AARLON™ SETUP GUIDE

Version 3-20-2010

This a brief setup guide for Aarlon

Before you start you will need to know

- Is Aarlon to be used through a router, if so, you need the router's Local IP address and Subnet Mask.
- Otherwise, you will need the ISP provided IP address, Subnet Mask, and Default Gateway.
- For IP access to Aarlon go to Section 2.0.1

1.0

Back Plane Connections

1.1

Voltage inputs
There are 16 channels of +/- 10 Volt DC inputs labeled V1-V16 on the back plane

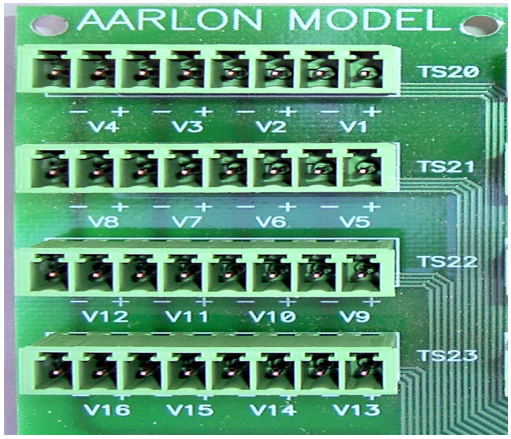


Fig.1

When making connection to the inputs, please be mindful of the polarity and use the + and – for each channel. Do not use chassis ground as a voltage reference.

1.2

Switch (or Status) inputs

The Aarlon Back Panel has 24 ***DRY*** (apply no voltage - contact closure only) contact Status inputs. Labeled SW1 - SW24

Each input can except N.O or N.C. switch types (See 2.2.4 Fig. 31 how to configure switch types on the Aarlon web page)

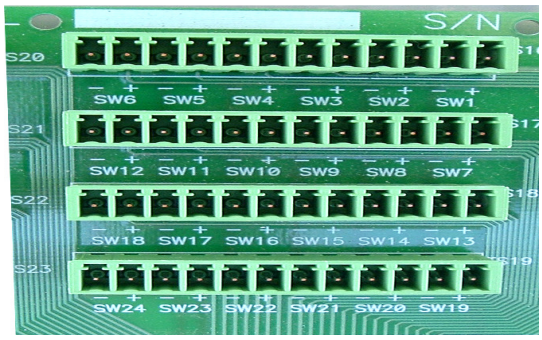


Fig. 2

Each monitored switch (Status input) must have both leads, + and – used

1.3

Relay outputs

Aarlon has 32 form “C” relays

Each relay is rated @ 2 Amps Max Restive load

They are labeled K1 - K32

The first 16, K1 - K16 are paired and are timed momentary. The closure time of these momentary relays is settable using the delay setup page. See 2.2.3 Fig. 29

The last 16, K17 - K32 are individual latching on-off relays

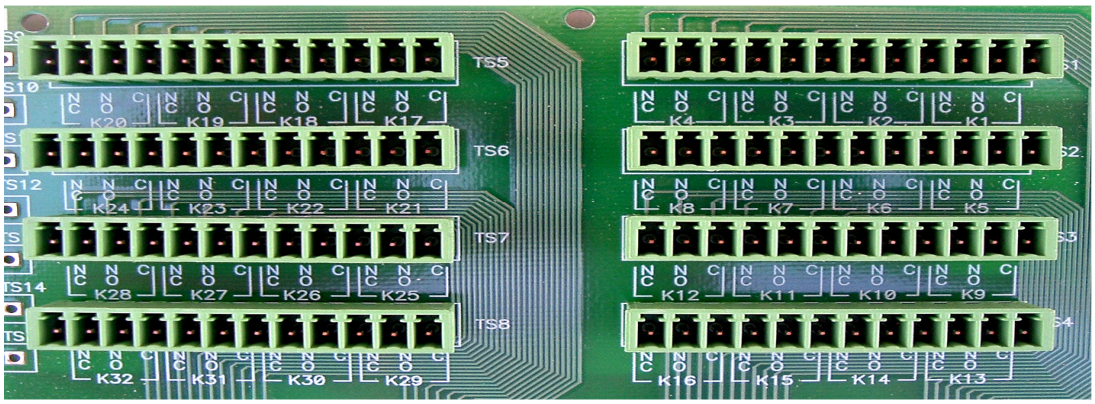


Fig. 3

1.4

Remote Temperatures input.

Sensor Span -50°F to +220°F

Up to 7 remote Temperatures can be connected to the Back Plane.

Each Aarlon comes with 1 remote temperature sensor, and 20’ of cable.

Up to six more optional temperature sensors may be added.

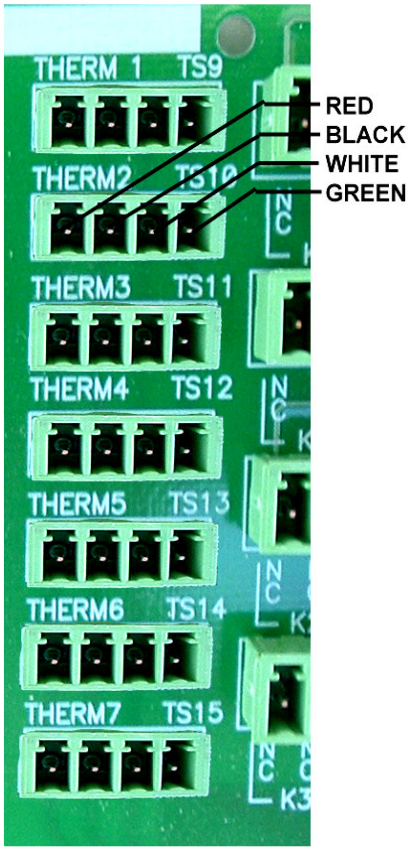


Fig. 4

1.5

17 Volt AC In, Aux Power Out, WAN Port, Phone
(Note – the 17vac input is used to measure power line voltage and frequency, so a DC supply cannot be used)

