

## Reference Manual

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# *CarCaddy*<sup>TM</sup>

Read manual carefully before operating machine  
Rev. 6/16/08  
Model Number:  
CarCaddy Serial Number:

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# Safety Precautions

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## For Safety:

1. Do not operate, maintain, or service machine:
  - Unless trained and authorized.
  - Unless operation manual is read and understood.
  - In flammable or explosive areas.
2. Before operating machine:
  - Make sure all safety devices are in place and operate properly.
3. When maintaining or servicing machine:
  - Disconnect battery connections before working on machine.
  - Avoid contact with battery acid.
  - Avoid moving parts. Do not wear loose jackets, shirts, ties, or sleeves when working on machine.
  - Use DJ Products, Inc. supplied or equivalent replacement parts.
4. Do not transport machine with cover up.

## Warning:

Batteries emit hydrogen gas. Explosion or fire can result. Keep sparks and open flame away. Keep covers open when charging.

## Attention:

The battery charger supplied with the machine shall be grounded while in use to protect the operator from electric shock. This charger is designed for use on a nominal 120 volt circuit and has a grounding plug that resembles the plug illustrated. Make sure the charger is connected to an outlet having the same configuration as the plug. No adapter should be used with this charger. The green conductor in the cord is the ground wire. Never connect this wire to other than the grounding pin of the attachment plug. Store this machine indoors, do not expose to rain. This product is intended for commercial use.

## General Specifications:

Electric 36 V DC — (3) 12V batteries  
Charger, 110 VAC, 60 HZ

## Power Train / Propelling System

36 V DC electric motor  
36 V DC controller

## Suspension System

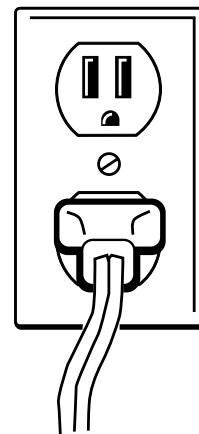
Casters — (1) rear, (1) front 8 in. (150 mm) dia.  
Drive — (2) front, 12 in. (305 mm) dia.

## General Machine Dimensions

Length — 32 in. (812.8 mm)  
Width — 26.4 in. (670 mm)  
Height — 41.1 in. (1042 mm)

## Machine

Total Weight, with batteries — 500 lbs.



## Additional Specifications

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Nominal Power	3 hp peak
Mass of most useful configuration	500 lbs. (226.8 kg)
Maximum draw bar push	800 lbs (362.9 kg)

## Use of Machinery

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The CarCaddy is designed for vehicles that generally have pneumatic tires, like cars, trucks, campers, buses, and machinery that does not need to be steered by the CarCaddy itself. Many manufactures of the named items use the CarCaddy to move units short distances down a production line from station to station. Also, stalled vehicles at service centers and among highways are a perfect place to use the CarCaddy.

## Adjustments

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### Controls:

The handle assembly can easily be adjusted if the machine comes out of neutral and begins to creep. By removing the (4) 5/16" self-threaded screws in the yellow control box, you will gain access to the control potentiometer. Adjust the potentiometer with a 1/2 SAE wrench. Turning the potentiometer towards the front of the machine will stop the machine from creeping backwards. Turning the potentiometer towards the rear of the machine will stop the machine from creeping forward.

# Installing Batteries

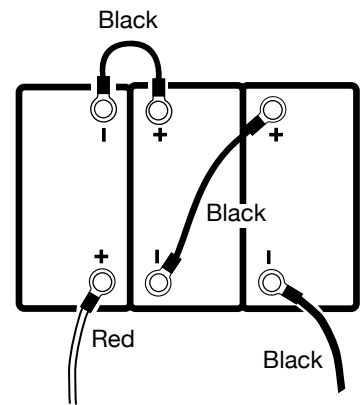
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1. Make sure the power switch is in the off (0) position.
2. Using the lift handles provided on the battery, place batteries in the machine with the terminal posts shown.

## For Safety:

When maintaining or servicing the machine:

- Battery acid can cause burns. Avoid contact with battery acid.
  - When working on or around batteries, wear protective clothing, gloves, and safety glasses.
  - Do not lay metal tools or metal objects on top of the batteries.
  - Only install deep cycle marine style lead acid batteries in your CarCaddy. The charger is built specifically for lead acid batteries. Any other battery may become overcharged and cause serious damage to the machine or operator.
  - When replacing batteries, you should replace all three batteries. This will assure the batteries will be kept in sync.
3. Remove the nuts from the terminal posts. Connect the wires as shown.
  4. Make sure to attach the positive leads to the positive terminals. Place the nuts on the terminal and tighten securely.



