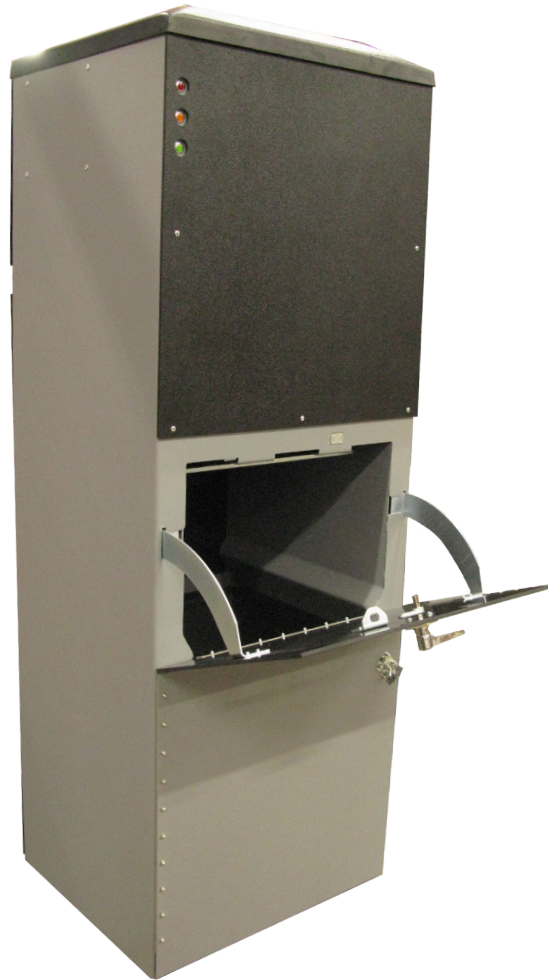


100381

REV F, ECO 14-0098

Owner's Manual



M200

Waste Compactor



www.radiaproducts.com



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M200 Compactor Operation and Maintenance Manual

With just a little preventive maintenance and regular cleaning, we are sure your M200 compactor will provide many years of trouble-free operation.

Please read this manual carefully before installing or servicing the equipment.

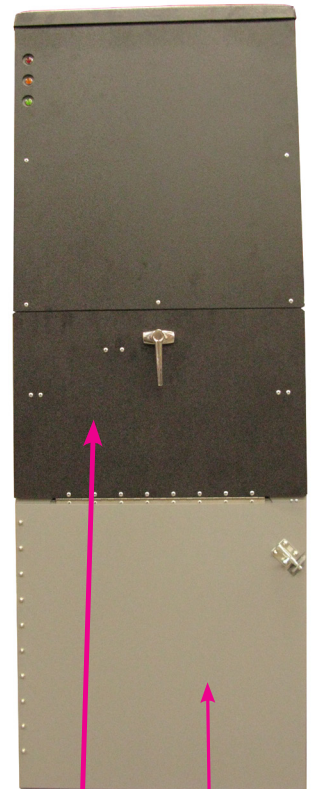
OVERVIEW AND SAFETY FEATURES

The M200 compactor can save thousands of dollars over its life by reducing trash hauling expenses and labor. It can reduce the volume of solid waste by as much as 90%.

The compactor consists of a powerful hydraulic pump coupled to a 1.5" diameter cylinder that generates 1 ton of compaction force.

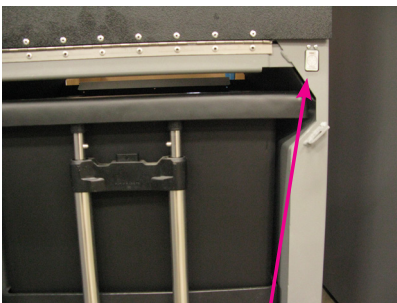
The M200 compactor utilizes a high capacity waste bin and a durable, puncture resistant bag. When the loading door is opened and then closed, the compaction cycle initiates automatically.

This equipment has built-in safety features to protect you and your employees. Each door is equipped with a safety switch that prevents compaction if any of the doors are open. In addition, the waste loading door has a lock feature that keeps it from being opened during compaction.

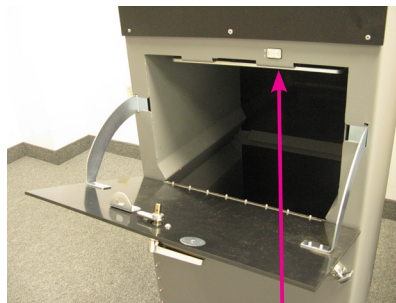


Waste Door

Lower Bin Door



Safety limit switch for the lower bin door



Safety limit switch for the load door



M200 Compactor Operation and Maintenance Manual

SET UP

Unpacking

Refer to included document #100382 Set-Up Guide for unpackaging instructions.

Selecting the Location

The correct location of the Compactor will make it more useful as well as easier to operate and service.

- Make sure there is a 110 volt, 20 amp circuit available and within electrical cord distance—DO NOT USE AN EXTENSION CORD.
- Make sure there is enough clearance to remove the waste bin when the lower door is open completely.

Preparing to Compact - IMPORTANT!

Before operating the compactor, you **must** remove the red plug from the hydraulic pump fluid reservoir and replace it with the breather valve cap taped to the machine. Then, install the top cover to the compactor using the screws taped to the inside of the cover. Refer to the included 100382 Set-up Guide for detailed instructions.

Inspecting the Unit

1. Remove the packing materials from the unit. Inspect for any damage that may have been missed when the unit was delivered and report it to Radia Products™ customer service.

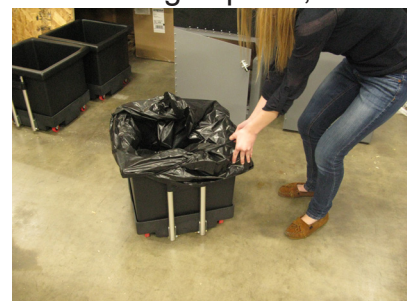
Each Compactor comes with the following:

- One (1) Starter Package of specially designed Compactor Bags
- One (1) Waste Bin

2. To set up the unit, open the lower door by sliding the latching bolt up and to the left.
3. Remove the plastic waste bin from the compactor.
4. Remove the package of bags from the bin and set them aside.
5. Install a bag onto the waste bin using the instructions below

Installing the Compactor Bag

1. Pull the cart from the unit using the attached handle.
2. Remove a single bag from the starter package and place it in the bin.
3. Fold the excess over the outside edge of the bin as shown in the figure below and then fold it back up to form a cuff. This will help prevent liquids from flowing over the bag during the compaction cycle.
4. Place the elastic cord over the bag and under the bin lip to hold the bag in place, as shown in the photo.
5. Lift and push the bin completely into the compactor.
6. Close the lower door and slide the latching bolt down and to the right to secure the door closed.





M200 Compactor Operation and Maintenance Manual

Powering Up the Unit

The electrical cord is located on the back of the unit. Plug it into a grounded outlet. **Note:** The standard compactor is wired to operate on 110-120 volts/20 amps, single phase electrical power.

Operation

1. Rotate the handle on the waste loading door.
2. Open the door and place trash in the compactor.
3. Close the load door and turn the handle to latch the door closed.
4. Once the door closes, compaction automatically starts.
5. The load door is locked until the compaction plate retracts to its home position.

Functions of the indicator lights

- The green light indicates that the machine is compacting
- The orange light indicates that the waste bin is full
- The red light indicates that an error has occurred



Emptying the Unit

1. Open the lower bin door of the compactor.
2. Pull waste bin from the unit.
3. Pull the sides of the bag up and secure with a twist tie (not provided) or by tying a knot.
4. If desired, use the bin to transport the bagged waste to the dumpster.
5. Remove the bag and dispose of the waste.
6. When the bin has been emptied, install a new bag in the bin.
7. Slide the waste bin back into the compactor and close the lower bin door.



