Standard Features
Every Water Wizard 2.0 is loaded with standard features. This touch free in-bay automatic includes most of the customer requested features and then some. Every unit is equipped with Undercarriage, Rocker Panel Sprayers, Entrance Signs, Web Enabled Computer Monitoring and Stainless Steel construction. This booklet is designed to help you understand the many features and benefits the Water Wizard 2.0 offers you and your customers.

Rollover Design
The Water Wizard 2.0 Touch-free Automatic is designed with a state-of-the-art rollover design. The advantage of this design offers greater wash cycle speed when compared with the inverted L design units. The rollover design washes the top and both sides of the vehicle simultaneously resulting in a faster cycle time. This is especially true when comparison units have an equal number of passes as the Water Wizard 2.0.

Example: The typical 6 pass wash on the Water Wizard 2.0 takes approximately 3 minutes to complete in comparison to a 6 pass wash with an inverted L designed unit would take approximately 5 ½ minutes to complete. In our “on the go” society this factor becomes a very important issue and selling tool.

Additionally, the rollover design allows for features such as a Hot Wax System, Triple Shine Foaming Conditioner, an independent Presoak System, On-Board Rocker Panel Sprayers, Tire Cleaner applicators and On-Board Blowers. These features are appealing to the consumer yet inverted L units do not typically offer this feature because there is no place to physically mount the equipment.

Multiple Gantry Speeds
The gantry now has 4 speeds instead of 2. The Operator Interface has 3 options, Ultra slow, slow and high speed. If all these are off, the gantry is defaulted in regular speed. Now, the low-pressure functions can be delivered at a higher rate of speed than ever before. This along with delivering the presoak and spot free rinse without dropping the boom saves a great deal of valuable cycle time.

On-Board Rocker Panel Sprayers (RPS)
The On-Board Rocker Panel Sprayer is an important feature that most competitive units do not offer. It provides far greater cleaning ability of the wheels and tires. Competitive units allow the customer to drive either too fast or too slow through the typical floor mounted systems. Accelerating too fast in the automatic bay, the customer may not take advantage of all the cleaning action - advancing too slow, the customer may not have the opportunity to subject the entire vehicle to the cleaning process.

Having the Rocker Panel Sprayers on board the gantry offers another advantage to the Water Wizard’s cleaning ability. It allows for a more effective presoak application. Presoak is the first application of every recipe and is therefore applied onto a dry vehicle. With the floor mounted systems, residual water is present on the vehicle from the rocker panel sprayers. This dilutes the strength of the presoak, which can and will significantly decrease the cleaning strength of the presoak.
Floor Mounted Wash Gantry
The Water Wizard 2.0 floor mounted gantry offers the operator a simplified installation procedure. The automatic floor base is uniformly a solid, flat surface with a place to mount drive rails to carry the unit. Walls, on the other hand, do not offer that same consistency. The factory can never be entirely sure how they are built or what problems they will encounter until actually on site and a visual inspection is made. With our gantry dollies, the Water Wizard can be unloaded and installed without a forklift on site. Operators of competing units face the possibility of spending anywhere from $500 to $1000 to have a forklift present to unload and later hang the gantry on the wall mounted rails.

Additionally, floor mounted units offer less opportunity for problems to arise, as opposed to the wall mount units that have encountered problems in the past such as the gantry falling on a vehicle. Some units use pneumatic tires to drive the unit. A flat tire can create a lot of problems. Floor mounted units do not encounter these risks.

3” Aluminum Guide Rails
The 3” Aluminum Guide Rails on the Water Wizard 2.0 are designed to direct the customer from the cashier to the stop station as effortlessly as possible. The rails extend the full length of the bay and are flared at the entry. The customer is guided all the way to the stop station. The radius of the 3” diameter rail is large enough to prohibit most vehicles from crossing over the line but not so large as to interfere with the tire/wheel cleaning applicators. It is a superb design.

Presoak Applied Through Independent System
The independent system designed for the Water Wizard 2.0 allows for a line dedicated specifically to Presoak. The system uses 8 nozzles on the gantry to apply Presoak and completely cover the vehicle with just the Presoak chemical needed, with little or no waste. During the Presoak pass the boom does not drop saving valuable wash time. Non-dedicated systems typically use 5-6 gallons per vehicle compared to the Water Wizard 2.0, which will use only 3-4 gallons. Calculated at $0.10 to .15 cents per gallon, the savings add up fast.

The reduced liquid flow resulting from this design offers better control with air to product mixtures when applying foamy Presoak. Wind conditions vary with each wash site. Locations with occasional strong winds and no doors will require more liquid mixture to keep the wind from blowing it away. Locations where wind is not a problem or with doors can allow for more foamy or misty type application.