# Pre-Operation Checklist

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Before operating the machine:

1. Make sure the charge is OFF by unplugging the AC power cord from the wall outlet.
2. Lower the machine cover.
3. Make sure all controls are free and clear of any obstructions.
4. Turn the power switch ON.
5. Make sure the emergency stop switch is working correctly. (Optional)
6. Make sure the safety light is operating correctly. (Optional)
7. Make sure the speed control switch is either in fast or slow speed. (Optional)
8. Now you are read to operate. If any of the safety features were not operating correctly please contact:
  - Your Manager
  - Maintenance Personnel
  - Your Service Representative
  - DJ Products, Inc.

## Maintenance

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The daily and monthly maintenance requirements listed here may be performed without tools by the machine operators. Instructions for these maintenance requirements are provided in this section of the manual.

Daily:

Perform all duties listed under Pre-Operation Checklist.

Every Month:

Add distilled water if needed. Water should be just over the top of the cells in the batterieis.

Every Three Months:

Lubricate the castor bearings with grease.

Check and tighten all fasteners and hardware.

Clean, Tighten, and lubricate all battery posts and cables.

Check transaxle for leaks, fill to level if required.

## Charging Batteries

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The batteries have approximately an eight hour run time when fully charges. The batteries take about eight hours to charge after they have been fully discharged. The battery charger has an automatic timer that will turn off the charger when the batteries reach full charge. The batteries should be charged after every eight hours of operation of the machine.

To charge the batteries:

1. Move the machine to a flat, dry surface in a well ventilated room.
2. Open the machine cover.
3. Check the water level in the battery cells. If the level is low, add just enough distilled water to cover plates. DO NOT OVERFILL. (If applicable)
4. Wipe off tops of batteries with a cloth.
5. Plug the charger into a wall outlet.

## Service Policy

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Whenever ordering parts or requesting any type of service, specify:

