ARC-16
Web Interface

USER MANUAL

BURK
TECHNOLOGY

ARC-16 Web Interface User Manual
Version 2
Revision C (December 2005)

Contents

Introduction

The ARC-16 Web Interface adds TCP/IP monitoring and control to the ARC-16 transmitter remote control systems, making data from your remote site available from your web browser. Depending on your requirements and the way your network is set up, you can access the Web Interface from within your LAN/WAN, or you can allow users to log in from anywhere on the Internet. The Web Interface will also facilitate TCP/IP-based connections between the ARC-16 and a computer running AutoPilot version 2.3 or later. This reduces the need for serial connections between the PC and the remote site.

FEATURES AND BENEFITS

- Web-based interface for LAN/WAN access
- Site access from the Internet (if desired)
- Email alarm notifications via email or SMS to pagers, PCs, cell phones, PDAs, etc.
- Multi-client support for large operations
- Three tiers of user privileges
- Supports AutoPilot connections over TCP/IP

SYSTEM REQUIREMENTS

LAN/WAN Requirements

- 10BaseT LAN connection at the studio or transmitter site
- Static IP address assignable to the Web Interface
- For site access from the Internet, the IP address must be public
- Broadband ISP service for access from the public Internet

    Note: If the LAN connection is at the studio site and the ARC-16 is located at a remote transmitter facility, the Web Interface requires a full-time bi-directional serial link (1200bps) between the Web Interface at the studio and ARC-16 at the transmitter.

IMPORTANT! While security features are built in, we recommend using a firewall. Like most network devices, the Web Interface is not designed to duplicate the security features provided by a firewall.

ARC-16 Firmware

- Version 5.0 or higher
- One ESI or CI required per ARC-16 system

For Web-based Monitoring and Control

- Windows®-based computer with Internet Explorer 5 or higher or Mozilla Firefox browser
- Sun Microsystems Java Virtual Machine version 1.4.2 or higher (1.5 recommended)
- 56K Internet access or faster (broadband connection recommended)
- 1024 x 768 screen resolution or higher recommended

IMPORTANT! If Java Virtual Machine version 1.4.2 or higher is not installed, you may encounter display issues when connecting via a Web browser. Make sure the correct version is installed on the computer(s) you are using to view your site data.

Note: While 56K dialup access will work for a client connection to the Web Interface, the Web Interface itself requires broadband (DSL or faster) speeds to connect to your LAN/WAN.

For AutoPilot operation via the Web Interface:

- AutoPilot version 2.3 or higher

USING A FIREWALL FOR SECURITY

It is always a good idea to install the Web Interface behind a firewall. While the Web Interface has built in security features, a firewall affords a level of security beyond what most network devices are designed to provide. Your company's network administrator will usually need to set this up for you.

When installing a publicly addressable Web Interface behind a firewall, you will need to open two ports on the firewall and forward them to the Web Interface. One port should provide access to port 80. The other should be the TCP port designated for the Web Interface. 4095 is the default, but each Web Interface should be assigned a unique TCP port. For added security, do not forward port 80 directly to the Web Interface, but instead designate a different port for Web access and route that different port to port 80. In this case, users connecting to the Web Interface from a Web browser will need to type the IP address followed by a colon (:) and the port number that matches both the Web Interface TCP port and the port on the firewall.

Note: Network configurations and characteristics vary widely. The above method is not a requirement, but rather one way to establish reasonable network security. Always consult your network administrator for requirements specific to your application.

PRODUCT UPDATES

When firmware updates are provided for the ARC-16 Web Interface, they can be downloaded from the support section of our web site at <u>www.burk.com</u>. Firmware can be flashed remotely to the ARC-16 Web Interface; follow the instructions with the firmware update.

UNPACKING

The ARC-16 Web Interface includes the following:

- Power Cord
- DB-9 to DB-9 Null Modem Cable
- ARC-16 Web Interface User's Manual
- AutoLoad / AutoPilot software CD

    Note: The latest version of AutoLoad and AutoPilot software are included on the same CD for your convenience. While AutoLoad is included for use with version 5.4 firmware or above, the AutoPilot software requires the purchase of at least one software license. If you already use a Windows version of AutoPilot, your existing CD key and authorization code(s) will work. If you are new to AutoPilot and would like to purchase a license, please contact the sales department at Burk Technology for more information.

INDICATORS AND CONNECTORS

Before you begin setup and configuration, take a moment to familiarize yourself with the indicators and connectors on the Web Interface. For specifications, see Appendix B.
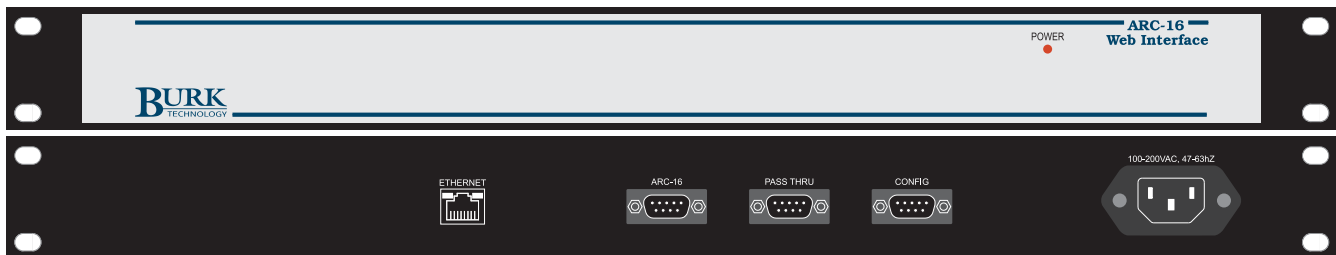
Power LED
Indicates AC power connection to the Web Interface.

