

Owner's Manual: 5315 Speed Demon 5TM Five-Gallon Vortex Mixer

Models 0-5315-PB (110V, 60 Hz Digital Display)

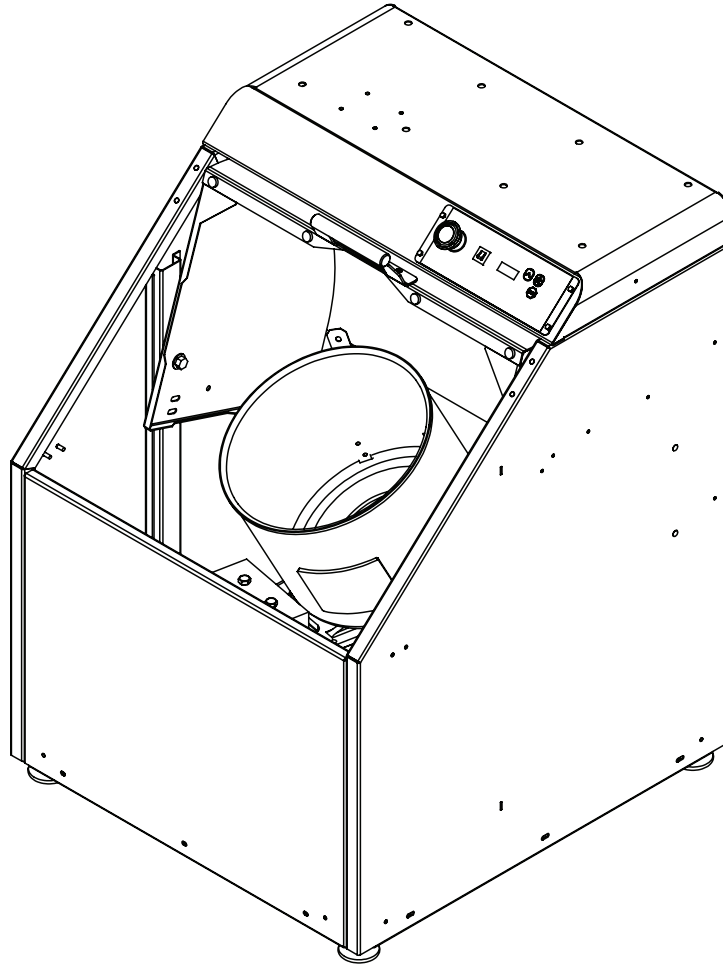





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1. Safety Information

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>“WARNING!” 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>“CAUTION!” indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.</p>
	<p>“NOTICE” indicates practices that do not involve physical injury but may damage the machine.</p>

Safety Information, Continued..

1.1 Safety Precaution Labels



WARNING
ADVERTENCIA
AVERTISSEMENT

-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.

-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.

-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 convenablement scellés pour éviter les fuites.

Part No. 1780899



WARNING
ADVERTENCIA
AVERTISSEMENT

- 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.

- La maquinaria debe ser apoyada correctamente en el suelo antes de usar, el no apoyarla puede causar 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.

- La machine doit être correctement mise à la terre avant de les utiliser mise à la terre incorrecte peut provoquer un choc électrique et de blessure.

- Debranchez le cordon d'alimentation avant de procéder à l'entretien, le nettoyage ou le retrait des capots: suivez la procédure d'isolation/ consignation procédures dans le manuel de l'opérateur; E'chec de

Part No. 1781570



WARNING
ADVERTENCIA
AVERTISSEMENT

MOVING PARTS INSIDE
PARTES EN MOVIMIENTO
PIECES EN MOVEMENT

-Do not open door until machine comes to complete stop; moving parts inside could cause serious injury.

-No abra la puerta hasta que la máquina se detenga completamente, las partes internas en movimiento pueden causar heridas graves.

- Ne pas ouvrez la porte jusqu'à ce que la machine est complètement arrêtée; pièces en mouvement à l'intérieur pourrait provoquer des blessures grave.











Part No. 1784963







Safety Information, Continued..

Safety Information, Continued..






1.2 Safety Precaution Summary

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.
-  **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.**

-  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.

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 2.2, 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 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, 5315PB: **W** 26.3 in. (66.7 cm) **D** 28 in. (71.1 cm) **H** 36.5 in. (927 cm)

Machine Weight

5315PB: 267 lb. (121 kg)

