



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
Antimicrobials Division (7510P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

92374-2

Date of Issuance:

1/9/17

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

EFT-90/10

Name and Address of Registrant (include ZIP Code):

Eliot Harrison  
Agent for,  
Elemental Fluid Technologies  
565 Metro South Place, Suite 300  
Dublin, Ohio 43017

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Antimicrobials Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

*E. Miederhoff*  
Eric Miederhoff, Product Manager 31  
Regulatory Management Branch I  
Antimicrobials Division (7510P)

Date:

1/9/17

2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, “EPA Reg. No. 92374-2.”
3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 06/29/2016

If you have any questions, please contact Tara Flint at [flint.tara@epa.gov](mailto:flint.tara@epa.gov) or Eric Miederhoff at [Miederhoff.eric@epa.gov](mailto:Miederhoff.eric@epa.gov).

Enclosure

**ACCEPTED**

01/09/2017

Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under  
EPA Reg. No. 92374-2

**EFT-90/10**

## **Electronic Ionization System**

EFT- 90/10 is designed to generate biocidally active copper and silver ions *in situ* and must be installed and operated in accordance with the instructions provided.

### **ACTIVE INGREDIENTS:**

Copper (as metallic).....	90.0%
Silver (as metallic) .....	10.0%
<b>TOTAL</b> .....	<b>100.00%</b>

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE [BACK, SIDE, REAR] PANEL FOR ADDITIONAL PRECAUTIONARY  
STATEMENTS

**EPA Reg. No.** 92374-2

**EPA Est. No.:** XXXX-XXX-XX

**Net Contents:** XXXX Copper-Silver Alloy Bars

Distributed by:  
Elemental Fluid Technologies  
565 Metro Place South Suite 300  
Dublin, OH 43017

## DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Prior to using this product, carefully review the entire label and the accompanying User Manual. This product must be installed and operated in accordance with the instructions presented in the User Manual. Installation of this product must be done by an individual trained in the proper installation of the product. Any adjustments or calibrations of the product must also be done by a trained individual.

This product is for secondary treatment of commercial potable water supplies and can be used to treat both hot and cold water. Upon use, this product is designed to generate biocidally active levels of copper and silver ions, which can prevent and control microbial contamination (i.e., odor, staining and corrosion inducing bacteria). This product can be used in hospitals, nursing homes, hotels, apartments, condominiums, office buildings, manufacturing plants, commercial buildings, government buildings, grocery stores, dental offices, training/workout facilities, showering facilities, dormitories, correctional facilities, retail facilities and amusement parks.

This product is comprised of three parts: 1) a Flow Cell, which is the electrolytic compartment and houses a series of copper/silver electrodes; 2) a Flow Measurement device, which continuously measures the water flow; and 3) a Control Panel, which supplies current to the electrodes based on the signal received from the Flow Measurement device. Each of these components is described in detail in the User Manual.

Once this product is operative, the target copper ion level in water is 0.20 to 0.80 parts per million (ppm), at point of use, and the resulting silver ion level is 0.02 to 0.08 ppm or greater. The copper and silver levels in treated water must not exceed 1.3 ppm and 0.1 ppm, respectively.

### Monitoring Requirements

In order for the EFT-90/10 to perform at an optimal level, it is important that users carefully monitor the factors noted below and sample the treated water as described in the "Biocide Sampling" section.

#### 1. pH Levels

High pH has been shown to effect copper and silver ionization. In situations where the pH of the target water exceeds 8.3, lower pH to 7.2 or less before ionization commences.

#### 2. Copper Levels

If sampling of the treated water shows that copper levels drop below 0.4 ppm, at the dose point, then adjust the EFT system to maintain a minimum concentration of 0.4 ppm copper.

#### 3. Lime-Scale Build Up and Water Hardness

To prevent lime-scale build up, softening treatment should be employed pre-ionization if the water hardness exceeds 200 mg/l of calcium. In addition, if scale build-up is observed on the electrodes, remove the scale by standard cleaning procedures.

### Biocide Sampling Procedures

Sampling for copper levels should occur at a point within 3 feet of the flow cell installation. Testing of end point levels should occur at random points throughout the piping distribution network but must always include sampling from the furthest points away from dosing to ensure that target levels are being achieved consistently throughout the system. The number and location of sample points will depend on the facility size and the complexity of the piping distribution network. It is also advisable that the bacterial quality of the water system be tested in tandem with copper testing.

Both on and off-site testing for copper can be conducted. For on-site testing, use a photometric test kit. On-site testing should allow for calibration of dosing equipment on-site. The installation of an online copper level measurement system is recommended where feasible. On-site testing should be conducted on a weekly basis.

For off-site testing, all sample points should be assayed on a monthly basis. Off-site testing for copper should be performed in accordance with ASTM 1688-12 "*Standard Test Methods for Copper in Water*". Sample containers should be pre-treated with nitric acid to allow for the sample to be reduced to a pH of 2 or less immediately at the time of sampling.

### Storage and Disposal

Pesticide Storage: Store this product in a cool, dry place away from children.

Pesticide Disposal: Non-reusable product. When spent, do not attempt to disassemble, recharge, or refill flow cells. Return flow cells to Elemental Fluid Technologies, Inc. for reconditioning or recycling.

### Warranty

EFT warrants that this product complies with the specifications expressed on this label and is reasonably fit for the purposes stated on the label when used in accordance with all directions, instructions, and manuals and under normal use. To the extent consistent with applicable law, neither this warranty nor any other warranty of merchantability or fitness for any particular purpose, express or implied, extends to the use of the system or device in a manner contrary to this label, instructions and manuals.

## Claims

- Generates biocidally active copper and silver ions.
- [Prevents] [Controls] [Inhibits] microbial contamination (i.e. odor, staining and corrosion inducing bacteria) in both hot and cold water systems.
- [Prevents][Controls] fouling microbial contamination in both hot and cold water systems.
- [Reduces] [Controls][Inhibits] algal and corrosion inducing bacterial contamination in water distribution networks and recirculation systems.
- Proprietary knowhow, precision engineered to deliver proper and consistent dosing of biocidally active copper and silver ions for antimicrobial control (i.e. odor, staining and corrosion inducing bacteria).
- Eliminates the need for manual addition of biocides into water systems. This product does it automatically.
- Consistent and accurate dosing = consistent and effective control.
- Used in hundreds of facilities worldwide.



# EFT Control Units User Manual

565 METRO PLACE SOUTH • SUITE 300 • DUBLIN • OHIO 43017  
+1.887.236.4260  
[info@elementaft.com](mailto:info@elementaft.com)



[www.elementaft.com](http://www.elementaft.com)



## Touch Screen Interface Control Units: Contents:

Technical Specifications

Adjusting Settings / Programming Details

Data Logging

Cable Connections





## Technical Specifications

Power supply : 110/230 V (100-260 VAC full range)

Frequency : 50/60 Hz

Power consumption : 700mA

Voltage supply to electrode : Max. 24 V or 12 depending on switch setting

Current supply to electrode : Depending on ampere setting and water conductivity.

Adjustable Settings:

Time: Day Time; up to 3 daily start time points (for recirculation systems).

Pump: up to 3 daily runtimes; “Permanent” shortcut setting.

Optional pump control: flow monitor and backwash control.

Ionization: One main electrode outputs; up to 3 daily runtimes amperage 1-10 A programmable or controlled by flow.

Optional: 1 AUX electrode output; up to 3 daily runtimes; amperage control 1-7A programmable.

Housing material: Sheet metal

Dimensions (mm): Width = 430, Depth = 140, Height = 220

Weight : 5.5 kg

Supported electrodes: Main and Auxiliary

Supported sensor types: Flow sensor, Temperature sensor and Conductivity sensor

Supported alarm types: Volt free contact

Processing Capacity: Windows CE Embedded c/c LAN/Ethernet connectivity.

Interface: TFI Touchscreen



[www.elementaft.com](http://www.elementaft.com)

## Powering On

Prior to powering on the unit proper please select the Electrode Voltage output.

On the Right Hand Side of the control unit select either 12V or 24 V:

If no voltage is selected the unit will not power on.

Following voltage selection switch on the control unit using the power switch on the left hand side of the unit.



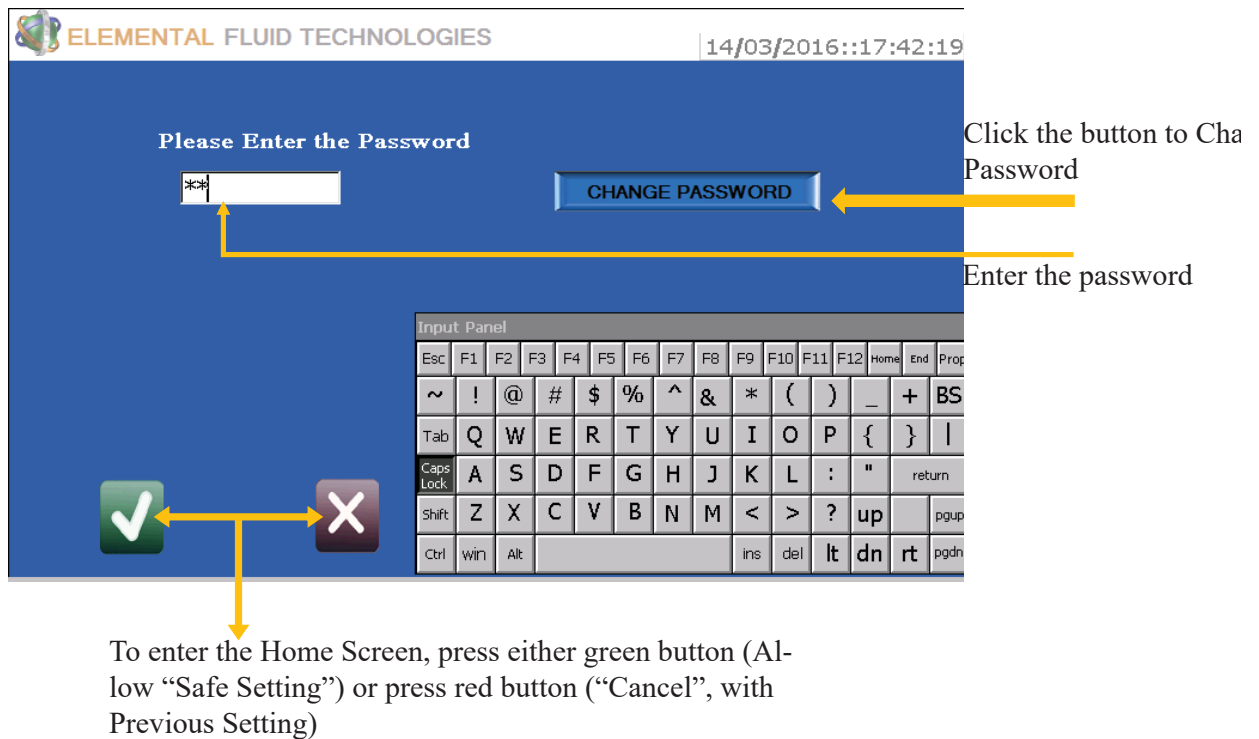
### Boot Sequence:

