

# SWP-300 Site Controller



## Site Remote Control with Motorized Switch Controller



SWP-300 Site Controller, front panel



SWP-300 Site Controller, rear panel

## Features

- Direct connectivity to compatible four-port RF switches for streamlined deployment
- Motorized RF switch control with automatic interlock steering aligned to switch position
- Management/Control of up to two (2) four-port switches and interlocks
- Dual power redundant supply models available
- Easily integrates with up to two (2) DPS-100D RF power meters using an Ethernet cable for a complete intelligent RF switch controller with proprietary 3 strike counter
- Integrated site I/O with eight (8) Form-C relay outputs, eight (8) solid-state outputs, eight (8) status inputs, and four (4) analog voltage inputs
- Optional IOX-24 Expander Panel adds twenty-four (24) additional control and status channels and eight (8) analog inputs
- Supports Ethernet SNMPv2 (MIB file included) for integration with networked monitoring and control systems. Provides Remote Control via Free BDI Windows App GUI

## Product Description

The SWP-300 Site Controller is a compact, cost-effective remote-control system for broadcast transmitter sites. It provides direct plug-and-play connectivity to popular four-port RF switches and optional integration with the BDI DPS-100D True RMS power monitor series, simplifying installation and commissioning. Built-in I/O includes sixteen (16) command outputs (eight (8) Form-C relays and eight (8) solid-state outputs), eight (8) status inputs, and four (4) analog voltage inputs for legacy equipment.

### Models and Typical Configurations

The SWP-300 is designed for a common RF site configuration: two transmitters switched to a single output. Automatic functions are enabled through simple menu selections—no macros or configuration files.

- **SWP-300-1T:** Interfaces to one (1) RF switch.
- **SWP-300-2T:** Supports two (2) RF switches for Main/Alternate transmitter and Main/Alternate antenna configurations.

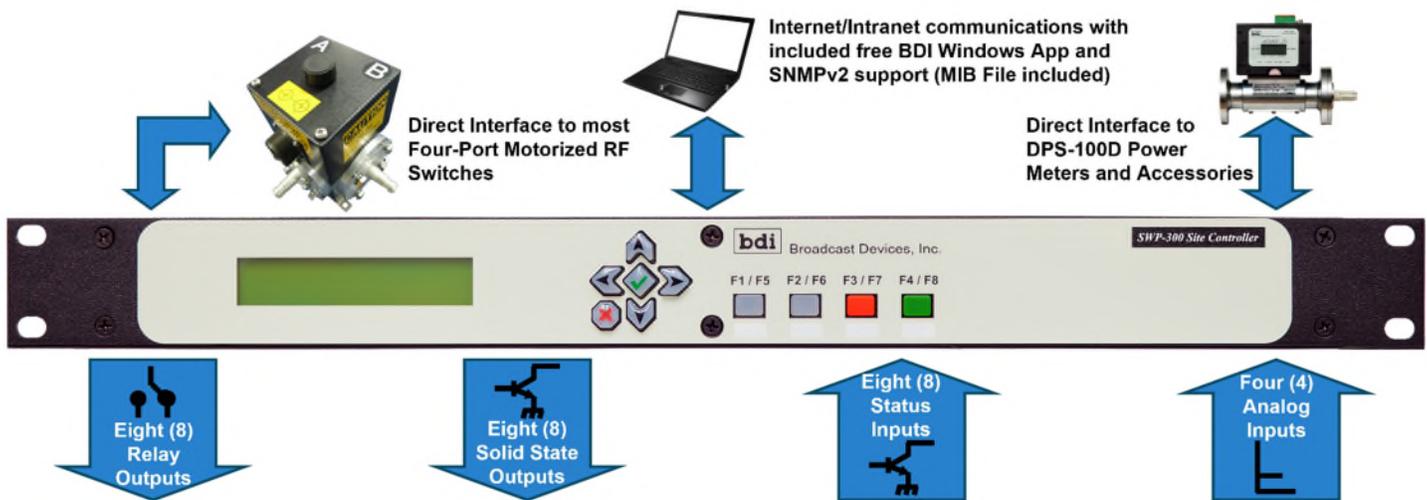
### Optional Power Monitoring and Protection (DPS-100D Series)

When paired with optional BDI DPS-100D RF sensors, the SWP-300 provides True RMS forward and reflected power monitoring for main and auxiliary channels. The system also adds “Switch Saver” protection, which detects RF presence and prevents switch movement to help avoid damage to switches and connected equipment.

