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RIDE-ON TERMINATORS

Terminator Infinity 2.0

COMPLETE MANUAL



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ORIGINAL LANGUAGE OPERATING MANUAL FOR
 BARTELL RIDE-ON TERMINATORS

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REV.	DATE	DESCRIPTION	APPROVED BY:
-	01/29/18	Initial release; applies to machines with S/N: INF2-XXXX	
1	04/09/18	Updated fasteners	
1.2	07/17/18	Updated Images, revised balloon numbering	

SAFETY PRECAUTIONS



DANGER EXPLOSION HAZARD

Never operate the machine in an explosive atmosphere, near combustible materials, or where ventilation does not clear exhaust fumes.



WARNING BURN HAZARD

Never come into contact with the engine or muffler when engine is operating or shortly after it is turned off. Serious burns may occur.



WARNING ROTATING HAZARD

Never place hands or feet inside safety guard rings. Serious injury will result from contact with rotating blades.



CAUTION MOVING PARTS

Before starting the machine, ensure that all guards and safety devices are in place and functioning properly.



ATTENTION READ OWNER'S MANUAL

Read and understand owner's manual before using this machine. Failure to follow operating instructions could result in serious injury or death.

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1. Introduction

The Terminator[®] Carpet and Tile Removal Machine is intended for use on large demolition and asbestos abatement projects as well as smaller floor covering removal jobs. Designed and built by experienced floor covering demolition and installation experts, the machine incorporates several design features that are essential for efficient operation:

- Tricycle wheelbase and short turning radius allows for better turning ability - especially in narrow spaces.
- Jaw position and tool position adjustments allow for changing the angle of the blade for any application.
- Weight package options in the front and rear provide extra traction needed for tile and glue removal.
- Built-in forklift transportation slots allow for easy loading and unloading at job sites.

If operated and cared for as instructed in this Manual, the Terminator[®] provides trouble-free, safe, and efficient performance.

2. About This Manual

This Manual contains the information and procedures to assist you to operate and maintain the Terminator[®] machine safely and correctly. Read this Manual before you operate or service the equipment. If you need additional information or assistance, please get in touch with our Customer Service Department:

Innovatech Products & Equipment Co.
4701 Allmond Ave
Louisville, KY 40209
(425) 402-1881 or 800-267-6682
Fax (425) 402-8547
Email: service@InnovatechProducts.com

NOTE: Throughout this Manual directional instructions (left, right, up, down, push, pull, etc.) are given from the point of view of the operator performing the action.

3. Important Safety Instructions



WARNING: When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury, including the following: **READ ALL INSTRUCTIONS**

1. **Safety Instructions for All Tools**

- **KEEP GUARDS IN PLACE** and in working order.
- **REMOVE ADJUSTING TOOLS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from the Terminator® before turning tool on.
- **KEEP WORK AREA CLEAN.** Cluttered areas invite accidents.
- **KEEP CHILDREN AWAY.** All visitors should be kept a safe distance from the work area.
- **WEAR PROPPER APPAREL.** No loose clothing, gloves, neckties, rings, bracelets or other jewelry to get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
- **ALWAYS WEAR SAFETY GLASSES.** Also use a face or dust mask if operating in a dusty environment. All users and bystanders must wear eye protection that conforms to ANSI Z87.1. (CAN/CSA Z94.3)
- **MAINTAIN EQUIPMENT WITH CARE.** Keep equipment clean for best and safest performance. Follow instructions for lubrication and changing accessories.
- **DISCONNECT BATTERY** before servicing.
- **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure handles are centered.
- **USE RECOMMENDED ACCESSORIES.** Consult the instruction manual for recommended accessories.
- **NEVER STAND ON TOOL.** Serious injury could occur if the machine is tipped or rocked.
- **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced. Do not use tool if switch does not turn it on and off.
- **NEVER LEAVE EQUIPMENT RUNNING UNATTENDED. TURN POWER OFF.** Don't leave equipment until it comes to a complete stop.
- **DO NOT OPERATE ELECTRIC TOOLS NEAR FLAMABLE LIQUIDS OR GASSES OR EXPLOSIVE ATMOSPHERES.** Motors in these tools may spark and ignite fumes.

2. Additional Safety Rules for Riding Floor Scrapers



CAUTION: FAILURE TO HEED THESE WARNINGS MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH AND SERIOUS DAMAGE TO THE TERMINATOR®.

The Terminator® is to be operated only by qualified, trained personnel.

DON'T attempt to operate the Terminator® if you are not thoroughly familiar with the operation of the Terminator®.

DON'T operate the Terminator® unless every guard, warning notice or sign is in place.

DON'T use the Terminator® on roofs or floors not designed to carry the weight of the machine.

DON'T attempt to operate on anything but the designated voltage.

DON'T wedge anything against the motor fan to hold motor shaft.

DON'T operate equipment without guards in place.

DON'T operate the Terminator® near an open flame or smoking materials

DON'T stand directly behind or in front of the Terminator® when power is enabled.

DON'T lift the hood, inspect the blade, or otherwise service or maintain the Terminator® while power is enabled.

DON'T operate the Terminator® if the top cover is open.

DON'T overreach. Keep proper footing and balance at all times.

DON'T run the machine into piles of debris, as this may cause the machine to become unstable and tip over.

DON'T sit on or stand next to, under or around the Terminator® when it is being transported in a moving vehicle, whether by itself or with other equipment.

DON'T attempt to use the Terminator® on a non-horizontal surface or turn the Terminator® around on a ramp or hill.

DON'T put your hands or feet in the blade area when the Terminator® is running.

DO turn the power off when not in use.

DO use personal safety equipment such as steel toe shoes, safety glasses, gloves, and ear plugs.

DO use gloves when changing blades and removal tools. Tools may be hot and cause burns.

DO familiarize yourself with all safety features and controls before each use.

DO use the Terminator® only for the purpose for which it was designed. Attempting to alter the Terminator® will invalidate applicable warranties and possibly damage the machine.

DO reduce speed next to walls, machinery and other objects.

DO pre-survey the floor for cracks, ditches, trenches, electrical outlets or bolts, which could catch the blade of the machine.

DO operate the Terminator® at a safe speed.

4. General Operating Instructions for the Terminator®

The Terminator® is designed to remove carpet, tile and glue residue from floors.

- When removing product, position removed product so it rolls to the side of the machine or have someone on the side of the machine remove the product. NEVER WALK IN FRONT OF OR BEHIND THE TERMINATOR® WHILE IT IS RUNNING.
- Sharpen blades or dice material into narrower widths if machine slows down or seems to be struggling.
- Do not use the Terminator® within one foot of walls or stationary objects. Damage to objects may occur if the Terminator® strikes them.
- Use safe, OSHA-approved tools and methods for sharpening blades.

5. Safety Features

The Terminator® is equipped with several features to help ensure your safety and the safety of workers around you.

1. Auto Stop

The Terminator® has two drive levers located to the right and left of the operator seat and a jaw height lever to the left of the operator seat. The drive levers control the forward, reverse, left, and right directions of the machine; the jaw height lever raises and lowers the jaw assembly. You must push (forward) or pull (reverse) and hold the levers in position to drive the machine or move the jaw assembly in the direction desired. When you release a lever, the Terminator® or jaw automatically STOPS and will not move again until you push/pull and hold the levers again. However, these levers are not meant as brakes. Block wheels with a floor block when stopping on a ramp and use the emergency brake. Without the emergency brake the machine may roll forward or backwards on any sloping surface.

2. Emergency Stop Button

To the right side of the operator seat is a red emergency stop button. This will remove power from the motor and other electronic components. **Warning!** Removing power from the Terminator® while on a hill or ramp can lead to a dangerous rollaway situation. Always engage the parking brake before disconnecting power.

3. Safety Instructions

The Terminator® is designed for safe operation by trained, designated personnel. To help ensure your safety as a designated operator, read these safety instructions before you operate the equipment. Regardless of your experience with machinery, the Terminator® has unique features and systems which you need to know about and understand before you operate or service the machine.

6. Terminator® Infinity Specifications

Element	English	Metric
Length	66"	1676 mm
Width	26.5"	673 mm
Height	47"	1194 mm
Weight	2430 lbs	1105 kg
Tires (OD x W)	15" x 8"	381 mm x 203 mm
Motor Voltage	48 VDC	
Motor Power	4 HP	3 kW
Batteries	6 VDC 400 Ah	
Motor Operating Speed	0-3000 RPM	
Hydraulic Oil Type	ISO 46	
Hydraulic Oil Capacity	11 Gal	41.6 L
Hydraulic Relief Valve Pressure	2200 psi	15.17 MPa

1. Tools and Supplies

Maintenance tools and supplies are not provided with the machine. The following are suggested items to have on the job site.

1. 4" or 7" Grinder
2. 10"-15" Crescent Wrench
3. 16-20 oz. Hammer
4. 3/8" or 1/2" Socket Set
5. Grease Gun
6. WD 40
7. 3/4" Open End and Box Wrench
8. Screw Driver Set
9. Safety Glasses
10. Ear Plugs

7. Ventilation Requirements

Charge the batteries only in well-ventilated areas. (See Battery Safety section)

8. Guards, Warning Notices & Signs

The guards, warning notices and signs are placed on the Terminator® for your protection. If one of them becomes damaged or is lost, contact our Customer Service Department to order a replacement.

9. Service Instructions & Personnel

Like other machinery, the Terminator® requires regular inspection and maintenance of the batteries, motor, hydraulic system and other parts. To prolong the safe and efficient operating life of the machine, clean and service it as instructed in the Maintenance section of this manual.

Always use trained personnel to service the equipment. **Never** allow anyone to service the equipment that has not been specifically trained to do so.

If you need help with a service or maintenance problem, contact our Customer Service Department.

10. Replacement Parts & Materials

The Terminator® is designed and engineered to operate safely and efficiently with the parts and materials installed on it in our factory. To ensure the continued safe and efficient operation of the equipment, use replacement parts and materials that meet both of the following requirements:

- Innovatech must solely authorize replacement parts and materials.
- Replacement parts and materials must be identical to the items originally provided with the machine, except as authorized by Innovatech.

Never use “equivalent” or substitute parts, except as expressly authorized by Innovatech.

If you fail to adhere to these instructions, you may cause injury to yourself and/or others, cause damage to the Terminator®, and invalidate applicable warranties.

If you are in doubt about any replacement parts or materials, call our Customer Service Department for assistance.

11. Uncrating and Preparing the Terminator® for Operation

When you receive the Terminator®, inspect the outside of the crate completely, to detect damage to the crate itself. If it is damaged, notify the carrier immediately and follow his/her instructions to file a claim.

Carefully uncrate the machine and inspect it for damage that may have occurred during shipping. If the shipment is damaged, notify the carrier immediately and file a claim in the normal manner.

Check packing slip for complete shipment. If shipment is incomplete, notify our Customer Service Department within 24 hours.

Remove the crate debris, set aside the blades and other packages, and prepare the Terminator® for operation:

1. To remove the Terminator® from a crate with a forklift:

1. Forklift slots have been provided on the sides of the Terminator® for moving the terminator with a forklift.

2. To remove the Terminator® from a crate without a forklift:

1. Take 2 x 4's off the edge of the crate and between the wheels.
2. Place 2 x 4's behind the crate of the rear of the machine.
3. Make a ramp with the 2 x 4's and the crate material.
4. To enable power to the Terminator®, turn the key, and twist to release the red knob.
5. Pull back the left and right handles evenly and depress the foot pedal slowly. The machine will start moving slowly backwards.
6. Ensure that both rear wheels come off the crate evenly. Failure to back off evenly could result in the machine tipping over and harm to the operator.
7. As the machine moves back, ensure that the center wheel clears the crate. If the center wheel does not clear the crate, raise the machine until the wheel clears.
8. Once the machine is on the ramp, slide it all the way to the bottom, then raise the jaw up and set the center wheel down on the ground.
9. Whenever mounting or dismounting the Terminator®, ALWAYS disable the power by pressing down on the red power knob.

12. Loading/Unloading Procedures

- Do not load or unload the Terminator® on uneven ground.
- Ensure ramps into moving vehicles are stable and square to the ground.
- Always turn off the Terminator® before transporting it.
- Load and unload the machine with a properly weighted forklift or lift-gate.
- Make sure all safety stops are installed on a lift-gate before loading or unloading.
- Never position yourself under/around the machine while moving it with other machinery.
- Park the machine with the jaw completely down after loading.
- Properly secure the machine with chains, tire chocks, and other necessary tie downs.
- Never ride in a moving vehicle next to a Terminator®. It may tip, causing severe injury.

13. Operator Controls

1. Drive/Jaw Controls

The drive and jaw controls (three levers) are located to the left and right of the operator seat. The drive levers (left and right) control the direction of rotation of the rear wheels. The jaw height lever (left) controls the vertical position of the jaw assembly.

- Push the left and right levers forward **together**, slowly at first, to move the machine forward.
- Pull the left and right levers back **together**, slowly at first, and hold them in position to move the machine in reverse.
- Push only the left lever forward to turn the machine to the right.
- Push only the right lever forward to turn the machine to the left.

- To adjust the jaw assembly down, push and hold jaw lever forward. To adjust the jaw assembly up, pull and hold the jaw lever back.

2. **Auto Stop**

When you release the drive or jaw lever, the motor continues to run but the drive or jaw motion automatically stops and will not start again until you push or pull the levers.

3. **Emergency Brake**

The Terminator[®] is supplied with an emergency brake to prevent unintended movement when left unattended. The brake handle is located to the left of the operator seat. Pull the handle up to engage the brake, push the handle down to release the brake. To increase tension on the brake you can rotate the end of the handle in a clockwise direction. Rotate the end of the handle counter clockwise to reduce the tension.