A Windows CE screen will be flashed on the display for few seconds and the application software will start booting up the EFT Controller Unit.

On application software execution EFT logo will flash for 15 seconds on the TFT screen as per below screen shot:



## Adjusting the Settings



Please Enter the Password

14/03/2016::17:42:19

CHANGE PASSWORD

Click the button to Change Password

Enter the password

To enter the Home Screen, press either green button (Allow "Safe Setting") or press red button ("Cancel", with Previous Setting)

Input Panel															
Esc	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	Home	End	Prop
~	!	@	#	\$	%	^	&	*	(	)	_	+	BS		
Tab	Q	W	E	R	T	Y	U	I	O	P	{	}			
Caps Lock	A	S	D	F	G	H	J	K	L	:	"		return		
Shift	Z	X	C	V	B	N	M	<	>	?	up		pgup		
Ctrl	win	Alt							ins	del	lt	dn	rt	pgdn	

All control units are password protected.

A default password will be provided at installation.

To ensure safe operation no settings can be adjusted without a valid password.

To enter password tap on the password box and with the on screen keyboard enter the password.

Hit return on the on screen keyboard.



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## Home Screen




HOME SCREEN allows valid user to access operation, settings and view status. Invalid user can only view status and events, any other operations will redirected to authentication screen.

## Run Time





To access runtime options - for use in cooling towers or other recirculation systems - Tap RUNTIME

## Run Time



**ELEMENTAL FLUID TECHNOLOGIES**
29/02/2016::13:57:04

	Start TIME	Run Time PUMP	Run Time MAIN	Run Time AUXI
1.	16:52	17:15	15:00	
2.				
3.				

Run Pump in Perman  
 Use Start Time 2  
 Use Start Time 3

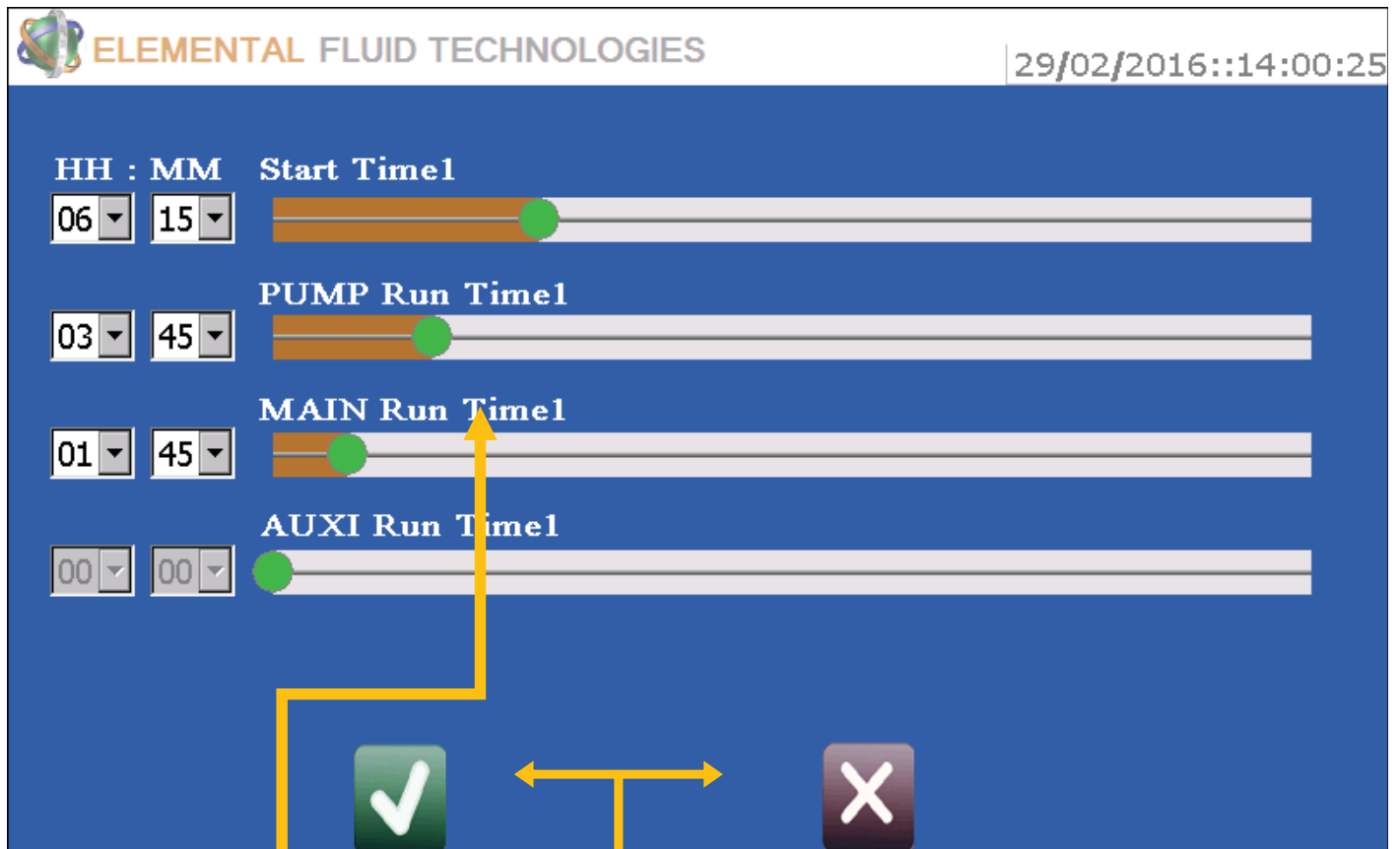



EFT
OK X


Start Time1 Selected for Modification

To Adjust 1st Run Time Tap on the time bar and when the dialogue box appears Tap OK.  
 Adjusts the Start and Run Time according to required parameters.  
 To use additional Run Times Tap the required Start Time Check Box  
 Adjust as per Run Time 1

# Run Time




To adjust, press and drag the respective slider to the right (increase) or left (decrease)

To leave screen and return to the Operation Time Overview, press either green button (“Safe Setting”) or press red button (“Cancel”, will discard any changes)

Start-up time point, pump and electrode can commence their Runtimes: First adjust operation time of the pump, then of the electrode(s) can be set to the same duration or pump might be set to run longer (as is usual for treatment of closed circulations). Electrodes cannot exceed pump runtime, thus their runtime bars cannot be moved beyond or right of the pump’s set point.



For sole pump operation, leave or move the electrode runtime slider all the way to the left of the bar (thus setting numeric values to “00:00”).

## Run Time


**ELEMENTAL FLUID TECHNOLOGIES**
29/02/2016::14:02:04

	Start TIME	Run Time PUMP	Run Time MAIN	Run Time AUXI
1.	06:15	03:45	01:45	
2.	12:30	04:45	04:45	
3.				