Reflected power protection is supported via the DPS-100D “three strike”™ algorithm (when equipped), helping reduce nuisance trips from short transient events. The SWP-300 can also detect RF power falling below a user-defined threshold

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and automatically transfer to a backup transmitter; dual-switch models can respond to reflected power faults by transferring to a backup antenna.



SWP-300 Site Controller System Overview

### Software and SNMP Integration

Control and monitor site functions using the included SWP-300 Windows App. The SWP-300 supports Ethernet and SNMPv2 and can operate as an SNMP agent, providing access to control and status information via standard MIB browsers and SNMP-enabled remote-control systems. Associated MIB files are provided with the product and are also available from the BDI support website.

In summary, the SWP-300 system offers flexible, reliable RF site management by supporting multiple transmitters and antennas with straightforward configuration. Optional integration with the DPS-100D series enhances power monitoring and protection, while software and SNMP capabilities enable convenient remote control and monitoring. These features together help ensure operational efficiency and equipment safety in demanding broadcast environments.

Technical Specifications	SWP-300
<b>Switch Control Voltage:</b>	12 or 24 VDC-Selectable for Each Switch
<b>Number of Switches Supported:</b>	SWP-300-1T One (1) / SWP-300-2T Two (2)
<b>Switch Manufacturers supported:</b>	Delta (Requires use of Delta Low Voltage Interface-Contact Delta Electronics for more information), Delta Meccanica, Dielectric 50/60K, DowKey, ERI, Kintronics, Mega/MCI, Myat, Spinner
<b>Transmitter and Interlock Control:</b>	Both models control up to two (2) transmitters providing transmitter ON/OFF and Interlock Management
<b>Independent Control Outputs:</b>	Sixteen (16) total, eight (8) Form C Relays individually configurable for momentary or maintained closure. Relay contact rating: 2A. @ 120VAC/2A 24 VDC, eight (8) Solid State outputs individually configurable high or low output upon control activation. Solid State output rating: On current 500 mA Max. for low state output, 50 uA for high state output. Open collector output 12 VDC available for pull up. CMOS/TTL Compatible-Expandable to forty-eight (48): forty (40) relays and eight (8) solid state with optional IOX-24 Expander Panel
<b>Independent Status Inputs:</b>	Eight (8) solid-state inputs configurable for High or Low input. High input impedance: 3.00K ohms, Low input impedance: 1.8 ohms, Internal pullup to 5 VDC. CMOS/TTL Compatible -Expandable to 32 with optional IOX-24 Expander Panel