Power Connector
100-240 VAC, 50/60Hz, without manual switching.

ARC-16
Used to connect the Web Interface to the ARC-16, using either a direct null modem cable connection or a remote serial connection via full-time modem. The LED to the right of the port indicates a good connection to the site. In a full-time or multi-site ARC-16 system, the Web Interface can connect to any ARC-16 in the system to provide TCP/IP monitoring and control for all ARC-16s in the system.

PASS THRU
Used to connect a PC running AutoLoad or AutoPilot to the ARC-16 without disconnecting the Web Interface. The PASS THRU port accepts a DB-9F connector.

CONFIG
Accepts a null modem cable connection (DB-9F) for initial configuration using a PC and a terminal application program (such as HyperTerminal).

ETHERNET Port
Connects the Web Interface to your 10BaseT LAN/WAN. You will need a CAT5 cable with RJ-45 connectors. The right-side LED indicates a connection to the LAN/WAN, and the left-side LED indicates data activity.

CONTACTING BURK TECHNOLOGY

Customer Support

Visit the Support section of our website at www.burk.com for troubleshooting tips, documentation and downloads. If you still need help, please contact Customer Support:

Phone: 978-486-3711
Fax: 978-486-0081
Email: support@burk.com

Sales

For information on our full line of transmitter remote control systems and accessories, please visit us online at www.burk.com, or contact a sales representative:

Phone: 800-255-8090 (Main Sales Office)
               800-736-9165 (Radio Sales)
               866-273-5276 (TV Sales)
Email: sales@burk.com

Configuration
& Installation

INITIAL CONFIGURATION

Before connecting the Web Interface to your LAN/WAN, you need to set up basic connection settings, such as the IP address. Initial configuration requires use of a terminal application, such as HyperTerminal, and a direct PC connection to the Web Interface. Once the initial configuration is complete, you will be able to edit the configuration settings over the LAN/WAN using your web browser (see page 8).

Note: During initial configuration, Web Interface access from Internet Explorer or AutoPilot is disabled.

To complete the initial configuration process:

1. Connect your PC to the Web Interface COM port marked CONFIG. Open a HyperTerminal session configured for 115.2Kbps, 8 bits, no parity, 1 stop bit. When the configuration session loads, you will see these choices:

    1. Setup Web Interface
    2. Perform System Test

    Press 1 followed by <ENTER> to begin setup

2. Enter your TCP/IP settings where prompted, pressing <ENTER> after each field. You will be asked to confirm each entry.

3. Enter a new administrator password where prompted. Do not leave it blank.

4. Now you can disconnect the PC from the Web Interface CONFIG port and install the Web Interface in its permanent location and connect using Internet Explorer and/or AutoPilot software.

    Note: Now that the Web Interface has an IP address and administrator password, you will be able to make future configuration changes using Internet Explorer. If your network settings change, or if you forget your password, you can use HyperTerminal to connect at anytime and reset or edit the settings.

WEB INTERFACE INSTALLATION

The ARC-16 Web Interface can be installed in virtually any location with 10BaseT LAN/WAN connectivity and a serial connection (direct or modem) to an ARC-16. This can be your studio location, transmitter site or any other place. In multi-site and full-time systems, you have the option to connect the Web Interface to either the studio unit or any transmitter unit for Web-based monitoring of all connected sites.

No matter where you choose to connect the Web Interface, installation is straightforward:

1. Install the Web Interface in an equipment rack or another suitable location.

2. Plug one end of a CAT5 Ethernet cable into the ETHERNET port on the Web Interface and make sure the other end of the cable links the Web Interface to your network router.

3. **If you are using a full-time modem to connect the Web Interface to ARC-16:** At the ARC-16 location, connect one end of a serial cable to the ARC-16 serial port (located on the CI or ESI). Connect the other end to the full-time modem. At the Web Interface location, use a serial cable to link a full-time modem to the Web Interface port marked ARC-16. Follow instructions included with the full-time modems for setup and configuration. When using with an ESI, you will need a DB9-DB25 serial cable. For use with a CI, use a DB25-DB25 cable.

    If you are connecting the Web Interface directly to an ARC-16: Use a null modem cable to link the Web Interface port marked ARC-16 to the ESI or CI serial port on the ARC-16. When using an ESI, you will need a DB9-DB9 serial cable. For a CI, use a DB25-DB9 cable.

4. If you already have a PC connected to the ESI or CI serial port, the connection to the Web Interface will replace the cables used to connect to the PC. Use the Web Interface port marked PASS THRU to reconnect your PC. The PASS THRU port essentially duplicates the port on the ESI or CI that was previously used for the PC. Keep in mind the Web Interface must be powered up in order for the PASS THRU port to work.

