

Installation, Operation & Maintenance Instructions





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Amiad Water Systems Ltd. D.N. Galil Elyon 1, 1233500, Israel Tel: 972 4 690 9500 | Fax: 972 4 814 1159 Email: info@amiad.com



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1 Safety Instructions

1.1 General

The manufacturer's filtration products always operate as components in a larger system. System designers, installers and operators must comply with all relevant safety standards.

Prior to installation, operation, maintenance and/or any other type of action carried out on the controller, carefully read these installation and operation instructions.

During installation, operation and/or maintenance of the controller all conventional safety instructions must be observed in order to avoid danger to the workers, the public and/or to property in the vicinity.

The system is for use for non-hazardous liquids only!

Please note: The filter controlled by the controller enters the flushing mode automatically without any prior warning.

No change or modification to the equipment is permitted without written notification given by the manufacturer or by its representative(s) on the manufacturer's behalf.

Always observe standard safety instructions and good engineering practices whilst working in the filter's vicinity.

Use the controller only for its intended use as designed by the manufacturer only. Any misuse of the controller may lead to damage and may affect your warranty coverage. Consult with the manufacturer prior to any non-standard use of this equipment.

Do not carry out system cleaning and/or maintenance in an explosive atmosphere.

1.2 Installation

General

Install the controller according to the detailed installation instructions provided in this manual or in the Quick Guide provided with the filter or controller.

Make sure to leave enough side and top clearance to enable easy access for safe maintenance operations.

Make sure to have suitable lighting at the filter's location to enable good visibility and safe maintenance.

Arrange suitable platforms and safety barriers to enable easy and safe access to the controller without needing to climb on pipes and other equipment. Verify that any platform, barrier, ladder, or other such equipment is built, installed, and used in accordance with the relevant local authorized standards.

Use only appropriate standard tools and equipment operated by qualified operators when installing, operating, and maintaining the controller.

When installation is required in hazardous environment sites, underground or high above ground, make sure that the site design and the auxiliary equipment are appropriate and that installation procedures are carried out in accordance with the relevant standards and regulations.

Make sure walking areas around the installation are slip resistant when wet.



Shipment and transporting

Shipping and transporting the controller must be done in a safe and stable manner and in accordance with the relevant standards and regulations.

Electricity

Electric wiring must be performed by an authorized electrician only, using standardized and approved components.

The filter should be installed in a manner in which the controller's electrical components are protected from direct contact with water.

When using external power, a 1A external fuse and minimum 22AWG wires are required.

1.3 Commissioning

Carefully read this manual prior to operating the controller.

In order to achieve maximum performance and smooth operation of the controller, performing the start-up and first operation procedures exactly as described in this manual is crucial.

1.4 **Operation and Control**

Do not operate the controller before carefully reading and becoming familiar with its operation instructions.

Observe the safety stickers on the controller and do not perform any operation other than those given in this manual.

Do not operate or use the controller for purposes other than its original design.

The system is for use for non-hazardous liquids only!

Do not carry out system cleaning and/or maintenance in an explosive atmosphere.

1.5 Before Any Maintenance or Non-standard Operation

Servicing the controller should be done only by technicians authorized by the manufacturer.

Do not carry out system cleaning and/or maintenance in an explosive atmosphere.

Disconnect the controller and the filter from the power supply and lock the main power switch.

1.6 **Preventing Damage Due to Frost**

Non-operating periods:

To avoid damage or breakage when temperatures drop, command tubes must be disconnected and drained prior to non-operating periods.

Operating season:

Your ADI-X controller is equipped with a built-in feature that detects low temperatures and increases the number of flushes to avoid freezing of water. You can activate and adjust the settings of this feature in your Settings menu.



2 Introduction

2.1 About the ADI-X Controller

ADI-X by Amiad, is our most advanced smart controller for a wide range of filtration solutions. By using the ADI-X, you will be able to receive real time data regarding your filter performance, relevant alerts, technical and marketing updates.

ADI-X allows you to modify various parameters for your filtration system remotely. Supporting both Cloud and Bluetooth[®] wireless technology, ADI-X allows you to connect to your filter from any mobile device or desktop, regardless of your location (while on the Cloud).

2.2 The ADI-X Controller Components

Take a few moments to familiarize yourself with the ADI-X Controller components:

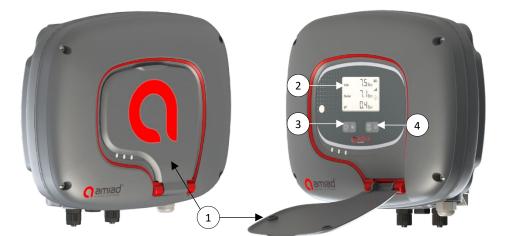




Figure 1: ADI-X controller components

- 1. Protection cover
- 2. LCD display
- 3. Left control button
- 4. Right control button
- 5. Water connection for internal DP sensors (inlet/piston/outlet)
- 6. Power cable gland
- 7. RJ-45 connection (optional)
- 8. External antenna SMA connection



3 ADI-X Controller Installation

The ADI-X controller can be supplied as part of a filtration system or as a standalone device. The controller is installed on a bracket and can be easily removed by pushing it up. If the controller is supplied as a part of a filtration system, the controller is already installed and connected.



Figure 2: ADI-X controller installed on a Spin Klin[™] Nova Trio Plus system

To disassemble the installed controller:

- 1. Disconnect all cables and pipes (see 3.3 ADI-X Terminal Blocks Connections and 3.4 ADI-X DP Sensor Connections).
- 2. Push the controller up to remove it from the bracket.

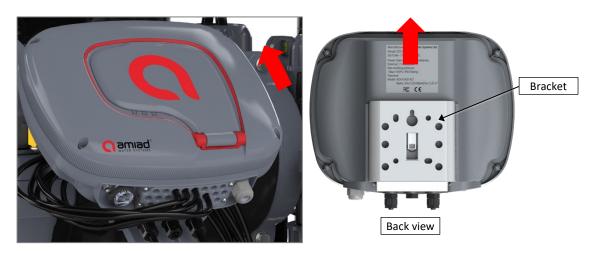


Figure 3: Removing the ADI-X controller from the bracket



3.1 Installation on a Pole

If the ADI-X controller is supplied separately, it can be installed on a pole using a plate and clamps (not included).

Instructions:

- 1. Mount the 100x120 mm plate on the pole using clamps (minimum dimensions).
- 2. Remove the controller from the bracket (see Figure 3: Removing the ADI-X controller from the bracket).
- 3. Tighten the bracket to the plate using 4 screws.

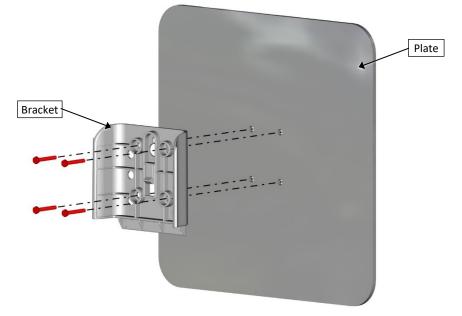


Figure 4: Bracket installation on plate

4. Attach the controller to the bracket. Press the controller until you hear "click".

Notice: handle with care



3.2 Installation on a Wall

If the ADI-X controller is supplied separately it can be mounted on a wall using fasteners (not included).

Instructions:

- 1. Determine mounting height for easy viewing and access.
- 2. Remove the controller from its bracket (see Figure 3: Removing the ADI-X controller from the bracket).
- 3. Attach the bracket to the wall. Level the bracket by using a water level.
- 4. Mark the location of the bracket holes on the wall (see fig. below).
- 5. Using a drill, install 4 wall anchors in the marked locations. Attach the bracket to the wall. Tighten the mounting screws into the anchors.