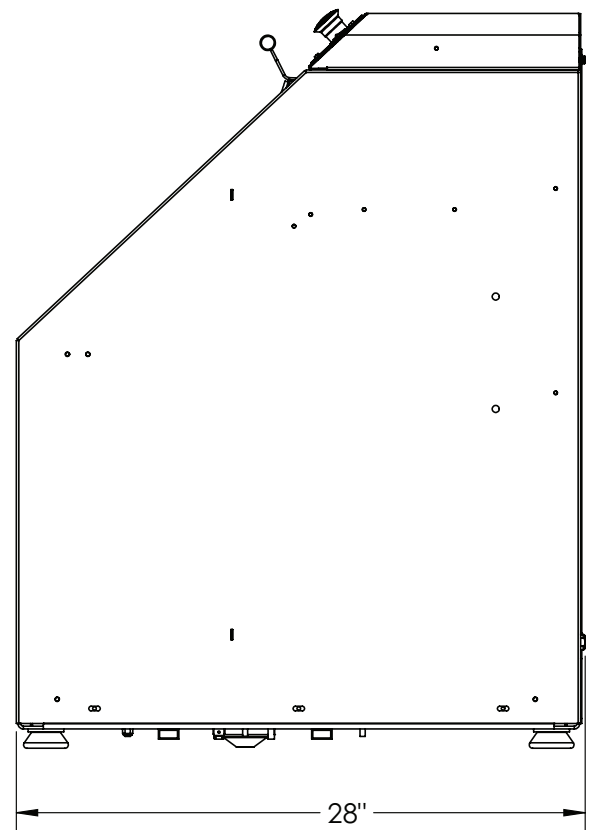
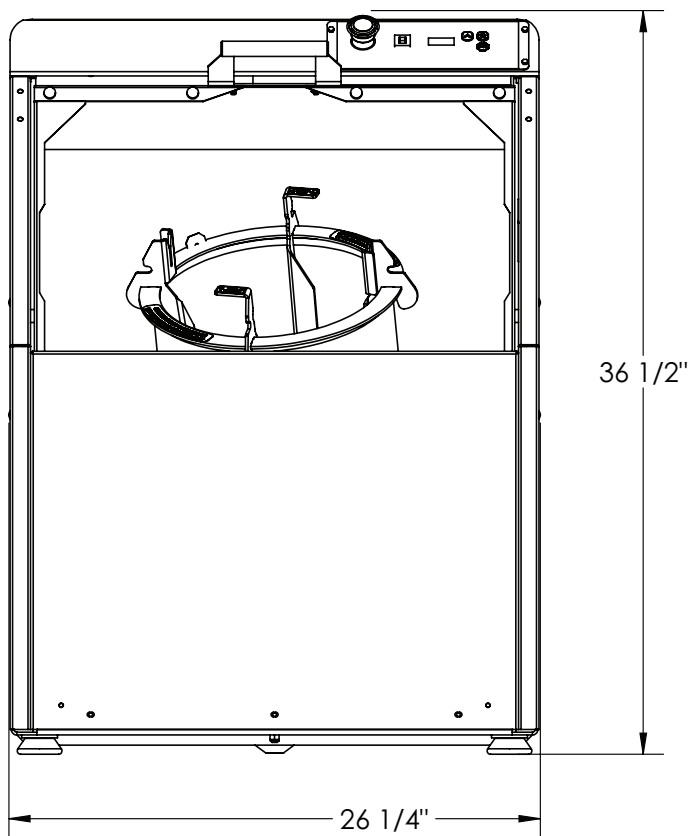
Maximum Capacity: 80 lb. (36.3 kg)

Sizes Mixed: One gal., Five 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.



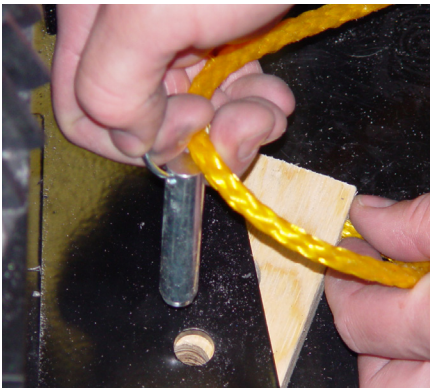
3. Unpacking & Installation

This machine was shipped fully assembled.

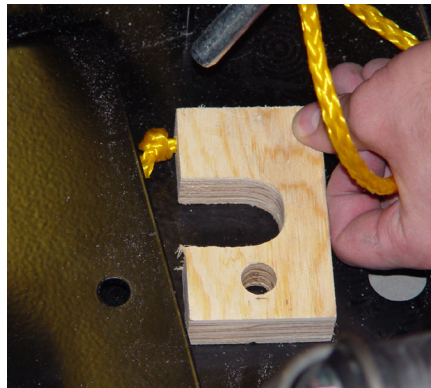
Before plugging in the machine or attempting to operate it:

1. 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 and plug it in an appropriately grounded outlet (see section 1.2, Safety Precaution Summary, for grounding information).

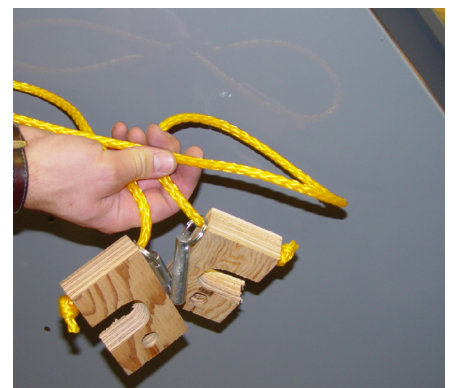
NOTE: If the machine needs to be shipped any time, contact Radia Products to obtain the appropriate instruction sheet, part no. 1785025 and shipping block assembly, part no. 9784291. See section 9, Ordering, for ordering information.