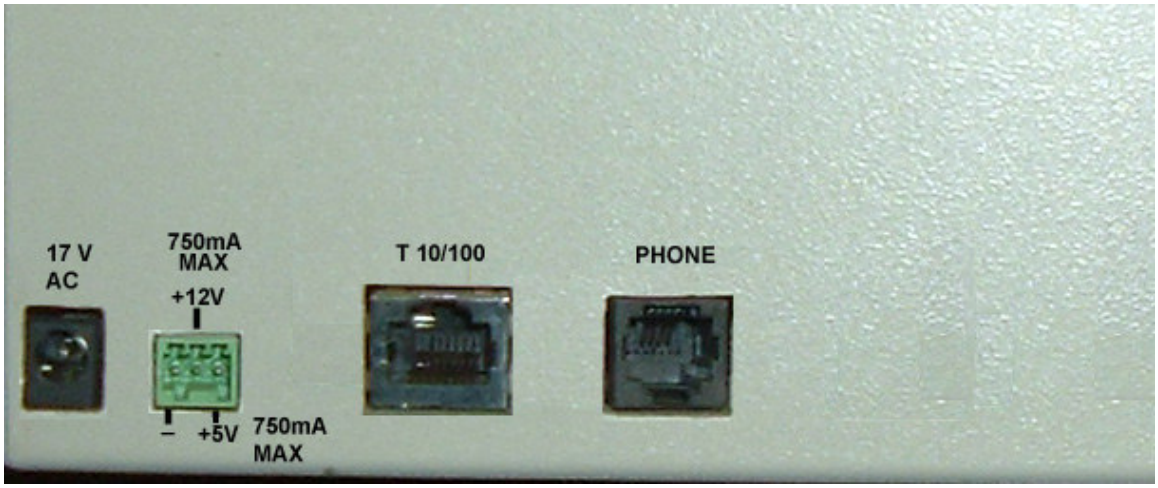


Fig. 5

1.6

Optional Wind Speed Wind Direction

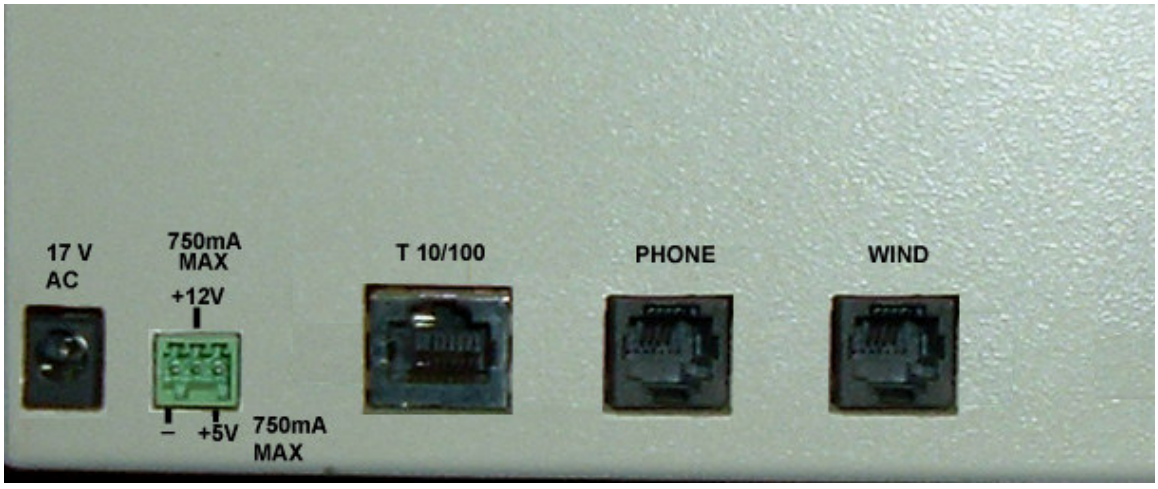


Fig. 6

1.7

Optional Wind Speed Wind Direction and Audio, Video

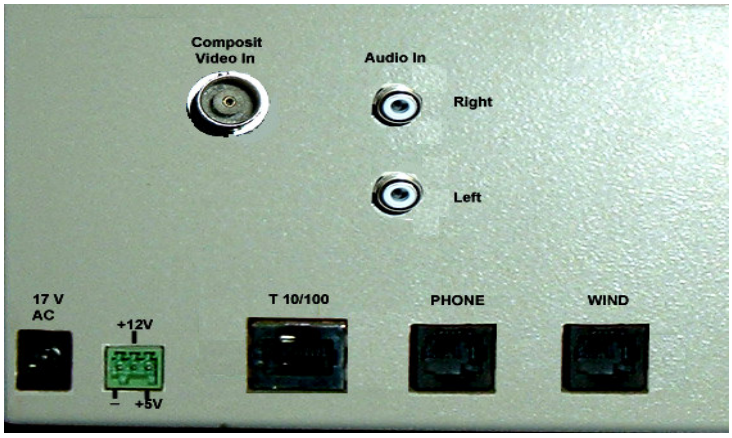


Fig. 7

2.0.0

WEB interface

2.0.1

Setting up the Aarlon unit

It is recommended that a Laptop computer be used for initial setup of the Aarlon unit. A cross over cable is necessary if you are connecting directly from the laptop to the Aarlon unit. The crossover cable in not needed if you are connecting through a router.

The factory default IP address is 192.168.1.25
Subnet mask 255.255.255.0
Web Page Address: http://192.168.1.25:10103
User Name: AarlonAdmin
Password: AarlonAdmin