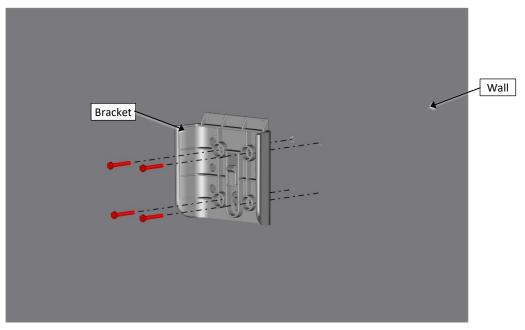


Figure 5: Bracket installation on wall

5. Attach the controller to the bracket. Press the controller until you hear "click".



3.3 ADI-X Terminal Blocks Connections

Once the controller has been installed, connect the controller's terminals according to the following:



Figure 6: ADI-X controller terminals

- 1. RJ-45 COM: Used to connect PLC or other control device.
- 2. Extension A and B: Used for connection between primary and secondary controllers (see 5.8).
- 3. Digital inputs: Used to connect external water meters.
- 4. External DP: Used to connect external differential pressure switch.
- 5. **Pause:** Used to connect external device to trigger pause.
- 6. **Analog inputs:** Used to connect analog signals 4-20 mA, 0-10 V (power to input is controlled) from sensors of following types: pressure, temperature, conductivity, turbidity, humidity.
- 7. **DS valve:** Output for downstream valve through solenoid latch.
- 8. V1-V12 outputs: For filter flush through solenoid latch.
- 9. Alarm output: Used to switch external device via NO/NC relay.
- 10. End of cycle (EOC): Used to send EOC signal via NO/NC relay.
- 11. External power supply connection. Power supply for the controller must supply 7-14 VDC, 2A.



In order to connect the cables to the controller's terminals, remove the top cover by loosening the four screws.



Figure 7: ADI-X Top cover removal

Remove the two screws that secure the electrical safety protection cover. This will allow access to connect the external power supply.



Figure 8: ADI-X Top cover removal

Notice: the connection cables enter the controller case via silicon insulated holes. Once the silicon insulation is broken by the cable it will no longer provide sufficient insulation without cable. Do not remove cables from entrance holes without replacing them with the new ones! Notice: every external device connected to the controller should be correctly set up in controller settings (see 5.3). For example: number of filtration units must be specified correctly; type of analog device connected to the controller must be specified in corresponding field.



3.4 ADI-X DP Sensor Connections

The ADI-X controller can work with an internal or external DP sensor, depending on configuration. The controller's default configuration is the internal DP sensor. Water pipes should be connected to the DP inlet and outlet (See Figure 1: ADI-X controller components).



Figure 9: Internal DP sensor connections



3.5 Batteries Installation/Replacement

The ADI-X controller is supplied with 4 x 1.5V Type D batteries supplied loose.

The estimated batteries' lifetime is one year or about 80K flushes (whichever comes first).

To install/replace the batteries:

1. Remove the top cover by loosening the four screws.



Figure 10: ADI-X controller Top cover removal

2. Remove the two screws that secure the battery cover. This will allow access to the battery assembly.

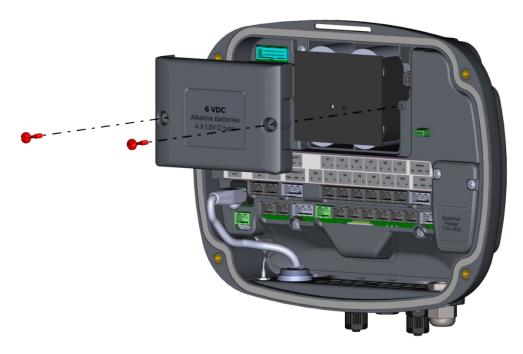


Figure 11: Battery cover removal





3. Remove the battery assembly from the device and replace 4 x 1.5V Type D batteries.

Figure 12: Battery assembly with 4 x 1.5V D batteries

- 4. Reinstall the battery assembly.
- 5. Close battery cover and tighten the screws.
- 6. Reassemble the top cover and tighten the screws.



4 ADI-X Desktop, ADI-X Mobile, and ADI-BLE Mobile Applications

The ADI-X controller can be controlled by three applications as follows:

12. **ADI-X Desktop application** connects to the controller via the cloud. It allows you to operate your controller by remote access.

To access the ADI-X Desktop application go to the adix.amiad.com website.

- 13. **ADI-X Mobile application** connects to the controller via the cloud. It allows you to operate your controller by remote access.
- 14. **ADI-BLE Mobile application** connects to the controller via Bluetooth[®] wireless technology. The mobile device should be within a range of 10-15 meters from the controller. This application does not require or support cloud services.

The free **ADI-X** and **ADI-BLE** mobile applications by Amiad Water Systems are available for download on Google Play (Android version 5 and up) or the App Store (iOS version 9 and up).

4.1 Applications Preparation

4.1.1 ADI-X Desktop Application Sign Up

To create a new ADI-X user account:

1. Click "SIGN UP".



Figure 13: ADI-X Desktop application Start screen



2. Enter your Email address and click "SEND".

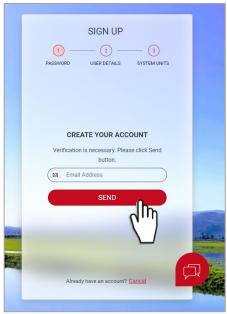


Figure 14: ADI-X Desktop application Sign Up Screen 1

A verification code will be sent to your email.
 Log into your email account, open the mail and copy your verification code.
 Paste the verification code and click "Verify code".

(1) -	SIGN UP	(3)	
PASSWORD	USER DETAILS	SYSTEM UNITS	
CRI	EATE YOUR ACC	OUNT	
Verification Please	code has been sen copy it to the input	t to your inbox.	
	il Address		
	Verify code		
	Send new code		
Alrea	idy have an account?	Cancel	, C

Figure 15: ADI-X Desktop application Sign Up Screen 2



4. Create your new password in the "New Password" field and reenter the new password in the "Confirm New Password" field. Remember your password! Click "Create".

	SIGN UP
	PASSWORD USER DETAILS SYSTEM UNITS
	CREATE YOUR ACCOUNT
	E-mail address verified. You can now continue.
	Email Address
	New Password
	Confirm New Password
	Create
*	
	Already have an account? Cancel

Figure 16: ADI-X Desktop application Sign Up Screen 3

5. Enter your Full Name, Country, Company and Job Description. Click "Next".

SIGN UP 2 3 PASSWORD USER DETAILS LOCALIZE SETTINGS	
USER DETAILS	
(B Full Name	
 Country 	
Company	
Job Description	
NEXT De	and the s
Cancel	ג

Figure 17: ADI-X Desktop application Sign Up Screen 4



6. Select your application language and units (METRIC or IMPERIAL). Click "SUBMIT".

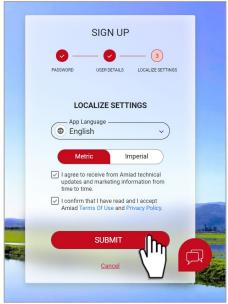


Figure 18: ADI-X Desktop application Sign Up Screen 5

7. Your ADI	-X user account was created!		
C ADI-X	DASHBOARD	<u> </u>	Ofir Ruvio 🗸 🔗
MONITORING	Sites	Notifications Center	All
SitesSites Map	No Site Found Add a new site at the click of a button		
Alerts			
SETTINGS			
Sites Manager System settings			
INFORMATION			
Support			
(j) User Manual			

Figure 19: ADI-X Desktop application. Home page



4.1.2 ADI-X Mobile Application Log In

Download and install the **ADI-X Mobile application** on your mobile device.

Log in using Email and password created earlier (see 4.1.1).

1. Enter your Email (used for signing up in ADI-X Desktop application). Click "CONTINUE".



Figure 20: ADI-X mobile application. Sign in Screen 1

2. Enter your password (created during sign up in ADI-X Desktop application). Click "SUBMIT".

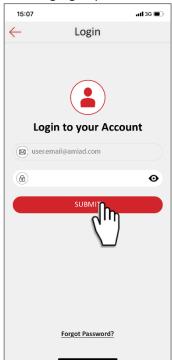


Figure 21: ADI-X mobile application. Sign in Screen 2



4.1.3 ADI-BLE Mobile Application Registration

Download and install the **ADI-BLE** Mobile application on your mobile device. To register your account in the **ADI-BLE** application:

- 1. Activate your mobile device's Bluetooth[®] discovery mode and start the ADI-BLE application.
- 2. Click "OK" to start setting up your account.



Figure 22: ADI-BLE mobile application. Welcome screen.

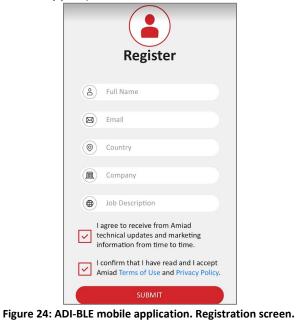
3. Select your preferred system units (Metric or Imperial and click "OK".

	ietric or imperiaranu c
20:15 ∢ TestFlight	oli ≎ lla
	System Units Select Prefered Units Metric O Imperial

Figure 23: ADI-BLE mobile application. System units screen.