5. Connect the power cord to the Web Interface and plug it into an electrical outlet.

Connection using full-time Modems

SERIAL CABLE
FROM ARC-16 ESI OR CI COM PORT
TO COM PORT ON MODEM

COMMUNICATION LINK
BETWEEN MODEMS

SERIAL CABLE
FROM COM PORT ON MODEM
TO ARC-16 PORT ON WEB INTERFACE

Connecting directly to an ARC-16

NULL MODEM CABLE
FROM ARC-16 ESI OR CI COM PORT
TO ARC-16 PORT ON WEB INTERFACE

SERIAL CABLE
FROM PASS THRU PORT
TO COMPUTER COM PORT

COMPUTER RUNNING
AUTOPILOT SOFTWARE

IMPORTANT! Be sure to take appropriate surge protection measures on both the phone line (when using a modem) and on the incoming AC current. Damage caused by voltage surges is not covered by the factory warranty.
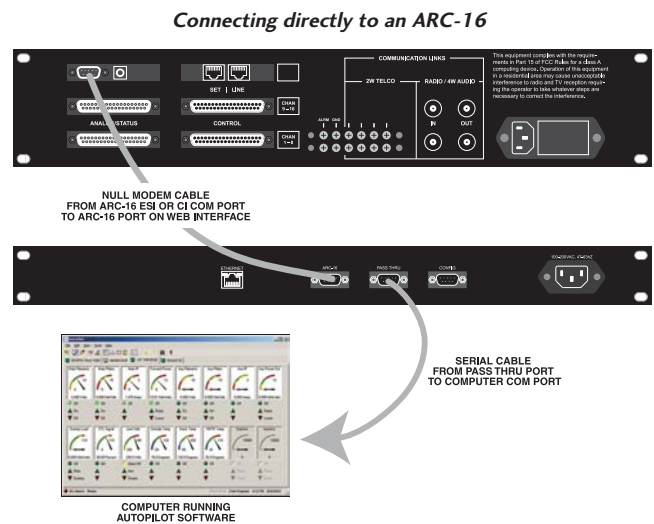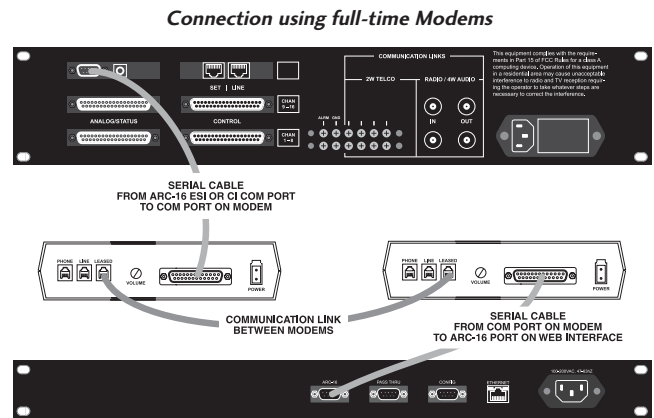
COMPLETING THE CONFIGURATION PROCESS

Once you are finished with HyperTerminal and the Web Interface is connected to the ARC-16 (directly or remotely), you are ready to connect using Internet Explorer and/or AutoPilot. Before continuing, however, you should connect using your Web browser and complete the configuration process so that your channels are displayed correctly and email alarm notifications are enabled.

To connect to the Web Interface using your Web browser:

1. Enter the IP address or domain name of the Web Interface in the address bar of your Web browser. The IP address is initially set up using a HyperTerminal connection to the Web Interface (see page 5).

    Note: If your network settings ever change, the IP address can be edited using you browser or using a terminal program (see the previous chapter).

2. When the login screen appears, enter your user name and password (case sensitive) and click the Login button. If this is the first time anyone has logged in to the Web Interface, use the Admin user account and the password you set up during initial configuration. You will be able to add new users after you log in (see page 10).

    Note: The ARC-16 Web Interface supports multi-client capability, allowing up to ten (10) simultaneous connections from Internet Explorer, AutoPilot, or a combination of the two.
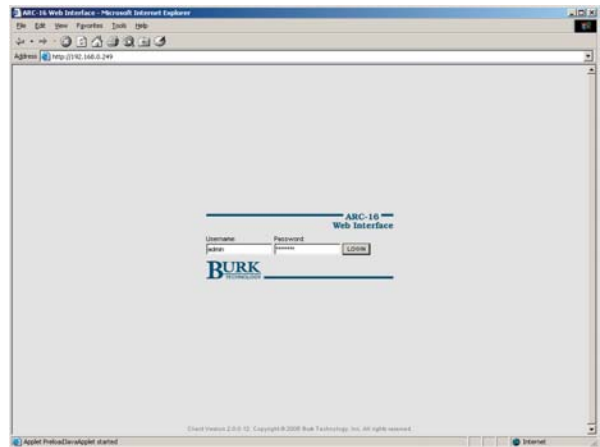
    After you connect, the Web Interface will display the Site View, which shows all the metering, status and command channels for the ARC-16 site set to display on login. By default, this will be Site A. You can change the default site on the Configuration home page (see below). Other connected sites in the system are selectable using the navigation tabs at the top of the display. If you have fewer than four sites in the system, the unused tabs will be grayed out. All of the monitoring and control functions of the Web Interface are described in the next chapter.

    Note: If your system does not have an ARC-16 site with a unit identified as site A, the channels displayed will read "Link Err." You can select a different site using the ARC-16 navigation tabs at the top of the screen.