Fig. 8

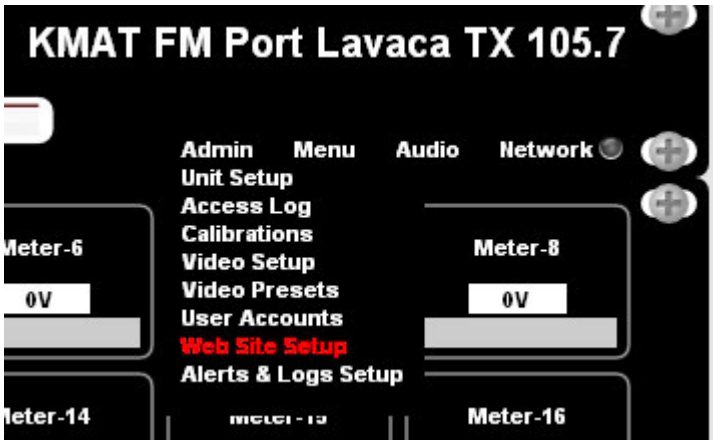
Aarlon Web Interface

Fig. 9

2.0.2

Entering Labels

Navigate to the Admin tab, click on Web Page Setup



Fig, 10

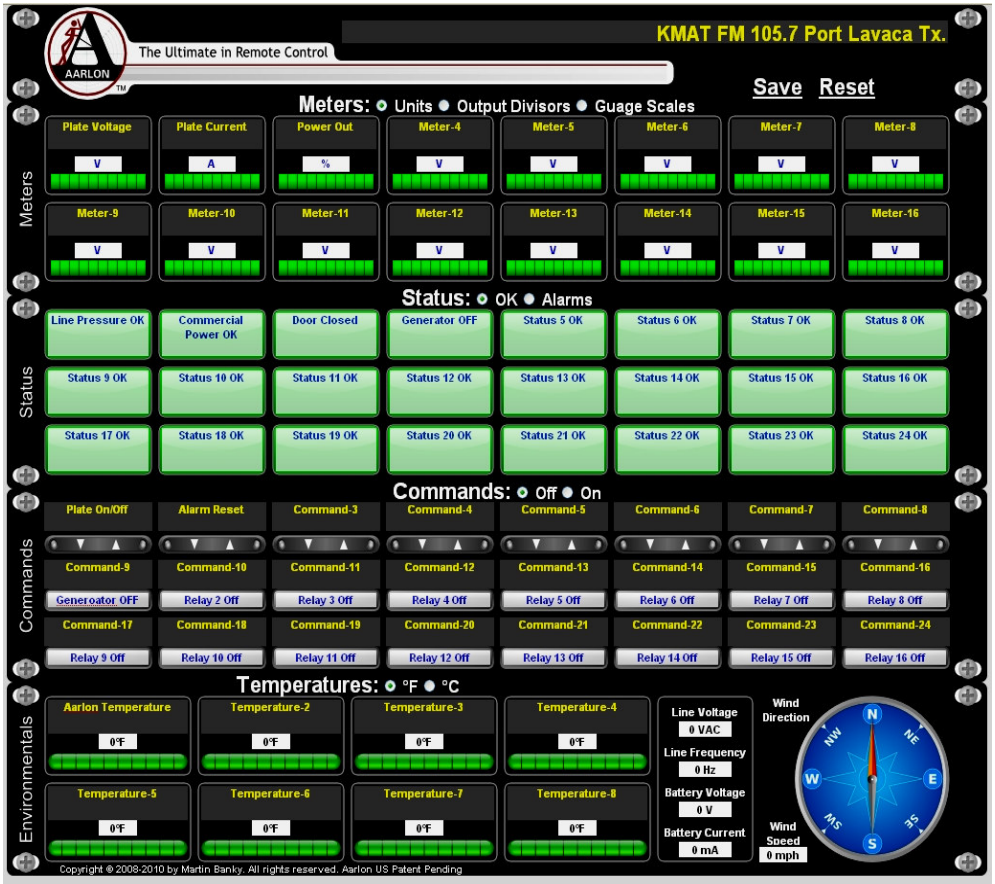


Fig. 11

2.0.3

Setting up the page, Select the Units button
This sets the Text entry feature

Fig. 12

Site Label
In the upper right corner you may place the site label (57 char max including spaces)

Fig. 13

Meter Labeling

Highlight the Label Meter * type in the name for that Meter

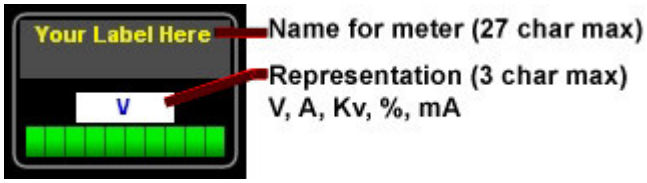


Fig. 14

2.0.4
Status OK Labels
Highlight the text in the status box and enter the name for that status (51 char max including spaces)

Fig. 15

2.0.4

Click the Status Alarms button

Fig. 16

Status Alarmed Labels

Highlight the text in the status box and enter the name for that status (51 char max including spaces)

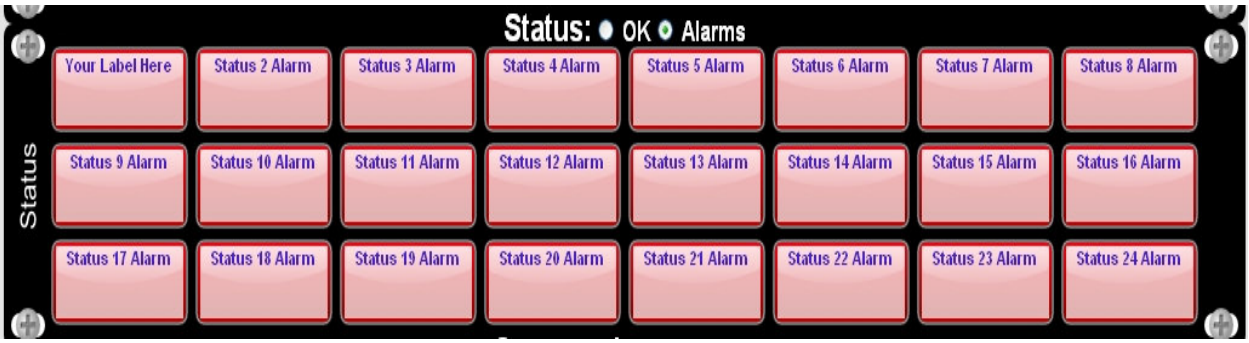


Fig.17

2.0.5

Relay Labels OFF
Highlight the text in the relay box and enter the name for that relay (17 char max including spaces)

Fig. 18

2.0.5

Relay Labels ON
Highlight the text in the relay box, and enter the name for that relay (17 char max including spaces)

Fig. 19

2.06

Temperatures Labels
Highlight the text in the temperature box and enter the name for that temperature reading (17 char max including spaces)

Temperatures: ℉ or ℃, select the way you need to display

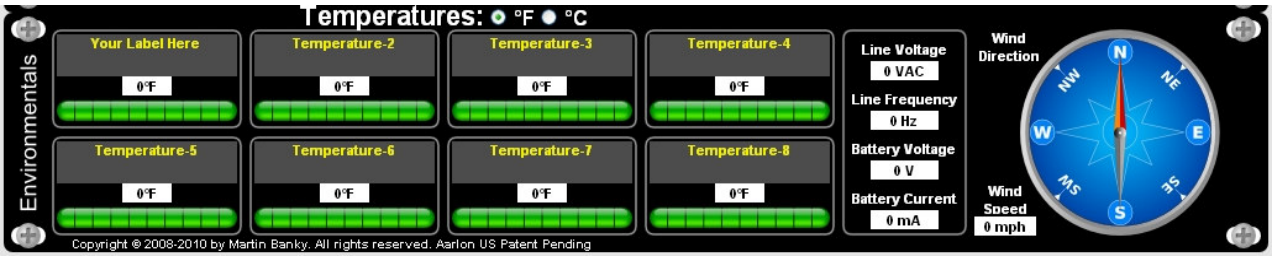


Fig. 20

After all entries have been made click **SAVE** at the top right of the page.

2.1.0

Calibrating the meter channels
Navigate to the Admin tab in the upper top right corner on the Aarlon web page
Click on **Calibrations**.