4. Enter your Full Name, Email, Country, Company, and Job Description. Click "SUBMIT". To skip this step, click "SKIP" in the upper right corner (completing these steps is recommended for better support).



5. At this stage, your account was successfully created and is ready use.

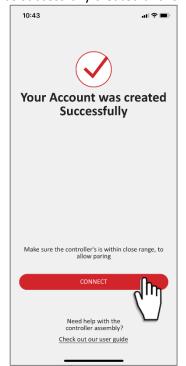


Figure 25: ADI-BLE mobile application. Account creation confirmation.



4.2 Adding ADI-X Controller to a User Account

Adding an ADI-X controller to your user account can be done using the **ADI-X Desktop application** or the **ADI-X Mobile application**. When the controller is added to your account it will be reflected on both applications.

The ADI-X controller can be added only to a single account – the owner account. The owner can share the ADI-X controller with other users (see 5.2 ADI-X Controller Sharing).

To add your ADI-X controller to your account, you need to set the ADI-X controller in communication mode and get the specific PIN code displayed, by following these instructions:

- 1. Open the ADI-X controller display protection cover.
- 2. If needed, Press the Left Button to enable LED backlight.
- 3. Press and hold the Left Button on the **ADI-X** controller until the 8-digit PIN code appears on the screen.



Figure 26: ADI-X controller in communication mode



4.2.1 Adding ADI-X Controller using the ADI-X Desktop Application

To add the ADI-X controller to your account using **ADI-X Desktop application**:

- 1. Open the ADI-X Desktop application. Sign in with your email and password.
- 2. Click "+" on the Home page (only for the first controller) **or** go to the "Sites Manager" tab in the left menu and click "ADD SITE".

	DASHBOARD	<u> </u>	Ofir Ruvio 🗸 🔗
MONITORING	Sites	Notifications Center	All 👻
Sites	No Site Found	A No new notifications	
Sites Map	Add a new site at the click of a button		
Alerts	diw)		
SETTINGS	$\mathbf{\nabla}$		
Bites Manage			
System se			
D Support			
📋 User Manual			

Figure 27: ADI-X Desktop application. The first site adding on Home screen.

C ADI-X	HOME / SITES	4	Ofir Ruvio	× 8
MONITORING Sites Sites Map Alerts	No Site Found Add a new site at the click of a button			
SETTINGS				
INFORMATION Support User Manual				

Figure 28: ADI-X Desktop application. New sites adding on Sites manager screen.



3. Make sure that the ADI-X controller is turned on and is in communication mode. Enter the 8-digit PIN code obtained from the controller. Click "NEXT".

	HOME / SITES MANAGER		Ofir Ruvio 🗸 🔗
MONITORING Sites	My Sites No Site Found	Add Controller >	ADD SITE 🔶
Sites Map		PIN-CODE ID INFO LOCATION PAYMENT	
SETTINGS			
Sites Manager			
System settings		Enter the PIN code	
INFORMATION			and the second se
Support			
ເຖິງ User Manual			
		NEXT	

Figure 29: ADI-X Desktop application. Controller identification.

4. In "Site ID" window, fill in the "Name Your Site" field, select a Filter Model from the list, enter filter serial number in "Filter Serial Number" field, add site picture by clicking "Add site image". Click "NEXT".

C ADI-X	HOME / SITES MANAGER		Ofir Ruvio 🗸 😣
MONITORING	My Sites	Site Id ×	ADD SITE 🕀
Sites	No Site Found	2 3 4 5 PIN CODE ID INFO LOCATION PAMMENT	
Alerts			
SETTINGS			
Sites Manager		Add site image	
System settings		Name Your Site	
		Controller SN Controller SN 17101747	
📋 User Manual		Filter Serial Number	
		NEXT	

Figure 30: ADI-X Desktop application. Site ID window.



 In the "Site Information" window select Water Source from the list, enter flow rate in "Flow Rate (m³/h)" field, enter working pressure in "Working Pressure (BAR)" field, select Filtration Degree from the list. Click "NEXT".

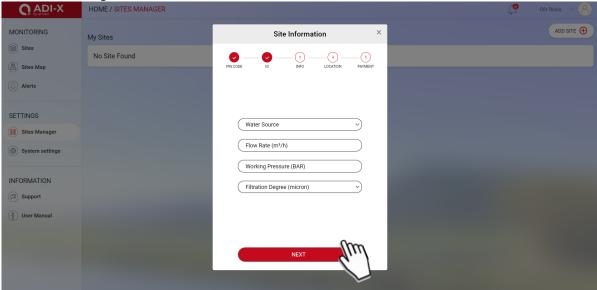


Figure 31: ADI-X Desktop application. Site information window.

6. In "Site Location" window set the location of the site on the map. Click "SUBMIT".

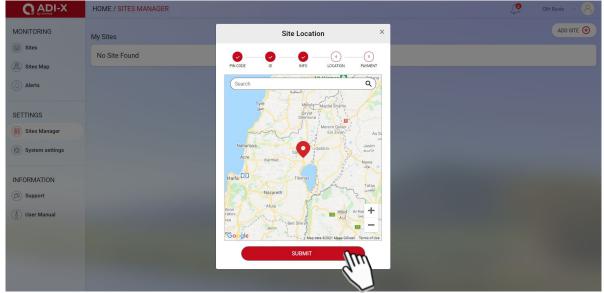
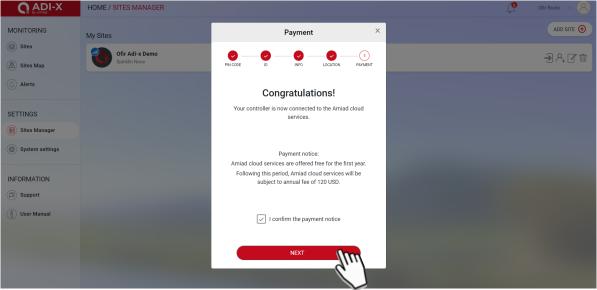


Figure 32: ADI-X Desktop application. Site location window.



7. In "Payment" window you should confirm the payment notice. At this stage, your controller is connected to your account and ready for use! Click "Next".



8. In "Site Added" window your ADI-X is ready to use. Click "Continue".

C ADI-X	HOME / SITES MANAGER		Cfir Ruvio 🗸 🔗
MONITORING	My Sites	Site Added ×	ADD SITE 🕀
Sites	Ofir Adi-x Demo Spinklin Nova	PIN CODE ID INFO LOCATION PAYMENT	3&C*
Alerts			
SETTINGS			
Sites Manager System settings		\checkmark	
INFORMATION		Your Controller is Ready to Use	
User Manual			
		CONTINUE	

9. To view data from your controller, select the desired controller from "Sites List" on Sites page (see 4.3.3.2).



4.2.2 Adding ADI-X Controller using the ADI-X Mobile Application

To add ADI-X controller to a user account using **ADI-X Mobile Application**:

- 1. Open the ADI-X Mobile Application. Sign in with your email and password.
- 2. Click the "+" in the "List of Sites" window.



Figure 33: ADI-X mobile application. Add site

 Make sure the controller is turned on and in communication mode. Enter the 8-digit PIN code obtained from the controller. Click "NEXT".



Figure 34: ADI-X mobile application. Controller identification



4. In "Site ID" screen enter your site name in the "Name Your Site" field, select filter model from the list, enter filter serial number in "Filter Serial Number" field, add site picture by clicking the Site image icon. Click "NEXT".

16:57		al 🕈 🗈
\leftarrow	Site ID	
	Name Your Site	
Ø		
	Filter Model	
🖁 SK Fa	mily 3	
	Controller SN	
1054	1577	
	Filter Serial Number	
	NEXT	
	\neg	

Figure 35: ADI-X mobile application. Site ID screen

 In "Site Information" screen select water source from the list, enter flow rate in "Flow Rate (m³/h)" field, enter working pressure in "Working Pressure (BAR)" field, select filtration degree from the list. Click "NEXT".