Run Pump in Permanent Mode  
 Use Start Time 2  
 Use Start Time 3

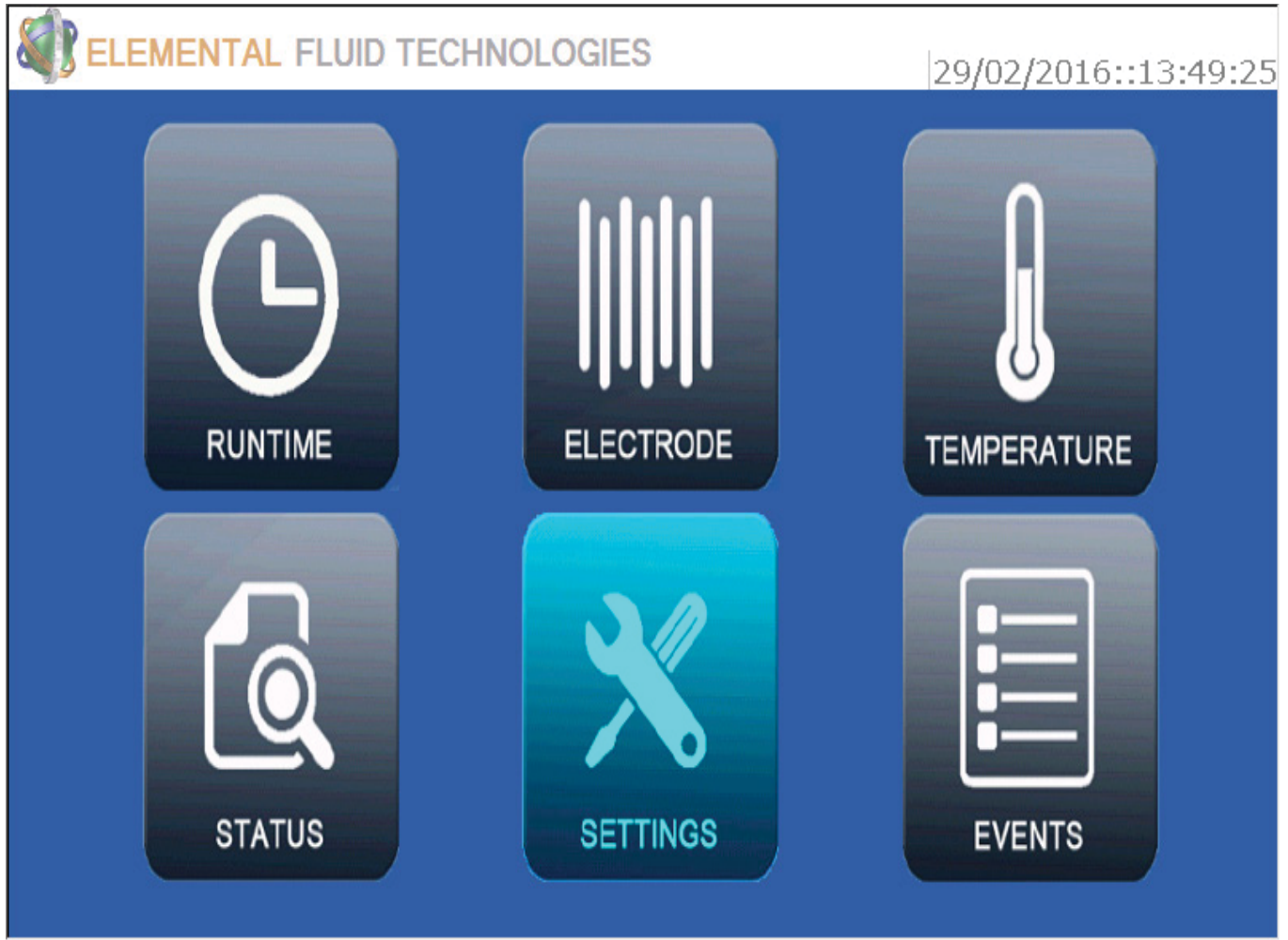
If Start Time 2 is enabled (box is checked) the second row will appear indicating the Time Settings for the second start time





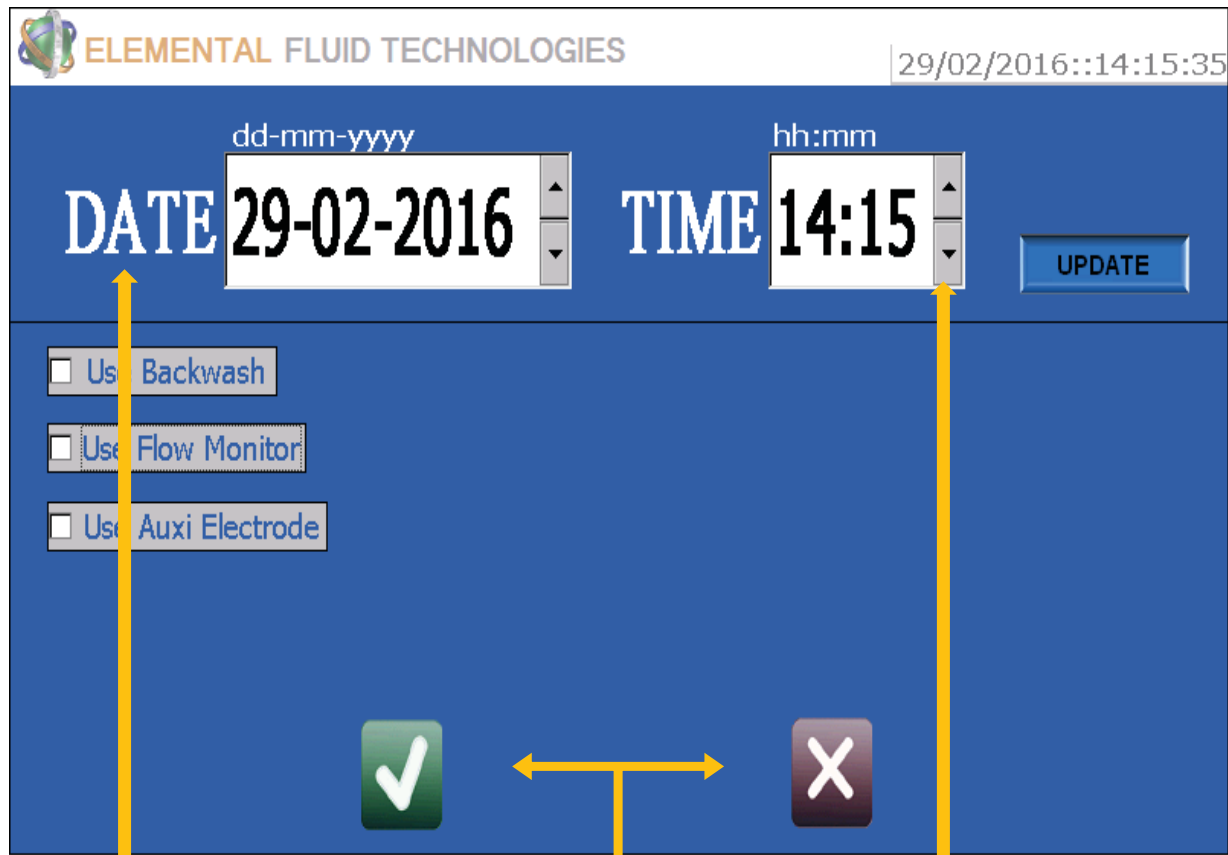
[www.elementaft.com](http://www.elementaft.com)

## Flow & Additional Settings



To Access Flow Meter and Additional Settings Tap SETTINGS

## Adjusting Time & Date



Note: The usage of 24-hour clock all throughout the interface.  
Example "14:15[hours]"= 02:15 p.m.

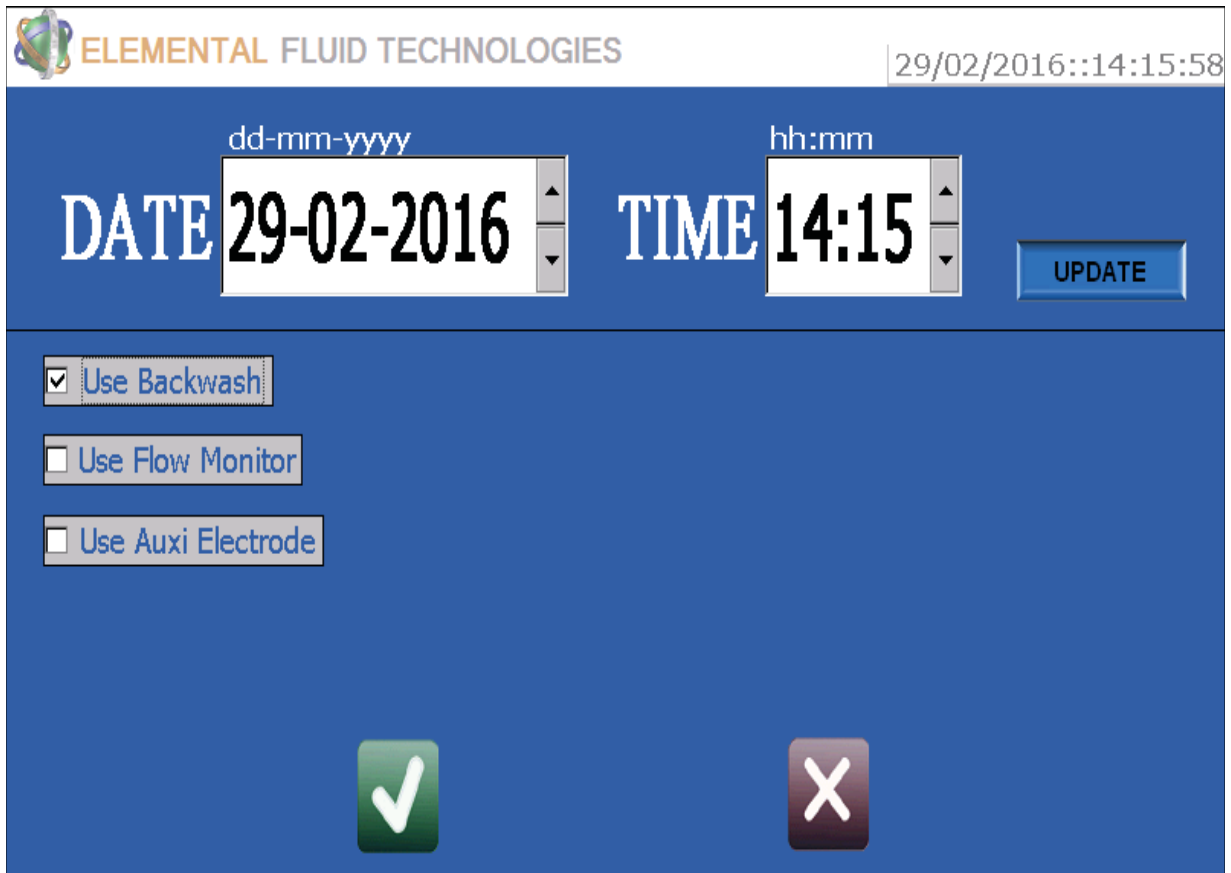
The usage of date all throughout the interface.  
Example "29-02-2016[date:month year]"= 29th Feb 2016

To leave SETTING and return to the Home Screen, press either green button ("Safe Setting") or press red button ("Cancel", will discard any changes

Date adjustments using the UP/DOWN arrow keys.

