Innovative Control Systems provides a toll-free number for customers and installers who have questions pertaining to the installation:

1-800-246-3469

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CHAPTER 1: Introduction

This document was written to assist technicians and electricians during the installation of the Auto Sentry® flex. This guide should be supplied to the electrician prior to the installation of conduit and wiring to ensure the Auto Sentry® flex system is installed properly.

A thorough understanding of electrical wiring, installation, codes, and safety protocols is required. Additionally, some familiarity with car wash tunnel equipment and installation is recommended. No prior experience with the Auto Sentry® flex is required.

Faulty installations are the major cause of system malfunctions. The Auto Sentry® flex system must be installed exactly as described in this manual to ensure its reliability and proper operation.

**WARNING:** Failure to properly install the Auto Sentry® flex system will void the warranty and could result in serious injury or death.

Innovative Control Systems provides a toll-free number for customers and installers who have questions pertaining to the installation:

1-800-642-9396

By reading the information and performing the procedures in this manual you should be able to:

- Install the Auto Sentry® flex unit
- Install the Auto Sentry® flex system level wiring and communications wiring

**Rules for Installation**

- Before you begin, please read this entire manual.
- Wiring can be contained in rigid PVC conduit or metal conduit.
- All wiring connections must be installed by a licensed electrician who must meet all local and national codes.
- High-voltage (AC) and low-voltage (DC) must not be combined in a common conduit, junction box, or wire trough.
- Power for the Auto Sentry® flex and any peripherals must come from the dedicated UPS, supplied by ICS.
- The Auto Sentry® flex and peripheral equipment must be properly grounded. See “Wire Gauge and Conduit Size” on page 30 for more information.
- Check through all boxes and cartons before disposing of them. Look for any manuals, cables, connectors, and other items.
Related Documents

The following document is available for further reference:

- Auto Sentry® flex User Manual

Warning Markings

The symbol below, found on equipment or hardware, indicates you should consult accompanying documentation before proceeding.

![Warning Symbol]

**WARNING:** Consult accompanying documentation before proceeding.

Cleaning

Wipe exterior of unit with damp cloth to clean. Do not use chemicals or cleaning agents.

Inspection Information

Preventative maintenance involves an inspection of the Auto Sentry® flex unit daily, looking for loose connections or any damage.
CHAPTER 2: Site Layout

Careful planning for the layout of the site will help eliminate possible problems with the start-up of your system and will ensure continued, reliable system operation.

- All wiring connections must be installed by a licensed electrician that must comply with all local recommended standards.

Location

The Auto Sentry® flex unit has been designed to operate in an outdoor environment.

- The unit itself contains three hinged-panel doors. The unit must be located with enough clearance for the doors to open easily, without interfering with access.
- The unit must be located so that conduit connections can be easily made and the internal components can be accessed.

Car Wash Drawings

Your car wash layout may be different from the following drawings. Most of these drawings are examples for a Two Lane Layout Express Car Wash. See your site specific System Installation Drawings for your car wash layout.
Dual Lane Car Wash Layout

CAR WASH LAYOUT

This diagram shows how ICS envisions the ideal layout of ICS Equipment for an Express Car Wash with two Auto Sentry lanes. It offers guidelines concerning the distances and layout necessary to prevent bottlenecks and allows for the maximum number of vehicles to proceed through the car wash with a minimum of stoppages. It also describes the proper placement of ICS equipment to maximize their efficient use with minimal labor.

The guidelines in the notes for this diagram are the result of many years of extensive hands-on experience with hundreds of Express Car Washes across the country. Obviously, not all car wash sites will be able to follow this exact layout, primarily due to the size and shape of the property, and if this is the case with your car wash site, please contact your ICS salesman or Technical Support for further guidance on what changes to make and how they will affect your car wash’s efficiency.

Figure 1. Two Lane Car Wash Layout (typical for Express Car Wash)
NOTE #1: The distance available before the Auto Sentry island should allow, minimally, for the lane to accommodate three to four vehicles, including the vehicle at the Auto Sentry.

NOTE #2: This is lane #1. It is the lane that is farthest to the left when approaching the Auto Sentry to purchase a wash. The subsequent lane is lane #2. This is important when referencing which lane, and therefore traffic gate, the merge loop will be wired to.

NOTE #3: The distance from the gate closing loops to the merge loop is determined by how quickly and safely the two Auto Sentry lanes can safely funnel down to a single lane prior to a vehicle reaching the correlator.

NOTE #4: The merge loop is placed where only one vehicle may pass at a time and centered in the lane. If the vehicles at lanes 1 & 2 simultaneously purchase car washes, only one can go forward at a time. If the gate for lane #1 opens, the gate in lane #2 will remain closed until the vehicle from lane #1 has passed completely over and beyond the merge loop, thus keeping the vehicles in the proper order within the stack. If the merge loop has been properly located, then there should be no possibility of the vehicle from lane #2 passing the vehicle from lane #1, thereby keeping vehicles in their proper order.

NOTE #5: The distance from the merge loop to the correlator, minimally, should accommodate three to four cars, but having the space for six or more vehicles has proven to be best. These cars would be On Stack.

NOTE #6: A pull-out lane is not a requirement, but car washes have installed them in the event that a customer changes their mind about getting a car wash after they have purchased one. It is also useful in allowing customers that have loose items in their truck bed to pull off to the side and remove the items without disrupting the flow of vehicles entering the tunnel. If a pull-out lane is utilized, it should be placed after the merge loop and as close to the attendant’s position as possible. This will allow the first car to pass over the merge loop, thus releasing the gate for a vehicle in the other lane that has finished purchasing a car wash and is waiting for their gate to open.

NOTE #7: The stainless steel cabinet that houses the Touch Input Terminal or the Washpad should be placed where it would be most convenient for the car wash attendant to use. At car washes where the correlator and conveyor fully extend beyond the actual entrance of the tunnel, to the point that a vehicle is completely on the conveyor and has not yet entered the tunnel, the stainless steel cabinet could also be outside the entrance of the tunnel as shown in this drawing (Position #1). Ideally it is placed right behind where the attendant will normally be standing when assisting customers, so that the attendant need only turn to manipulate either the Touch Input Terminal or the Washpad. In this configuration, the gate / Auto Sentry control box can also be installed inside the stainless steel cabinet.

NOTE #8: If the correlator does not extend beyond the tunnel entrance by any appreciative distance and the vehicle inside the building when loaded onto the conveyor, then the stainless steel cabinet should be mounted inside the tunnel, again, just behind where the attendant would be standing when assisting customer (Position #2). At times, a stainless steel cabinet may not be used and the Touch Input Terminal and Washpad will just be mounted to the wall of the tunnel. In either of these two configurations, do not install the gate / Auto Sentry control box inside the tunnel as the box and switches recommended by ICS are not waterproof.

Figure 2. Notes for a typical Two Lane Car Wash Layout (Express Car Wash)
**NOTE #9:** A room, functioning as a lobby, is always located at the entrance of the tunnel on the driver’s side. The Touch POS Computer and its accompanying equipment are to be placed in this room. This is to facilitate the attendant adjusting and editing the Stack as needed. In this scenario, the server computer also acts as the Point Of Sale (POS) computer. This is the best configuration for your wash in order to utilize the ICS equipment to its fullest capabilities.