M200 Compactor Operation and Maintenance Manual

MAINTENANCE AND SERVICE

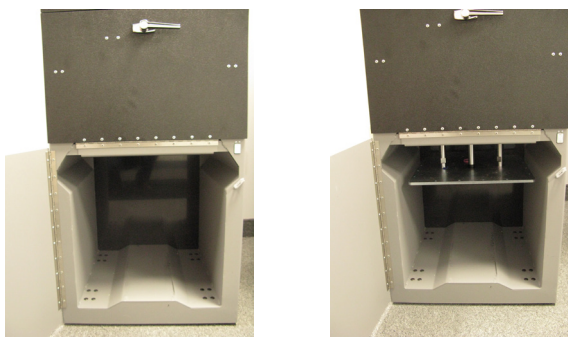
	Daily	Weekly	Monthly	Quarterly
Clean top of plate	X			
Wipe down outside of cabinet		X		
Clean inside of cabinet		X		
Check hydraulic fluid level*				X
Check for loose fasteners, etc.				X

*To check fluid level, the **compaction plate must be all the way up**. Hydraulic fluid should be 2/3 the way up the sides of the see through tank. If the fluid level is low, it can be replenished by adding Dexron ATF transmission fluid, available at most auto parts stores. **Make sure to filter the fluid** to avoid getting foreign particles into the hydraulic components of the compactor, as this could affect the life expectancy as well as the warranty of your machine.

Cleaning the Compaction Plate

From time to time, trash may become lodged on top of the compaction plate. This may cause the unit to malfunction unless it is removed. We recommend you check the plate whenever you empty the compactor.

1. Open the lower door and remove the waste bin.
2. Close the lower door and open then close the load door to start a compaction cycle.
3. After a few seconds, UNPLUG THE UNIT to stop the compaction plate.
4. Open the lower door and clean paper and debris from the top of the plate.
5. Close the lower door and plug the compactor back in to retract the compaction plate.
6. Open the lower door and replace the waste bin.
7. Close the lower door and slide the latch to lock it in place.



Compaction Supplies

You can keep your new compactor operating efficiently by only using genuine Radia Products™ replacement bags and parts

- 100 count box of replacement bags made of heavy 3-mil, metallocene polyethylene, which reduces punctures and tears and prevents leaks
- Poly bonnets help keep the compaction plate clean (not included)
- Optional TC50 Transport Cart with hoist to lift heavy waste loads into dumpster



M200 Compactor Operation and Maintenance Manual

Compactor Lockout/Tagout Procedures

RESPONSIBILITIES:

Owner/Employer – Implementation of the lockout/tagout procedure and enforcement of its provisions is the responsibility of the employer. It is a further responsibility of the employer to ensure that all personnel are informed and trained in the application of the procedure.

Operator/Employee – Each individual working on equipment covered by this procedure has the responsibility of conforming to the applicable provisions.

Procedure:

1. Notify all affected employees you will be locking out a compactor and let them know the reason why. A lockout/tagout checklist form shall be utilized to assure all sources of energy are isolated. The completed lockout/tagout checklist must be retained as long as the equipment is down for service and/or maintenance.
2. Standard shutdown: If the compactor is operating, shut it down by the normal stopping procedures. Close the access door and wait for compaction cycle to finish. Turn machine power switch to off position.
3. Disconnect: Unplug compactor.

Energy Type/Magnitude	Isolating Device	Location	Procedure
115 volt electrical	Power cord	Back of machine	Turn off machine and unplug

4. Stored Energy Release: Although it could fall at any time, once hydraulic pressure is relieved, the ram plate WILL fall due to gravity and so must be blocked or restrained. To relieve pressure hold hose and rock gently while slowly loosening the fitting. Wear safety glasses and keep hands away from fitting while loosening to prevent injury.

Hazard	Equipment Needed	Placement
Ram plate may fall due to gravity	Block or restraining device	Beneath ram plate
Hydraulic fluid pressure --- C500, LP1000 = 2500 psi --- M200, R200 = 1200 psi		

5. Compactor can be locked out by placing a lockable cover over the electrical plug while repairs are made. Place a tag that states "Danger – do not operate" or equivalent on the front of the compactor near the controls.
6. Lockout/tagout Assurance Tests: After ensuring no personnel are exposed, and the compactor is unplugged, attempt to start a compaction cycle to make certain the equipment will not operate.

Control(s) to try	Procedure to verify isolation
Open and close load door, start button (if applicable)	Attempt to start compaction cycle

7. The compactor is now locked out.

Restoring Machines or Equipment to Normal Operations:

1. After all servicing and/or maintenance is completed and equipment is ready for normal operations, check the area around the machine or equipment to ensure that no one is exposed.
2. After all tools have been removed from the machine or equipment, guards have been reinstalled and employees are in the clear, remove all lockout devices, plug in the power cord to restore energy to the machine or equipment.



M200 Compactor Operation and Maintenance Manual

LOCKOUT/TAGOUT CHECKLIST

1. Employee Notification

I have notified all affected employees that a lockout is required for this piece of equipment.

Date:_____ Time:_____ Signature:_____

2. Shutdown

I understand why, after following normal procedures, the equipment is to be shut down.

Date:_____ Time:_____ Signature:_____

3. Disconnection of Power Source

I have checked all operating switches and unplugged the compactor. I have blocked or restrained the ram plate.

Date:_____ Time:_____ Signature:_____

4. Lockout

I have locked out or tagged out the energy isolating devices with locks and/or tags designated for this purpose.

Date:_____ Time:_____ Signature:_____

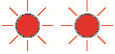

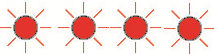

5. Safety Double Check

After ensuring that no employees are exposed, and as a check on having disconnected all energy sources, I have operated the start button or other normal operating control to make certain that the equipment will not operate, and returned the operating control to neutral or off.

THE EQUIPMENT IS NOW LOCKED OUT

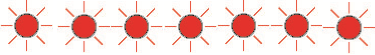
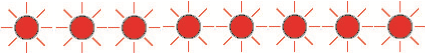


Troubleshooting

Problem	Cause	Solution
<p>The waste loading door won't open and the red light is repeatedly flashing a two-flash pattern</p> 	The waste load door is open	Close the load door
	Trash stuck in load chute – load door can't close	Clear trash from the load chute
	Load door sensor isn't sensing the door being closed	Check electrical connections to the load door sensor
	Load door sensor defective	Replace Load door sensor
<p>The red light is repeatedly flashing a three-flash pattern</p> 	Lower bin door is open	Close the lower bin door
	The magnetic sensor on the lower bin door isn't sensing the door	Check electrical connections to the sensor
	The magnetic sensor for the bin door is defective	Replace magnetic sensor
<p>Machine either won't compact properly or doesn't shut off immediately at the end of compaction; red light is repeatedly flashing a four-flash pattern</p> 	Compaction plate is obstructed from getting to "Home" position	Unplug machine and clear debris from compaction plate area
	The "Home" limit switch isn't being triggered at the end of compaction	Check to make sure the guide rod that triggers the "Home" switch isn't loose. If it is loose, tighten the fasteners holding the ram plate to the guides rods and hydraulic cylinder. Use Blue 246 Loctite on the screws.
		Check electrical connections to the "Home" limit switch
	The "Home" limit switch is defective	Replace the limit switch
	Pressure switch on the hydraulic cylinder is not working	Check electrical connections to the pressure switch at the top of the hydraulic cylinder
	Pressure switch is defective	Replace the pressure switch
<p>Machine won't compact properly; red light is repeatedly flashing a five-flash pattern</p> 	Solenoid valve on the power unit isn't working correctly	Check electrical connections to the solenoid valve
	Solenoid valve is defective	Replace solenoid coil and valve



