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Equipment Specifications

<table>
<thead>
<tr>
<th>HYDRAULIC DRIVE</th>
<th>ELECTRIC DRIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGHBOY[......]</td>
<td>HIGHBOY[......]</td>
</tr>
<tr>
<td>LOWRDR[......]</td>
<td>LOWRDR[......]</td>
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<table>
<thead>
<tr>
<th>ELECTRICAL</th>
<th>N/A</th>
<th>MOTORS: 2 HP (2 x 1.0 HP)</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>9.2-4.2 AMP @ 208-460 VAC, 3 PH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UL® RECOGNIZED, CSA CERTIFIED, CE MARK, IEC IP 55</td>
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<table>
<thead>
<tr>
<th>HYDRAULIC</th>
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<tbody>
<tr>
<td>3 GPM @ 1000 PSI LOW RIDER</td>
<td>6 GPM @ 1000 PSI HIGH BOY</td>
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</table>

<table>
<thead>
<tr>
<th>PNEUMATICS</th>
<th>N/A</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>WATER</th>
<th>RECLAIMED OR FRESH: 2 GPM @ 40 PSI</th>
</tr>
</thead>
</table>

Equipment Features

- Color Skinz™ Snap On Structure Wrap
- Bulk head utility connection fittings
- Available either C-Channel Foam or Cotton Cloth™ wash material

Suggested Installation Tools and Materials

- ✔️ Hammer Drill with 5/8” Drill Bit
- ✔️ Sledge Hammer
- ✔️ Set of Standard Combo Wrenches
- ✔️ Measuring Tape
- ☐ (8) Wedge Anchor Bolts 5/8” x 6”
- ☐ Safety Goggles
- ☐ Torpedo Level
- ☐ Safety Goggles
Notes and safety Symbols

Where necessary, important points will be highlighted in this manual, using the following symbols:

**NOTES:** PROVIDES FURTHER INFORMATION!

**WARNING!** DANGEROUS SITUATION WHICH MAY CAUSE EQUIPMENT DAMAGES, PERSONAL INJURIES OR FATALITIES!

Always follow all “Notes”, “Warnings” and instructions. Not doing so may have serious consequences on the overall performance of the equipment and/or the safety of the people working on the equipment!

Installation Procedures

- **Upon** receiving your MCWW equipment, open all boxes and crates and verify that you have all the required components as well as there are no damages to the equipment. Verify also that you have all your installation material.

- **Remove** packaging material covering your MOTOR CITY HIGH BOY™ or LOW RIDER™ and bring them in the wash in the area where they will be installed and verify that the area is sufficiently large for the equipment WORKING ENVELOPE and DIMENSIONS (see Picture #1 and 2).
Remove the DRIVER SIDE wheel from the pallet, locate in place and position the back of the leg **45 INCHES** from the INSIDE EDGE OF THE INSIDE GUIDE RAIL (see Picture #3). Position the base plate parallel to the conveyor guide rail and secure the base plate with four 5/8” x 6” wedge anchor bolts.
STOP!

If you have purchased a set of High Boy™ with Star Foam and Cotton Cloth™ Wheel, you will measure the height of the hub only after the cloth is installed.

- Level the frame in both directions (see Picture #4). Locate the PASSENGER SIDE wheel and position the back of the leg 99” from the inside edge of the inside guide rail (see Picture #3). Secure with 5 anchor bolts and level like previously shown.

- Remove the shipping straps from both arms and verify the height of each hub: The top of the hub should be located 36” inches from the floor (see Picture #5 and 6).
If you have purchased the **LEG MOUNTED LOW RIDERS/HIGH BOYS** mount the wheel with the adaptor plate pointing toward the entrance of the wash like shown below.

![PICTURE #5.1: Adaptor Plate](image1)

![PICTURE #5.2: Low Rider Mounted (View from the Back of the Plate)](image2)
**LOW RIDER™ Bottom Hub Loading Instruction**

- Locate the boxes containing the COLOR SKINZ™ covers and install on each legs.

- Open the washing material boxes and load in the C-CHANNEL FOAM into the bottom hub like shown on Pictures below.

- If you have purchase your LOW RIDER™ with COTTON CLOTH, verify that the hub has four spacers inserted in each of the hub's channel.
If you have a **LEG MOUNTED LOW RIDER**, follow the loading instruction shown below according to your wash media.

