ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

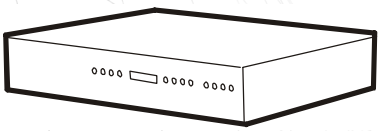
All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *APC AP7722* at our website: ***Click HERE***

www.apc.com

Installation and Quick Start

Automatic Transfer Switch



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

This manual is available in English on the enclosed CD.
Dieses Handbuch ist in Deutsch auf der beiliegenden CD-ROM verfügbar.

Este manual está disponible en español en el CD-ROM adjunto.

Ce manuel est disponible en français sur le CD-ROM ci-inclus.

Questo manuale è disponibile in italiano nel CD-ROM allegato.
本マニュアルの日本語版は同梱の CD-ROM からご覧になれます。

Instrukcja Obsługi w jezyku polskim jest dostepna na CD.
O manual em Português está disponível no CD-ROM em anexo.

Данное руководство на русском языке имеется на прилагаемом компакт-диске.

Bu kullanım kılavuzunun Türkçe'si, ilişikte gönderilen CD içerisinde mevcuttur.

您可以从包含的 CD 上获得本手册的中文版本。

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Contents

Preliminary Information 1
- Additional documentation 1
- Please recycle 1
- Receiving inspection 1
- Product inventory 2

Overview. 3
- Front panel 3

Installation 4
- Attach mounting brackets 4
- Disassemble the adjustable brackets 4
- Attach rear segments to the rack 5
- Attach front segments to the switch 5
- Mount the Automatic Transfer Switch in the enclosure 6

Quick Configuration 7
- Overview 7
- TCP/IP configuration methods 7
- Device IP Configuration Wizard 8
- BOOTP & DHCP configuration 8
- Local access to the control console 10

How to Access the Automatic Transfer Switch Interfaces 11
- Overview 11
- Web interface 11
- Telnet/SSH 12
- SNMP 12
- FTP/SCP 13

Configuring the ATS 14
- Configuring sensitivity 14
- Configuring voltage transfer range 14
- Remote access to the control console 15

Recovering From A Lost Password. 16

Warranty 17

Life-Support Policy 19

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Preliminary Information

Additional documentation

This *Installation and Quick Start Manual* and the online *User's Guide* are available on the supplied CD or on the American Power Conversion (APC®) Web site **www.apc.com**. The online *User's Guide* contains additional information about the following topics related to the Automatic Transfer Switch:

- Management interfaces
- User accounts
- Customizing setup
- Security

Please recycle



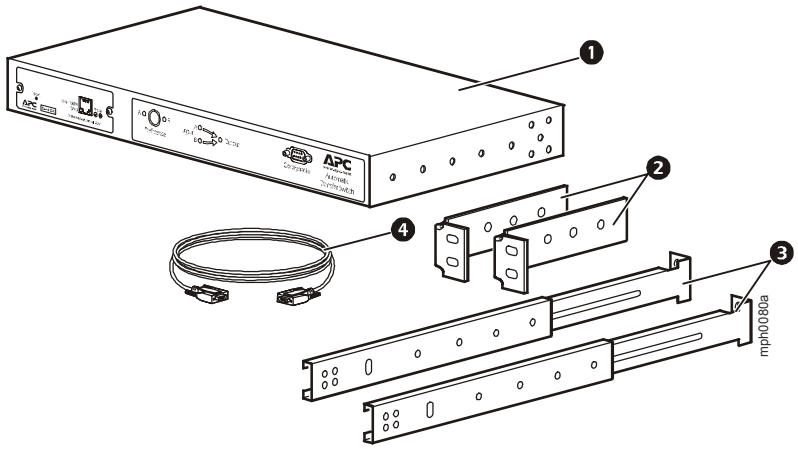
The shipping materials are recyclable. Please save them for later use, or dispose of them appropriately.