Time adjustments using the UP/DOWN arrow keys.

## Using Backwash



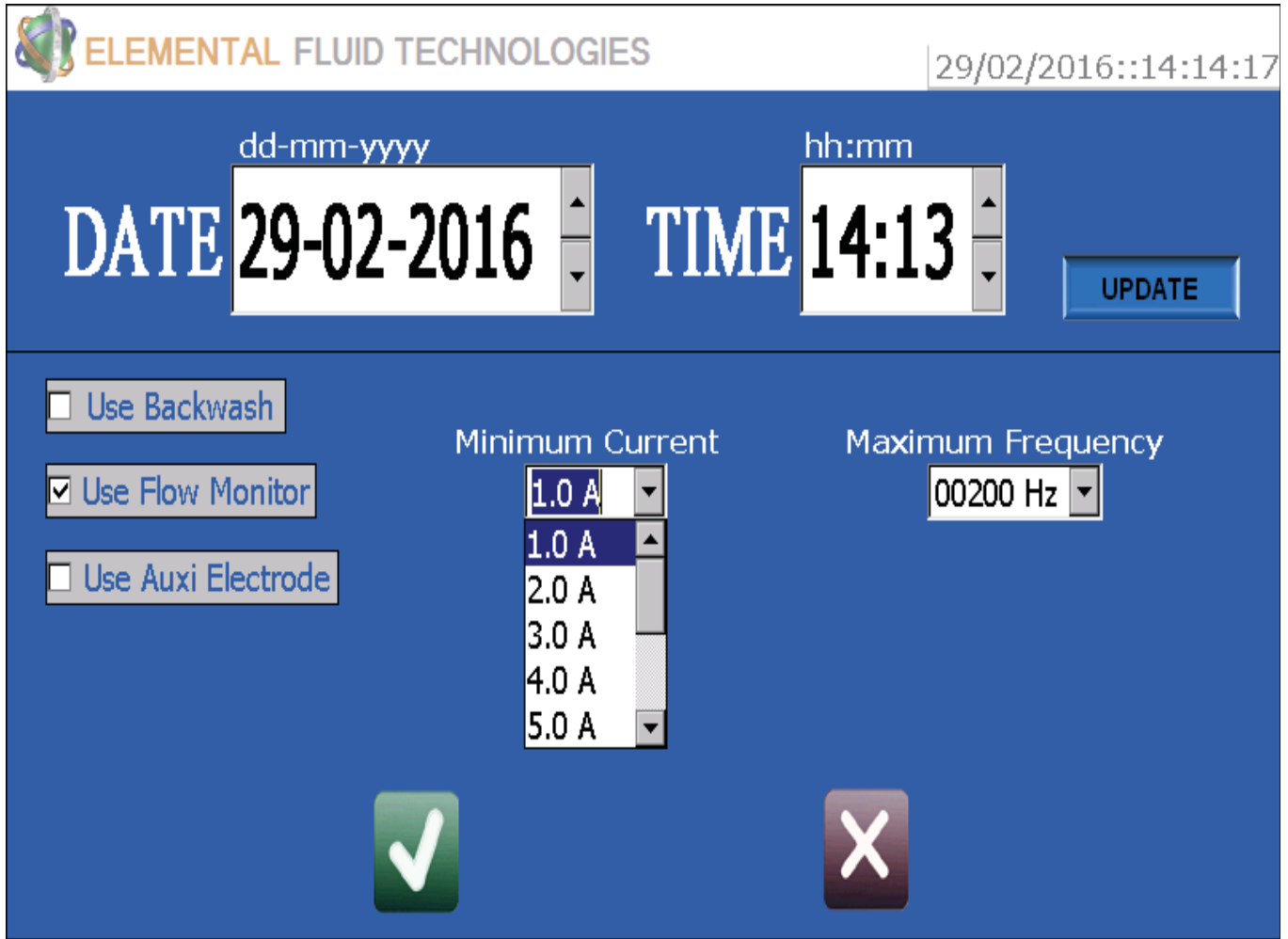
ELEMENTAL FLUID TECHNOLOGIES 29/02/2016::14:15:58

DATE dd-mm-yyyy **29-02-2016** TIME hh:mm **14:15**

Use Backwash  
 Use Flow Monitor  
 Use Auxil Electrode

To allow for Backwashing of Filters (Cooling Tower Installations) TAP Backwash.  
If the Backwash is enabled then all the other modes (e.g. Pump, Main Electrode) go into IDLE mode

## Enabling Flow Meter & Proportional Dosing



ELEMENTAL FLUID TECHNOLOGIES 29/02/2016::14:14:17

DATE dd-mm-yyyy **29-02-2016** TIME hh:mm **14:13**

Use Backwash

Use Flow Monitor

Use Auxil Electrode

Minimum Current: **1.0 A** (dropdown menu: 1.0 A, 2.0 A, 3.0 A, 4.0 A, 5.0 A)


Maximum Frequency: **00200 Hz** (dropdown menu)

To enable Flow monitor check the box on the left of “Use Flow Monitor”.

After Enabling the Use Flow Monitor set the Minimum Current value.  
Press the green Button (Safe Setting) or Red Button (Cancel the setting).

Note - Seek technical support on use of flow monitors. All monitors and meters must be calibrated on site and according to site parameters.

## Enabling Flow Meter & Proportional Dosing

 ELEMENTAL FLUID TECHNOLOGIES 29/02/2016::14:14:44

DATE dd-mm-yyyy **29-02-2016** TIME hh:mm **14:13**

Use Backwash

Use Flow Monitor

Use Auxil Electrode

Minimum Current **1.0 A**

Maximum Frequency

- 00200 Hz
- 00200 Hz
- 00250 Hz
- 00300 Hz
- 00350 Hz
- 00400 Hz

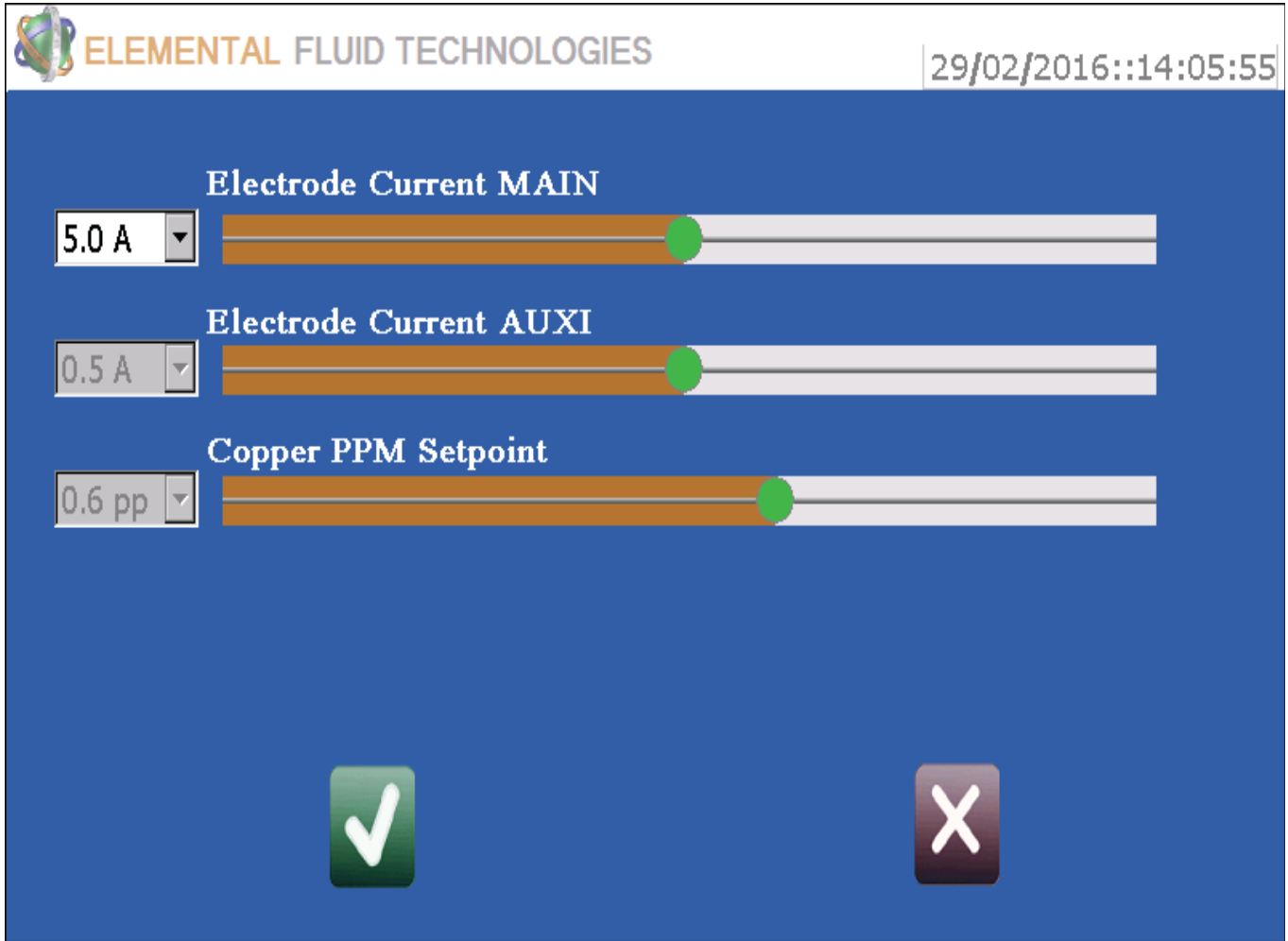
Set Frequency of flow meter using the drop down box. Frequency setting will depend on pipe size and flow rate.  
Please refer to Technical Support during initial calibration.