ICS Equipment to be installed in the Lobby:

- Touch POS (if there is only one computer on site, then it would act as both the Touch POS and the Site Server.)
- Cash Drawer
- Gate/Auto Sentry Control Box – the person using this should be able to see the Gates and Auto Sentries from wherever this is mounted.

**NOTE #10:** An additional room, functioning as an office, can be located anywhere within the car wash. The site server computer and accompanying equipment can be placed in this room. The function of the site server in the office is two-fold:

1. The computer in this room is the site server.
2. Allows the manager, owner, and accountant to view and extract financial reports and information needed without interfering with the normal operations of the wash.

ICS equipment to be installed in the office:

- Site server computer with monitor
- Printer
- ICS Power Distribution Box
- SIO Control Box
- Network Router
- Network Switch

Other Items, supplied by Site, to be installed in the office:

- DSL or Cable modem connection point
- High Speed DSL or Cable modem
- RJ-11 Telephone Jack
- Low voltage conduit junction box

Other items, supplied by the site, to be installed in the office:

- 100/1000 Base-T Wall Plate
- ICS dedicated 120 VAC electrical outlet from the power distribution box

**NOTE #11:** The equipment room may be on either the driver’s side or the passenger’s side of the tunnel, but it is generally preferable to have the equipment room on the same side of the tunnel as the site server computer thus preventing having to run conduit and wire across the tunnel. This configuration also prevents the attendant from having to cross the conveyor in the event of needing to go to the equipment room.

ICS equipment to be installed in the equipment room:

- Tunnel Master WBC Controller, if included in system.

**Figure 3. Notes for a typical Two Lane Car Wash Layout (Express Car Wash)**
NOTE #1: The length of the island should be determined by the car wash owner, but ICS recommends that the island be a minimum of 18’-0” in length. This will provide for adequate space for the proper placement of the Auto Sentry and its gate. If menu signs and other items are to be installed on the island, then it is the car wash owner’s responsibility to increase the length of the island to accommodate these additional items.

NOTE #2: The width of the inside island should be a minimum of 3’-6” but ICS highly recommends 4’-6”. Outside lane should be a minimum of 4’-6” for easier servicing of the Auto Sentry by the attendant. This measurement, along with the proper placement of the Auto Sentry, will prevent the rear of the Auto Sentry from hanging over into another drive-thru lane and provides ample room for vehicles to pass through the lanes without striking the rear of an Auto Sentry.

NOTE #3: While it is at the car wash owner’s discretion, ICS highly recommends the installation of bollards at the entrance end of the islands to minimize the chances of vehicles striking and damaging an Auto Sentry or traffic gate. Bollards should be located so that they provide protection to ICS equipment but also offer ample clearance so that the equipment can be easily installed, serviced, and maintained. **WARNING:** Do not install the bollards or any equipment or walls within 20” clearance of the gate housing and gate arm. This is to prevent crushing and allow the gate arm to break away properly.

**IMPORTANT:** Installation and mounting of the Auto Sentry and traffic gates are the responsibility of the car wash site and must be completed before the arrival of an ICS technician.

*Gate is optional for In-Bays*
Island Detail Notes

**NOTE #1:** The length of the island should be determined by the car wash owner, but ICS recommends that the island be a minimum of 18' - 0" in length. This will provide for adequate space for the proper placement of the Auto Sentry and its gate. If menu signs and other items are to be installed on the island, then it is the car wash owner's responsibility to increase the length of the island to accommodate these additional items.

**NOTE #2:** ICS highly recommends that the width of the islands be a minimum of 4' - 6" for the safety of the attendants when servicing. This measurement, along with the proper placement of the Auto Sentry, will prevent the rear of the Auto Sentry from hanging over into another drive-through lane and provides ample room for vehicles to pass through the lanes without striking the rear of an Auto Sentry.
NOTE #3: The height of the island, above the final finished grade upon which a vehicle will rest, must be 6". This will ensure that the Auto Sentry is at the optimum height for customers using the Auto Sentry while seated in their vehicles.

NOTE #4: At the car wash owner’s discretion, the installation of bollards at the entrance end of the island is highly recommended and will minimize the chances of vehicles striking and damaging an Auto Sentry or Traffic gate. Bollards should be located so that they provide protection to ICS equipment but also offer ample clearance so that the equipment can be easily installed and maintained.

NOTE #5: Any canopy that is above both the Auto Sentry and the optional Traffic Gate must be a minimum of 12’ - 6” from the base of the gate to the bottom of the canopy to allow the gate to open fully without striking the canopy.

NOTE #6: The bill dispenser is in the base of the terminal and swings open 2’ – ½ ” towards the exit end of the island. This must be taken into consideration when setting canopy posts. When dual post canopies are used, there must be a 2’ - 6” clearance on the right side of the terminal. If the inside width is not at least 60” then the post must be mounted to the rear of the payment terminal which will require a minimum of 1’ - 6” from the Auto Sentry. Contact an ICS Representative if there is any concern regarding canopy placement.

NOTE #7: WARNING: (If optional Gates are installed) Do not install bollards or any equipment within 20” clearance of the gate housing and gate arm. This is to prevent crushing and allow the gate arm to break away properly.

Auto Sentry® flex Island Detail (Top View)

Figure 6. Auto Sentry® flex Island Detail (Top View)
Traffic Gate Foundation Detail

SCALE: 1" = 1' - 0"

USE A 3" OUTSIDE DIA., THIN-WALLED, PLASTIC GUIDE TUBE AS AN INSTALLATION AID. APPROXIMATELY 2" PROTRUSION ABOVE CONCRETE.

Figure 7. Traffic Gate Foundation Detail
Bollard and Curb Detail

CURB and BOLLARD DETAIL

SCALE: 1" = 1' - 0"

Figure 8. Bollard and Curb Detail
Dual Lane Vehicle Sense and Loop Layout

Auto Sentry Vehicle Sensors
Vehicle sensors are located in the base of the Auto Sentry and sense when vehicles are in front of the Auto Sentry.

Gate Closing Loop
6" width by 2" length vehicle sensing loop located six inches beyond the gate and centered within the corresponding lane. The 20' lead must run to the gate head that the loop is controlling.

Merge Loop
12" width x 2" length vehicle sensing loop located in the driveway where the lanes narrow down so that only one car can pass at a time over the loop.

Gate Auto Sentry Footprint

Curb or cones narrowing down from two lanes to a single lane at least 3 car lengths before reaching correlator.

75' lead for merge loop runs to the gate head in the inside Auto Sentry lane longer leads are available, but ICS must be informed one month prior to installation of loop.

Important: When installing the loops, keep any conflicting metal at least 2' away from the loops like rebar for the gate.

This diagram is not to scale.

Figure 9. Dual Lane Sense Vehicle and Loop Detail
Server Area Detail

SERVER AREA DETAIL

The intent of this diagram is solely to give the car wash an idea as to the amount of equipment that needs to be collocated with the server computer. Providing the proper furniture and space for the placement of this equipment is the responsibility of the car wash.
Conduit Detail

The Conduit Detail in this example is for a dual lane Express Car Wash with the Tunnel Master WBC installed. See your System Installation drawings for your specific car wash.