Receiving inspection

Inspect the package and contents for shipping damage, and make sure that all parts were sent. Report any shipping damage immediately to the shipping agent, and report missing contents, damage, or other problems immediately to APC or your APC reseller.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Product inventory

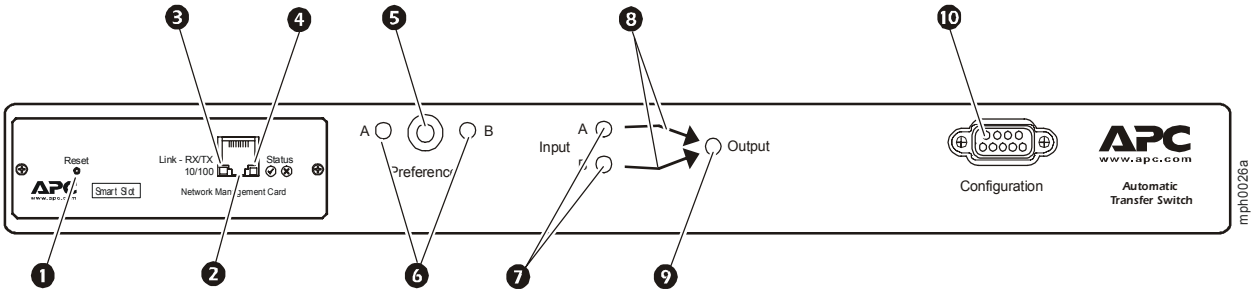


1. Automatic Transfer Switch
2. Rack-mount brackets
3. Front and rear rail segments
4. Communication cable

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Overview

Front panel



No.	Item	Description/Function
❶	Reset switch	Restarts the Network Management Card.
❷	Ethernet port	Connects the Automatic Transfer Switch to your network, using a network cable.
❸	Link–RX/TX LED	Indicates whether there is activity on the network.
❹	Status LED	Indicates whether power is applied to the Network Management Card.
❺	Preference button	Sets the preferred source to supply power to the load equipment. In normal operation, if both sources are available, the Automatic Transfer Switch will use the preferred source. Press the Preference button to change the preferred source.
❻	Preference A and B LEDs	Indicates which of the two sources, if any, is selected as the preferred source. If both LEDs are off, neither source is preferred. If a source is asynchronous, the source's LED will flash once per second.
❼	Source A and B LEDs	Provides information about the input voltage from each source. If the RMS input voltage and the measured frequency are within the selected tolerance range, the corresponding indicator will light. In a normal operating condition (full source redundancy), both LEDs are illuminated.
❽	Connector LEDs	Indicates which source is being used for the output (only one arrow will be lit at any time). The combination of Source LEDs, Connector LEDs, and Output LED provide a graphical view of the power flow through the Automatic Transfer Switch.
❾	Output LED	Shows that voltage is available at the output for the Automatic Transfer Switch.
❿	Configuration port	The local connection for accessing all the setup, status, maintenance, and diagnostic information for the Automatic Transfer Switch.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

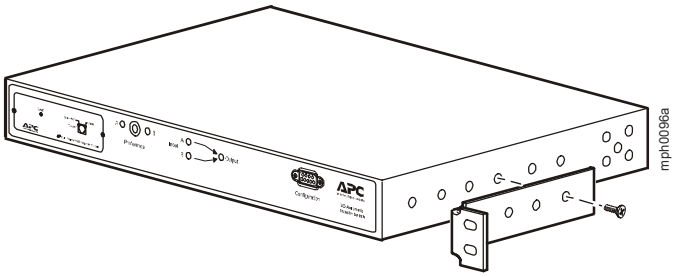
Installation

Attach mounting brackets

Attach the left and right mounting brackets to the unit, using two flat-head, Phillips screws (provided) for each bracket.