## Adjusting Electrode Settings



To Access the Electrode Settings:  
In the Home screen, Tap ELECTRODE

## Adjusting Electrode Settings



The screenshot displays the control interface for Elemental Fluid Technologies. At the top left is the company logo and name, and at the top right is a timestamp: 29/02/2016::14:05:55. The main area has a blue background and contains three settings:

- Electrode Current MAIN:** A dropdown menu shows "5.0 A" and a slider below it is positioned at approximately 50%.
- Electrode Current AUXI:** A dropdown menu shows "0.5 A" and a slider below it is positioned at approximately 50%.
- Copper PPM Setpoint:** A dropdown menu shows "0.6 pp" and a slider below it is positioned at approximately 75%.

At the bottom of the interface are two buttons: a green checkmark button on the left and a red X button on the right.

To Adjust the Electrode Current (in recirculation systems):  
Use the slider or the drop down box to select the required current.

## Adjusting Temperature Settings

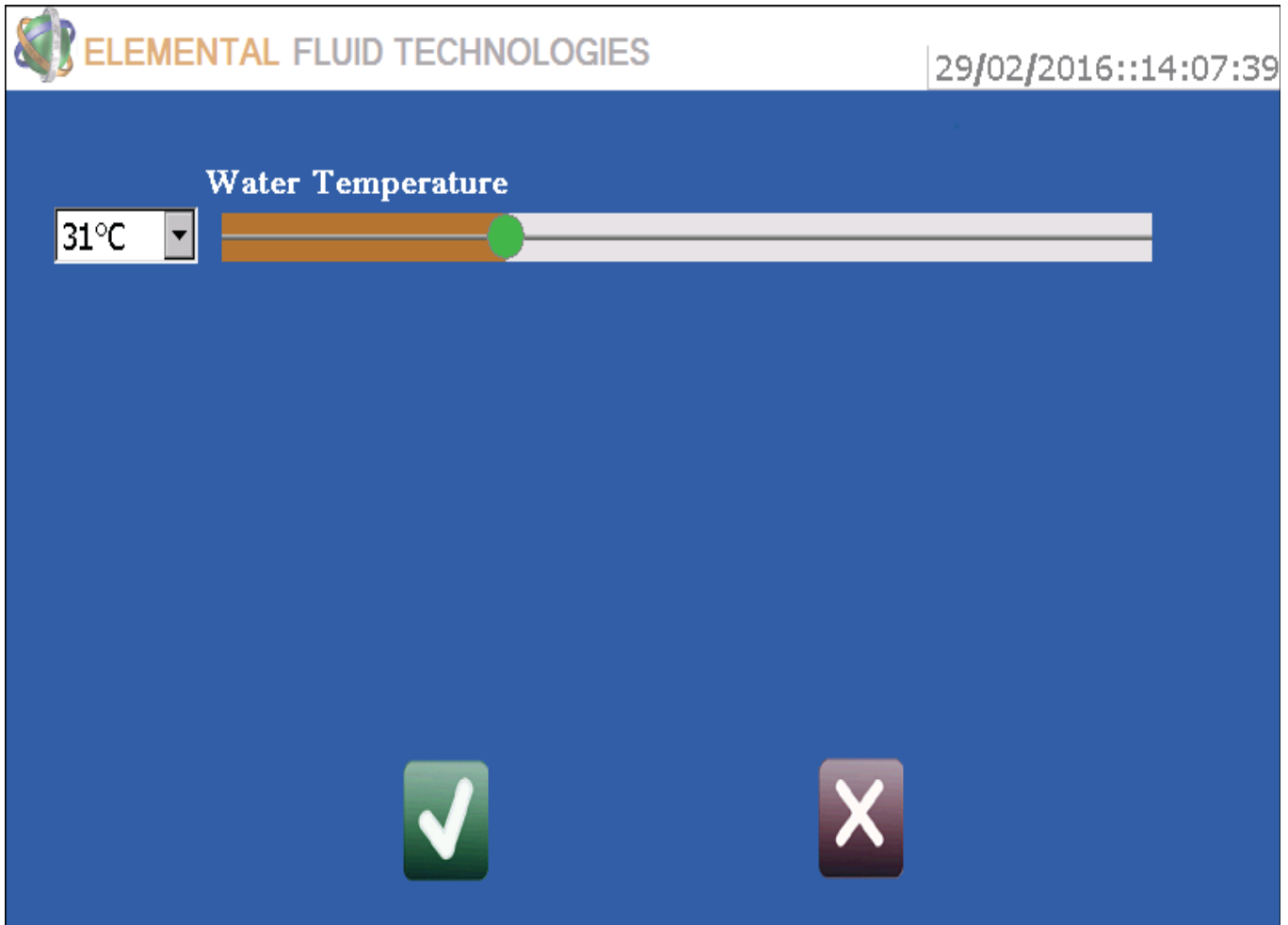


To Access the Temperature Settings and Adjustments Simply Tap TEMPERATURE on the Home Screen.

Note: Functions only available with systems which have had thermostat and or calorifier connections.



## Adjusting Temperature Settings



The screenshot displays the Elemental Fluid Technologies (EFT) interface. At the top left is the EFT logo and the text "ELEMENTAL FLUID TECHNOLOGIES". At the top right is the date and time "29/02/2016::14:07:39". The main content area is titled "Water Temperature" and features a control panel. On the left of this panel is a dropdown menu showing "31°C". To its right is a horizontal slider with a green knob. At the bottom of the panel are two buttons: a green checkmark button on the left and a dark red 'X' button on the right.

To Adjust the Temperature Setpoint for Calorifer Control:  
Use the slider or the drop down box to select the required temperature.

Note: Where thermostat is installed temperature readings will be logged regardless of calorifer connection.

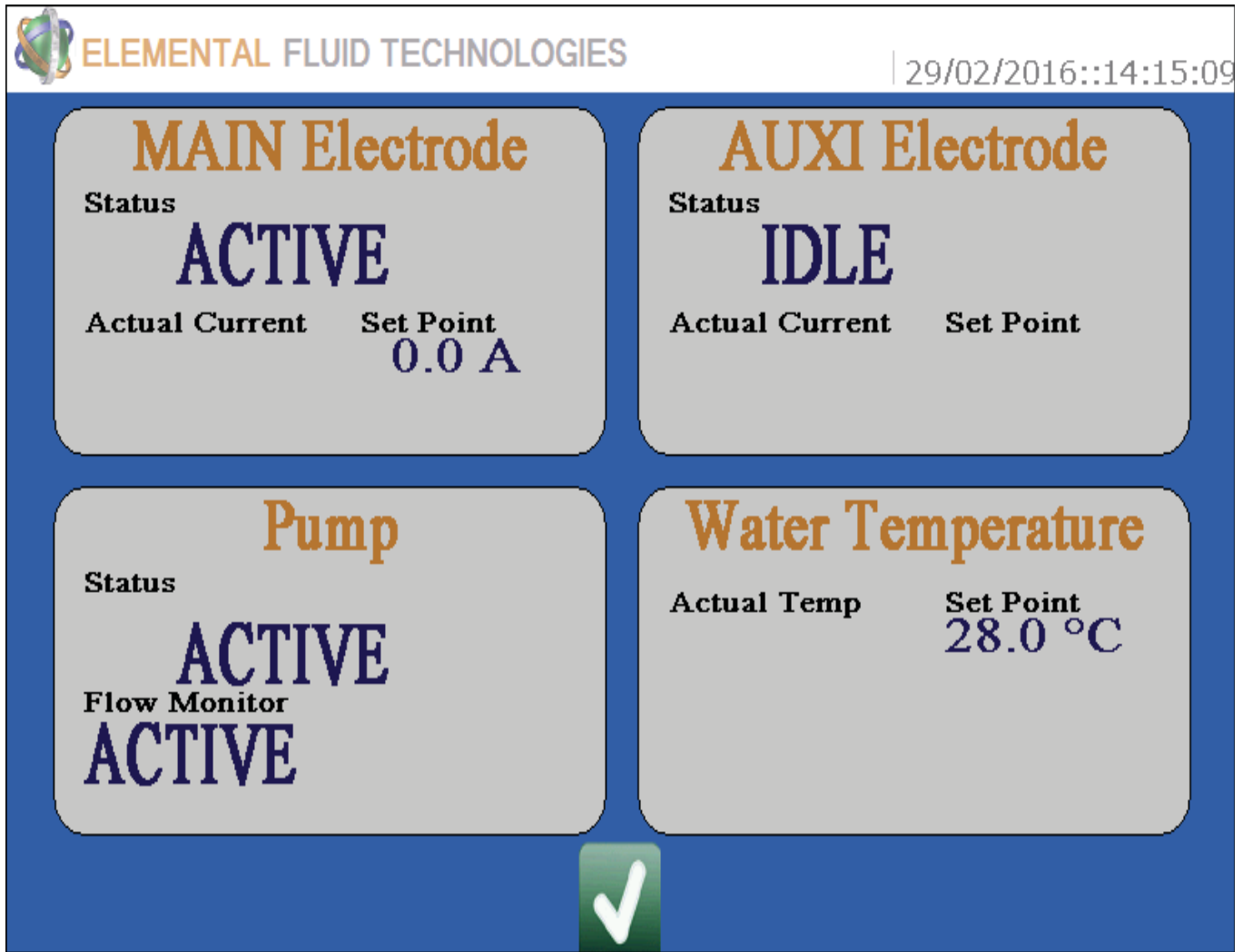
## Accessing the Status Screen



To Access the Current System Status Simply Tap STATUS on the Home Screen.