14. **Display & Indicators**

1. **Battery/Hour Meter**

The battery/hour meter displays battery life, run-time, and current voltage. At 30% battery life, the light will turn yellow. At 10% battery life, the light will be red, indicating very low battery levels and the need to charge. The text display will normally show total hours to one decimal place, and an alternate mode will display the current voltage to two decimal places. Please contact your service provider when changing the settings of your battery/hour meter.

2. **Emergency Stop**

In case of emergency push down the red emergency button on the right side of the seat platform to remove power from all electrical components. To restore power, turn the button to the right and it will return to its original position.

15. **Electric Motor & Batteries**

The electric motor and batteries are located under the top cover. The electric motor provides the power to the hydraulic pump to drive the Terminator[®]. The electric motor requires little maintenance, inspect wire connections and check for debris to maintain its efficiency and prolong its operating life.

16. **Blade Assembly**

Blades are available in different configurations and thickness. An assortment of blades is included in the purchase price of the Terminator[®]. Extra blades are available upon request from Innovatech Products & Equipment Co., Inc.

Installing a Blade:

1. Raise the jaw assembly to maximum up position.
2. Unwrap the pre-sharpened blades and select the blade thickness and length you need for the job.
3. Loosen the 7 holding bolts.

4. Insert the sharpened blade.
5. Tighten bolts firmly, starting from the center and working out. Bolts should be snug but not over-tightened.

17. Taking Up Floor Coverings

1. Insert the blade. (See Blade Assembly)
2. Lower the jaw assembly to the floor. Lift the caster wheel off the floor 1/4 inch. Use previous procedures to drive forward.
3. As the Terminator® is removing flooring material, it is recommended to have another person at the side of the machine removing accumulating debris.

18. Tricycle or Caster Wheelbase and Tires

The tricycle wheelbase is designed for a better turning ability. The wheel bearings on the front caster roller require lubrication with grease every 30 hours of machine operation. There are three fittings, two on the wheel and one on the housing. When running over debris such as carpet, the carpet yarn will get caught between the wheel and the housing. Clean out wheel and housing regularly.

The rear tires are solid rubber, tubeless, and require no maintenance. Over time, they may wear out and need replacing. Before each job, inspect the rear tires and lug bolts. Tighten the lug bolts as needed to 70 ft.-lbs. torque – it is important to keep the lug bolts tight.

The wheel hubs should be tightened from 310 to 350 ft.-lbs. Inspect and re-torque every 60 hours of operation. Lift the machine off the floor so no weight is on the wheel when re-torquing the pack nut.

19. Battery Safety

1. Receiving the Terminator®

After receiving the Terminator®, examine the covers and battery catch tray for signs of damage. Attention should be given to the crate and pallet of the Terminator® when it arrives for any damage that may have happened during shipment. If you see any dented or crushed housing parts contact Innovatech for procedures to repair shipping damage.

Only trained or authorized personnel should change, repair or charge batteries.

2. Lifting Batteries

Always use proper lifting equipment to reduce the risk of battery damage, shorting and possible injury. An insulated lifting device used with an overhead hoist is the safest way to move a battery. Chain hoists used to handle batteries should be equipped with a non-metallic container or bucket to prevent the chains from dangling and possibly causing a short by coming in contact with exposed cell connectors on the top of the battery.

Never lift batteries by the inter-cell connecting cables, the connectors will come apart while the battery is in midair. Connectors on these cables are designed for maximum

current flow, not strength. Connect the lifting device to the negative terminal only if there is not a lifting strap in place. Lifting by both terminals could cause the negative and positive terminals to short.

3. **Wear Protective Clothing**

When working on or near batteries, always wear proper protective clothes including a face shield, safety glasses, long sleeved shirt, and acid-resistant gloves. Do not wear any metal jewelry including rings, as they can short circuit a battery and become extremely hot if it accidentally contacts exposed intercell connectors.

4. **IC1200 Safety**

The charger may become hot while in use, please use care and hand protection if the charger must be handled while charging.

20. **Setting up a Charging Area**

All owners of the Terminator® need to designate a charging area to charge the battery pack at the end of a workday or while storing the Terminator®, this area should have all the proper battery handling equipment.

1. **Connecting/Disconnecting Charger**

Always ensure the Terminator® is not running before connecting the battery charger leads. The charger sockets are located in the bottom-left corner of the front panel, near the foot rest.

It is recommended to use the charging cables provided as it is potentially dangerous to use different gauges or lengths of cable and could reduce charging capacity. If other extensions cables are to be used, they must be 3-wire cord no longer than 100 ft. (30m) at 10 AWG or 25 ft. (7.5m) at 16 AWG, per UL guidelines.

When charging both chargers at the same time, ensure they are going to their own dedicated circuits, as their combined amperage draw can reach 30A.

It is recommended to use both the primary (left inlet) and secondary (right inlet) chargers for a total of 14 hours to achieve maximum battery capacity.

Live leads can cause arcing and sparks which could cause an explosion if battery gases are present, please check that the main contactor/disconnector is not in the on condition when you connect or disconnect the battery terminal plug. In addition, the battery connector terminals will become pitted over time resulting in poor connections and increased heat generation in the battery leads and connectors.

2. **Basic Charging Facts**

- The Terminator® is supplied with two Delta-Q IC1200 chargers.
- When a discharged battery is initially placed on charge, it will draw a current close to the charger's maximum output. As the battery voltage rises to its rated voltage the charger output will automatically adjust to assure a safe and efficient charging rate.
- The IC1200 Charger is designed to start and stop so as not to over charge the battery pack. The computerized control unit determines when the battery is fully charged and then automatically ends the charge cycle.

21. IC1200 Charger Info

1. Left display

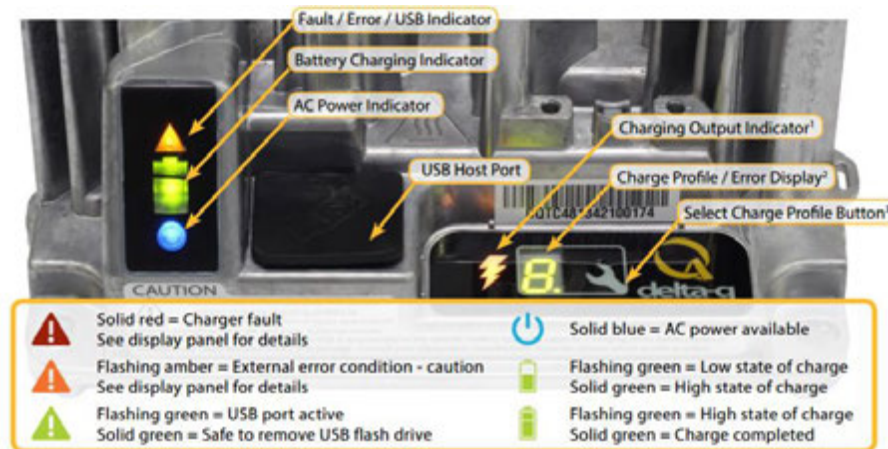
From the top to the bottom, there are three lights that function as follows:

- 1) Fault/Error Indicator: Solid Red = Charger fault
Flashing Amber = External error
Flashing Green = USB port active
Solid Green = Safe to remove USB
- 2) Battery Indicator: Flashing Green (half) = Low state of charge
Solid Green (half) = High state of charge
Flashing Green (full) = High state of charge
Solid Green (full) = Charge completed
- 3) AC Power Indicator: Solid Blue = AC power available

2. Right display

From the left to the right, there are two lights and one button that function as follows:

- 1) Charging Output Indicator: If illuminated, the charge output is active and a potential risk for electrical shock is present.
- 2) Charge Profile/Error Display: Will display one of four possible codes to indicate different failure states and aid in troubleshooting.
- 3) Select Charge Profile: Only needed when changing a charge profile on the charger. All charger profile changes should be carried out by someone with knowledge of the charger system.

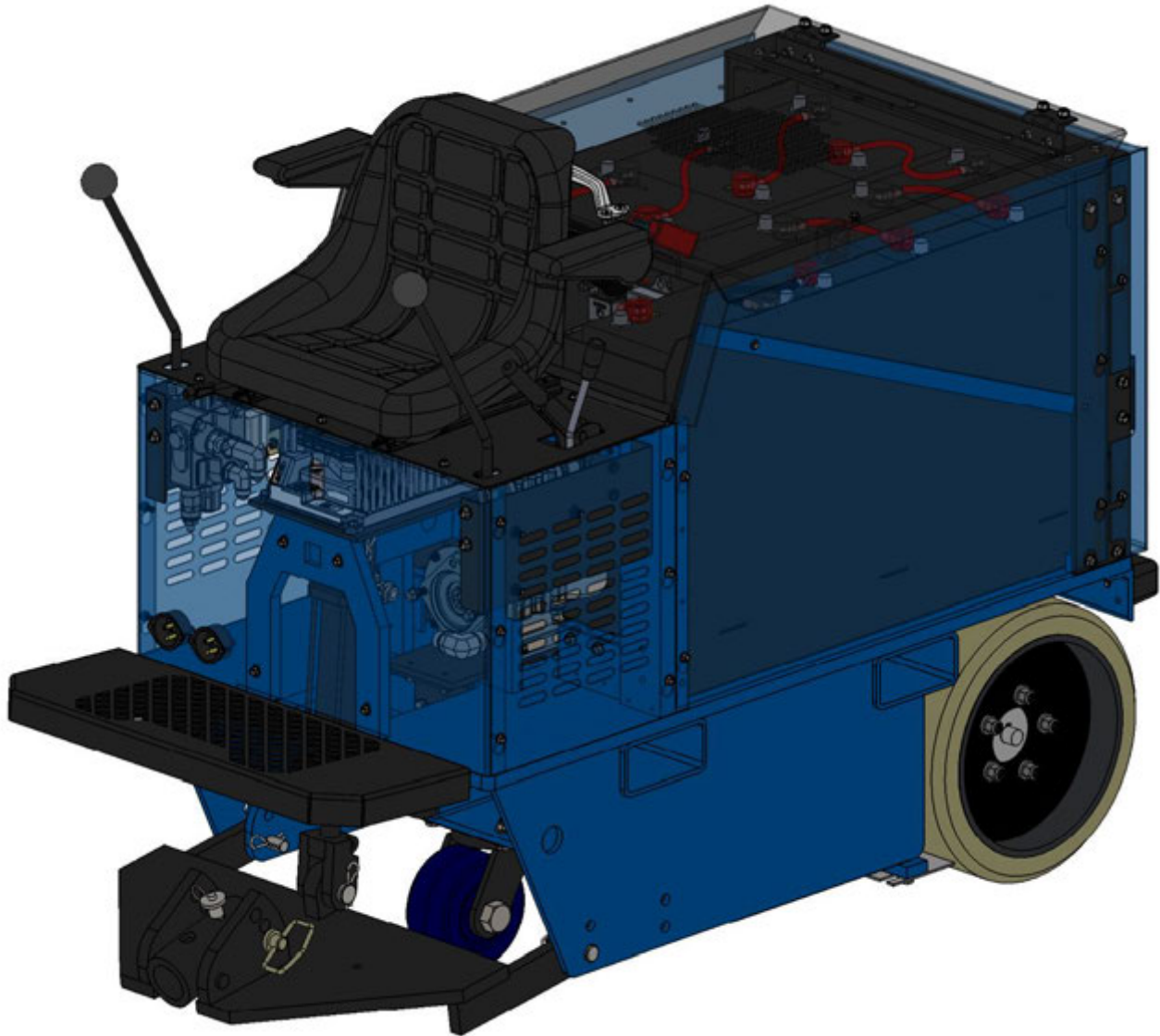


22. Maintenance Procedures

1. Grease Caster Wheel at three fittings every 30 hours.
2. Check Hydraulic Oil once a month. Change every 18 months with NUTO H 46 or ISO 46 or if fluid is overheated 200°F or higher.
3. Change hydraulic filter every 60 hours.
4. Clean Caster Wheel and Back Tires with wire wheel when necessary.
5. Look for leaks, find and tighten fittings. Do not over-tighten fittings.
6. Check all hoses and clamps once a week.
7. Inspect rear tires and lug bolts. Tighten lug bolts as needed to 70 ft.-lbs. torque.
8. Check wheel hub every 60 hours of operation. Wheel hub pack nut should be torqued from 310 to 350 ft.-lbs.