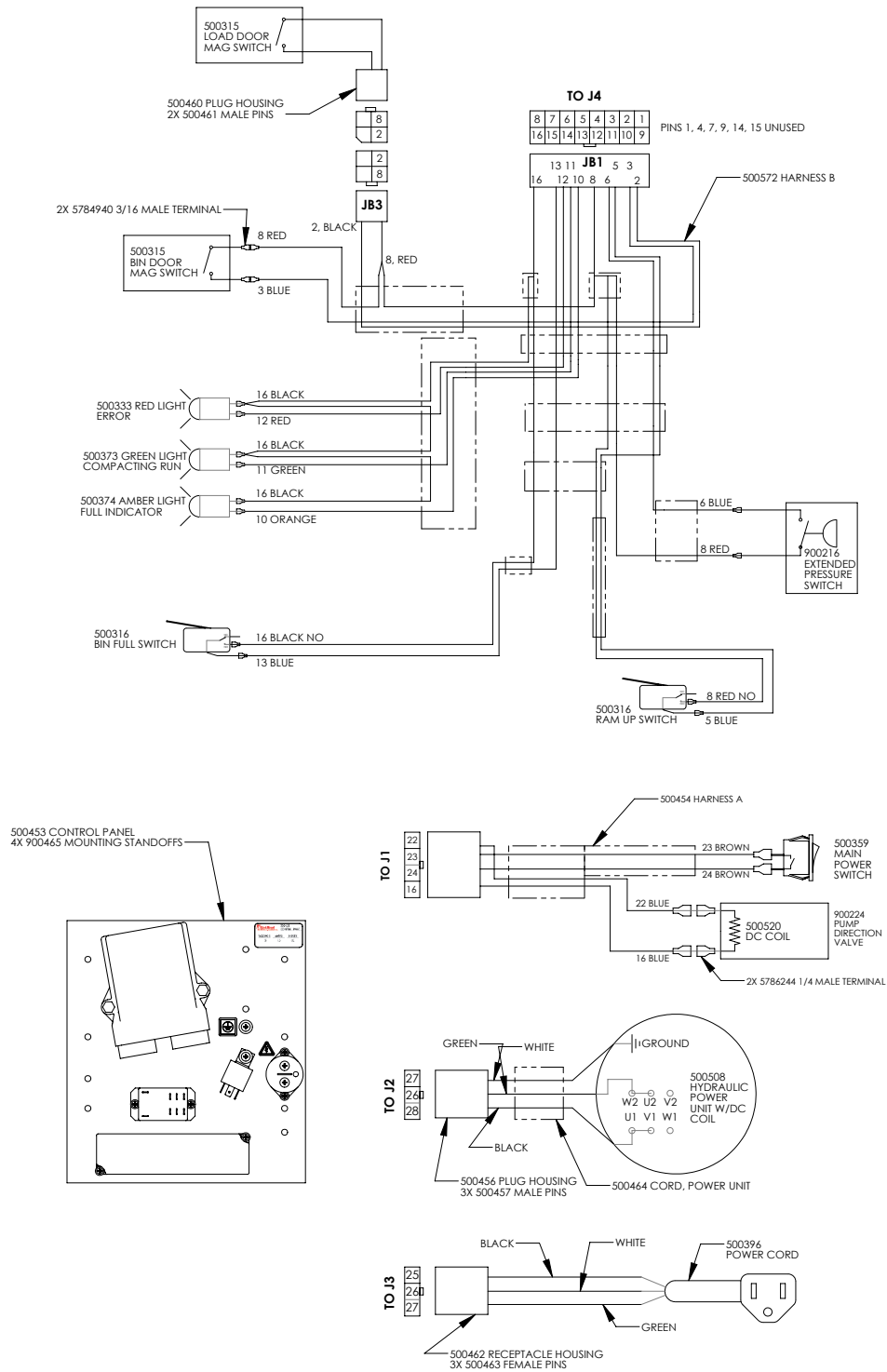
Troubleshooting

Problem	Cause	Solution
Machine won't compact, red light is repeatedly flashing a seven-flash pattern 	Pump contactor relay isn't working	Check electrical connections to the pump contactor relay
	Pump contactor relay is defective	Replace pump contactor relay
Machine is unresponsive, red light is repeatedly flashing an eight-flash pattern 	Waste bin was full when power to compactor was turned on	Check waste bin and empty if needed
	The "Full Bin" limit switch is defective	Replace "Full Bin" limit switch. The switch can simply be disconnected in the short term to allow compactor to operate, but will not notify user when full until switch is replaced.
Compactor is unresponsive – no error light	No power to compactor	Check that machine is plugged in
		Check wall circuit breaker
		Unplug machine and check fuse on control panel inside compactor
Compactor has power but won't compact trash – no error light	Low hydraulic fluid level	Check fluid level in pump reservoir and add fluid as necessary. Fluid reservoir should be approximately $\frac{3}{4}$ " full when cylinder is at the home position
Compactor won't compact trash, amber light is turned on	Waste bin is full	Empty the waste bin to reset the Full light
The waste bin is very full but amber light never turns on	"Full Bin" limit switch is set too low	Raise the "Full Bin" limit switch
	"Full Bin" limit switch is defective	Replace the "Full Bin" limit switch.

