



Supported In-Bay Wash Equipment by Manufacturer Information

Technical Brief - Version 2.0
March 8, 2018



Defining the World of Car Wash Technology

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Our mission: To help car wash operators build successful businesses through advanced control, payment, and management solutions.

This document provides information for the specified In-Bay wash equipment and covers the various controllers to which the Auto Sentry can interface. The following table provides settings, including error handling, and output firing details.

Equipment	Outputs Fired Auto Sentry Petro / Auto Sentry Flex Base Extra		Output Timing	Error Handling	Other Considerations
AUTEC PR 156			N/A	N/A	N/A
<i>Belanger®</i>	Y	Y	<p>The outputs are cumulative where the base wash output is remembered and the extra service output is simply added to whatever base was selected.</p> <p>The <i>Auto Sentry flex</i> will fire the outputs associated with the base as well as those associated with any upgrade that was provided. The outputs are fired quickly, so they appear to be sequential as they are fired. But they all remain on simultaneously for the length of time determined by the defined wash equipment.</p> <p><i>Belanger</i> remains on until a Wash Busy signal is received or Gross Timeout is reached.</p>	<p>The Auto Sentry flex will go offline if it sees a signal from the <i>Belanger</i> on the wash busy input. When <i>Belanger</i> goes into an error mode, the equipment turns OFF the Wash Busy signal for a second, turns it ON for a second, turns it OFF for a second, then turns it ON for a second.</p> <p>The Wash Busy signal will then shut OFF for a short period of time (3 seconds), and then stays ON until the situation is resolved.</p>	N/A
<i>Belanger®</i> FREESTYLE	Y	Y	<p><i>Belanger Freestyle</i> remains on until a Wash Busy signal is received or Gross Timeout is reached.</p> <p>If extra is selected than Base = N otherwise Base = Y. Extra = Y.</p>	<p>So when it sees the Wash Busy go ON for a second, OFF for a second, and stay ON until resolved, it will enter into error mode.</p> <p>If you attempt to emulate the typical <i>Belanger</i> error sequence for the <i>Belanger FreeStyle</i> selection, it will ignore the sequence.</p> <p>A separate configuration variable, "WashEquipment," in Touch database should be set to "PDQ-G5", or "PDQ-4000" depending upon the wash equipment. By default, it is always set to NULL.</p> <p>Make sure the WashOpen input is manually set to high while using the error handling method.</p> <p>Fire service will stay on only for two seconds to meet PDQ-4000 laser equipment specifications.</p> <p>The "WashEqptErrTmr" field handles equipment errors when wash goes busy.</p> <p>Service fires after a delay so that error condition is handled properly.</p> <p>When system goes into error mode when wash is busy, it will wait for the WashEqptErrTmr before closing the wash.</p>	N/A

Equipment	Outputs Fired Auto Sentry Petro / Auto Sentry Flex Base Extra		Output Timing	Error Handling	Other Considerations
<i>Belanger</i> ® FREESTYLE 2	Y	Y	<p><i>Belanger Freestyle</i> remains on until a Wash Busy signal is received or Gross Timeout is reached.</p> <p>Added new wash equipment "Belanger FreeStyle 2"</p> <p>Added configurable variable "ExtraServiceHoldTime"</p> <p>Software now turns on only base service and waits for WashBusy to go low to send any extra services.</p> <p>Extra service are cleared when an input is read "High" on ReservedInput2 or "ExtraServiceHoldTime" expires.</p> <p>On the PIO board, ReservedInput2 has to be wired to get input from Belanger FreeStyle2</p>	N/A	N/A
<i>Belanger</i> ® VECTOR	N	Y	<p><i>Belanger Vector</i> remains on until a Wash Busy signal is received or Gross Timeout is reached.</p> <p>If extra is selected than Base = N otherwise Base = Y. Extra = Y.</p>	<p>The Auto Sentry flex will go offline if it sees a signal from the <i>Belanger Vector</i> on the wash busy input. When <i>Belanger Vector</i> goes into an error mode, the equipment turns OFF the Wash Busy signal for a second, turns it ON for a second, turns it OFF for a second, then turns it ON for a second.</p> <p>The Wash Busy signal will then shut OFF for a short period of time (3 seconds), and then stays ON until the situation is resolved.</p>	N/A