**Figure 11. Conduit Detail Dual Lane**

**IMPORTANT:**

- **IF YOU ARE UNSURE THAT YOU HAVE ANY OPTIONAL EQUIPMENT, PLEASE CONTACT YOUR SALESPERSON.**
- **IF USING EMV, RUN AN ADDITIONAL CAT 6 CABLE FROM THE AUTO SENTRY CARD READER TO THE NETWORK SWITCH.**
- **IF USING EMV, RUN AN ADDITIONAL CAT 6 CABLE FROM THE TOUCH POS CARD READER TO THE NETWORK SWITCH.**
- **ICS SELLS CAT 6 SHIELDED CABLE.**
Conduit Detail Dual Lane Express Car Wash

Figure 12. Conduit Layout Dual Lane (Express Car Wash)

- 1” Conduit to Site Main Service Electrical Panel.
- (6) 1” Conduits:
  - Two power conduits going to the power distribution box which powers the Auto Sentry.
  - Two power conduits going back to the main service electric panel which powers the heat exchangers.
  - Two conduits for low voltage going to the low voltage junction box.

1/2” Conduit stubbed out to connect with gate closing loop.
1/2” Conduit connecting the two gates.
1/2” Conduit stubbed out to connect with the merge loop. The merge loop should be run to the traffic gate in lane #1.

1” Conduit to site main service electrical panel.
3/4” Conduit
1/4” Conduit
1/4” Conduit
1/2” Conduit stubbed out to connect with gate closing loop.
1/2” Conduit stubbed out to connect with gate closing loop.
1/2” Conduit stubbed out to connect with gate closing loop.

NOTE: Ensure that all conduits running to the gates are tightly bundled together as the opening in the base of the gate is only 3-¼ inches in diameter.

Low voltage conduit
High voltage conduit
1/2” Conduit stub outs for connection to loops.
Power Layout Dual Lane

**NOTE:** The wiring and terminations are the responsibility of the car wash owners, electrician, and/or supplied contractor. Please have an electrician and/or car wash owner supplied contractor complete all of the site's wiring pulls and terminations prior to the ICS technician coming on site. All permanent site wiring connections must be performed by a licensed electrician that must comply with all local and national recommended standards. If you are unsure that you have any optional equipment, please contact your salesperson.

---

**POWER LAYOUT**

**SITE SUPPLIED 3-12 GA THHN FROM A DEDICATED 20 AMP BREAKER IN THE SITE MAIN SERVICE ELECTRICAL PANEL PROVIDING AN INDIVIDUAL LINE, NEUTRAL AND GROUND TO EACH AUTO Sentry for the Heat Exchangers. Terminations must be completed as per the provided Auto Sentry Power Termination Diagram. The Ground wire must be terminated on the mechanical ground lug in the panel.**

---

**OPTIONAL EQUIPMENT:**
- ICS DIGITAL MENU
- ENTRANCE MANAGEMENT SIGN
- EXIT MANAGEMENT SIGN
- ULTRASONIC TRUCK BED SENSOR
- DIGITAL MENU
- ENTRANCE MANAGEMENT SIGN
- EXIT MANAGEMENT SIGN

---

**Figure 13. Dual Lane Power Layout (Express Car Wash)**
## Dual Lane Power Wire Schedule

**POWER WIRING SCHEDULE**

***NOTE: The wiring and terminations are the responsibility of the car wash owners, electrician, and/or supplied contractor. Please have an electrician and/or car wash owner supplied contractor complete all of the site's wiring pulls and terminations prior to the ICS technician coming on site. All permanent site wiring connections must be performed by a licensed electrician that must comply with all local and national recommended standards.***

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<tr>
<th>ID</th>
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<th>TERMINATION LOCATIONS</th>
<th>TERMINATED BY</th>
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<td>ICS</td>
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</tr>
<tr>
<td>U</td>
<td>ICS Special Cable</td>
<td>ELECTRICIAN</td>
<td>FROM AUTO SENTRY FLEX TO RFID ALL IN ONE READER ANTENNA ENCLOSURE LANE #2</td>
<td>ELECTRICIAN</td>
</tr>
</tbody>
</table>

**NOTE:** All wiring for ICS equipment is to be run by an electrician and must be a single cable from point to point. Splicing of wires is not allowed.

---

**Figure 14. Dual Lane Power Wire Schedule**
Auto Sentry® flex Measurements

AUTO SENTRY FLEX
THE AUTO SENTRY FLEX IS THE PRIMARY POINT-OF-SALE FOR THE EXPRESS CAR WASH. IT IS PLACED OUTSIDE AT THE ENTRANCE END OF THE CAR WASH WITH A CANOPY PLACED OVER IT.

NOTE: These measurements are from the Auto Sentry Flex unit to the curb. The curb must be 6" in height from the final grade line. If you cannot install the Auto Sentry on a 6" curb, then a 6" riser is necessary.

Figure 15. Auto Sentry® flex Measurements
Auto Sentry® flex Base Placement (Top View)

See actual Auto Sentry Flex Mounting Template before drilling holes. This drawing is not to scale.

Figure 16. Auto Sentry® flex Base Placement (Top View)
Auto Sentry® flex Power Requirements

- Electrician must provide a dedicated 120 V AC, 15 A circuit to power the unit. This dedicated circuit must supply the UPS. The UPS will supply power to the unit.
- Electrician must provide a separate dedicated 120 V AC, 15 A line for heat exchanger wiring.
- The unit must be properly grounded. See “Wire Gauge and Conduit Size” on page 30 for more information.
Auto Sentry® flex Wiring Guidelines

When running wires to and from the Auto Sentry® flex unit, follow these guidelines:

- Run conduit and wire up through stainless-steel base into unit.
- Run a Cat 6 cable up through the bases into the unit for the network.
- If operating EMV equipment, run a separate Cat 6 cable up through the base into the unit for the secure credit card reader only.
- For an existing site, use a hole saw to drill new conduit holes through stainless steel base if necessary. File and tape edges of new holes before affixing conduit.
- Use wiring ties and wire clamps inside the unit to contain wires.
- All conduit runs should meet local and national codes. Conduits shall be properly connected and securely fastened to the boxes with listed conduit hubs, and should be tightened to the torque specs of the manufacturer.

Conduit Wiring Guidelines

- All conduit must be rigid PVC or metal.
- High-voltage (AC) and low-voltage (DC) must not be combined in a common conduit, junction box, or wire trough.

Grounding

The Auto Sentry® flex and peripheral equipment must be properly grounded.

Recommended and Accepted Grounding Methods

Proper system grounding is an extremely important part of the system installation. Grounds for all system devices should be wired to the breaker panel ground bus bar which, in turn, should be grounded to a ground rod. A conduit ground does not provide a sufficient ground. It is recommended that the neutral and ground bus bars be bonded together when it is not prohibited by local codes.

The universal ground symbol identifies the grounding terminal located in the upper-left chamber, bottom left side near terminal blocks. A second ground is marked and located in the base, bottom-left side. This is the dedicated 120 V line for the heat exchanger.

**WARNING:** Ground wire must be connected to the ground terminals. Failure to properly ground the unit could result in unit failure and/or bodily injury.

