Partner: APC
Model: Smart UPS
Device Type: Power Controller
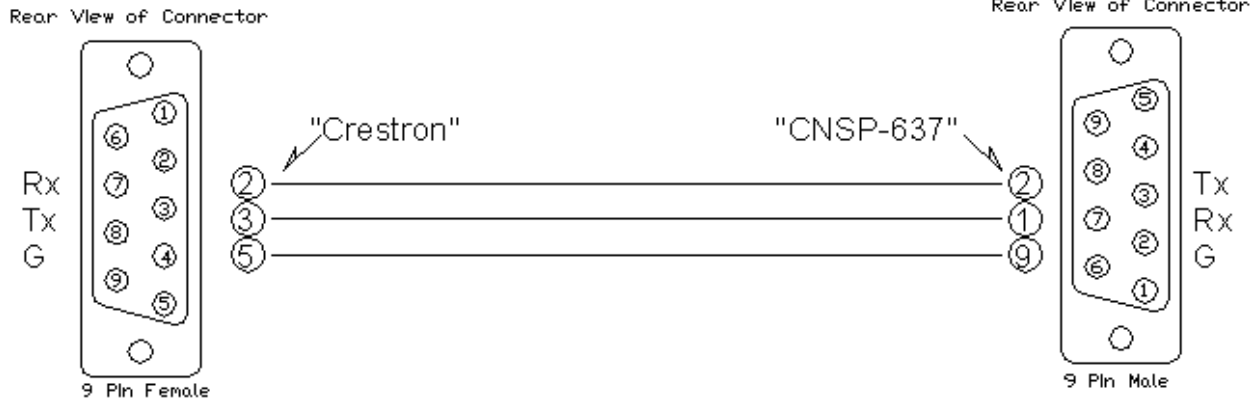
CERTIFIED
CRESTRON.
Integrated Partner

GENERAL INFORMATION

SIMPLWINDOWS NAME:	APC S20 UPS
CATEGORY:	Power Controller
VERSION:	1.0
SUMMARY:	Controls power on/off and provides status of battery/power mode/voltage/time remaining.
GENERAL NOTES:	This module will control an American Power Conversion (APC) S20 UPS. Before communicating with the unit, you must put it into "Smart" mode. This is done by pulsing the Enable_RS232 input. If it is ever desired to exit "Smart" mode and return to "Simple" mode, you could pulse the Disable_RS232 input. Once you have entered "Smart" mode, you will be able to turn the unit on and off with the Power_On and Power_Off inputs. It will take 2-3 seconds after activating one of these inputs for the command to be executed. The unit provides an assortment of status information pertaining to the current power mode, battery condition, voltage, etc. You can enable the polling of these levels by asserting the Poll_Enable input. As long as this input is high, the unit will be polled for status as often as specified in the Time-Between-Polls >3s input. The time between polls must be no less than 3 seconds. It was tested with a value of 10s. It should not be set to a value larger than 580s. The unit will be automatically polled once, whenever power is turned on/off, or when an event such as a power failure/power restore occurs. Therefore, if it was desired to only enable polling during a power failure, you could attach the Status_Battery_Mode output to the Poll_Enable input. In this scenario, the unit would be polled for as long as the UPS was operating on battery power. Once the power was restored, the constant polling would stop.
CRESTRON HARDWARE REQUIRED:	CNCOMH-2, CNXCOM, ST-COM
SETUP OF CRESTRON HARDWARE:	RS232 Baud: 2400 Parity: None Data Bits: 8 Stop Bits: 1
VENDOR FIRMWARE:	None
VENDOR SETUP:	None
CABLE DIAGRAM:	CNSP-637