3. Click the Configuration link at the upper right of the screen to enter the Web-based configuration. Once the configuration window opens, use the tabs at the top of the screen to navigate through each configuration page. The remainder of the chapter will guide you through completing each configuration page.

    The first four configuration pages prompt you to set up configuration characteristics specific to a single ARC-16 unit. You will be prompted to select the desired ARC-16 unit before you can access the configuration page. In a system with more than one ARC-16, you will need to configure these parameters for each ARC-16 unit individually.

    IMPORTANT! After you configure settings for each page, click SAVE when you are finished, or RESET to revert to previous settings.

Configuration Home Page

The first screen that appears in the configuration window is the configuration home page. This is where you select the ARC-16 site ID you would like displayed by default when you log into the Web Interface.

If you have an ARC-16 stand-alone unit, simply select the Site ID of the stand-alone. For a full-time or multi-site system, select the site ID of the unit that would be most useful to view immediately upon login. Bear in mind that even though you are only choosing one site to view upon login, the alarm indicator at the top of the page will tell you if there are alarms anywhere in the system.

Meter Limits

Click the Meter Limits tab to continue the configuration. Metering channels in the Web Interface are displayed with angular-style meters, and customizing the meters for the Web Interface is similar to customizing them in the AutoPilot software. Each meter can display up to five color zones, allowing you to depict a "normal" range and four out of tolerance ranges (two upper limit ranges and two lower limit ranges). In the Meter Limits configuration page, you are defining the ranges for each color zone.

For each channel, choose the limit values for each range, as well as the minimum and maximum values to be displayed on the meter. Any values reported by the ARC-16 outside of this range will result in the meter being "pegged" to the minimum or maximum value.

IMPORTANT! Alarm reporting is still triggered by the limit you set up during ARC-16 configuration, either on the front panel or using AutoLoad software. The limits you set up on the Web Interface are solely for the on-screen meter representations.
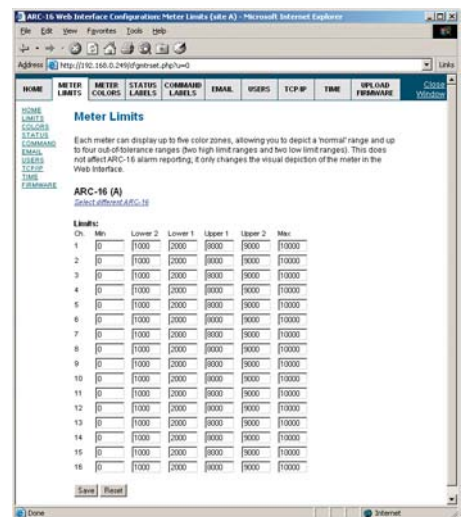
Meter Colors

After you configure the Meter Limits, click the Meter Colors tab to select the meter colors that define each operating range for the metering channels. Choose the colors from the drop-down lists for each color zone on the meter. Five color zones are possible, but you can show fewer color zones by selecting the same color for two adjacent zones.
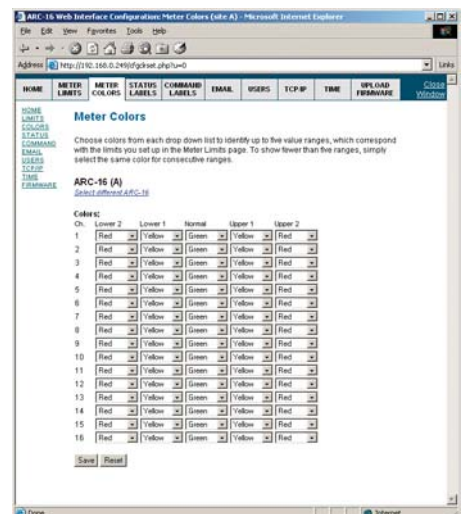
The zone boundaries are defined by the limits you chose on the Meter Limit configuration page, and not by the upper and lower limits saved on the ARC-16. In other words, the color you choose for the Upper 1 limit will begin at the point on the meter that coincides with Upper 1 limit value. See the diagram on the right.
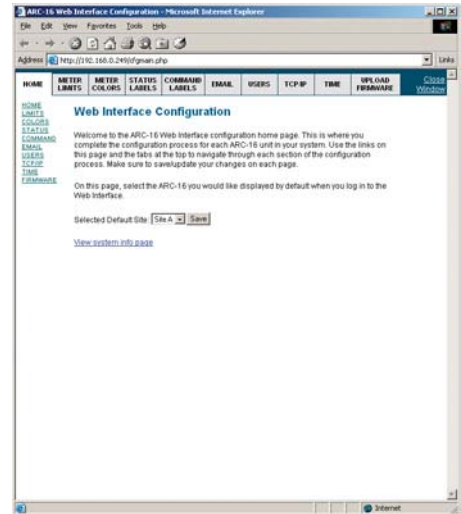
Configuration Home Page

Meter Limits

Meter Colors

Status Labels

Continuing on to the next tab, you can assign status labels to each status channel so that the Web Interface will display your user-defined status condition for the ON and OFF statuses. The Web Interface displays an illuminated status indicator when the actual indicator is illuminated on the ARC-16.