**IMPORTANT:** Improper grounding will void equipment warranty.
Equipment Dimensions, Measurements, and Ratings

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Amount</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>34”</td>
<td>—</td>
</tr>
<tr>
<td>Height</td>
<td>52”</td>
<td>—</td>
</tr>
<tr>
<td>Depth</td>
<td>32”</td>
<td>Includes heat exchanger cover panel.</td>
</tr>
<tr>
<td>Weight</td>
<td>400 lbs.</td>
<td>—</td>
</tr>
<tr>
<td>Operating</td>
<td>-20 °F to 140 °F -29 °C to 60 °C</td>
<td>—</td>
</tr>
<tr>
<td>Temperature Range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>50/60 Hz</td>
<td>—</td>
</tr>
<tr>
<td>Supply Voltage</td>
<td>120 - 240 V AC</td>
<td>Intended for permanently connected supply.</td>
</tr>
<tr>
<td>Max. Amps.</td>
<td>10 Amps @ 120 V AC 5 Amps @ 240 V AC</td>
<td>—</td>
</tr>
<tr>
<td>IPX Rating</td>
<td>NEMA 5X</td>
<td>Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, snow, windblown dust, splashing water, and hose-directed water from water jets at any direction; and that will be undamaged by the external formation of ice on the enclosure. Including protection against corrosion.</td>
</tr>
</tbody>
</table>

Table 1: Dimensions, Measurements and Ratings

Wire Gauge and Conduit Size

When planning the orientation of the wiring runs, follow the applicable ICS wiring diagrams and consider the layout of the components at the site. See the table below to determine conduit size.

<table>
<thead>
<tr>
<th>—</th>
<th>1/2</th>
<th>3/4</th>
<th>1</th>
<th>1 1/4</th>
<th>1 1/2</th>
<th>2</th>
<th>2 1/2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWG 14</td>
<td>13</td>
<td>24</td>
<td>39</td>
<td>69</td>
<td>94</td>
<td>154</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AWG 12</td>
<td>10</td>
<td>18</td>
<td>29</td>
<td>51</td>
<td>70</td>
<td>114</td>
<td>164</td>
<td>—</td>
</tr>
<tr>
<td>AWG 10</td>
<td>6</td>
<td>11</td>
<td>18</td>
<td>32</td>
<td>44</td>
<td>73</td>
<td>104</td>
<td>160</td>
</tr>
<tr>
<td>AWG 8</td>
<td>3</td>
<td>5</td>
<td>9</td>
<td>16</td>
<td>22</td>
<td>36</td>
<td>51</td>
<td>79</td>
</tr>
<tr>
<td>AWG 6</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>11</td>
<td>15</td>
<td>26</td>
<td>37</td>
<td>57</td>
</tr>
<tr>
<td>AWG 4</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>9</td>
<td>16</td>
<td>22</td>
<td>35</td>
</tr>
<tr>
<td>AWG 3</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>8</td>
<td>13</td>
<td>19</td>
<td>29</td>
</tr>
<tr>
<td>AWG 2</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td>11</td>
<td>16</td>
<td>25</td>
</tr>
<tr>
<td>AWG 1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>12</td>
<td>18</td>
</tr>
</tbody>
</table>

Table 2: Max. Number of Wires (THHN) in a Given Conduit Size
CHAPTER 3: Communications Wiring

This section describes wiring for RS-422 and RS-485 communications.

Installation Requirements

- All peripheral equipment connected to the RS-232 ports must be listed, have an Electronics Industrial Association (EIA) standard RS-232 communications protocol and not be installed over a hazardous location.
- RS-232 communication must not exceed 100 feet. RS-232 communication wires must be in a separate PVC conduit from any AC wires.
- Communications equipment signal wires must also be run in separate rigid PVC or metal conduit, separate from any power conduits.
- Up to three Cat 6 cables may be needed to run to the Auto Sentry Flex:
  - (1) Cat 6 Cable for the Auto Sentry Flex System
  - (1) Cat 6 Cable if using the EMV credit card reader (Moneris)

Port Assignments

<table>
<thead>
<tr>
<th>Device</th>
<th>Port Type and Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gift Card Dispenser</td>
<td>COM Port 1</td>
</tr>
<tr>
<td>Bill Acceptor</td>
<td>COM Port 2</td>
</tr>
<tr>
<td>Coin Acceptor</td>
<td>COM Port 3</td>
</tr>
<tr>
<td>Bill Dispenser</td>
<td>COM Port 4</td>
</tr>
<tr>
<td>SIO Board</td>
<td>COM Port 6</td>
</tr>
<tr>
<td>Touch Screen</td>
<td>USB</td>
</tr>
<tr>
<td>Credit Card Reader (Standard)</td>
<td>USB</td>
</tr>
<tr>
<td>Hecon Receipt Printer</td>
<td>USB</td>
</tr>
<tr>
<td>Barcode Reader</td>
<td>USB (Virtual COM Port 5)</td>
</tr>
<tr>
<td>Coin Hoppers</td>
<td>SIO Board</td>
</tr>
</tbody>
</table>

Table 3: Port Assignments
Low Voltage Layout Dual Lane

Figure 18. Low Voltage Layout Dual Lane

---

Low Voltage Layout

*** THIS DRAWING IS ONLY INTENDED TO SHOW THE TYPES OF WIRING THAT MUST BE RUN BETWEEN PIECES OF ICS EQUIPMENT. THE INDIVIDUAL RUNNING THE WIRING MUST ENSURE THAT AMPLE WIRE IS AVAILABLE AT EITHER END TO FACILITATE TERMINATION. THE TERMINATION POINTS OF THE CABLES ARE NOT SHOWN ON THIS DOCUMENT. ALL PERMANENT SITE WIRING CONNECTIONS MUST BE PERFORMED BY A LICENSED ELECTRICIAN THAT MUST COMPLY WITH ALL LOCAL AND NATIONAL RECOMMENDED STANDARDS. ***

IMPORTANT:
- IF USING EMV, RUN AN ADDITIONAL CAT 6 CABLE FROM THE AUTO SENTRY OR TOUCH POS CARD READER TO THE WALL PLATE.
- IF YOU ARE UNCERTAIN IF YOU HAVE ANY OF THE OPTIONAL EQUIPMENT, PLEASE CONTACT YOUR SALESPERSON.
- ICS RECOMMENDS AND SELLS CAT 6 SHIELDED CABLE AND ADDITIONAL FEES APPLY.
## Low Voltage Wire Schedule

**IMPORTANT:** The wiring and terminations are the responsibility of the car wash owners, electrician, and/or supplied contractor. All of the sites wiring pulls and terminations must be completed by a licensed electrician and/or car wash owner supplied contractor prior to ICS technician coming onsite. All permanent site wiring connections must be performed by a licensed electrician that must comply with all local and national recommended standards.