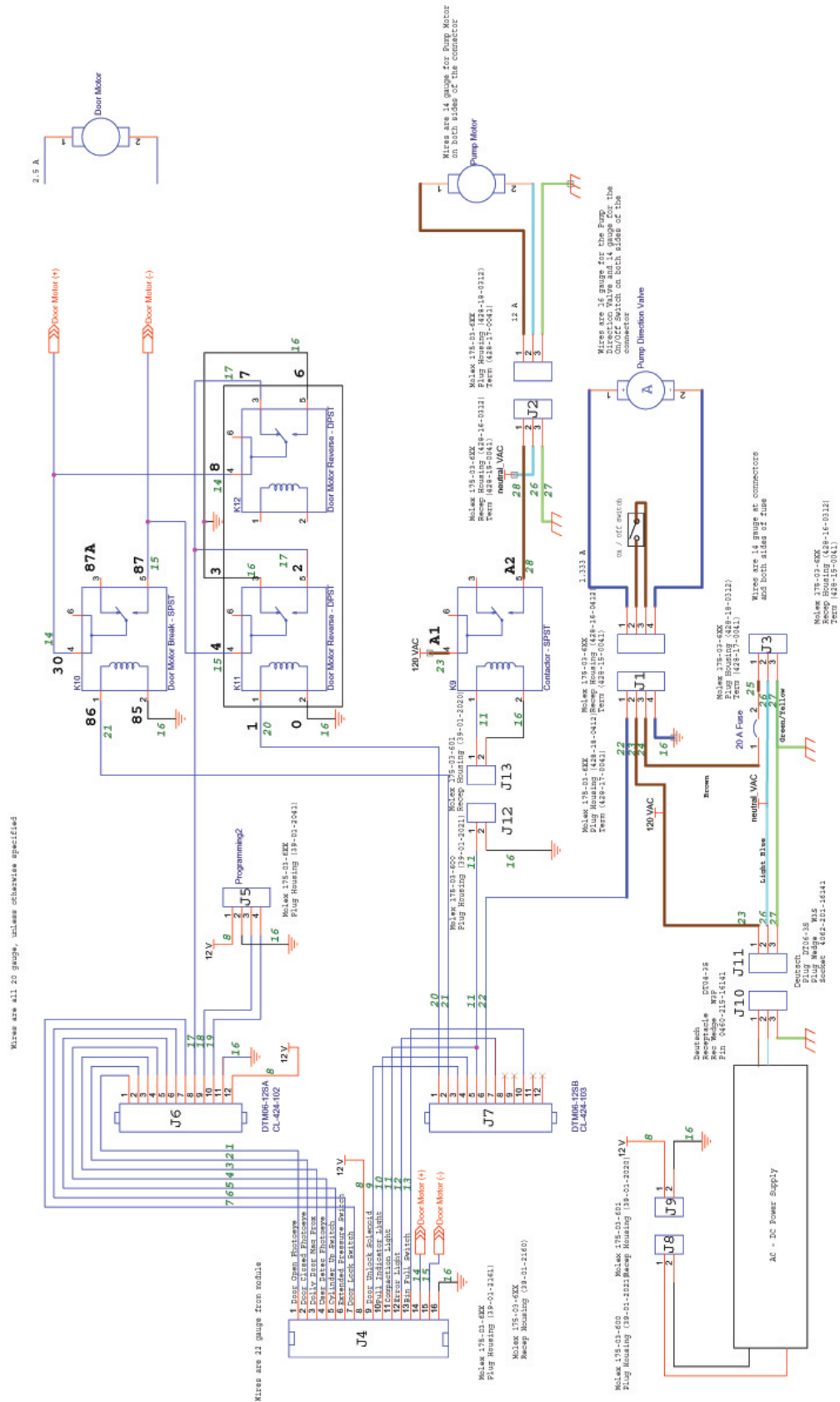


Wiring Diagrams

Wiring Harnesses



Electrical Schematic





Ordering Information

How to Order Replacement Parts

Replacement parts can be ordered from Radia Products™ by mail, telephone, or FAX:

Radia Products™
14900 21st Ave North
Plymouth, MN 55447

763-852-1820
800-543-8722
763-852-181 (FAX)

If you need help in determining the proper part(s) to order, call 1-800-543-8722 and ask for Customer Service.

Always indicate the Model No. and Serial No. 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 Products™ CO. (to protect your warranty). After the warranty expires, on-site servicing and parts replacement are available from Radia Products™. Contact Customer Service for arrangements and costs. Subsequent service cost quotations may be affected unless Radia Products™ replacement parts (or their approved equivalent) are used.

