Avaya P330 DC BUPS Installation Guide

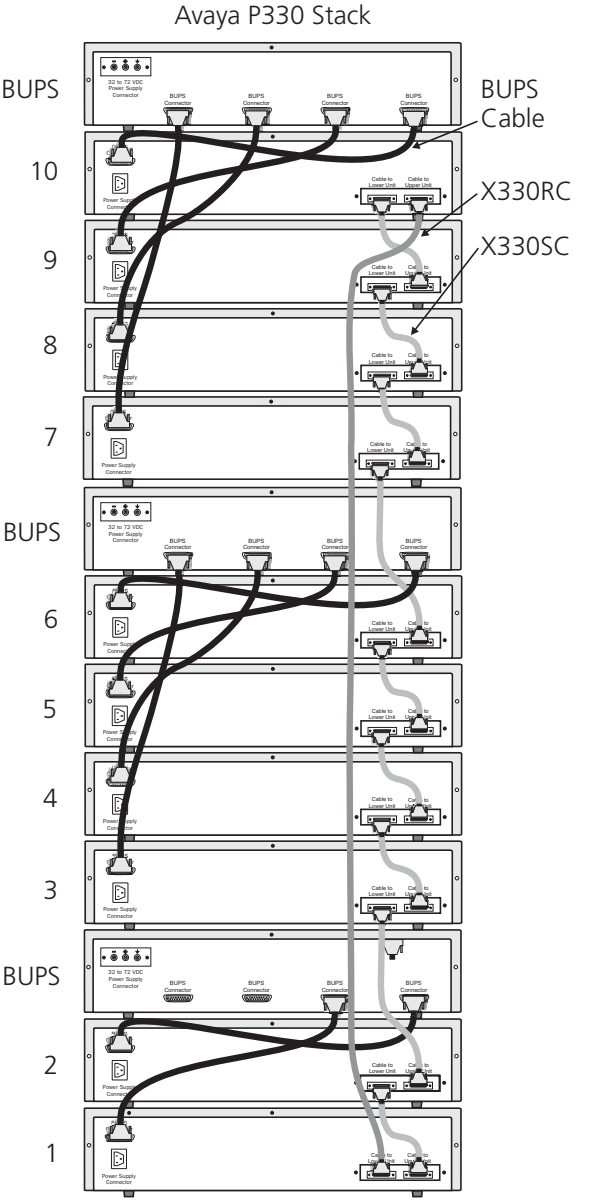
Description

The Avaya P330 DC BUPS (Back-Up Power Supply) is an add-on power supply for use with up to four Avaya P330 switches.
The BUPS operates together with the existing power supply installed in each switch. This load-sharing between two parallel power supplies gives maximal network reliability. If either power supply fails, the other power supply automatically provides the required current with no electrical discontinuity.

Front panel indicators (see Figure 3) enable the user to check power supply and fan operation at a glance. The diagnostic indicators show the state of each of the four power output connections of the BUPS.

Figure 1 Avaya P330 BUPS-DC Front Panel

Figure 2 Stack of 10 Avaya P330 Switches and 3 BUPS Units with Cable Connections



Installation

Unpack the BUPS. The package includes the BUPS module, four 60 cm long DC power cables with D-type connector terminations and the necessary lugs and screws.

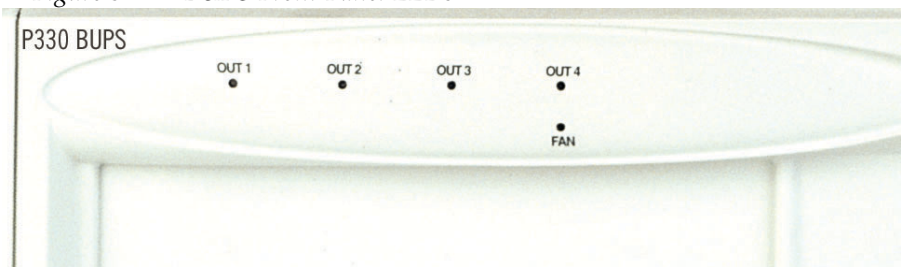
Warning: Before carrying out the following procedure, ensure that the DC power is OFF.