Note

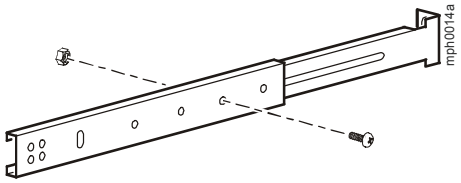
Place the brackets flush with the front of the rack to leave room for routing cables.



Disassemble the adjustable brackets

The adjustable brackets are necessary only if you are using a four-post enclosure or rack. If you are using a two-post rack, the Automatic Transfer Switch is supported by the mounting brackets alone.

1. Disassemble each adjustable bracket by removing the slide screw and nut.

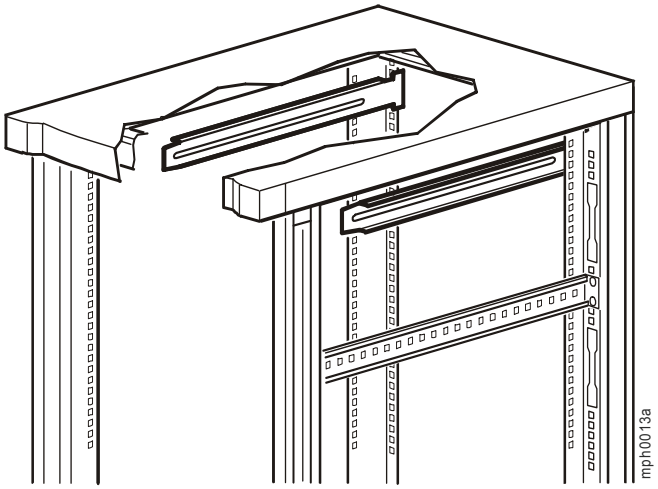


2. Set the screws, nuts, and adjustable bracket segments aside.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

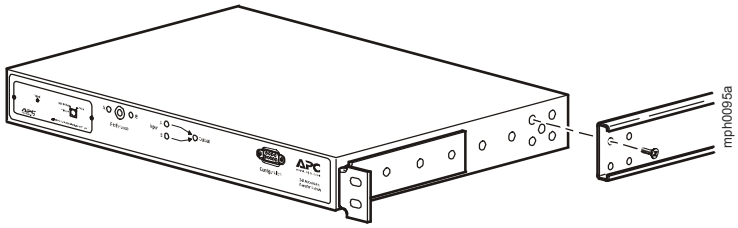
Attach rear segments to the rack

1. Insert caged nuts (provided with your enclosure) on the enclosure's rear vertical mounting rails at your chosen location.
2. Align the rear segments of the adjustable bracket with the caged nuts you inserted in step 1.
3. Insert and tighten mounting screws (provided).



Attach front segments to the switch

1. Align the front segments of the adjustable bracket with the four corresponding holes on the sides of the switch.
2. Attach both front segments to the switch using two Phillips pan-head screws (provided) for each bracket segment.



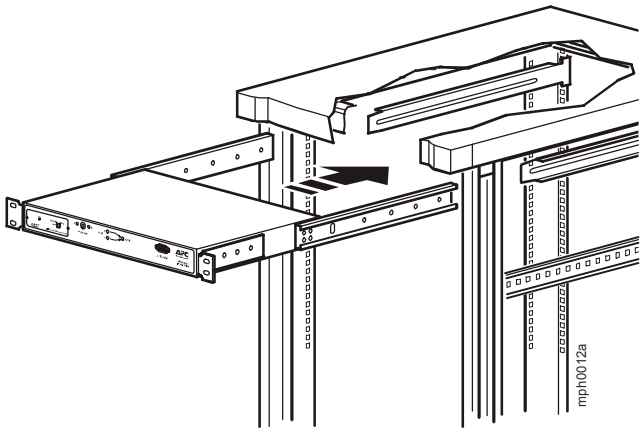
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Mount the Automatic Transfer Switch in the enclosure



Two people should perform this procedure.