Equipment	Outputs Fired Auto Sentry Petro / Auto Sentry Flex Base Extra		Output Timing	Error Handling	Other Considerations
CECCATO	N	Y	<p>Outputs fired as binary, if extra bought base does not get fired.</p> <p>When there is a base and extra service, only the extra service output will be fired.</p> <p>If base is selected, fires base.</p> <p>If extra is selected, fires only the extra service binary output.</p> <p>All the outputs go as binary mapped to S1, S2, S3, S\$, S5, S6, S7, S8, S9 (S being service not 's').</p> <p>Accepts services as binary numbers with a maximum decimal value of 15.</p> <p>PIO Outputs Mapped S4 S3 S2 S1 to Services 1 thru 9</p> <p>0 0 0 1 Service 1 0 0 1 0 Service 2 0 0 1 1 Service 3 0 1 0 0 Service 4 0 1 0 1 Service 5 0 1 1 0 Service 6 0 1 1 1 Service 7 1 0 0 0 Service 8 1 0 0 1 Service 9 1 0 1 0 Service 10 1 0 1 1 Service 11 1 1 0 0 Service 12 1 1 0 1 Service 13 1 1 1 0 Service 14 1 1 1 1 Service 15</p> <p>System can continue using the binary system through the outputs 5-9 on the PIO board.</p>	<p>If wash busy is high and then wash open drops system will go into error mode, once wash busy drops then wash open comes back online, system will allow next car to enter the bay.</p>	<p>MachineReady(High) -> WashBusy(Low) MachineReady(Low) -> WashBusy(High)</p>

Equipment	Outputs Fired Auto Sentry Petro / Auto Sentry Flex Base Extra		Output Timing	Error Handling	Other Considerations
CECCATO 2	N	Y	<p>Outputs fired as binary, if extra bought base does not get fired.</p> <p>When there is a base and extra service, only the extra service output will be fired.</p> <p>If base is selected, fires base.</p> <p>If extra is selected, fires only the extra service binary output.</p> <p>All the outputs go as binary mapped to S1, S2, S3, S\$, S5, S6, S7, S8, S9 (S being service not 's').</p> <p>Accepts services as binary numbers with a maximum decimal value of 15.</p> <p>PIO Outputs mapped S4 S3 S2 S1 to Services 1 thru 9</p> <p>0 0 0 1 Service 1 0 0 1 0 Service 2 0 0 1 1 Service 3 0 1 0 0 Service 4 0 1 0 1 Service 5 0 1 1 0 Service 6 0 1 1 1 Service 7 1 0 0 0 Service 8 1 0 0 1 Service 9 1 0 1 0 Service 10 1 0 1 1 Service 11 1 1 0 0 Service 12 1 1 0 1 Service 13 1 1 1 0 Service 14 1 1 1 1 Service 15</p> <p>System can continue using the binary system through the outputs 5-9 on the PIO board.</p>	N/A	N/A

Equipment	Outputs Fired Auto Sentry Petro / Auto Sentry Flex Base Extra		Output Timing	Error Handling	Other Considerations
D&S Odyssey™	Y	Y	<p>The outputs for both base and extra selections will be fired, instead of just the extra service. The outputs will only be fired for approximately two seconds. Otherwise, this setting follows the specifications of the PDQ-4000 for output firing.</p>	<p>It will enter an error condition if it sees the WashBusy signal go ON for a second, OFF for a second, and then stays ON until resolved. Otherwise, this setting follows the following specifications for error handling:</p> <p>A separate configuration variable, "WashEquipment," in Touch database should be set to "PDQ-G5", or "PDQ-4000" depending upon the wash equipment.</p> <p>By default, it is always set to NULL.</p> <p>Make sure the WashOpen input is manually set to high while using the error handling method.</p> <p>Fire service will stay on only for two seconds to meet PDQ-4000 laser equipment specifications.</p> <p>The "WashEqptErrTmr" field handles equipment errors when wash goes busy.</p> <p>Service fires after a delay so that error condition is handled properly.</p> <p>When system goes into error mode when wash is busy, it will wait for the WashEqptErrTmr before closing the wash.</p>	<p>Functions exactly as a PDQ-4000, except for the delay. The WashBusy signal is delayed by a variable amount of time because the equipment will get a WashBusy signal 0—8 seconds before is should actually want to accept it.</p> <p>As part of this functionality, the equipment will also look for the DriveAheadHoldTime variable because this is the length of time that the drive ahead screen will stay up if a WashBusy signal is seen instantly.</p> <p>For more information on DriveAheadHoldTime, see "Control settings are the main control options which govern how the Auto Sentry flex operates." on page 157.</p>