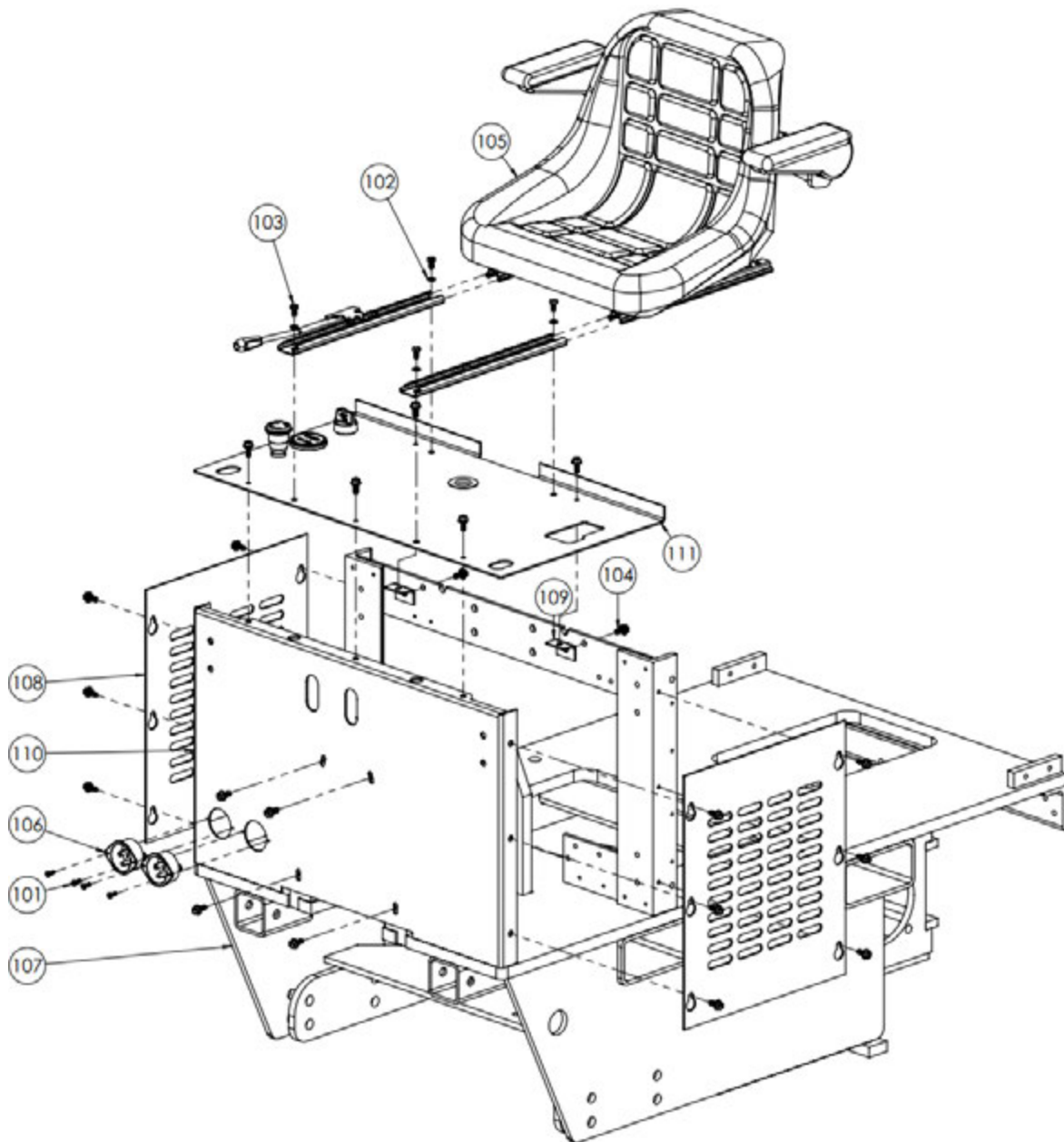
23. Parts List

Terminator Infinity 2.0



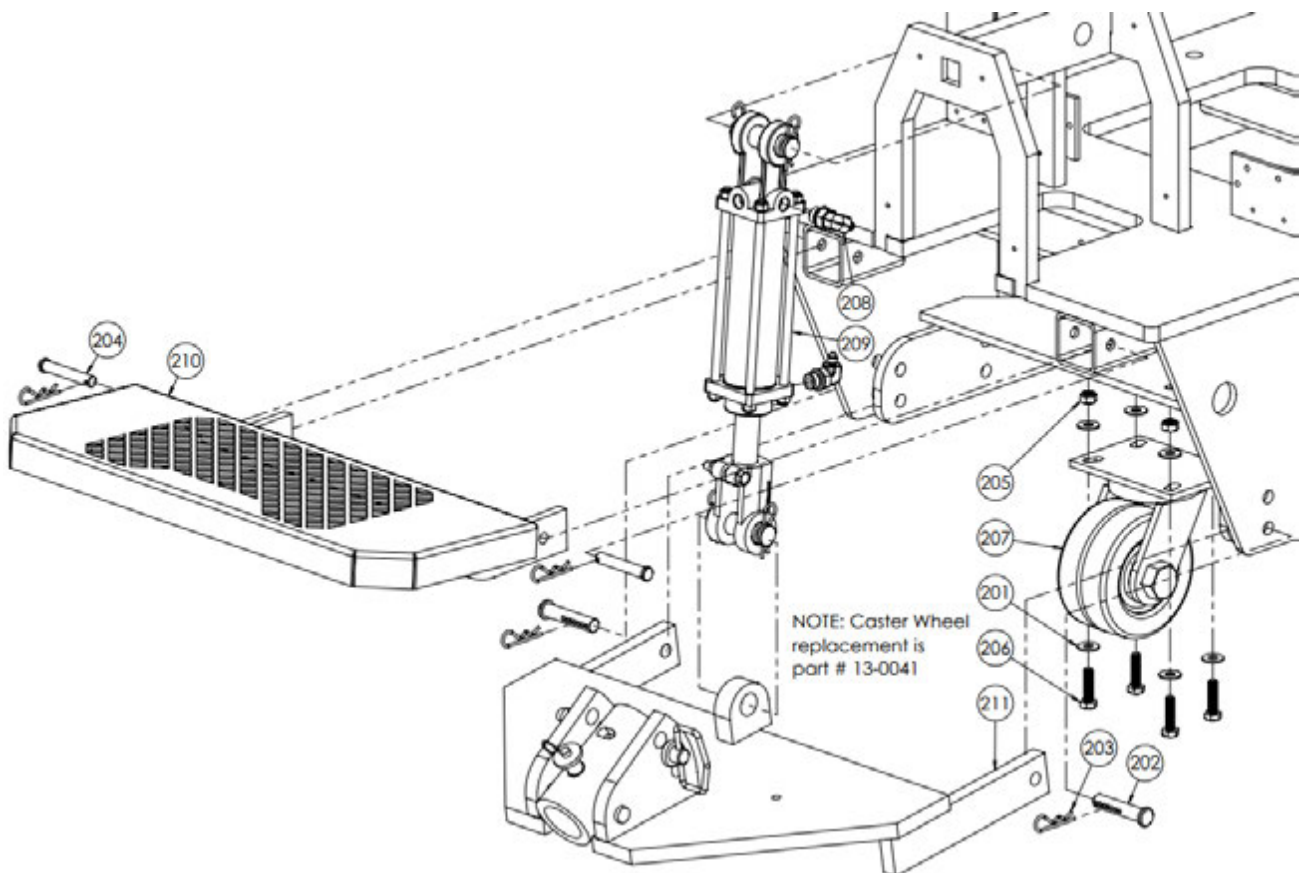
Front Panels & Seat Breakdown

Item No.	Part Number	Description	Qty.
101	11-0085	Pan Head Phillips Screw, #6-32 x 1/2"	4
102	12-0018-06	Lock Washer, M6	4
103	12-0026	Hex Head Cap Screw, M6-1.0 x 12mm	4
104	12-0043-16	Serrated Flange Cap Screw, M6-1.0 x 16mm	23
105	13-0257	GT50 Seat w/ microswitch	1
106	23-0155	Infinity Flanged Inlet Receptacle	2
107	53-0363	Uni-Frame Assembly	1
108	53-0370	Uni-Frame Front Side Panel	2
109	53-0397	Uni-Frame Seat Mounting Bracket	2
110	53-0418	Infinity Front Panel	1
111	96-0389	Infinity Seat Platform Assembly	1



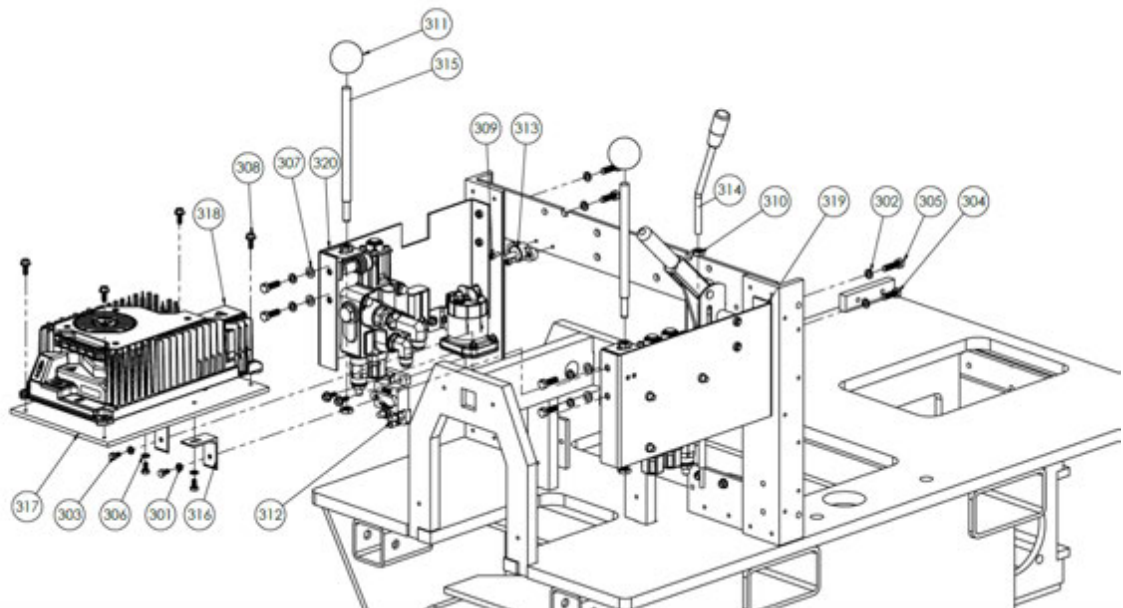
Front Exterior Breakdown

Item No.	Part Number	Description	Qty.
201	11-0035	Flat Washer, 3/8"	8
202	11-0045	Adjustable Clevis Pin, 5/8" x 3" L	2
203	11-0052	Hitch Pin	8
204	11-0236	Clevis Pin, 1/2" x 3" L	2
205	12-0021-10	Nyloc Nut, M10-1.5	4
206	12-0034-40	Hex Head Cap Screw, M10-1.5 x 40mm	4
207	13-0378	Caster Wheel Replacement	1
208	31-0043	Hydraulic Fitting, 90 deg 4 JIC – 8 SAE	2
209	34-0015	Hydraulic Ram (90 deg)	1
210	53-0117	Foot Rest, 1-piece	1
211	96-0386	Pivoting Jaw Assembly	1



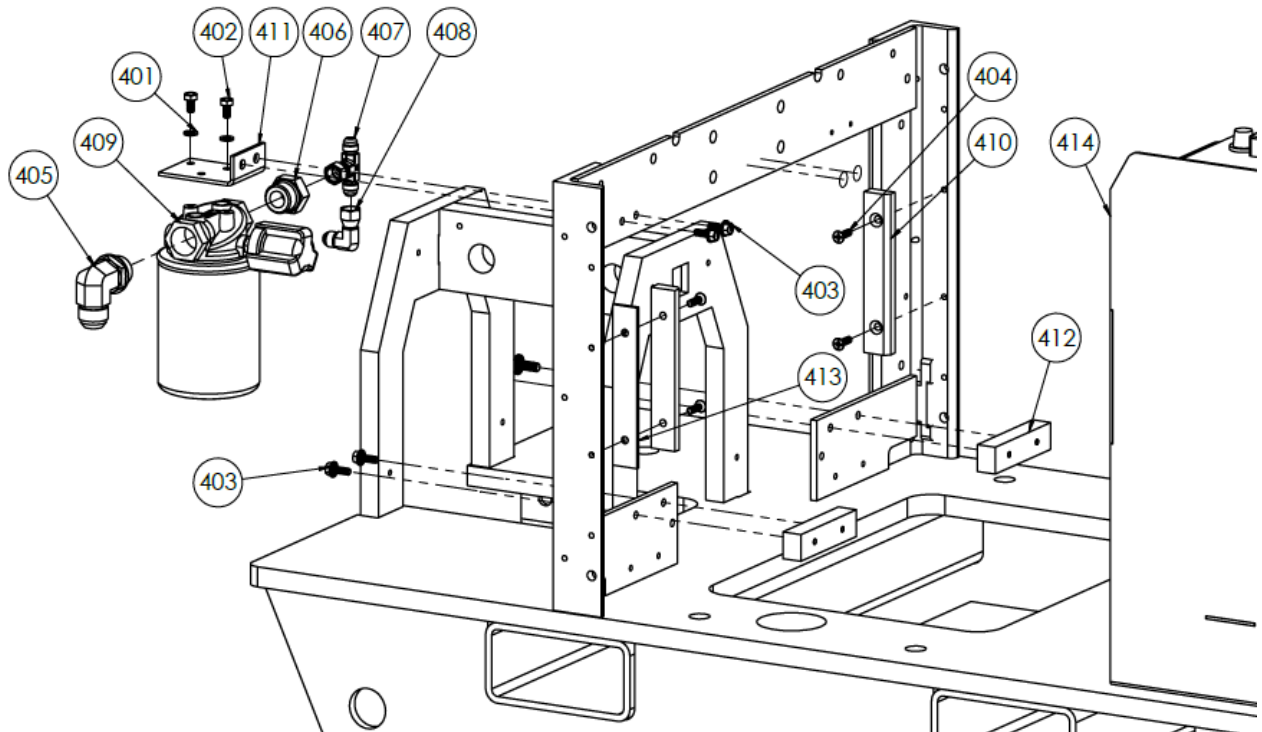
Front Interior Breakdown

Item No.	Part Number	Description	Qty.
301	12-0018-06	Lock Washer, M6	2
302	12-0018-08	Lock Washer, M8	8
303	12-0026	Hex Head Cap Screw, M6-1.0 x 12mm	4
304	12-0032-25	Hex Head Cap Screw, M8-1.25 x 25mm	6
305	12-0032-30	Hex Head Cap Screw, M8-1.25 x 30mm	2
306	12-0035-06	Flat Washer, M6	2
307	12-0035-08	Flat Washer, M8	4
308	12-0043-16	Serrated Flange Cap Screw, M6-1.0 x 16mm	6
309	12-0051	Socket Head Cap Screw, M5-0.8 x 16mm	2
310	12-0053	Hex Jam Nut, M10-1.5	5
311	13-0385	Infinity Drive Lever Knob, 1/2"-13, 1 7/8" dia.	2
312	23-0157	Circuit Breaker, 80A 48V	1
313	24-0231	Junction Stud	1
314	35-0059	Infinity Jaw Lever	1
315	53-0427	Infinity Drive Lever	2
316	53-0429	Infinity Charger Bracket	2
317	53-0430	Infinity Charger Mount	1
318	81-0671	Infinity Primary On-board Charger	1
319	96-0384	Infinity Controls Assembly (L)	1
320	96-0385	Infinity Controls Assembly (R)	1