Warning:
a) Restricted Access Area: This unit must be installed in Restricted Access Areas only.
b) Installation Codes: North America: This unit must be installed in accordance with the US National Electrical Code, Article 110 and the Canadian Electrical Code, Section 12.
c) Conductor Ampacity: Per UL 1950, Annex NAE (NEC Article 645-5(a)), the branch-circuit conductors supply shall have the ampacity not less than 125 percent of the total connected load. For input leads use at least 10 AWG copper conductors.
d) Overcurrent Protection: Per UL 1950, Annex NAE (NEC Article 240-3)
A readily accessible listed branch-circuit overcurrent protective device rated maximum 30 A must be incorporated in the building wiring.

LED Indicators

The front panel of the BUPS has four LEDs marked OUT 1, OUT 2, OUT 3 and OUT 4, which indicate the status of each of the four power output connections. For example, the "LED OUT 1" indicates the status of the power output connection to BUPS connector #1. The front panel also has an LED marked FAN which indicates the operating status of the fans.

Figure 3 BUPS Front Panel LEDs



The LED states are summarized in Table 1 and Table 2.

Table 1 Power Supply LED Indicators (OUT 1 to OUT 4)

LED Status	Meaning
On	The power output for this specific port is operating normally
Blinking	The power output for this specific port has failed
Off	The BUPS has been disconnected from DC power

Table 2 Fan LED Indicators (FAN LED)

LED Status	Meaning
On	All 3 fans are operating correctly
Blinking	One or more of the fans has failed or is faulty
Off	The BUPS has been disconnected from DC power

The BUPS can be positioned anywhere in a stack of Avaya switches.

1 Attach the appropriate lugs at one wire end of the power cable cord (10 AWG).
2 Connect the power cable to the BUPS at the input terminal block at the back of the unit.

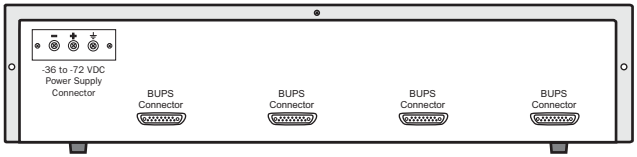
- The terminals are marked "–", "+", and GND (IEC 5019a Ground symbol).
- The size of the three screws in the terminal block is M4.
- The pitch between each screw is 9 mm.

Warning: The proper wiring sequence is:
Ground to ground
Negative to negative
Return to positive
Always connect the ground wire first and disconnect it last.

3 Begin by connecting the DC power cables from the BUPS to each Avaya switch (see Figures 1.2 and 2.2), noting the number of the BUPS port to which each switch is connected (numbered 1-4).
4 Firmly secure the D-type connectors on the back of the BUPS and switches, by tightening the two screws on each connector.

- When you connect the unit to power, all BUPS front panel LEDs should be ON.

Figure 3 BUPS Rear Panel



Management

The BUPS is visible to CajunView™ network management software, via the Avaya switch agents. Using the network manager you can determine whether a BUPS exists (if it is connected to the Avaya P330), it C/S Hardware version number and whether the cooling fans are operating correctly.

Specifications

Electrical

Output Voltage	5.45 VDC
Output Current (max.)	4 x 27 A @ 5.45 V
Output Power (max.)	4 x 150 W @ 5.45 V
Input Voltage Range	-36 to –72 VDC
Input Current	21 A @ 36 VDC 14 A @ 48 VDC 10 A @ 72 VDC
Inrush Current (max.)	30 A @ 36 VDC 33 A @ 48 VDC 37 A @ 72 VDC
Overload protection	All circuits are protected against overload and short circuits through shutdown of the control circuits.

Reliability

Physical Durability	Vibration and shock compliance with TR and NWT-000063 (NEBS) Par. 4.4.1 and 4.4.2
MTBF	166,443 hours

Environmental

Operating Temperature	-5 to 50 °C (23–122 °F) ambient
Relative. Humidity (operating)	5% to 95%, non-condensing
EMC Emission	US – FCC Part 15, Subpart J, Class A Europe – EN55022 class A VCCI Class A
Immunity	Approved according to EN-50082-1
Safety	UL for US approved according to UL1950 Std. C-UL (UL for Canada) approved according to C22.2 No. 950 Std. CE for Europe approved according to EN 60950 Std.

Physical Characteristics

Height	2U (3.5"/88mm)
Depth	19" (482.6mm)
Width	17.7" (450mm)
Weight	18 lbs (8 kg) approx.

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