Step 1



Step 2

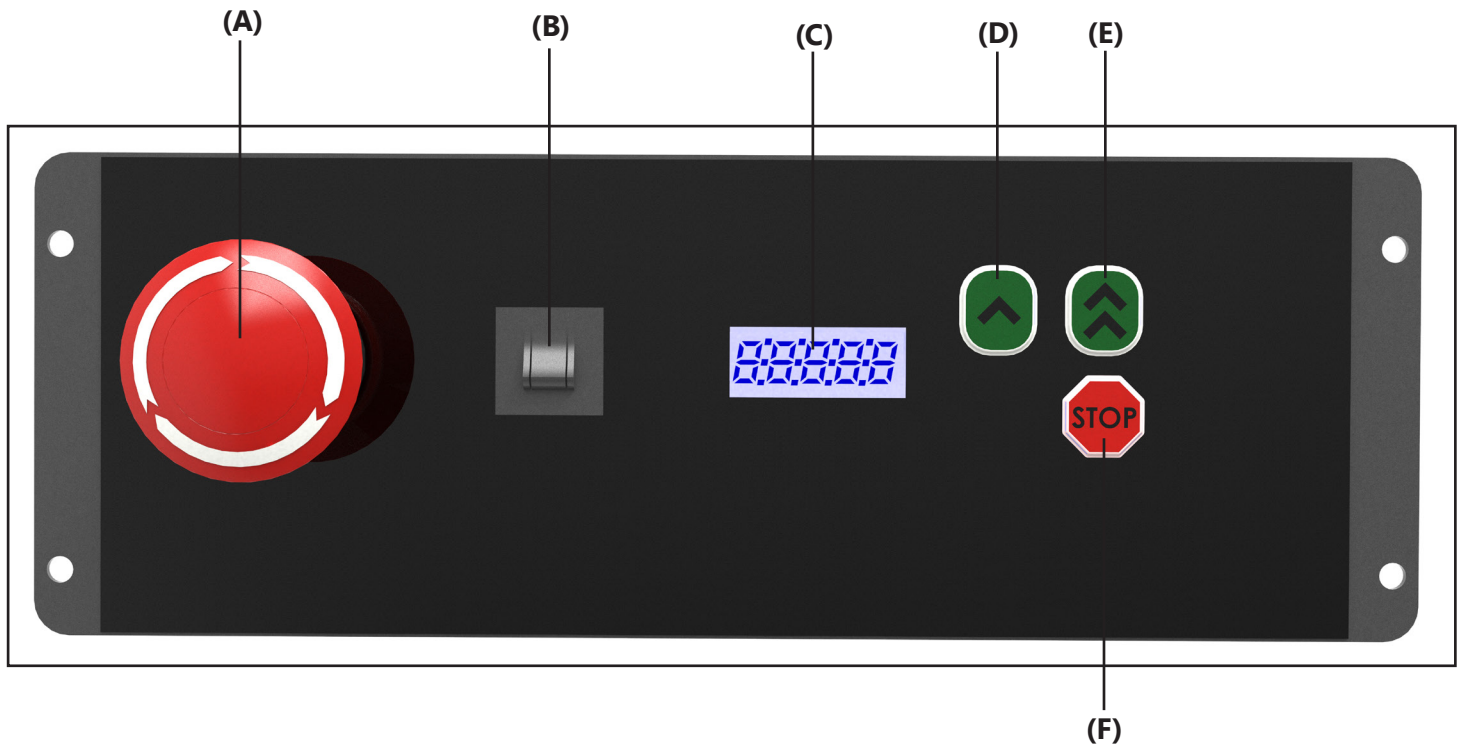


Step 3

4. Operation

4.1 Control Panel

- **E-Stop (A):** Only use to immediately cut the power to the machine
- **Circuit Breaker (B):** Reset power after cause for circuit trip is fixed.
- **Digital Display (C):** View programming revision and cycle time remaining.
- **Two-Minute Cycle (D):** Push to set a two-minute cycle, and to increase cycles in two minute increments.
- **Three-Minute Cycle (E):** Push to set a three-minute cycle, and to increase cycles in three minute increments.
- **Stop (F):** Press to stop a cycle before the preset time expires.



4.2 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, A1501. 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. Select the desired mix time.

 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 PRODUCTS Lid Press, Part No. 0-5080).

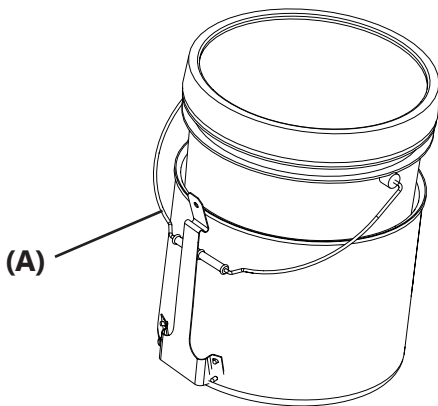


Figure 1

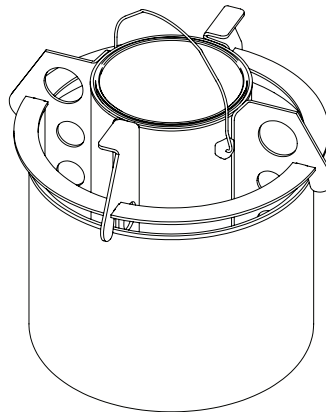


Figure 2

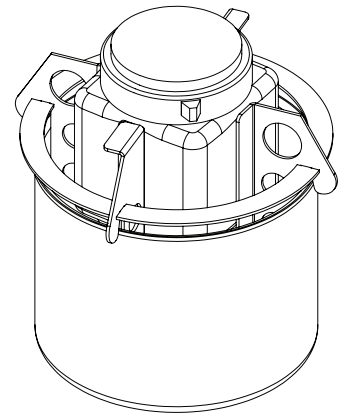



Figure 3

5. Care and Maintenance

5.1 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.