1. Position the Automatic Transfer Switch in front of the mounted rear adjustable bracket segments.
2. Align the front and rear adjustable bracket segments, and slide the front segments onto the rear segments.
3. Align the mounting brackets on the switch with the enclosure's front vertical mounting rails and insert caged nuts (provided) in the appropriate holes on the front vertical mounting rails.
4. Insert and tighten the mounting screws (provided).
5. Insert slide screws and nuts (removed previously) into each adjustable bracket, and tighten them to secure the positions of the adjustable brackets.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Quick Configuration



Disregard the procedures in this section if you have APC InfraStruXure Manager as part of your system. See the InfraStruXure Manager's documentation for more information.

Overview

You must configure the following TCP/IP settings before the Automatic Transfer Switch can operate on a network:

- IP address of the Automatic Transfer Switch
- Subnet mask
- Default gateway



If a default gateway is unavailable, use the IP address of a computer that is located on the same subnet as the Automatic Transfer Switch and that is usually running. The Automatic Transfer Switch uses the default gateway to test the network when traffic is very light. See "Watchdog Features" in the "Introduction" of the *Automatic Transfer Switch User's Guide* for more information about the watchdog role of the default gateway.

TCP/IP configuration methods

Use one of the following methods to define the TCP/IP settings needed by the Automatic Transfer Switch:

- Device IP Configuration Wizard (See "Device IP Configuration Wizard" on page 8.)
- BOOTP or DHCP server (See "BOOTP & DHCP configuration" on page 8.)
- Local computer (See "Local access to the control console" on page 10.)
- Networked computer (See "Remote access to the control console" on page 15.)

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Device IP Configuration Wizard

You can use the Device IP Configuration Wizard on a Windows NT® 4.0, Windows 2000®, Windows 2003, or Windows XP computer to discover unconfigured Automatic Transfer Switches and configure their basic TCP/IP settings.



To configure one or more Automatic Transfer Switches by exporting configuration settings from a configured Automatic Transfer Switch, see "How to Export Configuration Settings" in the User's Guide on the *Utility CD*.

1. Insert the APC Automatic Transfer Switch *Utility* CD into a computer on your network.
2. Select the Device IP Configuration Wizard from the main menu.
3. Wait for the Wizard to discover the first unconfigured Automatic Transfer Switch, then follow the on-screen instructions.



If you leave the **Start a Web browser when finished** option enabled, you can use **apc** for both the **User Name** and **Password** to access the Automatic Transfer Switch through your browser.

BOOTP & DHCP configuration

The **Boot Mode** Setting, a TCP/IP option in the Automatic Transfer Switch's **Network** menu, identifies how the TCP/IP settings will be defined. The possible settings are **Manual**, **DHCP only**, **BOOTP only**, and **DHCP & BOOTP** (the default setting).



The **DHCP & BOOTP** setting assumes that a properly configured DHCP or BOOTP server is available to provide TCP/IP settings to Automatic Transfer Switches.



If these servers are unavailable, see:

- "Device IP Configuration Wizard" on this page.
- "Local access to the control console" on page 10.
- "Remote access to the control console" on page 15.

With **Boot Mode** set to DHCP & BOOTP, the Automatic Transfer Switch attempts to discover a properly configured server. It first searches for a BOOTP server, then a DHCP server, and repeats this pattern until it discovers a BOOTP or DHCP server.



For more information, see "BOOTP" on page 9 or "DHCP" on page 9.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

BOOTP. You can use an RFC951-compliant BOOTP server to configure the TCP/IP settings for the Automatic Transfer Switch.



The **DHCP & BOOTP** setting assumes that a properly configured DHCP or BOOTP server is available to provide TCP/IP settings to Automatic Transfer Switches.

1. Enter the Automatic Transfer Switch's MAC and IP addresses, the subnet mask and default gateway settings, and an optional Bootup file name in the BOOTPTAB file of the BOOTP server.



For the MAC address, look on the bottom of the Automatic Transfer Switch or on the Quality Assurance slip included in the package.