Command Labels

Click the Command Labels configuration tab to set up labels for each command channel. Enter labels for each raise and lower channel. These labels will appear on the Web Interface screen to make it easy to issue commands from the Web browser. The labels here are stored only on the Web Interface; the labels stored on the ARC-16 can be different.

Email

Complete the Email Configuration page to enable email alarm notifications. Once this is set up, the Web Interface will send an email to all the email addresses on the list to notify personnel of the alarm condition. Start by entering the name of an SMTP mail server for the Web Interface to use.

If your SMTP server requires authentication, enter the user name and password where prompted. Otherwise, leave those fields blank.

Even though the Web Interface sends post-only emails (it does not handle replies), you need to set up a reply-to address by entering an email address in the reply-to field. It can be any address; for simplicity, consider entering the email address of the Web Interface administrator account user. Outgoing emails will not be sent to the reply-to address.

Next, enter email addresses for every individual to whom the Web Interface should send alarm notifications. The same email message will be sent to the entire list. Use the SMS check box next to each email address to indicate which addresses are for cell phones, pagers or other devices that receive SMS text messages instead of full-length emails. This ensures that the alarm notification is short enough to be read on the SMS device.

Tip: To include more email addresses than the space allots, consider setting up a group distribution list on your mail server and enter the address for that distribution list in the Web Interface.
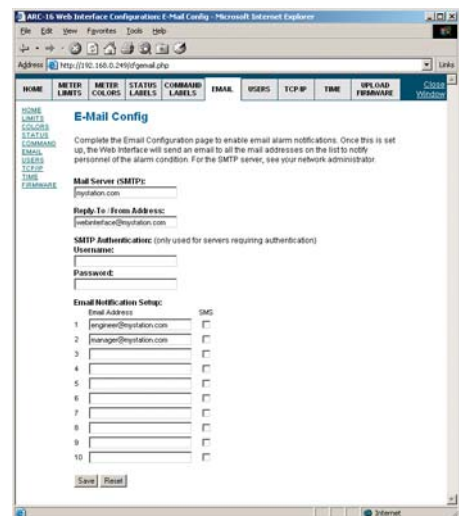
> Note: For text messaging from the Web Interface, the receiving device must be capable of reading email formatted text messages (as opposed to mobile-to-mobile messaging). Verify service availability, instructions, and cost with your wireless provider.
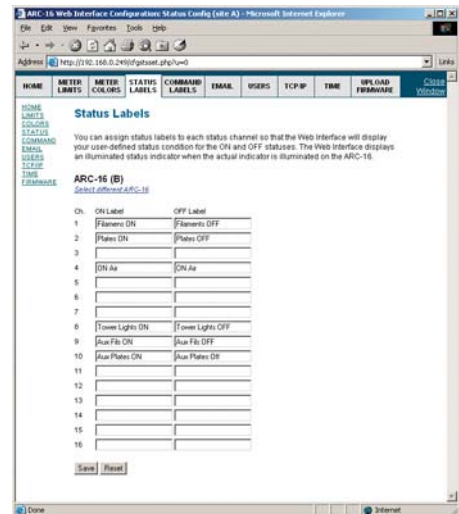
Status Labels
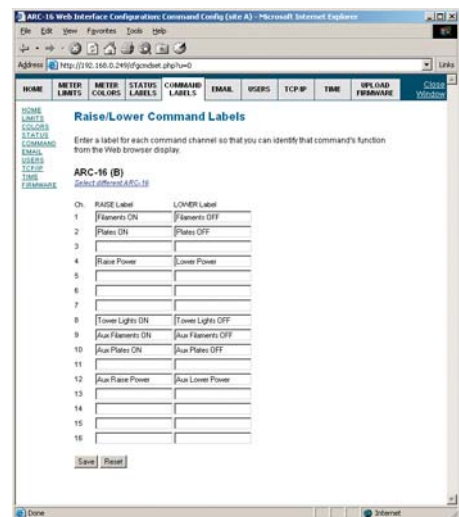
Command Labels

Email Config

Users

The Users tab is where you assign user names, passwords and privileges for other users who need access to the Web Interface. You can assign up to ten users, and as many as ten can log in at the same time, either from the Web or via AutoPilot. Fill in the user name for everyone who should be able to log in, and assign a password to each one. Passwords are case sensitive.

> Note: Each user must have a password. While it is possible to save a blank password for a user, login attempts will fail unless the user enters a password.

IMPORTANT! Be sure you or your operators select passwords that provide adequate security. Passwords can have up to 50 characters, and all printable characters are allowed. Complex passwords are strongly recommended, especially if the Web Interface is accessible on a public IP address. It is also a good idea to change passwords as frequently as necessary to reduce the possibility of unauthorized access.

Users Config

Once your user names and passwords are set up, select an access level for each user. The available access levels are:

- **System:** Views readings and alarms, issues commands, clears alarms, changes configuration

- **Operator:** Views readings and alarms, issues commands, clears alarms

- **Observer:** Views readings and alarms

TCP/IP Settings

Your network settings are set up initially using a HyperTerminal connection to the Web Interface. Once configured, you can use the TCP/IP configuration page to edit these settings. Check with your ISP or network administrator for the appropriate settings.

If you want the Web Interface's web server to operate on an HTTP port other than port 80, enter the new port assignment in the appropriate field. The new HTTP port must be different from the TCP port.