1. The model of the machine
2. Serial number
3. The part number
4. The part description

## Load Limits

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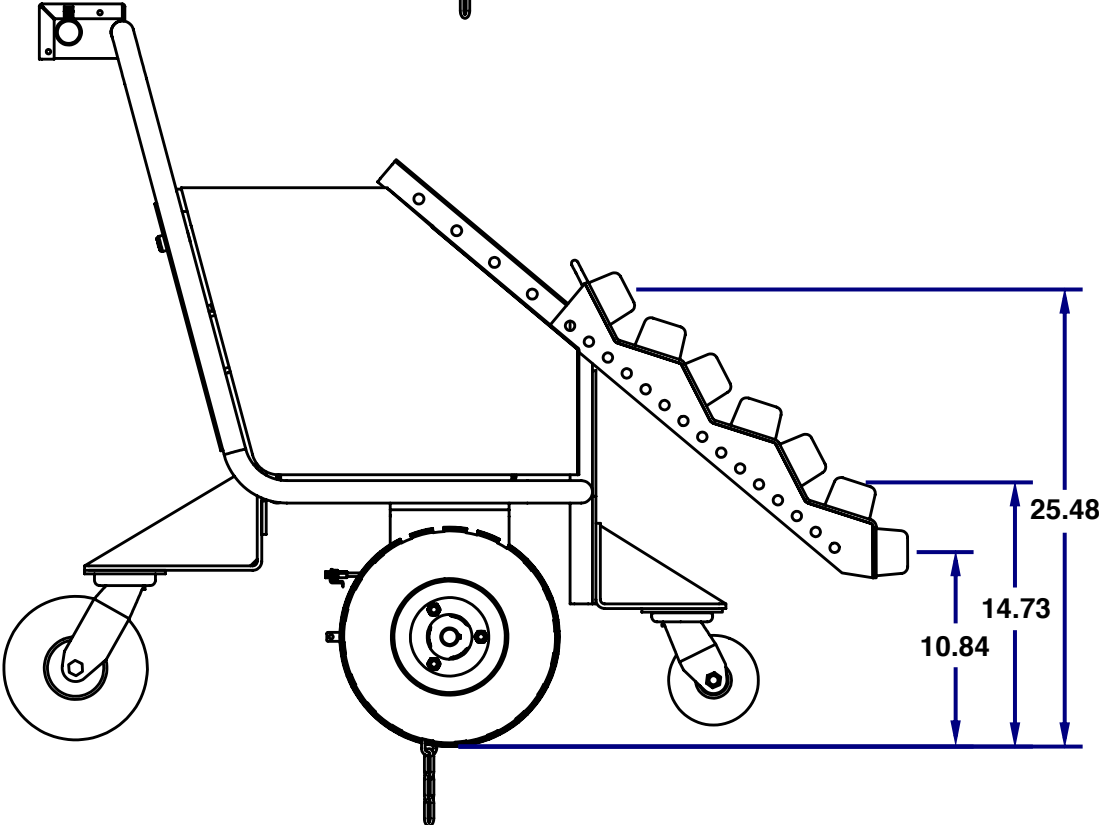
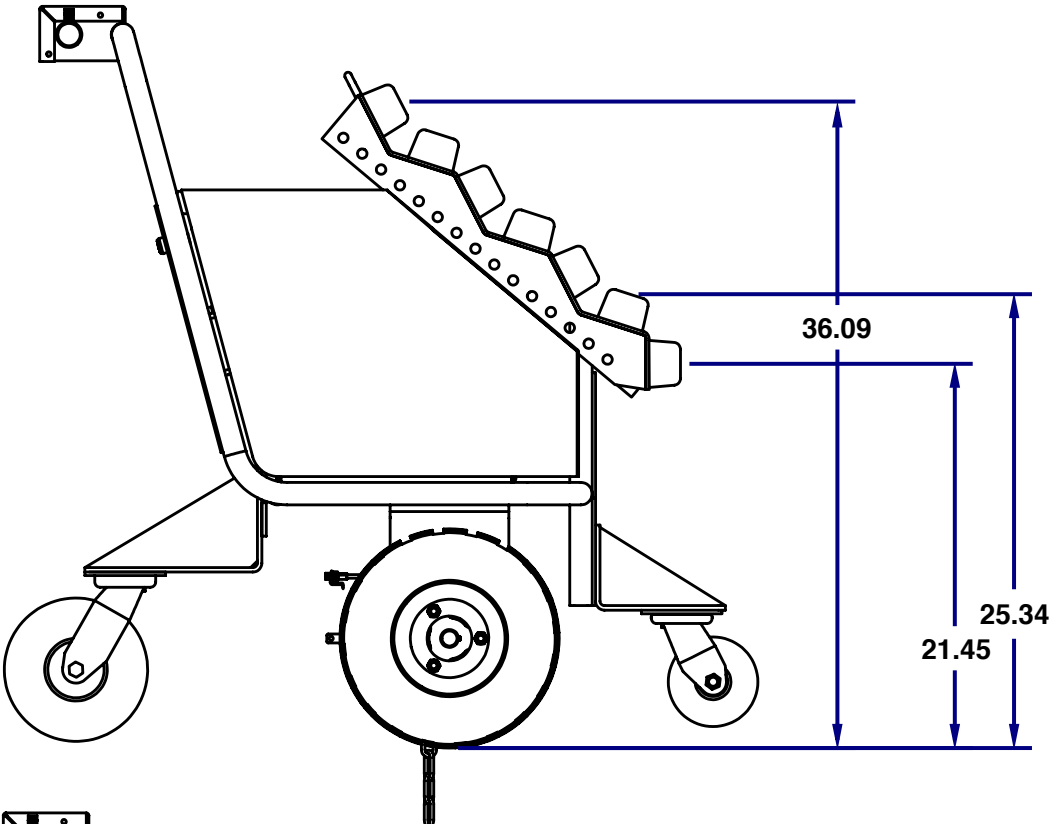
The CarCaddy is specifically designed to push cars and any like device resembling a car. You should never operate the CarCaddy:

- With an operator under the age of 16.
- With an operator sitting or riding on the CarCaddy or any carts it may be pushing.

By disregarding any of these limits, it may cause damage to the operator, your customer, and customer's vehicles, the CarCaddy, and your building.