Overall cost of operation is always a big concern for operators. Presoak is typically the biggest percentage of that cost. A number of units apply Presoak with the same nozzles as they do high pressure. Customarily ¾” - 1” tubing is used with approximately 18 to 24 nozzles. In order to build enough pressure for proper delivery through all those nozzles, the chemical line must be filled. Immediately after the delivery of presoak, the product remaining in the line must be emptied to be ready for the next product. This is typically performed by flushing in advance or dumping the product at the end of the presoak pass. Either method results in a considerable amount of waste.
Scrubbing Action Oscillating Wash Nozzles
The Water Wizard 2.0 is the only sizing unit on the market that has scrubbing action oscillating nozzles covering the entire vehicle. The difference is the design of the top wash boom which has these oscillating nozzles standard that drop below the bumper level, front and rear. Other units may have a top boom that lowers but will drop only partially.

It has been said that “touchfree washing” is not true. That it is not touch-free, you are touching the vehicle with the water. How true! With the Water Wizard 2.0 scrubbing action nozzles, we do “scrub clean” the vehicle with high-pressure water. The friction caused when the water contacts the vehicles surface at the different angles does indeed “Scrub the Vehicle Beautifully Clean”.

The 5 degree side nozzles are set on a semi-horizontal spray pattern. All other units are vertical or zero degree. With nozzles that either oscillate or rotate, striping is always a concern. This happens if the gantry moves too fast for the movement of the nozzles to cover the vehicle completely. Though still an issue, the semi-horizontal spray pattern covers more with each pass therefore minimizing the possibility of striping.

The biggest advantage is the additional cleaning power provided by the 5 degree semi-horizontally mounted nozzles. The width of the 5 degree pattern is traveling with the gantry.

Example: Pick a single point on the vehicle. If the width of the spray pattern is 2 inches at the point of contact, you attack that spot multiple times and from different angles. With a vertical pattern you hit that spot once and from one angle only. This is a major advantage when removing bugs, bird droppings, or other solid debris from the vehicle.

The zero degree oscillating nozzles that are standard in the top boom and optional for the sides, offer improved cleaning of dirt and bug residue on the front and rear of the vehicle and customer appeal. From inside the vehicle the oscillating action causes the vehicle to rock back and forth creating a lasting impression on the customer who can physically feel the Water Wizard 2.0 cleaning their vehicle.

Adjusts to Length
With the wide range of vehicles on the road today, this feature is a necessity. The Water Wizard 2.0, utilizing high tech optics, determines the size and length of the vehicle during the first pass. This is a low-pressure pass that will not interfere with the optics operation. The measuring function is performed by combining optics with a count-up proximity switch system (CTU). As the gantry travels toward the rear of the vehicle, the optics makes contact. A flag target wheel is mounted on an independent, spring loaded, floating axle. This allows for possible imperfections in the rails or installation. As each flag target passes in front of the multiple CTU’s it sends a pulse, which the processor counts. As the gantry moves toward the rear, the processor begins to count. The optics sees each other at the home position. When the gantry moves far enough that the vehicle blocks the optics, the processor records that count in memory and continues to the end of the vehicle. At the end of the vehicle the optics make contact again and the processor records that count as well. Now, the length of the vehicle is calculated. The system utilizes the counts obtained to get closer or further away for the perfect washing distance.
Some units on the market today do not use the count up method and have live eyes during the entire wash cycle. This design can cause problems when forcing the optics to see through high-pressure spray or dense fog that happens in cold weather climates.

**Operator Interface Panel (Red Lion)**
The Water Wizard 2.0 comes equipped with an Operator Interface Panel (OIP) mounted on the units Electrical Control Center that allows the operator complete control. The comprehensive system puts you easily in charge...either on-site or on the web. Possessing web enabled capabilities permits complete access to system controls for monitoring or troubleshooting anyplace web access is available.

Multiple menus enable you to review and modify wash recipes, adjust timers and counters, view revenue, observe system operations, monitor electrical equipment and test any of the wash’s functions. Other options such as blowers, door controls, reclaim systems and other support equipment are also easily controlled with the Operator Interface Panel. Critical areas are password protected.

The Water Wizard 2.0 has been designed to meet a wide range of operator/customer demands and comes complete with twenty (20) factory designed wash recipes. Operators have the option to create and save another 30 different recipes of their own. These recipes are responsible for directing the automatic to perform the desired functions to the vehicle on each pass. A “pass” is defined as the travel of the Water Wizard 2.0 from one end of the vehicle to the other. The Water Wizard 2.0 allows 2, 4, 6, 8 or 10 passes.

Most automatic operators will ask the car wash customer to purchase a wash from one of 4 different wash recipes offered at the entrance controller or POS system. With the Water Wizard 2.0, the operator will choose at start up, either four of the twenty pre-programmed wash recipes offered or variations thereof. The Operator Interface Panel will allow modification on any of the wash passes at any time. Refer to the operator’s manual for a description of the simple modification process.