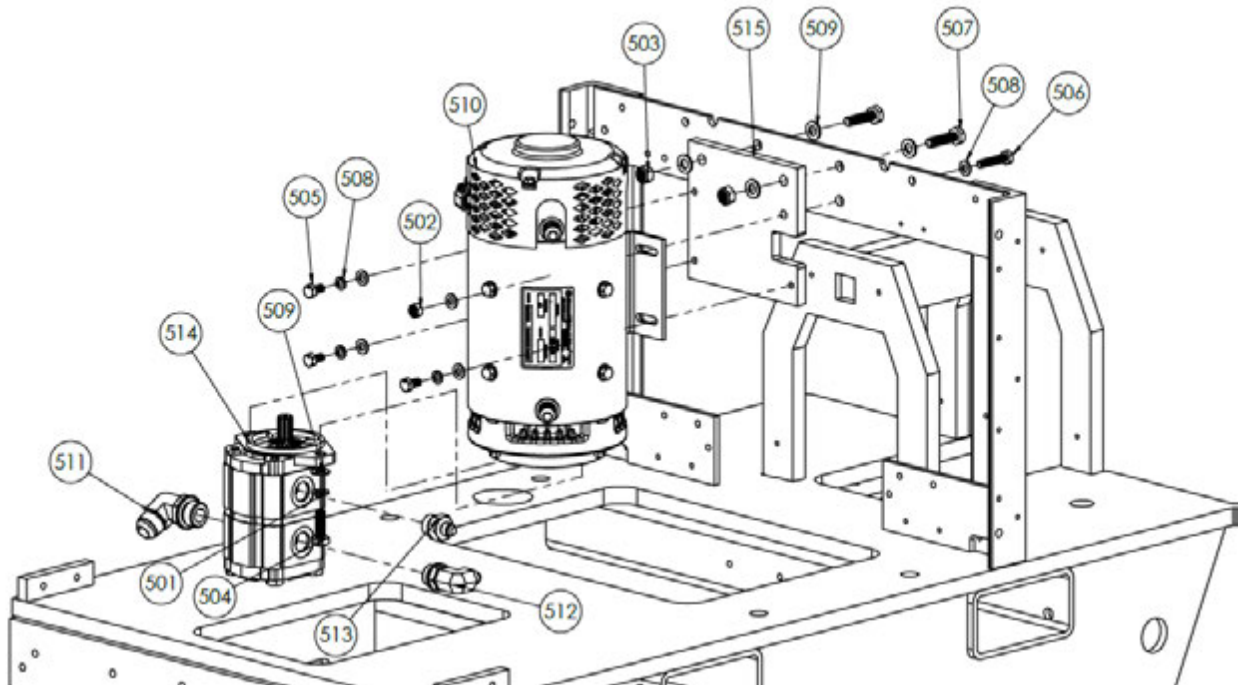
Battery Area Breakdown

Item No.	Part Number	Description	Qty.
401	11-0069	Lock Washer, 1/4"	2
402	11-0092	Hex Head Cap Screw, 1/4"-20 x 1/2"	2
403	12-0043-16	Serrated Flange Cap Screw, M6-1.0 x 16mm	6
404	12-0045-20	Flat Head Phillips Screw, M6-1.0 x 20mm	4
405	31-0051	Hydraulic Fitting, 90 deg 12 JIC – 12 SAE	1
406	31-0282	Hydraulic Fitting, Straight 6 JIC – 12 SAE	1
407	31-0283	Hydraulic Fitting, Branch Tee 6 JIC – 12 SAE	1
408	31-0284	Hydraulic Fitting, 90 deg 6 JIC – 6 JIC	1
409	35-0060	Hydraulic Oil Filter Replacement	1
410	51-1050	Uni-Frame Battery Guide, Front	2
411	53-0398	Uni-Frame Filter Bracket	1
412	53-0399	Uni-Frame Battery Stop	2
413	53-0405	Uni-Frame Battery Guide Spacer, Front	1
414	71-0033	Infinity 2.0 Battery Pack, AGM 48 VDC	1



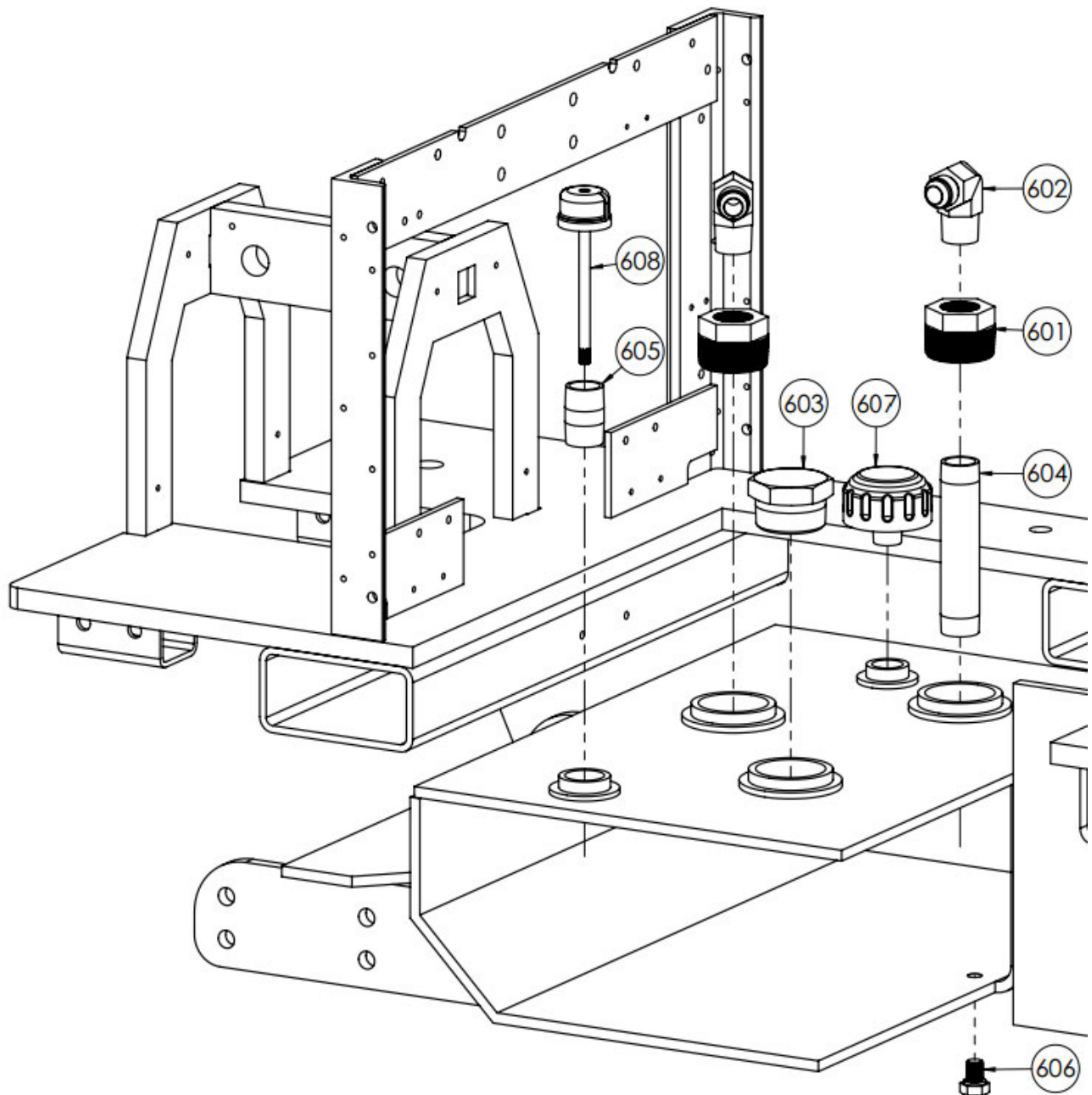
Motor & Pump Breakdown

Item No.	Part Number	Description	Qty.
501	12-0018-10	Lock Washer, M10	2
502	12-0021-08	Nyloc Nut, M8	1
503	12-0021-10	Nyloc Nut, M10	2
504	12-0024	Hex Head Cap Screw, M10-1.5 x 30mm	2
505	12-0032-16	Hex Head Cap Screw, M8-1.25 x 16mm	3
506	12-0032-45	Hex Head Cap Screw, M8-1.25 x 40mm	1
507	12-0034-40	Hex Head Cap Screw, M10-1.5 x 40mm	2
508	12-0035-08	Flat Washer, M8	5
509	12-0035-10	Flat Washer, M10	6
510	24-0160	Infinity 2.0 Motor, 5.5HP	1
511	31-0281	Hydraulic Fitting, 90 deg 12 JIC – 10 SAE	1
512	31-0172	Hydraulic Fitting, 90 deg 6 JIC – 10 SAE	1
513	31-0286	Hydraulic Fitting, Straight 6 JIC – 10 SAE	1
514	31-0290	Infinity 2.0 Gear Pump, 6CC	1
515	53-0435	Infinity 2.0 Motor Mount	1



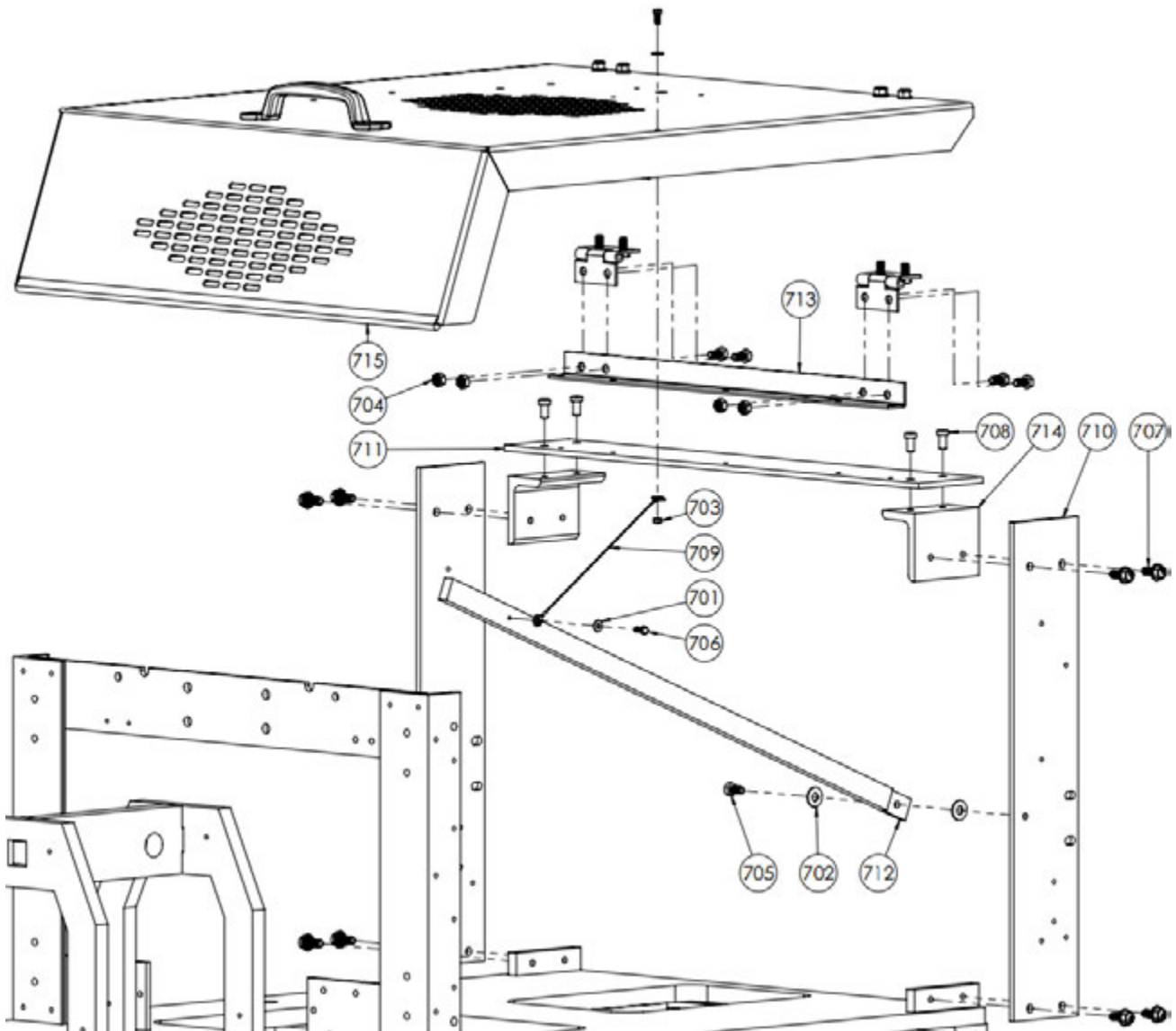
Tank Fittings Breakdown

Item No.	Part Number	Description	Qty.
601	31-0124	Threaded Tank Fitting, 2" Male, 1" x 1" Female	2
602	31-0128	Hydraulic Fitting, 90 deg 12 JIC – 1" NPTF Male	2
603	31-0252	Hex Head Pipe Plug, 2" NPT	1
604	35-0004	Pipe Nipple, 1" NPT x 6" L	1
605	35-0047	Pipe Nipple, 1" NPT x 2" L	1
606	35-0051	Drain Plug, M14-1.5	1
607	35-0052	Hydraulic Breather Cap	1
608	53-0277	XME Dip Stick Unit	1