IMPORTANT! Only change your TCP/IP settings if your network configuration changes. Changing these settings in error may require establishing a direct serial connection with HyperTerminal to restore connection to the Web Interface.

TCP/IP Config

When you save TCP/IP changes, the Web Interface will disconnect all users and reboot with the new settings. If you change the IP address, make sure other users know the new IP address or domain name.

> Note: When using AutoPilot to connect to the Web Interface, the TCP port specified in AutoPilot must match the TCP port configured here.
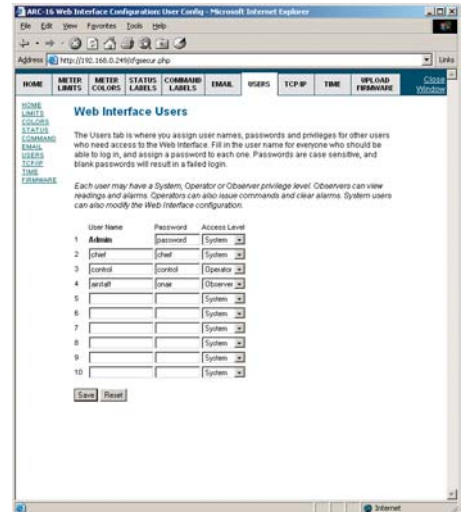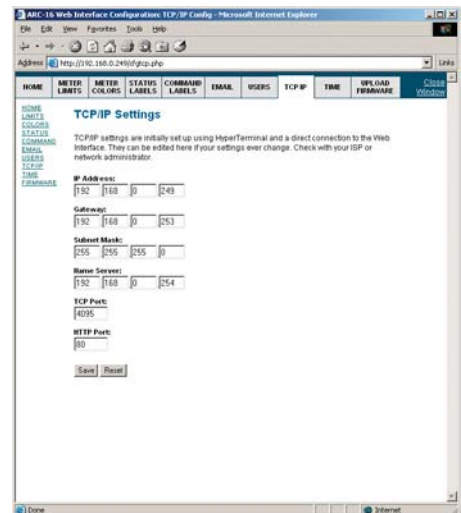
Unit Time

In order for the correct timestamp to appear on alarms and other events, you must set the date and time using the Time configuration page. You have the option to synchronize the Web Interface time with the PC time or to manually enter the current time. Click the "Set Date/Time" button to update the Web Interface. Note that you will need to adjust for any time zone difference if the Web Interface is located in a different time zone and you would like alarms reported using the local time at the Web Interface location.
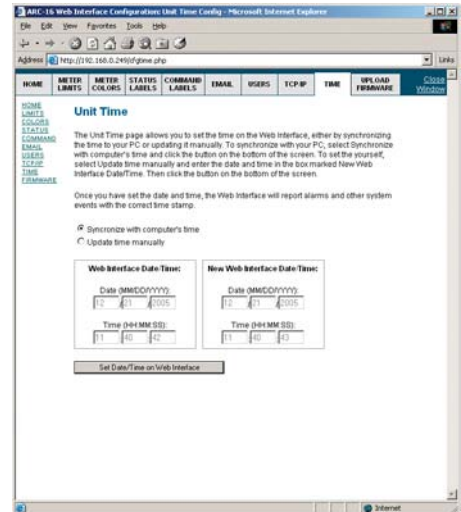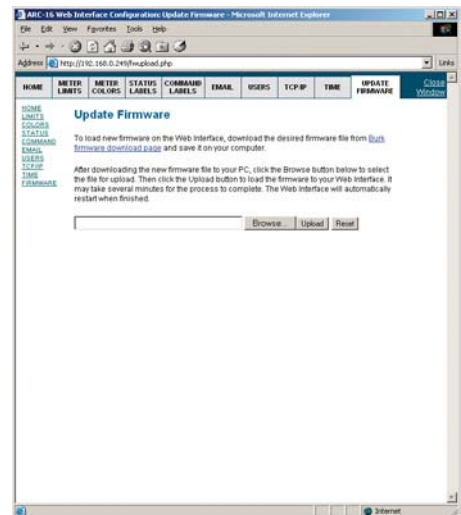
Time Config

Upload Firmware

The Firmware page is used to upgrade your Web Interface as new firmware versions become available. The Web Interface ships with the latest firmware already installed, so there is no need to upload firmware prior to using a new unit.

Complete instructions on uploading firmware can be found on page 17.

Upload Firmware

EXITING CONFIGURATION

Now that you are done configuring your ARC-16 Web Interface, you can save your settings and close the Configuration window to return to the Site View. Go on to the next chapter for the monitoring and control functions of the Web Interface.

To abandon unsaved changes, simply close the Configuration Window without saving.

Operation

LOGGING IN

If you have just completed configuration, there is no need to log in again. If you are just starting, begin by logging in. Type the IP address or domain name of the Web Interface in the address bar of your web browser and press enter. Check with your Web Interface administrator or your network administrator if you do not know the IP address.

Enter your user name and password (case sensitive) where prompted, and the Site View will appear after a moment or two. Your page load time will depend primarily on the connection speed to the Web Interface.

SITE VIEW AT A GLANCE

When you log in to the Web Interface, the ARC-16 Site View is the first screen displayed. The Site View displays metering values, status conditions and command buttons for each ARC-16 unit in the system, one site at a time. Each site has a dedicated page in the Web Interface, and you can change the site being viewed by using the navigation tabs in the upper left corner of the display.