Load in first **FOUR 3/4” THICK SPACERS** and the **PLASTIC DISC**. Then, **ONE COTTON CLOTH™** onto the hub assembly. Load **THREE** more spacers on top of the cloth and slide an additional **COTTON CLOTH™** (see Picture #10). Alternate between three spacers and the cloth rings until you have filled **8 COTTON CLOTH TOTAL**. Terminate with **THREE** spacers. Reinstall the two compression plates.
HIGH BOY™ Bottom Hub Loading Instruction

- If you have purchase your HIGH BOY™ with C-CHANNEL foam follow the same procedure than for the LOW RIDER™ HUB.

- If you have purchase your HIGH BOY™ with COTTON CLOTH™ start loading the bottom hub (or the bottom part of the hub) with cloth rings following the same procedure than for the LOW RIDER™ HUB FILLED WITH COTTON CLOTH (see Picture #12) until all rings are installed.

HIGH BOY™ Top Hub C-Channel Foam Loading Instruction

- Starting with the 10” X 21” FOAM SECTIONS (see Picture #13) load onto the top hub EVERY OTHER CHANNEL like shown on Picture #14. Complete on row with 16 PCS and then move to the next size until the hub is completely filled. Next move to the other side hub following the same procedure.
HIGH BOY™ Star Foam Top Hub Loading Instruction

- Load ONE 10" X 48" OD-1/8" BUNS, TWO 10" X 54" OD-1/8" BUN, ONE 10" X 60" OD-1/4" and finally ONE 8" X 60" OD-1/4" BUN. Reinstall the two compression plate.

HIGH BOY™ C-Channel Top Hub-Cotton Cloth Bottom Hub Loading Instruction

- Locate the hub assembly and remove the four skins and the compression discs (see Picture #15B). Loosen the boss clamp fasteners and slide onto the brush shaft. Check for proper clearance between hub and bottom bearing base (see Picture #15C). Tighten the boss clamp securely to the shaft.
Load in first the PLASTIC DISCS and then FOUR 3/4" THICK SPACERS. Follow then with ONE COTTON CLOTH™ onto the bottom hub assembly. Load THREE more spacers on top of the cloth and slide an additional COTTON CLOTH™ (see Picture #25E). Alternate between three spacers and the cloth rings until you have filled 8 COTTON CLOTH TOTAL. Terminate with THREE spacers. Reinstall the two compression plates and tighten securely.
Finally, reinstall the four skins and start with the **10" X 21" FOAM SECTIONS**, load onto the top hub **EVERY OTHER CHANNEL** like shown on Picture #15F. Complete EACH row with **16 PCS** and then move to the next size until the hub is completely filled. Next move to the other side hub following the same procedure.

**Electrical Installation:**

- If you have purchased the **ELECTRIC DRIVE WHEELS** connect each **1.0 HP MOTOR** to a separate starter unit. Each motor has to be protected with an **OVERLOAD RELAY SET A THE MOTOR RATED FULL LOAD CURRENT FOR THE PROPER VOLTAGE**.

**NOTES:**

- MOTOR ARE NOT CONNECTED WHEN SHIPPED FROM MCWW FACTORY.
- OPEN THE MOTOR BOX AND CONNECT FOLLOWING THE CONNECTION DIAGRAM BELOW OR ON THE MOTOR PLATE (PICTURE #16) FOR PROPER VOLTAGE

![208-230 VAC - 3 PH](image1)

![460 VAC - 3 PH](image2)

To access the electrical motor, loosen the top bolt located on the entrance side of the head flange (see Picture #17 below) and remove the three other bolts secured through the flange (see Pictures #18 and 19) and then **TILT THE HEAD ASSEMBLY DOWNWARD TOWARD THE ENTRANCE OF THE WASH** until the brush is laying flat on the floor. Remove the cover from the motor (see Picture #20) and connect the cable into the motor. Reinstall the cover and reposition the head assembly.
Pic #19: Loosen Head Bolts

Pic #20: Tilt Head Down

Pic #21: Connect Motor

STOP!

Each motor has to be protected with an overload relay set to the motor rated full load current for the proper voltage:

- 4.6 AMPS @ 208 VAC - 3PH
- 4.2 AMPS @ 230 VAC – 3PH
- 2.1 AMPS @ 460 VAC – 3PH

Hydraulic Installation:

- If you have purchased the HYDRAULIC DRIVEN WHEELS it requires a SUPPLY CAPABLE OF AT LEAST 3 GPM @ 1000 PSI for the LOW RIDER™ and AT LEAST 6 GPM @ 1000 PSI for the HIGH BOYS™ connected to two hoses (one pressure and one return line).