The Status Screen will display all current activity.

## Viewing the Status Screen

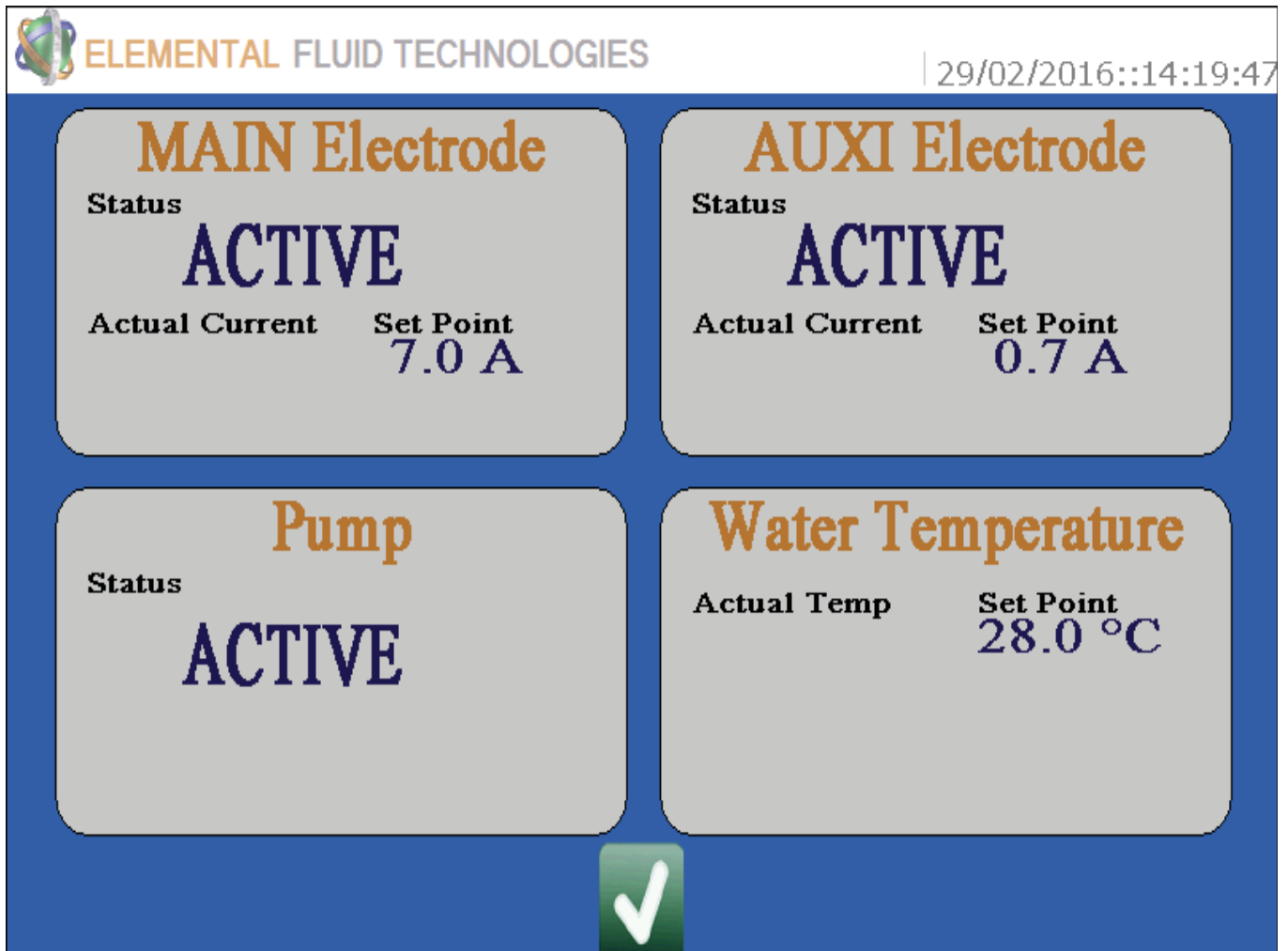


The screenshot displays the status of four system components. At the top left is the EFT logo and the text 'ELEMENTAL FLUID TECHNOLOGIES'. At the top right is the timestamp '29/02/2016::14:15:09'. The main area is divided into four quadrants, each with a title and status information. A green checkmark icon is centered at the bottom of the screen.

Component	Status	Actual Value	Set Point
MAIN Electrode	ACTIVE	Not displayed	0.0 A
AUXI Electrode	IDLE	Not displayed	Not displayed
Pump	ACTIVE	Not displayed	Not displayed
Water Temperature	Not displayed	Not displayed	28.0 °C

The above screen shot shows that the flow monitor is actively set and detecting flow. The temperature is set to 28 but no thermostat is present or connected. No Ionisation is occurring and the Actual Current is not displayed.

## Viewing the Status Screen



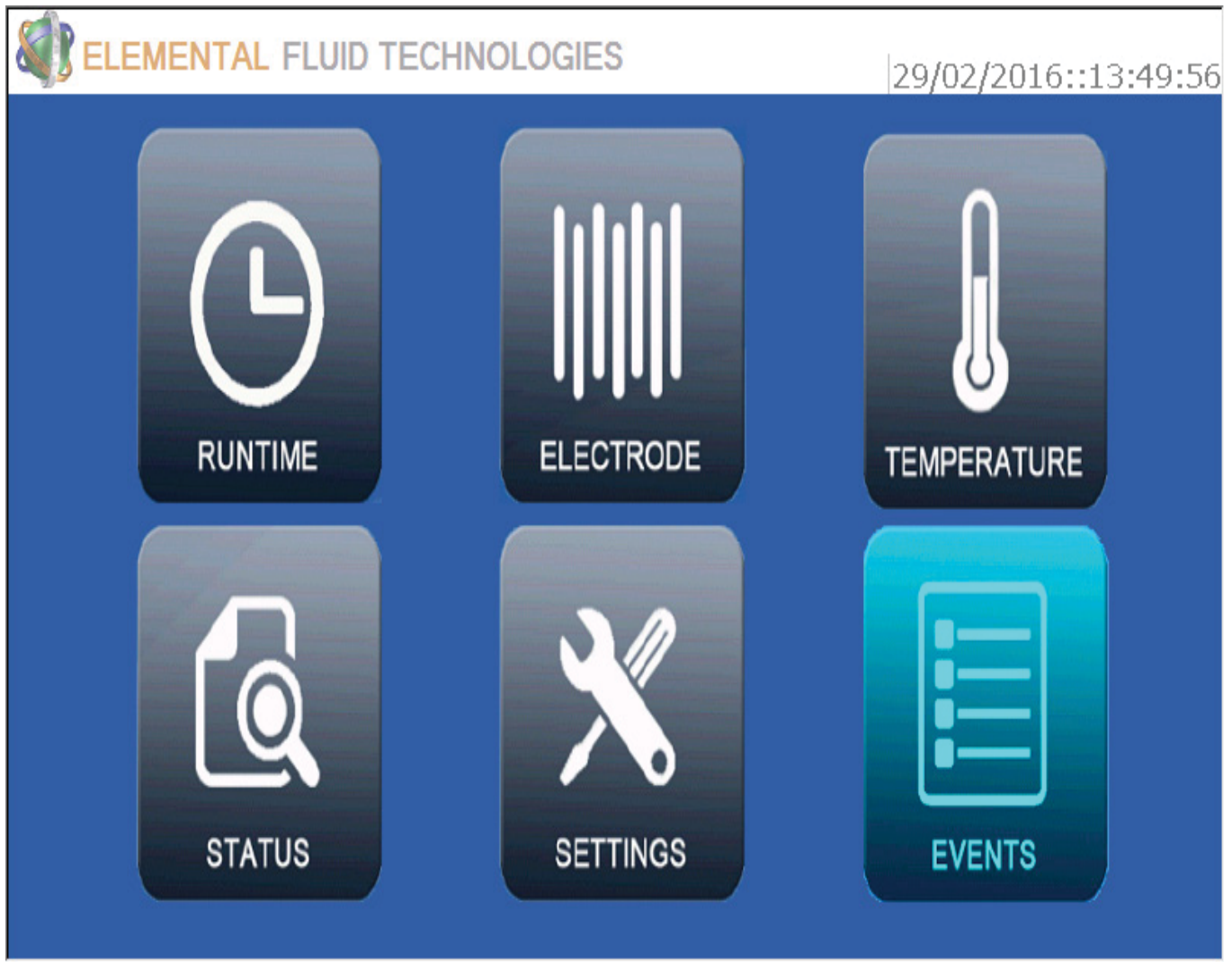
The screenshot shows the EFT status screen with the following data:

Component	Status	Actual Value	Set Point
MAIN Electrode	ACTIVE	-	7.0 A
AUXI Electrode	ACTIVE	-	0.7 A
Pump	ACTIVE	-	-
Water Temperature	-	-	28.0 °C

A green checkmark icon is visible at the bottom center of the screen.

This example shows that the flow monitor is not being used (not displayed), that the main and auxiliary electrode are being used and have been set to 7 and 0.7 amps respectively.

## Accessing the Data Log



To Access the Data Log Simply Tap Events on the Home Screen.