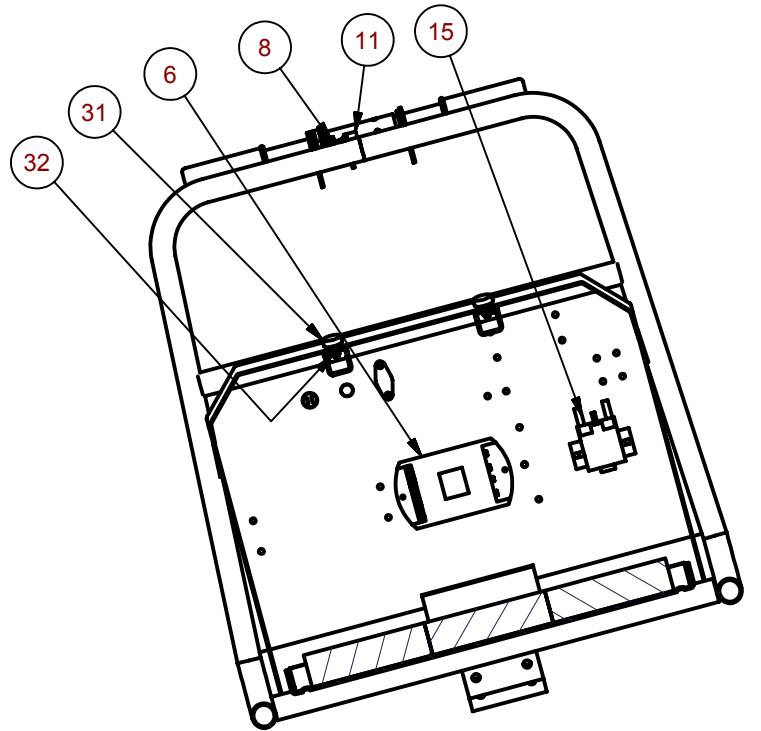
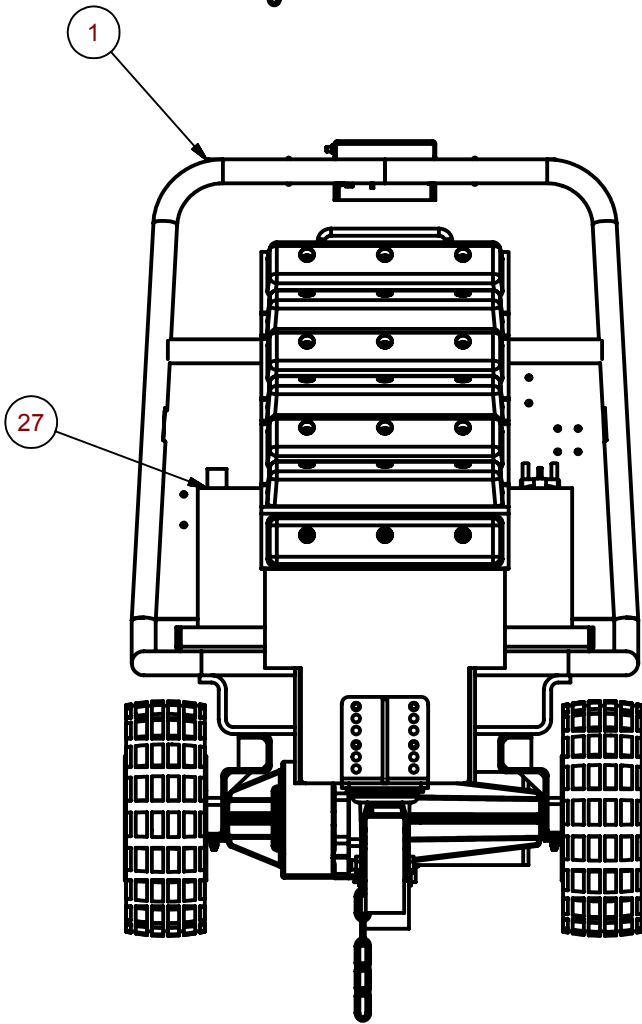
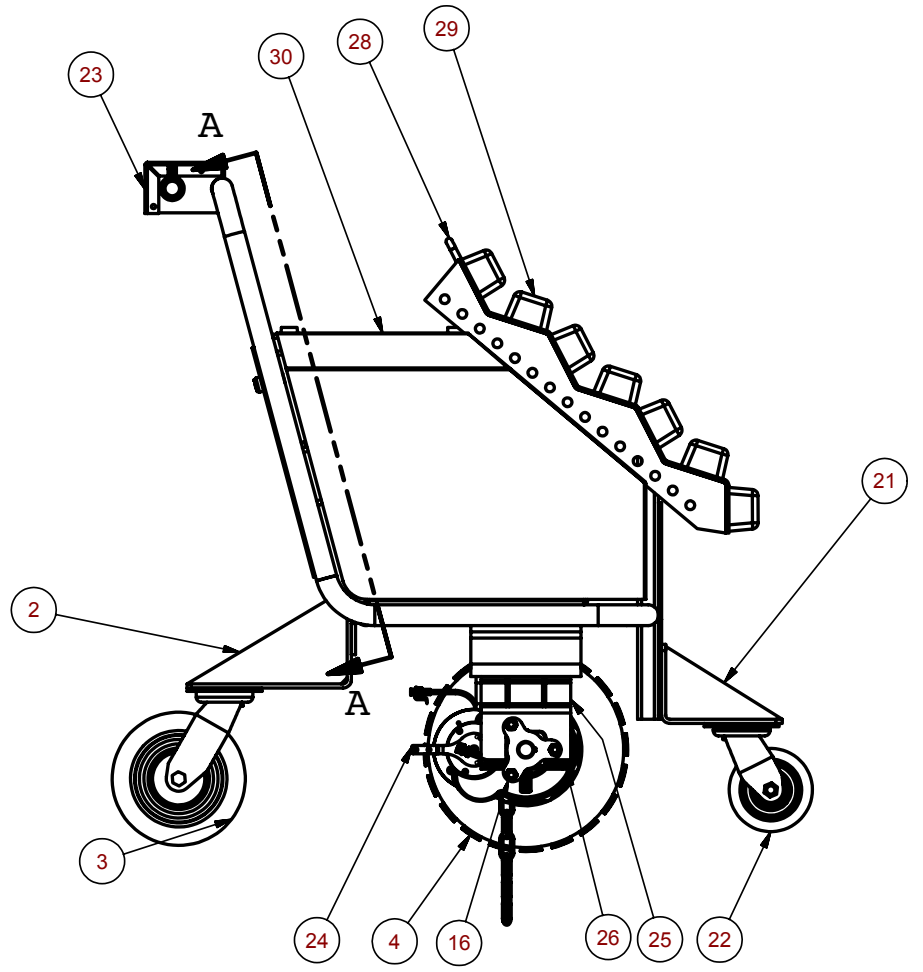