2. When the Automatic Transfer Switch reboots, the BOOTP server provides it with the TCP/IP settings.

   – If you specified a bootup file name, the Automatic Transfer Switch attempts to transfer that file from the BOOTP server using TFTP or FTP. The Automatic Transfer Switch assumes all settings specified in the bootup file.



To create the bootup file, see your BOOTP server documentation

   – If you did not specify a bootup file name, the Automatic Transfer Switch can be configured remotely by using Telnet or by using the Web interface: **User Name** and **Password** are both **apc**, by default.

DHCP. You can use a RFC2131/RFC2132-compliant DHCP server to configure the TCP/IP settings for the Automatic Transfer Switch.



This section briefly summarizes the Automatic Transfer Switch communication with a DHCP server. For more detail about how a DHCP server is used to configure the network settings for a Automatic Transfer Switch, see "DHCP Configuration" in the Automatic Transfer Switch *User's Guide*.

1. An Automatic Transfer Switch sends out a DHCP request that uses the following to identify itself:

   – A Vendor Class Identifier (APC by default)

   – A Client Identifier (by default, the Automatic Transfer Switch's MAC address value)

   – A User Class Identifier (by default, the identification of the Automatic Transfer Switch's application firmware)

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

2. A properly configured DHCP server responds with a DHCP offer that includes all of the settings that the Automatic Transfer Switch needs for network communication. The DHCP offer also includes the Vendor Specific Information option (DHCP option 43). By default, the Automatic Transfer Switch will ignore DHCP offers that do not encapsulate the APC cookie in the Vendor Specific Information option using the following hexidecimal format:

   ```
   Option 43 = 01 04 31 41 50 43
   ```

   where

   – the first byte (`01`) is the code

   – the second byte (`04`) is the length

   – the remaining bytes (`31 41 50 43`) are the APC cookies



See your DHCP server documentation to add code to the Vendor Specific Information option.



To disable the APC cookie requirement, see “Remote access to the control console” on page 15. To change the control console’s **DHCP Cookie Is** setting, use the **Advanced** option in the **TCP/IP** menu. See “Remote access to the control console” on page 15.

Local access to the control console

1. Select a serial port at the local computer and disable any service that uses that port.
2. Connect APC serial cable 990-1000A to the Automatic Transfer Switch serial port and to the serial port on the local computer. Run a terminal program (such as Windows HyperTerminal®) and configure the selected port for 19200 bps, 8 data bits, no parity, 1 stop bit, and no flow control, and save the changes.
3. Press ENTER and log on as the Automatic Transfer Switch administrator. Select option 11, **Web config,** from the main menu and then disconnect the terminal program.
4. Reconfigure the selected port for 2400 bps, 8 data bits, no parity, 1 stop bit, and no flow control, and reconnect HyperTerminal.
5. Press ENTER to display the **User Name** prompt.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

How to Access the Automatic Transfer Switch Interfaces

Overview

After the Automatic Transfer Switch is running on your network, you can use the interfaces summarized here to access the unit.



For more information on the interfaces, see the *User's Guide*.

Web interface

As your browser, you can use Microsoft® Internet Explorer 5.0 (and higher) or Netscape® 6.*x* to access the Network Management Card through its Web interface. Other commonly available browsers also may work but have not been fully tested by APC.

To use the Web browser to configure the Automatic Transfer Switch options or to view the event log, you can use either of the following:

- The HTTP protocol (enabled by default), which provides authentication by user name and password but no encryption.
- The more secure HTTPS protocol, which provides extra security through Secure Sockets Layer (SSL) and encrypts user names, passwords, and data being transmitted. It also provides authentication of Network Management Cards by means of digital certificates.

To access the Web interface and configure the security of your device on the network:

1. Address the Network Management Card by its IP address or DNS name (if configured).
2. Enter the user name and password (by default, **apc** and **apc** for an Administrator, or **device** and **apc** for a Device Manager).
3. Select and configure the type of security you want. (This option is available only for Administrators.)