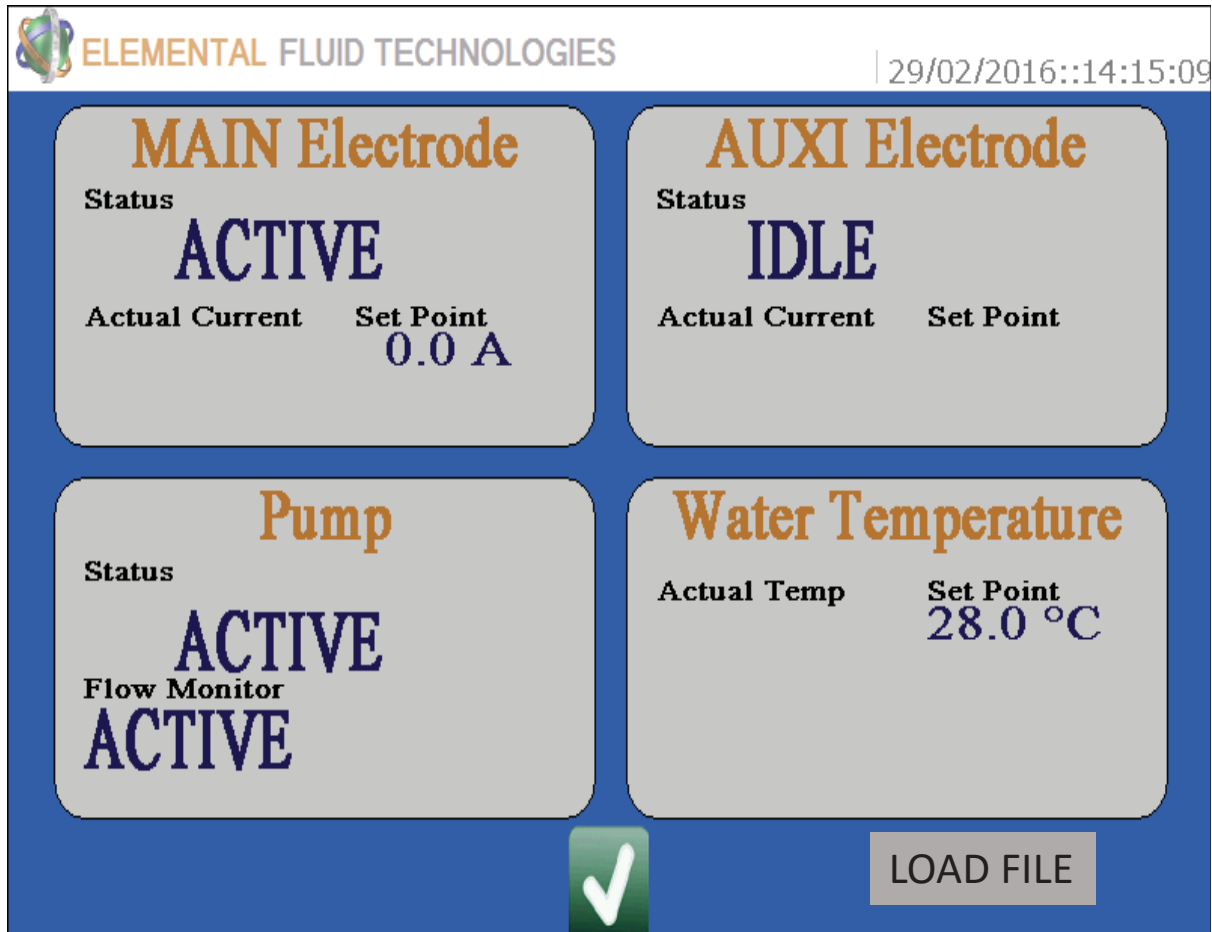
## Accessing the Data Log

No	Events
85	29/02/2016::14:13:- Auxil Electrode is Active
86	29/02/2016::14:15:- Flow Monitor is Enabled
87	29/02/2016::14:15:- Auxil Electrode is Disabled
88	29/02/2016::14:15:- Auxil Electrode is Idle
89	29/02/2016::14:16:- Flow Monitor is Disabled
90	29/02/2016::14:16:- Back Wash is Enabled
91	29/02/2016::14:16:- Pump is Idle
92	29/02/2016::14:16:- Main Electrode is Idle
93	29/02/2016::14:17:- Back Wash is Disabled
94	29/02/2016::14:17:- Pump is Active
95	29/02/2016::14:17:- Main Electrode is Active
96	29/02/2016::14:19:- Auxil Electrode is Enabled
97	29/02/2016::14:19:- Auxil Electrode is Active
98	29/02/2016::14:20:- Auxil Electrode is Disabled
99	29/02/2016::14:20:- Auxil Electrode is Idle

In the Events Screen the 100 most recent events are logged and displayed. If temperature is being monitored this will also be displayed. All set currents and outputs will be displayed.

A full data log - detailing events back to 1 year previous is available by remote access or SD Card loading.

## Accessing the Data Log



**ELEMENTAL FLUID TECHNOLOGIES** | 29/02/2016::14:15:09

MAIN Electrode	AUXI Electrode
Status: <b>ACTIVE</b>	Status: <b>IDLE</b>
Actual Current:      Set Point: <b>0.0 A</b>	Actual Current:      Set Point:

Pump	Water Temperature
Status: <b>ACTIVE</b>	Actual Temp:      Set Point: <b>28.0 °C</b>
Flow Monitor: <b>ACTIVE</b>	

LOAD FILE



To download a full data file to USB or other portable device simple insert the device to the USB port (located to the left hand side of the control unit) and then from the Status Screen Tap LOAD FILE.

The system will automatically download all events to a text file on the device.

## Connecting External Cables



All external cables connections are located to the underside of the control unit. Please refer to the above image for exact location of each:

230V - Input Power

Pump - Power output (110V to 260V AC)

Temp - Power output to calorifier (7KW max)

Aux - Current Supply to Auxilary Electrode

Main - Current Supply to Main Electrode

FSense - Input from external Flow Meter

BackW - Power Out to 24 V DC solenoid Valve

VLTF - Output to Volt Free connection for alarm reporting

TSENSE - Input from external Thermostat

Each connection is of a different type to assist in prevention of wrong connection.



2 Pin Connector -  
Electrodes



3 Pin Connector -  
Inputs & OutPuts



Output to Pump





## Connecting External Cables

### EFT –Pump Connector Details

Pump Connector						
Station Info			Station -3			
Label ID			Pump			
Connection Type			Conn: Round Connector, 3Pin, Male			
Source			Destination			Remarks
Position	Signal	Wire Colour	Position	Signal	Wire Colour	
1	Line	RED		Line		
2	Neutral	BLACK		Neutral		
3	Ground	BLUE		Ground		

### EFT - Temp Connector Details

Temp Connector						
Station Info			Station -3			
Label ID			Temp			
Connection Type			Conn: Round Connector, 3Pin, Male			
Source			Destination			Remarks
Position	Signal	Wire Colour	Position	Signal	Wire Colour	
1	Line	RED		Line		
2	Neutral	BLACK		Neutral		
3	Ground	BLUE		Ground		

### EFT – Auxiliary Electrode Connector Details

Aux Connector						
Station Info			Station -3			
Label ID			Aux			
Connection Type			Conn: Round Connector, 2Pin, Male			
Source			Destination			Remarks
Position	Signal	Wire Colour	Position	Signal	Wire Colour	
1	Line	RED		Positive		
2	Neutral	BLACK		Negative		



# Connecting External Cables

## EFT – Main Electrode Connector Details

Main Connector						
Station Info			Station -3			
Label ID			Main			
Connection Type			Conn: Round Connector, 2Pin, Male			
Source			Destination			Remarks
Position	Signal	Wire Colour	Position	Signal	Wire Colour	
1	Line	RED		Positive		
2	Neutral	BLACK		Negative		

## EFT – Main Electrode Connector Details

Flow Sensor Connector						
Station Info			Station -3			
Label ID			F Sense			
Connection Type			Conn: Round Connector, 3Pin, Male			
Source			Destination			Remarks
Position	Signal	Wire Colour	Position	Signal	Wire Colour	
1	Flow Signal	RED		Flow Signal		
2	Flow Ground	BLACK		Flow Ground		
3	Flow Supply	Yellow Green		Flow Supply		Yellow Green (5 Volts)

## EFT – Back Wash Connector Details

Back Wash Connector						
Station Info			Station -3			
Label ID			Backw			
Connection Type			Conn: Round Connector, 3Pin, Male			
Source			Destination			Remarks
Position	Signal	Wire Colour	Position	Signal	Wire Colour	
1	Line	RED		Line		
2	Neutral	BLACK		Neutral		
3	NC	Yellow Green		NC		NC - No Connection



## Connecting External Cables

### EFT – VoltFree Connector Details

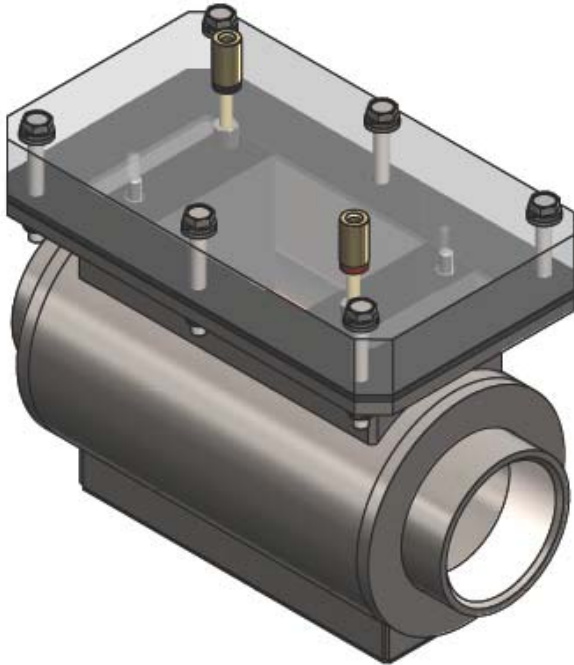
Volt Free Connector						
Station Info			Station -3			
Label ID			VLTF			
Connection Type			Conn: Round Connector, 3Pin, Male			
Source			Destination			Remarks
Position	Signal	Wire Colour	Position	Signal	Wire Colour	
1	NC	RED		NC		NC - Normally Closed
2	Zero Volts	BLACK		Zero Volts		Connects to modem ground
3	NO	BLUE		NO		NO - Normally Open

