

SmartWire Switch Panel

Part number: 500-SW-PNL8

Default Module Configuration Setup:	
Switch Panel Name:	SP1 Inputs
VNet ID:	Switches Panel #1 x18C
Logger Sample Rate	20
Type:	TOGGLE_SWITCH_PANEL
Serial Number:	
Firmware Version:	2
Switch Bus Terminator Resistor	ON

NOTES:

- Requires DataLinkII 3.8.5 or greater
- Requires a SmartWire Extension cable #580-CA-BN5P-xxx for connection to SmartWire or currently installed switch bus devices. xxx refers to the length, available in 6", 12", 18", 24", 36", 48", 60", 72", 84", 96", 108", 120"

Description:

The Switch Panel contains 1 momentary push button, 7 two-way toggle switches, and 8 status LEDs. This device allows a total of 8 inputs into the SmartWire system which can be utilized to operate any of the outputs on the SmartWire System.

Switch Names: Name of each switch. Can be changed to match the function of each switch. It is recommended to start the name with a reference to the type (ex: Switch Panel Input #2 for Ignition = "SP#2 Ignition"). Name must start with a letter. Keep in mind each switch can have multiple functions/outputs due its ability to be used in multiple output control logic windows.

Example; one switch can turn on multiple items (outputs) such as fuel pumps, ignition system together along with other outputs of the SmartWire with one flip of the switch. This along with other logic and Time Delay features can be used to stagger outputs with other inputs/outputs.

Status IDs: The Status ID represents action of the LED lights above the toggle switches. The Status ID can be used to simply monitor the status of the toggle switch (**Switch On x0**) or to indicate the status of any selected output by selecting the channel in the pull-down menu desired to monitor. The Status ID can monitor any selected output channel, regardless of the output channel the switch actually controls.

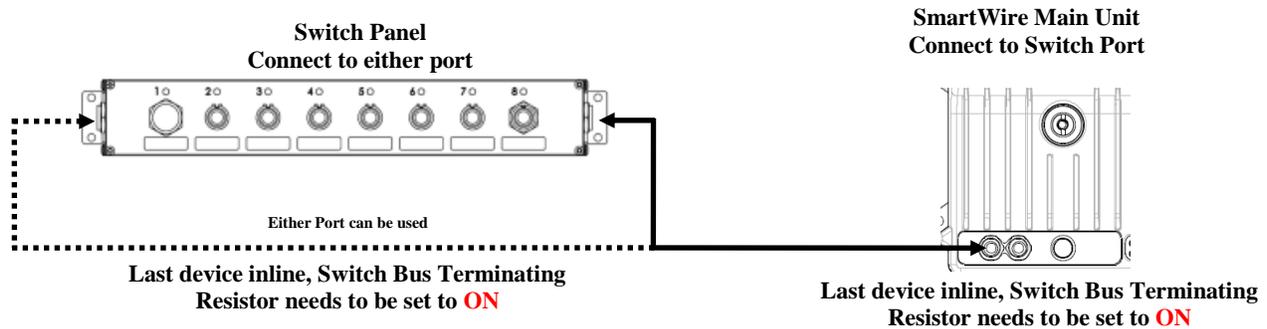
Hardware Installation

NOTE: Once installed, the Terminating Resistor settings must be programmed for each item on the Switch Port in the DataLinkII software. By Default, all items on the Switch Bus are shipped with the Switch Bus Terminating Resistor set to ON. If more than one device is connected to the Switch Port on the SmartWire main unit, only the last items in line must have the Switch Bus Terminating Resistor set to ON, all other devices between last device and the SmartWire main unit, must be set to OFF.

NOTE: Avoid mounting near heat sources and high voltage ignition wires. The Switch Panel must be mounted in a location the temperature does not exceed 185 degrees or the panel will be damaged.