16:57				ul ≎ ∎
\leftarrow	Site	Informat	tion	
	Ŵ	ater Sour	ce	
۲				
	Flor	w Rate (m	∛h)	
٨				
	Workin	g Pressure	e (BAR)	
0				
	Filtratio	n Degree ((micron)	
80	100	130	200	Other
	•	•••		
NEXT				
(''')				

Figure 36: ADI-X mobile application. Site information screen



6. In "Site Location" screen set the location of the site on the map. Click "NEXT".



Figure 37: ADI-X mobile application. Site location screen

7. In "Payment" window you should confirm the payment notice. At this stage, your controller is connected to your account and ready for use! Click "Next".

III Cellcom 🗢	15:50	7 🛱 45% 🛃
	Congratulations!	
Your controll	er is now connect cloud services.	ed to the %@
	tice: Amiad cloud fered free for 1 ye	
	s period, \$ cloud s to annual fee of 1	
		lin
		U
I confirm	the payment not	ice
	NEXT	

Figure 38: ADI-X mobile application. Payment Notice screen



8. At this stage your controller was connected to your user account and ready for use! Click "SUBMIT".

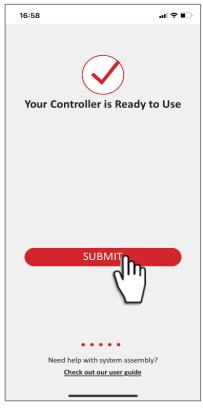


Figure 39: ADI-X mobile application. Site location screen

9. To view data from your controller, select the desired controller from "Sites List" on Sites screen (see 4.4.3.1).



4.2.3 Pairing ADI-X Controller using the ADI-BLE Mobile Application

Notice: Pairing the ADI-X controller with the Bluetooth[®] application will utilize part of the full list of features available in the cloud applications. Amiad recommends pairing the ADI-X controller with the dedicated ADI-X applications (Mobile and Desktop).

To pair the controller with the **ADI-BLE Mobile** Application:

 Verify your mobile device's Bluetooth[®] discovery mode is activated. To start pairing with the ADI-X controller, click "⁽⁺⁾" in the window. The application scans for controllers within the Bluetooth[®] range (10-15 meters).

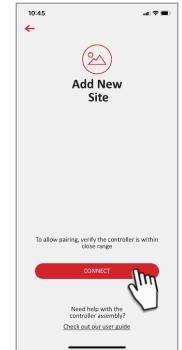


Figure 40: ADI-BLE mobile application. Adding the first site after account creation



2. Select your controller from the controllers list in range. The application will start pairing.

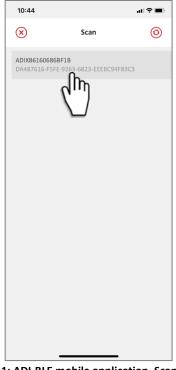


Figure 41: ADI-BLE mobile application. Scan screen.

3. Verify that the blue/green LED on your controller is blinking. Click "YES" to confirm.



Figure 422: ADI-BLE mobile application. Confirm pairing screen.



10:45		al 🕈 🔳
\bigotimes	Site ID	
	Add Photo	
	Name Your Site	
	*	
	Filter Model	
	SK Family 3	
	Controller SN	
	ADIX86160686BF1B	
	Filter Serial Number	
	*Requir	red

Figure 433: ADI-BLE mobile application. Site ID screen.

5. Enter the Site Information details (optional), Click "SUBMIT" to add your new filter to the Sites List.

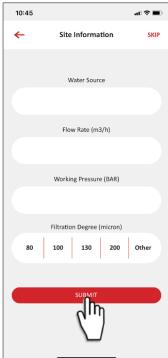


Figure 444: ADI-BLE mobile application. Site Information screen.



6. To view data from your controller, select the active controller from the "Sites List", marked by the active Bluetooth[®] icon.

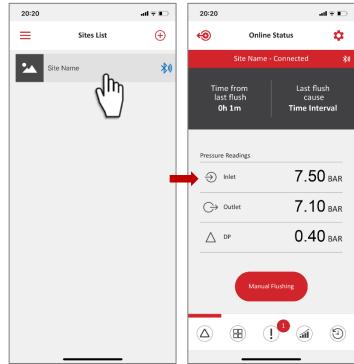


Figure 455: ADI-BLE mobile application. Site data.



4.3 Getting to Know the ADI-X Desktop Application

Take a few moments to familiarize yourself with the ADI-X Desktop Application interface:

ADI-X Desktop Application has seven main pages. Each page contains the Left menu for navigating between the pages, Header line, and Page content that changes from page to page. See details in the following tables:

4.3.1 Left Menu Details

Element	Description
Monitoring –	The Sites page contains a list of all owned and linked Sites as well as Sites overview
Sites	and settings. See 4.3.3.2.
Monitoring –	The Sites Map page contains a map where all owned and linked Sites are marked.
Sites Map	See 4.3.3.3
Monitoring –	The Alerts page contains active alerts from all connected controllers and a list of
Alerts	alert messages according to their occurrence time and date. See 4.3.3.4.
Settings –	The Sites Manager page contains a list of all owned and linked Sites and allows
Sites Manager	adding and deleting sites from the account. See 4.3.3.5.
Settings –	The System settings page contains Account parameters, localization parameters
System settings	and allows changing the user password. See 4.3.3.6.
Information –	The Support contains a message pop-up window. See 04.3.3.7.
Support	
Information –	The User Manual contains a link to the digital version of the User Manual. See
User Manual	4.3.3.8.

C ADI-X	DASHBOARD	<u> </u>	Ofir v 🔗
MONITORING	Sites	Notifications Center	All 👻
Sites	No Site Found	No new notifications	
🔊 Sites Map	Add a new site at the click of a button		
Alerts			
SETTINGS			
Sites Manager			
System settings			
INFORMATION			
D Support			
) User Manual			



4.3.2 Header Line Details

Element	Description	
Page name	Displays the current page name with the navigation path.	
	Example: Home/System settings/My account.	
Alerts icon	Shows the number of active alerts.	
Username	Shows the Username.	
Drop down menu	Username drop-down menu, contains two options:	
	My account – opens System settings page. See 4.3.3.6.	
	Sign out – allows the user to sign out of the account.	

4.3.3 Page Details

4.3.3.1 Home/Dashboard Page

Home page is displayed after log in. You can return to Home page by clicking "Home" in the Header line or by clicking on the ADI-X logo in the upper left corner. The Home page contains the Sites List and Notification center.

	DASHBOARD						Ļ	Ofir Ruvio 🗸 🔗
MONITORING	Sites						Notifications Center	All 👻
Sites	1	Amir Desk Production 79 Sk Family 2 Primary	997841			¥ 🗈 🗘	Hushing Adi-x Beta 10 - Ginosar	
 Alerts 		Online Connection Mode	0.0 BAR Inlet	0.0 bar DP	Oh 9m Time from Last Flush	Flushing Interval Last Flush Cause		
SETTINGS	1	Adi-x Beta 10 - Ginosar Sk Family 2 Primary				¥ 🗈 📿		
Sites Manager System settings	Flushing	Online Connection Mode	2.9 BAR Inlet	0.31 BAR DP	N/A Time from Last Flush	None Last Flush Cause		
INFORMATION	0	Adi-x Beta 3 - Ramot No Spinklin Nova Plus Primary				¥ î 🦉		
D Support	-	Online Connection Mode	N/A BAR Inlet	N/A BAR DP	N/A Time from Last Flush	None Last Flush Cause		
📋 User Manual								



4.3.3.1.1 Sites List

Sites List contains all owned and linked Sites. Clicking on each element of the list will open the controller's Overview tab on Sites page, (see 4.3.3.2.3) Each list element contains the following information:

Element	Description
Site picture	Site picture uploaded by site owner to recognize the site.
Communication	Small icon on the site picture represents the communication status:
	Blue icon – the controller is connected.
status	Grey icon – the controller is disconnected.
Site name	Site name given by site owner.
Filter type	Filter(s) model controlled by the controller.
Operation mode	Controller operation mode – primary or secondary.
	Power mode is represented by the icon:
Power mode	Plug – the controller is on AC power.
	Battery – the controller is on battery power.
	Place the cursor on the information icon to see the following information:
	FW version
Information icon	HW version
	Installation Date
	Total Flush Counter
	The number on the Alerts icon represents the number of active alerts for the
Alerts icon	specific controller. Click the Alerts icon to open the controller's Alerts tab on Sites
	page (see 4.3.3.2.6)
Connection mode	The controller connection mode – online or offline.
Last connection	Only in offline mode. The last time the controller was connected.
Next connection	Only in offline mode. The time of next attempt to connect to the controller.
Last flush DP after	Only in offline mode. The DP measured after flushing. Interval between end of
	flushing and DP measuring is determined by "Ignore DP" parameter
	(see Appendix A. ADI-X Controller Settings).
Config synced	Only in offline mode. Indicates if controller configuration is up to date (last
Config synced	changes saved) – Yes or No.
Inlet	The current reading of the filter's inlet pressure.
DP	The pressure differential across the filter; calculated by subtracting the outlet
	pressure from the inlet pressure.
Time from last flush	The time since the end of the last flush cycle.
Last flush cause	The trigger that initiated the last flush.