### Low Voltage Wire Schedule

<table>
<thead>
<tr>
<th>ID</th>
<th>Wire Type</th>
<th>Provided By</th>
<th>Termination Locations</th>
<th>Terminated By</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>CAT 6 SHIELDED</td>
<td>ICS</td>
<td>FROM 100/1000 BASE-T WALL PLATE TO POS COMPUTER PLATE*</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td></td>
<td>CAT 6 SHIELDED</td>
<td></td>
<td>*IF EMV, RUN ADDITIONAL FROM 100/1000 BASE-T WALL PLATE TO TOUCH POS CARD READER</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td>C</td>
<td>CAT 6 SHIELDED</td>
<td>ICS</td>
<td>FROM 100/1000 BASE-T WALL PLATE TO LANE #1 AUTO SENTRY FLEX*</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td></td>
<td>CAT 6 SHIELDED</td>
<td></td>
<td>*IF EMV, RUN ADDITIONAL WALL PLATE TO LANE #1 AUTO SENTRY FLEX CARD READER</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td>D</td>
<td>CAT 6 SHIELDED</td>
<td>ICS</td>
<td>FROM 100/1000 BASE-T WALL PLATE TO LANE #2 AUTO SENTRY FLEX*</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td></td>
<td>CAT 6 SHIELDED</td>
<td></td>
<td>*IF EMV, RUN ADDITIONAL WALL PLATE TO LANE #2 AUTO SENTRY FLEX CARD READER</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td>E</td>
<td>CAT 6 SHIELDED</td>
<td>ICS</td>
<td>FROM 100/1000 BASE-T WALL PLATE TO TOUCH IT DISTRIBUTION BOX <strong>OPTIONAL EQUIP</strong></td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>NOTE:</strong> ICS SUPPLIES 16-PORT NETWORK SWITCH BASED UPON SITE CONFIGURATION.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>24/4 SHIELDED CABLE CAN BE USED IN PLACE OF 18/4 SHIELDED CABLE.</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>ICS CABLE</td>
<td>ICS</td>
<td>FROM TOUCH IT DISTRIBUTION BOX TO TOUCH IT <strong>OPTIONAL</strong></td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td>G</td>
<td>CAT 6 SHIELDED</td>
<td>ICS</td>
<td>FROM 100/1000 BASE-T WALL PLATE TO THE ICS DIGITAL MENU/EMS <strong>OPTIONAL EQUIP</strong></td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td>H</td>
<td>CAT 6 SHIELDED</td>
<td>ICS</td>
<td>FROM 100/1000 BASE-T WALL PLATE TO WBC CONTROLLER</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td>I</td>
<td>18/4 SHIELDED</td>
<td>ELECTRICIAN</td>
<td>FROM WBC TO THE ULTRASONIC SENSOR DISTRIBUTION BOX</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td>J</td>
<td>24/4 SHIELDED</td>
<td>ELECTRICIAN</td>
<td>FROM WBC CONTROLLER TO CONTROLLER KEY PAD</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td>K</td>
<td>18/4 SHIELDED</td>
<td>ELECTRICIAN</td>
<td>FROM WBC CONTROLLER TO CONTROLLER KEYPAD</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td>L</td>
<td>18/4 SHIELDED</td>
<td>ELECTRICIAN</td>
<td>FROM LANE #1 AUTO SENTRY FLEX TO LANE #1 GATE</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td>M</td>
<td>18/4 SHIELDED</td>
<td>ELECTRICIAN</td>
<td>FROM GATE / AUTO SENTRY CONTROL BOX TO LANE #1 GATE</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td>N</td>
<td>18/4 SHIELDED</td>
<td>ELECTRICIAN</td>
<td>FROM GATE / AUTO SENTRY CONTROL BOX TO LANE #1 AUTO SENTRY FLEX</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td>O</td>
<td>18/4 SHIELDED</td>
<td>ELECTRICIAN</td>
<td>FROM LANE #2 AUTO SENTRY FLEX TO LANE #2 GATE</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td>P</td>
<td>18/4 SHIELDED</td>
<td>ELECTRICIAN</td>
<td>FROM GATE / AUTO SENTRY CONTROL BOX TO LANE #2 GATE</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td>Q</td>
<td>18/4 SHIELDED</td>
<td>ELECTRICIAN</td>
<td>FROM GATE / AUTO SENTRY CONTROL BOX TO LANE #2 AUTO SENTRY FLEX</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td>R</td>
<td>ICS SPECIAL CABLE</td>
<td>ELECTRICIAN</td>
<td>FROM LANE#1 AUTO SENTRY TO RFID READER/ANTENNA ENCLOSURE IN LANE #1</td>
<td>ELECTRICIAN</td>
</tr>
<tr>
<td>S</td>
<td>ICS SPECIAL CABLE</td>
<td>ELECTRICIAN</td>
<td>FROM LANE#2 AUTO SENTRY TO RFID READER/ANTENNA ENCLOSURE IN LANE #2</td>
<td>ELECTRICIAN</td>
</tr>
</tbody>
</table>

**NOTE:** ALL WIRING FOR ICS EQUIPMENT TO BE RUN BY AN ELECTRICIAN AND MUST BE A SINGLE CABLE FROM POINT TO POINT. SPLICING OF WIRES IS NOT ALLOWED.

---

**Figure 19. Low Voltage Wire Schedule**
**Programming the Sonic Sensor or Sense Car in an Auto Sentry Flex**

***NOTE: THIS PROGRAMMING GUIDE IS FOR THE ROUND WHITE/GREEN SONIC SENSOR IN THE FACE OF THE AUTO SENTRY FLEX -- NOT THE ORANGE SENSOR***

1. Unlock and open the Auto Sentry Flex base door. Disconnect BROWN wire from the +24v terminal block.

2. Place an object in front of the sensor at the same distance away from the Auto Sentry Flex that a car would normally be when parked at the payment terminal at approximately 32". (Use a large object like a metal sign or something similar works best). See Fig. 1.

3. With the object in place, touch the white Program Sense Car wire to the +24 orange terminal block and hold while the sensor flashes yellow. Hold until the sensor flashes red, then hold for a few more seconds. See Fig. 3.

4. Move the wire off of the +24 orange terminal block. See Fig. 3.

5. Move the object away from the area.

6. Touch the white programming wire to the -24 Blue terminal block, until the sensor flashes red. See Fig. 3.

7. Move the wire off of the -24 Blue terminal block. See Fig. 3.

8. Test the sonic sensor by pulling a car up to the Auto Sentry Flex. You should see the sense car on the SIO board light up.

9. Close and lock the Auto Sentry Flex base door.

---

**Figure 20. Sense Car Programming**
CHAPTER 4: Parts Identification

This chapter provides details on identifying exterior and interior components and locations. Both exterior and interior components, wires, accessories, and the rest are available for purchase or reorder.

The Auto Sentry® flex also includes 11 plastic panels to fit the exterior of the metal unit. Panels may be purchased separately.