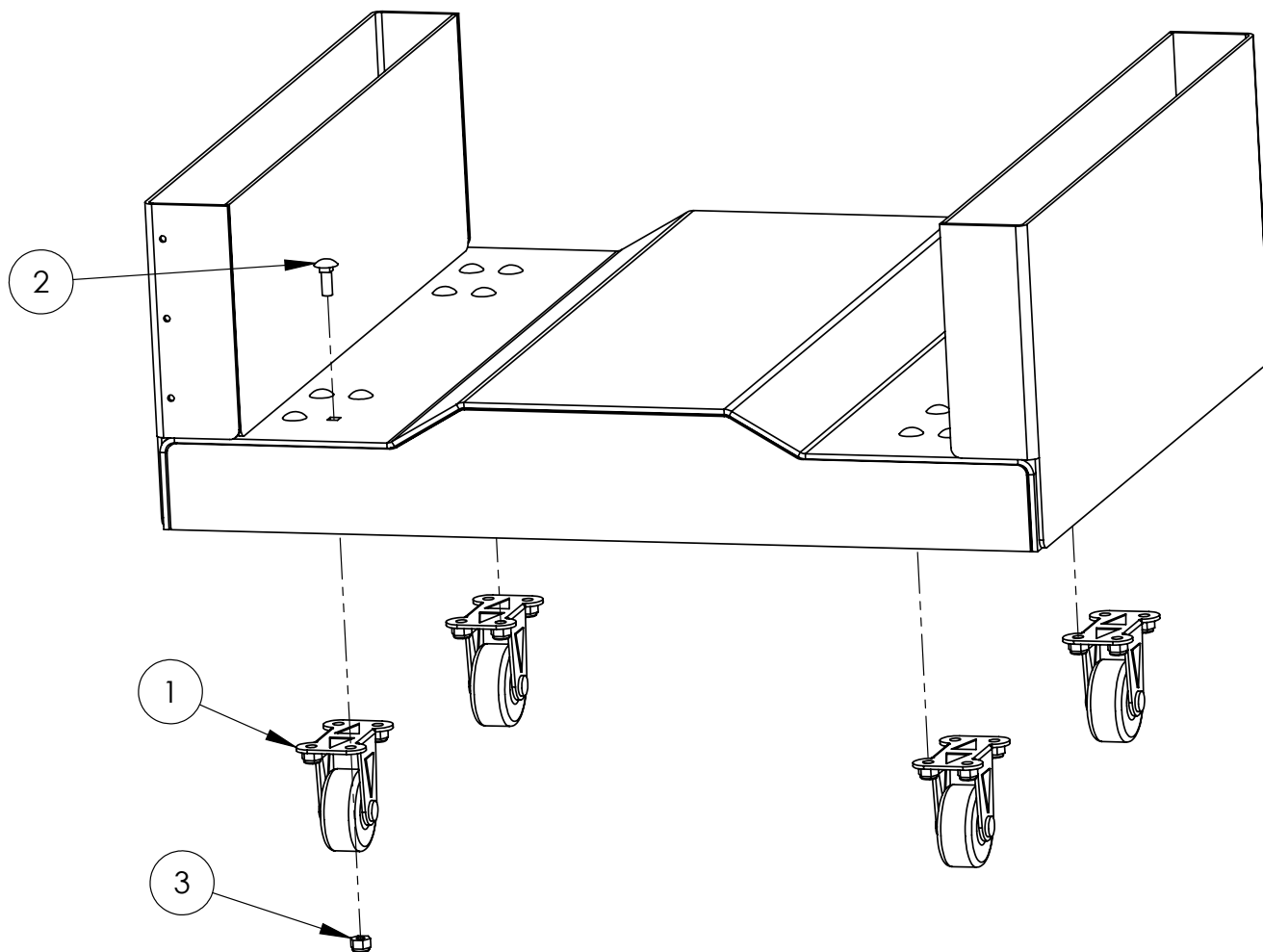
Restocking Fee

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



Exploded Views

Cabinet Bottom



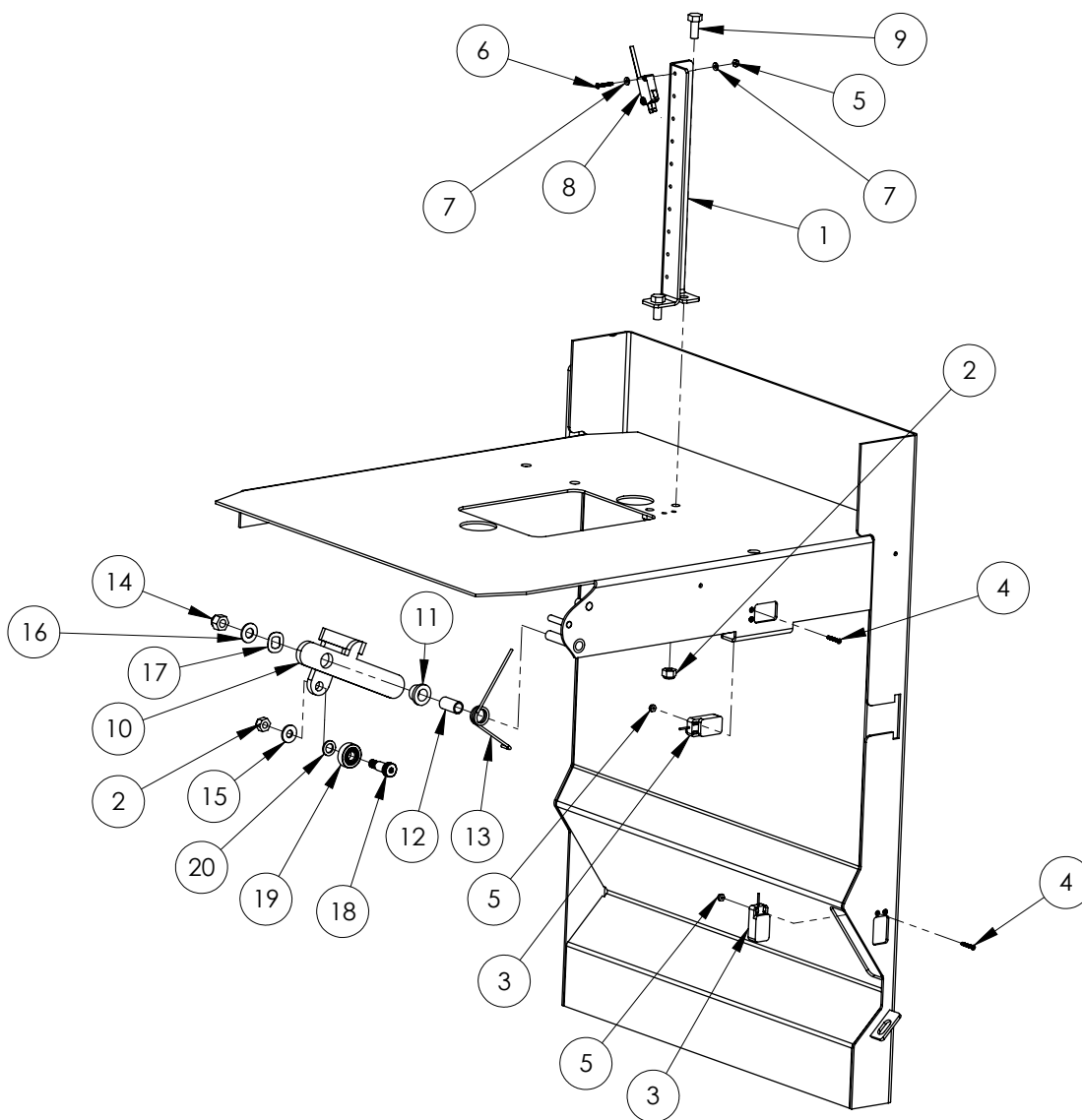
	PART NO.	DESCRIPTION
1	900214	Fixed Caster
2	9783244	Carriage Bolt 1/4-20 x .75
3	9780343	Nut, Nylon Lock 1/4-20

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



Exploded Views

Cabinet Middle



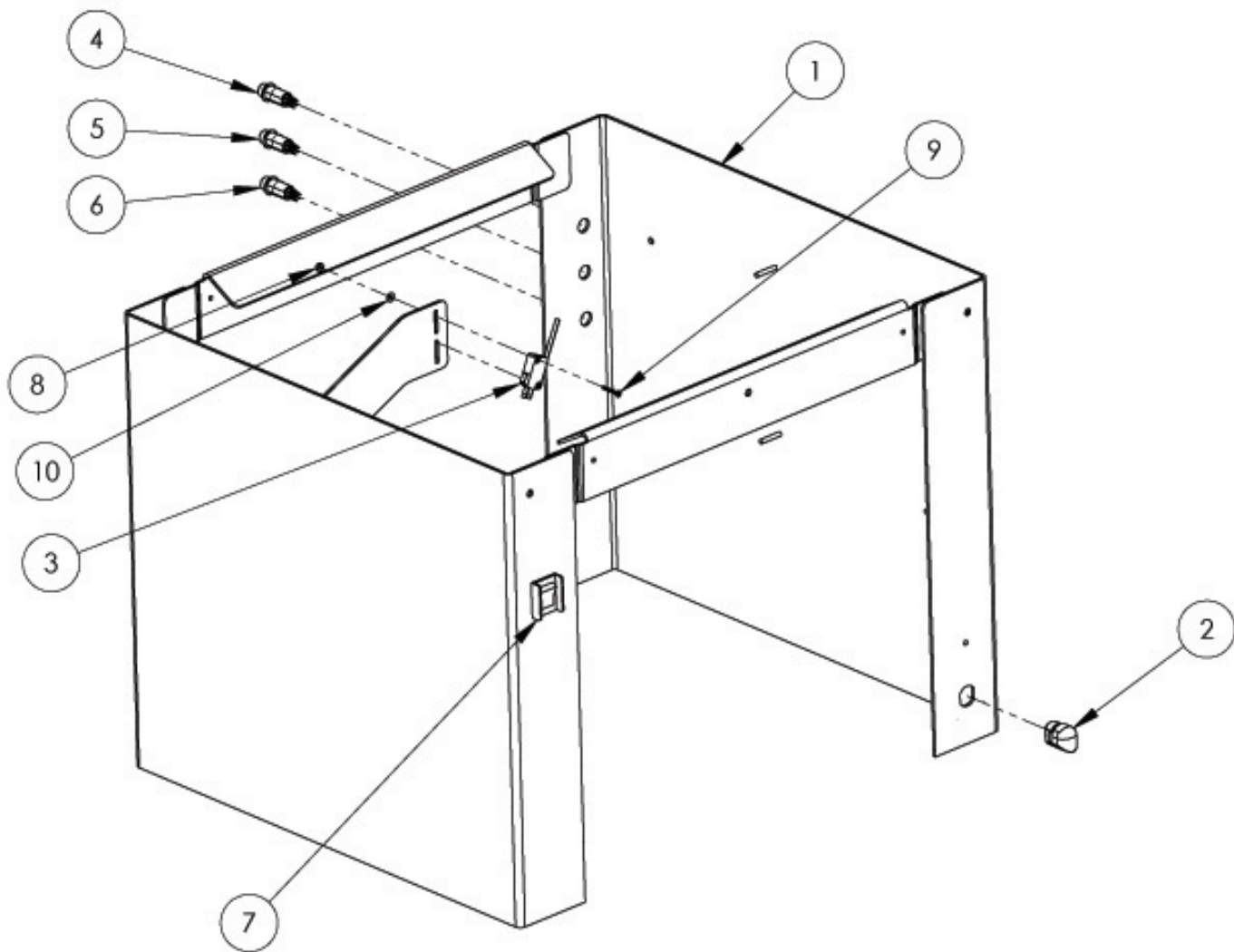
PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
1	900571 Full Switch Bracket	11	900469 Bronze Flanged Bearing
2	9780182 Nut, Nylock 5/16-18	12	900470 Steel Bushing
3	500315 Magnetic Proximity Switch	13	900472 Torsion Spring
4	9786300 Screw, Flat Hd, Ph #4-40 x .75	14	9780193 Nut, Nylock 3/8-16
5	9783595 Nut, Nylon Lock #4-40	15	9781823 Washer, Flat 1/4-20
6	9786277 Screw, Pan Hd, Ph #4-40 x .75	16	9100731 Washer, Flat 3/8-16
7	9783605 Washer, Flat #4-40	17	9786475 Washer, Wave 1/2-13
8	500316 Limit Switch	18	9786476 Bolt, Shoulder 3/8-16 x .625
9	9782407 Screw, Hex 5/16-18 x .75	19	900560 Steel Ball Bearing
10	900468 Latch, Door Lock	20	9786474 Washer, SS 3/8-16