Modifying a wash recipe is just one of the many features of the Operator Interface Panel. The Operator can perform complete income monitoring by the day, month, or year. It records income per wash cycle and a total of all wash cycles.

**Web Enabled**
With a DSL line on site, you can stay in touch with your Water Wizard 2.0 anywhere web access is available. Perform all the Operator Interface functions as if you were standing at the control panel. Service and troubleshooting becomes a much simpler task when factory service technicians can be on-line with you and see exactly what you see.

**Wash Data / Operation Screen**
The Wash Data section will allow the operator to monitor the wash in progress on the Operation screen. It will display the cycle and wash pass that is currently being performed and the action of that pass (i.e. presoak, tire cleaner, rinse, etc.) Several other functions included in Wash Data are available for complete cycle monitoring.
Tech Menu / Testing

The testing portion of the Operator Interface Panel Tech Menu is a tremendous feature. From the interface panel, the operator can turn on any of the wash functions and perform a variety of other testing or troubleshooting tasks. Simply select the option from the Tech Menu button by scrolling through the options on the screen and toggle it on or off as needed.

**Example:** *If you want to test the strength of the presoak at the nozzle, instead of trying to catch product during a wash cycle, go to presoak in the test screen and turn it on. Now the gantry is sitting in the home position spraying presoak only. The same is true for any of the wash functions.*

Additionally, there is a dry run feature. This allows the operator to operate the gantry through a wash cycle without wasting chemical or water. The unit will go through a complete wash cycle without any of the liquid functions operating.

View Inputs and Outputs

This feature of the Tech Menu screen provides valuable assistance to the service department in determining what sensors are on or off at any given time. It displays each proximity switch, optic sensor, tank level switch or any other input switch to determine their proper operation.

There are many more standard features of the Operator Interface Panel. Please refer to the Water Wizard 2.0 manual for a complete description.

Preferred Options

Auto Height Adjustment

All vehicles are not created equal, especially in overall height. This very unique Water Wizard 2.0 option will adjust the top wash boom to multiple height washing positions to accommodate the lower cars and mid-size SUV’s. Again using high tech optics during the first pass, the unit profiles the vehicle’s height and adjusts to it during the high-pressure portion of the wash cycle. The cleaning on the hoods, trunks, and windshields of the lower cars is greatly improved with the Water Wizard 2.0’s customized wash pass. Units attempting to clean a car hood that is 40 inches off the ground from 3-4 feet above it will fall way short in cleaning performance.

For safety’s sake, there are two sets of safety optics mounted on the wash boom. Extensive diagnostic tests are performed on all system optics prior to each wash cycle.

Wizard Contour System

This option will allow the wash boom to follow the exact contour of any size vehicle. During the first pass the system creates a profile of the vehicle. It’s amazing to watch just how closely the wash boom follows the contour of the vehicle, maximizing the scrubbing action of the high-pressure wash. This feature ensures that every vehicle that enters the Water Wizard 2.0, regardless of vehicle height and length will receive the same quality wash.

Maximum cleaning in a touchfree automatic depends on quality hot presoak and good high pressure scrubbing action. Moving the nozzles closer to the vehicle during the high pressure passes produces consistent and effective cleaning power.
**Triple Shine Foam Conditioner**
The Triple Shine Foaming Conditioner is offered as an option on the Water Wizard 2.0 and is aesthetically appealing to the customer. This option is not available on all in-bay automatics. Check out the comparison chart for units that offer this unique feature.

Mechanically, the Water Wizard 2.0 Triple Shine Foam Conditioner package includes the tanks, dilution system, pump, and air mixture controls. Dazzle your customers with the magic of Triple Shine. Customers are amazed at the incredible array of colors as the specially designed applicator blends the Red, Gold and Blue conditioning foam into a soft, vibrant blanket to protect your vehicle’s finish. Triple Shine provides a great show and a lot of sizzle to the customer currently in the bay and the customers waiting in line.

From a sales standpoint, inform the potential operator that this is a system that has an operational cost of about 10 cents and the typical vend price is $1.00. The Triple Shine foam conditioner option cost is approximately $3500.00. So at a profit of 90 cents per vend, return on investment is tremendous.

**Hot Wax System**
A distinctive spray pattern is provided by the Hot Wax system as this unique product is delivered through the gantry mounted rain arch. This option will provide faster drying; insure a smooth even coverage over the entire vehicle. Hot water is more active than cold water and is prone to run off the vehicle faster. Just as hot presoak cleans better, hot protectant coats better and is proven to gather high approval ratings from customers. There is also a significant cost savings compared to systems that deliver their wax or drying agent products with high pressure.

The system includes a wall mounted, stainless tank and chemical mixing system, in-tank heater, delivery pump and boom mounted “Rain Arch” manifold.