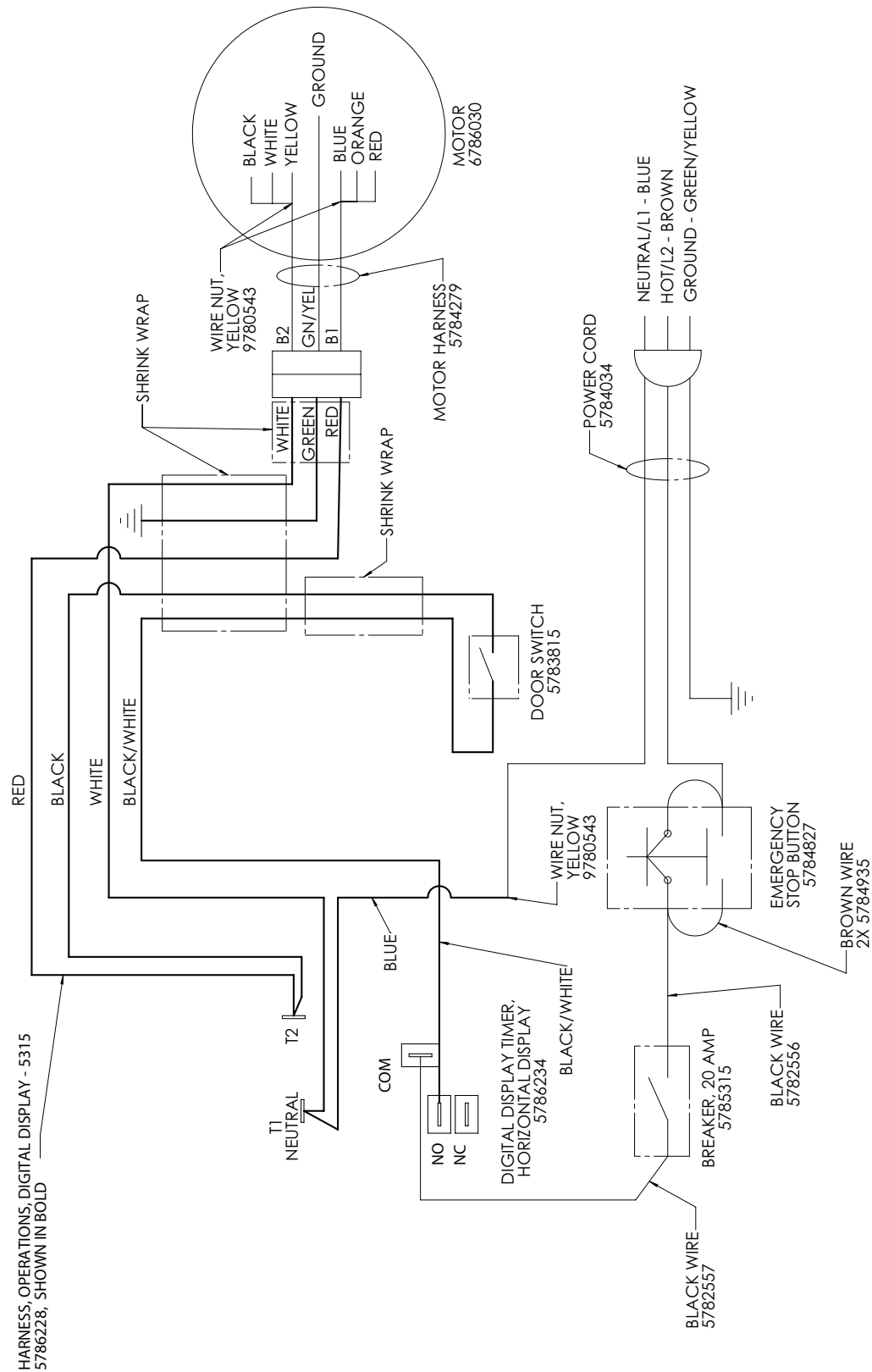
- Colorant or base paint spilled on machine surfaces can be removed using lukewarm water and mild detergent for water-based/glycol colorants.
- To preserve the appearance of the machine, do not use abrasives to clean machine surfaces.

6. Troubleshooting

 Disconnect the machine from its power source before servicing .

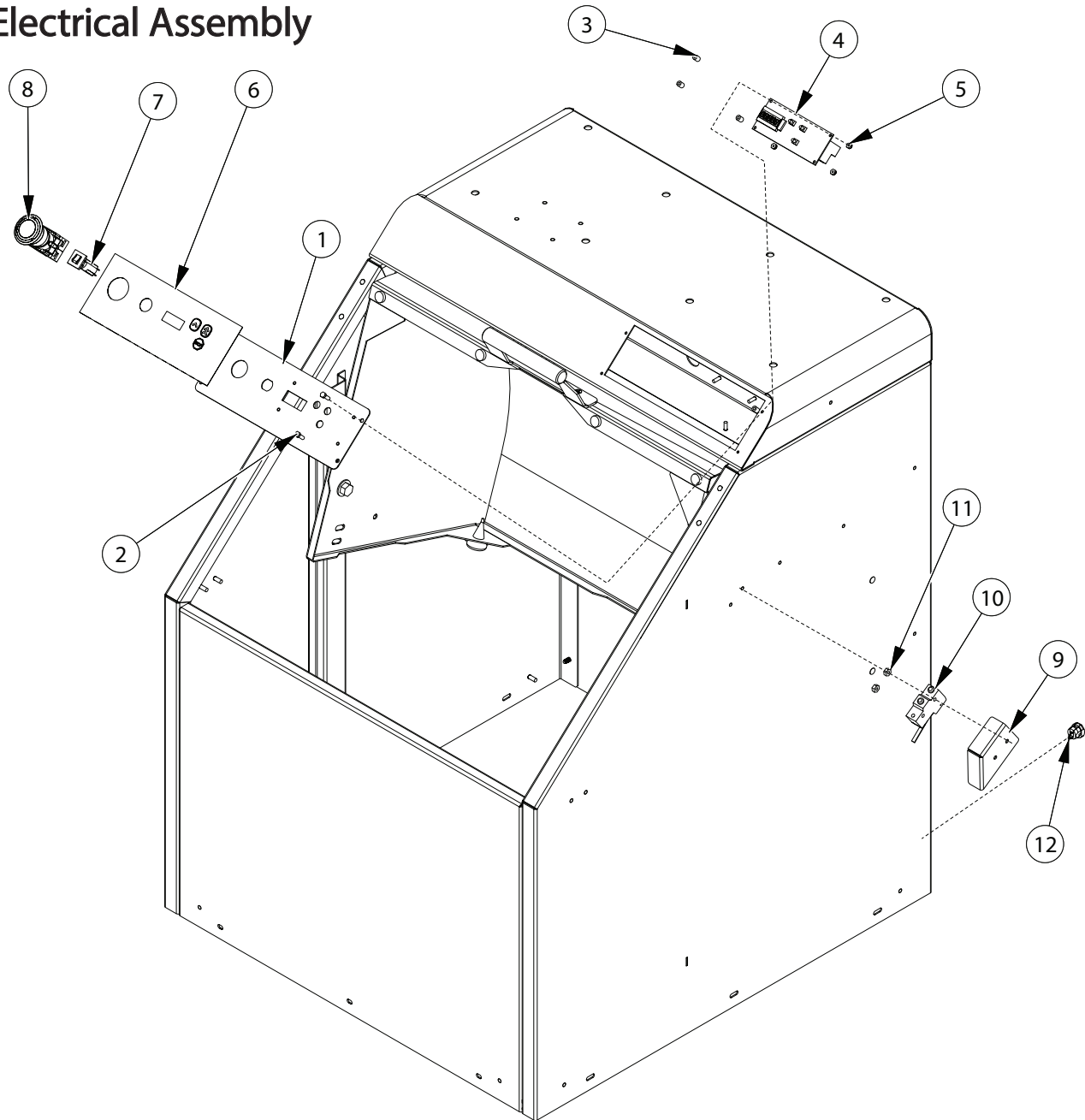
PROBLEM	CAUSE	REMEDY
Machine won't operate	Emergency E-STOP push button is activated	Turn switch knob 1/4 turn clockwise to disengage
	Machine circuit breaker tripped	Reset breaker or replace fuse
	Not connected to power source	Connect to power source
	Building circuit breaker or fuse blown	Re-adjust switch to make contact with limit switch screw when door is closed
	Machine door does not make contact with limit switch	Reset by pressing circuit breaker back in
	Faulty door limit switch	Contact Radia's Customer Care
	Faulty controller	Contact Radia's Customer Care
	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 at end of mixing cycle	Faulty controller	Contact Radia's Customer Care
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	9786816 PLATE, DIGITAL TIMER
2	9781367 Screw Hex Thd Form #8 X .50
3	9786232 SPACER
4	5786234 TIMER, DIGITAL, HORIZONTAL DISPLAY, 120V
5	9783595 Nut, Lock, Nylon 4-40
6	1786198 LABEL, CONTROL, DIGITAL DISPLAY - 5315
7	5785315 Circuit Breaker, 20 Amp, Pop-out