Equipment	Outputs Fired Auto Sentry Petro / Auto Sentry Flex Base Extra		Output Timing	Error Handling	Other Considerations
ECOJET	N	Y	<p>Services fired as binary, only extra is selected. Outputs fired as binary, if extra bought base does not get fired. When there is a base and extra service, only the extra service output will be fired. If base is selected, fires base. If extra is selected, fires only the extra service binary output. All the outputs go as binary mapped to S1, S2, S3, S\$, S5, S6, S7, S8, S9 (S being service not 's'). Accepts services as binary numbers with a maximum decimal value of 15.</p> <p>PIO Outputs mapped S4 S3 S2 S1 to Services 1 thru 9 0 0 0 1 Service 1 0 0 1 0 Service 2 0 0 1 1 Service 3 0 1 0 0 Service 4 0 1 0 1 Service 5 0 1 1 0 Service 6 0 1 1 1 Service 7 1 0 0 0 Service 8 1 0 0 1 Service 9 1 0 1 0 Service 10 1 0 1 1 Service 11 1 1 0 0 Service 12 1 1 0 1 Service 13 1 1 1 0 Service 14 1 1 1 1 Service 15</p> <p>System can continue using the binary system through the outputs 5-9 on the PIO board.</p>	<p>If wash busy is high and then wash open drops system will go into error mode, once wash busy drops then wash open comes back online system will allow next car to enter the bay.</p>	<p>N/A</p>

Equipment	Outputs Fired Auto Sentry Petro / Auto Sentry Flex Base Extra		Output Timing	Error Handling	Other Considerations
<i>Istobal®</i>	N	Y	<p>When there is a base and extra service, only the extra service output will be fired. If base is selected, fires base. If extra is selected, fires only the extra service binary output. All the outputs go as binary mapped to S1, S2, S3 & S4 (S being service not 's'). Accepts services as binary numbers with a maximum decimal value of 15. When there is a base and extra service, only the extra service output will be fired. If base is selected, fires base. If extra is selected, fires only the extra service binary output. All the outputs go as binary mapped to S1, S2, S3, S4, S5, S6, S7, S8, S9 (S being service not 's'). Accepts services as binary numbers with a maximum decimal value of 15.</p> <p>PIO Outputs mapped S4 S3 S2 S1 to Services 1 thru 9 0 0 0 1 Service 1 0 0 1 0 Service 2 0 0 1 1 Service 3 0 1 0 0 Service 4 0 1 0 1 Service 5 0 1 1 0 Service 6 0 1 1 1 Service 7 1 0 0 0 Service 8 1 0 0 1 Service 9 1 0 1 0 Service 10 1 0 1 1 Service 11 1 1 0 0 Service 12 1 1 0 1 Service 13 1 1 1 0 Service 14 1 1 1 1 Service 15</p> <p>System can continue using the binary system through the outputs 5-9 on the PIO board.</p>	<p>WashOpen drops, and then WashBusy. When the WashOpen comes up, the system should program the next car as WashBusy has already dropped during error. Handled situations where Wash Open and Busy dropping together. When the WashOpen comes-up, the system should program the next car as WashBusy has already dropped during error.</p>	<p>WashOpen will be up all the time. WashOpen drop, system in error mode. WashBusy indicates wash is being used. WashBusy drop indicates we can program the next wash. WashOpen gives equipment status. WashBusy goes high when wash is busy and drops low for Auto Sentry flex to program the next car.</p>