**On-Board Tire Cleaner Applicators (CTA)**
This feature is also unique when compared to most automatic units. When included in the customer selected wash recipe, a high strength Tire/Wheel Cleaner is applied to the wheels, tires and lower portion of the vehicle. It is a separate product delivered through independent nozzles typically during the first presoak pass. Other units offer floor mounted drive-through systems if it is offered at all. The Tire Cleaner Applicators coupled with the On-Board Rocker Panel Sprayers will enable the Water Wizard 2.0 to “out perform” any other system in the industry on wheels and tires. The Water Wizard 2.0 first applies tire/wheel cleaning chemicals to a dry vehicle and allows time to soak. Then the action starts as the on-board rocker panel sprayers blast clean the wheels, tires and rocker panels.

For areas with heavy mud or snow, an optional mud-buster package is available with oscillating, zero-degree nozzles. The increased strength of impact these nozzles create will secure optimal cleaning results.
Two Step Presoak Delivery System
The term two-step refers to a process in which the Water Wizard 2.0 will apply two different presoak products during the same wash cycle. The two different types of presoak products most often used have different abilities. One is an alkaline, high pH and the other is an acidic low pH. As a rule the high pH product cleans dirt and the low pH helps remove film and works better on chromes. So the theory is to use both and cover all your bases. But the potential problem comes in dealing with acidic wash solutions. Some of the earlier acidic products had a hydrofluoric acid base that ate away at seals and brass fittings. Most of today’s low pH products are citric based and are not aggressive toward metals and seals.

Mechanically it involves a separate tank, dilution system and pump to deliver the separate presoak. Typically the low pH, acidic product will go on first and then followed up with the high pH, alkaline presoak.

Something to remember is that different areas of the country have different cleaning conditions. What works in one area may not necessarily work in another and will require a different solution. In most areas cleaning with a high pH, alkaline presoak is very satisfactory which makes the low pH, acidic presoak unnecessary. But, where it is needed the two-step process can be a great tool to achieve a clean vehicle.

Heated Presoak
All presoak manufacturers recommend their product be applied hot, typically 100 to 120 degrees on the vehicle. The heat makes the presoak more aggressive and loosens the dirt.

The Water Wizard 2.0 heated presoak option includes an electrical in-tank heater. These are available in 5 or 9 kW sizes. If supplying the chemical tanks with hot water the system will require only the 5 kW. When ordered with the original package the heater will be pre-wired and pre-plumbed ready to go.

Circulating Presoak
This option will insure hot presoak is delivered every time. When a customer sends a wash signal to the Water Wizard 2.0 the presoak pump will start and circulate the heated presoak out to the gantry and return the cooler product to the tank. Once the vehicle is in position, the gantry presoak solenoid is opened and hot product will then flow through the nozzles, a great option for colder climates or remote wash bays. (Bays that is not adjacent to the equipment room.)

Auto Paging System
You can’t always be at your wash but you can always be in touch with it. The auto paging system will out dial your pager if a fault should occur. The page will give the unit’s location, time and date of fault, and the nature of the fault condition, letting the operator know if immediate attention is needed.

Door Controls
Allows the Water Wizard’s control panel to operate entrance and exit doors if needed. A set of safety optics are included for safe operation. Package also includes a toggle switch control for windy day operation.
**Winter Wizard Winterization W/Track Heat-Electric**

For cold weather operations, the Winter Wizard package will provide heat throughout the wash gantry and along the main rails. This is accomplished with a closed loop heating system much like a floor heat system. Hot anti-freeze is circulated throughout the insulated gantry and rails supplying enough heat to operate the unit to approximately 10 degrees without additional heat in the bays. (Actual operating temperature range varies. Factors such as the installation of doors and prevailing winds affect the performance.)

At least one door is recommended in climates that have the potential of dropping below 10 degrees. This will make for safer and more efficient winter operation. Plus routine maintenance can be performed much more comfortably without the cold winds blowing on you.

**Entry Wizard 3 Entrance Controller**

The Entry Wizard 3 with its WebGate Software is the next step in the evolution of entrance controller systems. Reliability and accessibility are the key features in the new EW3. It boasts a rock solid operating system and powerful web utilities that can be accessed through any high-speed Internet connection, allowing you to monitor your car wash from any computer that is connected to the Internet. The EW3 now offers more wash packages than previous units, allowing up to six programmable wash cycles and giving the customer a wider variety of options when selecting their wash.
Safety Features of the Water Wizard 2.0

- Both the gantry and the wash boom have redundant proximity switch counters. This is for safety reasons and allows the processor to always know which direction both are moving.

- The Wash Boom will not come down if the Gantry Eyes, Boom Safety Eyes or the Can Eyes are blocked. This prevents the wash boom from coming down on a vehicle.

- The Auto Height Adjustment and Contouring eye profiles the height of the vehicle in Pass 1. Also, to make sure that the eyes are working correctly, the system completes a diagnostic test by cycling the measurement eye on and off before the start of each wash cycle.

- The wash boom has two safety eyes mounted on it. One for the front and one for the rear of the vehicle. These are in position to look for any obstructions as the boom and gantry travel.