**NOTE:** If you cannot find the part in the following diagrams, contact ICS sales for more information: 1-800-642-9396.
### Exterior Components

![Image: Auto Sentry® flex Chip and PIN Exterior (Verifone® shown)]

<table>
<thead>
<tr>
<th>#</th>
<th>ICS Part Number</th>
<th>Description</th>
<th>#</th>
<th>ICS Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PIN pad* varies by processor:</td>
<td></td>
<td>7</td>
<td>Contactless reader* varies by processor:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CPFDPINAD</td>
<td>First Data® Verifone® UX100 PIN Pad (Shown in Figure 23)</td>
<td></td>
<td>CPFDCONTREAD</td>
<td>First Data® Verifone® UX400 (Shown in Figure 23)</td>
</tr>
<tr>
<td></td>
<td>CPMOPINPAD</td>
<td>Moneris® Canada UX100 PIN Pad</td>
<td></td>
<td>CPFDCONTREAD1</td>
<td>First Data® ID TECH® NFC</td>
</tr>
<tr>
<td>2</td>
<td>AS2TOUCH15Z2</td>
<td>15” touch screen</td>
<td>8</td>
<td>SCN-000002-00</td>
<td>Barcode reader</td>
</tr>
<tr>
<td>3</td>
<td>Card Reader* varies by processor:</td>
<td></td>
<td>9</td>
<td>AS2COINACC</td>
<td>Coin acceptor</td>
</tr>
<tr>
<td></td>
<td>CPFDCARDREAD</td>
<td>First Data® Verifone® UX300 (Shown in Figure 23)</td>
<td></td>
<td>AS3BILLACC2800</td>
<td>Bill acceptor, upstacker</td>
</tr>
<tr>
<td></td>
<td>CPFDCARDREAD1</td>
<td>First Data® ID TECH® VP5300</td>
<td></td>
<td>AS2COINACC</td>
<td>Coin acceptor and coin return cup</td>
</tr>
<tr>
<td></td>
<td>ASCARDREAD1ASK</td>
<td>Transaction Express® ID TECH®</td>
<td></td>
<td>AS2COINFLIP</td>
<td>Coin flip door (not shown)</td>
</tr>
<tr>
<td>4</td>
<td>ASPRHEC</td>
<td>USB printer</td>
<td>10</td>
<td>AS3BILLACC2800</td>
<td>Bill acceptor, upstacker</td>
</tr>
<tr>
<td>5</td>
<td>ASPEAKER</td>
<td>Speaker for the Auto Sentry</td>
<td>11</td>
<td>AS2COINACC</td>
<td>Coin acceptor and coin return cup</td>
</tr>
<tr>
<td>6</td>
<td>AS2INTERCOMSP</td>
<td>Speaker for intercom</td>
<td>12</td>
<td>AS2COINFLIP</td>
<td>Coin flip door (not shown)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AS2INTERCOMBTN</td>
<td>Intercom push button not shown but would be located next to the Coin Acceptor.</td>
<td></td>
<td>CAMERAASSM1</td>
<td>Camera assembly not shown but typically can be installed between the PIN pad and the Card Reader.</td>
</tr>
<tr>
<td></td>
<td>AS3CARDCHUTE</td>
<td>Gift card dispenser chute not available with Chip and PIN.</td>
<td></td>
<td>SENSOR-18MML</td>
<td>Replacement Sensor only not shown.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gift card dispenser</td>
<td></td>
<td>ASLOOPELECEYEAS</td>
<td>Sonic Sensor assembly not shown.</td>
</tr>
</tbody>
</table>

Table 4: Auto Sentry Flex Exterior
Interior Components Upper-Left Chamber (Non-EMV)

Interior components vary by credit card processor. The components shown below are for a non-EMV Auto Sentry flex.

Table 5: Upper-left Chamber Components

<table>
<thead>
<tr>
<th>#</th>
<th>ICS Part Number</th>
<th>Description</th>
<th>#</th>
<th>ICS Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AS2PWRC</td>
<td>Power supply +5 +12 +24 +36 V DC</td>
<td>2</td>
<td>CAMERAASSM</td>
<td>Camera assembly</td>
</tr>
<tr>
<td>3</td>
<td>ASCARDREAD1ASK</td>
<td>Transaction Express® ID TECH® Card Reader</td>
<td>4</td>
<td>AS2COINACC</td>
<td>Coin acceptor</td>
</tr>
<tr>
<td>5</td>
<td>AS2INTERCOMBTN</td>
<td>Intercom button</td>
<td>6</td>
<td>AS3BILLACCU2800</td>
<td>Bill Acceptor</td>
</tr>
<tr>
<td>7</td>
<td>ASP5SWITCH</td>
<td>Power Switch Illuminated</td>
<td>8</td>
<td>ASPUSHBUT</td>
<td>Push button for service</td>
</tr>
<tr>
<td>9</td>
<td>AS3CARDCHUTE</td>
<td>Gift Card or Wash Book Card dispenser</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Interior Components Upper-Left Chamber (Non-EMV)

![Figure 23. Upper-left Chamber Components (Non-EMV)](image)

<table>
<thead>
<tr>
<th>#</th>
<th>ICS Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ASCARDREAD1SP</td>
<td>Security plate for the card reader</td>
</tr>
<tr>
<td>2</td>
<td>ASEMIFILTER</td>
<td>EMI filter for AC V</td>
</tr>
<tr>
<td>3</td>
<td>H/CCONTROLBD1</td>
<td>Heater/cooler control board</td>
</tr>
<tr>
<td>4</td>
<td>ASTERMB</td>
<td>Terminal Blocks</td>
</tr>
<tr>
<td></td>
<td>AS2TERMBRK10</td>
<td>10-Amp fuses US</td>
</tr>
<tr>
<td></td>
<td>AS2TERMBRK6</td>
<td>6-Amp fuses US</td>
</tr>
<tr>
<td></td>
<td>BREAKER5AMP</td>
<td>5-Amp fuses EU</td>
</tr>
<tr>
<td></td>
<td>AS2TERMBLOCKGND</td>
<td>(2 or 3) Terminal block, ground</td>
</tr>
<tr>
<td></td>
<td>AS2TERMBLOCKW</td>
<td>(2) Terminal block, AC, white</td>
</tr>
</tbody>
</table>

Table 6: Upper-Left Chamber Components (Non-EMV)
# Interior Components Upper-left Chamber (Chip and PIN)

Payment parts vary based on the credit card processor in the upper-left chamber.

![Image of interior components](Image)

**Figure 24. Interior Components Upper-left Chamber (Chip and PIN)**

<table>
<thead>
<tr>
<th>#</th>
<th>ICS Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Contactless reader</strong>&lt;sup&gt;*&lt;/sup&gt; varies by processor:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CPFDCONTREAD</td>
<td>First Data Verifone® UX400 (Shown in Figure 26)</td>
</tr>
<tr>
<td></td>
<td>CPFDCONTREAD1</td>
<td>First Data® ID TECH® NFC</td>
</tr>
<tr>
<td></td>
<td>CPMOCONTREAD</td>
<td>Moneris® Canada Verifone® UX400</td>
</tr>
<tr>
<td>2</td>
<td><strong>PIN pad</strong>&lt;sup&gt;*&lt;/sup&gt; varies by processor:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CPFDPINAD</td>
<td>First Data® Verifone® UX100 PIN Pad&lt;sup&gt;*&lt;/sup&gt; (Shown in Figure 26)</td>
</tr>
<tr>
<td></td>
<td>CPMOPINPAD</td>
<td>Moneris® Canada UX100 PIN Pad&lt;sup&gt;*&lt;/sup&gt;</td>
</tr>
<tr>
<td>3</td>
<td>CAMERAASSM1</td>
<td>Camera assembly (Location is shown)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This is an optional feature</td>
</tr>
<tr>
<td>4</td>
<td>AS3ENCSECW1</td>
<td>Security Wall</td>
</tr>
<tr>
<td>5</td>
<td><strong>Card Reader</strong>&lt;sup&gt;*&lt;/sup&gt; varies by processor:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CPFDCARDREAD</td>
<td>First Data® Verifone® UX300 (Shown in Figure 26)</td>
</tr>
<tr>
<td></td>
<td>CPFDCARDREAD1</td>
<td>First Data® ID TECH® VP5300</td>
</tr>
<tr>
<td></td>
<td>ASCARDREAD1ASK</td>
<td>Transaction Express® ID TECH® Card Reader</td>
</tr>
<tr>
<td></td>
<td>CPMOCARDREAD</td>
<td>Moneris® Canada Verifone® UX300</td>
</tr>
</tbody>
</table>