Equipment	Outputs Fired Auto Sentry Petro / Auto Sentry Flex Base Extra		Output Timing	Error Handling	Other Considerations
Istobal® M18	N	Y	<p>Services fired as binary, only extra is selected. When there is a base and extra service, only the extra service output will be fired. If base is selected, fires base. If extra is selected, fires only the extra service binary output. All the outputs go as binary mapped to S1, S2, S3, S\$, S5, S6, S7, S8, S9 (S being service not 's'). Accepts services as binary numbers with a maximum decimal value of 15.</p> <p>PIO Outputs mapped S4 S3 S2 S1 to Services 1 thru 9 0 0 0 1 Service 1 0 0 1 0 Service 2 0 0 1 1 Service 3 0 1 0 0 Service 4 0 1 0 1 Service 5 0 1 1 0 Service 6 0 1 1 1 Service 7 1 0 0 0 Service 8 1 0 0 1 Service 9 1 0 1 0 Service 10 1 0 1 1 Service 11 1 1 0 0 Service 12 1 1 0 1 Service 13 1 1 1 0 Service 14 1 1 1 1 Service 15</p> <p>System can continue using the binary system through the outputs 5-9 on the PIO board.</p>	<p>If wash busy is high and then wash open drops system will go into error mode, once wash busy drops then wash open comes back online. System will allow next car to enter the bay.</p>	N/A
Mark7 PR 2333	Y		Base Y - Output is fired until wash busy is received, then is shut off	When wash open drops, system enters error mode.	N/A
Nustar Comet 2			N/A	N/A	N/A

Equipment	Outputs Fired Auto Sentry Petro / Auto Sentry Flex Base Extra		Output Timing	Error Handling	Other Considerations
PDQ® G5 PDQ® 4000	Y	Y	<p>PDQ-G5 remains on until a Wash Busy signal is received or Gross Timeout is reached.</p> <p>Fire service will stay on only for two seconds to meet PDQ-4000 laser equipment specifications.</p>	<ul style="list-style-type: none"> ▪ WashBusy ON for a second OFF for a second and stays ON until resolved. ▪ Make sure the WashOpen input is manually set to high while using the error handling method. ▪ The "WashEqptErrTmr" field handles equipment errors when wash goes busy. ▪ Service fires after a delay so that error condition is handled properly. ▪ When system goes into error mode when wash is busy, it will wait for the WashEqptErrTmr before closing the wash. 	<p>A separate configuration variable, "WashEquipment," in Touch database should be set to "PDQ-G5", or "PDQ-4000" depending upon the wash equipment. By default, it is always set to NULL.</p>
<i>Ryko®</i>	Y	Y	<p><i>Auto Sentry flex</i> interfaces to <i>Ryko</i> wash equipment as per <i>Ryko</i> RADIUS specifications.</p> <ul style="list-style-type: none"> ▪ Wash equipment selection will be "RYKO" in stations database. ▪ Wash Open High all the time when Inbay is in good working condition. ▪ Wash Busy signal from <i>Ryko</i> when car is being washed or in Inbay. ▪ Service should stay high for 2 seconds for <i>Ryko</i> to accept the Wash. <p>Wash Open will go low for 2 seconds when the car is out of Inbay. This works as signal for <i>AutoSentry</i> eXP & <i>Auto Sentry flex</i> to program the next car.</p>	<p>When Wash Busy high and Wash Open drops low, <i>Ryko</i> enters into error mode. If there are cars queued-up, the <i>Auto Sentry flex</i> system takes care of the situation.</p> <pre> PIO-Board RYKO-RADIUS - Terminal block ===== Wash Open #92 Wash Busy #28 </pre>	<p>In the scenario where a customer buys a wash and leaves without entering the wash, <i>Ryko</i> times-out (configured on the <i>Ryko</i> side from 5 to 60 seconds) and recycles Wash Open by setting Low for two seconds, and then setting it back High. <i>Auto Sentry flex</i> simply resets the Wash Code when it sees a Wash Open cycle from <i>Ryko</i>, thus not waiting for Wash Busy signal.</p> <ul style="list-style-type: none"> ▪ All the <i>Ryko</i> equipment types must be configured as just "RYKO" in the stations database. ▪ RYKO GLOWSOFT drops both Wash Open and Wash Busy together which is a signal to program the next car. The name of equipment still remains the same, "RYKO". <p><i>Ryko</i> has three types of equipment, all of which work on the same protocol. So the name should be simply changed to "RYKO".</p>
<i>Ryko@2</i>	N	Y	<p>RYKO2 follows all of the rules of the RYKO selection for prompting the next wash, error reporting, etc. with the one exception being the way outputs are fired. The RYKO2 selection will fire outputs in the following manner:</p> <ul style="list-style-type: none"> ▪ If only a base service is selected, the assigned output for that base is fired. ▪ If a base and extra service are both selected, only the output for the extra service is fired. <p>This is different from the RYKO output, which will fire both an output for the base and the selected extra service output.</p> <p>Sites wanted the RYKO2 configuration because they needed to have a way to deselect an output if an upgrade is selected. Firing a single output will allow them to set up that type of functionality.</p>	N/A	N/A