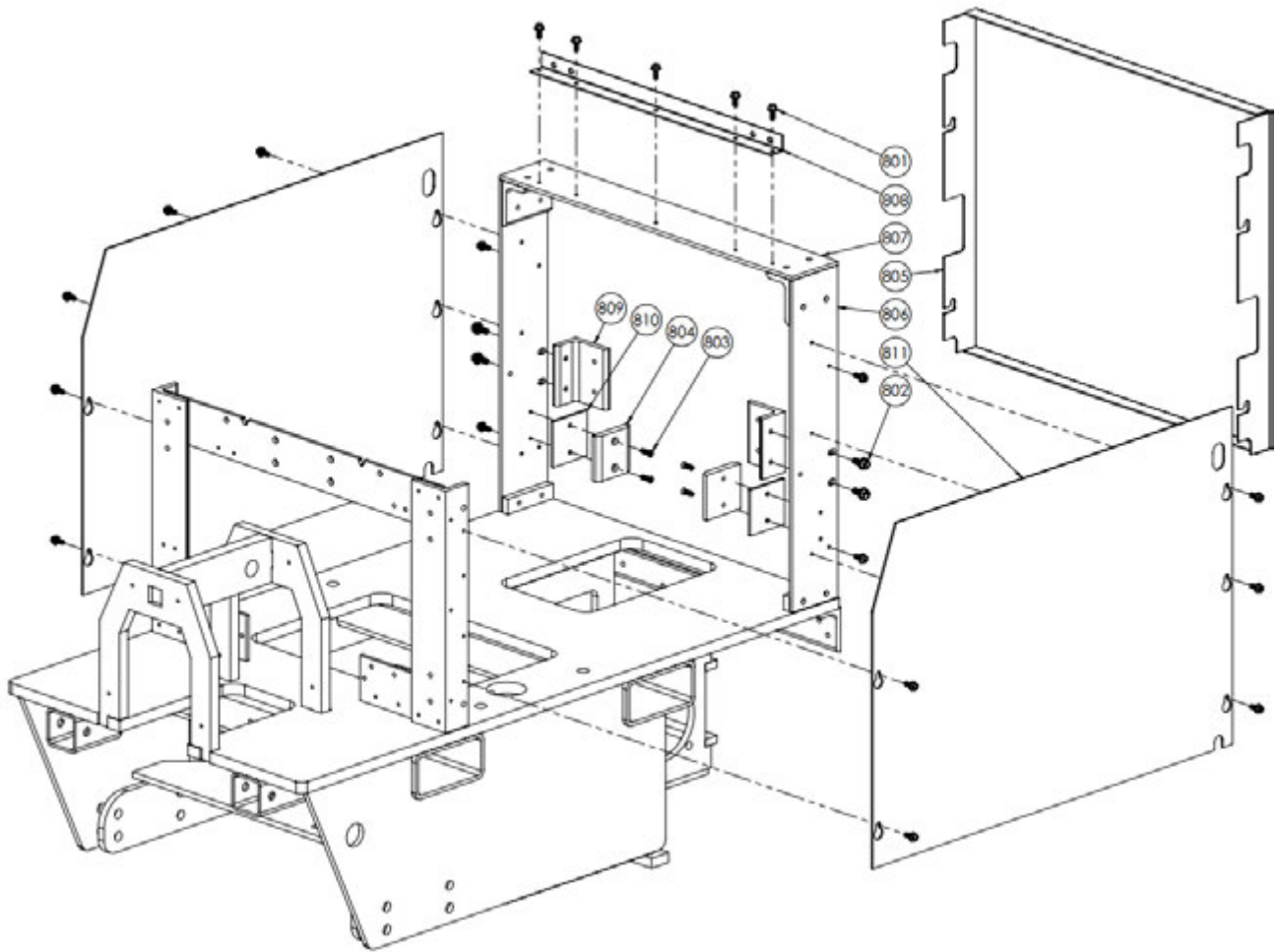
Hood Arm Breakdown

Item No.	Part Number	Description	Qty.
701	11-0030	Flat Washer, #10	4
702	11-0034	Flat Washer, 5/16"	2
703	12-0021-05	Nyloc Nut, M5-0.8	1
704	12-0021-08	Nyloc Nut, M8-1.25	4
705	12-0032-16	Hex Head Cap Screw, M8-1.25 x 16mm	5
706	12-0041-12	Hex Head Cap Screw, M5-0.8 x 12mm	2
707	12-0044-20	Serrated Flange Cap Screw, M8-1.25	8
708	12-0050-16	Low Socket Cap Screw, M8-1.25 x 16mm	4
709	13-0387	12" Lanyard	1
710	53-0391	Uni-Frame Rear Side Support	2
711	53-0392	Uni-Frame Rear Cross Support	1
712	53-0393	Uni-Frame Hood Support	1
713	53-0394	Top Cover Mounting Bracket	1
714	53-0395	Uni-Frame Rear Support Bracket	2
715	96-0380	Infinity Top Cover Assembly	1



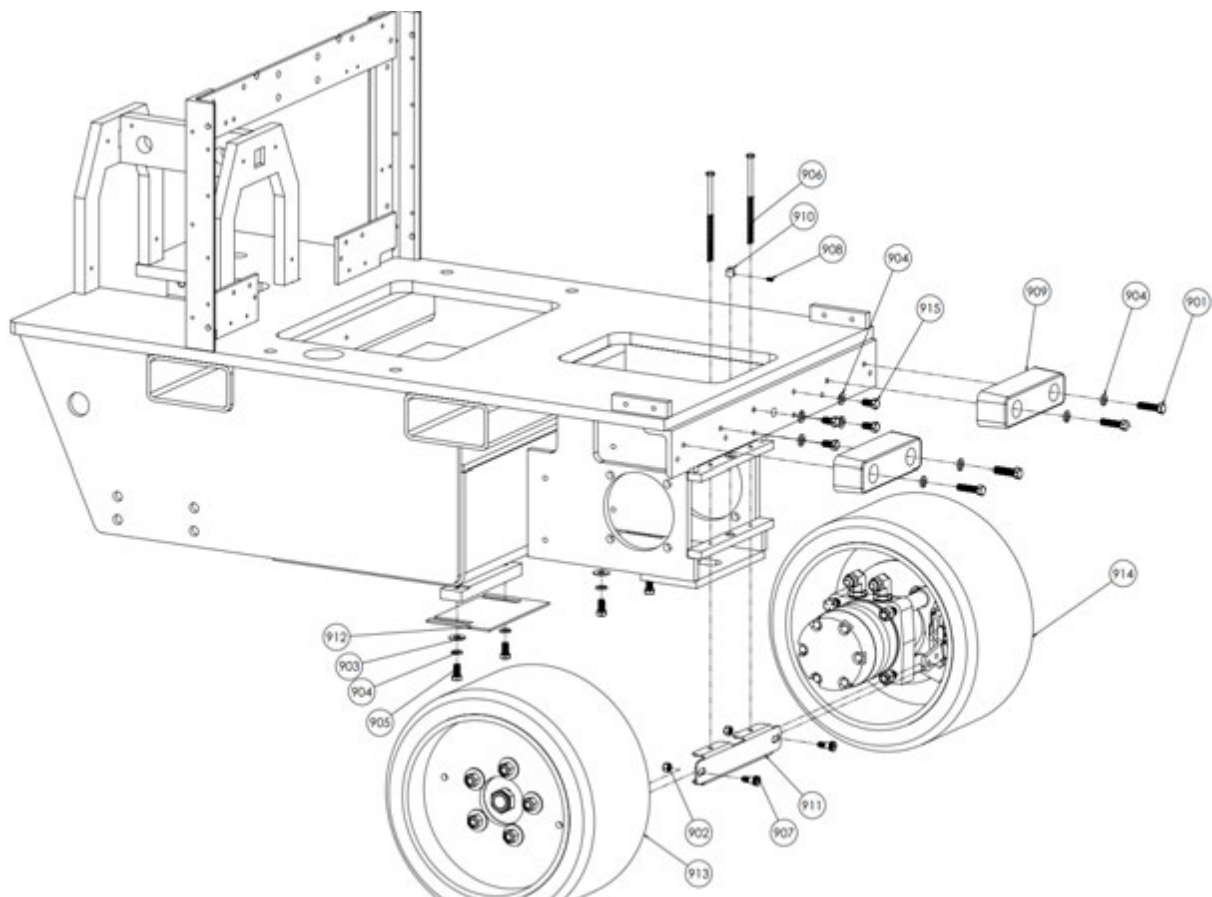
Rear Panels & Support Breakdown

Item No.	Part Number	Description	Qty.
801	12-0043-16	Serrated Flange Cap Screw, M6-1.0 x 16mm	19
802	12-0044-20	Serrated Flange Cap Screw, M8-1.25 x 20mm	4
803	12-0045-20	Flat Head Phillips Screw, M6-1.0 x 20mm	4
804	51-1048	Uni-Frame Battery Guide, Rear	2
805	53-0373	Uni-Frame Back Panel	1
806	53-0391	Uni-Frame Rear Side Support	2
807	53-0392	Uni-Frame Rear Cross Support	1
808	53-0394	Top Cover Mounting Bracket	1
809	53-0395	Uni-Frame Rear Support Bracket	4
810	53-0406	Uni-Frame Battery Guide Spacer, Rear	2
811	53-0415	Uni-Frame Side Panel	2



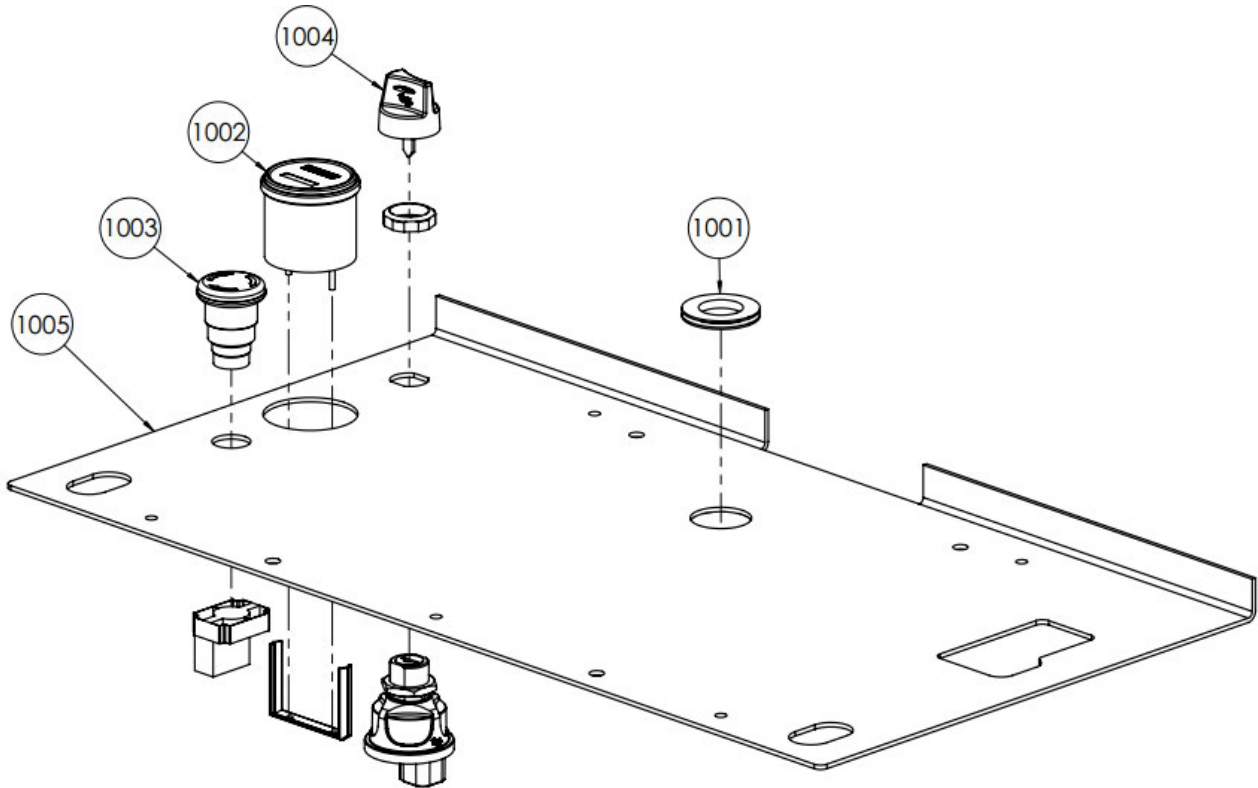
Rear Wheels Breakdown

Item No.	Part Number	Description	Qty.
901	12-0034-40	Hex Head Cap Screw, M10-1.5*40mm	4
902	11-0025	Nyloc Nut, 5/16"-18	2
903	11-0035	Flat Washer, 3/8"	4
904	12-0018-10	Lock Washer, M10"	12
905	12-0048-16	Hex Head Bolt, M10-1.5*16	8
906	11-0279-88	Hex Head Cap Screw, 1/4"-20 x 5 1/2"	2
907	11-0287	Socket Head Shoulder Screw, 3/8" x 3/8", 5/16"-18	2
908	11-0353	Set Screw, #10-32 x 3/8"	1
909	13-0384	Rear Bumper	2
910	51-0513	Cable Clamp	1
911	53-0134	Brake Actuator	1
912	81-0091	Wheel Scraper Blade, 7.5" x 4.5"	2
913	96-0381	Infinity Left Wheel Assembly	1
914	96-0382	Infinity Right Wheel Assembly	1
915	12-0024	Hex Head Cap Screw, M10-1.5*30mm	4