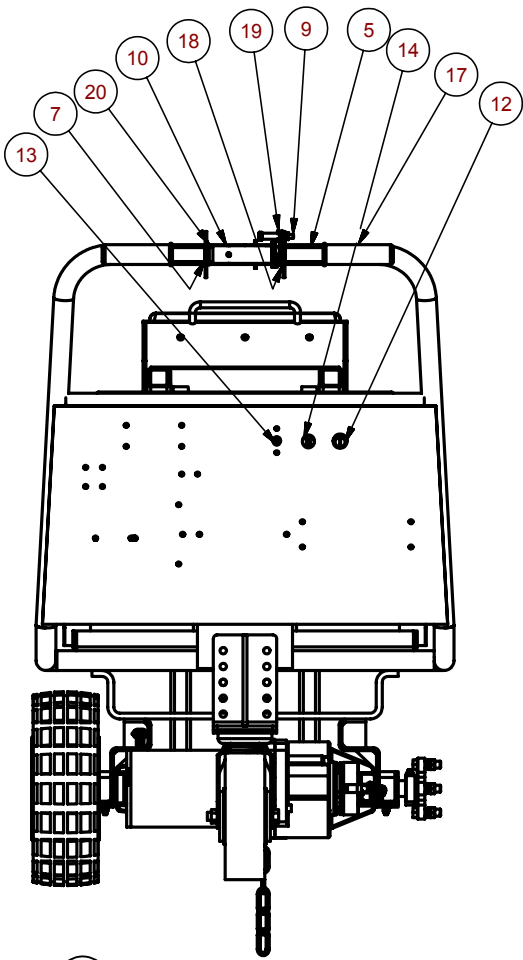
Disregarding any of these limits will void your warranty in case the CarCaddy is damaged.

