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Please read this manual carefully before installation, operation and maintenance of the AcuLink810 series meter. The following symbols in this manual are used to provide warning of danger or risk during the installation and operation of the meters.



Electric Shock Symbol: Carries information about procedures which must be followed to reduce the risk of electric shock and danger to personal health.



Safety Alert Symbol: Carries information about circumstances which if not considered may result in injury or death.

Prior to maintenance and repair, the equipment must be de-energized and grounded. All maintenance work must be performed by qualified, competent accredited professionals who have received formal training and have experience with high voltage and current devices. Accuenergy shall not be responsible or liable for any damages or injuries caused by improper meter installation and/or operation.

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1. Overview

The AcuLink 810 is an intelligent data acquisition server and gateway that allows users to collect data from all Accuenergy meters, sensors and other third party devices.

The AcuLink collects and logs time-stamped data from connected downstream devices (serial or Ethernet), and is able to store this data locally in non volatile memory. When using Ethernet it is possible to push or pull data using HTTP or FTP protocols as well as pushing data to different web-based energy management systems or any front end software platform. There is no software required for the AcuLink as all configuration is done from the gateways web interface.

2. Functional Description

2.1 Hardware Specifications

- Disk Capacity: 8 GB RAM
- Interval Recording: 1-1440 minutes, user selectable
- LEDs: Power, Ethernet, WiFi, Modbus TX/RX, AcuMesh

2.2 Power

Power Supply: 24VDC, 500mA

NOTE: This unit is to be sourced by a Class 2 power supply with the following output: 24VDC, 500mA min not to exceed 8A.

Isolation: RJ45 Ethernet 1500Vrms

RS485 2500Vrms Digital Input 5000Vrms



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2.3 Communication

- Protocols Supported: Modbus RTU, Modbus TCP, HTTP/HTTPS, FTP, SNTP, SMTP
- LAN: 2 x RJ45 10/100 Ethernet, full half duplex, auto polarity
- WIFI: 802.11 b/g/n, 2.4GHz
- USB: USB expansion port, USB 2.0 Host

2.4 Inputs

Serial Port: RS485 Modbus, supports up to 32 external devices (expandable)

Baud Rate: 9600-115200 bps

Digital Input: 8 pulse co	unters
Input Voltage Range:	8-28Vdc
Input Current (Max):	8mA
Start Voltage:	15V
Stop Voltage:	5V
Pulse Frequency (Max):	100Hz, 50% Duty Ratio (5ms ON and 5ms OFF)

2.5 Environment

• North America: -25 to 70 degrees Celsius, 90% RH, non-condensing

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3. Appearance and Dimensions



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Chapter 4: Installation



4. Installation

4.1 Installation Checklist

The following materials are required for the AcuLink 810 installation:

- AcuLink 810 Data Acquisition Server
- Ethernet Connection
- Ethernet Cat 5 Cable (Required for LAN or direct computer to AcuLink 810 connection)
- Power Supply (24V)
- WIFI Antenna

Optional Hardware:

- Additional Modbus RTU devices
- 2 wire Modbus/RS485 connection

LAN Information

- Ethernet 10/100MB connection point (router/switch)
- IP address and subnet mask (Check with system administrator)
- Gateway Address (Check with system administrator)
- DNS server address (Check with system administrator)

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4.2 Hardware installation

The AcuLink 810 is DIN rail mounted, a standard 35 mm DIN rail can be used.

4.2.1 Powering the unit

• The power supply of the AcuLink 810 is rated for 24Vdc.





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4.2.2 RS485 Network

The AcuLink 810 gateway supports RS485 serial communication. Users can setup an RS485 connection to the AcuLink with any Accuenergy or third party device. If connecting multiple devices or 'daisy chaining' the devices together, ensure that a unique device address (Modbus Slave ID) is configured for each RS485 device. The AcuLink 810 can support up to 32 external RS485 devices.

NOTE: A termination resistor at the end of the RS485 network is optional when daisy chaining multiple devices. If using resistor a termination value of 150 ohms can be used.







4.2.3 Digital Input Setup

The AcuLink 810 has 8 Digital Input channels. Each Digital Input can be used as an input pulse counter.

Each channel has two terminals, a DI terminal and a DI COM terminal. In pulse output circuits a closed loop is required for the pulse to be generated. In the Image below you will see a closed circuit on Digital Inputs 1 and 6. The positive output is connected to the DI channel input and negative output is connected to the DI Common input.





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5. Initializing the AcuLink 810

The AcuLink 810 has a web interface that users can access to configure settings and view device data. The AcuLink 810 gateway has two Ethernet ports and also supports communication via WIFI.

The default IP addresses and default modes are:

Ethernet 1: 192.168.8.101

Ethernet 2: DHCP

WIFI: Access Point Mode

The following will outline the methods on how to initially access the meters web interface.

5.1 Accessing the AcuLink 810 Web Interface

5.1.1 Method 1 - Direct Connection via Ethernet

For the direct connection method, there must be an Ethernet connection from the Ethernet 1 port on the AcuLink and a computer.



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Next in order to access the web interface, the computers IP address must be configured within the same subnet as the AcuLink Ethernet 1 IP address. The Ethernet 1 port has a default IP address of 192.168.8.101. The following outlines how to change the computers IP:

 Start by accessing the control panel of the computer and select 'Network and Internet'.



• Select 'Network and Sharing Center'.







- Network and Sharing Center ← → → ↑ 🛂 > Control Panel > Network and Internet > Network and Sharing Center View your basic network information and set up connections Control Panel Home View your active networks Change adapter settings Change advanced sharing settings AcuRev2000_TEST Access type: Internet Connections: Wi-Fi (AcuRev2000_TEST) Public network Unidentified network Access type: No network access Connections: 📮 Ethernet Public network Change your networking settings Set up a new connection or network Set up a broadband, dial-up, or VPN connection; or set up a router or access point. Troubleshoot problems Diagnose and repair network problems, or get troubleshooting information. • Double click on 'Ethernet', or right click on 'Ethernet' and select 'Properties'.
- On the left panel of the screen, select 'Change adapter settings'



• The following page will open, click on 'Properties'.

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🖗 Ethernet Statu	s		
General			
Connection			
IPv4 Connect	vity:	No network a	cess
IPv6 Connect	vity:	No network a	ccess
Media State:		En	abled
Duration:		00:3	39:29
Speed:		100.0	Mbps
Details]		
Activity			
	Sent —	Nece	aived
Bytes:	198,364,865	774,400),238
Properties	Disable	Diagnose	
			Close

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• The following page will open, select 'Internet Protocol Version 4 (TCP/IPv4) and click on 'Properties'.

Ethernet Properties	;		×
Networking Sharing			
Connect using:			
🕎 Realtek PCIe Gi	BE Family Controller		
This connection uses t	he following items:	Configure	1
Clent for Micr Clent for Micr Gas Packet S Gas Packet S Gas Internet Proto Inter	osoft Networks er Sharing for Microsof Scheduler col Version 4 (TCP/IP work Adapter Multiples)P Protocol Driver col Version 6 (TCP/IP	t Networks v4) xor Protocol v6)	
Install	Uninstall	Properties	ĩ.
Description Allows your compute network.	er to access resources	on a Microsoft	
	(OK Cancel	

• Select 'Use the following IP address:' and change the IP address of the computer. The AcuLink 810 Ethernet 1 address is 192.168.8.101, the computers IP will need to be within the same subnet. The IP of the computer can be 192.168.8.xxx, where xxx can be any number ranging from 1-254. For the example an IP address of 192.168.8.10 is used.

NOTE: The computers IP address and the AcuLink 810 Ethernet 1 IP address cannot be the same.

Obtain an IP address automatic	ally
IP address:	192.168.8.10
Subnet mask:	255.255.255.0
Default gateway:	· · ·
Alternate DNS server:	 Advanced
	OK Cancel

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V:



- Once all settings are complete click on 'OK' to confirm the network changes.
- Then open up a internet browser and type in the AcuLink 810 IP address of 192.168.8.101, the following login screen will be prompted.
- There are two Access Levels, 'Viewer' and 'Admin'.
 - Viewer allows users to only view and read data, the password for this user level is viewer.
 - Admin allows users to read data, as well as change and modify all settings of the AcuLink 810, the password for this user level is admin.

NOTE: The recommended internet browsers to access the 810's web interface is Google Chrome, or FireFox.



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5.1.2 Method 2 - Using WIFI to connect to the Meters Web Interface

The web interface of the AcuLink can be accessed by WIFI. Ensure that the WIFI antenna is installed on the unit.



By default the AcuLink 810 has its WIFI mode set as AP (Access Point) mode, where the AcuLink 810 acts as a wireless access point allowing other wireless devices to connect and access the gateway.

To connect to the AcuLink via AP mode, search for the SSID in the list of wireless networks.

The SSID will be by default AcuLink810-WIFI-S8Pxxxxxxx, where the **'S8Pxxxxxxx**' is a unique serial number of the AcuLink gateway. The serial number of the AcuLink can be found on the side of the unit. The password for the network is *accuenergy*.



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Chapter 5: Initializing the AcuLink 810



Once connected to the gateways wireless network, open up an internet browser and enter in the IP address **192.168.100.1**. The following login screen will be prompted.

- There are two Access Level, 'Viewer' and 'Admin'.
 - Viewer allows users only to view and read data, the password for this user level is *view*.
 - Admin allows users to read data, as well as change and modify the settings of the Acu-Link 810, the password for this user level is *admin*.

Aculink 810 Data Acquisition Serve
Sign in to continue
Access Level*
Viewer Admin
Password*
Enter Password here
Sign In

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6. AcuLink 810 User Interface

When you log in the to the AcuLink 810 web interface, users are directed to the 'Dashboard'. The dashboard provides the user with a summary of all the Offline Devices as well as the Devices in Alarm.

The navigation panel on the left side of the interface allows users to access different settings within the gateway.

The footer on the bottom of the web page includes the server time and date. The footer also includes the time that the gateway was initially powered on.



6.1 Modbus Template

Modbus Templates are used in the AcuLink 810 to correctly read the metering data from Accuenergy and third party Modbus devices. Before a device can be added to the gateway a Modbus template for the device must first be uploaded and installed onto the unit.

On the left navigation panel under the 'CONFIGURATION' menu, select 'Modbus Template'.

In the Modbus templates page users can view the templates and the version number currently installed on to the AcuLink under the 'Installed' tab.



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Alarm Log	Modbus Template	
Event Log	Installed New/Update	
CONFIGURATION	Installed	
System	Template Name 🚖	Last Update
Date & Time	AcuDC 243 100	2019-04-18 09:52:47
Network	Aci Par 1200 (127)	2010 04 16 17:52:53
Email	ACTIVE 1200 CITES	2010/04-10 17:02:03
Alarm Notification	AcuRev 1300 VL00	2019-04-16 17:52:37
Data Log	AcuRev 1310 100	2019-04-18 09:53:00
Post Channel	AcuRev 2020-1DM 1.00	2019-04-16 17:50:44
AcuCloud	AcuRev 2020-1EM V100	2019-04-16 17:34:29
Modbus Template	AcuRev 2020-2DM VIII	2019-04-16 17:03:31
Firmware Update	AcuRev 2020-2EM (12.00)	2019-04-16 17:03:17
Diagnostic	Acuvim II (v1.00)	2019-04-12 14:18:37
AUTHENTICATION	Acuvim-L 1.50	2019-04-16 17:01:28
Logout		

To upload a new device template click on the 'New/Update' tab. All Accuenergy device templates can be found in the remote update section of the page. In order to use the remote upload function, users must ensure they have sufficient connection to the Internet.

NOTE: For specific or third party templates please contact Accuenergy Technical Support.

For third party device templates, users can upload and install templates manually.

NOTE: Data log and alarm monitoring configurations will be lost after updating an existing device template.

Alarm Log	Modbus Template		
Event Log	Installed New/Update		
CONFIGURATION	Manual Upload		
System	Choose a file		Browse
Date & Time	Upload		
Network	Parata Undata		
Email	Remote opulate		
Alarm Notification	Template Name	Last Update 🤤 Acti	ons +
Data Log	AcuRev 1310 1100	2019-04-18 09:53:00	
Post Channel	AciDC 243 (500)	2019-04-18 09-52:47	
AcuCloud		2010/01/0 00:02:41	
User	Modbus Gateway Function Only VIII0	2019-04-16 17:54:36	
Modbus Template	AcuRev 1200	2019-04-16 17:52:53	
Firmware Update	AcuRev 1300 11.00	2019-04-16 17:52:37	
Diagnostic	Acuvim-L-V3 VICO	2019-04-16 17:52:01	
AUTHENTIGATION	Acuvim-L MICO	2019-04-16 17:51:53	
Logout	AcuRev 2020-2DM (150)	2019-04-16 17:51:14	
	AcuRey 2020-2EM	2019-04-16 17:50:59	



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6.2 Adding Devices to the AcuLink 810

On the left navigation panel of the AcuLink 810 web interface, there is a menu titled 'DE-VICE'. In the devices menu there are two options:

- 1. Modbus Device
- 2. Digital Input

This is where users can add a Modbus device or configure the digital input on the AcuLink 810 gateway. The user can add devices to the gateway by Modbus RTU, and by Modbus TCP.

Modbus TCP



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To add a device to the AcuLink 810, you will need to login under Admin access level.

From the left navigation panel, select 'Modbus Device' under the 'DEVICE' menu.

The user will see all the devices that are currently communicating with the gateway on this page.

ACCUENERGY					Acolink 810
ADMIN	Modbus Device				
Dashboard	Add Device				
DEVICE	Device Name	Serial No	Status	Alarms	Action
Modbus Device					
Digital Input					
DATA MANAGEMENT					
Download					
Delete					
LOG					
Alarm Log					
Event Log					
CONFIGURATION					
System					
AcuLink 810 Data Acquisition Serve		Support		Resources	
Server Time: 04/17/2019, 18:29:58		Call or email for engineering support		Online guides, manuals, videos and	diagrame available online
Up Since: 64/17/2019, 14:14:15		Phone: +1.416.497.4100			

Click on 'Add Device'.

- Provide a name for the Device under the Device Name field
- Enter the Serial Number for the Device
- Select the Model of the Device from the Device Model drop down list
- Enter the Request Timeout from 1-60 sec.

NOTE: Users cannot add two devices with the same serial number. Each serial number must be unique for each device.

Select the Protocol

- RTU Serial communication via RS485, USB, or AcuMesh
- TCP Communication using TCP over Ethernet or WiFi



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ACCUENERGY		
ADMIN- Dashboard	Add Modbus Device Device Name"	
DEVICE	Enter Device Name here	
Modbus Device	Serial Number'	
Digital Input	Enler Serial Number here	
DATA MANAGEMENT	Must be unique in this AcuLink 810 device	
Download	Device Model"	
Delete	Please select Device Model	+
LOG	Protocol*	
Alarm Log	O RTU O TCP	

6.2.1 Modbus-TCP/IP

With the Modbus TCP/IP protocol selected, configure the following fields:

- IP Address: Enter the IP address of the device
- Port: Enter the Modbus port of the device
- Modbus ID: Enter the Modbus address of the device
- Request Timeout: Enter the timeout setting, default for TCP is 3 seconds

Click 'Submit' once all settings are entered in correctly.

ALLUSNSRUY		
ADMIN	Protocol*	
Dashboard	O RTU O TCP	
DEVICE	IP Address*	
Modbus Device	Enter IP Address here	
Digital Input	Port	
DATA MANAGEMENT	Enter Port bere	
Download Delete	Modbus ID"	
LOG	Enter Modbus ID here.	
Alarm Log	Request Timeout"	
Event Log	3	seconds
CONFIGURATION	0.1-60.0	
System	Submit Cancel	

6.2.2 Modbus-RTU

With the Modbus RTU protocol selected, configure the following fields:

Address: Enter the device address (Modbus Slave ID) of the meter, range is from 1-247



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Port: Users can select either RS485 or USB

Baud Rate: Select the baud rate of the device, range is from 9600-115200

Data Bit: Select the number of data bits, either 7 or 8

Parity: Select the parity of the device from the drop down list

Stop Bit: Select the number of Stop Bits

Request Timeout: Select a timeout period for the AcuLink 810 to wait for a response from the device, range is 1-60 seconds, default for Modbus RTU is 0.5.

NOTE: Users cannot add device with the same device address (Modbus Slave ID). The device address must be unique for each device in the RS485 network.

Click 'Submit' once all settings are entered in correctly.

ACCUENERGY		
CONFIGURATION	Protocol	
System	O RTU C TCP	
Date & Time	Pert	
Network	00.004	
Email	K5485	
Alarm Notification	Modbus ID*	
Data Log	Enter Modbus ID here	
Post Channel	Must be unique in this Acul, Ink 810 device	
AcuCloud	Baud Rate"	
User	20.100	1.4
Modbus Template	38400	•
Firmware Update	Data Bit'	
Diagnostic	8	*
CONFIGURATION	Baud Rate'	
System	38400	
Date & Time	5723	
Network	Data Bit"	
Email	0	•
Alarm Notification	Parity"	
Data Log	None	
Post Channel	TWIN	
AcuCloud	Stop Bit"	
User	4	•
Modbus Templale	Paguast Timpout*	
Firmware Update	Kednest IIIIeont	
Diagnostic	0.5	seconds
AUTHENTICATION		
Logout	- Contra Contra	



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After the device is added, it can be found in the 'Modbus Devices' section under the 'DEVICE' menu

ADMIN	Modbus Device				
Dashboard	Add Device				
DEVICE	Device Name	Serial No	Status	Alarms	Action
Modbus Device	AcuDC 243 RTU	AduDC243RTU	CURAN	0	0
Digital Input	AcuRev 1312 RTU	AcuRev1312RTU	() ON	0	8
Download	AcuRev 2020 RTU	AcuRev2020RTU	C) ON	0	a
Delete	Acuvim II USB	AcuVimilUSB	(Ú CN	0	0
Alarm Log	AcuRev 2020 TCP	Acurev2020TCP	O ON	ò	8
Event Log	Acuvim II TCP	AcuvimIITCP	() ON	0	÷.
CONFIGURATION	Acuvin L RTU	AcuvimLRTU	(B ON	0	
System Dute & Time	Acovin L VS TCP	AcuvimLV3TCP	0.01	0	
Network Email					
Alarm Notification					

A device that is successfully connected and communicating with the gateway will have a green 'ON' mark under the status column. Whiles a device that is offline will display a red 'OFF' warning symbol.

NOTE: After adding a new device to the gateway it may take up to 3-4 minutes for the status to show 'ON'. If after 3-4 minutes the device is showing a 'OFF' status, double check the configuration settings to ensure everything is set correctly.

AUMIN	Modbus Device				
Dashboard	Add Device				
DEVICE	Device Name	Serial No	Status	Alarms	Action
Modbus Device	AcuDC 243 RTU	AcuDC243RTU	O ON	0	8
Digital Input	AcuRev 1312 RTU	AcuRev1312RTU	(D ON	0	0
Download	AniRev 2020 RTU	AcuRev2020RTU	(O DN	Ó	
Delete	Acustin II USB	AcuMmilUSB	ON	0	8
Alarm Log	AcuRev 2020 TCP	Acurev2020TCP	(C) ON	o	
Event Log	Aozvim II TCP	AcuvimITCP	() OFF	0	•
CONFIGURATION	Acuvim E RTU	AduvimLRTU	O ON	0	۵.
System Date & Time	Acustin L V3 TGP	AduvimLV3TCP	(D ON	0	
Network					
Email					
Alarm Notification					



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6.2.3 Modbus Gateway Function

The AcuLink 810 supports a Modbus Gateway Function, where users can add a Modbus RTU device and use it as a gateway. Users must choose the device template as 'Modbus Gateway Function Only'.

The Modbus Gateway Function allows users to forward a Modbus TCP request to the corresponding meter.

Adding Modbus Gateway Device

To add a Modbus Gateway device, select add device. Under the 'Device Model' select 'Modbus Gateway Function Only'. Select 'RTU' as the protocol and enter in the communication settings for that RTU device (baud rate, parity, Modbus ID, etc). Click on 'Submit' once all information is entered in correctly.

NOTE: Only Modbus RTU devices can be used as a Modbus Gateway Function on the Acu-Link 810.

OMIN	Device Name*	
Dashboard	Galeway	
DEVICE	Serial Number"	
Modbus Device	123456	
Digital Input	Must be unique in this AcuLinik 810 device:	
DATA MANAGEMENT	Device Model"	
Download	Modbus Gateway Function Only	•
Delete	Protocol"	
LOG	O RTU D TCP	
Alarm Log	Port	
Event Log	R5485	
CONFIGURATION	Modbus ID*	
System	26	
Date & Time	Must be unique in this AcuLink 010 device:	
Network	Baud Rate"	
Email	00100	
Alarm Notification	30400	•
Data Log	Data Bit'	
Post Channel	8	+
AcuCloud		
User	Parity"	
Modbus Template	None	•
Firmwaré Updaté		



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Once the gateway device is added there will be a gateway symbol under the 'Status' column on the Modbus Devices page.

ALLUSNSHBY					
adeni	Modbus Device				
Lastrocard	Add Devide				
DR. WITE	Device Name	Serial No.	Status	Alarma	Action
HALENS Devit 1	An/00 243	Aci/0C243	O CN	4	
Data Manantarut	AcuRev2020_875	AduRev2020RTU	O CPF		
Lowmoad	Acutin IL RTU	AcuvimiRTU	5 CN		
Delete	Assem IL_TOP	AcuventiCP	0.044		8
Alarmina	decovernii (150_Tesi	Acceleration (1,158)	O CN	0	
Event Log	Assers L. RTU	AcuvinLRTU	OCN		8
CERTIFICATION:	Asswer L V3	AcuvinCV2	() CPF		
System Date & Time	Gammig Test	Galeway	Comment		
Network					
Erral					

6.3 Viewing Data of Modbus Devices

To view the readings from your device, select 'Modbus Devices' on the left panel under the 'DEVICES' menu. On this page, all the Modbus devices added to the AcuLink 810 will appear here. It will display the Device name, the serial number, status (offline or online) and the number of alarms triggered for the device.

ADMIN	Modbus Device				
Dashboard	Add Device				
DEVIGE	Device Name	Serial No	Status	Alarms	Action
Modbus Device	AcuDG 243 RTU	AcuDC243RTU	(D ON	0	
Digital Input	AcuRev 1312 RTU	AcuRev1312RTU	0.04	0	0
Download	AduRev 2020 RTU	AcuRev2020RTU	(D ON	0	
Delete	Acuvim II USB	Aci/VinillUSB	(D ON	0	
LUG I	AcuRev 2020 TCP	Acurev2020TCP	(D ON	0	=
Evera Log	Acuvim II TCP	AcuvimiTCP	OOFF	0	
CONFIGURATION	Acuvim L RTU	AcuvimLRTU	O ON	0	8
System Date & Time	Acuvim L V3 TCP	AcuvimLV3TCP	(D ON	0	8
Network Email					

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Select the device you wish to view the data for. The following Device page will open.

ADMIN	Modbus Device Config - AcuRev2020RTU	Back to device list
Dashboard	Reading Alarm Configuration	
DEV(CE	Reading Type	
Modbus Device	Basic Metering	
Digital Input	Parameter	Veitue
Download	Frequency	60.007030 Hz
Jelete	Phase A Voltage	121.920410 V
20	Phase B Voltage	121.942780 V
larm Log	Phase C Voltage	121.924133 V
Event Log	Average Phase Voltage	121.929108 V
SUNFIDURATION	Line Votage Vab	0.000000 V
lystem	Line Votage Vbc	0.000000 V
ale & Time	Line Voltage Vca	0.000000 V
letwork:	Average Line Voltage	0.000000 V
imali	Total Phase A Current	31,566250 A

The Device data can be viewed on the 'Reading' tab.

In the Readings tab users can view the meters real time data. In the drop down menu there are options to select the different categories of the real time data. Each drop down menu will vary depending on the device template chosen for the device.

ACCUENERGY		Aculink, 0
ADMIN	Modbus Device Config - AcuVimIIUSB	Back to device list
Dashboard	Reading Alerm Configuration	
DEVICE	Reading Type	
Modbus Device	Basic Metering	
Digital input	- Please select Reading Type -	
DATA MANAGEMENT	Demand Energy	
Download	THD Press Apple	
Delete	r nate in the contraction votage	120.1110001
LOU	Phase B Line-to-Neutral Voltage	120.690063 V
AlaemLog	Phase C Line-to-Neutral Voltage	120.625160 V
Event Log	Average Line-to-Neutral Voltage	120.687637 V
CONDIGURATION	Phase A-B Line-to-Line Veltage	0.000000 V
System	Phase B-C Line-to-Line Voltage	0.000000 V
Date & Time:	Phase C-A Line-to-Line Votage	0.000000 V
Network.	Average Line-to-Line Voltage	0.000000 V
Enul	Phase A Line Current	49.117401 A
Annual Annual Contraction		



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The readings have the parameter listed on the left and the value of the parameter listed on the right.

ACCUENERGY		Aculini 810
ADMIN	Modbus Device Config - AcuRev2020RTU	Black to device list
Capitocard	Reading Alarm Configuration	
DEVISE	Reading Type	
Modbus Device	Basic Metering	•
Digital Input	Parameter	Value
Data Manavimint	Frequency	60.007090 Hz
Delete	Phase A Voltage	121.920410 V
	Phase B Voltage	121.942760 V
Alarm Log	Phase C Vollage	121.024133 V
Event Log	Average Phase Voltage	121.929108 V
CONFIGURATION	Line Voltage Vab	0.00000.V
System	Line Voltage Vbc	0.000000 V
Date & Time	Line Voltage Vca	0.000000 V
Network.	Average Line Voltage	0.000000 V
Email	Total Phase A Current	31,566250 A

6.3.1 Configuration

The configuration page can be used to edit an existing Modbus Device on the AcuLink 810. This can be used to change the IP address or Modbus port of a Modbus TCP/IP device, users can also change the device address, baud rate, etc on an RS485 device.

ACCUENERGY				Aculink 810
ADMIN Dashboard	Modbus Device Config - A Reading Alarm Config	cuRev2020RTU		Back to device list
Modbus Device Digital Input	Device Name* AcuRev2020_RTU Device Model*			
DATA MANAGEMENT Download Defete	AcuRev 2020-2EM Protocol* © RTU _ TCP			
LOG Alarm Log Event Log	Pont* RS485 Modbus ID*			
CONFIGURATION System Date & Time Network	3 Must be unique in this Acul link 81 Save	û dewlen		Delote Devico
AcuLink 810 Data Acquisition Server Server Time: 04/29/2019, 12:15:39 Up Sence: 04/25/2019, 15:46:04		Support Call or email for expressing support Phone +1.415.497.4100 Final	Resources Online guters, musuals, videos and diagrams available online	



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6.4 Deleting Modbus Devices from AcuLink 810

To delete a device on the AcuLink 810 navigate to the 'Modbus Devices' under the 'DEVICES' menu on the left panel of the interface. Then click on the delete icon under the 'Action' column.

ADMIN-	Modbus Device				
DEVICE	Device Name	Serial No	Status	Alarms	Action
Modbuo Devloe	ADUDO 243 RTU	AcuDC243RTU	() ON	0	
Digital Input	AcuRev 1312 RTU	AcuRev1312RTU	() ON	D	
Download	AcuRev 2020 RTU	AcuRev2020RTU	() ON	0	
Delete	Acuvim II USB	AcuVimilUSB	(D ON	0	
tion.	AcuRev 2020 TCP	Acurev2020TCP	(B ON	0	8
Event Log	Acover II TCP	AduvimiTCP	O OFF	0	0
CONFIDURATION	Acomit RTU	AcuvimLRTU	() ON	o	8
System Date & Time Network	Adovim L V3 TCP	AcuvimLV3TCP	CON	o	
Email Alarm Notification					

After selecting delete device, a message will appear asking the user to confirm the delete. Select 'Yes, Delete' to remove the device and all stored data from the AcuLink 810.

ACCUENERGY						
	Modbus Device					
Dashboard	Aast Device					
	Device Name	Serial No	Sta	tus	Alarms	Action
Modbus Device	AciiDO 245 RTU	AcuDC24SRTU	0	DN.	0	-
Digital Input	AD(Rev 1312 RT))	A0J80131280U	-O	and and	0	
Drwmioard	AcuRey 2020 RTL	Confirmation	×	2N	¢.	8
Delete	Acuytm # US8	Are you sure you want to delete modbus device AcuvimIITCP?	2	2N	0	
	AcuRey 2020 1CP	This will remove all stored data for this device including data log	g	34	0	
Alatm Log		This action cannot be undone.				
Eveni Log	Acuvici e TCP		-	NFF.	0	10
	Acument, ATEL	Cancel Yes, Del	ete.	N.	0	
System	Annual UN TOD	Acceleral 1/277/10		-	0	
Dule & Time	ACTIVITIES.	Address of the			4	
NEWORK						
Erral						



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Alternatively users can also delete a device from the gateway by clicking on the device from the 'Modbus Device' page, and then selecting the 'Configuration' tab.

ADMIN B	Addbus Device Config - AcuRev2020RTU	There is a survive start
		Pajor to device list
Dashboard	Reading Atarm Configuration	
DEVICE	levice Name"	
Modbus Device	AcuRev2020_RTU	
Digital input	Jevice Model"	
DATA MANAGEMENT	ACUREN 2020-2EM	
Download Delete	rotocof"	
Log	fort"	
Alarm Log Event Log	R\$485	•
CONFIGURATION	fedbus ID.	
System -	Save	Delete Device

6.5 Alarms

The AcuLink 810 supports alarm monitoring on the Modbus devices connected to it. The gateway allows users to monitor selected parameters using an under/over alarm. When the monitored parameter goes over/under the preset limit, the alarm will be triggered.

6.5.1 How to create alarm

To create an alarm, click on 'Modbus Devices' under the 'DEVICES' menu on the left panel. Select the desired device you want to set the alarm for.

Acceleration of the second period period of the second period period of the second period per

On the Device page, select the 'Alarms' tab. Click on 'Add Alarm'.



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The following settings will need to configured:

- Label: Description of the alarm.
- Parameter: In the drop down menu select the parameter to be monitored.
- Min: Select the minimum value to trigger the alarm parameter.
- Max: Select the maximum value to trigger the alarm parameter.

Click on 'Save' once all settings are entered in correctly.

For example if the parameter selected was 'Frequency' with a minimum threshold of 0 and a maximum threshold of 50, the alarm will be triggered when the frequency is less than or equal to 0 Hz and when the frequency is greater or equal to 50 Hz. Any value outside of the range set will trigger the alarm.

ACCUENERGY		Aculina 810
ADAIN	Modbus Device Config - AcuVimIIUSB	Back to device list
Dashboard	Reading Alarm Configuration	
DEVICE	Add Alarm	
Modbus Device	Label	
Digital Input	Eclar Label here	
DATA MANAGEMENT	Parameter*	
Download	- Please select Parameter -	
Delete	Min Value	
i da	Enter Min Value hote	
Alarm Log	May Value	
Event Log	Total I for the second	
CONFIGURATION	Ender waak value bere	
System		
Date & Time		
Nétwork		
Email		
Alarm Notification	Save Cancel	

6.5.2 How to view alarm

The Alarm column in the Modbus Device List will show users the number of alarms that have been triggered.



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ADMIN	Modbus Device				
Dashboard	Add Device				
DEVICE	Device Name	Serial No	Status	Alarms	Action
Madbus Device	AduDC 243 RTU	AcuDC243RTU	(D ON	0	
Digital Input	AcuRev 1312 RTU	AcuRev1312RTU	O ON	0	1
Download	AduRev 2020 RTU	AcuRev2020RTU	(D DN	ŭ	
Delete	Acuvim II USB	AcuVimIIUSB	(U ON	0	
Alarm Log	AcuRev 2020 TCR	Acurev2020TCP	(D ON		•
Event Log	Acuvim L RTU	AcuvimLRTU	O ON	0	8
CONFIGURATION	Acuyim L V3 TCP	Acuvint_V3TCP	() OH	0	
System					_
Date & Time					
Network					
Email					
Alarm Notification					

To view the Alarm click on the Device Name, and select the 'Alarms' tab. The alarm page displays the alarm conditions (max and min) as well as the current value of the parameter, the status of the alarm (on or off) and the action for this alarm (edit or delete). The alarms can also be viewed from the Alarm Logs which will be discussed later in the manual.

Users can delete the alarm at any time from this page by clicking on the delete icon on the far right column of the alarm parameter.

ADMIN	Modbus Device Config - Acurev2020TCP						
Dashbasard	Reating Alarm C	Reading Alarem Configuration					
nevice	Add Alarm						
Modbus Device	Label	Parameter	Min	Max	Value	Status	Action
Digital Input	Voltage Flating	Average Phase Voltage	10	120	0.000000		177
DATA MANAGEMENT							
Download							
Delete							

6.6 Digital Inputs

The AcuLink 810 supports 8 Digital Input channels that can be configured to count pulses. To configure the Digital Input from the web interface click on 'Digital Inputs' under the 'DEVIC-ES' menu on the left panel of the interface.

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AUMIN	Digital Input					
Dashboard	Edt					
EVICE	Digital Input	Description	Count	Reading	Multiplier	Unit
odbus Device	Digital Input 1	Channel 1	0	0.000	1.000	
gital Input	Digital Input 2	Channel 2	0	0.000	1.000	
ATA MANADEMENT	Digital Input 3	Channel 3	0	0.000	1.000	
bwnload	Digital Input 4	Channel 4	0	0.000	1.000	
dete	Digital Input 5	Channel 5	0	0.000	1.000	
	Digital Input 6	Channel 5	0	0.000	1.000	
emi Log	Digital Input 7	Channel 7	0	0.000	1.000	
SNELOURATION	Digital Input 8	Channel 8	0	0.000	1.000	
ystem						
ute & Time						

Click on Edit to configure the digital input settings.

Ammon	Digital Input					
Dashboard	Edit					
TOT VICE	Digital Input	Description	Count	Reading	Multiplier	Unit
Modbus Device	Digital Input 1	Channel 1	0	0.000	1.000	
Digital Input:	Digital Input 2	Channel 2	D	0.000	1.000	
DATA MANAGLINERT	Digital Input 3	Channel 3	0	0.000	1.000	
Download	Digital Input 4	Channel 4	D	0.000	1.000	
Delete	Digital Input 6	Channel 5	0	0.000	1.000	
Loc	Digital Input 6	Channel 6	0	0.000	1.000	
Alarm Log Event Log	Digital Input 7	Channel 7	0	0.000	1.000	
CONFIGURATION	Digital Input 8	Channel 8	0	0.000	1.000	
System						
Date & Time						
Network						

Enter in a Description and the units the pulses will be representing. A multiplier can be applied to the count if necessary. Users can also input a starting count value to the digital input channel.

ADIBN Dashboard	Digital Input						
DEVICE	Digital Input	Description	Count	Reading	Multiplier	Unit	
Modbus Device	Uigtal Input 1	Chennel 1	0	0.000	1 000 1	Enter Unit 0 her	
Digital Input			0.65535		0.001 - 100000.000		
DATA MANAGEMENT	Digital Hout 2	Channel 2	0	0.000	1.000	Enter Unit 1 her	
Download			0 65635		0.001 100000.000		
Delete	Page 1 and 2	Channel 9	0	0.000	1.000	Enloy Hail Vilue	
LOG	Togan input S	Charten o	0.65535	0.000	0 001 - 100000 000	Frank Post & Lett	
Alami Log	Distributed	Channel 4	0	0.000	1 000	Takes They S have	
Event Log	Lights input 4	CONTROL N	0.65535	0.000	0.001 - 100000.000	Come come a part	
CONFIGURATION	and the second s	in a second at	0		1.000		
System	Digital Input 5	Channel 5	0-05535	0.000	0.001 - 100000.000	Enter Unit 4 her	
Date & Time	A				1 000		
Network	Digital Input 6	Channel 0	0.45535	0.000	0 001 - 100000.000	Enter Unit 5 her	
Alarm Notification					1 000		
Data Log	Digital Input 7	Channel 7	0	0.000	1.000	Fairy Hall & hitr	
Post Channel			040535		0.001 - 100650 900		
AcuCloud	Save						

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Once the Digital Inputs are configured, users can see the count value, the reading value, units and multiplier that is applied to the Digital Input channel.

ADMIN	Digital Input					
Deshboard	Digital Input	Description	Count	Reading	Multiplier	Unit
Modbus Device	Digital Input 1	Energy	1200	1200.000	1.000	kWh
Ardel Made	Digital Input 2	Wator	σ	0.000	2.500	
ATA MANAGEMENT	Digital Input 3	Channel 3.	0	0.000	1.000	
lownload	Digital Input 4	Channel 4	0	0.000	1.000	
leskefan.	Digital Input 5	Chapter 5	46	46.000	1 000	
00	Digital Input 6	Chaonel G	0	0.000	1 000	
Nem Log	Dightil Input 7	Channel 7	0	0.000	3 000	
CONFIDERATION	Digital Input 8	Channel 0	0	0.000	1.000	

6.7 Logs

6.7.1 Alarm Logs

Users can check the historical data of the triggered alarms by clicking on 'Alarm Log' under 'LOG' menu.

Alarm logs can be filtered by selecting the start time, end time, serial number and monitor ID.

Users can also clear all the alarm logs by clicking on 'Clear Logs'.

ADMIN.	5	Alarm Log											
Dashboard	11	-Cese Long											
DEVICE	11	Start Time			nd Time-		Serial Number					fonitor ID	Page Size
Modbus Device Digital Input	н	Select date	ši time		Select date & time								20 e
DATA MANAGEMENT		Search	laser										
Download		Monitor ID	Device Name	Serial Numbe	er Monitor Label	Parameter		Status	Min	Max	Value	Reason	Timestamp
Delete		4	AcuRev 2020 TCP	Acurev2020T	CP Voltage Flatline	Average Phase Volt	age / V		0.2	120	0.000	UNDERFLOW	2019-04-25 10:33:38
100		2	Acarvim II TCP	ADMINITCP	Current Flatline	Average Line Curre	nt/A		0.2	30	0.000	UNDERFLOW	2019-04-24 12:27:03
Alarm Log		z	Acuvim II TCP	AcuyimitTCP	Current Flatline	Average Line Curre	nt/A	R	0.2	30	4.922	NORMAL	2019-04-23 16:24:01
EventLog		1	Acuvim II USB	AdvVimiluse	Voltage Flatline	Average Line-to-Ne	utral Voltage / V	*	0.8	150	119.893	NORMAL	2019-04-23 16:24:01
CONFIGURATION		2	Acuvim II TCP	ADVIMITOP	Ourrent Flatline	Average Line Curre	nt/A		0.2	30	0.000	UNDERFLOW	2019-04-23 16:15:04
System		1	Acuvim II USB	AniVimiliisB	Voltage Flatiline	Average Line-to-Ne	utral Voltage / V		0.5	150	0.000	UNDERFLOW	2019-04-23 16:15:01
Date & Time		2	Acuvim II TCP	ADMINITCP	Current Flatline	Average Line Curre	ot/A	R	0.2	30	5.051	NORMAL	2019-04-23 15:56:01
Network.		2	Acuvim II TCP	ADVINITOP	Current Flatline	Average Line Curre	nt/A		0.2	30	0.000	UNDERFLOW	2019-04-23 15:54:02
Alarm Notification		2	Acuvim II TCP	AcusteriTCP	Current Flatline	Average Line Curre	nt/A	×	0.2	30	5.099	NORMAL	2019-01-23 15:53:03
Data Log	+	1	Acuvim II USB	Acuvimiluse	Voltage Flatline	Average Line-to-Ne	utral Voltage / V	*	0.5	150	119.799	NORMAL	2019-04-23 15:53:02



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6.7.2 Event Logs

Users can check the historical data of the system event by clicking on 'Event Log' under 'LOG' menu.

Event logs can be filtered by selecting the start time, end time and level.

Users can also clear all the event logs by clicking on 'Clear Logs'.

Download	Event Log					
Deléte	Clear Logo					
100	Start Time		End Time	Level	Page Size	
Alarm Log	Select date & b	1710.	Soloci state & time		20	
Event Log	1					
CONFIGURATION	Search Res	Message		Timestamp		
System	1.000					
Date & Time	Into	AcuCloud config is updated		2019-04-25 14:35:13		
Network	Info	Updated post channel config		2019-04-25 14:35:09		
Email	into	Updated post channel config		2019-04-25 14:35:04		
Alarm Notification	into	Cleared Event Log		2019-04-25 14:34:47		
Data Log	1.00					
Post Channel	A 14 1					
ArziCloud						
User						
Modbus Template						
Firmware Update						
Diagnostic						

6.8 System Settings

The system settings page can be found on the left navigation panel under the 'CONFIGURA-TION' menu. The This page gives users a summary of the AcuLink 810's hardware version, serial number ,the current firmware version and the date it was updated.

Users can restart the server, which is a soft reboot of the AcuLink 810 device.

In the System Information page there is also options to provide a Name, Description, and location for the AcuLink 810 device. Once the user has filled in the settings correctly click on 'Save'.

In the System Status section of the page, users are provided with an overview of the CPU, RAM, and disk usage.



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Download	System Information	System Status		
Delete	Model	CPU		
ba	Serial No.	RAM		
Nam Log Event Log	Hardware Version	Disk.		
CONFIGURATION.	Firmware Version			
System	Last Updated: 2019-04-24 15:23:28			
Date & Time	Name			
Jetwork	AcuLink 610 Gateway			
inal	Location			
Narm Notification				
Jata Log	Enter Location Ires:			
Post Channel	Description			
ActicToud	Enter Description here			
Jser				
Nodbus Template				
Immware Update				
biagnostic .	and the second s		1 million and	

6.9 Date & Time

Users can configure the time and date for the AcuLink 810 from the 'Date & Time' page in the left navigation panel under the 'CONFIGURATION' menu.

- NTP Enabled: The AcuLink supports Network Time Protocol where the time can be synchronized with a time server.
- Device Clock: Users can enter in the time and date manually in the device clock setting.
 Once the time and date is chosen the user must click on 'Update Time'.
- Time Sync: Users can force the time to update on the AcuLink 810 by selecting the 'Sync' button.
- NTP Time Servers: By default the gateway uses '0.u.pool.ntp.org' time server. Users can remove and add their own time servers as needed.
- NTP Server 1;2;3: Users can enter up to 3 NTP servers in the "NTP Server 1", "NTP Server 2" and "NTP Server 3" fields.

Examples of North American NTP servers are:

0.us.pool.ntp.org

1.us.pool.ntp.org

2.us.pool.ntp.org

3.us.pool.ntp.org

For more NTP servers based on region, visit the following site:

http://www.pool.ntp.org/en/



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• Time Zone: Users can select the timezone where the gateway is installed.

ownload	Date & Time	
elete	NTP Enable*	
na -	C Enable Disabled	
larm Log	Device Clock	
vent Log	Thu, Apr 25, 2019 2:41 PM	🖄 Update Time Sync
ONFIGURATION	NTP Server 1"	
ystem	0.us.pool.ntp.org	
ate & Time		
twork	NTP Server 2	
liar	Enter NTP Server 2 here	
irm Notification	NTP Server 3	
ta Log	Enter MTD Senior 3 have	
st Channel	Enter (4) P - Server S here	
uCloud	Time Zone	
er	America/Toronto	
dbus Template		
wware Update		
agnostic	Save	

6.10 Network Settings

The AcuLink 810 supports both Ethernet and WIFI communication. There are two Ethernet ports that can be used. The network settings can be found under the 'CONFIGURATIONS' menu on the left panel of the gateways web interface.

The DNS settings for the AcuLink are displayed. By default the DNS settings are:

- DNS 1: 8.8.8.8
- DNS 2: 8.8.4.4

6.10.1 WIFI

Users can configure the WIFI settings by selecting the 'WIFI' tab on the Network Configurations page.

Wi-Fi Enabled: Users can enable or disable the WIFI on the AcuLink 810

Wi-Fi Mode: There are two WiFi Modes:

1. Access Point Mode: Where the AcuLink 810 acts as a wireless bridge allowing other wireless devices to connect to it.



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- **SSID:** Users can create an SSID for the gateway, which will be used when other devices connect.
- Network Key: Users can create a network key
- **IP:** Users can also enter in an IP address that will be used to access the meter while in Access Point Mode.

NOTE: The default Network Key is accuenergy, and the default IP address is 192.168.100.1

Event Log	WiFi - Enabled"			
CONFIGURATION	C Enableri 🕕 Disableri			
System	Mode"			
Date & Time	Assess Dalet			
Network	Access Point			
Email	SSID"			
Alarm Notification	AcuLink820-WIFI-S8P18120020			
Data Log	and south the second			
Post Channel	Network Key*			
AcuCloud		195		
User	IP'			
Modbus Template				
Firmware Update	182, 100, 100, 1			
Diagnostic				
AUTHENTICATION	Ethernet 1 =			
Logout	Ethernet 2 -			
	Save			

- 2. Station Mode: Where the AcuLink 810 joins an existing WIFI network.
- SSID: Users can select from the list of wireless networks in range of the AcuLink 810.
- Network Key: Network key of the selected wireless network must be entered in this setting.
- **DHCP:** Can be set to 'Manual' or 'Auto', where if 'Manual' is selected the Subnet Mask and Gateway will also need to be provided. If 'Auto' is selected the AcuLink will have an IP address automatically assigned. With this selection the Subnet Mask, Gateway and will also be automatically assigned.
- Interface Status: Will notify the user whether the AcuLink is connected or disconnected to the WIFI network.

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lete	Enabled"	
6	C Enabled Oisabled	
rm Log	Mode* changed	
nt Log	Station	•
NEIGURATION	SSID"	
tem .		Refresh SSID
& Time	Natural Kan ^a	
rork	HELMOIR NEY	
1	Enter Network Key here	22
m Notification	DHCP Enable*	
Log	🗇 Auto 💿 Manual	
Channel	Interface Status	
bud		
	Connected	
ous Template	IP.	
vare Update	192 168 1 10	
nostic	100.100 7.10	
	Mask*	
HENTICATION	255 255 255 0	
ut		

By default the WIFI mode is set for Access Point Mode, where the AcuLink 810 acts as a wireless bridge allowing other wireless devices to connect.

6.10.2 Ethernet 1

The Ethernet 1 settings can be configured by selecting the 'Ethernet 1' tab on the Network Configurations page.

- Interface Status: Tells users whether there is an Ethernet cable connected or disconnected to the Ethernet 1 port.
- **DHCP:** Select 'Manual' to manually configure the IP address for Ethernet 1. If set to 'Manual', users will also need to set the Subnet Mask and Gateway. Select 'Auto' to have the AcuLink 810 assigned an IP address automatically. With this selection the Subnet Mask, Gateway and will also be automatically assigned.
- **IP:** If the DHCP is configured to Manual, the IP address can be configured.
- **Subnet:** If the DHCP is configured to Manual, the Subnet Mask can be configured.
- Gateway: If the DHCP is configured to Manual, the Gateway can be configured.



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By default Ethernet 1 has the following settings:

- DHCP: Manual
- IP: 192.168.8.101
- Subnet: 255.255.255.0
- Gateway: 192.168.8.1

CONFIGURATION System Date & Time Network	Ethernet 1 = DKCP Enable* Auto O Manual Interface Status
Email	Connected
Alarm Notification	ID'
Data Log	
Post Channel	192.168.8.101
AcuCloud	Mask"
User	255.255.255.0
Modbus Template	
Firmware Update	Gateway"
Diagnostic	192,168.8.1
AUTHENTIGATION	
Logout	Ethernet 2 -
	Save

6.10.3 Ethernet 2

Ethernet 2 by default has the DHCP settings configured to 'Auto'. This means that when connected to an internet source such as a router/switch, the network will assign an IP address to it. Once the IP is assigned, users can discover the IP address by accessing the Network Configurations page.

Users can also change the DHCP to 'Manual' for Ethernet 2 and connect to the network manually.

Data Log	
Post Channel	Ethernet 2 = DHCP Enable*
AcuCloud	O Auto Manual
User	
Modbus Template	Interface Status
Firmware Update	Connected
Diagnostic	(P
AUTHENTICATION	192.168.1.121
Logout	
	Save
1	



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6.11 Email (SMTP)

Users can send emails for alarm triggering. To do this on the AcuLink 810 users must configure the SMTP server and credentials.

To configure the Email setting, select 'Email' under the 'Configuration' menu on the left panel of the interface.

The user must first configure their SMTP server settings and details in order for the gateway to send the emails.

- Email Server: Enter the SMTP Server for the email account.
- Email Port: Enter the outgoing port number the SMTP uses to send emails.
- **TLS/SSL:** Select Auto/On/Off for the email's server. Please select Auto if the security setting of the server is unknown.
- Sender Name: Enter a sender name for the email
- From Email Address: Enter the email address that will be in the from field of the email
- Username: Enter the email address for where the emails will be coming from
- Password: Enter the password for the email address in Username

Click 'Save' once all the settings are entered in correctly.

Download		
Delete	Email	
00	Email Server"	
and a	ssl digitalhosting.ca	
larm Log	Email Port	
vent Log	607	
ONFIGURATION	507	
ystem	TLS/SSL*	
ate & Time	O Auto On O Off	
etwork	Sender Name	
nail	Test	
arm Notification		
ata Log	From Email Address"	
ost Channel	test@accuenergy.com	
cuCloud	Username	
ser		
odbus Template	test@accuentrgy.com	
rmware Update	Password	
agnostic.		16
UTHENTICATION		
tuco		
	See.	
	Serve	



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6.12 Alarm Notification

Select 'Alarm Notification' under 'CONFIGURATION' menu to set the email recipients that will receive the emails for alarms.

To enable the alarm notification, select 'Enabled'. With the alarm notification enabled users will be notified via email when an alarm is over/under the alarm condition. The AcuLink 810 supports a maximum of 3 recipients, once email address for each recipient is entered and click on 'Save'. Once an recipient has been added, users can click on 'Test Email' button to check if a test email is received.

Download		
Delete		Alarm Notification
		Enable*
LOG		C Enabled O Disabled
Alarm Log		Becipient 1
Event Log		Enter Developed & Bula
CONFIGURATION	1.1	Eliss (Archenis Linux
System	- 2	Recipient 2
Date & Time		Enter Recipient 2 here
Network		Recipient 3
Email		Enter Recipient 3 here
Alarm Notification		
Data Log		Test Emoils Save
Post Channel		
AcuCloud		
User		

6.13 Post Channels

The AcuLink 810 supports 3 HTTP/FTP channels.

To configure the HTTP/FTP data forward from the web interface click on 'Post Channel' under the 'CONFIGURATION' menu on the left panel of the interface.

To configure the post channels select the corresponding post channel tab.

6.13.1 HTTP Post Method

The HTTP post method allows the user to post meter data to an HTTP/HTTPS server.

Post Channel Enable: Select Enabled to enable the post channel data forward

Post Method: Choose from either HTTP/HTTPS in the drop down menu

Post Name Fixed: Select Yes or No to enable a fixed post name, if yes selected enter in the post name.



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HTTP/HTTPS URL: Select HTTP or HTTPS option from the drop down menu before entering in the URL. Next enter in the URL of the server.

HTTP/HTTPS Port: Enter the correct port for the HTTP server.

HTTP/HTTPS Meter ID: Enter in the meter ID

Once the settings are entered in correctly click on 'Save'. After the settings are saved, users can use the 'Test Post Channel' button to test whether the AcuLink 810 can successfully reach the HTTP server.

NOTE: If users receive a fail message, please verify the server URL, port number and double check the network connectivity.

Developed	 Post Channel 	
Lowinicald	Book Channel 1 Book Channel 1 Book Channel 1	
Delete	Boat Channel 2 Capital	
00	Enabled Disabled	
Alarma Law	Enabled C Lisabled	
Carrie Log	Post Method*	
Event Log	HTTPHITTPS	
COMPANIAN		
System	Post Name Fixed*	
Date 7. Time	🔿 Ves 🔾 No.	
Network	Post File Name	
Email		
Alarm Notification	NTTO-STTDE HDI *	
Data Log	HTTP:HTTP'S URL*	
Post Channel	ettps:// * 18.168.85.147/post	
AcuCloud	HTTP:HTTP\$ Port	
User	800	
Modous Template		
Famware Update	HTTP/HTTP'S Meter ID*	
	Test	

6.13.2 FTP Post Method

The FTP post method allows the user to post meter data to an FTP server.

Post Channel Enable: Select Enabled to enable the post channel data forward

Post Method: Select FTP protocol

FTP URL: Enter in the FTP URL

FTP Port: Enter the FTP port number

FTP Username: Enter the username to access the FTP server

FTP Password: Enter the password to access the FTP server



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Once all settings are entered in correctly, click on 'Save'. Users can use the 'Test Post Channel' button to determine whether the 810 can reach the FTP server.

NOTE: If users receive a fail message, please verify the server URL, port number, username, password and double check the network connectivity.

Download	C* Contractor			
Delete	Post Channel			
LOU	Post Channel 1 Post Channel 2 Post Channel 3 Read Channel 1 Excelses			
Alarm Log	Cashiel Chamber - Enabled			
Event Log	Enabled			
	Post Method"			
CONFIGURATION	FTP			
System				
Date & Irmé	FTP URL			
Network	Rp// Enter FTP URL here			
Email	ETD Bad			
Alarm Notification				
Data Log	Enter FTP Port here			
Post Channel	FTP Username			
AcuCloud	Enter FTP Username here			
User				
Modbus Template	FTP Password			
Firmware Update	Enter FTP Password tiere	15		
Diagnostic	Test Post Champie 1 Clear Feed Champiel Logs			
AUTHENTICATION				
Logout				
	Savo			

6.14 Data Logging

The AcuLink 810 supports data logging to its internal memory, which has 8GB of memory. When the memory is full the oldest data logs will be overwritten. To configure the AcuLink 810 to log the meter data click on 'Data Log' under the 'CONFIGURATION' menu on the left navigation panel.

AcuLink 810 supports at most 3 data loggers, the data log for each logger can be pushed to the post channel or saved in its internal memory.

- Data Log Enable: Select 'Enabled' to enable the data log
- Post Channel: Select the Post Channel from the drop down list:
 - None: AcuLink 810 will log and store the data on its memory
 - Post Channel 1/2/3: AcuLink 810 will log and push the data to the configured post channel. Users will not be able to select the post channel if it is disabled.

NOTE: For more information on configuring the Upload Protocol refer to the 'Post Channels' section of the user manual.

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- **Timestamp Format:** Select the format of the timestamp for the data that is logged. The format for the timestamp can be based on the Local Time, UTC Seconds or based on ISO8601 Format.
- Log File Name Format: Select the format of the log file name for the data that is logged. The format for the log file name can be based on UTC Timestamp or Time interval Format.

	Log Interval	
CONFIGURATION	1 minute	
System	Les Bit Levels	
Date & Time	Log File Lenger	
Network	1 minute	٠
Email	Log File Name Prefix	
Alarm Notification	looper1	
Data Log		
Post Channel	Devices	
AcuCloud	DI Couniers	
User	AcuDC 243 RTU #AcuDC243RTU AcuRev 1312 RTU #AcuRev1312RTU AcuRev 2020 RTU #AcuRev2020RTU	
Modbus Template	Acuvim L V3 TCP #AcuvimLV3TCP	
Firmware Update		
Diagnostic	Save	

- **Log Interval:** Select how frequently the module will log data to the file from the drop down list. The logging interval can be from 1 minute to 1 month.
- Log File length: Select the length of the log file, it can be from 1 minute to 1 month.

NOTE: The log interval must be less than or equal to the log file length.

- Log File Name Prefix: Provide a name for the log file which will be appended to the beginning of the log file. By default "logger1" will be appended to the beginning of the log file.
- Select the device(s) to log the data for.

When all of the settings are entered in correctly, click on 'Save'. All the data logs can be downloaded from 'Download' under 'DATA MANAGEMENT' menu.

NOTE: For more information on data log downloading and deleting, please refer to the 'Data Management' section of the user manual.



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6.15 AcuCloud

Users can upload meter data to Accuenergy's free cloud based software called AcuCloud. AcuCloud is a cloud-based facility metering platform that provides users access to data from Accuenergy's power meters, and is free for all Accuenergy meters.

To configure the AcuLink 810 to post data to AcuCloud, click on 'AcuCloud' from left navigation panel under the 'CONFIGURATION' menu.

Download	*	
Delete	AcuCloud Link to AcuCloud	
	AcuCloud Enable*	
	Enabled ODisabled	
Alarm Log	Module Serial Number	
Event Log	S8P19042302	Copy
CONFIGURATION	Token	
System	The second s	
Date & Time	Enter Token here	
Network	Devices	
Email	DI Counters	
Alarm Notification	AcuDC 243 RTU #AcuDC243RTU AcuRev 1312 RTU #AcuRev1312RTU AcuRev 2020 RTU #AcuRev2020RTU	
Data Log	Acuvim II USB #AcuVimIIUSB AcuRev 2020 TCP #Acurev2020TCP Acuvim L RTU #AcuvimLRTU	
Post Channel	Acuvim L V3 TCP #AcuvimLV3TCP	
AcuCloud	Test AcuGioud Cient AcuGioud Post Logo	
User		
Modbus Template		
Firmware Update		
Diagnostic		
AUTHENTICATION		
Logout		
	Save	

Users will need an AcuCloud account in order to add the AcuLink 810 as a device. To create your AcuCloud account contact Accuenergy Technical Support.

If you already have an AcuCloud account, the following steps can be used to add the gateway to AcuCloud.

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• Login to your AcuCloud account with sufficient access to add new devices.

ACCUSATE		L User Management A Alerts L Export Data ± Forward Data @Loge - → Help
ALLUSIVENUT		a 1-
Accuments (Ca) 🐱	INFO DEVICES REPORTS ENERGY	HEATMAN
FACILITIES +	Toronto Office	
 Low Angeles Office Montreal Pactory 	Previous Month's Energy Usage	Consumption for the Last 30 Days
Service Center Toronte Office	1343678.7 kWh	a) Strange
	Current Month's Energy Usage	
	202641.1 kWh	Саух Ада
	Overview	+1/1/1/1/1/1/ 1/ m
	♥ 12 Lansing Sq., M2,14P8	H T TO INVESTIGATION POINT
	D Office	Channel (Same) (Same)
	21. 20 occupants	
	🔲 5000 eq. ft.	mung with and and there ?
	E 32 devices	Promotions Boot To Documents
	R Office MP1	Donky GH Q SULLIVAN WISHING WELL ACRES

Adding a new device to the Device List can be done from the Facilities page

- Click on the Devices tab
- Click on the + NEW DEVICE button.

ACCUENERGY			L User Management	A Alerta	🙏 Export Data	🕒 Forward Data	⊟Loge - PHelp ⊑ ± -
Accountry (Ca) ~	INFO DIVICIS REPORTS ENERSY HEATING						
FACILITIES + Resping office: Los Angeles Office:	Toronto Office						COR ATED METER
Montreal Factors Service Center	All times are about in the American Intento time time Name	Meter Type	Serial Number		Last Received	Data	
3 Formate coffice	To one office - Tree	Calculated					

The following details need to be entered:

- Select the name of the Facility in which the device will belong to from the Facility drop down list.
- Select the AcuLink 810 from the Model drop down list.
- Select "This is a gateway Device"
- Provide a name for the device under Device Name.
- The Serial Number of the AcuLink 810 in the serial number field.



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NOTE: The serial number can be found and copied on the AcuCloud configuration page of AcuLink 810 web interface.

- Provide a description for the location of the device under Location.
- Click SUBMIT.

ACCUENTER			L Dier Management	A Alerts	A Laport Data	ET Forward Data	ELogs - THeip
HELDLALHU/							a 1 -
Accommy (Ca) 🐱		2					
FACILITIES .	Add a New Device						
		· All Paulty and construct					
 seapog cance 		tacilita -					
 Las Angelen Ditiev 		Teronita Office					
+ Montreal Factory		Deesso a Model					
 Service Center 		ALULH#810					
> Terunio Office		Galeway					
		 This is a gateway device. 					
		Device Name					
		Acut ett 810					
		Serial Number.					
		DRP19942302					
		Location					
		Tesonto					
					_		
		CANGE			SUBMIT		

Once the gateway has been successfully created, a token will be returned on the ensuing page. The user will need to copy the token that is provided as it will be used in the next step to configure the gateway to send its data to AcuCloud.

ACCUENERGY			L User Managoment	▲ Alerta	A Expert Data	tet Forward Data	M Loga •	2Heb
FACILITIES +	Add a New Device							
1 Beijing Office 2 Los Angeles Office 3 Montreal Pestary		Copy Mus. Infan fo Mar metro to finish replacement. Dinisă Takin MISUMUR SCHARTS (COLUMN CANTER)						
 Berrice Center Toxonito 0%se 			C COPY TRACK TO	(Lingolate)	Cincar			

• Go back the AcuLink 810 web interface and paste the token that was generated into the AcuCloud Token field.



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ALLUSIVERGY		
Download	A ActiCloud Liek to ActiCloud	
Delete	AcuCloud Table	
LOG	Enabled Disabled	
Narm Log	Module Serial Number	
event Log	\$8P19042302	Copy
ONFIGURATION		
System	Token	
Date & Time	dt53bbe3-55df-4951-96be-8adb47a44780	
letwork	Devices	
mail	DI Counters	
Jarm Notification	AcuDC 243 RTU #AcuDC243RTU AcuRev 1312 RTU #AcuRev1312RTU AcuRev 2020 RTU #AcuRev2020RTU	
lata Log	Acuvim II USB #AcuVimIIUSB AcuRev 2020 TCP #Acurev2020TCP Acuvim L RTU #AcuvimLRTU	
ost Channel	Account of the meconication	
cuCloud	Test AcuCloud Clear AcuCloud Post Logs	
lser		
fodbus Template		
irmware Updale		
Diagnostic		
AUTHENTICATION		
Looput		

- Select the devices that need to be connected to Acucloud.
- Click Save
- Then click on 'Test Connection' to see if the AcuLink can reach the AcuCloud server.

NOTE: If the test connection fails, please check the network settings of the AcuLink 810 and if the token is entered correctly.

The AcuLink 810 gateway is now successfully configured to report to the AcuCloud EMS software. Check to see if AcuCloud is receiving data from the gateway by going to the Devices page in AcuCloud and observing whether the name of the selected devices from the gateway appear in AcuCloud with a Last Received Data timestamp.

If the gateway is offline or stops posting to the cloud, it will be backed up to the last 3000 posts. Once the meter reestablishes a connection to the cloud it will post the files to AcuCloud. Users can remove or clear the back up posts at anytime by clicking on the 'Clear AcuCloud Post Logs' button.



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6.16 Data Management

You can manage the data logs directly from the user interface of the AcuLink 810. This page allows the user to download or delete data from their Modbus devices.

6.16.1 Download Data

To download the Data Logs select the 'Download' tab under 'DATA MANAGEMENT' menu.

- Select Device: Select the device you wish to read the data from.
- From/To Date: Select the date and time frame to read the data log.

NOTE: Data Logs will only be recorded for the devices that have been selected in logger 1,2,3 or AcuCloud.

Dashboard	Download Log Device*	
DEVICE	Please select Device	
Modbus Device		
Digital Input	Interval	
DATA MANAGEMENT	From Select date & time	
Download	To Select date & time	
Delete		
LUG	Download	
Alarm Log		
Event Log		
CONFIGURATION	1	
System		

Click on 'Download' once all information is entered in correctly. The data will be downloaded as a .csv file to your computer directly.

NOTE: Depending on the amount of data stored this may take several minutes to complete the data download.

Delete Data

To delete the Data Logs select the 'Delete' tab under 'DATA MANAGEMENT' menu.

Select Device: Choose the device you want to delete data for.

Once all the settings are entered in correctly, click on 'Delete Data Log'. All the data related to the selected device will be deleted.

NOTE: Once data is deleted from the AcuLink 810 it cannot be undone.



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6.16.2 Users Password

When users are logged in as an Admin they can change the password for both Admin and Viewer access levels. Once the new password is entered click on 'Save'.

	*	
Alarm Log	User Configuration	
Event Log	User*	
CONFIGURATION	O Viewer 😳 Admin	
System	New Password"	
Date & Time	Enter New Password here	22
Network	New Password Repeat	
Email	Enter New Password Repeat here	25
Alarm Notification	PLICE MARK L assurer a Licelic at Licele	
Data Log	Save	
Post Channel		
AcuClaud		

6.16.3 Firmware Update

The firmware of the AcuLink 810 can be updated from the 'Firmware' page under the 'CON-FIGURATIONS' menu. This page lists the current firmware of the gateway.

The firmware update can be updated manually or remotely using the server.

Data Log		
Email Alarm Notification	Liploid	
System Date & Time	Check Manual Upload Firmware File Choose a file	Browse
Event Log	Current module firmware version: 1.00 Remote Update	
Alarm Log	Firmware Update	





Manual Firmware Update

To manually update the firmware of the AcuLink 810, click browse and upload the firmware file. The file should have a **.aup** file extension.

ACCUENERGY		
System Date & Time Network Email Alarm Notification Data Log	Firmware Update Current module firmware version: 1.00 Remote Update Clinick Manual Upload Firmware File	
Post Channel Actic/oud User Modous Template Firmware Update Diagnostic AUTHENTICATION Logout	AcuLmk310-v1.00.aup	Browse
AcuLink 810 Data Acquisition Server Server Time: 04/30/2019, 12:08:28 Up Since: 04/20/2019, 09:09:22	Support Call or small for wegewring support Phone: - 1, 416, 497, 4100 Finait	Resources Online guides: manualit; videos and diagrams available online WWW.scompetity.com

Click on 'Upload' to begin uploading the firmware.

ACCUENERGY		Aculink B10
ADMIN	Firmware Update	
Dashboard	Current module firmware version: 1.00	
DEVICE.	Remote Update	
Moditius Device	Check	
Digital Input	Manual Upload Firmware File	
DATA MANAGEMENT	AcuLink810-v1.00.aup	Browse
Download		
Delete		
0.00		
Alarm Log		
Event Log		
CONFIGURATION		
System •		
AcuLink 810 Data Acquisition Server	Support	Resources
Server Time: 04/30/2019, 12:11:30	Call or email for angineering support Devne: 41 416 407 4100	Online guides, manaab, videos and diagrams available online
OD SHILE 04 30/2019 08 08 12	Email: https://www.university.com	

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Once the firmware is uploaded, click on 'Start' to begin the updating process.

ACCUENERGY		Acazink B10
ADMIH DeshGoard DEVICE Modbus Device Opfical Input OATA MANADEMENT Downkad Delete LOG Aarm Log Event Log	Firmware Update Current module Immware version: 1.00 Firmware line ready to process Ready to update Start Update	
CONFIGURATION		
AcuLink 810 Data Acquisition Server Server Time: 04/30/2019, 12:13:21 Up Since: 04/30/2019, 09:09:22	Support Call or email for engineering support Phone: +1.415.497.4100 Email	Resources Online guides, manuals, videos and diagrams available online.

Once the firmware update is complete, the AcuLink 810 will restart.

	Fireware update success, meter will now restart in 5	×
ADMIN	Firmware Update	
Dashboard	Current module firmware version: 1.00	
DEVICE Modbus Device	checking if file wests	
Digital Input	start decrypting and validating firmware update package decrypting	
DATA MANAGEMENT	validating succefully decrypting and validating firmware update package /opt/data/firmware/AcuLink010-v1.00.aup	
Download	getting current root device get current root device complete	
Delete	getting update part get update part complete	
LOG	getting update device get update device complete	
Alarm Log	formatting update device format update device complete	
Event Log	creating symlink for the update process creating symlink complete	
CONFIGURATION	getting update part get update part complete	

Remote Firmware Update

The firmware of the AcuLink 810 can be updated using the remote firmware option. This will allow users to check for the latest firmware updates. To use the remote firmware update click on 'Check' which will verify if there is an update available or whether the gateway already has the latest firmware.



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NOTE: When updating the AcuLink 810 firmware remotely ensure that you have sufficient connection to the internet.

ACCUENERGY				Acuenk 810
EOG Alarm Log Event Log EONPTGURATION System Date & Time Network Email Adam Motification Data Log	Firmware Update Current module firmware Firmware info Version: 1:01 Info: test Update Choose a file. Upload	re version: 1.00 e File	Browse	
Post Channel AcuCloud User Modbus Template Firmware Update				
AcuLink 810 Data Acquisition Serve Server Time: 04/30/2019, 12:37:44 Up Since: 04/30/2019, 12:16:37		Support Call or email for engineering support Phone: +1.416.497.4100 Pinate	Resources Online guider, manuals, videos and diagrams available online	

Click on 'Update' to begin downloading the firmware from the remote firmware server.



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Once the download is complete the firmware update will begin.

		Fireware update started	×
Log Alarm Log Event Log CONFIGURATION System Date & Time Network Email Alarm Notification Data Log Post Channel AcuCitud User	Firmware Up Current modul	pdate # firmware version: 1.00 gdate**** file edit e exist complete ting and validating firmware update package	
Modbus Template			
Firmware Update	*		
AcuLink 810 Data Acquisition Ser Server Time: 04/30/2019, 12:40:00 Up Since: 04/30/2019, 12:16:37	er	Support Call or email for engineering support Phone: +1.416.497.4100	Resources Other guides, manuals, videos and disgrams available online

After the firmware update is complete, the AcuLink 810 will restart.

		Fireware update success, meter will n	ow restart in 7		×
104	Firmware Update				
Event Log	Current module firmware vers	iion: 1.00			
CONFIGURATION	checking if file exist				
System	start decrypting and valid	ating firmware update package			
Date & Time	decrypting validating				
Network	succefully decrypting and	validating firmware update package /opt	/data/firmware/Aculink810-	v1.00.aup	
Email	get current root device co	e mplete			
Alarm Notification	getting update part get update part complete				
Data Log	getting update device				
Post Channel	get update device complete formatting update device				
AcuCloud	format update device comple	ete			
User	creating symlink complete	terre barres			
Modbus Template	getting update part get update part complete				
Firmware Update +	installing rootfs				
Acul Ink 810 Data Acquisition Server		Support	R	esources	
Server Time: 04/30/2019, 12:41:24		Call or email for engineering support		tine guides, manuals, videos and diagrams available online	
Up Since: 04/30/2019, 12:16:37		Phone: +1.416.497.4100 Email:			



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6.17 Network Diagnostics

The AcuLink 810 has a network diagnostics page which can be used to monitor the network status of the gateway.

In the Network Status tab users can see the Ethernet Network status, the routing table, DNS, network stat, and the WIFI status.

NOTE: In order to see the WIFI network status the AcuLink 810 must be configured for Station Mode.

	Diagnostic	
	Linginosou	
-9	Network Status Host Lookup Connection Test Debug	
	Rohesh Network Status	
NURATION	Ethernet Network	
	ethö Link encag:Ethernet HWaddr ec:c3:8a:65:43:21	
îme	inet addr:192.168:1.52 Bcast:0.0.0.0 Mask:255.255.255.0 UP BROADCAST RUMMING MULTICAST MTU:1500 Metric:1	
	RX packets:35599 errors:0 dropped:25 overruns:0 frame:0 TX packets:35358 errors:0 dropped:0 overruns:0 carrier:0	
	collisions:0 txqueuelen:1000	
offication	WY DATESTITUTED (0.9 MTD) IX DATESTIMEDALD (1.9 MTD)	
1	eth1 Link encap:Ethernet Huaddr ec:c3:8a:63:43:22 inet addr:192.168.1.121 Bcast:192.168.1.255 Mask:255.255.255.8	
annel	UP BROADCAST RUNKING MULTICAST HTU:1500 Metric:1 BX packets:18000 errors:0 dropped:25 overrunt:0 frame:0	
d.	TX packets:40 errors:0 dropped:0 overruns:0 carrier:0	
Youndate.	RX bytes:1150441 (1.0 MiB) TX bytes:4136 (4.0 KiB)	
a llodete	10 Link encapilocal Loopback	
e opose	inet addr:127.0.0.1 Mask:255.0.0.0 UP LOOPBACK RUMUING MTU:65536 Metric:1	
a.	RX packets:245 errors:0 dropped:0 overruns:0 frame:0	
10 Data Acceletion Serve	rx packetsizka erroriste droppedie operfuniste cerraerse Sunnad	Desaures
04/30/2019, 13:06:03	Call or ensul for engineering support	Online guides, manuals, videos and diagrams available online
4/30/2019, 12:42:49	Phone: +1 416 497 4100	
	Lines of porty of Dennity State	
NERGY		
	Routing Table	
1		
	Kernel IP routing table	
1	Kernel IP routing table Destination Gathawy Germask Flags Petric Ref Use Frace 0.0.0.0 192,140.1.1 0.0.0.0 UG 100 0 0 etho	
URATION	Kernel IP routing table Genmask Flags Petric Net Use Frace 0+0.0.0 192.146.1.1 0+0.0.0 100 0 0 etco 0.0.0.0 192.146.1.1 0.0.0.0 102 0 0 etco 0.0.0.0 192.146.1.1 0.0.0.0 105 30 0 0 etco 0.0.0.0 192.146.1.1 0.0.0.0 105 30 0 0 area	
URATION	Karnel IP routing table Genmask Flags Petric Ker Use Frace 0.0.0.0 192.140.1.1 0.0.0.0 100 0 0 0 0.0.0.0 192.140.1.1 0.0.0.0 100 0 0 0 0 0.0.0.0 192.140.1.1 0.0.0.0 105 0 0 0 0 0.0.0.0 192.140.1.1 0.0.0.0 0 530 0 0 101 192.140.1.1 0.0.0.0 0.530 0 0 103 0 0 103 192.140.1.1 0.0.0.0 255.253.255.0 0 0 0 0 103 192.140.1.1 0.0.0.0 255.253.255.0 0 0 0 0 103 192.140.1.0 0.0.0.0 255.253.255.0 0 9 0 0 0 103	
URATION The	Stered IP routing table Openant Flags Petric Net Use Face 0.0.0.0 012.146.1.1 0.0.0.0 100 0 0 0 0.0.0.0 192.146.1.1 0.0.0.0 100 0 0 0 0 0 0.0.0.0 192.146.1.1 0.0.0.0 100 250 0 <td< td=""><td></td></td<>	
URATION The	Stend IP routing table Genasis Flags Petric: Net Use 1Face 0x8.0.0 012.461.1 0x8.0.0 US 100 0 0 0 0 0x8.0.0 192.461.1 0x8.0.0 US 100 0	
a DURATION The Sifeation	Kernel IP routing table Geness Flags Petric Net Use Frace 0x0.0.0 007.100.1.1 0x0.0.0 US 100 0 erec 0x0.0.0 107.100.1.1 0x0.0.0 US 100 0 erec 0x0.0.0 105.100.1.1 0x0.0.0 US 0 0 erec 0x0.0.0 105.100.1.1 0x0.0.0 US 0 0 erec 0x0.00.0 105.100.1.1 0x0.00.0 US 0 0 erec 0x0.00.0 105.100.1.1 0x0.00.0 255.205.755.0 U 200 0 etch 100.100.0 255.255.255.0 U 350 0 utand US	
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LOG	SSID	
Alarm Log	BSS ac:22:00:ce:24:50(on wlan0) associated	
Event Log	TSF: 0 usec (0d, 00:00:00) freq: 2412 beacon interval: 200 Tus	
CONFIGURATION	capability: ESS Privacy ShortSlotTime (0x0411)	
System	last seen: 0 ms ago	
Date & Time	SSID: AcuRev2000_TEST Supported rates: 1.0* 2.0* 5.5* 11.0* 18.0 24.0 36.0 54.0	
Network	DS Parameter set: channel 1	
Email	ERP D4.0: Use_Protection	
Alarm Notification	RSN: * Version: 1 * Group cipher: CCMP	
Data Log	 Pairwise ciphers: CCMP 	
Post Channel	* Authentication suites: PSK * Capabilities: 16-PTKSA-RC 1-GTKSA-RC (0x000c)	
AcuCloud	Extended supported rates: 8.0 9.0 12.0 48.0	
User	Capabilities: 0×19bd	
Modbus Template	RX LDPC HT20	
Firmware Undate	SM Power Save disabled	
Diamostic	RX HT20 SGI	
Pinde Manuel	TX STBC RX STBC 1-stream	
AUTHENTICATION	Max ANSON length: 7935 nutes	
AcuLink 810 Data Acquisition Server	Support	Resources
Server Time: 04/30/2019, 13:07:19	Call or email for engineering support	Online guides, manuals, videos and diagrams available onl
Up Since: 04/30/2019, 12:42:49	Phone: +1.416.497.4100	www.acquernergy.com

In the 'Host Look Up' tab, users can use the ping function to test whether the AcuLink can communicate over the network it is connected to.

Under the 'Connection Test' tab user can test the local network that the AcuLink is connected to. The test result will show SUCCESS and PASS if there is no issues found, and will show FAIL if there are network issues.



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On the 'Debug' tab, users can turn on or turn off SSH. From the debug page users can also download the AcuLink 810's diagnostic file.

The debug diagnostic options are recommended to be all 'OFF' as this feature is mainly used for troubleshooting and can affect the performance of the gateway if turned on.

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The AcuLink 810's diagnostic file can be downloaded by the user from the Debug page. If users are experiencing any issues with the gateway, the diagnostic file can be sent to Accuenergy Technical Support for further analysis.





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7. LED Description

There are a total of 13 LEDs on the AcuLink 810 data acquisition server and each represent different functions pertaining to the unit.



With the exception of the blue power LED, the remaining LEDs can be divided into three groups:

7.1 AcuMesh LEDs

The AcuMesh has a total of six LEDs which are related to the AcuMesh status.

- **RSSI** There are three RSSI LEDs which indicate the signal strength of the incoming signal.
- **ASSOC** Indicates that the transceiver is powered on or it is communicating. The Red LED is 'ON' when powered, and briefly 'ON' or flashing during RF transmission.
- **RX** Indicates that the transceiver is receiving data.
- **TX** Indicates that the transceiver is transmitting data.



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	WIFI		
AP MODE	STATION MODE	STATUS	

7.2 WiFi LEDs

The WiFi has a total of 3 LEDs which are related to the WiFi status.

- AP MODE when 'ON' Indicates that the WiFi is working in Access Point Mode
- STATION MODE when 'ON' indicates that the WiFi is working in Station Mode
- STATUS When 'ON' indicates that the WiFi is working and functioning properly.



7.3 RS485 LEDs

The RS485 has a total of 3 LEDs which are related to the RS485 status.

- **COMM OK** When 'ON' indicates that all RS485 and USB devices in RS485 network are online and is represented by a green LED.
- COMM ISSUE When 'ON' indicates that some of the devices in the RS485 network are offline and is represented by a yellow LED
- NO COMM When 'ON' indicates that all RS485 devices in the RS485 network are offline and is represented by a red LED



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8. Reset Button

On the AcuLink 810 unit there is a reset button located on the back of the unit where the Ethernet and USB ports are. The reset button resets the AcuLink 810 back to default meaning that all devices, data logs, alarm/event log, and device templates will be deleted. The only Device Template that will remain after the reset is the Modbus Gateway Function, however all other Modbus templates will be removed.

After the reset all network communications will be restored back to default meaning the AcuLink will have the following network settings after the reset:

- WIFI Mode Access Point (AP) mode
- Ethernet 1 192.168.8.101
- Ethernet 2 DHCP enabled

To successfully perform a reset on the AcuLink 810 gateway press and hold the reset button for 10 seconds until all LED lights on the unit are flashing. The reset will be complete when the LED lights stop flashing.



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