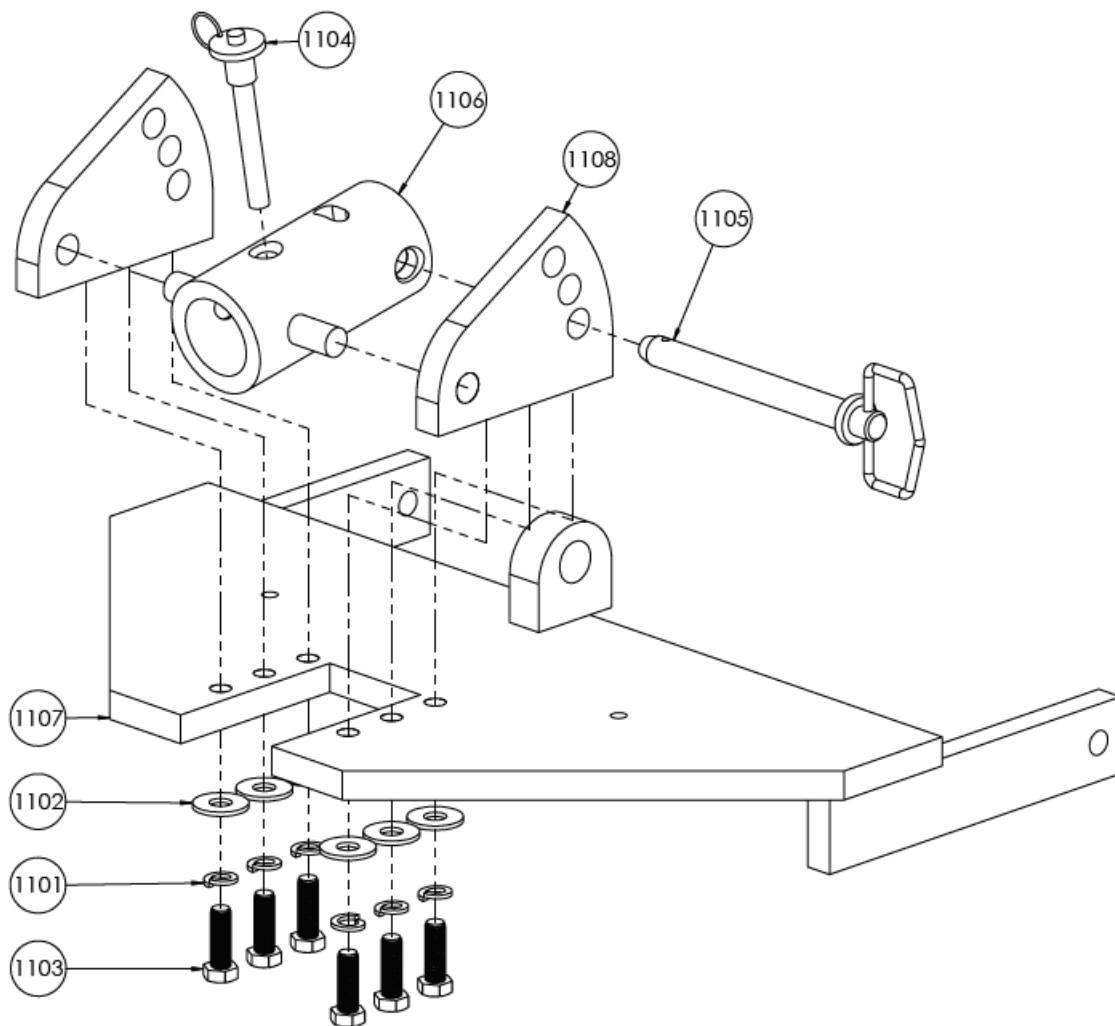
Infinity Seat Platform Assembly - Part # 96-0389

Item No.	Part Number	Description	Qty.
1001	13-0269	Push-in Grommet for 1 3/8" hole	1
1002	21-0123	Battery Indicator w/ Hour Meter	1
1003	22-0069	Emergency Stop	1
1004	22-0071	Key Switch	1
1005	53-0417	Infinity Seat Panel	1



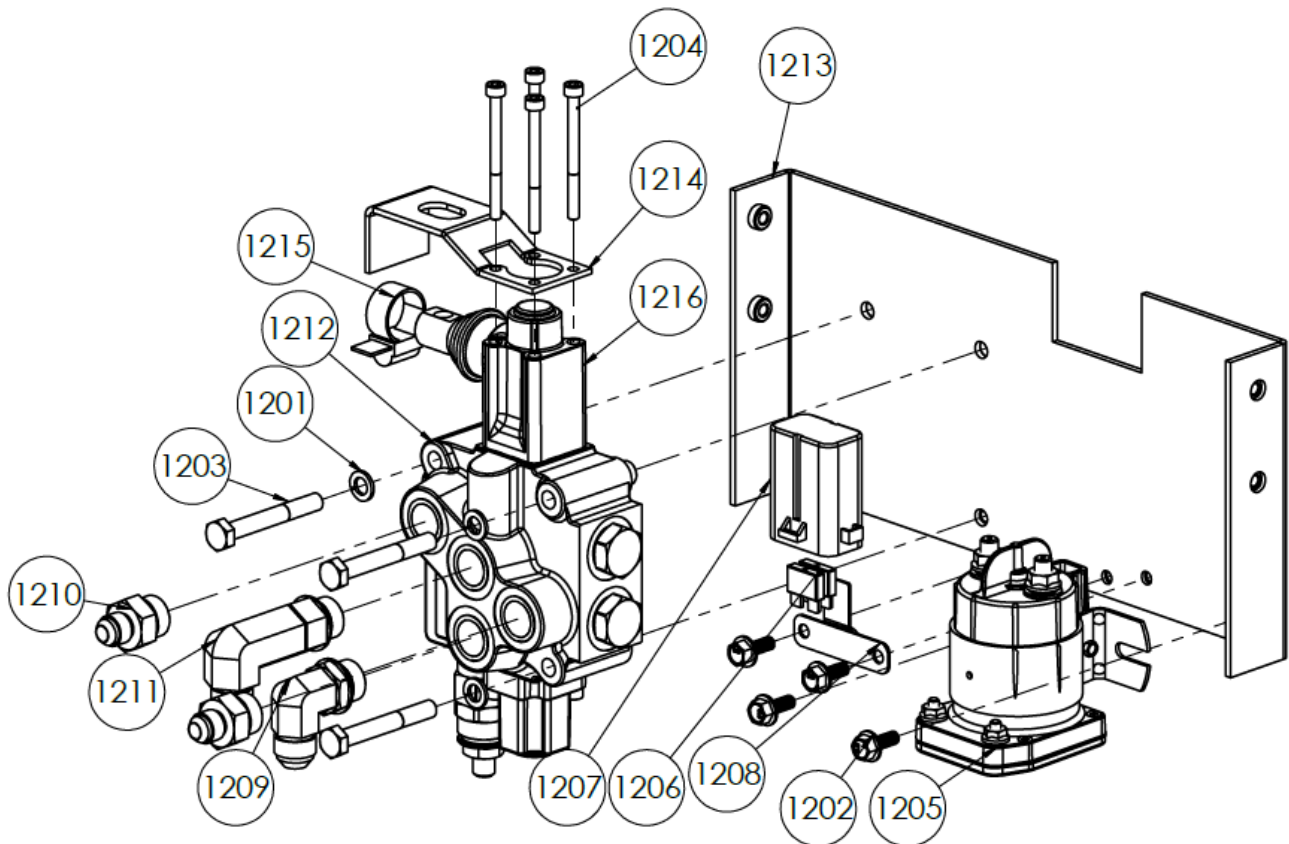
Pivoting Jaw Assembly - Part # 96-0386

Item No.	Part Number	Description	Qty.
1101	11-0041	Lock Washer, 1/2"	6
1102	11-0230	Flat Washer, 1/2"	6
1103	11-0296	Hex Head Cap Screw, 1/2"-13 x 1 1/2"	6
1104	13-0035	Quick Release Pin, 1/2" x 3"	1
1105	13-0386	Pivoting Jaw Position Pin	1
1106	53-0407	Uni-Frame Receiving Tube Weld Assembly	1
1107	53-0411	Uni-Frame Pivoting Jaw Weld Assembly	1
1108	53-0428	Uni-Frame Jaw Pivot Plate	2



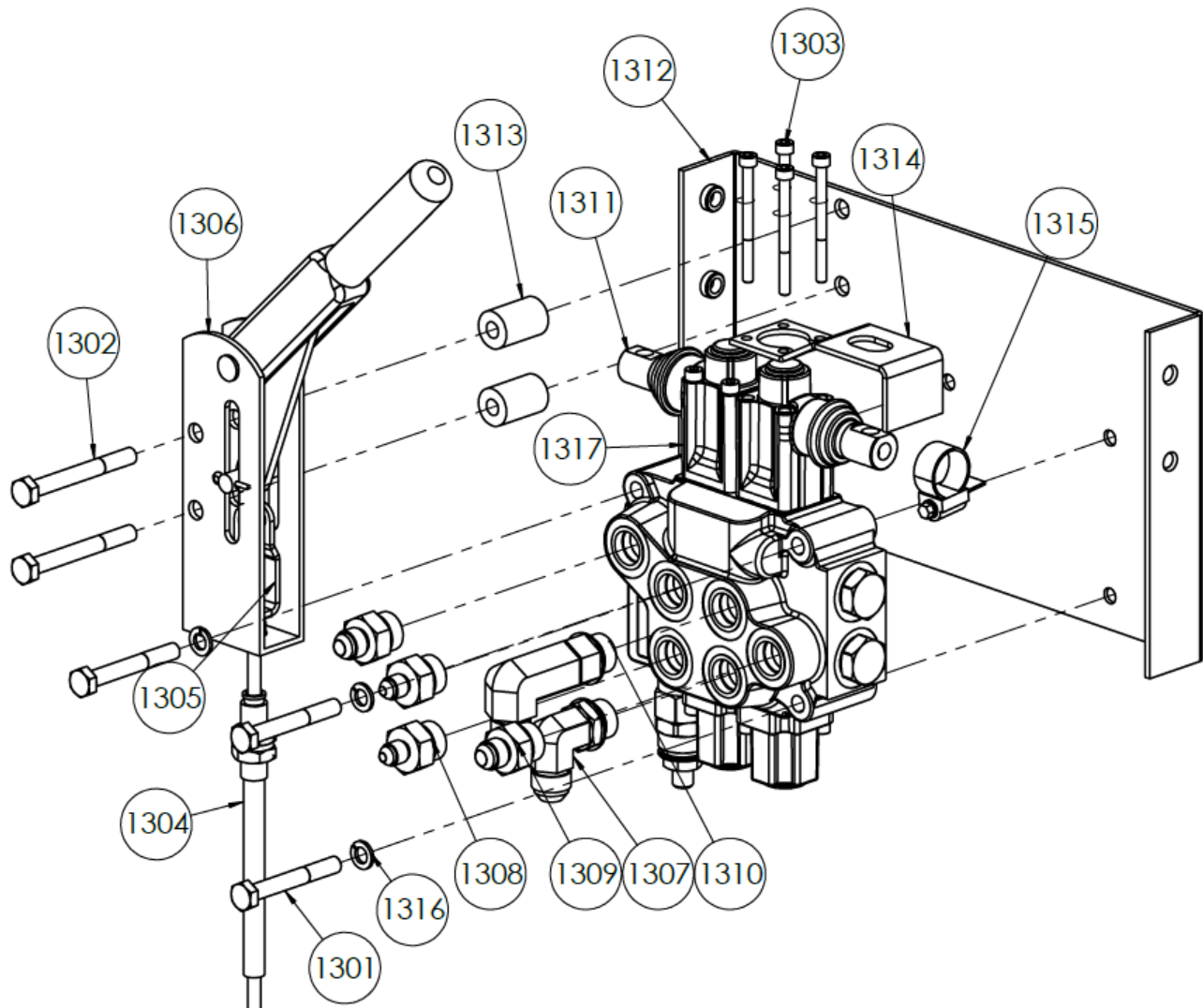
Infinity Controls Assembly (R) - Part # 96-0385

Item No.	Part Number	Description	Qty.
1201	12-0018-08	Lock Washer, M8	3
1202	12-0043-16	Serrated Flange Cap Screw, M6-1.0 x 16mm	4
1203	12-0060	Socket Head Bolt, M8-1.25 x 60mm	3
1204	12-0052	Socket Head Cap Screw, M5-0.8 x 60mm	4
1205	22-0070	Contactora, 48 VDC	1
1206	23-0158	Blade Fuse, 5A	2
1207	25-0158	Fuse Holder Cover	1
1208	25-0159	Fuse Holder Bracket	1
1209	31-0094	Hydraulic Fitting, 90 deg 8 JIC – 8 SAE	1
1210	31-0233	Hydraulic Fitting, Straight 6 JIC – 8 SAE	2
1211	31-0287	Hydraulic Fitting, Long 90 deg 8 JIC – 8 SAE	1
1212	35-0056	Single Section Valve	1
1213	53-0420	Infinity Mounting Bracket (R)	1
1214	53-0434	Infinity Handle Collar	1
1215	13-0275	Hose Clamp	1
1216	32-0026	Pivot Box, Infinity Valve	1