See the chapter entitled "Security" in the *User's Guide* for information on choosing and setting up your network security. Use the **Web/SSL** option of the **Network** menu to enable or disable the HTTP or HTTPS protocols.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Telnet/SSH

You can access the control console through Telnet or Secure SHell (SSH), depending on which is enabled. (An Administrator can enable these access methods through the **Telnet/SSH** option of the **Network** menu.) By default, Telnet is enabled. Enabling SSH automatically disables Telnet.

Telnet for basic access. Telnet provides the basic security of authentication by user name and password, but not the high-security benefits of encryption. To use Telnet to access an Automatic Transfer Switch's control console from any computer on the same subnet:

1. At a command prompt, use the following command line, and press ENTER:

   `telnet address`

   As *address*, use the Network Management Card's IP address or DNS name (if configured).

2. Enter the user name and password (by default, **apc** and **apc** for an Administrator, or **device** and **apc** for a Device Manager).

SSH for high-security access. If you use the high security of SSL for the Web interface, use Secure SHell (SSH) for access to the control console. SSH encrypts user names, passwords, and transmitted data.

The interface, user accounts, and user access rights are the same whether you access the control console through SSH or Telnet, but to use SSH, you must first configure SSH and have an SSH client program installed on your computer.



See the *User's Guide* for more information on configuring and using SSH.

SNMP

After you add the PowerNet MIB to a standard SNMP MIB browser, you can use that browser for SNMP access to the Automatic Transfer Switch. The default read community name is **public**; the default read/write community name is **private**.



If you enable SSL and SSH for their high-security authentication and encryption, disable SNMP. Allowing SNMP access to the Automatic Transfer Switch compromises the high security you implement by choosing SSL and SSH. To disable SNMP, you must be an Administrator; use the **SNMP** option of the **Network** menu.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

FTP/SCP

You can use FTP (enabled by default) or Secure CoPy (SCP) to transfer new firmware to the Automatic Transfer Switch, or to access a copy of the Automatic Transfer Switch's event logs. SCP provides the higher security of encrypted data transmission and is enabled automatically when you enable SSH.


Note

If you enable SSL and SSH for their high-security authentication and encryption, disable FTP. Allowing file transfer to the Automatic Transfer Switch through FTP compromises the high security you implement by choosing SSL and SSH. To disable FTP, you must be an Administrator; use the **FTP Server** option of the **Network** menu.

To access the Automatic Transfer Switch through FTP or SCP, the default user name and password are **apc** and **apc** for an Administrator, or **device** and **apc** for a Device Manager. In the command line, use the IP address of the unit.


See also

See the *User's Guide* to use FTP or SCP to transfer firmware files to the Network Management Card or to retrieve log files from the Network Management Card.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Configuring the ATS

Configuring sensitivity

The sensitivity setting controls how tolerant the ATS is of fluctuations in power before it switches to the secondary power source. Configure the sensitivity range for your ATS using the **Switch Configuration** menu. When sensitivity is set to low, the ATS will wait 5 ms before switching to the alternate power source when there is a disturbance in the power supply. When sensitivity is set to high, the ATS will wait 3 ms before transferring power. The default setting is high.

Configuring voltage transfer range

The voltage transfer range determines the acceptable RMS voltages for the ATS. When voltage moves outside the specified range, the ATS switches to the secondary power source. Configure the voltage transfer range using the **Switch Configuration** menu. The ATS can be set to narrow, medium, or wide voltage ranges depending on the power conditions of your system.



The default setting of the voltage range is **Medium**.