Equipment	Outputs Fired		Output Timing	Error Handling	Other Considerations
	Auto Sentry Petro / Auto Sentry Flex	Base Extra			
Ryko® Radius	Y	Y	<p>Auto Sentry flex interfaces to Ryko wash equipment as per Ryko RADIUS specifications.</p> <ul style="list-style-type: none"> Wash equipment selection will be “RYKO” in stations database. Wash Open High all the time when Inbay is in good working condition. Wash Busy signal from Ryko when car is being washed or in Inbay. Service should stay high for 2 seconds for Ryko to accept the Wash. <p>Wash Open will go low for 2 seconds when the car is out of Inbay. This works as signal for AutoSentry eXP & Auto Sentry flex to program the next car.</p>	N/A	N/A
SUPERIOR	Y	Y	N/A	<p>When Wash Busy high and Wash Open drops low, Ryko enters into error mode. If there are cars queued-up, the Auto Sentry flex system takes care of the situation.</p> <p>PIO-Board RYKO-RADIUS - Terminal block</p> <p>=====</p> <p>Wash Open #92 Wash Busy #28</p>	The <i>Auto Sentry flex</i> interfaces to <i>Superior</i> in-bay automatic equipment as per <i>Superior</i> specifications.
TMJ	N	Y	If extra is selected than Base = N otherwise Base = Y.	N/A	N/A
TMJ PLUS	Y	Y	<p>This equipment will fire the base wash, then ½ second later the extra service will be fired.</p> <ul style="list-style-type: none"> Fires Base = Y. Fires Extra = Y. With ½ second delay between firing each output. <p>Requirements for this equipment to work:</p> <ul style="list-style-type: none"> Need to have TMJ Junior chip ver. 7.42 or later. May require a firmware update. Contact ICS support for more information. Base services need to be base within the junior. Extra services need to be extra services in the junior (this setting differs from the TMJ equipment where all the services are base since it only fires the extra service output when set as TMJ). 	N/A	N/A

Equipment	Outputs Fired Auto Sentry Petro / Auto Sentry Flex Base Extra		Output Timing	Error Handling	Other Considerations
WESUMAT	N	Y	<p><i>Wesumat</i> equipment handles one output being fired per wash transaction. When a base service and an extra service are both selected and they are configured to fire different outputs, only the extra service output is fired. The Base service output is not fired in this condition. When only a base service is selected, then its output is fired.</p>	<p>There is no special error handling. The <i>Auto Sentry flex</i> monitors Wash Open to determine if wash is closed.</p> <ul style="list-style-type: none"> ▪ Wash Open is up all the time. ▪ Wash Open drop indicates system in error mode. ▪ Wash Busy indicates wash is being used. ▪ Wash Busy drop indicates system can program the next wash. 	N/A
WASH WORLD RAZOR	Y	Y	N/A	<p>Wash Busy drops first at the end of a wash for 2 seconds, then WashOpen comes back up while WashBusy Drops</p> <p>If WashOpen drops for more than 5 seconds while WashBusy is high, then it is considered a wash equipment error</p>	N/A