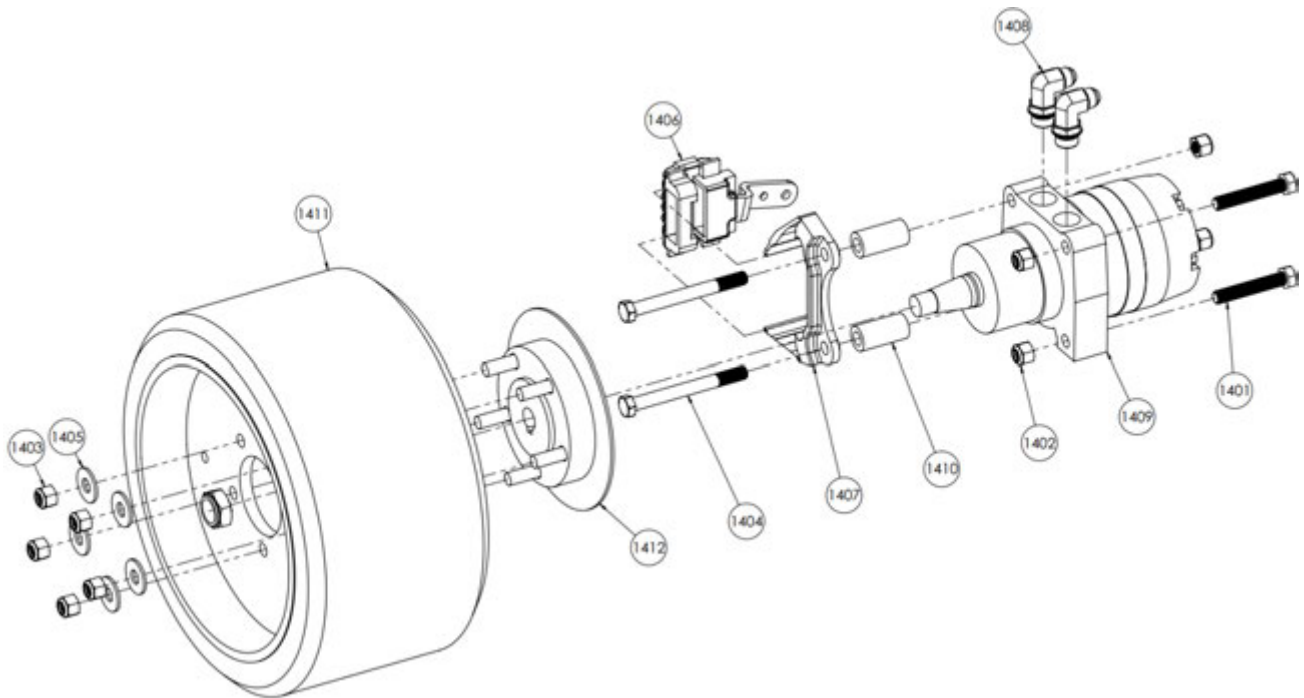
Infinity Controls Bracket (L) - Part # 96-0384

Item No.	Part Number	Description	Qty.
1301	12-0060	Socket Head Bolt, M8-1.25 x 60mm	3
1302	12-0049-70	Hex Head Bolt, M8-1.25 x 70mm	2
1303	12-0052	Socket Head Cap Screw, M5-0.8 x 60mm	4
1304	13-0023	Brake Cable	1
1305	13-0037	Brake Cable Clevis	1
1306	13-0050-1	Modified Brake Lever	1
1307	31-0094	Hydraulic Fitting, 90 deg 8 JIC – 8 SAE	1
1308	31-0163	Hydraulic Fitting, Flow Reducer 4 JIC – 8 SAE	2
1309	31-0233	Hydraulic Fitting, Straight 6 JIC – 8 SAE	2
1310	31-0287	Hydraulic Fitting, Long 90 deg 8 JIC – 8 SAE	1
1311	35-0057	Two-Section Valve	1
1312	53-0421	Infinity Mounting Bracket (L)	1
1313	53-0433	Infinity Brake Spacer	2
1314	53-0434	Infinity Handle Collar	1
1315	13-0275	Hose Clamp	2
1316	12-0018-08	Lock washer, M8	3
1317	32-0026	Pivot Box, Infinity Valve	2



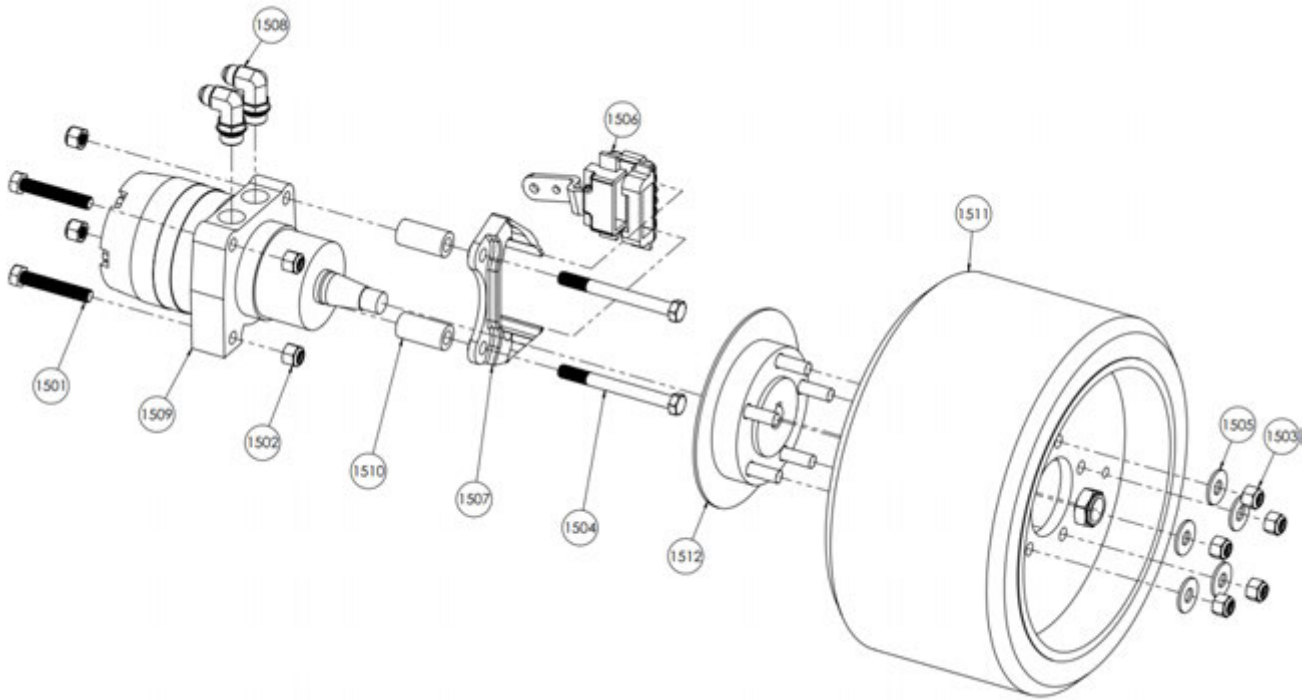
Infinity Right Wheel Assembly - Part # 96-0382

Item No.	Part Number	Description	Qty.
1401	11-0013	Hex Head Cap Screw, 1/2"-13 x 3"	2
1402	11-0028	Nyloc Nut, 1/2"-13	4
1403	11-0029	Nyloc Nut, 1/2"-20	5
1404	11-0228	Hex Head Cap Screw, 1/2"-13 x 5"	2
1405	11-0230	Flat Washer, 1/2"	5
1406	13-0021	Right Brake Caliper	1
1407	13-0022	Brake Mounting Bracket	1
1408	31-0053	Hydraulic Fitting, 90 deg 8 JIC – 10 SAE	2
1409	33-0003	Right Wheel Motor	1
1410	51-0491	Brake Spacer Standoff	2
1411	53-0208	Wheel and Tire Assembly	1
1412	70-0016	Wheel Hub with Brake Disc	1



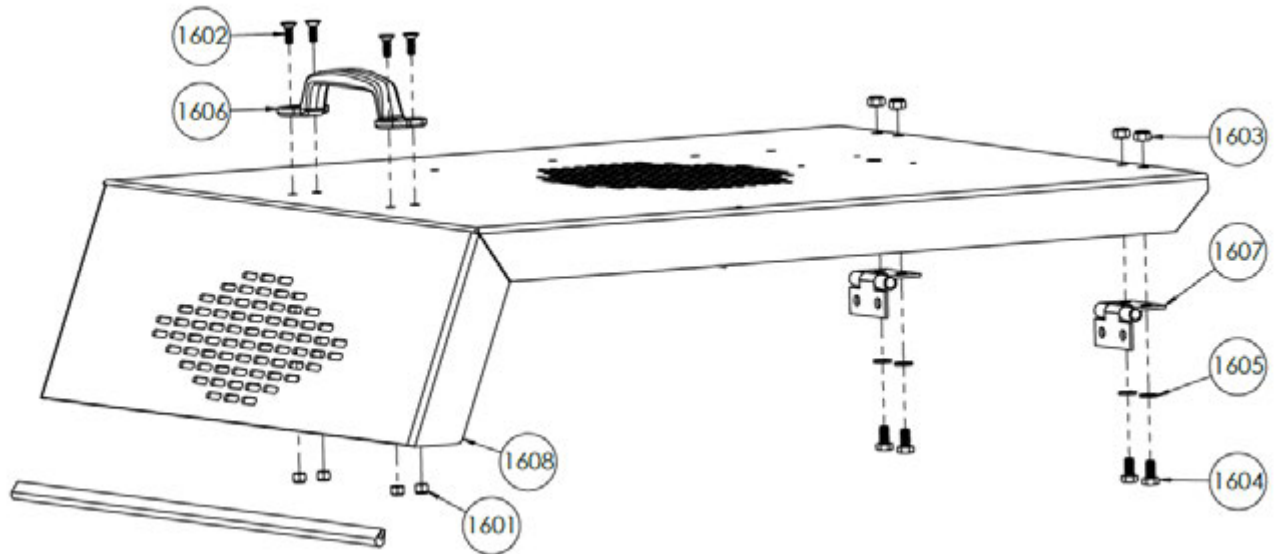
Infinity Left Wheel Assembly - Part # 96-0381

Item No.	Part Number	Description	Qty.
1501	11-0013	Hex Head Cap Screw, 1/2"-13 x 3"	2
1502	11-0028	Nyloc Nut, 1/2"-13	4
1503	11-0029	Nyloc Nut, 1/2"-20	5
1504	11-0228	Hex Head Cap Screw, 1/2"-13 x 5"	2
1505	11-0230	Flat Washer, 1/2"	5
1506	13-0020	Left Brake Caliper	1
1507	13-0022	Brake Mounting Bracket	1
1508	31-0053	Hydraulic Fitting, 90 deg 8 JIC – 10 SAE	2
1509	33-0002	Left Wheel Motor	1
1510	51-0491	Brake Spacer Standoff	2
1511	53-0208	Wheel and Tire Assembly	1
1512	70-0016	Wheel Hub with Brake Disc	1



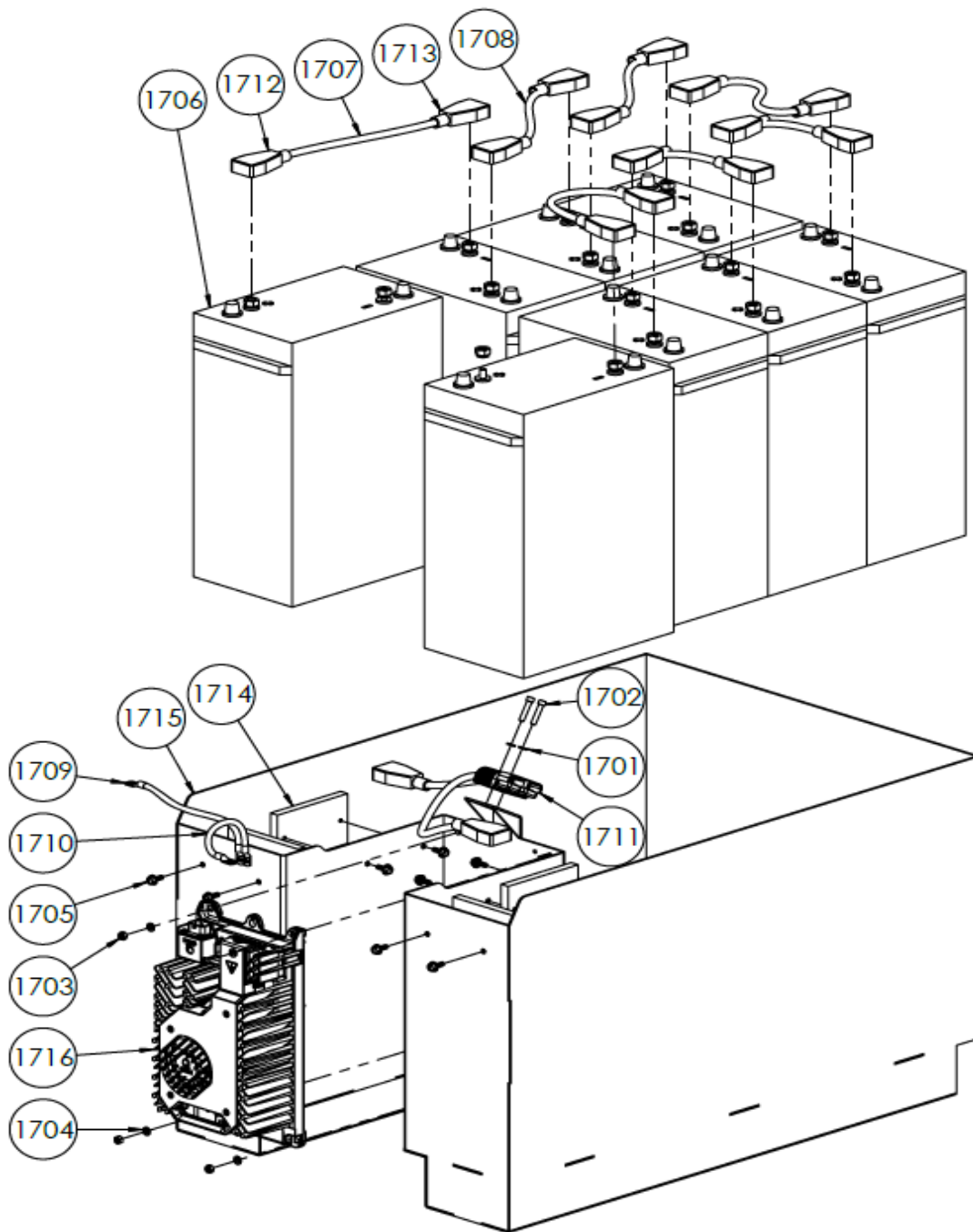
Infinity Top Cover Assembly - Part # 96-0380