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



Exploded Views

Cabinet Top



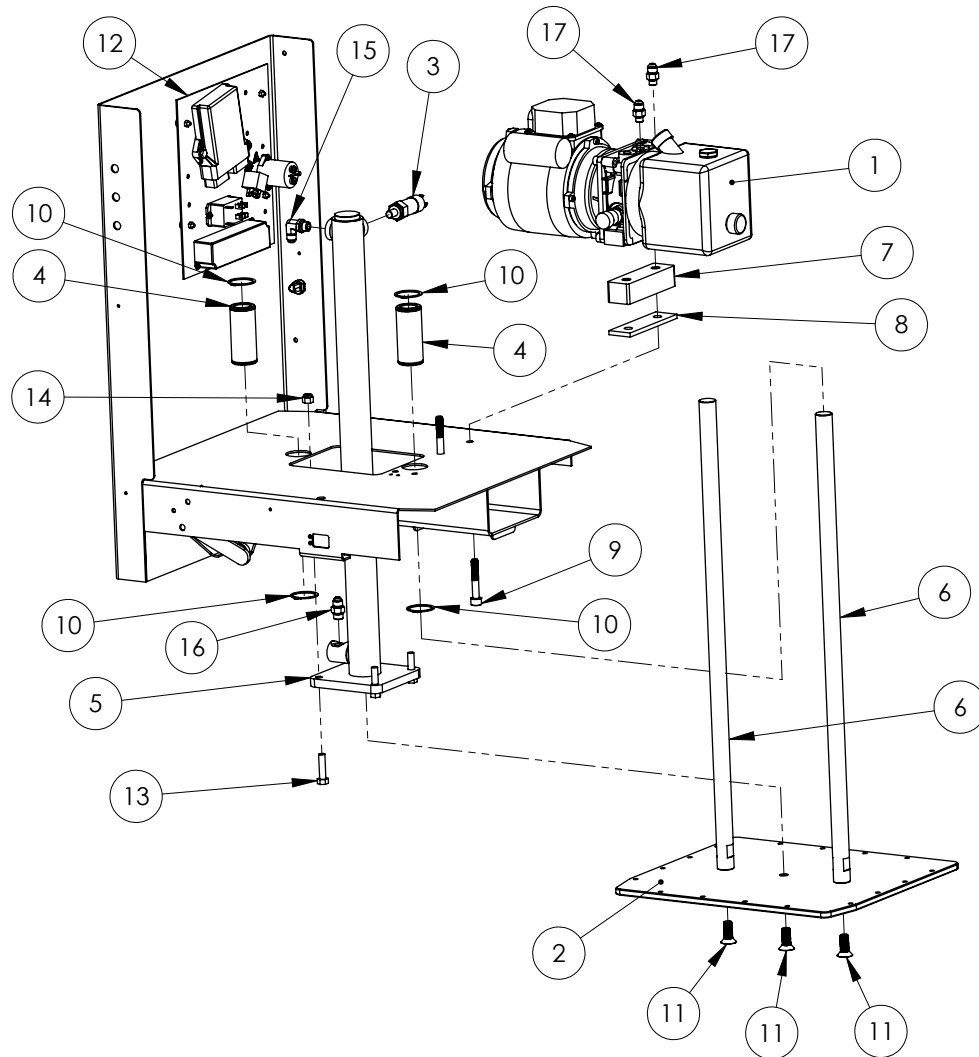
PART NO.	DESCRIPTION
1 900253	Main Frame Weldment
2 9784886	Strain relief bushing
3 500316	Limit Switch
4 500401	LED, Red
5 500403	LED, Amber
6 500402	LED, Green
7 5782445	Power Switch
8 9783595	Nut, Nylon Lock #4-40
9 9786277	Screw, Pan Hd, Ph #4-40 x .75
10 9783605	Washer, Flat #4-40

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



Exploded Views

Hydraulics



PART NO.	DESCRIPTION
1 500508	Hydraulic 750W 1-Stage Power Unit
2 900191	Ram Plate
3 900216	Pressure Switch – 1000 PSI
4 900245	Guide Rod Bushing
5 900254	Hydraulic Cylinder
6 900255	Guide Rod
7 900310	Power Unit Mounting Block
8 900311	Power Unit Damping Pad
9 9785565	Screw, SHCS, M10X1.5 x 60mm
10 9785472	Retaining Ring, C-Style, Ext, Ø1.50
11 9786289	Screw, Flat Hd, Socket ½-13 x 1.25

PART NO.	DESCRIPTION
12 500453	Control Panel Assembly
13 9780192	Screw, Hex 3/8-16 x 1.50
14 9780193	Nut, Nylon Lock 3/8-16
15 900088	Hydraulic Fitting, 90°
16 900368	Hydraulic Fitting, Straight
17 900385	Hydraulic Fitting, Straight

NOT SHOWN

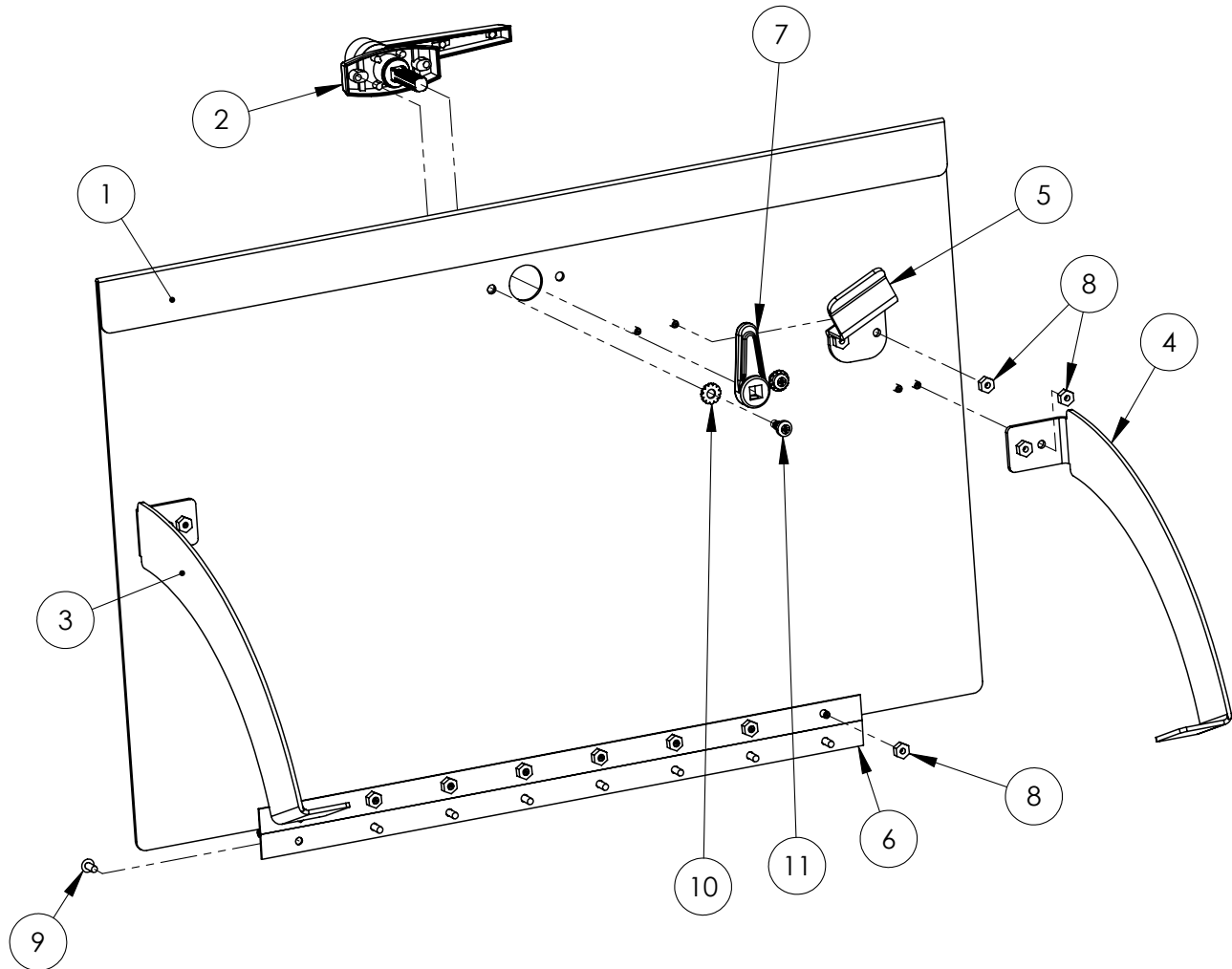
900391	Hydraulic Hose, 22"
900392	Hydraulic Hose, 22"