Currently no items connected to the Switch port on the SmartWire main unit:

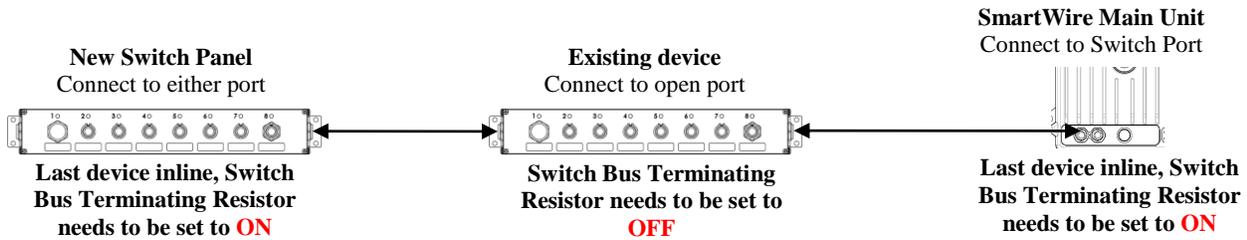
Using the appropriate length cable (#580-CA-BN5P-xxx), connect one end of the cable to the Switch port on the SmartWire main unit, the other end can connect to either port on the Switch Panel.



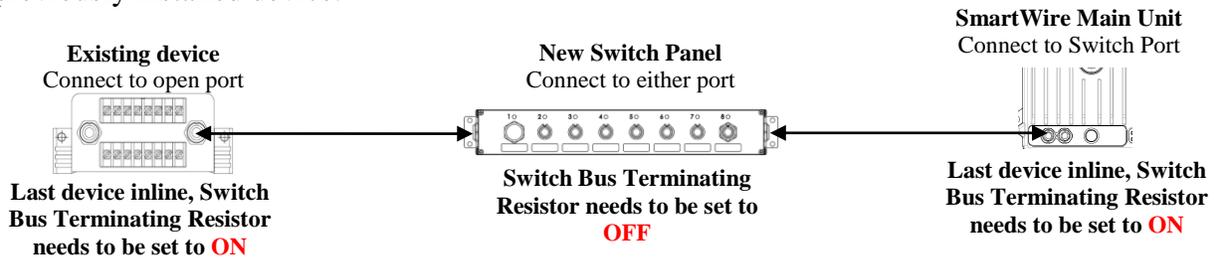
Devices currently connected to the Switch port on the SmartWire main unit:

Depending on the location where you plan to install the Switch Panel, install the Switch Panel in one of the below configurations;

1. Find the open port on the item you have connected to the SmartWire main unit. Using the appropriate length cable (#580-CA-BN5P-xxx), connect one end of the cable to this open port and the other end can connect to either port on the Switch Panel.



2. Unplug the cable connected to the SmartWire main unit Switch Port and plug it into either port on the Switch Panel. Using the appropriate length cable (#580-CA-BN5P-xxx), connect one end of the cable to the open port on the Switch Panel and the other end will connect to either open port on the previously installed device.



NOTE: Devices (Switch Panels and Switch Modules) can be mixed and installed in any order (installed in “series”).