### EFT – Temperature Sensor Connector Details

Temperature Sense Connector						
Station Info			Station -3			
Label ID			T Sense			
Connection Type			Conn: Round Connector, 3Pin, Male			
Source			Destination			Remarks
Position	Signal	Wire Colour	Position	Signal	Wire Colour	
1	Sensor Input	RED		Sensor Input		
2	Ground	BLACK		Ground		
3	24 Volts	Yellow Green		24 Volts		

## Flow Cell Installation

### Typical 1 kg Flow Cell

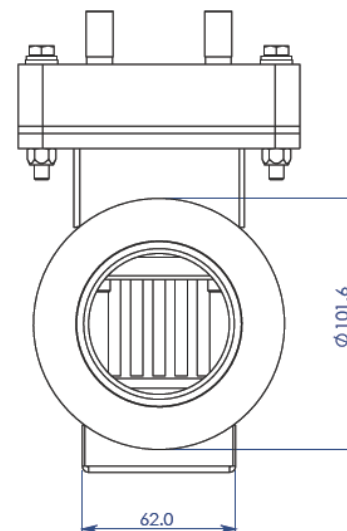
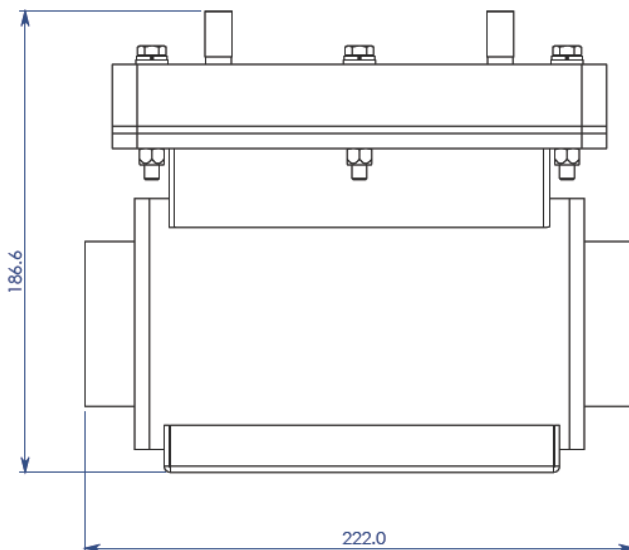


In general EFT flow cells are installed in a bypass configuration. This is to allow for ease of access and replacement of electrode cells.

Valves should be installed both before and after the flow cell and on the main line to be bypassed.

It is preferred to install flow cells vertically but it is not essential. Vertical installation reduces the amount of residue buildup within the flow cell.

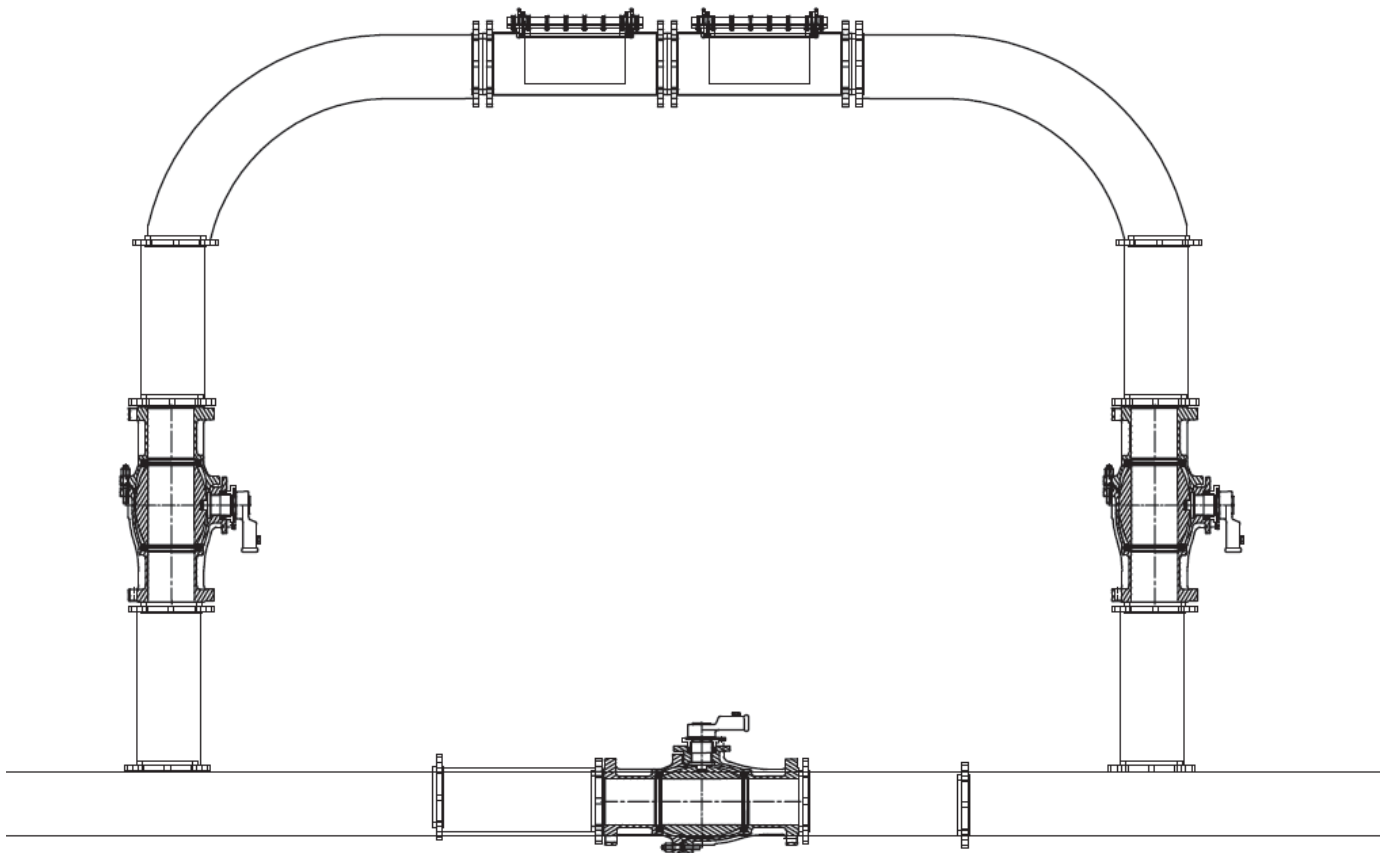
Flow cells are available with female PSP threaded fittings from 1" to 3". Larger sizes are available in flanged connections.





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## Flow Cell Installation

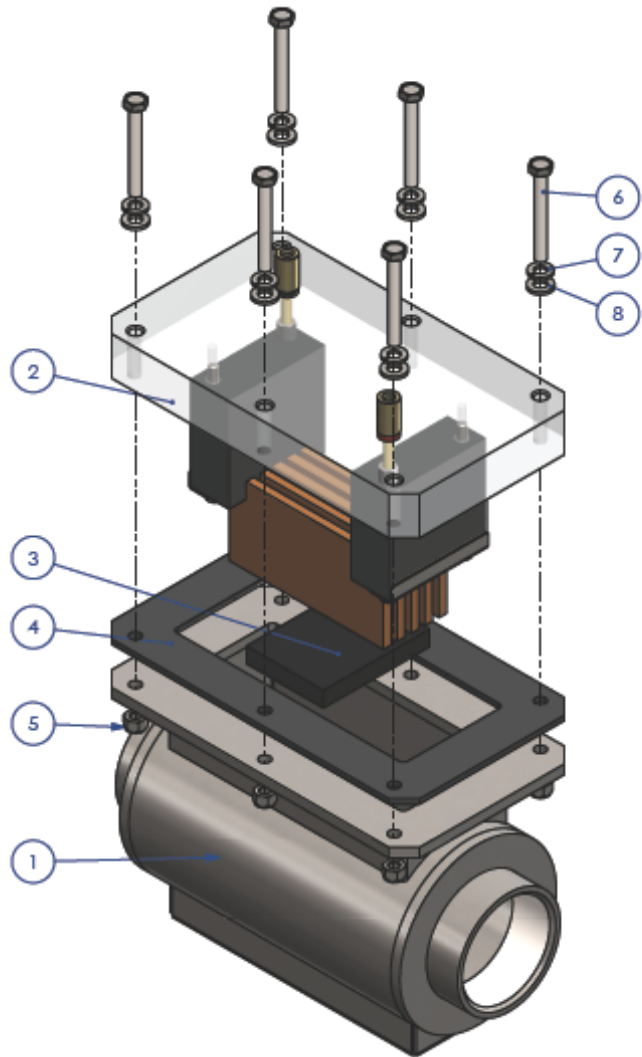


Typical Bypass Schematic:

Note: Two EFT Electrodes Depicted

Valves Installed on Main Line and Bypass to allow for electrode replacement without interruption of water flow.

## Flow Cell Assembly - Electrode Replacement



### Parts Listing:

- 1: Main Flow Cell Body
- 2: Polycarbonate Flow Cell Lid
- 3: Flow Cell Base Plate Insulator
- 4: Flow Cell Gasket
- 5: M6 Nyloc Nut
- 6: M6 x 50 Hex Bolt
- 7: M6 Spring Washer
- 8: M6 Plain Washer

Electrode Plates Are Push fit. Simply remove old electrodes and press into place new metal. Hammer home using a Nylon hammer or mallet.

Assemble as per drawing.