Proximity Switches
Proximity switches should be set to have approximately 1/2 inch clearance from the prox target. Care should also be taken to not allow the face of the prox to come in contact with prox target. This will destroy the prox and will void the warranty.

Prox switches are o-ring fitted with screw on electrical connections and should be filled with electrical grease to keep moisture out.

Wheel Counts
A rubber wheel is located on the gantry and follows the gantry track. This rubber wheel has a 4-position Stainless Steel target connected to it so that every revolution of the wheel will send a count from both wheel count proxes. Full gantry track travel is approximately 340 counts. This system is used to monitor the length of the vehicle. When the gantry moves down the track the counting wheel is continuously sending electrical pulses to the PLC. The PLC receives a signal from the photo eye sensors where the front or rear of a vehicle is. The PLC stores the count of the counting wheel so that the gantry will be able to return to the Front or Rear of the vehicle using the counts stored in memory and not rely on the eyes. There is a distance away from the front and rear of the vehicle that can be changed to allow the wash boom to be closer or farther away. Remember that a setting too close will not clean a car any better and will risk hitting a vehicle.
Sample Operational Cost Worksheet
Typical 6 Pass Wash Cycle

The complete worksheet for a 2, 4, 6, 8 or 10 pass wash is available in an Excel worksheet. It allows you to enter in your site specific information. Contact your Distributor or Regional rep for a copy.

<table>
<thead>
<tr>
<th>Water Usage</th>
<th>Pressure</th>
<th>GPM</th>
<th>Avg run time (in seconds)</th>
<th># of passes</th>
<th>Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold Water Undercarriage Spray</td>
<td>1000</td>
<td>22</td>
<td>15</td>
<td>1</td>
<td>5.50</td>
</tr>
<tr>
<td>Hot Water Presoak</td>
<td>60</td>
<td>3.5</td>
<td>26</td>
<td>2</td>
<td>4.08</td>
</tr>
<tr>
<td>Tire Cleaner</td>
<td>60</td>
<td>1</td>
<td>w/Presoak</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Presoak Dwell Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bottom Panel Blasters</td>
<td>1100</td>
<td>26</td>
<td>26</td>
<td>1</td>
<td>13.00</td>
</tr>
<tr>
<td>High Pressure Wash</td>
<td>1000</td>
<td>32</td>
<td>35</td>
<td>1</td>
<td>18.67</td>
</tr>
<tr>
<td>High Pressure Rinse</td>
<td>1000</td>
<td>32</td>
<td>35</td>
<td>1</td>
<td>18.67</td>
</tr>
<tr>
<td>Triple Shine Foaming Conditioner</td>
<td>60</td>
<td>.5</td>
<td>26</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Low Pressure Wax System</td>
<td>60</td>
<td>3</td>
<td>26</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Spot Free Rinse</td>
<td>120</td>
<td>6</td>
<td>26</td>
<td>1</td>
<td>3.20</td>
</tr>
</tbody>
</table>

Total Cycle Time in Seconds: 158

|                          |         |     |                           |             |         |
| Total Hot Water         |          |     |                           |             | 4.08    |
| Total Cold Water        |          |     |                           |             | 55.83   |
| Total Spot Free Rinse Water |      |     |                           |             | 3.20    |
| Avg. Water Use Per Vehicle |        |     |                           |             | 63.12   |
| Water & Sewer Cost per 1000 Gal | (Enter cost) | $4.00 |
| Water & Sewer Cost per Vehicle |         | $0.25 |

Natural Gas Requirements (Deduct this cost if not using gas to heat the Presoak water)

|                          |         |     |                           |             |         |
| Avg. Hot Water per Vehicle |        |     |                           |             | 4.08    |
| Water = 62.4 lbs per cubic ft |       |     | Cubic Ft Hot Water per Vehicle | 0.55        |
| 1 cubic ft = 7.481 gallon |          |     |                           |             |         |
| Water = 8.34 lbs per gallon |       |     | Lbs of Water per Vehicle | 34.06        |
| Ambient Water Temperature | (Enter desired temperature) |     |                           |             | 50      |
| Desired Hot Water Temperature | (Enter desired temperature) |     |                           |             | 130     |
| Natural Gas Cost per 1000 Cubic ft | (Enter cost) | $4.00 |
| Btu's Required per Vehicle |          |     |                           |             | 2724    |
| Cubic ft of Gas per Vehicle | (Natural Gas has 1000 btu's per cubic ft) |     |                           |             | 2.72    |
| Avg Natural Gas Cost per Vehicle |         |     |                           |             | $0.0109 |

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### Electricity Requirements