**NOTE:** Gift/Wash Card Dispenser (not available with Chip N PIN)

*Table 7: Upper-Left Chamber Components (Chip and PIN)*
Interior Coin Hopper in Upper-Right Chamber

![Image of Interior Coin Hopper in Upper-Right Chamber]

Figure 25. Upper-right chamber Coin Hopper

<table>
<thead>
<tr>
<th>#</th>
<th>ICS Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ASCOINHOP25</td>
<td>Coin hopper for 0.25 denominations</td>
</tr>
<tr>
<td>1</td>
<td>ASCOINHOP01</td>
<td>Coin hopper for 0.01 denominations</td>
</tr>
<tr>
<td>1</td>
<td>ASCOINHOP05</td>
<td>Coin hopper for 0.05 denominations</td>
</tr>
<tr>
<td>1</td>
<td>ASCOINHOP100</td>
<td>Coin hopper for 1.00 denominations</td>
</tr>
</tbody>
</table>

Table 8: Coin Hopper Part Numbers
Interior Components Upper-Right Chamber

Figure 26. Interior Components, Upper-Right Chamber

Figure 27. Electronic Vibration Detector
<table>
<thead>
<tr>
<th>ICS Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1   AS3DISPASSM1</td>
<td>Secure Heavy Duty (Bolted) Display includes screen and mounted panel for screen. Models after October 2016 use this display</td>
</tr>
<tr>
<td>AS3DISPASSM</td>
<td>Standard (Screwed) Display includes screen and mounted panel for screen. Models after October 2016 do not use this display</td>
</tr>
<tr>
<td>2   AS2TOUCH15ZCNCD</td>
<td>Touch Controller Card</td>
</tr>
<tr>
<td>3   ASPRHEC</td>
<td>Receipt printer</td>
</tr>
<tr>
<td>4   AS3ENCCRC</td>
<td>Coin cup</td>
</tr>
<tr>
<td>5   MB1-AS3-0-A</td>
<td>Mother board</td>
</tr>
<tr>
<td>6   AS3ENCHCHAINBKT</td>
<td>Bracket</td>
</tr>
<tr>
<td>7   AS2CHAIN</td>
<td>Cable chain for coin drawer</td>
</tr>
<tr>
<td>8   ASSPEAKER</td>
<td>Speaker</td>
</tr>
<tr>
<td>9   ASBSIO</td>
<td>SIO board***</td>
</tr>
<tr>
<td>10  AS3DRSW</td>
<td>Switch, Door Trigger Magnetic (2 pieces included for complete switch)</td>
</tr>
<tr>
<td>11  VIBRATIONSEN</td>
<td>Electronic Vibration Detector Only</td>
</tr>
<tr>
<td>VIBRATIONSENASSM</td>
<td>Electronic Vibration Detector System Kit</td>
</tr>
<tr>
<td>DISPIN15N</td>
<td>Inverter for 15&quot; display* (not shown)</td>
</tr>
<tr>
<td>AS2BDHOPPER</td>
<td>Coin hopper board** (not shown)</td>
</tr>
<tr>
<td>ASLOOPELECEYEAS</td>
<td>Electric eye sensor assembly</td>
</tr>
</tbody>
</table>

Table 9: Upper-Right Chamber Interior Components

* Used on models before October 2013.
** Coin hopper board is only used if PIO board is present.
*** Models before 2014 may have been a PIO board. Upgrade to SIO is available.
Rear Door Components

![Rear Door Components Interior](image)

**Figure 28. Rear Door Components Interior**

<table>
<thead>
<tr>
<th>ICS Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ASDRLOCK</td>
<td>Door lock</td>
</tr>
<tr>
<td>1 ASDRKEY</td>
<td>Door lock key</td>
</tr>
<tr>
<td>2 AS3HEATCOOL-1</td>
<td>Heat assembly</td>
</tr>
</tbody>
</table>

*Table 10: Rear Door Components Interior*
## Security Locks

**Figure 29. Security Locks**

<table>
<thead>
<tr>
<th>#</th>
<th>ICS Part Number</th>
<th>Description</th>
<th>#</th>
<th>ICS Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AS3ENCCFRMDLBHDL</td>
<td>Double security lock frame (Top of Flex head)</td>
<td>3</td>
<td>AS3ENCFRMBSDL</td>
<td>Single lock frame (Base of Auto Sentry Flex)</td>
</tr>
<tr>
<td>2</td>
<td>AS3ENCCFRMSGLHDL</td>
<td>Single security lock frame (Bottom of Right Chamber)</td>
<td></td>
<td>AS3ENCBUSHBSDL</td>
<td>Bushing</td>
</tr>
<tr>
<td></td>
<td>AS3ENCBUSHHDL</td>
<td>Bushing</td>
<td></td>
<td>AS3ENCBLTBSDL</td>
<td>Bolt</td>
</tr>
<tr>
<td></td>
<td>AS3ENCCFRMDBLHDL</td>
<td>Bolt</td>
<td></td>
<td>AS3ENCBLKBSDL</td>
<td>Block</td>
</tr>
<tr>
<td></td>
<td>AS3ENCHBLKHDLD</td>
<td>Block</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 11: Security Locks
**Figure 30. Base of Auto Sentry, Right-side**

![Base of Auto Sentry, Right-side](image)

<table>
<thead>
<tr>
<th>ICS Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 AS3HEATCOOL-1</td>
<td>Heat exchanger</td>
</tr>
<tr>
<td>2 ASDRLOCK</td>
<td>Door lock</td>
</tr>
<tr>
<td></td>
<td>ASDRKEY</td>
</tr>
<tr>
<td>3 PWRSUP24V</td>
<td>Power supply</td>
</tr>
<tr>
<td>4 H/CONTROLBD1</td>
<td>Heating/cooling control board in the base</td>
</tr>
</tbody>
</table>