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



Exploded Views

Load Door Assembly



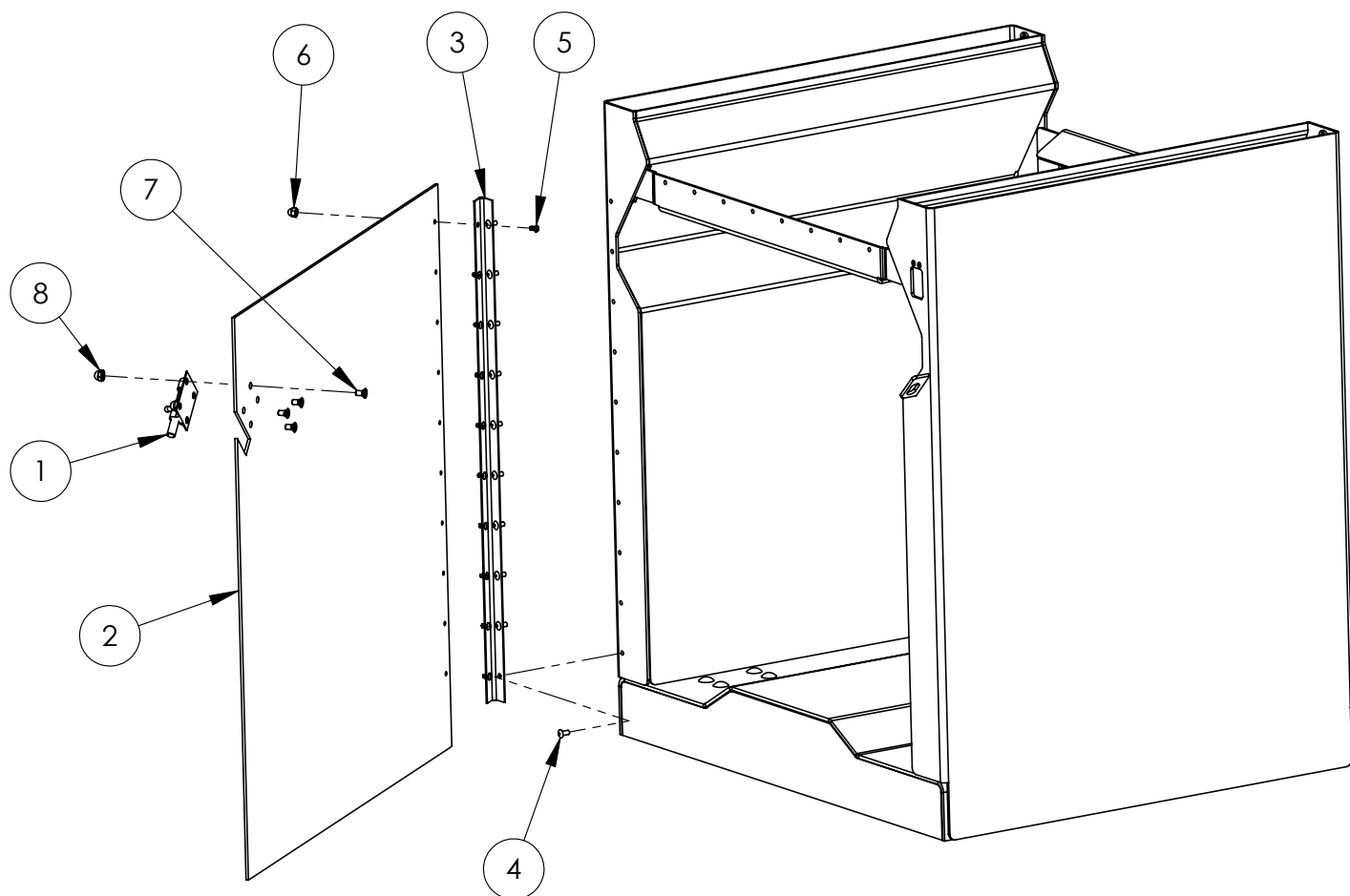
	PART NO.	DESCRIPTION
1	900551	Load Door
2	900183	Latch
3	900552	Bracket – Right
4	900553	Bracket – Left
5	900471	Lock Bracket
6	900203	Hinge
7	900204	Latch Cam
8	9781840	Nut, Keps #8-32
9	9786263	Blind Rivet, Ø.156 - .126-.187 Thk
10	9782055	Washer, Lock #10, External Teeth
11	9784042	Screw, Pan Hd, Ph #10-32 x .375

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



Exploded Views

Bin Door Assembly



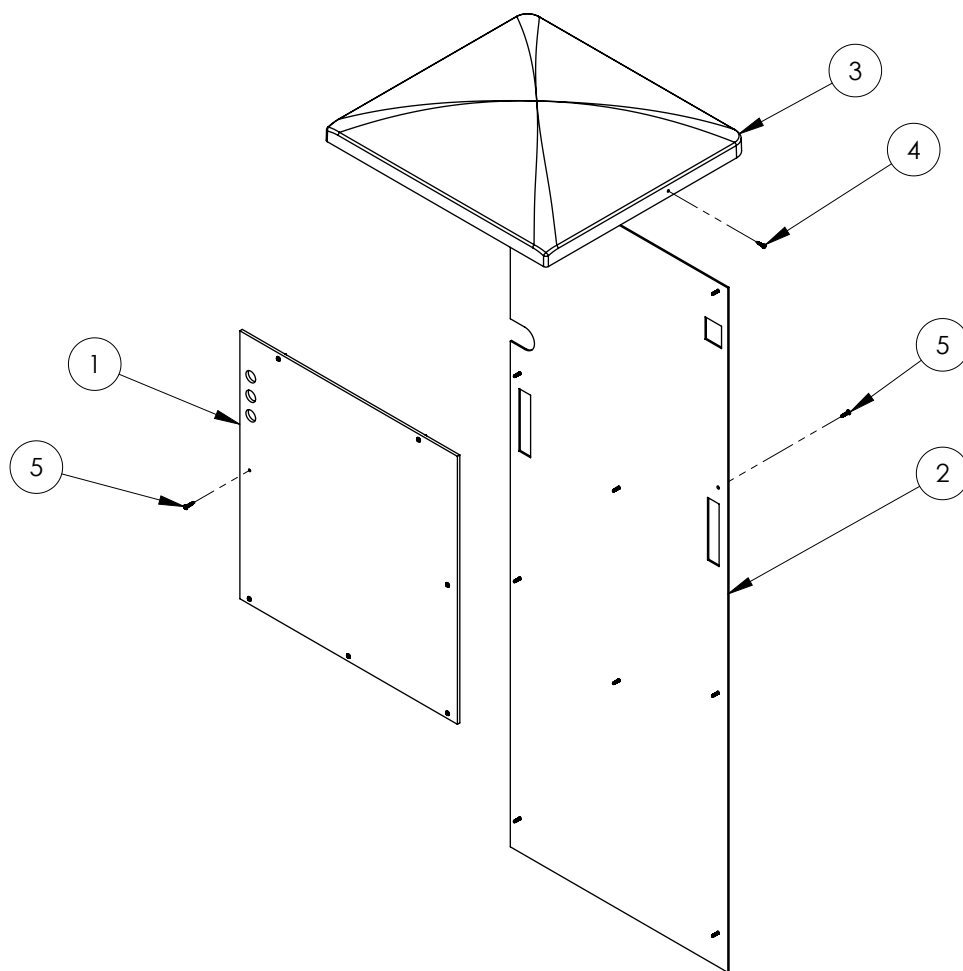
	PART NO.	DESCRIPTION
1	900186	Latch
2	900201	Bin Door
3	900202	Hinge
4	9786263	Blind Rivet, Ø.156 - .126-.187 Thk
5	9786265	Screw, Button Hd, #6-32 x .25
6	9786266	Nut, Acorn #6-32
7	9786296	Screw, Flat Hd, Ph #10-32 x .375
8	9786297	Nut, Acorn #10-32

