Uniflair™ SP

For details on upgrading the Uniflair SP air conditioner firmware, see the *Uniflair SP Online Guide*, available from the product page of the Schneider Electric Web site, *www.schneider-electric.com* or *www.apc.com*.

What's in This Document

As standards, specifications, and design change from time to time, please ask for confirmation of the information given in this publication.

1.0 Affected Revision Levels

apc_hw06_aos_664.bin	Network Management Card Operating System & TCP/IP Stack
apc_hw06_unflrsp_600.bin	Uniflair SP Application for Uniflair™ SP Direct Expansion Air Conditioning Unit
powernet424.mib	PowerNet SNMP Management Information Base (MIB)
990-91237	Modbus Register Map

1.0 Affected Revision Levels

apc_hw06_aos_664.bin	Network Management Card Operating System & TCP/IP Stack

2.0 OS & TCP/IP Stack Modifications (apc_hw06_aos_664.bin)

2.1 Compatibility

apc_hw06_unflrsp_600.bin   Uniflair SP Direct Expansion Air Conditioning Unit

2.2 Known Issues in This Version

1. Disabling an individual event for email notification may cause an unexpected network interface restart.
2. When using Syslog TCP, there is no line break at the end of the payload message.
3. SNMPv3 communication and monitoring on some third party SNMP management tools such as ManageEngine OpManager does not work properly
4. CLONE - APP missing during and after factory final test (in Rhodes II, Mini Rhodes II & Valhal Models in PD110-0001T, PD359-0001Q ... , older version and also similar issue observed in PD.
5. CLONE - BACnet Device Communication Control password is in plain text in Config.ini.
6. Security::DoS of the Modbus service by fuzzed Modbus packets.
7. Security:: The HTTPS service goes down for the storm packets.
8. Remove RMS Registration Feature.
9. Modifying RADIUS settings via config.ini may cause an unexpected network interface restart.
10. Errors in Alarm Generation for various Alarms in Web UI.
11. Pointer used before checking if it is Not NULL.
12. Variable de-referenced outside of NULL check in iniao.c.
13. Constant NULL de-referenced.
14. IPv6 connectivity outside of local sub-net does not work in all environments.
15. TCP/IP Stack Failure - tfListRemove-assertion, tfSheapFree-assertion, and tfSheapGetFreeListBlock-assertion errors.
16. Device reboots and HTTPS service gets disabled for storm packets at the Link rate of 10 MB/s.
17. Device reboots when attempting to read a large number of registers.
18. GetDBEthernetMacAddress could override buffer space 'string'.
19. Memory leak issue hangs the sessions and reboots the NMC.
20. Reboot loop caused by buffer overflow in treck code.
21. Cadillac: NMC crashes and reboots after power overload
22. addLogHeader function allocates memory but does not check success - could lead to overwriting. Interrupt vectors and unknown behavior.
23. Task 161 overrun when an invalid entry is set to apcTrapRecvTableModify:1.3.6.1.4.1.318.1.4.4.3.0.
24. The NMC may experience an unexpected network interface restart while editing a Firewall policy.
25. Modifying large groups of event actions by severity may cause an unexpected network interface restart.
26. NMC display reboots automatically, when the laptop which is used to connect the UPS tuner to the product comes out of sleep mode.

27. Language does not reset to English after upgrading to latest sumx607g.
28. Display reboots when we try to log in CLI 2nd session while UPS Event downloading time.
29. Rhodes2 NMCs warmstart every 4.5 minutes during network storm caused by loopback condition.

2.3 New Features and Enhancements

BACnet (IP only). This release of BACnet is officially certified.

2.4 Bugs Fixed in This Version

1. Fixed issue which prevented NMC from accepting SSL/TLS certificates issued by third party Certificate Authorities such as Microsoft Certificate Services, especially those using custom certificate templates.