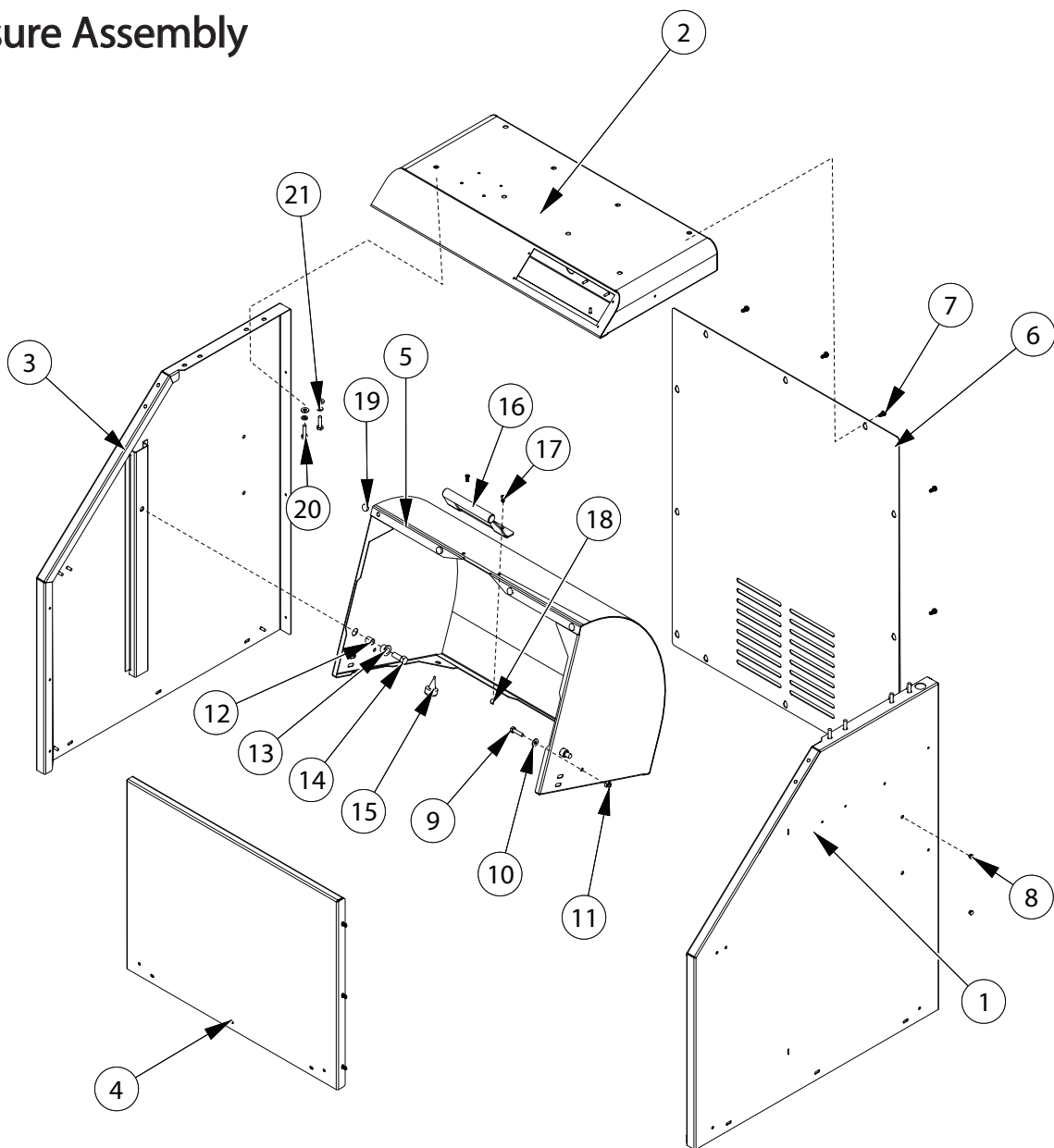
ID	Description
8	5784827 e-stop switch
9	9787227 GUARD, LIMIT SWITCH
10	5783815 Switch, Limit 1hp
11	9781840 Nut, Keps #8-32
12	9102519 BUSHING,STR.RELIEF

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	9787223 PANEL WELDMENT, RIGHT - 5315
2	9787218 COVER WELDMENT - 5315
3	9787214 PANEL WELDMENT, LEFT - 5315
4	9787216 PANEL, FRONT-5315
5	9787225 DOOR WELDMENT - 5315
6	9787224 PANEL, BACK - 5315
7	9783385 Screw, #10-32 SHWH Tap
8	9784338 Plug, Nylon
9	9781831 Screw, Hex 1_4 X 1
10	9760514 Washer 1_4 SAE .281 ID
11	9780343 Nut 1_4-20 Nylon Lock