- Use HYDRAULIC SCHEMATIC shown on Picture #22 as installation guide.

WARNING!

DO NOT OPERATE YOUR MCWW LOW RIDER™ OR HIGH BOY™ UNIT WITH A HYDRAULIC SYSTEM OPERATING AT A PRESSURE HIGHER THAN 1000 PSI!

OPERATING AT PRESSURE ABOVE 1000 PSI MAY AFFECT THE PERFORMANCE OF THE EQUIPMENT AND LEAD TO PREMATURE WEAR OR MAJOR DAMAGES TO THE HYDRAULIC SYSTEM OR ITS COMPONENTS.
Your LOW RIDER™ and HIGH BOY™ requires a water supply of 2 GPM for each wheel. Reclaimed or fresh water can be used. Install a 1/2” water hose from a dilution station to the WATER MANIFOLD (Picture #23) located inside the leg.

**NOTES:**

THE WATER MANIFOLD CAN BE MOUNTED EITHER ON THE WHEEL BASE PLATE OR DIRECTLY ON THE FLOOR

**NOTES:**

THE DILUTION STATION SHOWN ON PICTURE #14 IS NOT INCLUDED WITH YOUR ROCKEZ™ SIDE WHEELS UNIT. IT CAN BE PURCHASED SEPARATELY THROUGH YOUR LOCAL MCWW DISTRIBUTOR. PART# APPLDLNSTN004

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Optional Air Panel:

☑️ The Side Wheel Air Panel requires ONE ELECTRICAL CIRCUIT (CHANNEL) coming from the Car Wash Controller. The circuit has to be 24 or 120VAC.

**NOTE:** Verify the voltage on the side on the air solenoid valve before apply power to the unit.

☐ The Air Panel also requires Compressed Air at 100 PSI and capable of at least 2 SCFM (See Picture #24).

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**Diagram:**

```
<table>
<thead>
<tr>
<th>INPUT VOLTAGE</th>
<th>24 OR 120VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.9 WATTS</td>
<td></td>
</tr>
</tbody>
</table>

AIR SUPPLY 100PSI @ 2SCFM

P/S EXTEND (RED TUBING)

CYLINDERS RETRACT (BLACK TUBING)

D/S EXTEND (BLUE TUBING)
```

*NOTE: IT IS IMPERATIVE TO SUPPLY THE DELIVERY PANEL WITH "CLEAN DRY COMPRESSED AIR". ANY AMOUNT OF MOISTURE, VAPORIZED OIL OR ANY OTHER IMPURITIES WITHIN THE MAIN AIR SUPPLY MAY AFFECT THE PERFORMANCE OF THE EQUIPMENT AND LEAD TO PREMATURE WEAR OR MAJOR DAMAGES TO THE PNEUMATIC UNIT OR ITS COMPONENTS.*

☐ Mount the Air Panel in the mechanical room or on any wall in a CLEAN AND DRY AREA. Remove the air panel from the frame by unscrewing the two front knobs.

☐ Secure the frame to the wall using the two 1/4" mounting holes as shown in Picture #25.

---

Pneumatic Installation:

☑️ Locate your source of compressed air and install a 3/8" AIRLINE TUBE from the supply air valve to the air panel inlet port (see picture #24).

**NOTE:** IT IS IMPERATIVE TO SUPPLY THE DELIVERY PANEL WITH "CLEAN DRY COMPRESSED AIR". ANY AMOUNT OF MOISTURE, VAPORIZED OIL OR ANY OTHER IMPURITIES WITHIN THE MAIN AIR SUPPLY MAY AFFECT THE PERFORMANCE OF THE EQUIPMENT AND LEAD TO PREMATURE WEAR OR MAJOR DAMAGES TO THE DELIVERY UNIT OR ITS COMPONENTS.

☐ Using the schematic shown on Picture #11, pull and connect ONE 3/8" RED AIRLINE TUBE from the P-S EXTEND AIR REGULATOR located on the air Panel to the exit side base plate of the P-S BRUSH.