4.3.3.1.2 Notification center

Element	Description	
Dropdown list	Allows selecting which notifications are shown – all / alerts / flushes / invitations.	
	Each element of the list contains following information:	
List of notifications	Notification text	
	The name of controller where notification appeared	



4.3.3.2 Sites Page

Sites page content area contains Sites List, Site Header and 7 tabs.

C ADI-X	HOME / SITES		4	Ofir Ruvio v
MONITORING	Amir Desk Production 7997841 Sk Family 2 Primary	Adi-x Beta 10 - Ginosar Sk Family 2 Primary		¥ (A) (Q)
Sites Map Alerts	Adi-x Beta 10 - Ginosar Sk Family 2 Primary	Overview Reports Flushes Alerts About Settings Online On 3m DP 0.12 BAR Connection Mode Time from Last Flush Last Flush Cause Last flush DP after	Flushing Cycles	Reset O
SETTINGS	Adi-x Beta 3 - Ramot Nova Spinklin Nova Plus Primary		Last Reset at N/A O DP Interv Manu	
System settings		Pressure Readings	Cycles O Manu O Prese	
INFORMATION		 ⇒ △ ⇒ 2.92 0.11 2.81 BAR BAR BAR 	Reports Cycles	✓ Day ✓
(j) User Manual		DP	1.4 1.4 1.2 0.8 0.6 0.4 0.2 0 0 0 0 0 0 0 0 0 0 0 0 0	
		Manual Flushing	00:00 02:00 04:0	00 07:00 09:00 Manual 🛑 Preset

4.3.3.2.1 Sites List

Sites List is located at the left side of the screen. It contains all owned and linked Sites. Each list element contains the following information:

Element	Description
Site picture	Site picture uploaded by site owner to recognize the site.
Communication	Small icon on the site picture represents the communication status:
Communication status	Blue icon – the controller is connected.
	Grey icon – the controller is disconnected.
Site name	Site name given by site owner.
Filter type	Filter(s) model controlled by the controller.
Operation mode	Controller operation mode – primary or secondary.

4.3.3.2.2 Site header

Element	Description
Site name	Site name given by site owner.
Filter type	Filter(s) model controlled by the controller.
Operation mode	Controller operation mode – primary or secondary.
Communication	If the controller is disconnected the status "Disconnected" will be shown here in
status	red.
	Power mode is represented by the icon:
Power mode	Plug – the controller is on AC power.
	Battery – the controller is on battery power.
	Place the cursor on information icon to see the following information:
	FW version
Information icon	HW version
	Installation Date
	Total Flush Counter
Alerts icon	The number on the Alerts icon represents the number of active alerts for the
	specific controller.

4.3.3.2.3 Overview tab

Element	Description
Connection mode	The controller connection mode – online or offline.
Last connection	Only in offline mode. The last time the controller was connected.
Next connection	Only in offline mode. The time of next attempt to connect to the controller.



Element	Description
Config synced	Only in offline mode. Indicates if controller configuration is up to date (last
coming synceu	changes synchronized with controller) – Yes or No.
Time from last flush	Only in online mode. The time since the end of the last flush cycle.
Last flush cause	Only in online mode. The trigger that initiated the last flush.
Last flush DP after	Only in online mode. The DP measured after flushing. Interval between end of flushing and DP measuring is determined by "Ignore DP" parameter (see Appendix A. ADI-X Controller Settings).
Pressures readings – Inlet	The current reading of the filter's inlet pressure.
Pressures readings – Outlet	The current reading of the filter's outlet pressure.
Pressures readings – DP	The pressure differential across the filter; calculated by subtracting the outlet pressure from the inlet pressure.
Manual Flushing button	Only in online mode. Click this button to start a manual flush cycle.
Flushing Cycles – diagram	Displays the ratio of flushing cycles started due to different causes.
Flushing Cycles – DP	The number of flush cycles started due to a DP event.
Flushing Cycles – Interval	The number of flush cycles started due to the time intervals program. Also counts the Antifreeze Protection Intervals Flushes.
Flushing Cycles – Manual	The number of flush cycles started due to a manual flush by the user.
Flushing Cycles – Preset	The number of flush cycles started due to the preset start times.
Flushing Cycles – Reset button	Click this button to reset the counters to zero (excluding total flush counter).
Reports – Data type drop-down list	The drop-down list for selection of data type to be displayed on the chart.
Reports – Period drop-down list	The drop-down list for selection of period for which the data will be displayed on the chart.
Reports – Chart	Displays the data according to the selected parameters (data type and period).
Last reset date	The date of the last resetting of the counters.

4.3.3.2.4 Reports tab

Element	Description
Data type drop-down	The drap down list for selection of data type to be displayed on the shart
list	The drop-down list for selection of data type to be displayed on the chart.
Time span buttons	Click Day/Week/Month button to select desired chart's time span. By default, last
	week events are shown.
Dates selection	Enables showing events between two dates. Select the desired chart's time span.
Chart	Displays the data according to the selected parameters (data type and time span).

4.3.3.2.5 Flushes tab

Element	Description
Time span buttons	Click Day/Week/Month button to select desired list's time span. By default, last
Time span buttons	week events are shown.
Dates selection	Enables showing events between two dates. Select the desired list's time span.
	Display the flushes according to their occurrence time and date for selected
	period. Following information for every flush is shown:
List of flushes	Flush cause
	Flush date
	Flush time
	Inlet pressure before the flush
	Outlet pressure before the flush
	DP pressure before the flush



Element	Description
	• DP pressure after (the DP measured after flushing. Interval between end of
	flushing and DP measuring is determined by "Ignore DP" parameter).
4.3.3.2.6 Alerts tab	
Element	Description
Active/History	Click Active button to see the list of active alerts for the specific controller.
buttons	Click History button to see the list of alert messages for the specific controller
buttons	according to their occurrence time and date.
Time coop buttons	Click Day/Week/Month button to select desired list's time span. By default, last
Time span buttons	week events are shown.
Dates selection	Enables showing events between two dates. Select the desired list's time span.
Alanta liat	Display the active alerts or the list of alert messages according to their occurrence
Alerts list	time and date (Active/History tab). See Appendix B. Alarms and Faults List.

4.3.3.2.7 About tab

"About" tab contains the following information:

- Device ID
- FW version
- HW version
- Installation Date
- Total Flush Counter

If any updates are available, notification is shown here.

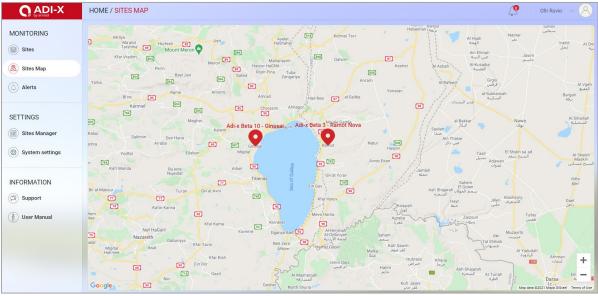
4.3.3.2.8 Settings tab

This tab contains controller settings. See the list of settings with description in Appendix A. ADI-X Controller Settings.

Click the setting to change it. Click "Save" to save changes.



4.3.3.3 Sites Map Page



Sites Map page displays the map where all owned and linked Sites are marked. Use +/- buttons in bottom right corner or mouse wheel to zoom in/zoom out.