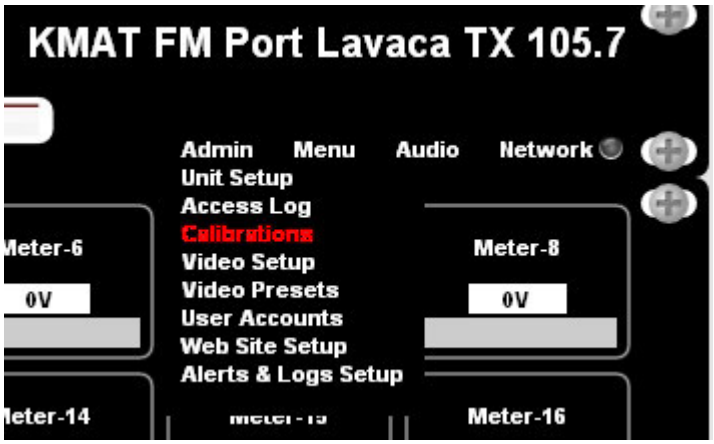


Fig. 21

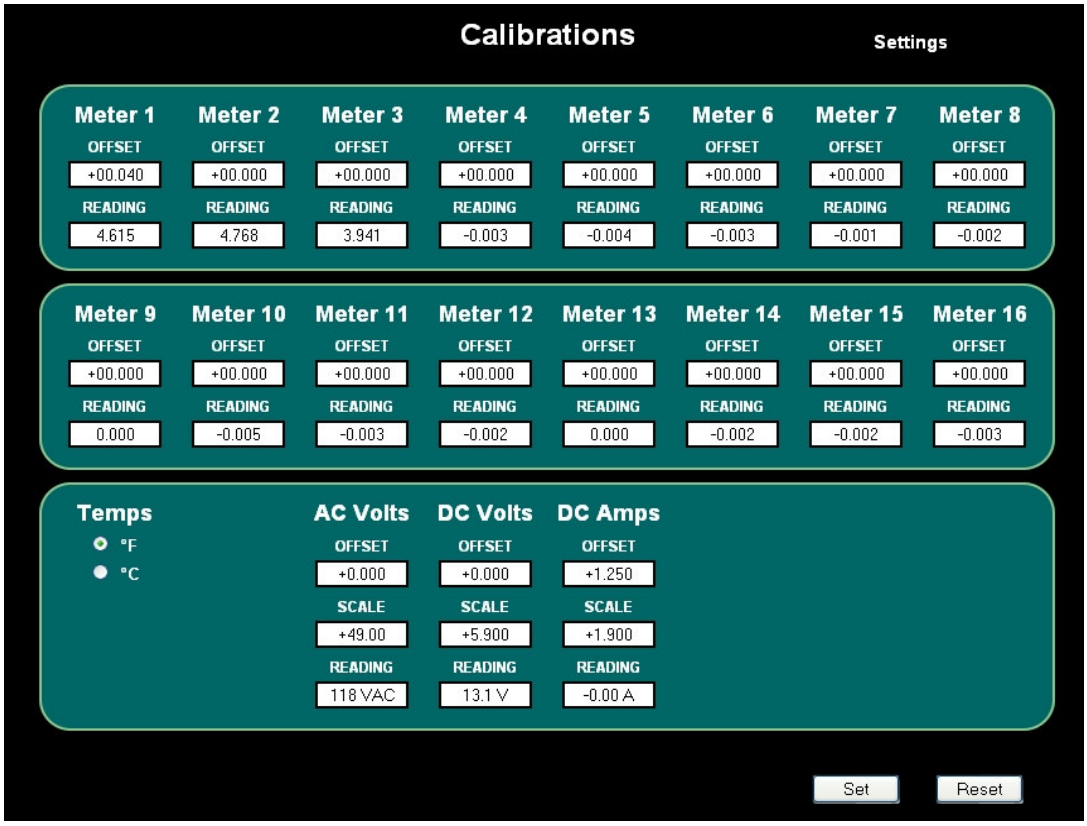


Fig. 22

2.1.1

Meter Calibration

Offset: This allows the channel to be zeroed
As you enter a new value you can check your effect on the meter READING by

Clicking 

on the Calibration page

Final calibration is completed on the Web Page Setup page using the divisors Setup
See section 2.3.0

Example

Fig. 23

When finished, press 

to save your entrees

2.0.3

AC voltage, Battery voltage, Battery current

These are set at the factory and should not need to be adjusted.

Temps: The display of temperature can be in ℉ or ℃

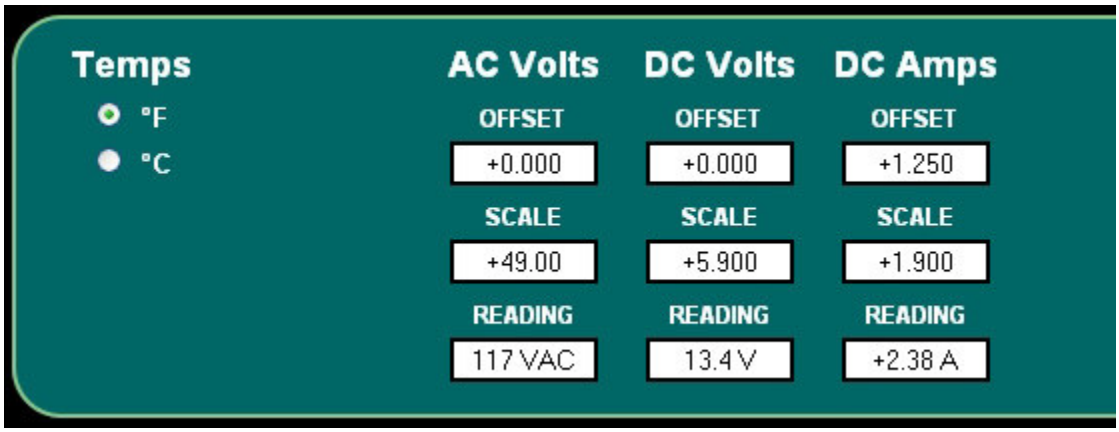
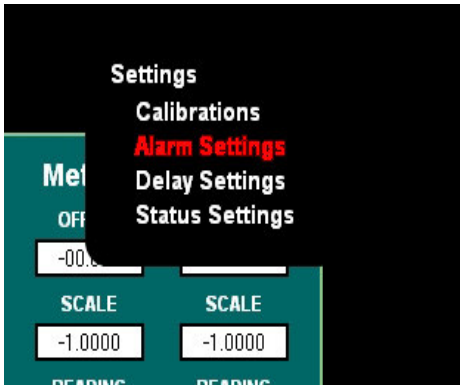