Item No.	Part Number	Description	Qty.
1601	11-0024	Nyloc Nut, 1/4"-20	4
1602	11-0140	Flat Head Socket Screw, 1/4"-20 x 3/4"	4
1603	12-0021-08	Nyloc Nut, M8-1.25	4
1604	12-0032-16	Hex Head Cap Screw, M8-1.25 x 16mm	4
1605	12-0035-08	Flat Washer, M8	4
1606	13-0005	Chrome Handle	1
1607	53-0402	Uni-Frame Hood Hinge	2
1608	53-0419	Infinity Top Cover	1



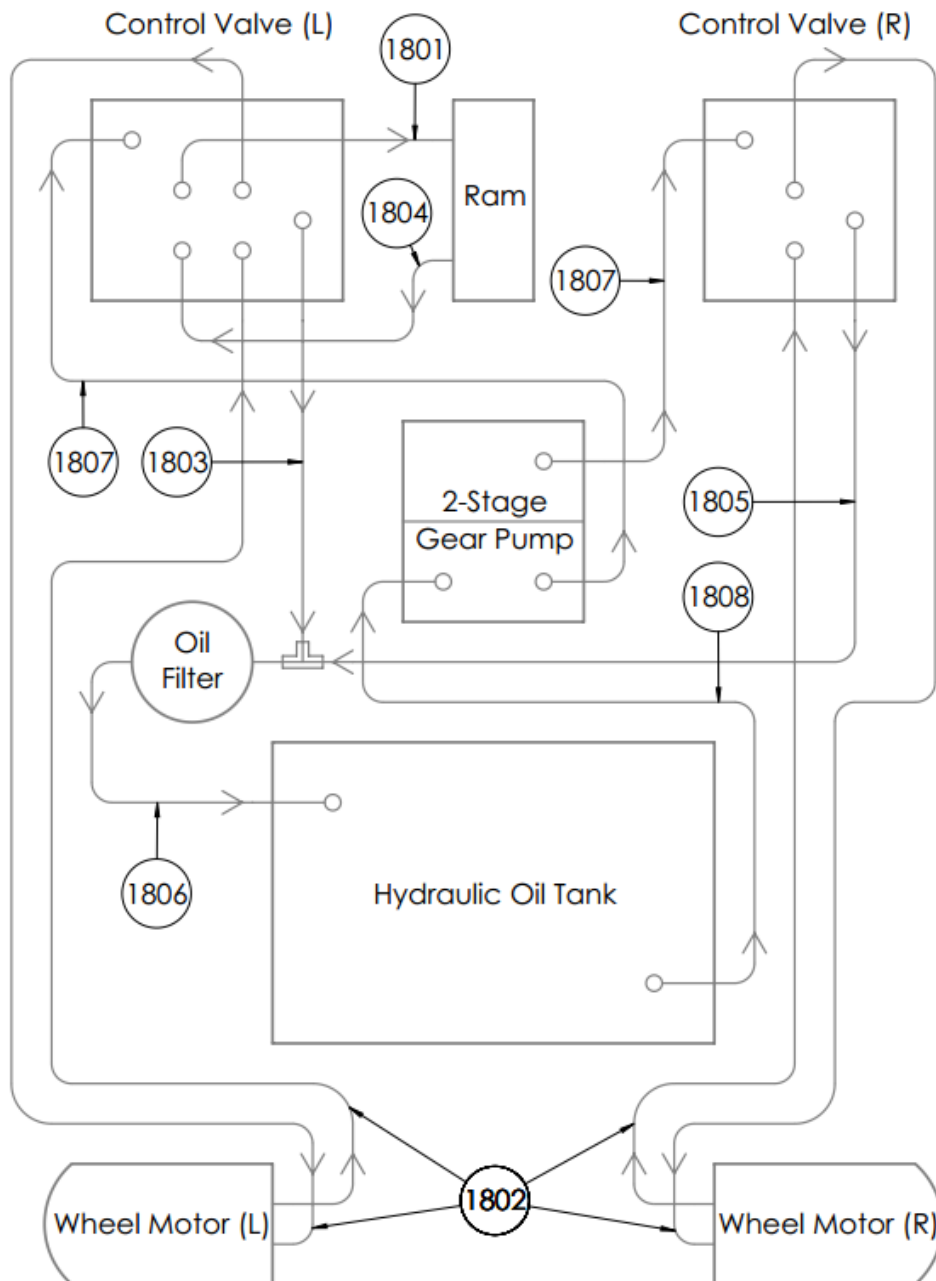
Infinity 2.0 Battery Pack - Part # 71-0033

Item No.	Part Number	Description	Qty.
1701	12-0018-06	Lock Washer, M6	2
1702	12-0020	Socket Head Cap Screw, M6-1.0 x 30mm	2
1703	12-0021-06	Nyloc Nut, M6-1.0	4
1704	12-0035-06	Flat Washer, M6	4
1705	12-0043-16	Serrated Flange Cap Screw, M6-1.0 x 16mm	8
1706	23-0141	AGM Battery, 6V 400Ah	8
1707	24-0032	Battery Pack Wire Assembly, 13.5"	1
1708	24-0033	Battery Pack Wire Assembly, 11"	6
1709	24-0216	Infinity Wire Assembly, Back Charger to Negative	1
1710	24-0219	Infinity Wire Assembly, Back Charger to Positive	1
1711	24-0234	Infinity 2.0 Wire Assembly, Blue Plug Batt. Pigtail	1
1712	25-0103	Battery Boot, Red	8
1713	25-0104	Battery Boot, Black	8
1714	51-1079	AMG Battery Shim	4
1715	53-0241	Removable Battery Tray	1
1716	81-0672	Infinity Secondary On-board Charger	1



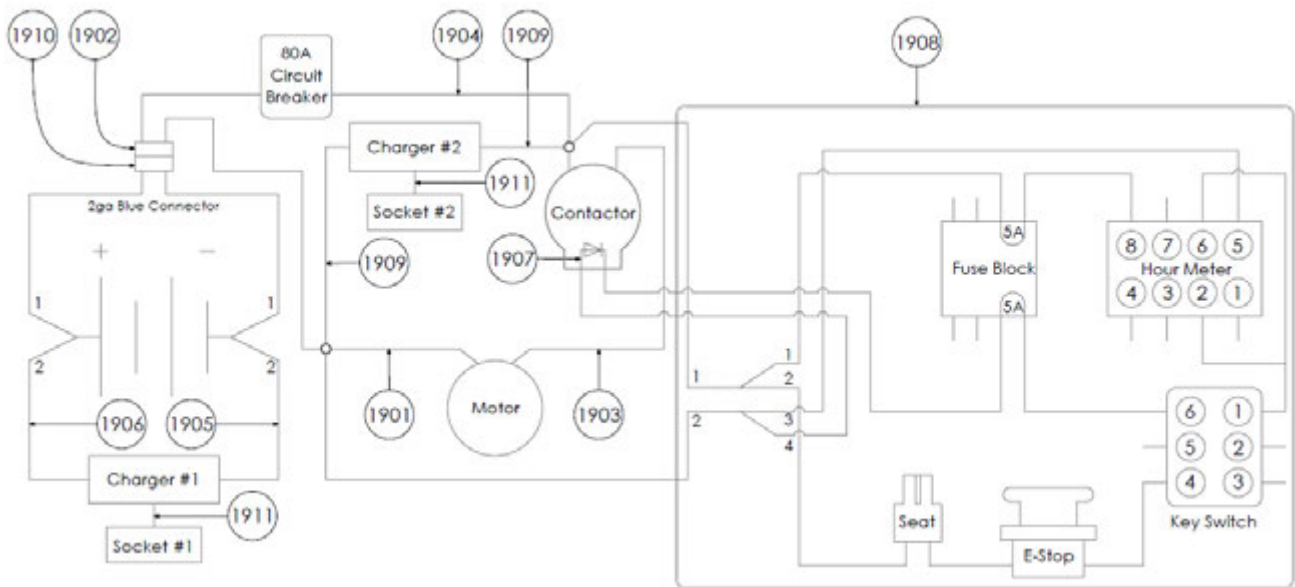
Infinity 2.0 Hydraulics

Item No.	Part Number	Description	Qty.
1801	31-0271	Infinity Hose Assembly, L Valve to Upper Jaw	1
1802	31-0272	Infinity Hose Assembly, Valve to Wheel	4
1803	31-0273	Infinity Hose Assembly, L Valve to Filter	1
1804	31-0274	Infinity Hose Assembly, L Valve to Lower Jaw	1
1805	31-0277	Infinity Hose Assembly, R Valve to Filter	1
1806	31-0278	Infinity Hose Assembly, Filter to Tank	1
1807	31-0291	Infinity Hose Assembly, Pump to Valve	2
1808	31-0292	Infinity Hose Assembly, Tank to Pump	1



Infinity 2.0 Electrical

Item No.	Part Number	Description	Qty.
1901	24-0128	Infinity 2.0 Wire Assembly, Motor Neg. to Junction	1
1902	24-0187	Infinity 2.0 Wire Assembly, Blue Plug Power Pigtail	1
1903	24-0210	Infinity 2.0 Wire Assembly, Contactor to Motor Pos.	1
1904	24-0211	Infinity 2.0 Wire Assembly, Breaker to Contactor	1
1905	24-0216	Infinity Wire Assembly, Rear Charger to Neg. Batt.	1
1906	24-0219	Infinity Wire Assembly, Rear Charger to Pos. Batt.	1
1907	24-0227	Infinity Diode Assembly	1
1908	24-0230	Infinity 2.0 Wire Harness	1
1909	24-0233	Infinity 2.0 Wire Assembly, Front Charger	1
1910	24-0234	Infinity 2.0 Wire Assembly, Blue Plug Batt. Pigtail	1
1911	81-0675	Infinity On-board Charger Cable Assembly	2



24. Warranty

Innovatech warrants to the original buyer, for a period of one (1) year or 300 operating hours (whichever comes first) from the date of delivery, that the Equipment is free from defects in materials and workmanship and that the Equipment conforms to the operating specifications supplied with the Equipment. The foregoing warranty is subject to proper operation and maintenance of the Equipment in accordance with the operating instruction and manual supplied to Buyer with the Equipment.

Warranty claims shall be made by Buyer in writing. Innovatech's sole obligation under the foregoing warranty, where it appears to Innovatech's satisfaction that the defect was present at the time of delivery, is at Innovatech's sole option, to repair, replace or correct any such defect.

EXCEPT AS STATED ABOVE THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED. INNOVATECH EXPRESSLY DISCLAIMS ANY WARRANTY, EXPRESS OR IMPLIED, THAT EQUIPMENT SOLD HEREUNDER IS OF MERCHANTABLE QUALITY OR THAT IT CAN BE USED FOR OR IS FIT FOR ANY PARTICULAR PURPOSE. ANY DESCRIPTION OF THE EQUIPMENT IN THIS AGREEMENT OR IN MANUALS, BROCHURES OR LITERATURE AND ANY USE OF ANY SAMPLE, MODEL OR PROTOTYPE OF THE EQUIPMENT IS FOR THE SOLE PURPOSE OF IDENTIFYING OR ILLUSTRATING THE EQUIPMENT, IS NOT PART OF THE BASIS OF THE AGREEMENT BETWEEN INNOVATECH AND BUYER, AND DOES NOT CONSTITUTE A WARRANTY THAT THE EQUIPMENT, AS SUPPLIED, WILL CONFORM TO ANY DESCRIPTION OR TO ANY SAMPLE, MODEL OR PROTOTYPE. INNOVATECH DISCLAIMS ANY WARRANTY RESPECTING OPERATING CAPACITY OR CAPABILITY OF THE EQUIPMENT OR THE ABILITY OF THE EQUIPMENT TO MEET ANY PARTICULAR NEEDS OF THE BUYER. THE EQUIPMENT IS POWERED TO OPERATE AS STATED IN THE OPERATING SPECIFICATIONS SUPPLIED WITH THE EQUIPMENT BUT IT IS UNDERSTOOD AND AGREED TO BUY BUYER THAT ACTUAL OPERATING CAPABILITIES VARY UNDER DIFFERENT OPERATING CONDITIONS FOR WHICH INNOVATECH CAN ASSUME NO RESPONSIBILITY.

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IN NO EVENT WILL INNOVATECH BE LIABLE FOR ANY DAMAGES CAUSED BY BUYER'S FAILURE TO PERFORM BUYER'S RESPONSIBILITIES, OR FOR ANY LOST PROFITS, LOST PRODUCTION, LOSS OF ANTICIPATED PROFITS OF OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES, EVEN IF INNOVATECH HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

IN NO EVENT WILL INNOVATECH BE LIABLE FOR ANY DAMAGES RESULTING FROM ANY CLAIM AGAINST BUYER BY ANY OTHER PARTY.

FACTORY SERVICE

A warranty will not be valid unless a written claim authorization comes with returned parts. Innovatech will not provide for any shipping costs for items returned for repair. To obtain warranty repairs, buyer must prepay shipment and return all warranty parts to Innovatech. Damage occurring during shipment is deemed the responsibility of the carrier and claims should be made directly with such carrier.

It will be the customer's responsibility to pay for any non-warranty replacement parts plus the current hourly labor rates for any work done on any machine or part. Service is available upon request; call Innovatech for current labor rates.

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