☐ Pull and connect ONE 3/8" BLUE AIRLINE TUBE from the D-S EXTEND AIR REGULATOR located on the air Panel to the exit side base plate of the D-S BRUSH.
Pull and connect ONE 3/8” BLACK AIRLINE TUBE from the 4 WAY SOLENOID AIR VALVE to the wash bay, BETWEEN THE TWO BRUSHES and tee off to EACH BRUSH.

Start Up and Operation:

- Manually turn ON your HYDRAULIC POWER UNIT and set the hydraulic flow control valve for a WHEEL SPEED OF 88 TO 100 RPM
- Check all hydraulic lines for leaks. Turn the hydraulic power unit OFF.

NOTES: IF THE SIDE WHEELS ARE ELECTRIC DRIVE, THE WHEEL SPEED IS PRESET AT 88 RPM. USING A VARIABLE SPEED DRIVE (VFD) INSTEAD OF STARTER UNITS ALLOWS FOR WHEEL SPEED ADJUSTMENT. REFER TO RECOMMENDATIONS ABOVE FOR OPTIMAL WHEEL SPEED ADJUSTMENT
Manually **turn ON** the **WATER DILUTION STATION** and confirm that the **SPRAY NOZZLES COVERS** the wheel from top to bottom. Turn **OFF** your dilution station. Consult your MCWW Dilution Station Installation manual for adjustment.

**Run** a car through the wash and verify proper operation of both **SIDE WHEELS**. Confirm wheel speed under vehicle load with the **HYDRAULIC POWER UNIT SET AT 1000 PSI**. Open hydraulic flow control valve to reach recommended speed value previously specified.

---

**WARNING!**

**VERIFY FOR PROPER ROTATION!**

**EACH WHEEL HAS TO ROTATE AGAINST THE VEHICLE DIRECTION**

**OPERATING THE WHEELS WITH THE WRONG DIRECTION WILL LEAD TO DAMAGES TO VEHICLE AND WASHING EQUIPMENT!**

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**If** desired, the wheel can be **TILTED AWAY FROM THE VEHICLE** for a different coverage on the vehicle. To tilt the wheel away from the vehicle, loosen the bolts holding the head assembly (see Picture #24 and 25) and tilt the head toward the exit of the wash. Tighten the bolts. Test a car.
Maintenance:

DAILY:
- Check for hydraulic leaks, chaffed hoses electrical cable, etc.
- Visually inspect for any sign of wear.
- Move the arms manually and duplicate its regular motion and look for abnormalities: A loose fastener may allow some parts to move or rub and may create a dark “stain” running down the equipment.
- Start the day with a “TEST WASH” and check for proper operation.
- While you are watching the TEST WASH, check for clogged nozzles. If a nozzle is clogged, remove the nozzle body and clean the nozzle by inserting a small piece of wire (a small paper clip wire can do fine!) in the nozzle opening.
- Check also for proper coverage of the two Streamer™ Foamers if applicable.
- Check for the overall performance of the equipment on the vehicle: Profiling, cleaning, etc.
- Wash down your equipment and the area around at the end of each day.

MONTHLY:
Each MCWW equipment are assembled with the highest quality bearings and have been factory pre-lubricated, therefore, do not require supplemental grease for the first month of operation.
Use any lithium-based NLGI #2 grease (ex: Exxon Mobil MOBILITH AW2).

WARNING!
OVERLUBRICATION IS A MAJOR CAUSE OF BEARING FAILURES!
LUBRIMIZE CONSERVATIVELY!

- After the first month of operation, grease each bearing.
- Wash your equipment with a solution made of a mild degreaser and water. Rinse thoroughly.
- Perform a daily maintenance.

Warranty and Return Procedure:

Motor City Wash Works warrant this product to be free of defect in material and/or workmanship for a period of one year from the date of the purchase by the customer from MCWW. During the warranty period MCWW will at its discretion, at no charge to the customer, repair or replace this product if found defectives, with a new or refurbished unit, but not to include costs of removal or installation. Any product returned to MCWW for warranty has to have a Return Material Authorization Number. All shipping cost to MCWW is assumed by the customer. This is only a summary of MCWW Limited Warranty. Please, communicate with MCWW for our complete warranty.
Prior to returning any product to MCWW, the customer must call in for Return Material Authorization Number and a copy of our Return Material Authorization Form filled and completed. The RMA number must be written clearly on the outside of the shipping package and copy of the form must be included in the package.