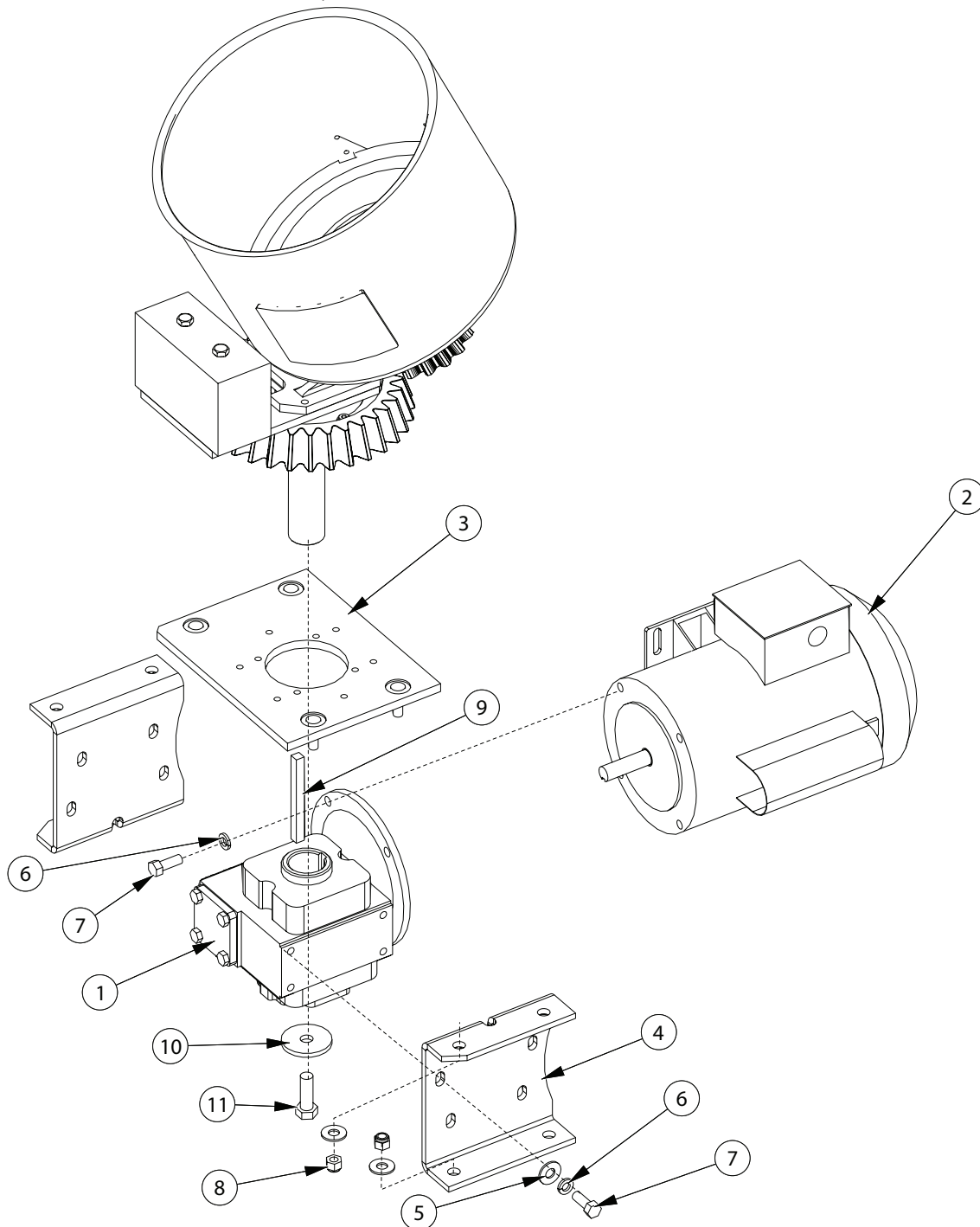
ID	Description
12	9784361 BUSHING, STEEL
13	9782362 BUSHING, BRONZE
14	9780886 SCREW HEX 3_8-16 X 1.00
15	9106254 Bumper, Foot
16	9784303 HANDLE WELDMENT, DOOR - 5315
17	9784285 SCREW, FLAT HD, 82 DEG, PH #10-32 x .50
18	9781383 NUT, NYLON LOCK #10-32
19	9780789 BUMPER, PAD
20	9781831 Screw, Hex 1_4 X 1
21	9780164 Washer 1_4 LOCK

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 Speed Reducer Kit - 5315
2	6786030 MOTOR, AC, 1 HP, 56C FOOT MOUNT
3	9784259 Plate, Top - Mix Frame
4	9784258 Bracket, Gearbox
5	9161100 Washer, Flat 3_8 USS
6	9780402 Washer 3_8 split lock