Fig. 24

2.2.0

Alarm **Settings**



Fig, 25

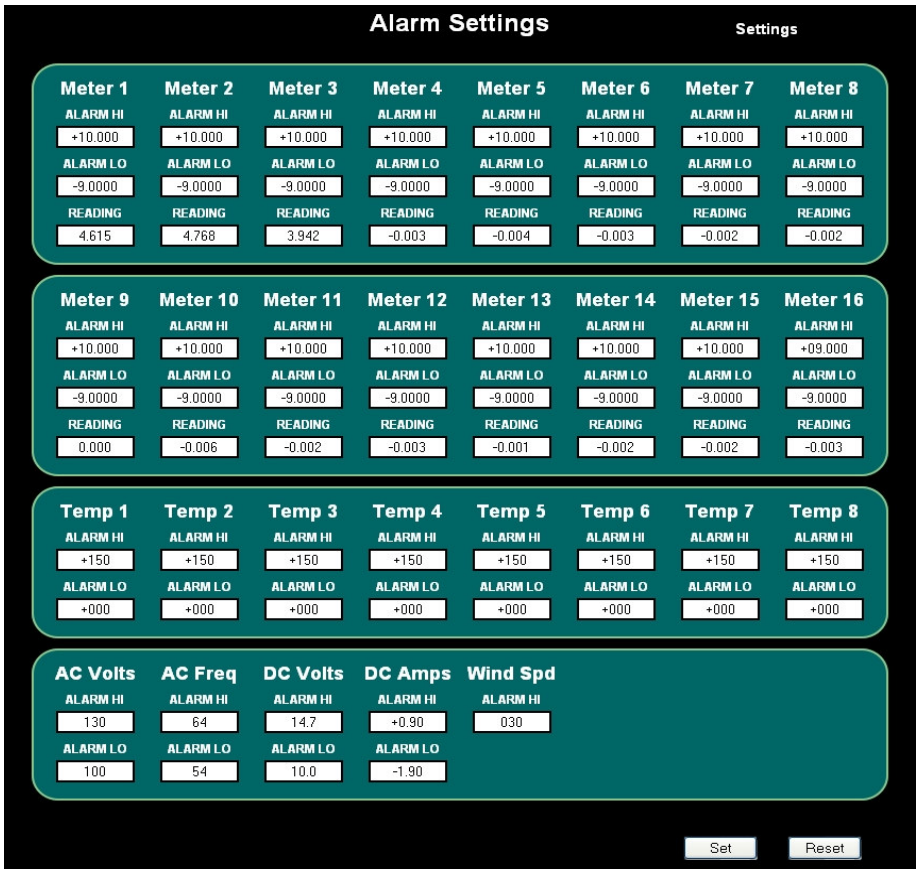


Fig.26

2.2.1

Enter in the boxes the High and Low Alarm points you need

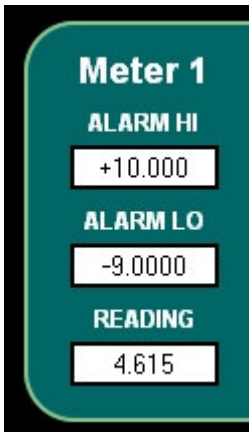


Fig. 27

When finished, press 

to save your entrees

2.2.3

Delay Settings

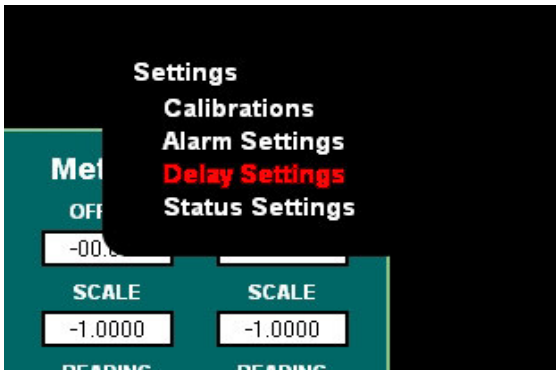


Fig. 28

Enter a desired delay time for the Alarm channel as needed
Min delay is 0.25. Max is 249.75 seconds.

Relay Delay is also set on this page.

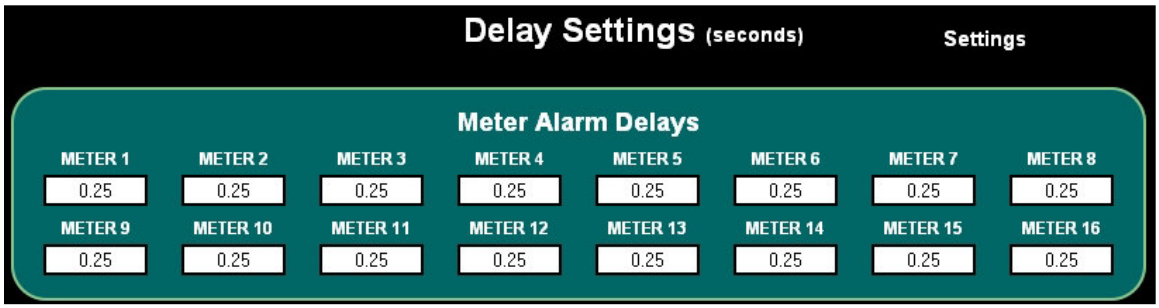


Fig. 29

When finished, press 

to save your entrees

2.2.4

Status Settings

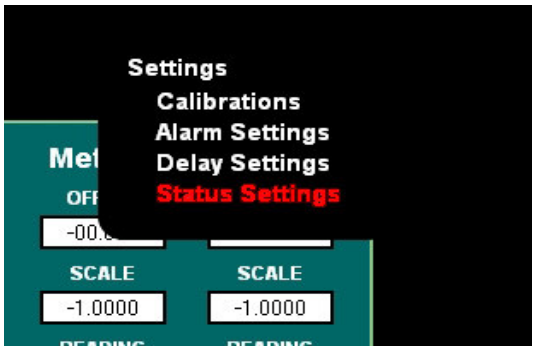


Fig. 30

Select switch type N.O. or N.C. Using the Radio Buttons

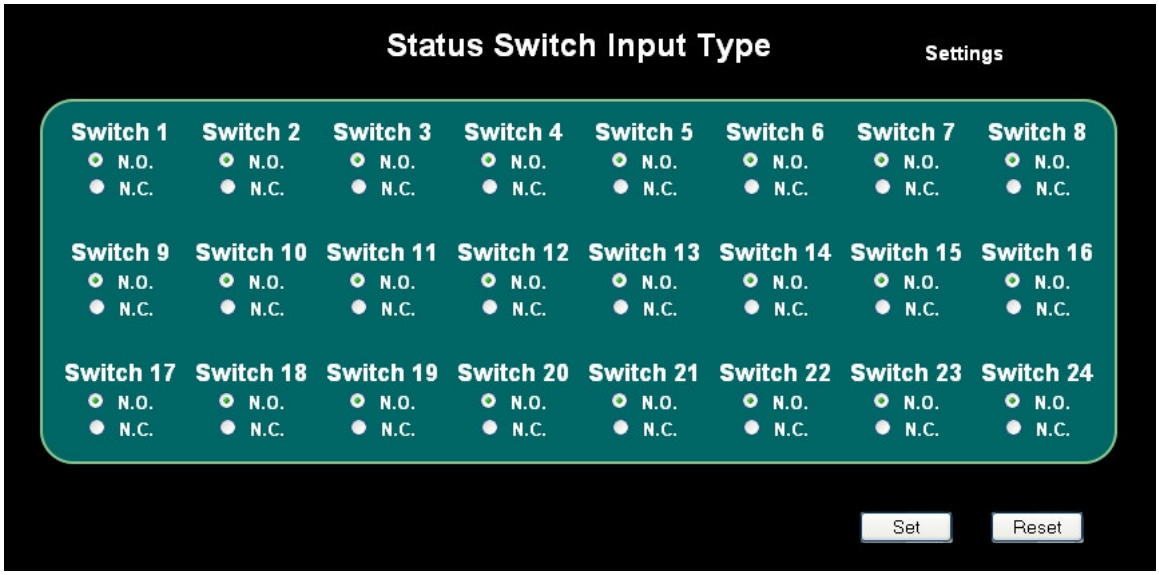


Fig. 31

When finished, press 

to save your entrees

2.2.5

Setting Divisors
Final calibration of the meter channels is done here

On the web page setup in the Meters menu select the radio button: Output Divisors

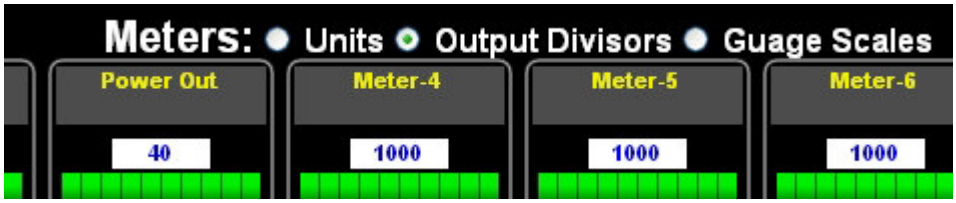


Fig. 32

By placing a value in the blue text area, the divisor or scaling of the front panel is set. You may use decimal points Example: **1.54,** to get the desired reading.