©2004 Crestron Electronics, Inc.
15 Volvo Drive • Rockleigh, NJ 07647
800.237.2041 / 201.767.3400

www.crestron.com

Crestron Certified Integrated Partner Modules can be found archived on our website in the Design Center. For more information please contact our Technical Sales Department at techsales@crestron.com. The information contained on this document is privileged and confidential and for use by Crestron Authorized Dealers, CAIP Members, A+ Partners and Certified Integrated Partners only. *Specifications subject to change without notice.*

Partner: APC
Model: Smart UPS
Device Type: Power Controller

CERTIFIED
CRESTRON
Integrated Partner

CNSP-637

Rear View of Connector

"Crestron"   "CNSP-637"

Rx Tx G
9 Pin Female

Tx Rx G
9 Pin Male

Rear View of Connector

CONTROL:

Enable/Disable_RS232	D	Pulse to enter/exit "Smart" mode. The unit must be in "Smart" mode before sending any other commands.
Power_On/Off	D	Pulse to turn power on or off. It will take 2-3 seconds for the command to be executed.
Poll_Enable	D	While high, the unit will be polled as often as specified in the Time-Between-Polls >3S parameter
***_Outlet_Toggle**	D	Pulse to toggle Digital/Video/Analog/High Current Outlet.
From_Device$	S	Serial signal to be routed from a 2-way RS232 port or TCP/IP Client.

PARAMETERS:

Time-Between-Polls>3S	P	Enter the time between polls. Must be greater than 3 seconds and less than 580 seconds. Default is 10 seconds.

Partner: APC
Model: Smart UPS
Device Type: Power Controller

FEEDBACK:		
Status_Line_Mode	D	Indicates that the unit is running on line (AC) power.
Status_Battery_Mode	D	Indicates that the unit is running on battery power.
Status_Replace_Battery	D	Indicates that the battery should be replaced.
Status_Low_Battery	D	Indicates that the battery charge is low.
Status_Overloaded_Output	D	Indicates that the output circuits are overloaded.
Status_Smart_Boost_Mode	D	Indicates that the unit is in smart boost mode.
Status_SmartTrim_Mode	D	Indicates that the unit is in smart trim mode.
Status_Calibration	D	Indicates that the unit is in calibration mode.
Battery_Bar	A	Indicates the relative level of the battery charge. Could be routed to a bar graph or a percentage display on a touch panel.
Time_Remaining$	S	Indicates the estimated number of minutes that the unit can operate on battery power.
Battery_Voltage$	S	Indicates the battery voltage.
Internal_Temperature$	S	Indicates the temperature of the unit.
Frequency$	S	Indicates the units internal operating frequency.
Line_Voltage$	S	Indicates the current line voltage.
Maximum/Minimum_Line_Voltage$	S	Indicates the maximum and minimum line voltage to occur since the last poll.
Output_Voltage$	S	Indicates the current output voltage.
Load_Power$	S	Indicates the power currently being supplied to the Outputs.
Humidity$	S	Indicates the current humidity.
Ambient_Temperature$	S	Indicates the current ambient temperature.
To_Device$	S	Serial signal to be routed to a 2 way RS232 port or TCP/IP Client.

©2004 Crestron Electronics, Inc.
15 Volvo Drive • Rockleigh, NJ 07647
800.237.2041 / 201.767.3400

www.crestron.com

Crestron Certified Integrated Partner Modules can be found archived on our website in the Design Center. For more information please contact our Technical Sales Department at techsales@crestron.com. The information contained on this document is privileged and confidential and for use by Crestron Authorized Dealers, CAIP Members, A+ Partners and Certified Integrated Partners only. *Specifications subject to change without notice.*

Partner: APC
Model: Smart UPS
Device Type: Power Controller

TESTING:

OPS USED FOR TESTING:	3.155.1240
SIMPL WINDOWS USED FOR TESTING:	2.08.41
CRES DB USED FOR TESTING:	18.8.8
SYMBOL LIBRARY USED FOR TESTING:	487
SAMPLE PROGRAM:	APC S20 UPS Demo
REVISION HISTORY:	V. 1.0