APC Part Number	Nominal Voltage (L–N)	Narrow	Medium	Wide
AP7701	120 V	20 (110–130 V)	23 (108.5–131.5 V)	27 (106.5–133.5 V)
AP7722	230 V	30 (215–245 V)	35 (212.5–247.5 V)	40 (210–250 V)
AP7750	120 V	20 (110–130 V)	23 (108.5–131.5 V)	27 (106.5–133.5 V)

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Remote access to the control console

From any computer on the same subnet as the Automatic Transfer Switch, you can use ARP and Ping to assign an IP address to a Automatic Transfer Switch, and then use Telnet to access that Automatic Transfer Switch's control console and configure the needed TCP/IP settings.



After the Automatic Transfer Switch has its IP address configured, you can use Telnet, without first using ARP and Ping, to access that Automatic Transfer Switch.

Use ARP to define an IP address for the Automatic Transfer Switch, and use the Automatic Transfer Switch's MAC address in the ARP command. For example, to define an IP address of 156.205.14.141 for a Automatic Transfer Switch that has a MAC address of 00 c0 b7 63 9f 67, use one of the following commands:

– Windows command format:

```
arp -s 156.205.14.141 00-c0-b7-63-9f-67
```

– LINUX command format:

```
arp -s 156.205.14.141 00:c0:b7:63:9f:67
```


Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Recovering From A Lost Password



Use the following instructions to reset the Network Management Card password.

1. Select a serial port at the local computer and disable any service that uses that port.
2. Connect APC serial cable 990-1000A to the Automatic Transfer Switch serial port and to the serial port on the local computer. Run a terminal program (such as Windows HyperTerminal) and configure the selected port for 19200 bps, 8 data bits, no parity, 1 stop bit, and no flow control, and save the changes.
3. Press ENTER and log on as the Automatic Transfer Switch administrator. Select option 11, **Web config** from the main menu and then disconnect the terminal program.
4. Reconfigure the selected port for 2400 bps, 8 data bits, no parity, 1 stop bit, and no flow control, and reconnect HyperTerminal.
5. Press ENTER to display the **User Name** prompt.
6. Press the RESET button on the Network Management Card, which causes the Network Management Card to restart, a process that typically takes approximately 15 seconds.
7. Press ENTER as many times as necessary to re-display the **User Name** prompt, then use **apc** for the user name and password. (If you take longer than 30 seconds to log on after the **User Name** prompt is redisplayed, you must start the login procedure again at step 5.)
8. From the **Control Console** menu, select **System**, then **User Manager**.
9. Select **Administrator**, and change the **User Name** and **Password** settings, both of which was originally defined as **apc**.
10. Press CTRL-C and log off. You must perform the entire procedure (log on, change the user name and password, and log off) within two minutes so that you are not logged off for inactivity. If you are logged off automatically, the new settings will not take effect and you must repeat the entire procedure from the beginning.
11. Press and hold down the **Preference** button on the Automatic Transfer Switch, which causes the Automatic Transfer Switch to reset, typically in 10 to 15 seconds.
12. Reconfigure the selected port for 19200 bps, 8 data bits, no parity, 1 stop bit, and no flow control, and reconnect HyperTerminal.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Warranty

Limited warranty

APC warrants the Automatic Transfer Switch to be free from defects in materials and workmanship for a period of two years from the date of purchase. Its obligation under this warranty is limited to repairing or replacing, at its own sole option, any such defective products. This warranty does not apply to equipment that has been damaged by accident, negligence, or misapplication or has been altered or modified in any way. This warranty applies only to the original purchaser.

Warranty limitations

Except as provided herein, APC makes no warranties, express or implied, including warranties of merchantability and fitness for a particular purpose. Some jurisdictions do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

Except as provided above, in no event will APC be liable for direct, indirect, special, incidental, or consequential damages arising out of the use of this product, even if advised of the possibility of such damage.

Specifically, APC is not liable for any costs, such as lost profits or revenue, loss of equipment, loss of use of equipment, loss of software, loss of data, costs of substitutes, claims by third parties, or otherwise. This warranty gives you specific legal rights and you may also have other rights, which vary according to jurisdiction.