3.0 Uniflair™ SP Direct Expansion Air Conditioning Unit (apc_hw06_unflrsp_600.bin)

3.1 Hardware Compatibility

No incompatibilities

3.2 Firmware Compatibility

apc_hw06_aos_664.bin	Network Management Card Operating System & TCP/IP Stack
	See 2.0 OS & TCP/IP Stack Modifications (apc_hw06_aos_664. bin) for a list of modifications and enhancements that affect this application version.
apc_hw06_bootmon_108.bin (v1.0.8)	Display Boot Monitor
apc_hw06_tsfonts4i1_604.bin (v6.0.4)	Display Font File
apc_hw06_tsfonts4i2_604.bin (v6.0.4)	Display Font File
j5-0.0.2.cbp (v0.0.2)	Uniflair SP Controller Application for Uniflair SP Direct Expansion Cooling Unit
pic1-2.34.0.cbp (v2.34.0)	PIC 1 Firmware
pic2-2.29.0.cbp (v2.29.0)	PIC 2 Firmware

3.3 Known Issues in This Version

No known issues

3.4 New Features and Enhancements

None

3.5 Bugs Fixed in This Version

Initial release

4.0 Device IP Configuration Wizard

The Device IP Configuration Wizard is a Windows-based application designed specifically to remotely configure the basic TCP/IP settings of Network Management Cards. The Wizard runs on Windows® 2000, Windows 2003, Windows Vista, Windows XP, Windows 7, Windows Server 2008, Windows Server 2016, Windows 8, Windows 10, and Windows 2012. This utility supports cards that have firmware version 3.X.X or higher and is for IPv4 only.

The Wizard is available as a free download from the American Power Conversion Web site (www.apc.com/tools/download).

1. On the Web site, select **Software Upgrades - Wizards and Configurators** from the **Filter by Software/Firmware**drop-down list .

2. Click **Submit** to view the list of utilities available for download.

3. Click on the **Download** button to download the Device IP Configuration Wizard.

4.1 Compatibility

This utility supports cards that have firmware version 3.0.x or higher and is for IPv4 only.

5.0 Miscellaneous

5.1 Recovering From a Lost Password

See the *Online Guide*, available from the unit product page on the Schneider Electric Web site (*www.schneider-electric.com* or *www.apc.com*), for instructions on how to recover from a lost password.

5.2 PowerNet MIB Reference Guide

The MIB Reference Guide, available on the Schneider Electric Web site (*www. schneider-electric.com* or *www.apc.com*), explains the structure of the MIB, types of OIDs, trap severity levels, and the procedure for defining trap receivers. For information on specific OIDs, use a MIB browser to view their definitions and available values directly from the MIB itself. You can also view the definitions of traps at the end of the MIB (the file with the .mib extension listed in section 3.2, available on the Schneider Electric Web site (*www.schneider-electric.com* or *www. apc.com*).

5.3 Event Support List

For the event names and event codes for all events supported for a device, first retrieve the config .ini file. To use FTP retrieve config.ini, perform the following:

1. Open a connection to the device using its IP Address:

   ```
   ftp> open <ip_address>
   ```

2. Log on using the Administrator user name and password.

3. Retrieve the config.ini file containing the settings of the device.

   ```
   ftp> get config.ini
   ```

   The file is written to the folder from which you launched FTP.

In the config.ini file, find the section heading [EventActionConfig]. In the list of events under that section heading, substitute 0x for the initial E in the code for any event to obtain the hexadecimal event code shown in the display interface and in the documentation. For example, the hexadecimal code for the code E0033 in the config.ini file is 0x0033.

5.4 Updating Touchscreen Display Font Files

Customers wishing to use the Chinese language translations will have to upgrade the font files used to generate the characters. This can only be done using a USB flash drive though the USB port on the front of the touch screen display interface. The instructions are as follows:

NOTE: Before starting the transfer, make sure the USB drive is formatted in FAT32.

1. Download the firmware upgrade files and unzip them.

2. Create a folder named **apcfirm** on the USB flash drive.

3. Place the extracted module files apc_hw06_tsfonts4i1_604.bin and apc_hw06_tsfonts4i2_604.bin in the **apcfirm** directory.

4. Use a text editor to create a file named upload.rcf. (The file extension must be .rcf, not .txt for example.)

5. In upload.rcf, add the following lines to the file:

   FONT1=apc_hw06_tsfonts4i1_604.bin

   FONT2=apc_hw06_tsfonts4i2_604.bin

6. Place upload.rcf in the **apcfirm** folder on the flash drive.

7. Insert the flash drive into a USB port on your cooling unit.

8. Press the Display Reset button and wait for the card to reboot fully.

9. Remove the USB drive from the touch-screen display interface.

5.5 MD5, SHA-1, and SHA-256 Hash Signatures

MD5 Hash: 06d3a7cd7757fa12310dd8886572103a

SHA-1 Hash: a27fdf5c4eab823bbfc0cfb6fc31d765af762e3d

SHA-256 Hash:
46d4d91c79e0dbd4fea9cfc7d91178eecc424b21a481b3b1fe4ca39b1cdbb3f4