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Technical Specifications		SWP-300
<b>Analog Voltage Inputs:</b>	Four (4) Expandable to twelve (12) with optional IOX-24 Expander Panel - single ended 0-5 VDC,	
<b>Dedicated Control Outputs</b>	Two (2) sets of TX ON/OFF command and Interlock control Form C relays for dedicated control of two transmitters. one (1) TX Fault Form C relay-closes when an optional BDI DPS-100D power monitor is connected and indicates RF failure one (1) VSWR Fault Form C relay-closes when an optional DPS-100D power monitor is connected and indicates a high VSWR condition	
<b>Dedicated Status Inputs:</b>	2-TX On Status inputs for Main/Alt. transmitters, TX 1/TX 2 Selected to air-for use with motorized switches	
<b>Optional Input Sensors:</b>	Up to 2 external temperature sensors connected to optional DPS-100D power meters Up to 2-transmission line pressure sensors 0-15 PSI indication in 1 pound increments , requires the connection to a DPS-100D power sensor	
<b>Optional Power Meter Inputs:</b>	Up to two DPS-100D power monitors showing direct indication of all parameters available on a DPS-100D power monitor including Forward/Reflected Power, temperature, line pressure, 6 general purpose inputs from DPS-100D sensor inputs, external interlock and fault status	
<b>GPIO Remote Control interface:</b>	TX On/Off, TX EXT., Interlock Input, TX On/Off Status, Switch Position	
<b>Remote Control Input:</b>	Momentary contact to ground or SNMP v2	
<b>Remote Status Output:</b>	Open collector output – Active Low pulled up to 5 VDC	
<b>AC Power Loss Monitor:</b>	Monitors for presence of AC Power loss to transmitter(s) to prevent switch operation in auto mode if AC power is lost to transmitters Logic input requires external circuitry	
<b>Drive Output to Switch:</b>	Dry relay form C contact closure Contact Rating 24VDC @3A.	
<b>Communications Interface:</b>	RS485, Ethernet TCP/IP, SNMPv2 Agent (MIB file supplied), and Supplied BDI Windows App with Graphical User Interface	
<b>LAN connection</b>	RJ45 TCP/IP – SNMP v2 Agent	
<b>Electrical Requirements:</b>	100-240 VAC 50/60 Hertz @ 0.5 ampere	
<b>Environmental:</b>	0-60 degrees C, non condensing atmosphere	
<b>Power Requirements:</b>	100 to 240 VAC 50/60 Hertz @ 0.5 ampere	
<b>Operating Ambient Temperature:</b>	32 to 122 degrees, F (0 to 50 degrees, C)	
<b>Humidity:</b>	95%, Non-condensing	
<b>Mechanical Dimensions:</b>	19 in W x 10 in D x 1.75 in H (483 mm W x 254 mm D x 44 mm H) Standard One (1) EIA Rack Unit Enclosure with Four (4) Mounting Holes	
<b>Shipping Dimensions:</b>	22 in W x 14 in D x 7 in H (559 mm W x 356 mm D x 178 mm H)	
<b>Shipping Weight:</b>	15 lbs (7 kg)	

## Ordering Information

Part Number	Description
<b>Without Power Metering</b>	
<b>SWP-300-1T</b>	Single Switch Controller. Motorized RF Switch Controller for controlling one (1) motorized switch. Main/Alt TX function. Complete switch operation management controls, including interlock steering and transmitter On/Off