3 Ph voltage 1 Ph voltage

1 Hp = 746 watts

*Enter voltage* 230 120

1 KW = 1000 watts

3 Ph AC = Volts x Amps x Power Factor 1.73

Electricity Cost per Kilowatt Hour

*Enter cost* $0.0700

Ampere draw 25 HP Motor 68

Ampere draw Gantry Motors 12

Ampere draw Controls & Stop Sign 6

Ampere draw 5KW Presoak Heater 3 Ph 3.413 watts = 1 Btu 12.5

1 Phase Control - Complete Cycle KW Used per Vehicle 0.0454

3 Phase KW Used per Vehicle

Undercarriage Spray 0.0767

Bottom Panel Blaster 0.1533

Hot Water Presoak Avg. vehicles per hour 15 0.7982

High Pressure Wash 0.1789

High Pressure Rinse 0.1789

Spot Free Rinse 0.0128

Average KWH per Vehicle 1.4442

**Average Electricity Cost per Vehicle** $0.1011

### Chemical Usage / Dilution Ratio

<table>
<thead>
<tr>
<th>Operational Pressure</th>
<th>(Enter cost per ml)</th>
<th>(Enter ml)</th>
<th>(Enter # of Passes)</th>
<th>Avg Cost per Vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot Water Presoak -HP16 - 140 to 1</td>
<td>60 $0.00339</td>
<td>6000</td>
<td>2</td>
<td>$0.291</td>
</tr>
<tr>
<td>Tire Cleaner HP78 - 50 to 1</td>
<td>60 $0.00540</td>
<td>1700</td>
<td>0</td>
<td>$0.000</td>
</tr>
<tr>
<td>Triple Shine HP20 - 472 to 1</td>
<td>60 $0.00810</td>
<td>1650</td>
<td>0</td>
<td>$0.000</td>
</tr>
<tr>
<td>Triple Shine HP21 - 472 to 1</td>
<td>60 $0.00810</td>
<td>1650</td>
<td>0</td>
<td>$0.000</td>
</tr>
<tr>
<td>Triple Shine HP22 - 472 to 1</td>
<td>60 $0.00810</td>
<td>1650</td>
<td>0</td>
<td>$0.000</td>
</tr>
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</table>

**Average Chemical Costs** $0.29

**Note:** Chemical usage costs vary with ear wash vend. Our sample vend includes optional Tire cleaner and Triple Shine conditioner.

### Utility Costs Summary

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water and Sewer Costs</td>
<td>$0.252</td>
</tr>
<tr>
<td>Natural Gas Costs</td>
<td>$0.011</td>
</tr>
<tr>
<td>Electricity Costs</td>
<td>$0.101</td>
</tr>
<tr>
<td>Chemical Usage Costs</td>
<td>$0.291</td>
</tr>
</tbody>
</table>

**Average Operational Cost Per Vehicle** $0.655
### Traffic Count

<table>
<thead>
<tr>
<th>Traffic Count</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,000 vehicles per day</td>
<td>3</td>
</tr>
<tr>
<td>7,500 vehicles per day</td>
<td>6</td>
</tr>
<tr>
<td>10,000 vehicles per day</td>
<td>9</td>
</tr>
<tr>
<td>12,500 vehicles per day</td>
<td>12</td>
</tr>
<tr>
<td>15,000 vehicles per day</td>
<td>15</td>
</tr>
<tr>
<td>17,500 vehicles per day</td>
<td>18</td>
</tr>
<tr>
<td>20,000 vehicles per day</td>
<td>21</td>
</tr>
<tr>
<td>22,500 vehicles per day</td>
<td>24</td>
</tr>
<tr>
<td>25,000 vehicles per day</td>
<td>27</td>
</tr>
</tbody>
</table>

### Site Information

- Commuter or Tourist Traffic: -18
- Traffic Speed 35 and Under: 3
- Traffic Speed Over 35: -3
- Automatic Attended Everyday: 5
- Automatic Attended Weekends Only: 2
- Stack Up Space 1-2 Vehicles: -2
- Stack Up Space 3-4 Vehicles: 3
- Stack Up Space 5 or More Vehicles: 5
- Left Hand Turn Bay Entry: 1
- Entrance Controller Accepts Credit Cards: 3
- Entrance Controller Accepts Fleet Account Codes: 2
- Ongoing Marketing Program: 2

**Total Site Information Points**

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### Competing Bays

- Competing Touchless Bays Within 1 Mile (deduct 3 points per bay)
- Competing Friction Bays Within 2 Mile (deduct 1 point per bay)

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### TOTAL LOCATION FACTOR POINTS

**SCORE YOUR SITE........**

- **40-50 POINTS**: BUILD IT!
- **30-39 POINTS**: VERY GOOD
- **20-29 POINTS**: GOOD
- **10-19 POINTS**: FAIR
Water Wizard 2.0
LAYOUT QUESTIONNAIRE

GENERAL INQUIRIES
Construction
Incoming Power Supply
New  Remodel
208  230  460
Incoming Water Supply Line Diameter
1”  1-1/2”  2”  2-1/2”
Incoming Water Pressure:
Welcome Text For Scrolling Sign (Car Wash Name)