Software Programming

<i>SmartWire used as Stand Alone (with V-Net sensors, No Data Recorder)</i>	<i>SmartWire used with V-Net sensors and Data Recorder</i>
1. Connect PC to SmartWire unit using the USB programming cable supplied with SmartWire unit system. The programming port is located next to the status lights on the SmartWire unit.	1. Connect PC to data recorder using the programming cable supplied with data recorder system.
2. Ensure the main power is turned on for the SmartWire. The Power light will be on and lit Red when power is on.	2. Ensure the main power is turned on for both the SmartWire <u>AND</u> data recorder. The Power light on the SmartWire should be lit Red.
3. Start the DatalinkII program by double clicking on the DatalinkII Program icon located on the Windows desktop of PC.	3. Start the DatalinkII program by double clicking on the DatalinkII Program icon located on the Windows desktop of PC.
4. <u>Open the car configuration file.</u> To open the car configuration file, select File located in the main menu bar across the top of the screen and select Open Car Configuration.	4. <u>Open the car configuration file.</u> To open the car configuration file, select File located in the main menu bar across the top of the screen, and select Open Car Configuration.
5. A dialog box will be opened	5. A dialog box will be opened
6. The list on the left-hand side of the Select Configuration dialog box will display all of the file folders in the RacePakData subdirectory (C:\RacePakData) that contain valid configuration files with a .rcg file extension. <u>Select the SmartWire listing by selecting with the cursor.</u>	6. The list on the left-hand side of the Select Configuration dialog box will display all of the file folders in the RacePakData subdirectory (C:\RacePakData) that contain valid configuration files with a .rcg file extension. <u>Select the item that matches data recorders serial number by left clicking on it with the mouse (shown in example is V300SD 4447).</u>
7. The list on the right will now contain the list of configuration files contained in this folder. The factory configuration file for the SmartWire unit will be located here. Select the OK button.	7. The list on the right will now show the list of configuration files contained in this folder. Select the item which matches the data recorder serial number by left clicking, then the OK button.
Once the configuration file is opened, the Switch Panel can now be synced into the system by performing the following steps.	
8. Select Edit from the menu bar located at the top of the screen, then select Read V-Net Config . Or, select the Read button from the toolbar. 	
9. A message log window will open and start scrolling indicating that reading is in process. If an error is encountered, verify the power is on and the communication cables are connected correct. Click the OK button to close the dialog box and then the Yes button to scan all COM ports. Repeat step 9.	
10. When the message dialog box reads “DEVICES READ SUCCESSFULLY” , click the OK button.	
11. A new channel button  labeled should appear.	
12. Select File from the menu task bar located at the top of the screen.	
13. Click Save to save these current settings to the configuration file.	
Switch Panel is now synced with the SmartWire and ready to be configured for inputs.	

Input Switches - Smart Panel

SP1 Switches

Accessed by right-clicking on the SP1Switches channel button



- **Switch Panel Name:** Channel name for the Switch Panel. Change only if more than one Switch Panel is connected to one SmartWire main unit. *Default=SP1 Switches*
- **Unit Serial#** Serial Number of Switch Panel unit, *Non- programmable*
- **Type:** Device Type, *Non- programmable*
- **Vnet ID:** V-Net ID for the Switch Panel. Change only if more than one Switch Panel is connected to one SmartWire main unit. *Default=SmartWire 1 Switches x190*
- **Logger Sample Rate:** Logging sample rate of this channels when used with a Racepak data logger. *Default=20*
- **Switch Names:** Name of each switch. Can be changed to match the function of each switch. It is recommended to start the name with a reference to the type (ex: Switch Panel Input #2 for Ignition = “SP#2 Ignition”). Name must start with a letter. Keep in mind each switch can have multiple functions/outputs due its ability to be used in multiple output control logic windows.
Example; one switch can turn on multiple items (outputs) such as fuel pumps, ignition system together along with other outputs of the SmartWire with one flip of the switch. This along with other logic and Time Delay features can be used to stagger outputs with other inputs/outputs.

- **Status IDs:** The Status ID represents action of the LED lights above the toggle switches. The Status ID can be used to simply monitor the status of the toggle switch (**Switch On x0**) or to indicate the status of any selected output by selecting the channel in the pull-down menu desired to monitor. The Status ID can monitor any selected output channel, regardless of the output channel the switch actually controls.
 - No Light - indicates output channel is off
 - Green Light - indicates output is on with no delays or blown fuses
 - Orange Light - indicates output has a delay in effect, either waiting to turn on, or waiting to turn off.
 - Red Light - indicates a blown fuse.



NOTE: The Status ID is not selectable for the push button light. This light has two functions:

1. **Shows the operation of the push button (no light off, green light when pushed)**
2. **Shows switch panel has power by a green blink approximately every 4 seconds.**

- **Switch Bus Terminating Resistor:** Determines if the switch panel is internally terminated. Terminating resistor should be ON if one switch panel is installed. If more than one switch panel is installed, the last switch panel should have the terminating resistor turned on, all others should be turned OFF. The SmartWire unit has a setting for its Terminating resistor that needs to be turned ON and the last Switch Panel or Switch Module should have its Terminating resistor turned ON.

Buttons (lower right of window):

- **Start Real-Time Display:** Shows real-time data for this one particular window.
- **Send Configuration:** Sends the windows current values of this channel to the SmartWire
- **Read Configuration:** Reads the values from the SmartWire and populates the window with the currently programmed values of this channel.