+.3.3.4 Ale	ints rage							
	HOME / ALERTS					Q	Ofir Ruvio 🛛 🗸	8
MONITORING	Active History		CSV	Day W	eek Month	from 01/0	1/21 to 11/05/21	
Sites	High DP Alert Adi-x Beta 3 - Ramot Nova	DP: 0 BAR					06:00 06/05/2	21
 Sites Map Alerts 	High DP Alert Adi-x Beta 3 - Ramot Nova	DP: 0.75 BAR					06:00 06/05/2	21
SETTINGS	High DP Alert Adi-x Beta 3 - Ramot Nova	DP: 0 BAR					05:50 06/05/2	21
Sites Manager	High DP Fault Adi-x Beta 3 - Ramot Nova	DP: 0 BAR					05:50 06/05/2	21
	High DP Alert Adi-x Beta 3 - Ramot Nova	DP: 0.94 BAR					05:49 06/05/2	21
	High DP Fault Adi-x Beta 3 - Ramot Nova	DP: 0.94 BAR					05:49 06/05/2	21
) User Manual	Low Downstream Pressure Adi-x Beta 3 - Ramot Nova	Inlet: 0 BAR Outlet: 0 BAR					06:00 04/05/2	21
	Low Downstream Pressure Adi-x Beta 3 - Ramot Nova	Inlet: 1.38 BAR Outlet: 1.38 BAR					06:00 04/05/2	21

4.3.3.4 Alerts Page

The Alerts page contains active alerts from <u>all connected controllers</u> and a list of alert messages according to their occurrence time and date.

|--|

Element	Description
Active/History	Click Active to see the list of active alerts for the specific controller.
buttons	Click History to see the list of alert messages according to their occurrence time
buttons	and date.
Timo span buttons	Available only on History tab. Click Day/Week/Month button to select desired list's
Time span buttons	time span. By default, last week events are shown.
Datas solastion	Available only on History tab. Enables showing events between two dates. Select
Dates selection	the desired list's time span.
Alerts list	Display the active alerts or the list of alert messages according to their occurrence
Alerts list	time and date (Active/History tab). See Appendix B. Alarms and Faults List.
Page navigation	Use arrows in bottom left corner to switch between pages.



Element	Description
Linos por viow	Use drop-down list in bottom right corner to choose how many lines will be
Lines per view	displayed on one page.

4.3.3.5 Sites Manager Page

	HOME / SITES MANAGER	Ofir Ruvio 🗸 🔗
MONITORING	My Sites	ADD SITE
Sites	Ofir Adi-x Demo Spinklin Nova.	€ C 1
Alerts	Linked Sites	
SETTINGS	Amir Desk Production 7997841 Sk Family 2	ŵ
Sites Manager	Adi-x Beta 10 - Ginosar	Ŵ
System settings	Sk Family 2	
INFORMATION	Adi-x Beta 3 - Ramot Nova Spinklin Nova Plus	
Support		
(1) User Manual		

Sites Manager page allows adding, editing, and deleting sites from the account. It contains the following elements:

Element	Description
Add Site button	Click this button to start adding a new controller to your user account.
My Sites List	 List of owned sites. Each element of the list contains the following information: Site picture Communication status icon Site name Filter type
	 Invite icon – click to share the site with other account Edit icon – click to edit Site ID, information, location, and manage invitations Delete icon – click this icon to delete the site from the account
Linked Sites List	 List of linked sites. Each element of the list contains the following information: Site picture Communication status icon Site name Filter type Delete icon - click this icon to delete the site from the account.



4.3.3.6 System Settings Page

	HOME / SYSTEM SETTING / MY ACCOUNT	<u>_</u>	Ofir Ruvio 🗸 🔗
MONITORING	My Account		
🛞 Sites Map	My Account		
(Alerts	Enal Preferred language		
SETTINGS	Full Name Full Name Metric Imperial		
Sites Manager	Country Israel Jagree to receive from Amiad technical updates and marketing information		
System settings	Company from time to time.		
INFORMATION	deb Description v		
🔊 Support			
) User Manual			
	Save		

System settings page contains two tabs: My Account and Change Password. See details in the following tables:

4.3.3.6.1 My Account tab	4.3.3.6.1
--------------------------	-----------

Element	Description
Email	The email address you entered while creating an account. Cannot be changed.
Full name	User's full name.
Country	Country of operation (drop-down list).
Company	User's company name.
Job description	User's job description (drop-down list).
Preferred language	The language of applications (drop-down list).
Units selection	Units to be used in applications.
Receive updates	Check this checkbox to receive updates from Amiad.
from Amiad	
Save button	Click Save to save any changes.



4.3.3.7 Support Pop-Up Window

Need Help?	
Send us a Message	
Email	
- Company	
Amiad Water Systems	
SEND	

Support Pop-Up Window allows sending messages to Amiad support. It contains the following elements:

Element	Description	
Full name	Your full name	
Email	Your email	
Company	Your company name	
Message field	Write your message to Amiad support here.	
Send button	Click Send to send your message to Amiad support.	

4.3.3.8 User Manual Page

The User manual page contains the link to the digital version of the User Manual.



4.4 Getting to know the ADI-X Mobile Application

Take a few moments to familiarize yourself with the ADI-X Mobile Application interface.

ADI-X mobile application has eight main screens. Every application screen has a Header line containing the Menu button and screen name. You can switch between the app screens using the Menu button. See details in the following tables.

4.4.1 Header Line Details

Element	Description	
Menu button	Opens the Menu to switch between screens.	
Screen name	The name of the current screen.	

4.4.2 Menu Details

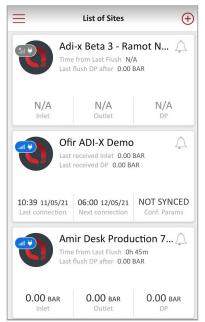
Ofir Ruvio ofirr@amiad.com	
MONITORING	
Sites	
🛞 Sites Map	
(A) Alerts	<u>0</u>
Settings	
Sites Manager	
System Settings	
INFORMATION	
D Support	
ျံဳ User Manual	
Account	
Profile	
← Sign out	

Element	Description	
Upper red area	Contains the User name and account email.	
Monitoring –	The Sites screen contains the list of all owned and linked Sites as well as Sites	
Sites	overview and settings and Add Site button. See 4.4.3.1.	
Monitoring –	The Sites Map screen contains the map where all owned and linked sites are	
Sites Map	marked, as well as Add Site button. See 4.4.3.2.	
Monitoring –	The Alerts screen contains active alerts from all connected controllers and a list of	
Alerts	alert messages according to their occurrence time and date. See 4.4.3.3.	
Settings –	The Sites Manager screen contains a list of all owned and linked Sites, as well as	
Sites Manager	Add Site button. See 4.4.3.4.	
Settings –	The System settings screen contains – language and units preferences.	
System settings	See 4.4.3.5.	
Information –	The Support contains a message pop-up window. See 04.3.3.7.	
Support	See 4.4.3.6.	
Information –	The User Manual contains a link to the digital version of the User Manual.	
User Manual	See 4.4.3.7.	
Account – Profile	The Profile screen contains the user account information. See 4.4.3.8.	
Account – Sign out	The Sign out screen allows the user to sign out of the account.	



4.4.3 Screens Details

4.4.3.1 Sites Screen

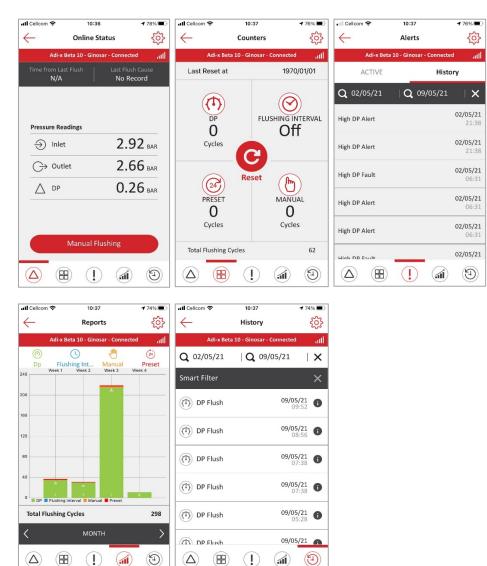


Sites screen contains all owned and linked Sites List. The "Add Site" button is located in the upper right corner. Each list element contains the following information:

Element	Description	
Site picture	Site picture uploaded by site owner to recognize the site.	
Communication status	Small icon on the site picture represents the communication status:	
	Blue icon – the controller is connected.	
Status	Grey icon – the controller is disconnected.	
	Small icon on the site picture represents the power mode:	
Power mode	Plug – the controller is on AC power.	
	Battery – the controller is on battery power.	
Site name	Site name given by site owner.	
Time from last flush	Only in online mode. The time since the end of the last flush cycle.	
	Only in online mode. The DP measured after flushing. Interval between end of	
Last flush DP after	flushing and DP measuring is determined by "Ignore DP" parameter (see Appendix	
	A. ADI-X Controller Settings).	
Last received inlet	Only in offline mode. Last inlet pressure received when connected.	
Last received DP	Only in offline mode. Last DP received when connected.	
Alerts icon	The number on Alerts icon represents the number of active alerts for the specific	
AIEITS ICOII	controller. Click the Alerts icon to open Alerts tab of the Site.	
Inlet	Only in online mode. The current reading of the filter's inlet pressure.	
Outlet	Only in online mode. The current reading of the filter's outlet pressure.	
	Only in online mode. The pressure differential across the filter; calculated by	
DP	subtracting the outlet pressure from the inlet pressure.	
Last connection	Only in offline mode. The last time the controller was connected.	
Next connection	Only in offline mode. The time of next attempt to connect to the controller.	
Conf. Params	Only in offline mode. Indicates if controller configuration is up to date (last	
	changes synchronized with controller) – Synced / Not synced	



Click on Site name to open Site details. There are 5 tabs and Settings menu for each Site. Scroll through these tabs by swiping to the right or to the left or by clicking on the designated icons that appear at the bottom of the screen.



4.4.3.1.1 Online status tab

Element	Description	
The upper red/grey line	Displays the name of the site and the communication status:	
	connected / disconnected.	
Last connection	Only in offline mode. The last time the controller was connected.	
Next connection	Only in offline mode. The time of next attempt to connect to the controller.	
Time from last flush	Only in online mode. The time since the end of the last flush cycle.	
Last flush cause	Only in online mode. The trigger that initiated the last flush.	
Pressures – Inlet	The current reading of the filter's inlet pressure.	
Pressures – Outlet	The current reading of the filter's outlet pressure.	
Pressures – DP	The pressure differential across the filter; calculated by subtracting the outlet	
Pressures - DP	pressure from the inlet pressure.	
Manual Flushing button	Only in online mode. Click this button to start a manual flush cycle.	



4.4.3.1.2 Counters tab

4.4.5.1.2 Counters t		
Element	Description	
The upper red/grey	Displays the name of the site and the communication status.	
line	connected / disconnected.	
Last reset at:	The date of the last resetting of the counters.	
DP Cycles	The number of flush cycles started due to a DP signal.	
Flushing Interval	The number of flush cycles started due to the time intervals program. Also counts	
Cycles	the Antifreeze Protection Intervals Flushes.	
Preset Cycles	The number of flush cycles started due to the preset start times.	
Manual Cycles	The number of flush cycles started due to a manual start command issued by the user.	
Total Flushing Cycles	The total number of flush cycles started for any reason.	
Reset Button	Click this button to reset the counters to zero (excluding total flushing counter).	

4.4.3.1.3 Alerts tab

Element	Description	
The upper red/grey	Displays the name of the site and the communication status.	
line	connected / disconnected.	
Active/History buttons	Click Active button to see the list of active alerts for the specific controller.	
	Click History button to see the list of alert messages for the specific controller	
	according to their occurrence time and date.	
Dates selection	Available only on History tab. Enables showing events between two dates. The	
	alert messages for selected time span will be displayed in the list.	
Alerts list	Display the active alerts or the list of alert messages according to their occurrence	
	time and date (Active/History tab). See Appendix B. Alarms and Faults List.	

4.4.3.1.4 Reports tab

Element	Description	
The upper red/grey	Displays the name of the site and the communication status.	
line	connected / disconnected.	
The second line	Displays icons of the different flush types. Select the desired icons to be displayed on the chart.	
The chart window	Displays the number of flush cycles according to the selected icons.	
Total Flushing Cycles	The total number of flush cycles currently displayed in the chart window.	
The lower black line	Enables the user to select the chart's time span (day, week, month).	

4.4.3.1.5 History tab

Element	Description	
The upper red/grey	Displays the name of the site and the communication status.	
line	connected / disconnected.	
The second line	Enables showing events between two dates.	
Smart Filter	Enables filtering events according to the four flush types (Flushing interval, DP, Manual, Preset).	
The events list	Displays the events messages according to their occurrence time and date. Flush cause, Flush date, and Flush time are shown in every row of the list. Click "	
	I icon to see the following information:	
	Inlet pressure before the flush	
	Outlet pressure before the flush	
	DP pressure before the flush	
	• DP pressure after (the DP measured after flushing. Interval between end of flushing and DP measuring is determined by "Ignore DP" parameter).	



4.4.3.1.6 Settings menu

Enter the Settings menu by clicking on the "💬 " icon in the upper right corner of any of the 5 tabs. This menu contains controller settings. See the list of settings with description in Appendix A. ADI-X Controller Settings.

Click the setting to change it. Click "Save" to save changes.

4.4.3.2 Sites Map Screen

Sites Map screen displays the map where all owned and linked Sites are marked. The Add Site button is located in the upper right corner.



4.4.3.3 Alerts Screen

The Alerts screen contains active alerts from all connected controllers and a list of alert messages according to their occurrence time and date.

≡	Alerts	
ACTIVE		History
Q 01/01/21	Q 11/05/2	21 X
7	Filter by site	×
High DP Alert		06/05/21
Adi-x Beta 3 - Ramo	t Nova	06:00
High DP Alert		06/05/21
Adi-x Beta 3 - Ramo	t Nova	06:00
High DP Alert		06/05/21
Adi-x Beta 3 - Ramo	t Nova	05:50
High DP Fault		06/05/21
Adi-x Beta 3 - Ramo	t Nova	05:50
High DP Alert		06/05/21
Adi-x Beta 3 - Ramo	t Nova	05:49
High DP Fault		06/05/21
Adi-x Beta 3 - Ramo	t Nova	05:49
Low Downstream Pr	essure	04/05/21
Adi-x Beta 3 - Ramo	t Nova	06:00

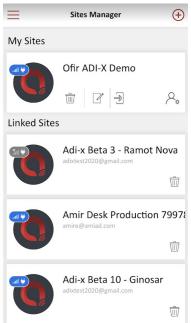


Element	Description	
	Click Active to see the list of active alerts for the specific controller.	
Active/History tabs	Click History to see the list of alert messages according to their occurrence time	
	and date.	
Dates selection	Available only on History tab. Enables showing events between two dates. Select	
	the desired list's time span.	
Filter by site	Enables filtering events according to the site name.	
	Displays the active alerts or the list of alert messages according to their	
Alerts list	occurrence time and date (Active / History tab). See Appendix B. Alarms and Faults	
	List.	

The Alerts screen contains the following elements:

4.4.3.4 Sites Manager Screen

Sites Manager screen allows adding and deleting sites from the account. The Add Site button is located in the upper right corner.



The Site Manager screen contains the following elements:

Element	Description					
	List of owned sites. Each element of the list contains the following information:					
	Site picture					
	Communication status icon					
My Sites List	Power mode icon					
My Sites List	Site name					
	• Delete icon – click this icon to delete the site from the account					
	Edit icon – click this icon to edit site information					
	• Invite icon – click this icon to see list of invitations and send new invitation.					
	List of linked sites. Each element of the list contains the following information:					
	Site picture					
	Communication status icon					
Linked Sites list	Power mode icon					
	Site name					
	Site owner email					
	• Delete icon – click this icon to delete the site from the account.					



4.4.3.5 System Settings Screen



System settings screen allows changing the user settings preferences:

Element	Description			
Preferred language	The language of applications.			
Units selection	Units to be used in applications.			
SUBMIT button	Click SUBMIT to save any changes.			

4.4.3.6 Support Screen

Need Help? Send us a Message
(A) Full Name
Email
Company
Type your message here
<u>SUBMIT</u>

Support Screen allows sending messages to Amiad support. It contains the following elements:

Element	Description			
Full name	Your full name			
Email	Your email			
Company	Your company name			
Message field	Write your message to Amiad support here.			
SUBMIT button	Click SUBMIT to send your message to Amiad support.			



4.4.3.7 User Manual Screen

The User manual screen contains the link to the digital version of the User Manual.