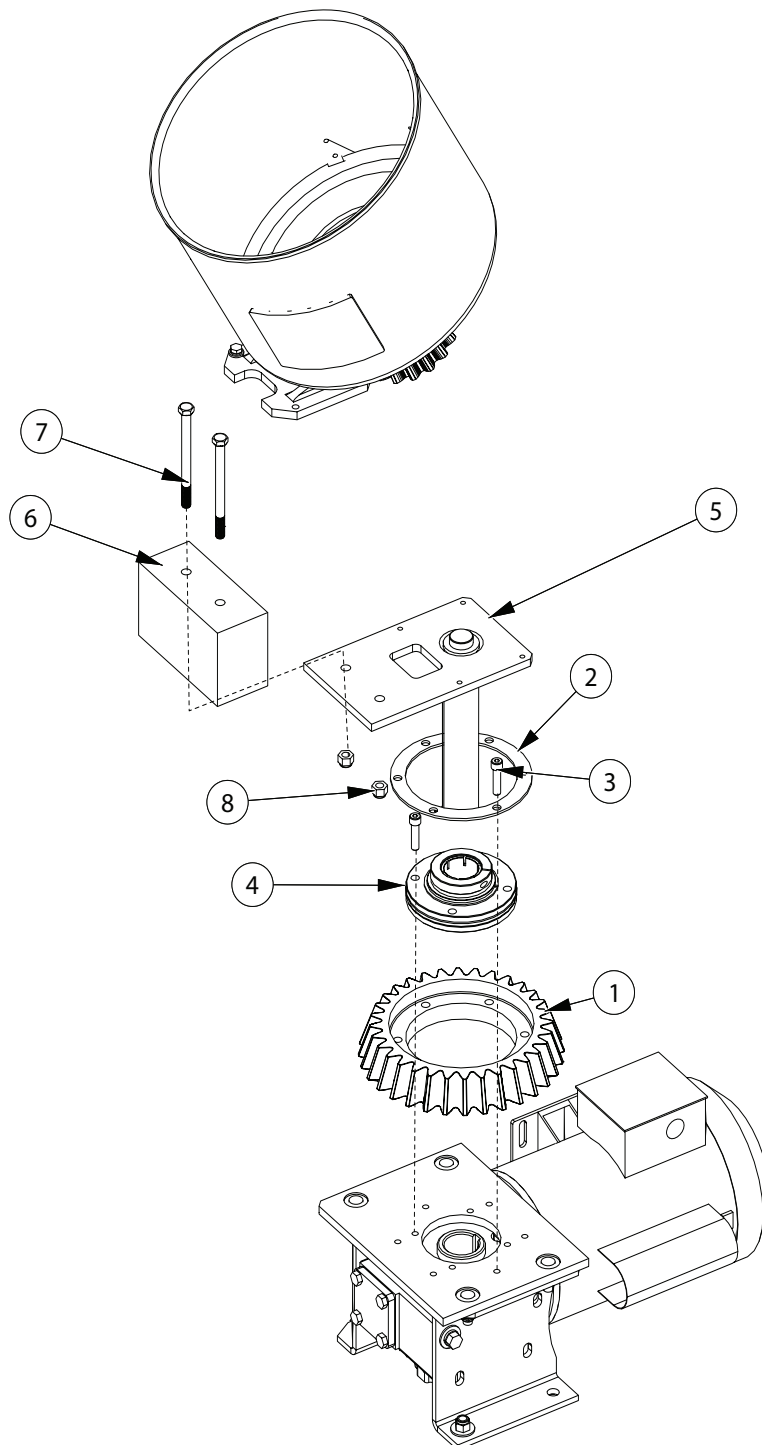
ID	Description
7	9780886 SCREW HEX 3_8-16 X 1.00
8	9780193 Nut, Nylock 3_8-16
9	9782319 KEY STOCK 3_8 X 3_8 X 4.00
10	9781083 Washer, Flat .507 ID x 2.00 OD x .19 Thk
11	9782154 Screw Hex 1_2 X 1_50

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

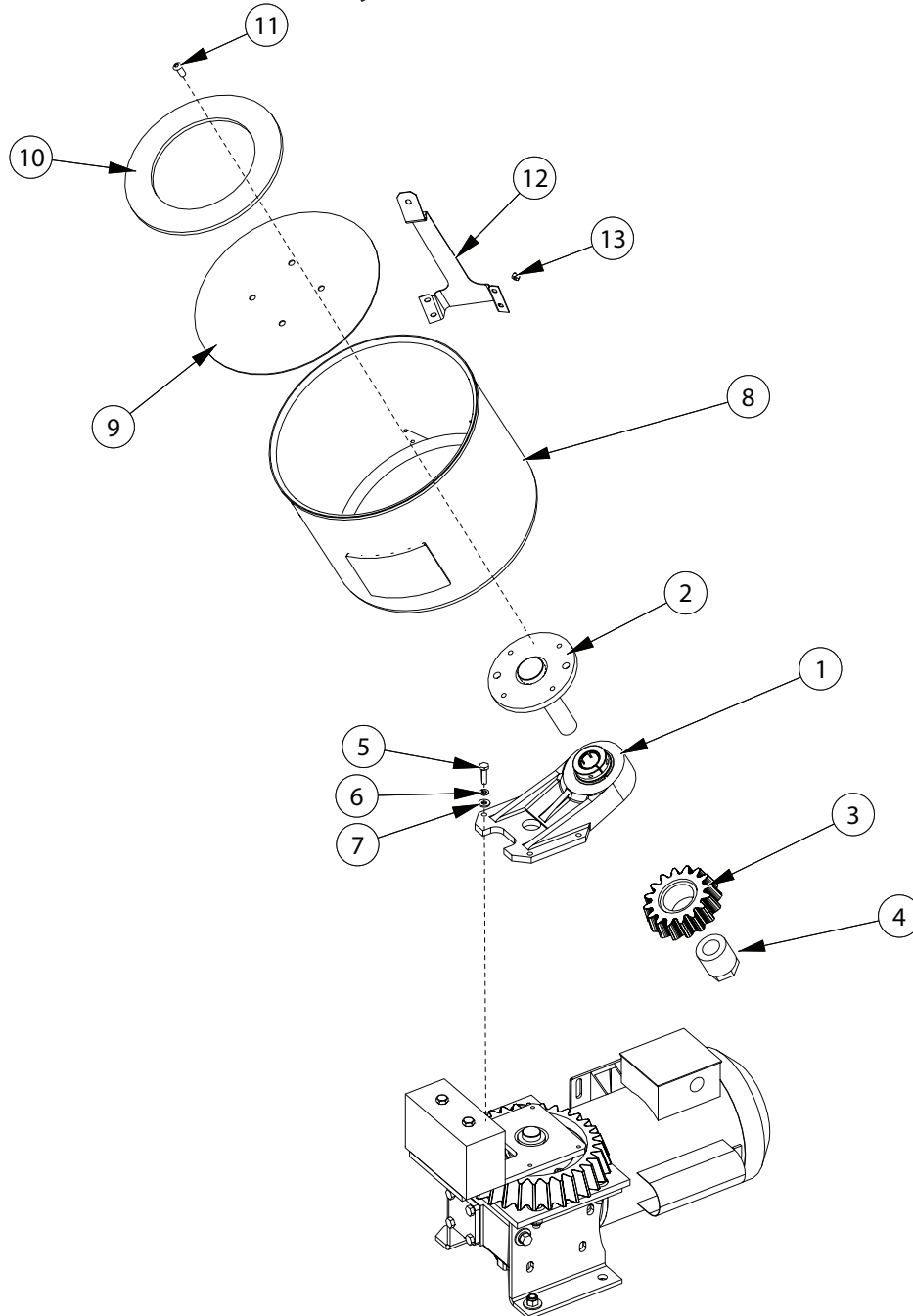
ID	Description
6	9784360 COUNTERWEIGHT - 5315
7	9784299 Screw Hex 3_8-16 x 4.50 Partial Thread
8	9780193 Nut, Nylock 3_8-16