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



Exploded Views

Panels



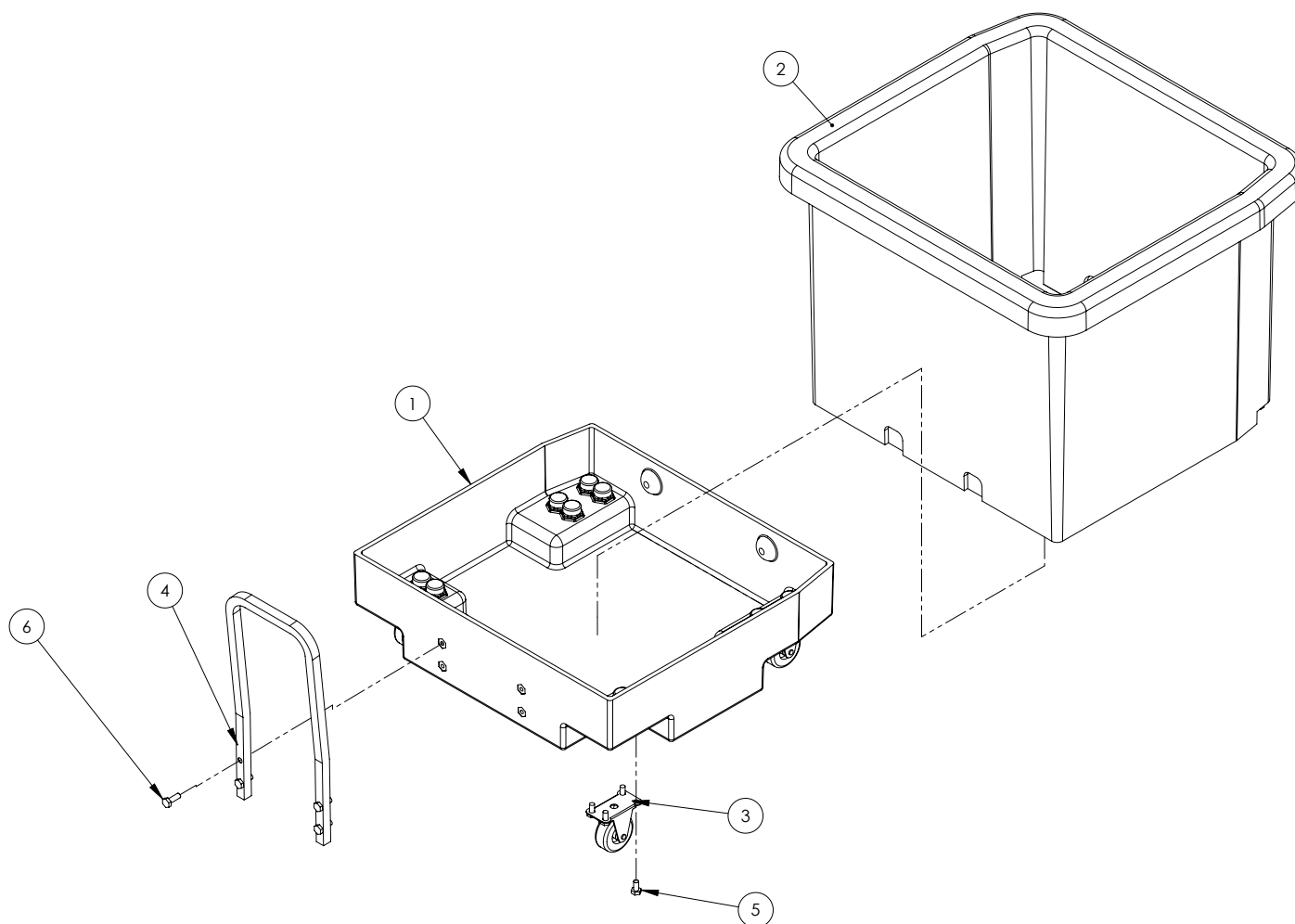
	PART NO.	DESCRIPTION
1	900180	Front Panel
2	900181	Back Panel
3	900189	Top Cover, Dome
4	9786284	Screw, Pan Hd, Ph #8-18 x .50 Self-Threading
5	9786497	Screw, Phillips TF, Ph #10-16 X .75 LG

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



Exploded Views

Bin Assembly



	PART NO.	DESCRIPTION
1	900165	Lower Molded Bin
2	900166	Upper Molded Bin
3	900205	Bin Caster
4	900451	Waste Bin Handle
5	9784698	Screw, Hex 1/4-20 x .50
6	9159200	Screw, Hex 1/4-20 x .75

NOT SHOWN	
900251	Bin Cord, Small

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



Compactor Standard Warranty

Equipment

Radia Products™ warrants (parts and labor) its Commercial Trash Compactor equipment, accessories and parts against defective material or workmanship for a period of one year after date of first delivery provided that Buyer sends to Radia Products™ notice of the defect within thirty (30) days of its discovery and clearly establishes that (i) the equipment, accessories or parts have been properly maintained and operated within the limits of rated and normal usage and (ii) the defect did not result in any manner from the intentional or negligent action or inaction of Buyer. If buyer cannot establish that conditions (i) and (ii) have been met, then this warranty shall not cover the alleged defect. Failure to give notice of defect within such period shall be a waiver of the Warranty and any assistance rendered thereafter shall not extend or revive it. This warranty shall not cover misuse, alteration, abuse, negligence, accident, acts of God, sabotage or any item on which serial numbers have been altered, defaced or removed, but shall be limited to repair or replacement by Radia Products™ of those parts which, upon inspection by Radia Products™, appear to have been defective in material or workmanship. This warranty is limited to the Buyer and is not assignable or otherwise transferable without the consent of Radia Products™.

This warranty is expressly in lieu of and excludes all other warranties, express or implied, (including any warranty of merchantability and fitness of any product or goods for a particular purpose) and all other obligations or liabilities on Radia Products™ parts, and Radia Products™ neither assumes nor authorizes any other person to assume for Radia Products™ any other liability in connection with the sale of Radia Products™. There are no warranties which extend beyond the description on the face hereof.

Limitations of Remedy

It is agreed that the liability of Radia Products™ shall be limited exclusively to the remedies of repair or replacement of defective parts covered by the warranty set forth in the paragraph Warranty on Equipment above and that such repair and replacement shall be Buyer's sole and exclusive remedy. Radia Products™ shall not have any liability whatsoever for loss of use or for any other incidental, consequential or other damages or losses resulting from a breach of warranty such as, but not by way of limitation, labor costs, loss of profits, loss of use of other equipment, third party repairs, personal injury, emotional or mental distress, improper performance of work penalties of any kind, loss of service of personnel, or any other damages or losses which may be experienced by the Buyer.



Contact Information

***For sales or service, please contact
Customer Service:***

**Radia Products™
Attn: Compactor Dept.
14900 21st Ave N
Plymouth, MN 55447**

**U.S. Tel. 800.543.8722
International 763.852.1820
Fax 763.852.1811
info@radiaproducts.com**



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