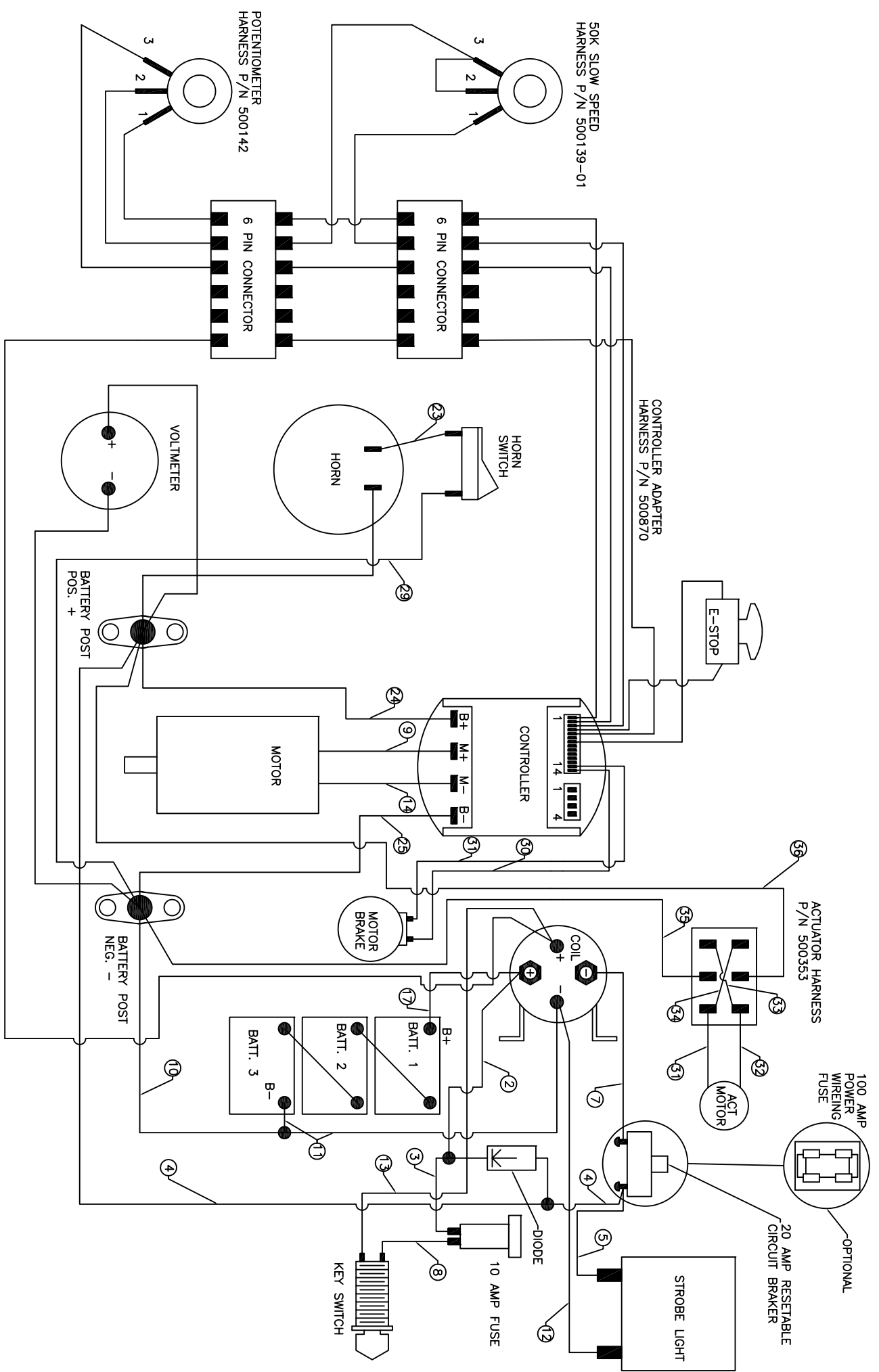
# Push Pad



Item	QTY	Part NO.	Description
32	4	B-0082	Nutsert Low Profile, 1/4-20 UNC
31	4	300024	Knob, 1/4-20 UNC Screw
30	1	702015	CarCaddy Hood
29	7	400106	Bumper Straight
28	1	590130	Three Tier One Pad Bracket Weldment
27	3	500155-07	Non Sealed, Battery
26	2	590107	3/4 hp Transaxle Clamp
25	2	590102	Transaxle Bracket Weldment 3/4 HP
24	1	500151-410	0.75 HP Transaxle Assembly
23	1	701013	Low End Control Box
22	1	500404-02	Caster 5 Inch Swivel
21	1	590000	Caster Bracket, Weldment
20	1	500297	1" Handle Bar Gear Spacer
19	1	500296	Torsion Spring
18	1	500277	1.2 Handle Bar Gear Spacer
17	2	500152	Handle Bar Grip
16	6	500151-04	7/16-20UNF Lug Nut
15	1	500149	Solenoid
14	1	500147	10 Amp Circuit Breaker(RE CIRK IT)
13	1	500146	20 Amp Circuit Breaker
12	1	500145-01	Key Assy (Chrome) UL Rated
11	1	500142	Pot and Harness Assy
10	1	500140	Handle Bar Gear-222079
9	1	500140-01	Torsion Spring Centering Bolt
8	1	500139	Pot Gear
7	2	500137	Handle Bar Gear Bushing
6	1	500126-02	36v 60a Controller
5	1	500138	Handle Bar
4	2	500129-01	Foam Filled Non-Marking Tire, Rim
3	1	300099	Caster 8 Inch Swivel
2	1	500310-01	Tip Casters Bracket
1	1	702000	Car Caddy Frame Weldment







# Troubleshooting Guide (Questions and Answers)

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**Q. My machine only goes forward slowly and does not go in reverse.**

A. The red e-stop button is pushed in or the e-stop is not hooked up. Twist the red button clockwise to release the button. Check e-stop wiring, there could be a wire loose or not connected.

**Q. The CarCaddy turns on and powers up but does not move.**

A. 1. Make sure wires number 9 and 14 are plugged into the controller and are making a good connection.  
2. Make sure motor connector under the machine is plugged in and is not damaged.  
3. Check to make sure the 5k potentiometer in the handle bar is centered. Test the black and red wire on the pot, the center position is 2.5 ohm, when not moving the handle bars should read between 2.4k ohm and 2.6k ohm. If it is out of that range the machine will not move.  
4. Test controller for power. You should have at least 36 volts coming into the controller at the b+ and b- terminals. Now check voltage at the motor connector under the machine. With the machine on and rotating the handle bars all the way forward or reverse you should have the same voltage as you did going to the controller. If you do not the controller could be bad.