Obtaining service

To obtain support for problems with your Automatic Transfer Switch:

1. Note the serial number on the bottom of the Automatic Transfer Switch.
2. Contact Customer Support at a phone number on the back cover of this document. A technician will try to help you solve the problem by phone.
3. If you must return the product, the technician will give you a Return Material Authorization (RMA) number. If the warranty expired, you will be charged for repair or replacement.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

4. Pack the unit carefully. The warranty does not cover damage sustained in transit. Enclose a letter with your name, address, RMA number and daytime phone number; a copy of the sales receipt; and a check as payment, if applicable.
5. Mark the RMA number clearly on the outside of the shipping carton.
6. Ship by insured, prepaid carrier to the address provided by the Customer Support technician.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Life-Support Policy

General policy

American Power Conversion (APC) does not recommend the use of any of its products in the following situations:

- In life-support applications where failure or malfunction of the APC product can be reasonably expected to cause failure of the life-support device or to affect significantly its safety or effectiveness.
- In direct patient care.

APC will not knowingly sell its products for use in such applications unless it receives in writing assurances satisfactory to APC that (a) the risks of injury or damage have been minimized, (b) the customer assumes all such risks, and (c) the liability of American Power Conversion is adequately protected under the circumstances.

Examples of life-support devices

The term *life-support device* includes but is not limited to neonatal oxygen analyzers, nerve stimulators (whether used for anesthesia, pain relief, or other purposes), autotransfusion devices, blood pumps, defibrillators, arrhythmia detectors and alarms, pacemakers, hemodialysis systems, peritoneal dialysis systems, neonatal ventilator incubators, ventilators (for adults and infants), anesthesia ventilators, infusion pumps, and any other devices designated as “critical” by the U.S. FDA.

Hospital-grade wiring devices and leakage current protection may be ordered as options on many APC UPS systems. APC does not claim that units with these modifications are certified or listed as hospital-grade by APC or any other organization. Therefore these units do not meet the requirements for use in direct patient care.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Radio Frequency Interference



Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

USA—FCC

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this user manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference. The user will bear sole responsibility for correcting such interference.

Canada—ICES

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Japan—VCCI

This is a Class A product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may occur, in which case, the user may be required to take corrective actions.

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラス A 情報技術装置です。この装置を家庭環境で使用すると、電波妨害を引き起こすことがあります。この場合には、使用者が適切な対策を講ずるように要求されることがあります。

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

APC Worldwide Customer Support

Customer support for this or any other APC product is available at no charge in any of the following ways:

- Visit the APC Web site to access documents in the APC Knowledge Base and to submit customer support requests.
  - **www.apc.com** (Corporate Headquarters)
    Connect to localized APC Web sites for specific countries, each of which provides customer support information.
  - **www.apc.com/support/**
    Global support searching APC Knowledge Base and using e-support.
- Contact an APC Customer Support center by telephone or e-mail.
  - Regional centers:

Direct InfraStruXure Customer Support Line	(1)(877)537-0607 (toll free)
APC headquarters U.S., Canada	(1)(800)800-4272 (toll free)
Latin America	(1)(401)789-5735 (USA)
Europe, Middle East, Africa	(353)(91)702000 (Ireland)
Japan	(0) 35434-2021
Australia, New Zealand, South Pacific area	(61) (2) 9955 9366 (Australia)

  - Local, country-specific centers: go to **www.apc.com/support/contact** for contact information.

Contact the APC representative or other distributor from whom you purchased your APC product for information on how to obtain local customer support.

Entire contents copyright 2005 American Power Conversion Corporation. All rights reserved. Reproduction in whole or in part without permission is prohibited. APC, the APC logo, PowerNet, and InfraStruXure are trademarks of American Power Conversion Corporation. All other trademarks, product names, and corporate names are the property of their respective owners and are used for informational purposes only.

990-1233E-001

10/2005

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP