

Advantage Controls M-MegatronXSi MegaTronXSi Web Monitor Instruction Manual

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Advantage Controls M-MegatronXSi MegaTronXSi Web Monitor



Introduction

The MegaTronXSi microprocessor-based controllers are designed to provide a wide range of web monitoring functions. The controller is programmed through a front panel keypad or via the internet through WebAdvantage and can be configured to provide customized web monitoring for your application. Your particular unit's functions can be determined by comparing the unit's model number to the Model Numbering table listed below.

Model Numbering

MegaTronXSi units have several base system control functions and unit optional features. Your unit may be supplied with one or more of the features described in this manual. To determine what features apply to your unit check the model number label located on the controller enclosure. Options

- A Conduit connection
- A3 Liquid tights and 220-240 VAC relay card
- A4 Prewired USA power cord, dry contact only relay card
- A9 Prewired USA power cord; no relays
- A24 Prewired USA power cord; no relays with 24 VDC power supply in housing
- H11 Communications card with Modbus via ethernet instead of standard comm card
- H21 Communications card with BACnet via ethernet instead of standard comm card
- L (5) additional digital alarm inputs
- N4 (4) 4-20mA isolated inputs
- N8 (8) 4-20mA isolated inputs (O4 is not available with the N8 option)
- **O4** (4) 4-20mA isolated outputs
- W4 (4) totalizing flow meter inputs with volume tracking and alarming
- Y ETL agency listing
- Z Black cover instead of clear

Model numbers start XSI followed by optional features. Example: XSI-N8W4.

Notice: Your unit may not have all the features and functions described in this manual. This list represents our most popular XSi options, additional option codes are available. Consult the epresentative for more details.

Description of Unit

MegaTronXSi monitors provide WebAdvantage Internet-based remote monitoring, controlling, and reporting for a wide range of analog and digital applications.

Control Functions

Each of these control functions is based on a 4-20mA analog input and will include user-settable relay control settings along with a High and Low Alarm setting and Limit Timer. Each control function can control relay output. When the reading reaches (rises above or falls below) the Set Point the control relay is activated until the reading changes by the Differential amount.

Specifications

Brand: MegaTronXSi Web Monitor

Model: XSI-N8W4

Functions: Web monitoring, remote controlling, reporting

Input: 4-20mA analog

• Control: User-settable relay control settings, High and Low Alarm settings, Limit Timer

Installation

Mounting Instructions

Select a mounting location that provides the operator easy access to the unit and a clear view of the controls through the cover of the controller. The location should be convenient for grounded electrical connections, and he needed sample line plumbing, and should be on a stable vertical surface.

Electrical Wiring

The Megatron XSi monitor has an internal regulated fused power supply that will operate off of 90 to 250 VAC at 47 to 63 Hz on the incoming wiring. Each output relay is individually protected with a replaceable fuse. Relay outputs will equal incoming line voltage.

NOTES:

- 1. Liquid tight fittings and some labeled signal leads are provided for all signal (low voltage) connections for both pre-wired and conduit units.
- Units should be ordered with the appropriate option to provide powered relays designed for the incoming/outgoing power.

Pre-Wired

Pre-wired units are supplied with a 16 AWG cable(s) with 3-wire grounded USA 115 volt plug for incoming power and 3-wire grounded receptacle cords for all control relay outputs also 16 AWG.

Conduit

Conduit units are predrilled at the factory and supplied with conduit knockouts for easy hard wiring to supplied detachable connectors on the relay card(s) located in the lower section of the controller. Remove the screws of the lower panel for access.

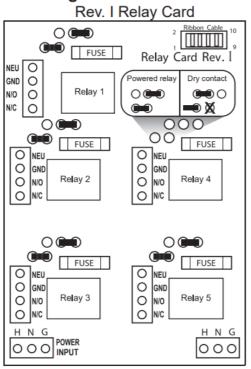
NOTES:

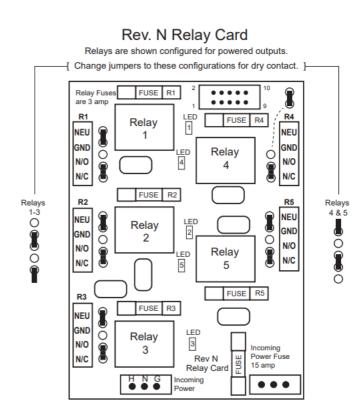
- 1. Do not drill holes in the upper section of the enclosure.
- 2. All relays provide an N.O. and N.C. output.
- 3. The control function that activates each relay output is pre-configured at the factor based on the options selected. To change relay activation, see on page 13.
- 4. Refer to the label inside the lower panel cover for the specific relay board configuration supplied.

5. Relays configured as "dry contact" should only have D.C. voltage run through them. The GND connection point replaces the NEU when configured for dry contact. (Example: Use GND and N.O. for a normally open dry contact relay output.)

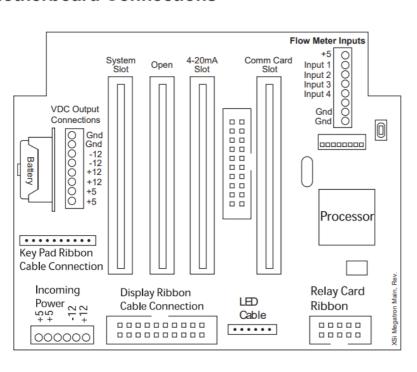
WARNING: If jumpers are not configured for dry contact, line voltage will be supplied.

Relay Card Wiring

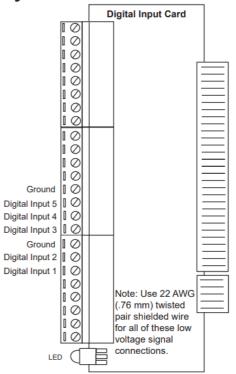




Motherboard Connections



System Card Connections



4-20mA Output Card Wiring

Isolated Configuration

For isolated 4-20mA outputs, an external power source for the loop must be supplied. JP4 and JP5 on the board

must be jumpered for isolation with an external power source supplied to the external VDC input. The external power source must not exceed 24 volts DC.

Non-isolated Configuration

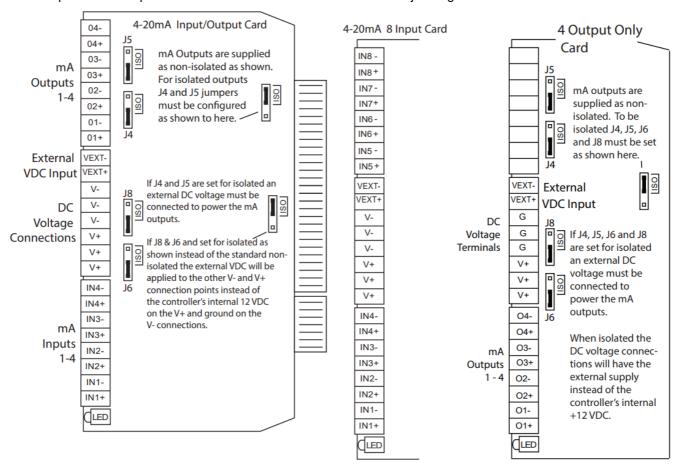
For non-isolated 4-20mA outputs, the controller will supply the power for the loop. JP4 and JP5 must be jumpered for non-isolated and no connections are made to the external VDC points.

NOTE: The power for the mA output loop is always provided by the controller with either an isolated or non-isolated configuration.

4-20mA Input Card Wiring

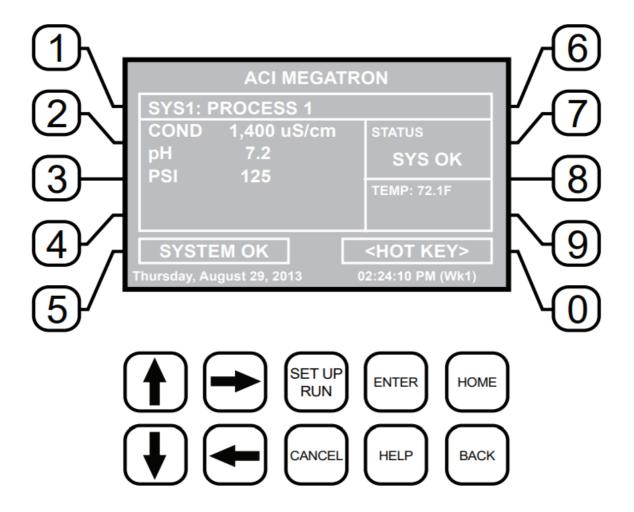
The 4-20mA input card requires that the external device sending the 4-20mA input signal(s) supply the power for the loop. The external power source must not exceed 24 volts DC.

Note: All eight mA input cards and the newer four input cards provide -12 VDC on the V- connections and +12 on the V+ when the card is not configured for isolation with an external VDC supplied. Older four input-only cards and all four input & four output cards do not have -12 on the V- but have just a ground connection instead.



Note: Units with only mA outputs may be provided with a card that has the four outputs at the bottom of the card or the top of the card, depending on the version used.

Front Panel Description



- NUMBER Keys- Used to enter new values in the SET UP mode and to access desired sub-menus.
- **UP/DOWN** Used to cycle through text options to find the desired setting.
- LEFT/RIGHT Used to cycle through text or setting options to find the desired setting.
- SET UP/RUN System initializes into RUN mode. Press this key to put the controller in SET UP Mode and see the HOME menu page.
- ENTER Used to log a changed value into the program.
- **HOME** Used to go back to the HOME menu page.
- CANCEL Used to cancel a pop-up screen if no change is desired.
- **HELP** Used to access help screens.
- BACK Used to go back to the last menu screen viewed or clear values keyed in that are not wanted.

The bottom right box in the RUN screen mode is a hotkey that will take you directly to a particular menu screen. The default is the RELAY status menu, but this can be changed by navigating to the desired screen and pressing the HELP button. Follow the on-screen instructions to set the new hotkey location.

System Operation Overview

Operation

Megatron XSi controllers have two modes of operation, RUN, and SET-UP.

RUN – This mode is for normal operation. In the RUN mode, the display will show each system's parameters. If an alarm is present, the ALARM box will flash how many alarms are activated. No settings may be entered or changed in the RUN mode. Readings are updated every 6 seconds on the screen while in the RUN mode.

SET-UP – This mode is used to adjust settings and readings on the controller. To access the SET UP mode from the RUN screen, press the SETUP/RUN key.

Menu Navigation

To access the menus, press the Set Up / Run key on the front panel. This takes you to the Home menu. Megatron XSi controller's menus are easily navigated by pressing the associated number key next to a menu box on the screen. Once you have stepped through the sub-menus to reach a point at which a value or selection is made a Pop-up window will appear prompting you to enter a desired value or selection.

NOTE: When entering new numeric values, enter all available digits (characters).

Home Menu

>HOME	SETUP<
SETPOINTS	DATE/TIME
CALIBRATION	CONFIGURE
	HISTORY
CUSTOMIZE	TOTALIZERS
ALARMS	RELAYS

From the HOME menu select the desired menu. The menu name explains what parameters can be programmed in the menu.

- **SET POINTS** Setting control set points for mA inputs and digital input is alarming.
- **CALIBRATION** Calibrating mA signals if present.
- **CUSTOMIZE** Giving the controller, system, mA inputs and all relays a user-defined name.
- ALARMS View current alarms.
- **DAY/TIME** Menu for setting date and time.
- CONFIGURE Menus for configuring passwords, relay activations, setting history interval, and contrast.
- **HISTORY** Allows for viewing history on board in a graph form.
- **TOTALIZERS** Menu for configuring flow meter totalizing if present.
- **RELAYS** Menu for resetting accumulated "ON" times and manual relay activation.

Set Points

The same basic format is used for defining each available analog mA control parameters

>SYSTEM 1 SET POINTS<

ma out

ma in

aux inputs

SET POINTS – For setting the relay set points for the available analog readings.

NOTE: In the Setpoint pop-up screen the direction (Rising or Falling) of the setpoint can also be set. Rising setpoints will activate the control relay when the particular reading rises above the setpoint and will stay activated until the reading comes down by the amount of the differential. If set for Falling the relay is activated when the probe reading falls below the setpoint and stays on until the probe reading comes back up by the amount of the differential.

>mA INPUT 1 SETPOINT<

SET POINT

DISABLER

DIFFERENTIAL

HIGH ALARM

LOW ALARM

LIMIT TIME

- SET POINT What reading turns the relay on
- DIFFERENTIAL Amount reading changes before the relay is turned off
- HIGH ALARM What reading generates a High alarm?
- LOW ALARM What reading generates a Low alarm?
- **LIMIT TIMER** What amount of continuous control will generate a time alarm notice? The relay is locked out by this alarm.
- **DISABLER** One of the digital inputs can be selected to prevent alarm.

Note: Each alarm value can also be set up to be displayed or not on the front screen as well as remotely notified or not if connected to the Web Advantage server.

Aux Inputs

Auxiliary inputs are the generic digital input status indicators from external dry contacts. From these menus, the user can set if they want each of the status alarms Displayed, Remote Notification, both or none.

>SYSTEM 1 DIGITAL	INPUTS ALARM<
ALARM NOTIFICATION	DIGITAL 1
	DIGITAL 2
DIGITAL 1 = DISPLAY	DIGITAL 3
	DIGITAL 4
	DIGITAL 5

Note: Digital inputs can have the direction selected between OPEN or CLOSED as the alarm polarity. If set for CLOSED, the input will be in alarm when it sees a closed contact.

4-20mA Out

Units with a 4-20mA output option will have a menu for setting up the 4-20mA output. The 4mA and 20mA values can be defined by giving the output proportioning capability. i.e. 4mA = a pH of 6.0 and 20mA = a pH of 8.0.

>OUT 1 SETUP<

SIGNAL SOURCE 4mA VALUE

20mA VALUE

- SIGNAL SOURCE Select which mA reading the mA will use as its reading source.
- 4 mA VALUE What the 4mA signal equals

• 20mA VALUE – What does the 20mA signal equal on the assigned signal sources scale?

4-20mA Output Calibration

4-20mA outputs can be calibrated to ensure that the

output generated by the controller and received by the external device match. With a volt meter connected across the out and return wires (see page 7) of the 4-20mA output channel to be calibrated go into the output's Low or High calibration.

>CURRENT LOOP CALIBRATION<

OUTPUT 1

OUTPUT 2

The number displayed in the Calibration dialog box can range from 0-4095 with 800 equal to 0 mA output and 4030 equal to 20 mA. This number range of 0-4095 is the raw digital to analog (D/A) value and is strictly used for reference. The D/A numbers you get will vary based on your installation conditions.

>mA OUTPUT 1 CALIBRATION<

HIGH 4030

LOW 800

While in the High or Low calibration pop-up screen use the up and down arrows to change the output value being read with the volt meter. Adjust the High value for the 20-mA reading and the Low value for the 4-mA value.

>mA OUTPUT 1 CALIBRATION<

OUTPUT 1 CAL HIGH

4000

Use Up/Down arrows to change

Use Enter to save value

4-20mA Input Calibration

4-20mA inputs can be calibrated to ensure that the input seen by the controller from the external device matches. It also allows for setting the 4-20mA input into a number range that relates to the value being read.

>CURRENT LOOP CALIBRATION<

INPUT 1

INPUT 2

Select the Input to be calibrated.

	>mA	INPUT	1	CALIBRATION<	
20mA					5500
4mA					1100
MAX					200
LOW					0
OFFSI	ΞT			FACTORY	DEF.

Firmware version KA.16.03 and up have logic that suspends any control logic if the mA received is 50% below the stored 4mA value. A # will be placed in the RUN screen for any mA value in this invalid state. The 20mA and 4mA values are where the controller's raw analog to digital value is adjusted to match a 20mA (full scale) and 4mA (bottom of scale) signal from the external device inputting the 4-20mA input. The external device must be connected to the controller and show either full scale or bottom of scale when calibrating each. The number shown along with either the 20mA or 4mA while calibrating is the raw A/D value and is only a reference. A 20mA input should be around 5500 and 4mA around 1100. If the A/D numbers are not in this range, check the input device. The MAX and LOW calibration inputs are for telling the controller what to display for a 20mA input and a 4mA input. For example, if the input is a drum level sensor monitoring a 55-gallon drum the value for MAX should be 55 and LOW should be 0. The controller then displays a number automatically ranging between 55 and 0 based on the input value. The units of measure (gallons for example) are set in the Customize menu from the Home page.

OFFSET – Changes the current displayed value of the 4-20mA input reading to allow for a manual 1pt calibration of the displayed value.

FACTORY DEFAULT – If the 20mA or 4mA calibration has been incorrectly set (not at 4 or 20) this will reset the settings back to a factory value for 4 and 20.

Customize

This menu allows the user to define the on-screen name of the unit plus the name of each system and relay. The user can also set up the Notepad for each system and 4-20mA Input's name and unit of measurement.

RUN SCREEN – Allows the user to select which mA inputs and/or flow meter inputs are shown on the screen in RUN mode.

>CUSTOMIZE<		
UNIT NAMES RELAY NAMES SYSTEM 1 NAME	NOTEPAD	
	mA IN RUN SCREEN	

NOTE: When entering values for custom names use the numerical keys for numbers and the up/down arrows to scroll through all the characters of a keyboard. Press the right arrow to advance the cursor after setting a desired value. Press the Help button to place the last entered character into the new cursor space to speed up the process. The Help button will also jump advance through the characters.

Notepad

The Notepad function allows the user to set up a customized manually entered data field for each system with ten Notepad items. The NOTEPAD is ideal for setting up and storing in the controller's history the items typically tested for reporting a service call. The Notepad items come with no names but when an individual note is selected a menu for setting it appears.

>NOTEPAD SYS 1 NOTE 1<

NAME

NUMBER

UNITS

ALARMS

- NAME Pick from a list of defined names or customize your own.
- **NUMBER** Set the number range.
- UNITS Set the units of measurement.
- ALARMS Set Hi/Low alarm points and how frequently a new value is expected to be manually entered via the History menu.

mA Inputs

>mA INPUT 1 CUSTOMIZE<

NAME

UNITS

NUMBER

- NAME Name the input.
- UNITS Set the units of measurement.
- **NUMBER** Set the number range.

Run Screen

This lets you customize various aspects of the RUN screen.

>RUN SCREEN<

MAIN SCREEN SCREENS SHOWN CYCLE TIME

- MAIN SCREEN Customize what is displayed on the RUN screen.
- SCREENS SHOWN Pick if the mA input & Aux Flow screens are scrolled.
- CYCLE TIME The amount of time between screen scrolls.

Alarms

>ALARMS<

SYS 1 ALARMS

ALARMS – Shows any current alarms.

Date and Time Set Up

>SET DATE AND TIMES<

SET DATE
SET TIME
SET DAY
SET WEEK
Friday May 14, 2005 03:04:56

DATE AND TIME – For setting the date, time, day, and week on the controller.

Configure

Provides access to menus to set up passwords, relay activation, temp scale, display contrast, flow switch, inputs, history time stamps, factory set-up, and system information.

	>CONFIGURE<	
PASSWORD RELAYS		CONTRAST
		NETWORK
HISTORY		SYS INFO
		FACTORY

- CONTRAST This screen allows for adjusting the display contrast.
- FACTORY A factory-only menu
- TEMP SCALE Set Celsius or Fahrenheit
- **HISTORY** Sets the history time stamp interval.
- SYS INFO Tells unit software specifics.

Password

>CONFIGURE PASSWORDS<

ADMIN PASSWORD USER PASSWORD USER SET UP

- ADMIN PASSWORD The administrator password gives access to all menus except factory setup.
- **USER PASSWORD** The user password allows the user to access HOME menus that are made available in USER SET UP.

Relays

>RELAY 1	SETUP<
MAIN ACTION	DISABLE 1
ACTIVATOR 2	DISABLE 2
ACTIVATOR 3	DISABLE 3
ACTIVATOR 4	DISABLE 4
DELAY	DAILY MAX

CONFIGURE RELAYS – This menu lets you choose a Main Action or function (mA input setpoint, etc...) to activate a relay.

A pop-up screen appears with a list of all available activation functions to arrow through. Additional relay logic is available with up to 3 additional Activators and up to 4 Disablers allowing multiple functions to activate the same relay and multiple functions to prevent the relay from coming on. There is also a Daily Max amount of time that a relay can be on. If a relay is on for the maximum amount, it does not let the relay come on anymore that day. (A 24-hour clock is used for the day with midnight being the start of the day). The Delay setting is the amount of time a control function must come on before the relay will react and activate. This is to prevent a relay from chattering on/off if a reading is bouncing around the set point or alarm.

History

This menu is used to set the history "timestamp" interval, the water meter daily history starting hour, the alarm delay period, and the USB history save format.

>CONFIGURE HISTORY<

INTERVAL
W/M HOUR
ALARM DELAY
SAVE FORMAT

- **INTERVAL** The amount of time between each history time stamp for probe readings.
- W/M HOUR The time of day that the daily water meter history cycle is to start.
- ALARM DELAY The amount of time an alarm must be on before it is recognized as an alarm.
- **SAVE FORMAT** The USB history save format.

Contrast

This menu is used to adjust the contrast of the display.

Network

The Network menu is used when a controller is being remotely communicated with either a local network connection or over the internet on the Web Advantage server.

>NETWORK<

IP Addr: 192.168.001.006 Subnet: 255.255.255.000 Gateway: 192.168.001.253 DNS: 192.168.1.238

ACI Srvr: connect.webadvantage.online:443

MAC: E4.38.F2.00.01.3C

DHCP: ENABLE

WIFI

DIAGNOSTICS DHCP SETTINGS RESET

 NETWORK – This menu is used for setting up the remote WebAdvantage communications and is covered in a separate manual. http://www.advantagecontrols.com/downloads/pdf/M-WebAdvantage.pdf

Note: The Network card must be RESET after making any changes to the Network setting to save changes and reset communications.

- WIFI / DHCP Enable or disable if available.
- **SETTINGS** This menu is used to configure a variety of extended network options.

>CONFIGURE NETWORK< IP ADDRESS WIFI NETWORK IP MASK HTTP REMOTE GATEWAY FTP SERVER HTTP LOCAL

WIFI NETWORK – This menu is used for choosing the local wifi network and setting the password. This is covered more in a separate manual.

https://www.advantagecontrols.com/downloads/quicksteps/QSMegaTronXS-MT H WiFi.pdf

Note: Some choices may not be available if DHCP or WIFI are disabled in the previous NETWORK menu.

System Information

System information will identify the version of firmware installed in the controller along with the controller's serial number.

History

The onboard history allows for viewing the history of the mA readings, relay activations, key-pad activity, calibrations, flow meter hourly, and daily logs, and alarms for each system present. It is also where Notepad data is entered and reviewed. An initial overview page is displayed showing your current sample interval, and the calculated number of days the unit can keep probe history before losing the oldest. The number of sensor samples and relay/alarm events and Notepad entries currently stored is also displayed.

NOTE: The history can be reset by going to the configure menu and entering a different sample interval. After the new sample interval has been set the onboard history is reset.

Viewing History

>HISTORY<

RELAY LOGS
ALARM LOGS
SENSOR HISTORY
EVENT LOG

NOTEPAD

WATER METER

- RELAY LOGS Relay activations are displayed in a log form. Arrow up to advance through the log.
- ALARM LOG Alarm activations in log form.
- **SENSOR HISTORY** For selecting the parameters and viewing a given probe reading's history in log or graph form.
- EVENT LOG Displays various activities.

Notepad Entries

>NOTEPAD: SYS 1 NOTE 1<

ENTER VALUE Total Hardness
LOG 8 Entries
GRAPH
517.2 Hrs to Alarm

The Notepad section under History is where the user goes to enter new values for the customized Notepad items. Each notepad item's manually entered entries are stored in the unit's history and can be reviewed in log or graph form after 4 or more values have been entered.

Option W Totalizers

Megatron XSi controllers with the "W" option may have 1 to 4 auxiliary flowmeter inputs. These additional inputs are for tracking various flow meter devices (additional water meters or flowmeters in a metering pump's discharge tubing). They can also be linked to a system's water meter input for additional tracking and alarm capabilities including bleed flow/no flow, exceeding too much flow in a 12- or 24-hour period. Units with Auxiliary Flow meter inputs have a Home menu selection for Totalizers. The Totalizer menu has selections for each of the System Water Meters plus one named Aux Meters.

>TOTALIZERS<

SYS 1 WATER METER 1 SYS 1 WATER METER 2

AUX METERS

Select the system water meter to set up or go to Aux Meters to set up the auxiliary flow meters.

Aux Meters

A unit may have 1 to 4 Aux Meters. These additional inputs are for tracking various flow meter devices like Advantage Controls' FloTracker in a metering pump's discharge tubing. They can also be linked to a system's water meter input for additional tracking and alarm capabilities.

>FLOW METER<

FM01: AUX METER A FM02: AUX METER B FM03: AUX METER C FM04: AUX METER D

Select the Aux Flow Meter to set up or review.

Aux Meter Review

A review screen of the current settings is provided with a selection for the Tracking method and the Settings.

>FLOW METER 1<

TOTAL VALUE: 9966.0 ML FLOW RATE: 0.0 ML/MIN

CONTACT VALUE: 0.33 ML/CONTACT

LAST RESET ON: 08/25/2006

VOLUME ALARM: 1000 LITERS (24 HOURS)

ALARM NOTIFY: (DISPLAY)
VOLUME: 0.0 LITERS

VERIFY ALARM: 100 SEC (DISPLAY)

RELAY LINK: SYS1 TIMER3

SETTINGS TRACKING

- **SETTINGS** Access the various settings for the flow meter.
- TRACKING Provides a pop-up screen to select either FloTracker or Rate and Volume tracking.

NOTE: Select FloTracker if the aux meter is a FloTracker. Select Rate and Volume if tracking a water meter or other batch flow device.

Aux Meter Settings

>FLOW	METER	1	SETUP<
ALUE			VOLUME ALARM
			RESET VOLUME
OTAL			
ALARM			
INK			METER LINK
	ALUE OTAL ALARM	ALUE OTAL ALARM	OTAL ALARM

- PULSE VALUE Defines the numerical value for a contact, i.e., 225.
- UNITS Defines the units of measure for a contact, i.e., Pulses / Ounce.
- RESET TOTAL Resets the totalized count of the meter.
- **VERIFY ALARM** If a flow meter is linked to a control relay the controller will give an alarm if it does not receive a contact or pulse from the aux meter within the amount of time defined or if it gets a contact when the relay is not on.
- **RELAY LINK** The relay link informs the particular aux meter input is relevant to the control function that the selected relay is being driven by. For example, if the aux flow meter is a metering pump's FloTracker then it

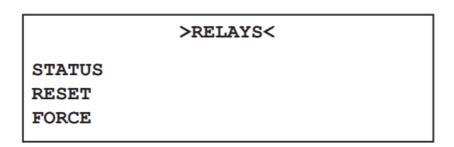
should be linked to the relay that is driven by the feed timer that the pump will be controlled by. If the aux meter is going to be linked to a water meter in a bleed-off line, then it should be linked to the relay that is controlling the bleed-off valve.

VOLUME ALARM – If FloTracker has been selected as the Tracking method, an alarm will occur when the
defined VOLUME USED has passed through the flow device.

Note: If Rate and Volume tracking has been selected an alarm will occur if the defined MAX VOLUME amount is measured within the defined TIME CYCLE which can be a 12-or-24-hour period.

- RESET VOLUME Resets the Volume Alarm totalizer.
- METER LINK This selection only shows if the tracking method is Rate and Volume and tells the auxiliary
 flowmeter input to get its signals from one of the system water meters already wired to the controller's water
 meter inputs. If this is selected no wiring to the auxiliary input is required and the PULSE VALUE and UNITS
 settings are auto-populated from the particular water meter's settings.

Relays



- STATUS Allows for viewing accumulated relay ON times, temporarily forcing relays ON or OFF, or seeing which relay is on.
- RESET Allows the accumulated run time of a particular relay to be reset to zero.
- FORCE Allows a relay to be manually forced ON for a single event from 0-99 minutes. When the event is over the relay goes back to its normal automatic control.

```
>RELAY STATUS<
                 006:30:30
     on
R01:
SYS1 COND BLEED
                 008:56:35
     off
     pН
     OFF-T
                 011:00:10
     TIMER1 INH
                 007:00:00
     OFF
     TIMER2 BIO1
                 008:10:30
R05:
     OFF
SYS1
     TIMER3 BIO2
```

In the STATUS view the accumulated ON time is shown along with the main activator, custom name, and current status:

- **ON** = Relay on by relay activators
- OFF = Relay off by normal logic
- OFF-T = Relay off for daily max
- OFF-D = Relay off for relay disabler

- **ON-A** = Relay activated by activator other than the main action
- **H-ON** = Relay manually forced on
- **H-OFF** = Relay manually forced off

WebAdvantage Setup

WebAdvantage Connection – SETUP CHECKLIST

• Do you have a WebAdv3 USER ID and password?

Yes, if 'No' proceed to page 18.

• Has your account admin added the device and linked it to your USER ID?

Yes, if 'No' proceed to page 19.

Congratulations! You are now ready to go online with WebAdvantage. https://webadvantage.online/

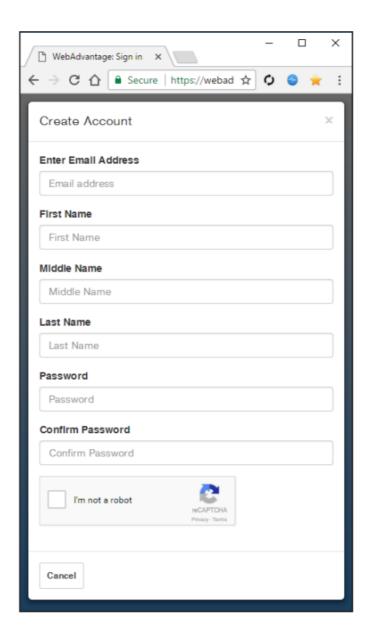
Complete WebAdvantage Manual



USER ID Setup

Setting Up a USER ID

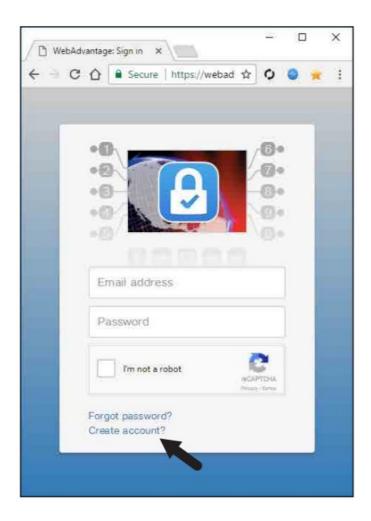
Before you can view a device, a USER ID must be set up. Note: If you already have a USER ID and are just adding a new device, skip to step 4.



Step 1: Visit https://webadvantage.online or access the registration form with the QR code below.



Step 2: Choose Create Account. At the bottom of the login screen.



Step 3 : After completing the form, click SAVE to create an ID.

Note: The e-mail address you add will be your USER ID.

Step 4: Important! Contact our WebAdv3 dept with your USER ID (email), the device's serial number, and your phone number.

USER ID (email)	
Device Serial #	
Phone:	

Fax: <u>918-686-6212</u> Phone: <u>918-686-6211</u>

Email: support@advantagecontrols.com
Note: Please allow 24 hours for processing.

Admins Only: Add Device and Assign USER ID

Setting Up / Accessing a Device

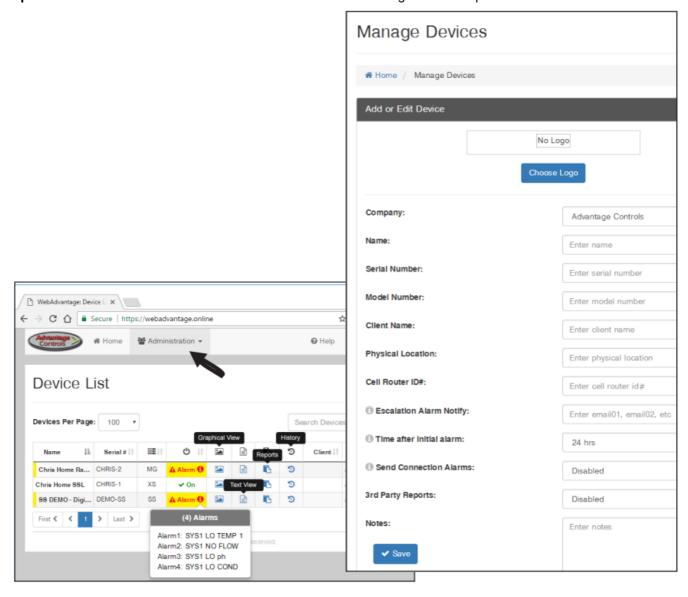
Note: USER ID and Company Access Permissions are required before you can access a device. For creating a USER ID see the Setting Up a USER ID steps.

Company Access Permissions: If you are not a part of a company already registered with WebAdvantage, please contact your company's WebAdv account manager for device access. WebAdvantage support can be reached at 918-686-6211 or via email at support@advantagecontrols.com.

Step 1: Access the WebAdvantage page at https://webadvantage.online.

Note: Only company administrators can add, edit, remove, or modify devices, user accounts, and history reports. User account permissions only allow for viewing of devices.

- Step 2: Choose Administration at the top of the page.
- Step 3: Then choose Manage Devices.
- Step 4: Enter the device's Name and Serial Number. The remaining fields are optional. Click SAVE to submit.



XS Controller – USB Functions

The XS is capable of transferring information using a FAT-formatted USB drive. The XS has three main USB functions as detailed in the following sections:

- 1. Exporting log data
- 2. Upgrading firmware
- 3. Cloning user settings for other XS units

Getting Started

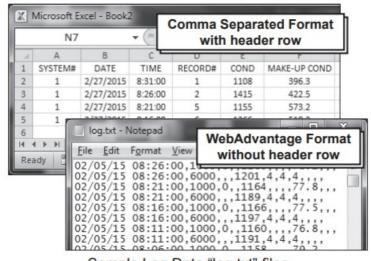
With the controller powered up, plug the USB drive into the XS USB port. The USB DRIVE DETECTED pop-up window will appear.

Notes:

- You may be required to enter a password.
- · USB drives must be FAT formatted.
- · Not all customized names will be saved.

Exporting Log Data

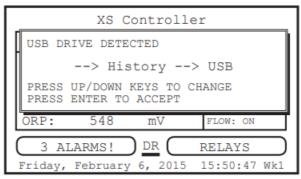
History from an XS controller can be saved to a USB drive in one of two file formats: WebAdvantage or generic comma-separated (default).



Sample Log Data "log.txt" files

Step 1:

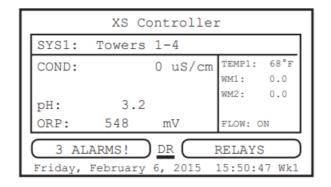
To transfer the contents of the XS history logs to the USB drive, select \rightarrow History \rightarrow USB by using the Arrow buttons. Then press ENTER.



Note: Status will be displayed on the screen to show the percent completed of each log record type. Once the log is completely stored, the pop-up window will close. If only a small amount of data is available the screen may disappear quickly. The USB drive will now contain a file name: for example "LOG_AB-1234.TXT". The AB-1234 will be the unit's serial number.

Step 2:

Changing the File Format This is the RUN Screen.



Step 3:

Push the SET UP RUN button to get this screen. From here push CONFIGURE (Button 7) to go to the next screen.

>HOME	SETUP<
SETPOINTS	DATE/TIME
CALIBRATION	CONFIGURE
TIMERS	HISTORY
CUSTOMIZE	WATER METER
ALARMS	RELAYS

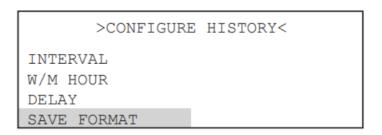
Step 4:

This is the Configure Screen. From here push HISTORY (Button 4) to go to the next screen.

	>CONFIGURE<
PASSWORD	CONTRAST
RELAYS	TEMP SCALE
	NETWORK
HISTORY	SYS INFO
FLOW SW	FACTORY

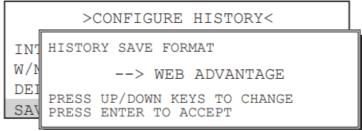
Step 5:

This is the Configure History Screen. From here push SAVE FORMAT (Button 4) to go to the next screen.



Step 6:

Set the value of the HISTORY SAVE FORMAT by using the arrow keys. Then press ENTER to confirm and go to the previous screen.



Press SET UP RUN to return to the RUN screen.

Remove the USB drive and re-insert it to initiate the USB DRIVE DETECTED pop-up window. Repeat Step 1 from the section Exporting Log Data.

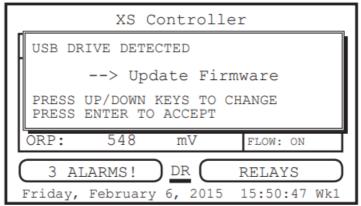
Uploading data to WebAdvantage

If the controller does not have a communications card you can purchase WEBADV-XSCLOUD storage of your unit's history. This one-time fee per controller allows the XS history to be stored on WebAdvantage for using custom graphing and multiple-user internet access. Contact Advantage Controls or support@advantagecontrols.com with your unit's serial number to learn more. After an XS is set up for cloud storage, follow these steps:

- 1. Login to the secure web server: https://webadvantage.online
- 2. Locate the controller you have data for and click Reports
- 3. Click History Upload on the left
- 4. Click Choose File and select the file you exported.
- 5. Click Submit and the data will upload
- 6. You will now be able to view reports and history data once completed.

Upgrading Firmware

To upgrade the firmware on your XS, copy the updated software version to a USB drive. The file name should be "firmware.bin" With the controller powered up, plug the USB drive into the XS USB port. The USB DRIVE DETECTED pop-up window will appear. If a password is in the unit, the USB will ask for it. Select —> Update Firmware by using the Arrow buttons. Then press ENTER.



After the second update is complete, power down and remove the USB. Power back on (after 20 seconds) and go to the Configure menu.



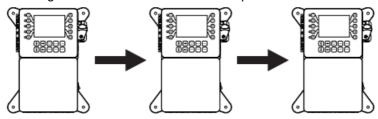
From here push SYS INFO (Button 9) and confirm that the unit now has the new version and that the CARD version is also current (consult factory for current).

```
SYSTEM INFORMATION:
XS MEGATRON CONTROLLER
ADVANTAGE CONTROLS INC.
FRMWARE REV: KA.10.03A Jan 29 2018
REI S/N: SERIAL#
CARD VER: 5

HISTORY
FLOW SW
FACTORY
```

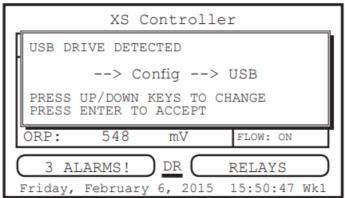
Cloning User Settings for Other XS Units

The XS can copy the User Settings from one XS to another. This process is referred to as cloning.



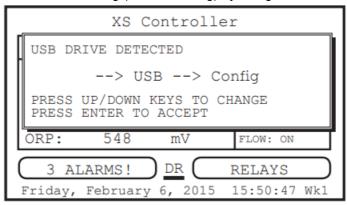
Step 1:

With the controller powered up, plug the USB drive into the XS USB port. The USB DRIVE DETECTED pop-up window will appear. Select \rightarrow Config \rightarrow USB (Config to USB) by using the Arrow buttons. Then press ENTER.



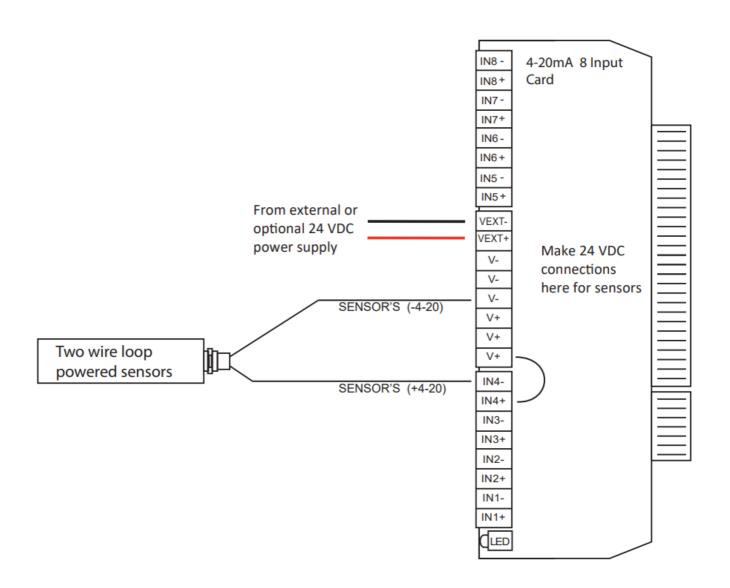
Step 2:

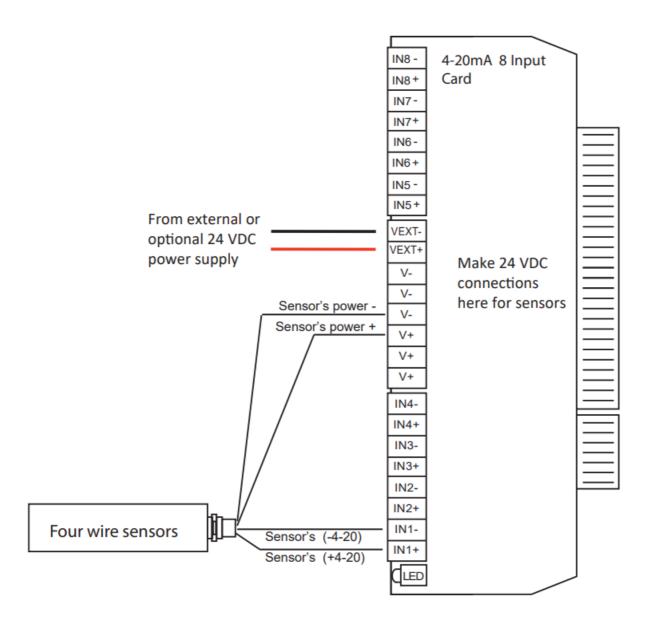
Plug the USB drive into the XS that you would like to copy the User Settings to. The USB DRIVE DETECTED popup window will appear. Select \rightarrow USB \rightarrow Config (USB to Config) by using the Arrow buttons. Then press ENTER.



The User Data will be loaded into the XS from the USB drive. Once the pop-up window closes, cloning has been completed.

Additional mA Sensor Wiring





Troubleshooting

The MegaTronXSi monitor is designed for many years of trouble-free operation. Should a problem occur, refer to the following chart to help identify the problem. If replacement is required, follow the procedures listed in the Warranty and Factory Service portion of this manual.

SYMPTOM	POSSIBLE CAUSE	SOLUTION
False mA reading	Bad or dirty electrode. Out of calibration.	Clean, as needed. Calibrate unit.
Will not calibrate	Dirty electrode. Faulty calibration. Faulty electrode. Faulty wiring to electrode.	Clean electrode. Replace electrode if needed . Replace wiring if needed .
No system power	Check power source. Check fuse. Check connections.	Plug into different receptacle. Replace as needed. Make sure ribbon cables are secure
Relays not energized	Check fuse. Ribbon cable loose. Limit time.	Replace as needed . Reseat ribbon cable between relay and motherboards.
Display blank or resetting	Ribbon cable loose.	Reseat ribbon cable between display and motherboard at each end.
USB not recognized	Ribbon cable loose.	Reseat ribbon cable between USB board inside front panel and motherboard.

Advantage Controls' Product Warranty

Advantage Controls warrants control systems of its manufacture to be free of defects in material or workmanship. Liability under this policy extends for 24 months from the date of installation. Liability is limited to the epair or replacement of any failed equipment or part proven defective in material or workmanship upon the manufacturer's examination. Removal and installation costs are not included under this warranty. The manufacturer's liability shall never exceed the selling price of the equipment or part in question. Advantage disclaims all liability for damage to its products caused by improper installation, maintenance, us, e or attempts to operate products beyond their intended functionality, intentionally or otherwise, or any unauthorized repair. Advantage is not responsible for damages, injuries, or expenses incurred through the use of its products. The abwarrantyanty instead of insteadarranties, either expressed or implied. No agent of ours is authorized to provide any warranty other than the above.

30-Day Billing Memo Policy

Advantage Controls maintains a unique factory exchange program to ensure uninterrupted service with minimum downtime. If your controller malfunctions, call 1(918)-686-6211 and provide our technician with Model and Serial Number information. If they are unable to diagnose and solve your problem over the phone, a fully warranted replacement will be shipped, usually within 48 hours, on a 30-day Billing Memo. This service requires a purchase order and the replacement is billed to your regular account for payment. The replacement will be billed at the current list price for that model less any applicable resale discount. Upon return of your old panel, credit will be issued to your account at either 100% if your unit is in warranty or 50% if your unit was out of warranty. The exchange covers only the panel. Electrode and enclosure are not included.

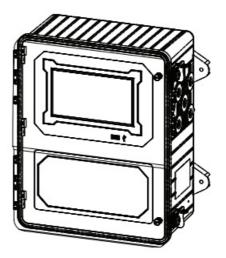
Get the Advantage in Water Treatment Equipment

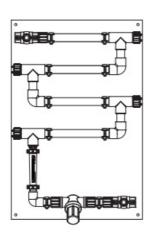
Advantage Controls can give you the Advantage in products, knowledge,e and support on all of your water treatment equipment needs.

- Cooling Tower Controllers
- Boiler Blow Down Controllers
- Blow Down Valve Packages
- Solenoid Valves
- Water Meters
- · Chemical Metering Pumps
- Corrosion Coupon Racks

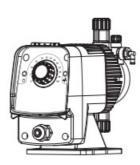
- Chemical Solution Tanks
- Solid Feed Systems
- Feed Timers
- Filter Equipment
- Glycol Feed Systems
- Pre-Fabricated Systems

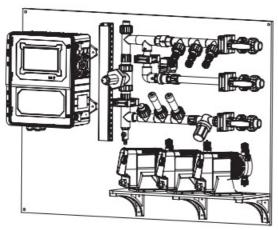




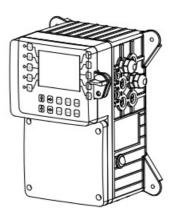












FCC Warning

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instruction, may cause interference to radio communications. It has been type-tested and found to comply with the limits for a class A computing device under subpart J of part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial or industrial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user, at his own expense, will be required to take whatever measures necessary to correct the interference.

FAQs

Q: How can I access WebAdvantage for remote monitoring?

A: To access WebAdvantage, ensure your MegaTronXSi Web Monitor is connected to the internet and follow the setup instructions provided in the manual.

Q: What do I do if my unit does not have all the features described in the manual?

A: The manual lists popular XSi options, but additional features may be available. Contact a representative for more information on additional option codes.

Documents / Resources



Advantage Controls M-MegatronXSi MegaTronXSi Web Monitor [pdf] Instruction Manual M-MegatronXSi MegaTronXSi Web Monitor, M-MegatronXSi, MegaTronXSi Web Monitor, Web Monitor, Monitor

References

User Manual

Manuals+, Privacy Policy

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