**Q. When I am done running the machine and I let go of the handle bars the machine slowly moves on its own.**

A. The potentiometer in the handle bar is slightly out of center. Center the pot to 2.5k ohm by testing the black and red wires on the pot and rotating it to whatever direction is needed.

**Q. When I plug the onboard charger into the wall one or more of the banks say check connection.**

A. Check the fuse on that bank(s) to see if it is blown. Check the connection to the battery terminal. If both of these things are OK the battery voltage on the bank(s) is probably below 9 volts. The charger has a safety feature on it, when the battery voltage drops below 9 volts the charger says check connection and shuts down that bank. Either charge that battery with an external charger to bring the voltage up or cycle the power on the charger by plugging in the charger and unplugging it every 5 to 10 minutes until that bank shows it in charging mode.

**Q. When I plug in my onboard charger no lights come on at all.**

A. Try plugging it into a different outlet, if that doesn't work call DJ Products, Inc., you may need a new charger.

**Q. When I turn on the handle bar I can hear the machine running but it doesn't move.**

A. The gear at the end of the DC drive motor has either fallen off or broke. Take the drive motor off the transaxle to inspect the gear. At the end of the motor there should be a shaft with a gear and a clip holding it on. When taking the motor off you might want to tilt the machine at a slight angle to help prevent oil from leaking out of the transaxle. Note: Do not tip it too far, the batteries may leak acid out. If some oil leaks out you can refill it with 80 or 90 weight gear oil.

**Q. When I press the optional horn button the horn does not sound.**

A. Check the connections to the horn and the horn switch. If OK you can hook the horn directly to 36 volts, if the horn sounds then your switch is bad.

## Troubleshooting Guide (Questions and Answers)

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**Q. When I rotate the handle bar, it does not snap back into the center position.**

A. The torsion spring has either slipped off the centering bolt or the spring has broke. Take the screws out of the control box to pull the box apart, the bottom part will pull completely off and the top part can rotate up. Inspect the torsion spring to make sure it is in the proper position.

**Q. The CarCaddy shows full power until I start using it, then the needle on the voltmeter drops down into red.**

A. You probably have one or more bad batteries. You can check the batteries with a multi-meter but a load cell tester is preferred. You should have 12 volts on each of the batteries; you may have a bad cell in one or more of the batteries causing the machine to loose power.

**Q. When I am pulling/pushing with the CarCaddy, I hear a pop and the machine stops moving.**

A. The circuit breaker on the machine is blown, turn the machine off and push in the circuit breaker, it should reset itself. If this happens more often the circuit breaker could be wearing out and you may need to purchase a new breaker.

**Q. The machine is moving a lot slower than normal in both directions.**

A. Make sure the slow speed pot on the instrument panel is turned up to the number 2 or 3. If it is turned sown too low, the machine will barely move. Check voltage to make sure you have 36 volts across the three batteries.

# Warranty

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**IMPORTANT:** Read this entire Limited Warranty before using the CarCaddy™ product. The CarCaddy™ product (or other DJ Products Inc. product-collectively referred to herein as the “Product”) manufactured by DJ Products Inc., a Minnesota corporation (“Manufacturer”) is believed to be reliable if the directions for its use, maintenance, and operating procedures are followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this Product. Risk of failure, including personal injury, dismemberment, injury to property or even death, may result from misuse, abuse, neglect, negligent use, accidental or intentional damage, ordinary wear and tear, violation or omission of standard operating procedures, improper maintenance, failure to perform routine and preventive maintenance, alterations, additions and/or modifications to the Product, use by any individual not fully trained and fully authorized operator, and improper training of the operator, all of which are beyond the control of the Manufacturer. All such risks are fully assumed by the purchaser/customer of the Product (“Customer”).

