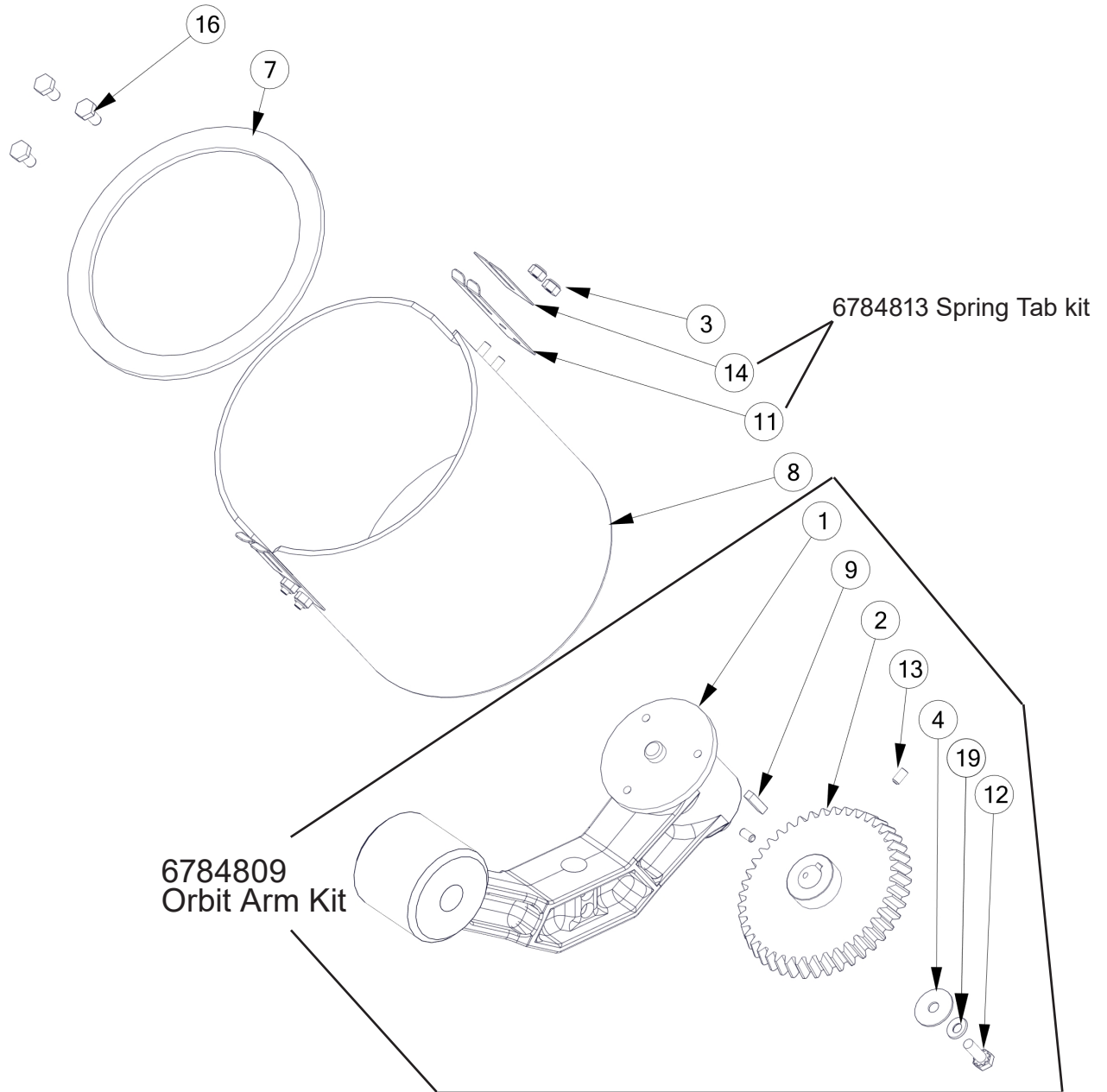
ID	Description
11	9783426 NUT, KEPS #10-32
12	9788040 Screw Hex Hd 3_8-16 x 1.00 Gr8 ZP Patch
13	9780402 Washer 3_8 split lock
14	5788445 Motor 1/4 Hp 56C, w_harness KIT
15	ROTATING ARM ASBY - 1015*
16	9780343 Nut 1_4-20 Nylon Lock
17	9781918 PULLEY - 1015
18	9784334 Key, Square .187 x .750
19	9789762 WASHER, LOCK, 1/4" BELLEVILLE, SERRATED

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

Exploded Views, Continued..

...Exploded Views, Continued

## 8.6 Rotating Arm Assembly



ID	Description
1	9784514 ROTATING ARM & C'WEIGHT, CAST - 1015
2	9784640 GEAR, SMALL BEVEL, ORBIT - 1015RND
3	9783426 NUT, KEPS #10-32
4	9781414 Washer Fender 1_4
7	9782432 RING, RUBBER
8	9783717 CAN HOLDER,ALUMINUM - 5300
9	9784334 Key, Square .187 x .750

ID	Description
11	9784541 TAB, SPRING. - 1015
12	9788088 Screw Hex Hd 1/4-20x.75 GR8 ZP Patch
13	9784559 SCREW, SET CUP PT #10-24 X .375
14	9784560 PAD, SPRING TAB DAMPER - 1015
16	9784698 SCREW, HEX 1_4-20 X .50
19	9789762 WASHER, LOCK, 1/4" BELLEVILLE, SERRATED

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

Exploded Views, Continued..

## 9. Ordering

### Replacement 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

763-852-1811 (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)



**01015PB**

Use the QR label located on the side of the machine to access this manual on your mobile device.

# 10. Warranty

## Equipment Covered Under This Warranty

Models 1015 PB & SP

### 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

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