The links at the top right of the page provide access to the onboard help file, and, if the user has system level user privileges, access to the configuration options. The onboard help utility provides the same operation information as can be found in this User's Manual.

IMPORTANT! Your computer's screen resolution affects the amount of information that can be displayed on the screen without scrolling. For best results, Burk Technology recommends a minimum 1024x768 screen resolution, with the Internet Explorer window maximized or displayed in full-screen mode (press F11).

MONITORING SITE READINGS

Taking site readings from the Web Interface is similar to viewing a real-life control panel. Metering channels for each ARC-16 are displayed on angular gauges, and status conditions are represented by indicators. The Site View is a near real-time display of actual conditions reported by the ARC-16. The data is updated automatically, keeping the onscreen readings accurate so you do not have to refresh the page to get the latest data.

ISSUING COMMANDS

Command buttons are positioned beneath each metering and status channel, and clicking on the command button results in a contact closure on the associated channel. Commands issued from the Web Interface respond to the command durations that were set up using AutoLoad software (refer to the AutoLoad documentation for instructions on setting up command durations).

REVIEWING AND CLEARING ALARMS

Toward the top right of the screen, the alarms link notifies users of any alarms at the site. The Web Interface reports active alarm conditions, whether or not the alarm has been cleared via the front panel. The link reads NO ALARMS PENDING when there are no alarms to report. When alarms are present, an alarm bell icon appears and a red ALARMS PENDING link appears. In addition, the text on the navigation tab for any site with alarms will turn red.

> Note: While the default view shows metering, status and command channels for only the selected ARC-16 site, the alarms link reports current alarms for all connected ARC-16s. This allows operators to receive alarm notifications for all sites, even though only one is displayed at a time.
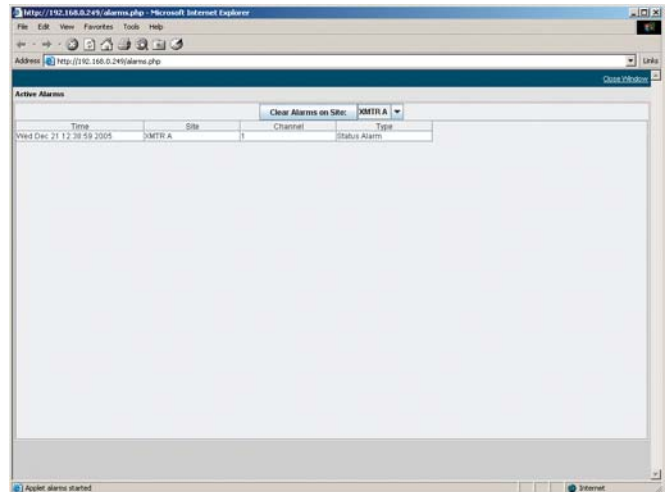
To view alarms history, click the alarms link. Alarms are displayed in a new window.

To clear alarms, select the desired site from the drop-down list and then click the Clear Alarms on Site button. The alarms will be cleared from the front panel of the ARC-16, and when the out of tolerance condition returns to normal, the alarms link on the main Site View will read "No Alarms Pending." The alarm list in the Alarms Window will continue to show the alarm history.

IMPORTANT! Clearing alarms from the Web Interface permanently erases them from the ARC-16, and an ESI (if one is in use) will no longer report them. However, if you are using AutoPilot software for logging, the alarm will be recorded in the log as long as the alarm was present at the time the log was taken.

EMAIL ALARM NOTIFICATIONS

When you specify an SMTP server on the Email Setup page of the Configuration window (see the previous chapter), email alarm notifications will be sent to all of the email addresses you entered as soon as the alarms are received by the Web Interface. You can add, remove or modify the email list by clicking the configuration link at the top of the screen and going to the Email tab. System privileges are required.

Note that if the Web Interface is power cycled when there is an out of tolerance condition, the Web Interface will send new email notifications even if these alarms were previously reported.

MAINTENANCE MODE

When an ARC-16 unit is switched into Maintenance Mode from the ARC-16 front panel, the Web Interface will disable the command channels for that site. Meter and status readings will remain updated, but you will not be able to execute commands. The navigation tab for the ARC-16 will turn yellow, and the metering, status and command indicators and buttons will be grayed out as an indication that the selected unit is in Maintenance Mode.

Command capability will automatically be restored when Maintenance Mode is turned off.

> Note: You can only turn Maintenance Mode on and off from the front panel of the ARC-16 unit. For safety reasons, you cannot use the Web Interface to enable or disable Maintenance Mode.
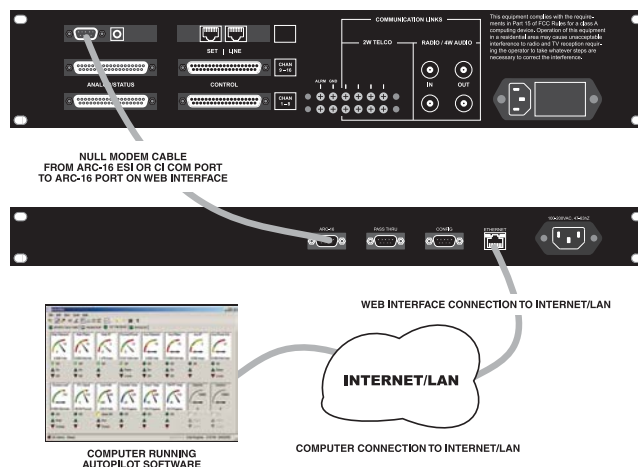
DISCONNECTING

Disconnecting after a Web Interface session prevents unauthorized access to the site using the browser's BACK button. To disconnect from the Web Interface, close Internet Explorer or click the Log Out link to return to the login screen.