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

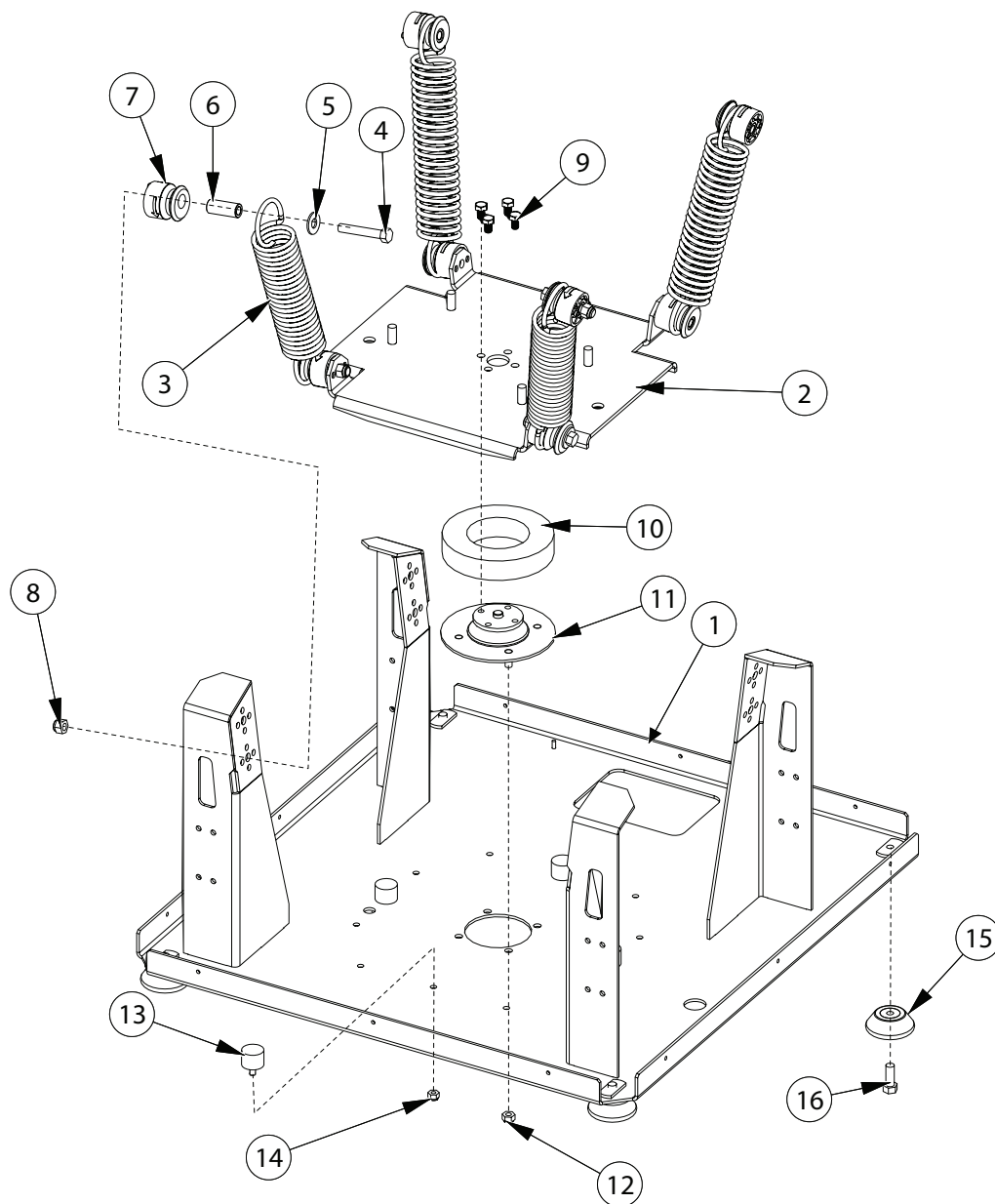
ID	Description
8	9784264 Holder, Can - 5315
9	9784327 Plate, Round - 5315
10	6785232 Ring, Rubber
11	9782904 Screw Button 5_16-18 x .75
12	9784268 Retainer Bar, Bail
13	9781383 NUT, NYLON LOCK #10-32

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

Exploded Views, Continued..

...Exploded Views, Continued

8.5 Frame Assembly



ID	Description
1	9784249 Base Weldment - 5315
2	9784250 FRAME, SUSPENDED - 5315
3	9784252 Spring, Extension
4	9781543 Screw Hex 3_8 X 2_25
5	9161100 Washer, Flat 3_8 USS
6	9784357 BEARING, SLEEVE
7	9784349 Cam, Spring Mount - 5315
8	9780193 Nut, Nylock 3_8-16
9	9784358 Screw Hex 5_16-18 X .50

ID	Description
10	9784255 Damper, Disc
11	6784738 ISOLATOR ASSEMBLY - 5315
12	9780182 Nut, Nylock 5_16-18
13	9784326 Bumper, Single Round Stud
14	9780343 Nut 1_4-20 Nylon Lock
15	9782044 Foot, Floor Stand
16	9780886 SCREW HEX 3_8-16 X 1.00

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

Exploded Views, Continued..

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



10. Warranty

Equipment Covered Under This Warranty

Models 5315-PB

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

www.radiaproducts.com



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