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Part Number	Description
	functions. Includes a free Windows App. SNMP agent equipped for direct interface to all SNMP software and remote controls.
<b>SWP-300-2T</b>	Dual Switch Controller. Motorized RF Switch Controller for controlling two (2) motorized switches. Main/Alt TX, Main Alt. Antenna function. Complete switch operation management controls, including interlock steering and transmitter On/Off functions. Includes a free Windows App. SNMP agent equipped for direct interface to all SNMP software and remote controls.
<b>SWP-300-1TR</b>	Single Switch Controller with Redundant Power Input. Same as SWP-200-1T but with a redundant power supply input. Requires RPSC-PS Redundant Power Supply Chassis, purchased separately.
<b>SWP-300-2TR</b>	Dual Switch Controller with Redundant Power Input. Same as SWP-200-2T but with redundant power input. Requires RPSC-PS Redundant Power Supply Chassis, purchased separately.
<b>RPSC-PS</b>	Redundant Power Supply Chassis for Use with All R-Suffix Switch Controllers. Includes 3-foot (1 Meter) Cable.
<b>SWP-300-1T Single Switch Controller With One (1) DPS-100D Power Meter</b>	
<b>SWP-300-1R1-N</b>	One (1) SWP-300-1T Switch Controller, with One (1) DPS-100D Power Meter with Type N Directional Coupler
<b>SWP-300-1R1-7/8</b>	One (1) SWP-300-1T Switch Controller, with One (1) DPS-100D Power Meter with 7/8-inch Directional Coupler
<b>SWP-300-1R1-DIN</b>	One (1) SWP-300-1T Switch Controller, with One (1) DPS-100D Power Meter with 7-16 DIN Directional Coupler
<b>SWP-300-1R1-1-5/8</b>	One (1) SWP-300-1T Switch Controller, with One (1) DPS-100D Power Meter with 1-5/8-inch Directional Coupler
<b>SWP-300-1R1-3-1/8"</b>	One (1) SWP-300-1T Switch Controller, with One (1) DPS-100D Power Meter with 3-1/8-inch Directional Coupler
<b>SWP-300-1R1-4-1/16-D</b>	One (1) SWP-300-1T Switch Controller, with One (1) DPS-100D Power Meter with 4-1/6-inch Dielectric Inner Conductor Directional Coupler
<b>SWP-300-1R1-4-1/16</b>	One (1) SWP-300-1T Switch Controller, with One (1) DPS-100D Power Meter with 4-1/6-inch MYAT/ERI Inner Conductor Directional Coupler
<b>SWP-300-1R1-6-1/8"</b>	One (1) SWP-300-1T Switch Controller, with One (1) DPS-100D Power Meter with 6-1/8-inch Directional Coupler
<b>SWP-300-1R1-8-3/16</b>	One (1) SWP-300-1T Switch Controller, with One (1) DPS-100D Power Meter with 8-3/16-inch Directional Coupler
<b>SWP-300-1T Single Switch Controller With Two (2) DPS-100D Power Meters</b>	
<b>SWP-300-1R2-N</b>	One (1) SWP-300-1T Switch Controller, with Two (2) DPS-100D Power Meters with Type N Directional Coupler
<b>SWP-300-1R2-7/8</b>	One (1) SWP-300-1T Switch Controller, with Two (2) DPS-100D Power Meters with 7/8-inch Directional Coupler
<b>SWP-300-1R2-DIN</b>	One (1) SWP-300-1T Switch Controller, with Two (2) DPS-100D Power Meters with 7-16 DIN Directional Coupler
<b>SWP-300-1R2-1-5/8"</b>	One (1) SWP-300-1T Switch Controller, with Two (2) DPS-100D Power Meters with 1-5/8-inch Directional Coupler