Manufacturer offers a limited warranty (the “Limited Warranty”) to each Customer who is the original purchaser of this Product that, effective for a period of one year (“Limited Warranty Period”) from the date of delivery of the Product to the Customer, that the Product is free from defects in material or workmanship in normal use and service. Should any Product prove not to conform to foregoing Limited Warranty, the remedies of Customer for any breach of the foregoing Limited Warranty shall be limited to the repair or replacement of the Product. **IN NO EVENT SHALL MANUFACTURER’S OBLIGATIONS PURSUANT TO THIS LIMITED WARRANTY EXCEED THE PURCHASE PAID TO THE MANUFACTURER BY THE CUSTOMER FOR THE PARTICULAR PRODUCT INVOLVED, TO THE EXCLUSION OF ALL OTHER REMEDIES OR LIMITATIONS, INCIDENTAL OR CONSEQUENTIAL DAMAGES.** The Limited warranty, which is Customer’s **EXCLUSIVE REMEDY**, shall be **FURTHER LIMITED** as follows:

1. If the defect in material or workmanship is disclosed to the Manufacturer by the Customer within the first ninety (90) days following delivery of the Product to the Customer, the Limited Warranty shall be the full cost of the labor and parts to repair or replace the defective Product or component parts thereof.
2. If the defect in material or workmanship is disclosed to the Manufacturer by the Customer prior to the expiration of the Limited Warranty Period but more than ninety (90) days following the delivery of the Product, the Limited Warranty shall be the Manufacturer’s cost of the replacement parts (excluding repair labor) required to repair the defective Product or component part. Any warranty repair or replacement of Products or defective component parts shall occur at the Manufacturer’s (or authorized service provide’s) place of business. In order to obtain a warranty service, the Customer must return the defective Product to the Manufacturer within the Warranty Period, together with proof of purchase by Customer establishing date of delivery, with freight charges and applicable costs of repair, if any, prepaid, which Product the Manufacturer shall ship, prepaid, any repaired or replaced product covered by the Limited Warranty, to the Customer’s facility located within the continental United States.

(continued on next page)

## Warranty Continued

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The Limited Warranty is invalid if the factory-applied serial number has been altered or removed from the Product. The Limited Warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, neglect, negligent use, accidental or intentional damage, ordinary wear and tear, violation or omission of standard operating procedures, improper maintenance, failure to perform routine and preventative maintenance, alterations, additions and/or modifications to the Product, use by any individual not a fully trained and fully authorized operator, and improper training of the operator, or repair or attempted repair by anyone other than Manufacturer or its authorized agents, nor to any Product which is leased or used as rental equipment. The occurrence of any of the foregoing voids the Limited Warranty.

This Limited Warranty does not cover Customer instruction or training.

THIS LIMITED WARRANTY PROGRAM IS EXCLUSIVE AND IS GIVEN AND ACCEPTED IN LIEU OF ANY AND ALL OTHER WARRANTIES, WHETHER WRITTEN OR ORAL, EXPRESSED OR IMPLIED OR INFERABLE FROM THE COURSE OF DEALING OR USAGE OF TRADE, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND ANY IMPLIED WARRANTY ARISING FROM PERFORMANCE, COURSE OF DEALING OR USAGE OF TRADE, AND ALL OTHER OBLIGATIONS, LIABILITIES, RIGHTS, CLAIMS OR REMEDIES, INCLUDING ANY RIGHT IN CONTRACT, TORT, STRICT LIABILITY OR ANY RIGHT ARISING FROM MANUFACTURER'S NEGLIGENCE, ACTUAL OR IMPUTED. FOR CLARIFICATION ONLY (AND NOT IN ANY WAY TO EXPAND THE FOREGOING EXCLUSIVE REMEDIES):

(A) UNDER NO CIRCUMSTANCES WILL MANUFACTURER BE LIABLE FOR LOST PROFITS OR ANY OTHER INCIDENTAL, CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE PURCHASE OR USE OF THIS PRODUCT, INCLUDING, WITHOUT LIMITATION, ECONOMIC LOSS, COST OF CAPITAL, CLAIMS OF CUSTOMERS FOR FAILURE OF SUPPLY OR LOSS OF USE OR DAMAGE TO PERSONS OR TO OTHER PROPERTY, NOTWITHSTANDING THE FACT THAT THE MANUFACTURER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES; (B) THE TOTAL LIABILITY OF THE MANUFACTURER TO CUSTOMER SHALL NOT EXCEED THE TOTAL PURCHASE PRICE PAID BY THE DISTRIBUTOR TO MANUFACTURER FOR THE PARTICULAR PRODUCT INVOLVED; AND (C) NO AGREEMENT VARYING OR EXTENDING THE FOREGOING WARRANTIES, REMEDIES OR LIMITATIONS WILL BE BINDING UPON THE MANUFACTURER UNLESS IN WRITING AND SIGNED BY A DULY AUTHORIZED CORPORATE OFFICER OF THE MANUFACTURER.

If any term or condition of this Limited Warranty program is in violation of applicable local, state, or federal law, this Limited Warranty program shall not be voided in its entirety, but rather, the court, or other appropriate authority having jurisdiction in the matter, shall rewrite and reform the Limited Warranty to the minimum extent required so as to be permitted under applicable law.