OPTIONAL EQUIPMENT FEATURES
Floor Heat
Yes  No
Swipe @ The Bay
Yes  No
Spot Free Rinse
Yes  No
On Board Blowers
Yes  No
Winterization Pkg.
Yes  No
Entry Wizard

DIAGRAM A – KEY MAP
A. Inside Auto Bay Width =
B. Inside Auto Bay Length =
C. Inside Auto Bay Entrance & Exit Opening
D. Inside Equipment Room Length =
E. Inside Equipment Room Width =
F. Equipment Room Door Width =
G. Inside Auto Bay Height =

NOTES:

1. In The Diagram Above Please Locate The Position Of The Automatic Bay From The Equipment Room.

2. In The Diagram Above Please Show Which Wall The Equipment Backs Up To In The Equipment Room

3. Is The Entrance To The Automatic Bay At The Top Or Bottom Of This Drawing?

DIAGRAM B
Operator, Jim Coleman Company (JCC) and Equipment Installers
Requirements and Responsibilities
(Please refer to your local distributor for their specific requirements)

1) Operator must provide installer and JCC a completed Site Questionnaire. All dimensions and other information must be accurate. The operator is responsible for all additional costs if dimension’s provided to JCC are not accurate and additional equipment or components are required to complete a proper installation.

2) When requested, JCC will provide the operator Site Drawings for the proper placement of equipment for both the equipment room and in-bay, in a timely manner, once the Site Questionnaire has been received.

3) If site includes a floor heat system, operator is responsible to install in-floor tubing so as to avoid the area of bay floor directly beneath the drive rail and gantry rail mounting location as specified on the above mentioned drawings. JCC’s equipment installation does not include floor heat installation unless otherwise specified and quoted separately.

4) Operator is responsible for the mounting and installation of the auto-cashier. If operator chooses to construct auto cashier base of masonry, JCC will provide a typical brickwork installation drawing that will include proper height and location of cashier. This is to be completed prior to installation of the automatic equipment.

5) Operator is to provide 2 ¾ inch electrical conduits which run from a specified location in the equipment room to the cashier island. Electrician supplied by the operator shall install the 110 volt power supply w/dedicated ground to the cashier and the low voltage control circuits at the time of installation. JCC installers will make final terminations of low voltage control circuits. Wire size and quantity to be specified on bay layout drawing. NOTE: If Entry Wizard, Entry Wizard 2.0, or Swipe N Clean is installed, an additional 3/4 inch conduit for a communications cable is to be included per bay layout drawing.

6) PLUMBING: The hot, cold, & spot free rinse water supply including proper installation of water softeners, boilers or water heaters or any plumbing up-stream of the automatic pumping unit is the responsibility of local plumbers who shall be provided by the operator. JCC installers will install everything down-stream of the pumping unit including the wash bay. If the Winter Wizard option is included, local plumber is responsible for proper installation of heat source as with other water heaters if other than JCC wall mounted tank. JCC installers will install all downstream equipment.

7) ELECTRICAL: Local electricians who shall be provided by the operator will supply 1 – 125 amp 3 phase 208/230/460 volt to the Electrical Control Center main disconnect (Fusible Disconnect Switch w/125 amp Dual Element Fuses Recommended) and 1 – 20 amp 1 phase 120 volt grounded circuit. Electrician will also wire as per equipment requirements all equipment up-stream of pumping unit.

8) ELECTRICAL IN-BAY: Local electricians who shall be provided by the operator shall install in-bay underground conduits as specified on the Site Drawings. At the time of equipment installation, electricians will pull proper wire for entrance and stop station optics as specified on Site Drawings.
9) SPOT FREE RINSE SYSTEM: If spot free rinse system is included, operator shall have SFR system plumbed and wired according to the units’ specific plumbing and electrical requirements. JCC installers will make necessary wiring and plumbing connections from the SFR system to the automatic pumping unit.

10) START-UP CHEMICALS: Unless otherwise specified by JCC or its distributor, operator is to supply their own start up chemicals. It will be necessary to supply JCC with the chemical manufacturers recommended mixing ratios for proper vehicle application if using chemicals other than Turtle Wax products.

11) START-UP: Unless other arrangements are otherwise agreed to in writing, JCC installers must be able to wash vehicles at the completion of automatic installation. This means that all support equipment up-stream of the automatic be installed and operational and all utilities in place and turned-on. JCC installers will allow a one-day grace period for final preparation leading to turn-on. If after the one-day grace period JCC installers are not able to turn-on the automatic due to delays in the construction, plumbing or electrical work, the operator will be charged normal service fees. If a return trip is required, operator will bear additional expenses.