USING THE WEB INTERFACE TO CONNECT WITH AUTOPILOT

In addition to web-based site access, the Web Interface supports TCP/IP connections from AutoPilot. This allows a PC running AutoPilot to connect to an ARC-16 over the LAN or Internet without relying on a serial connection or dedicated computer at the remote site. The diagram below shows how this works.

IMPORTANT! The Web Interface will only work with AutoPilot version 2.3 and above. If you are already using a Windows version of AutoPilot, you can upgrade to AutoPilot 2.3 free by downloading the software from the Burk Technology web site at www.burk.com. If you are not using AutoPilot, contact Burk Technology for information on what it can do for you.

1. There are no Web Interface configuration changes required to make a direct TCP/IP connection with AutoPilot, but you will need to create a new ARC-16 connection or edit an existing one to tell AutoPilot how to connect to the Web Interface. From the Edit menu, select Connections. Then select an existing connection to Edit or click New and create a new one. Where you are prompted for the connection type, select Web Interface and enter the IP address (or host name) of the Web Interface and the TCP Port you entered when you configured the Web Interface. The TCP Port must match the value saved on the Web Interface.

2. After you set up the connection in AutoPilot, press Connect. The Web Interface will send the ARC-16 data via TCP/IP to AutoPilot. AutoPilot operation using a Web Interface connection is no different from using a serial connection.

> Note: The Web Interface supports a total of ten (10) simultaneous connections, whether the connections are with Internet Explorer, AutoPilot or a combination of both.

Updating Firmware

To update the firmware in Web Interface units that have firmware version 2.0 or higher, visit the Burk Technology firmware download page at http://www.burk.com/support/downloads_arcwifirmware.html. Select the file to download and save it to your computer.

After downloading the new firmware file to your PC, log in to the Web Interface and click on the Configuration link. Navigate to the Update Firmware tab and click the Browse button below to select the file for upload. Then click the Upload button to load the firmware to your Web Interface. It may take several minutes for the process to complete. The Web Interface will automatically restart when finished.

To see verify the firmware version in the Web Interface, click on the Configuration Link and navigate to the configuration Home Page. Follow the link for "View System Info" to see which firmware version is loaded.

Note: If your system has firmware version 1.x, please send email to support@burk.com for upgrade information.

Troubleshooting

TROUBLESHOOTING TIPS

Most connection errors can be traced to improper network settings specified during initial configuration, or to security conflicts with a local firewall. Check with your network administrator or ISP to make sure all settings are correct, and verify that your firewall is not preventing access.

If you are encountering display issues, double check that the latest version of Java is installed. You can download Java free from www.java.com. The minimum requirement is version 1.4.2. The Web Interface supports Internet Explorer version 5.0 or higher.

Finally, a LINK ERR message may be caused if the ARC-16 you are connecting to is not connected to the Web Interface (either directly or "daisy-chained" through another ARC-16 unit). Also check that firmware version 5.0 or higher is installed in all units in the ARC-16 system you are connecting to.

For more troubleshooting tips, please visit the support section of the Burk Technology web site at www.burk.com.

Burk Technology customer support is available by email or telephone Monday-Friday from 9AM to 5PM ET. Send email to support@burk.com, or call 978-486-3711.

Specifications & Warranty

Dimensions:

19" (48.3 cm) W x 10" (25.4 cm) D x 1-3/4" (4.45 cm) H

Operating Temperature:

0 to 50° C

Power Supply:

100 to 240 VAC, 50/60Hz; 20W

Rear Panel Connections:

ARC-16: For full-time serial link or direct connection to the ARC-16 ESI or CI.

PASS-THRU: Allows direct connection of a PC running AutoPilot or AutoLoad without disconnecting the Web Interface.

CONFIG: Provides PC Link for initial configuration.

RJ-45 ETHERNET Port: 10BaseT Ethernet port connects to LAN/WAN. LEDs show link status and activity.

All specifications are subject to change without notice.

WARRANTY

Burk Technology, Inc. warrants the ARC-16 Web Interface to be free of defects in materials and workmanship for a period of 24 months from the date of purchase. Equipment will be repaired or replaced at the option of Burk Technology and returned freight prepaid to the customer. Damage due to abuse or improper operation or installation of the equipment or caused by fire or flood or harsh environment is not to be covered by this warranty. Damage in shipping is not the responsibility of Burk Technology. A return authorization must be obtained before returning any equipment. Materials returned under this warranty must be shipped freight prepaid and insured in the original shipping carton or suitable substitute to Burk Technology, 7 Beaver Brook Road, Littleton, MA 01460. Repairs not covered under this warranty will be made at prevailing shop rates established by Burk Technology, Inc.

THE WARRANTY SET FORTH ABOVE IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. BURK TECHNOLOGY, INC. SHALL NOT BE LIABLE TO ANY PARTY FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF THIS EQUIPMENT.