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Part Number	Description
<b>SWP-300-1R2-3-1/8</b>	One (1) SWP-300-1T Switch Controller, with Two (2) DPS-100D Power Meters with 3-1/8-inch Directional Coupler
<b>SWP-300-1R2-4-1/16</b>	One (1) SWP-300-1T Switch Controller, with Two (2) DPS-100D Power Meters with 4-1/6-inch MYAT/ERI Inner Conductor Directional Coupler
<b>SWP-300-1R2-6-18</b>	One (1) SWP-300-1T Switch Controller, with Two (2) DPS-100D Power Meters with 6-1/8-inch Directional Coupler
<b>SWP-300-1R2-8-3/16</b>	One (1) SWP-300-1T Switch Controller, with Two (2) DPS-100D Power Meters with 8-3/16-inch Directional Coupler
<b>SWP-300-2T Dual Switch Controller With One (1) DPS-100D Power Meter</b>	
<b>SWP-300-2T-2R1-N</b>	One (1) SWP-300-2T Switch Controller, with One (1) DPS-100D Power Meter with Type N Directional Coupler
<b>SWP-300-2T-2R1-7/8</b>	One (1) SWP-300-2T Switch Controller, with One (1) DPS-100D Power Meter with 7/8-inch Directional Coupler
<b>SWP-300-2T-2R1-DIN</b>	One (1) SWP-300-2T Switch Controller, with One (1) DPS-100D Power Meter with 7-16 DIN Directional Coupler
<b>SWP-300-2T-2R1-1-5/8"</b>	One (1) SWP-300-2T Switch Controller, with One (1) DPS-100D Power Meter with 1-5/8-inch Directional Coupler
<b>SWP-300-2T-2R1-3-1/8</b>	One (1) SWP-300-2T Switch Controller, with One (1) DPS-100D Power Meter with 3-1/8-inch Directional Coupler
<b>SWP-300-2T-2R1-4-1/16-D</b>	One (1) SWP-300-2T Switch Controller, with One (1) DPS-100D Power Meter with 4-1/6-inch Dielectric Inner Conductor Directional Coupler
<b>SWP-300-2T-2R1-4-1/16</b>	One (1) SWP-300-2T Switch Controller, with One (1) DPS-100D Power Meter with 4-1/6-inch MYAT/ERI Inner Conductor Directional Coupler
<b>SWP-300-2T-2R1-6-1/8"</b>	One (1) SWP-300-2T Switch Controller, with One (1) DPS-100D Power Meter with 6-1/8-inch Directional Coupler
<b>SWP-300-2T-2R1-8-3/16</b>	One (1) SWP-300-2T Switch Controller, with One (1) DPS-100D Power Meter with 8-3/16-inch Directional Coupler
<b>SWP-300-2T Dual Switch Controller With Two (2) DPS-100D Power Meters</b>	
<b>SWP-300-2R2-N</b>	One (1) SWP-300-2T Switch Controller, with Two (2) DPS-100D Power Meters with Type N Directional Coupler
<b>SWP-300-2R2-7/8</b>	One (1) SWP-300-2T Switch Controller, with Two (2) DPS-100D Power Meters with 7/8-inch Directional Coupler
<b>SWP-300-2R2-DIN</b>	One (1) SWP-300-2T Switch Controller, with Two (2) DPS-100D Power Meters with 7-16 DIN Directional Coupler
<b>SWP-300-2R2-1-5/8</b>	One (1) SWP-300-2T Switch Controller, with Two (2) DPS-100D Power Meters with 1-5/8-inch Directional Coupler
<b>SWP-300-2R2-3-1/8</b>	One (1) SWP-300-2T Switch Controller, with Two (2) DPS-100D Power Meters with 3-1/8-inch Directional Coupler
<b>SWP-300-2R2-4-1/16</b>	One (1) SWP-300-2T Switch Controller, with Two (2) DPS-100D Power Meters with 4-1/6-inch MYAT/ERI Inner Conductor Directional Coupler
<b>SWP-300-2R2-6-1/8</b>	One (1) SWP-300-2T Switch Controller, with Two (2) DPS-100D Power Meters with 6-1/8-inch Directional Coupler
<b>SWP-300-2R2-8-3/16</b>	One (1) SWP-300-2T Switch Controller, with Two (2) DPS-100D Power Meters with 8-3/16-inch Directional Coupler

## [Title 2]

### Accessories

Part Number	Description
<b>SWP Option #2</b>	Direct CAT5 connection to all ERI Motorized Switches and ISC-200, PCC-300, PDC-300, and SWP Series Controllers. Includes DSUB 15 to RJ-45 adapter, 25-foot (7.6-meter). Shielded CAT5 cable, and RJ45 to Spade Lug wire harness to connect to ERI switch internally.
<b>SWP Option #3</b>	Dielectric 50,000 series Retrofit 25-foot (7.6-meter) interface cable for use with BDI SWP-200 series switch controllers and Dielectric 50000 Series motorized switches.
<b>SWP Option #4</b>	Dielectric 60,000 series Retrofit includes 25-foot (7.6-meter) interface cable for interconnection with BDI SWP-200 series switch controllers and Dielectric 60000 series motorized switches.
<b>SWP Option #5</b>	ERI Transfer Switch Pre-wired cable with connectors. 25-foot (7.6-meter) interface cable for use with all SWP-200 series switch controllers and ERI motorized RF switches
<b>SWP Option #6</b>	MCI Transfer Switch Cable – 25-foot (7.6-meter) interface cable for use with all SWP-200 series switch controllers and MCI/RYMSA motorized RF switches
<b>SWP Option #7</b>	MYAT Model 301-180-1 and 301-180-3 25-foot (7.6-meter) interface cable for use with all BDI SWP-200 series switch controllers and Myat motorized RF switches.
<b>SWP Option #8</b>	SPINNER Contact factory with model number 25-foot (7.6-meter) interface cable for use with all BDI SWP-200 series switch controllers and Spinner motorized RF switches
<b>SWP Option #9</b>	Delta Switch Interface cable, 25-foot (7.6-meter) interface cable. Requires use of Delta Low Voltage Interface-Contact Delta Electronics for more information.
<b>SWP Option #16</b>	DB25 Breakout Terminal Block Panel For SWP-300 Site Controller Chassis 5 RU Rack Panel that provides an interface between DB25 connections on rear panel of SWP-300 product broken out to terminal strips, seven (7) DB25 to terminal strip interfaces are provided, includes 3-foot (one-meter) interconnection cable.
<b>SWP Option #18</b>	Rohde & Schwarz FM Transmitter TX CTL Interface Cable Kit for two (2) transmitters to ISC-200, PCC-300, PDC-300, and SWP Series Controllers. Includes two (2) DC25 to RJ45 adapters and two (2) 25-foot (7.6-meter) CAT5 interconnection cables. One kit required for each transmitter.
<b>SWP Option #19</b>	GatesAir FLX/FAX Series SWP TX CTL Interface Cable for use with ISC-200, PCC-300, PDC-300, and SWP Series Controllers. One kit is required for each transmitter.
<b>SWP Option #20</b>	Nautel NV/GV Series SWP TX CTL Interface Cable For Use with all ISC-200, PCC-300, PDC-300, and SWP Series Controllers. One kit is required for each transmitter.
<b>SWP-Option #21</b>	Generic Transmitter Interface Kit for All BDI Switch Controllers -Two Transmitters Supplied with two (2) DSUB25 Adapters, two (2) 25-foot (7.6-meter) shielded CAT5 cables, and two (2) interface PC boards to be mounted inside each of two transmitters. The PC board provides the following connections: External Interlock Closure, TX ON command closure output, TX OFF closure output, and TX ON status closure input from the transmitter. For use with transmitters with older barrier terminal interfaces.
<b>SWP-Option #22</b>	8 Push Button Panel for ISC-200, PCC-300, PDC-300, and SWP Series Remote Control Connector provides up to 8 pushbuttons and status for direct interface to controller and remote controls when plugged into these controllers. Includes 6-foot (2-meter) DSUB M/M interface cable.
<b>IOX-24S</b>	SNMP Remote Control and Expansion Panel provides Twenty-Four (24) Control Relays, Twenty-Four (24) Status Inputs, and Eight (8) Analog Metering Inputs. Includes Windows App with graphical user interface or can connect to the serial port of the ISC-200, PCC-300, PDC-300, or SWP Series Switch Controllers.
<b>ICP-800</b>	Interlock Consolidation Panel for Master Antenna Applications with RF Presence Indication: A two-rack-unit panel that consolidates up to sixteen (16) DPS-100D series power meter interlock connections, along with SWP-206D chassis, into a single interlock connection for each station on a master antenna system.
<b>RLY-120-12</b>	Utility Relay Module - Twelve (12) Individual Relays or Twelve (12) Relay T-Bar Style Output - 12 VDC Relays 12 to 12 VDC relays that can be individually controlled or bussed together to form a T-BAR, all relay control from a single closure
<b>RLY-120-24</b>	Utility Relay Module – same as above with 24 VDC Relays
<b>RLY-120-12P</b>	Same as RLY-120-12 but mounted on a Two (2) Rack Unit EIA Rack Panel
<b>RLY-120-24P</b>	Same as RLY-120-24 but mounted on a Two (2) Rack Unit EIA Rack Panel

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