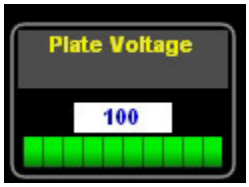


Fig. 33

After entries have been made click **SAVE** at the top right of the page or to see the changes.

2.2.6

Bar graph display is set in the Gauge Scales.

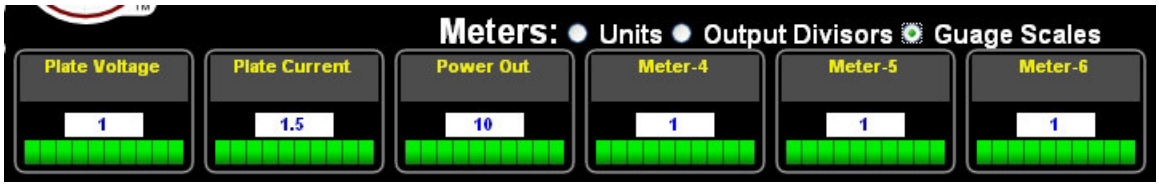


Fig. 34

By placing a value in the blue text area, the scaling of the front panel green bar is set. You may use decimal points Example: **1.25,** to get the desired reading

2.2.7

Alarm Priorities

Fig. 35

The alarm output may be set here.

Log: Wrights the alarm to the log files only.

Email: Notes the alarm in the log e-mails and sends text message.

Call: Notes the alarm in the log sends e-mails, text message, calls out on the POTS line.

2.2.8

FCC Log Settings

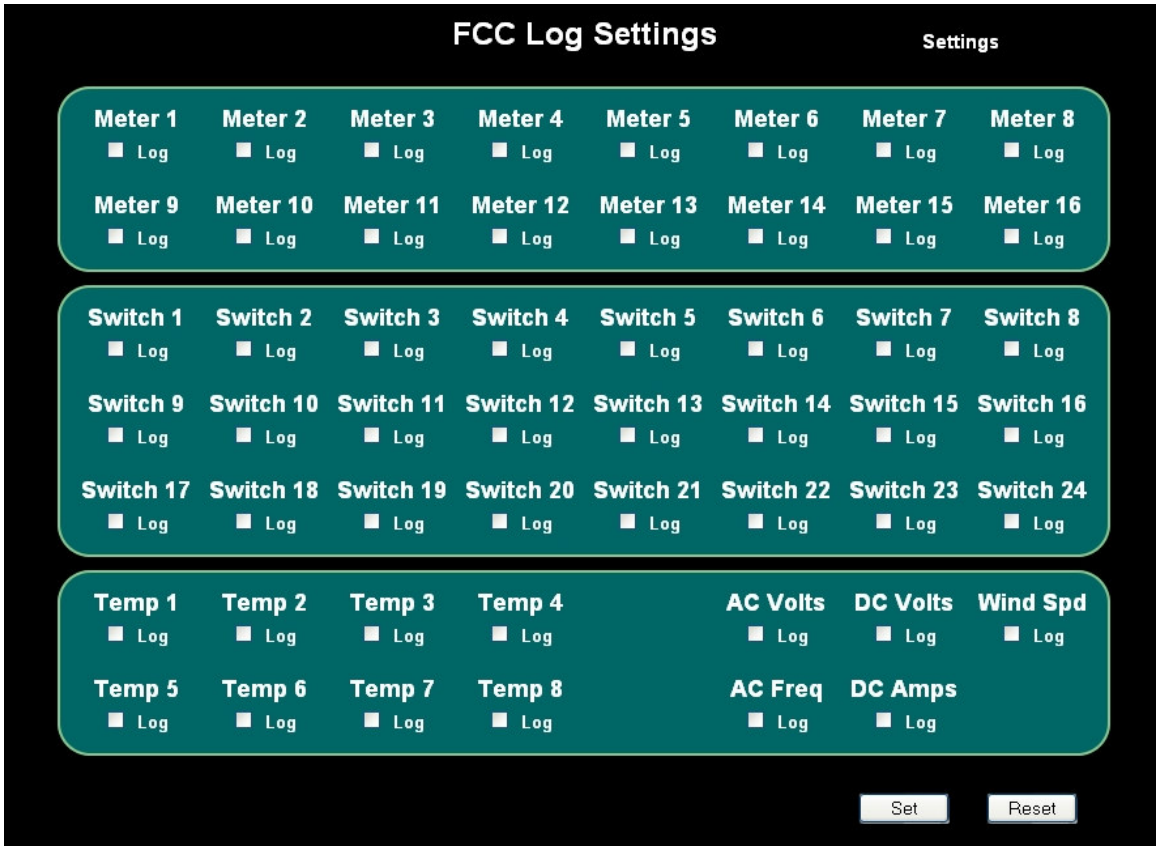


Fig. 36

For those that need to keep a separate log for the FCC requirements you may chose which alarms need to be noted in a separate FCC file here.

2.0.3

Network Settings
Here you configure the unit on the network

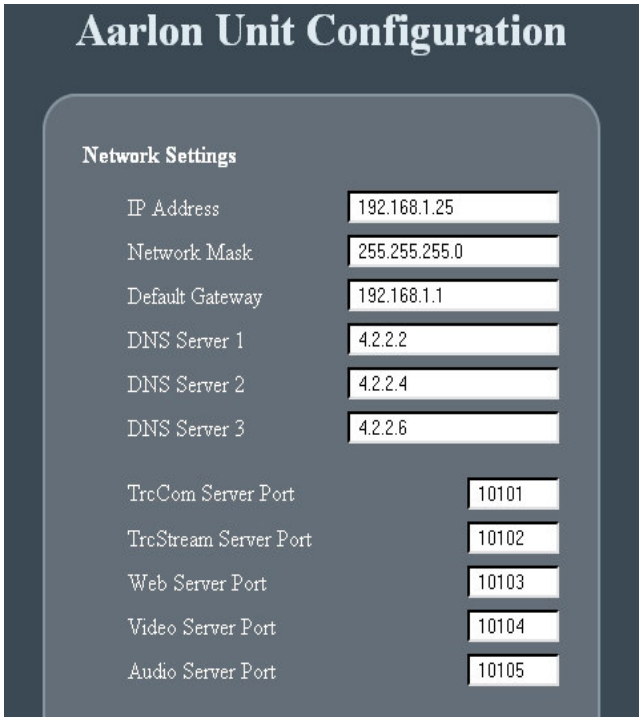


Fig. 36

IP Address, Subnet Mask, Default Gateway
If using Aarlon through a router, you must first get the router's local IP address and subnet mask.

If the router's network scheme is different than the factory defaults, you will need to change the Aarlon settings to match this.

Example:

Router Local IP Address: 192.168.0.1
Router Subnet Mask: 255.255.0.0
Aarlon IP Address: 192.168.0.25
Aarlon Subnet Mask: 255.255.0.0
Aarlon Default Gateway: 192.168.0.1 (Router Local IP Address)

If a router is not being used, you need to change the Aarlon IP address, subnet mask, and default gateway to the ones provided by your ISP.