Signed by Operator__________________________________ DATE:_________
Print Name ________________________________________
Site Location _______________________________________

Signed by Jim Coleman Company ______________________ DATE:_________
Print Name _________________________________________
LIMITED WARRANTY

The Manufacturer warrants any component or part of the Jim Coleman Company Car Wash equipment to be free from defects in material and workmanship for a period of one year from date of shipment, with the exception of such parts as are commonly recognized to be subject to wear in normal usage, such as high pressure hoses, swivels, nozzles, safety shut off guns, etc., which are warranted for ninety (90) days. All electrical parts not manufactured by Jim Coleman Company are warranted to be free from defects in material and workmanship for a period of 90 days. Electrical motors shall be covered under manufacturer's warranty for a period of one year, unless otherwise specified. Jim Coleman Company electronic controls, such as timers, coin acceptors and computer monitoring equipment, carry a one-year warranty. Claims under this warranty must be asserted in writing within the one-year period covered by this warranty.

Any component or part alleged to be defective in material or workmanship shall, at option of Manufacturer, be returned with shipping cost prepaid. If, upon examination, such component or part is found to be defective in workmanship or materials, Manufacturer, at its option, will either repair or replace such component or part, and shall ship such repaired or replaced component or parts F.O.B. factory, Houston, Texas. Manufacturer reserves the right to use "Like New" or Remanufactured parts in repair of warranty items that exceed 6 months in service. The cost of such replacement or repair shall be the exclusive remedy for any breach of any warranty and Manufacturer shall not be liable to any person for consequential damages for injury or commercial loss resulting from any breach of any warranty. This warrant does not cover any labor installation cost, either with respect to the original equipment, the repaired or replaced component, or part defective in workmanship or materials. Jim Coleman Company does not warrant loss of income should there be any during such time repairs are being made. Jim Coleman Company shall not be responsible for vehicle damage or repairs as may arise during normal wash cycle operation. Operator acknowledges accepted risks involved with friction in-bay automatic washes.

This warranty does not apply to components or parts which have been misused, altered, neglected, not installed, adjusted, maintained, or used in accordance with applicable codes and ordinances and in accordance with Manufacturer's recommendations as to such factors.

THIS WARRANTY IS IN LIEU OF ALL WARRANTIES, EXPRESS OR IMPLIED, OF EITHER MANUFACTURER OR SELLER, AND MANUFACTURER MAKES NO WARRANTY AGAINST INFRINGEMENT OF THE LIKE, MAKES NO WARRANTY OF MERCHANTABILITY, MAKES NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTY ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

This warranty does not apply to damage resulting from improper operation or abuse, exceeding the rated capacities of the unit, running foreign particles or non related solutions through pumps or valves, using acidic solutions, improper installation or maintenance, operational neglect, neglect of manufacturers recommended maintenance, use of water containing solids in excess of twenty microns in diameter or 2000 PPM, damage caused by customer, unjustifiable nuisance calls, or acts of God.

Compliance with any local governmental laws or regulations relating to the location, use or operation of the equipment, or its use in conjunction with other equipment, shall be the responsibility of the purchaser. The rights and obligations of the parties shall be governed by the State of Texas.
Electrical Required:
If Water Wizard has 5kw Presoak Heater Provided:
Fusible Disconnect Switch w/125 Amp Dual Element Fuses Recommended
- 208/230V 125 Amp, 3ph, (80Amp Actual Draw)
- 120V 20Amp, 1 Pole Breaker, (10 Amp Actual Draw) International
- 380/415V 100 Amp, 3ph, (60Amp Actual Draw)
- 220V 15 Amp, 1 Pole Breaker, (8 Amp Actual Draw)
Optional Hot Wax System
- 30 Amp, 3ph, 208/230V
Optional Water Tank Heater (5KW)
- 20 Amp, 3ph, 208/230V

Water Line Required:
- 1" (26mm) Water - Min. Pressure 40 psi (2.75 bar)
  Max. 60 psi (4.5 bar)
- Max Flow Rate: 32 gpm (122 lpm)

Dimensions:
Pump Plant: 30" wide X 60" long X 70" high
(762mm X 1524mm X 1778mm)

Electrical Panel: 29" wide X 36" high X 8" deep
(736mm X 736mm X 203mm)

Gantry: 11'10" wide X 45" deep X 8' 10" high
(10'8" high w/blower)
(3.61m X 1.14m X 2.69m) (3.25m)

Vehicle Height Clearance: 84" (2.13m)

Recommended Bay Dimensions:
Length: 34' (10.36m)
Width: 15'4" (4.67m) (14' min) (4.27m)
Height: 12" (3.66m) (11' min) (3.53m)
Min. Door Opening Height: 9'6" (2.9m)
With Blowers & Shipping Wheels: 10'2"

EQUIPMENT SPECIFICATIONS
The Water Wizard 2.0 Electrical requires two electrical connections into the main disconnect switch. The connections go into the Electrical Control Panel and hook up to the Safety Disconnect Switch, located on the upper right of the Electric Control Center.