*Table 12: Base of Auto Sentry, Right-side*
### Base of Auto Sentry® flex

**Figure 31. Base of Auto Sentry with Gen Mega Bill dispenser tray**

<table>
<thead>
<tr>
<th>#</th>
<th>ICS Part Number</th>
<th>Description</th>
<th>#</th>
<th>ICS Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AS3ENCBILLCUP</td>
<td>Bill dispensing cup where the bills drop down for customer’s retrieval</td>
<td>BILL DISPENSERS:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>APR9900PLUS*</td>
<td>Auto Passport system—RFID tag reader. *Only available for replacement on existing models.</td>
<td>BDNMD50ASM</td>
<td>Talaris (DeLaRue) Single Bill Dispenser</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>(This is part of the enclosure)</td>
<td>Bill Dispenser track</td>
<td>BD3NMD50DASM</td>
<td>Talaris (DeLaRue) Dual Bill Dispenser</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1 AS2TERM 1 AS2TERMBLOCKB 1 AS2TERMBLOCKW 1 AS2TERMBRK10 1 BREAKERS52P</td>
<td>Power terminal blocks for the heat exchanger in the base of the Auto Sentry 10 Amp fuse US 10 Amp fuse EU</td>
<td>BD-GEND-A</td>
<td>Gen Mega Bill Dispenser Dual Only (Shown)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>AS2CBL61</td>
<td>Universal Bill Dispenser COM Cable Wires run behind bill dispenser</td>
<td>BD400ASM</td>
<td>Fujitsu Bill Dispenser</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Original Bill Dispenser Power Cable</td>
<td>BD3400DASM</td>
<td>Fujitsu Dual Bill Dispenser</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AS3CBL03D</td>
<td>First Generation Auto Sentry Flex had a dedicated 3-PIN Power Cable for the bill dispenser</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 13: Side Chamber with Bill Dispenser Tray**
**Bill Dispenser Drawer**

If you ordered your Auto Sentry with bill dispenser, the drawer is installed. It is universal and handles all upright walls for all the dispensers. If they never had a bill dispenser, this drawer will need to be ordered.

**Bill Dispenser Mounting Tray**

The tray mounts between the walls on which the bill dispenser mounts to. The following notes will breakdown the mounting tray ordering details:

1. If the Auto Sentry did not have a bill dispenser installed, and you are placing an order for a bill dispenser for the first time, a mounting tray will need to be ordered.

2. If currently have a Dela rue bill dispenser and are changing to a Fujitsu or a GenMega, new side walls and a tray will need to be ordered.

3. If currently have a MultiMech bill dispenser and are changing to a Fujitsu or GenMega, no need to order because the drawer tray is the same for all of these bill dispensers. However, if making the change to a GenMega only, new side walls will need to be ordered.
Plastic Panel Identification

The Auto Sentry® flex includes 11 plastic panels. The following drawings identify the part numbers for each panel.

Top View

<table>
<thead>
<tr>
<th>Table 14: Top View</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ICS Part Number</strong></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Bottom View

![Auto Sentry Flex Bottom View](image)

**Figure 35. Auto Sentry Flex Bottom View**

<table>
<thead>
<tr>
<th>Location</th>
<th>ICS Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AS3BF</td>
<td>Bottom filler panel (Blue)</td>
</tr>
<tr>
<td></td>
<td>AS3BF-G</td>
<td>Bottom filler panel (Gray)</td>
</tr>
</tbody>
</table>

*Table 15: Bottom View*

Front View

![Auto Sentry Flex Front View](image)

**Figure 36. Auto Sentry Flex Front View**

<table>
<thead>
<tr>
<th>Location</th>
<th>ICS Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AS3FP1A</td>
<td>Front panel with front facing scanner (Blue)</td>
</tr>
<tr>
<td></td>
<td>AS3FP-G1A</td>
<td>Front panel with front facing scanner (Gray)</td>
</tr>
<tr>
<td>2</td>
<td>AS3FPL</td>
<td>Front panel lower (Blue)</td>
</tr>
<tr>
<td></td>
<td>AS3FPL-G</td>
<td>Front panel lower (Gray)</td>
</tr>
</tbody>
</table>

*Table 16: Front View*
### Rear View

![Auto Sentry Flex Rear View](image)

**Figure 37. Auto Sentry Flex Rear View**

<table>
<thead>
<tr>
<th>Location</th>
<th>ICS Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AS3RDL</td>
<td>Rear door left (Blue)</td>
</tr>
<tr>
<td></td>
<td>AS3RDL-G</td>
<td>Rear door left (Gray)</td>
</tr>
<tr>
<td>2</td>
<td>AS3RP</td>
<td>Rear panel (Blue)</td>
</tr>
<tr>
<td></td>
<td>AS3RP-G</td>
<td>Rear panel (Gray)</td>
</tr>
<tr>
<td>3</td>
<td>AS3RDR</td>
<td>Rear door right (Blue)</td>
</tr>
<tr>
<td></td>
<td>AS3RDR-G</td>
<td>Rear door right (Gray)</td>
</tr>
</tbody>
</table>

**Table 17: Rear View**
### Left-side View

**Figure 38. Auto Sentry Flex Left-Side View**

<table>
<thead>
<tr>
<th>Location</th>
<th>ICS Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AS3LPU</td>
<td>Left panel upper (Blue)</td>
</tr>
<tr>
<td></td>
<td>AS3LPU-G</td>
<td>Rear door right (Gray)</td>
</tr>
<tr>
<td>2</td>
<td>AS3LPL</td>
<td>Left panel lower (Blue)</td>
</tr>
<tr>
<td></td>
<td>AS3LPL-G</td>
<td>Left panel lower (Gray)</td>
</tr>
</tbody>
</table>

*Table 18: Left-Side View*
Right-Side View

Figure 39. Auto Sentry Flex Right-Side View

<table>
<thead>
<tr>
<th>Location</th>
<th>ICS Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AS3RPU</td>
<td>Right panel upper (Blue)</td>
</tr>
<tr>
<td></td>
<td>AS3RPU-G</td>
<td>Right panel upper (Gray)</td>
</tr>
<tr>
<td>2</td>
<td>AS3SD</td>
<td>Side door (Blue)</td>
</tr>
<tr>
<td></td>
<td>AS3SD-G</td>
<td>Side door (Gray)</td>
</tr>
</tbody>
</table>

Table 19: Right-Side View
Index

A
Amperage, 30
AS2BDHOPPER, 42
AS2BILLDISPFLIP, 36
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AS2CHAIN, 42
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AS2INTERCOMSP, 36
AS2PWRC, 37
AS2TERMB, 46
AS2TERMBLOCKB, 46
AS2TERMBLOCKGND, 38
AS2TERMBLOCKWK, 38, 46
AS2TERMBRKR10, 38, 46
AS2TERMBRK6, 38
AS2TOUCH15Z, 36
AS3BF, 49
AS3CBL03D, 46
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AS3FPL, 49
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### Document Change History

Table 20: Document Change History

<table>
<thead>
<tr>
<th>Document Version</th>
<th>Date(s)</th>
<th>Contributor Initials</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5</td>
<td>7/11/19-1/7/20</td>
<td>WS, NR, AC</td>
<td>Third release. Drawings and images have been updated. Removal of old RFID and addition of new all-in-one RFID reader/antenna.</td>
</tr>
</tbody>
</table>
If you have any questions or concerns, please contact ICS Technical Support: 800-246-3469.

MISSION STATEMENT:

It is our passion to leverage our experience as car wash operators, our position as a Market Leader, and our ability to incorporate advanced technology into Visionary products, which enables our Customers to differentiate their operations, achieve a distinct competitive advantage, and maximize their earnings.