DNS Servers

Aarlon is setup to use AT&T's DNS servers. There should be no reason to change this, but you may, if you so wish.

Port Settings

There are five ports that Aarlon uses for the different services. The main one to be concerned with is the Web Server Port. This port controls what the Aarlon web page address is.

Example:

Web Server Port: 10113
Web Page Address: http://192.168.1.25:10113

If using Aarlon through a router, you will need to setup port forwarding in the router to allow access to these ports. If you need help setting up port forwarding, you can go to PortForward.com for more information. (NOTE – Aarlon has no association with Port Forward)

Time Settings

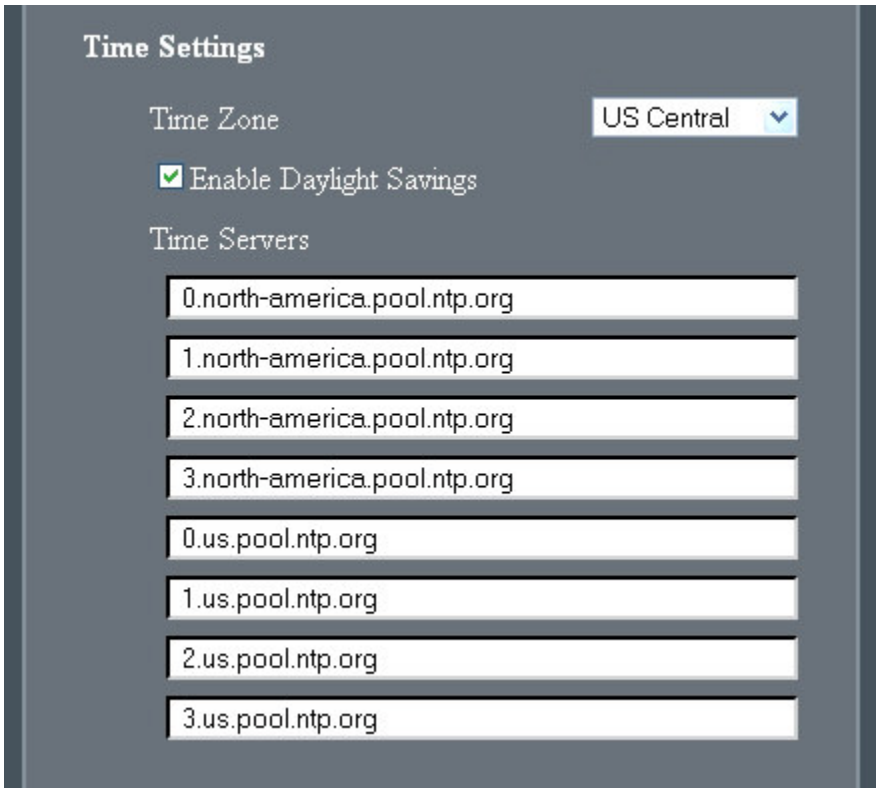


Fig. 37

Time Zone
Set the Time Zone were Aarlon is located.

Time Servers
Aarlon automatically updates the time from the listed time servers. There should be no reason to change the time servers, if Aarlon is located in North America. If you need a list of other time servers, you can go to www.pool.ntp.org.

System Utilities

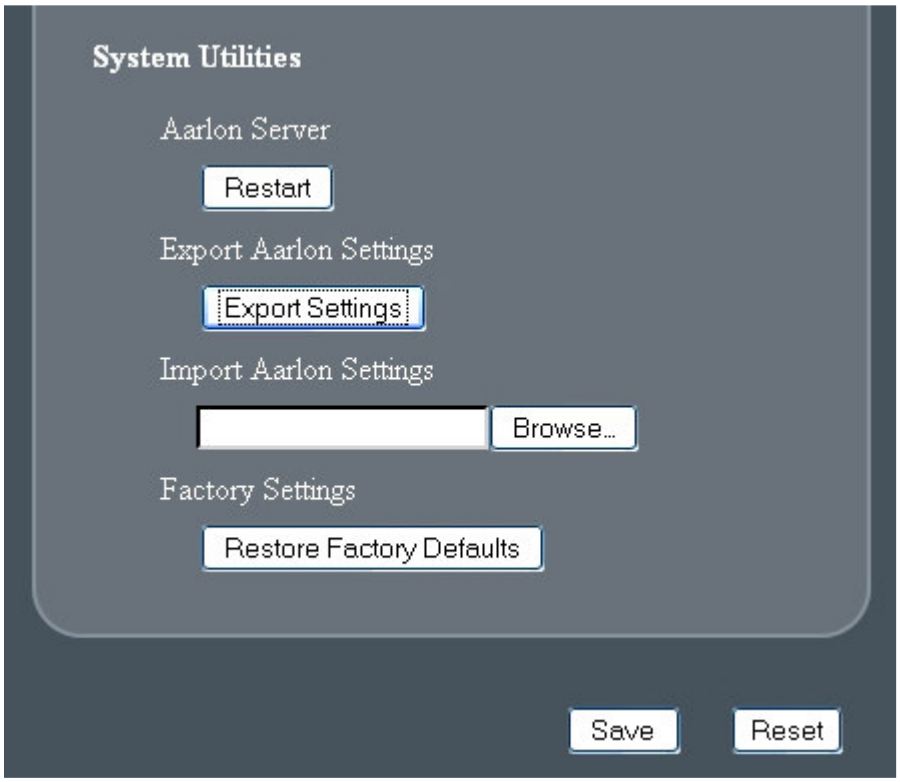


Fig 38

Aarlon Server Restart
This will restart Aarlon. It takes ~35s for a restart, after which, you will be redirected back to the main page.

Export Aarlon Settings
This will save all user settings, including User Accounts and Calibrations. This file can then be used to setup other Aarlon units or to restore the original unit back to the saved settings.

Import Aarlon Settings
This will restore the saved settings.

Restore Factory Defaults
This will reset Aarlon to the factory defaults.

User Accounts

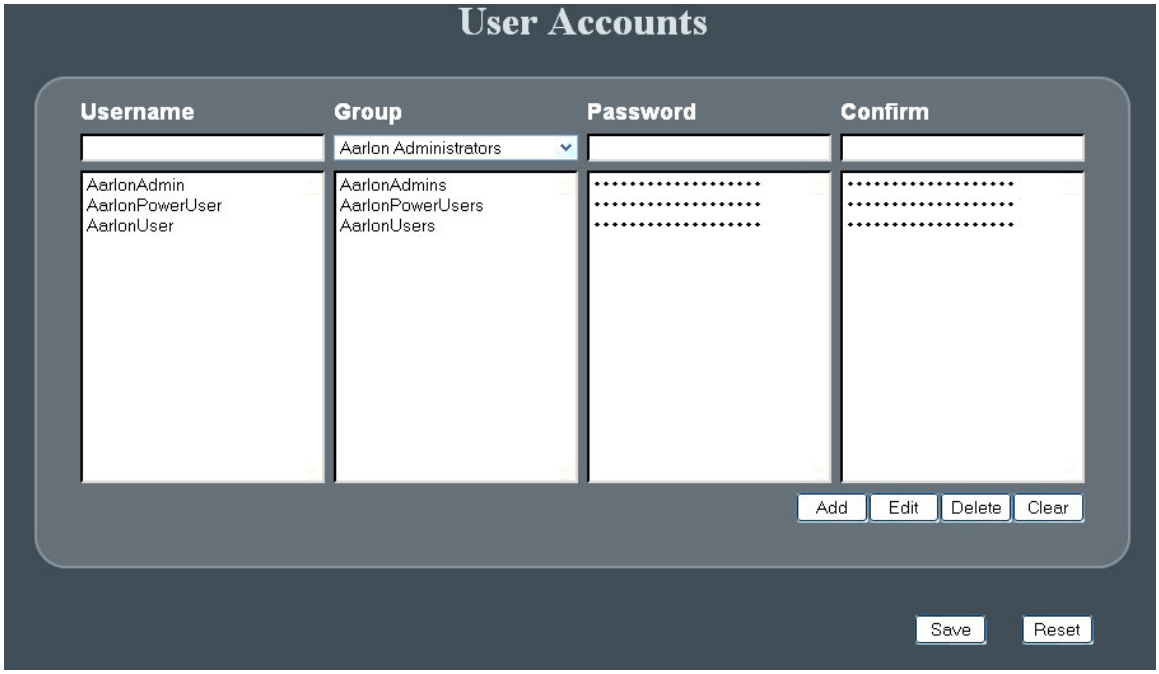


Fig. 39

This page allows you to setup and delete the various User Accounts. You can change group affiliation and user passwords. To change user names, you would need to delete the account and create a new one, with the desired user name.

Aarlon Administrators Group
The Aarlon Administrators group has full control of Aarlon. (NOTE – There must be at least one Aarlon Admin.)

Aarlon Power Users Group
The Aarlon Power Users group has access to everything under Menu, and can control the relays.

Aarlon Users Group
The Aarlon Users group has access to everything under Menu and can only view the main page.

Help or Questions:

Please contact us at the following:

Email: Aarlon@Aarlon.com

Telephone: 713 722 0169 Bill Cordell
520 405 8303 Phil Pajalich

Address: 866 N Wilcrest
Houston, TX 77079

Web site: www.Aarlon.com

GENERAL INFORMATION

WHAT IS AARLON?

A remote control and data acquisition system, accessed by a web browser, the telephone and/or the GUI client application.

WHAT CAN AARLON DO?

- Check an individual meter
- Inspect status indications
- Test temperature channels
- Ensure power line conditions
- Verify backup battery
- Confirm wind condition
- Control up to 32 form “C” relays

EASY ACCESS

- Assign Aarlon a static IP address and then via a web browser or the separate application, manage an entire broadcasting site.
- Simply click any of the assigned eight (8) up/down command channels or any of the assigned 16 on/off command channels for easy control.
- All access is password controlled for security.

USER FRIENDLY

- Simple and intuitive graphic based user interface.
- Video and real time audio available via a web browser.
- Remote messaging
- Minimal setup time

PRODUCT FEATURES

- 16 voltage inputs -10/+10 volts DC with 16 bit resolution (for the instrumentation industry, Aarlon can easily be configured to 0-5 vdc or 4-20 ma inputs).
- 32 relay commands N.O. or N.C. (16 paired, 16 individual) contact rating: one amp at 24 volts DC max.
- Power line voltage and frequency monitoring.
- Backup battery voltage and amperage monitoring.
- Wind speed and direction indicators.
- CCTV video server. Video input NTSC or PAL with Pelco PTZ RS 485 control.
- Streaming audio - listen to station output in real time. Two balanced audio inputs, high level.
- Two-way POTS communication (similar to the older Gentner* VRC series of remote controls).
- T base 10/100 Ethernet interface.
- Intuitive dynamic web interface package. Internet enabled.
- One hour minimum battery backup.
- One internal and up to seven external temperature inputs from -50 to +244F, resolution +/- 0.5 degree.
- Zig-Bee 802.15.4 on-board wireless network (optional and separate Zig-Bee units).
- One internal and two external humidity sensors 1% to 99% Rh (optional).
- 24 status inputs, consisting of N.O. or N.C. dry contacts.
- Composite video camera with PZT (optional)
- Anemometer / wind vane (Peet Brothers separate unit – optional)

Aarlon™: The Ultimate in Remote Control c/o Cordell Communications, Inc.
866 N. Wilcrest, Houston, TX 77079 713-722-0169
aarlon @ aarlon.com

- Gentner is a registered trademark of Burk Technology, Inc.

Aarlon Telephone access information and menu

Default access number for Aarlon: **123#** (the "#" sign is expected to enter the access number, therefore the Aarlon telephone access number is really **123**

Incoming Call Menu			
	Level 0	Level 1	Level 2
Greeting w/System Status and Dump Straight to Listening for Commands			
	Options		
	0#	Help	
	1#	Hear System Status	
	2#	Hear Relay Label	
	3#	Turn On/Off Relay Labels	
	4#	Turn On/Off Acknowledgments	
	Relays		
	11#	Command 0	
			* Up
			# Down
	12#	Command 1	
			* Up
			# Down
	13#	Command 2	
			* Up
			# Down
	14#	Command 3	
			* Up
			# Down
	15#	Command 4	
			* Up
			# Down
	16#	Command 5	
			* Up
			# Down
	17#	Command 6	
			* Up
			# Down
	18#	Command 7	
			* Up
			# Down
	19#	Command 8	
			* On
			# Off
	110#	Command 9	
			* On
			# Off

	111#	Command 10	
			* On
			# Off
	112#	Command 11	
			* On
			# Off
	113#	Command 12	
			* On
			# Off
	114#	Command 13	
			* On
			# Off
	115#	Command 14	
			* On
			# Off
	116#	Command 15	
			* On
			# Off
	117#	Command 16	
			* On
			# Off
	118#	Command 17	
			* On
			# Off
	119#	Command 18	
			* On
			# Off
	120#	Command 19	
			* On
			# Off
	121#	Command 20	
			* On
			# Off
	122#	Command 21	
			* On
			# Off
	123#	Command 22	
			* On
			# Off
	124#	Command 23	
			* On
			# Off
	Meters		
	21#	Meter 0	
	22#	Meter 1	
	23#	Meter 2	
	24#	Meter 3	
	25#	Meter 4	
	26#	Meter 5	
	27#	Meter 6	

	28#	Meter 7	
	29#	Meter 8	
	210#	Meter 9	
	211#	Meter 10	
	212#	Meter 11	
	213#	Meter 12	
	214#	Meter 13	
	215#	Meter 14	
	216#	Meter 15	
	Temperatures		
	31#	Temp 0	
	32#	Temp 1	
	33#	Temp 2	
	34#	Temp 3	
	35#	Temp 4	
	36#	Temp 5	
	37#	Temp 6	
	38#	Temp 7	
	Environmentals		
	41#	Line Voltage	
	42#	Line Frequency	
	43#	Battery Voltage	
	44#	Battery Current	
	45#	Wind Speed / Wind Direction	
	Alarms On/Off		
	500#	Alarms Off	
	501#	Alarms On	