4.4.3.8 Profile Screen

Profile Profile	
(A) Ofir Ruvio	
() Israel	
Amiad Water Systems	
(Other	
l agree to receive from Amiad technical updates and marketing information from time to time.	
<u>SUBMIT</u>	

Profile screen allows changing account parameters:

Element	Description
Full name	User's full name.
Country	Country of operation (drop-down list).
Company	User's company name.
Job description	User's job description (drop-down list).
Receive updates from Amiad	Check this checkbox to receive updates from Amiad.
SUBMIT button	Click SUBMIT to save any changes done.



4.5 **Getting to know the ADI-BLE Mobile Application**

Take a few moments to familiarize yourself with the ADI-BLE Mobile Application interface.

ADI-BLE Mobile application consists of Sites List screen, containing the list of all paired controllers, Menu screen, and Site tabs that are available for each active site. See details in the following tables.

4.5.1 Screens Details

4.5.1.1 Sites List Screen



Element	escription			
Menu button	Opens Menu screen (see 4.5.1.2)			
Add new site button	tarts pairing process for new site.			
List of paired sites	List of all paired sites. Clicking on active site will open Site tabs (see 4.5.1.3).			
	Each element of the list contains following information:			
	Site picture			
	Site name			
	 Bluetooth[®] icon – blue when available and grey when out of range 			



4.5.1.2 Menu Screen



Enter the menu screens by clicking on the Menu icon in the upper left corner of the Site List screen:

Element	Description			
System Units	elect the system engineering units: Metric or US.			
Language	Select the application user interface language: English, French, German, Hebrew,			
	Italian, Spanish, Portuguese, Chinese, Russian, or Turkish.			
Messages	Messages from the Amiad system.			
Account	Displays the registration details of the system: User name, User email, User			
	country, User company and User job description.			
User Manual	This screen shows the user manual.			
Support	Contact Us screen.			
App Version	Displays the current version of the ADI-BLE Application.			



4.5.1.3 Site Tabs

Once selecting the Site to interface the filter, the application has 5 tabs.

Scroll through these tabs by swiping to the right or to the left. You may also reach the desired tab by clicking on the designated icons that appear at the bottom of the screen.

i Onl	ine Status 🔅	cou	nters 💠	6)	Alerts	\$	()	Reports	•	()	History	\$
R&D Un	it - Connected 🛛 🗚	R&D Unit	- Connected 🛛 🗱	R&D U	nit - Connected	\$0	R&D	Unit - Connected	\$0	R&D	Unit - Connected	*0
Time from last flush	Last flush cause	Last Reset at	01/01/1970	Q 06/05/21	Q 13/05/21	×	Dp Flushing) Anti Free	Q 06/05/21	Q 13/05/21	×
1h 5m	Manual	()	\bigcirc	ANTI FREEZE ACTIVE		13/05/21 11:23	Sun Mo	n Tue Wed	Thu	Smart Filter		×
		DP	FLUSHING INTERVAL			11:23			1	Pull	down to read logs	
Pressure Readings		0 Cycles	0 Cycles							(b) Manual Flus	h 13/05, 11	/ 21 :46
⇒ Inlet	3.98 bar		C)									
\bigcirc Outlet	3.98 BAR		eset An									
∆ DP	0.00 bar	PRESET	MANUAL									
		Off	2				0	hing Interval 📕 Preset 🔳 Anti F	19626			
Man	ual Flushing		Cycles				Total Flushing Cy		1			
		Total Flushing Cycles	128				<	WEEK	>			
	C ()		C (1)			⊕		1	9			ً

4.5.1.3.1 The Online Status Tab

Element	Description		
The upper red / grey	splays the name of the currently connected controller and the communication		
line	status (connected / disconnected).		
Time from last flush	The time since the end of the last flush cycle.		
Last flush cause	The trigger that initiated the last flush.		
Pressures - Inlet	The current reading of the filter's inlet pressure.		
Pressure - Outlet	The current reading of the filter's outlet pressure.		
Pressure - DP	The pressure differential across the filter; calculated by subtracting the outlet		
	pressure from the inlet pressure.		
Manual Flushing	Click this icon to start a manual flush cycle.		

4.5.1.3.2 The Counters Tab

Element	Description				
The upper red / grey	splays the name of the currently connected controller and the communication				
line	tatus (connected / disconnected).				
Last reset at:	The date of the last resetting of the counters.				
DP Cycles	The number of flush cycles started due to a DP signal.				
Flushing Interval	The number of flush cycles started due to the time intervals program. Also count				
Cycles	the Antifreeze Protection Intervals Flushes				
Preset	The number of flush cycles started due to the preset daily start time and the				
	current status of this program.				
Manual Cycles	The number of flush cycles started due to a manual start command issued by the				
	user.				
Total Flushing Cycles	The total number of flush cycles started for any reason.				
Reset Button	Click this button to reset the counters to zero.				



4.5.1.3.3 The Alerts Tab

Element	Description	
The upper red / grey	Displays the name of the currently connected controller and the communication	
line	status (connected / disconnected).	
The second line	Enables sorting alerts between two dates and resetting an alert.	
The alerts list	Displays the alert messages according to their occurrence time and date.	
	See Appendix B. Alarms and Faults List.	

4.5.1.3.4 The Reports Tab

Element	Description			
The upper red / grey	Displays the name of the currently connected controller and the communication			
line	status (connected / disconnected).			
The second line	Displays icons of the different flush types. Select the desired icons to be displayed			
	on the chart.			
The chart window	Displays the number of flush cycles according to the selected icons.			
Total Flushing Cycles	The total number of flush cycles currently displayed in the chart window.			
The lower black line	Enables the user to select the chart's time span (day, week, month).			

4.5.1.3.5 The History Tab

Element	Description				
The upper red / grey	Displays the name of the currently connected controller and the communication				
line	tatus (connected / disconnected).				
The second line	Enables sorting events between two dates and deleting an event.				
The black line	Enables filtering events according to the four flush types (DP, Interval, Manual,				
	Preset, Anti Freeze).				
The events list	Displays the events messages according to their occurrence time and date.				
	Flush cause, Flush date, and Flush time is shown in every raw of the list. Click "				
	" icon to see the following information:				
	Inlet pressure before the flush				
	Outlet pressure before the flush				
	DP pressure before the flush				
	• DP pressure after (the DP measured after flushing. Interval between end of				
	flushing and DP measuring is determined by "Ignore DP" parameter).				

4.5.1.3.6 Settings menu

Enter the Settings menu by clicking on the "💬 icon in the upper right corner of any of the 5 tabs. This menu contains controller settings. See the list of settings with description in Appendix A. ADI-X Controller Settings.

Click the setting to change it. Click "Save" to save changes.



5 ADI-X Controller Operation

The ADI-X Controller can be operated in four ways:

- 1. Hardware interface (ADI-X control panel buttons).
- 2. Via ADI-X Desktop Application.
- 3. Via ADI-X Mobile Application.
- 4. Via ADI-BLE Mobile Application.

This chapter describes the ADI-X controller operation methods. The following is the instructions for all the applicable controlling methods.

5.1 ADI-X Controller Buttons

There are two main buttons on the ADI-X controller control panel.

Following is the functionality description of the buttons:

	Left button	Right button
Short push	Turn on display backlight	Start manual flush
Long push	Enter communication mode	Force full cloud synchronization

5.2 ADI-X Controller Sharing

ADI-X controller can communicate via cloud with one account only. If another account needs access to the controller via cloud communication, use the share site function. Shared site will be displayed as "Linked site" in the sites list. Linked account has full access to controller operation but cannot change the site information and cannot share the site forward (to additional user).

To share the site using **ADI-X Desktop** application:

- 1. Sign in to ADI-X Desktop application.
- 2. Go to "Sites manager" screen in the left menu and choose with site to share.
- 3. Click the "Invite" icon on the site you want to share.

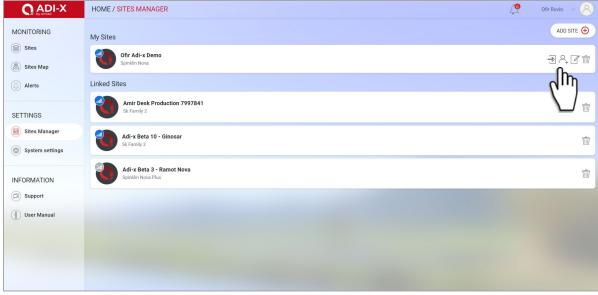


Figure 46: ADI-X Desktop application. Sites Manager screen



4. An Invite window will open. Enter email address of the user you want to share your site with. Click "OK". The invitation has been sent.

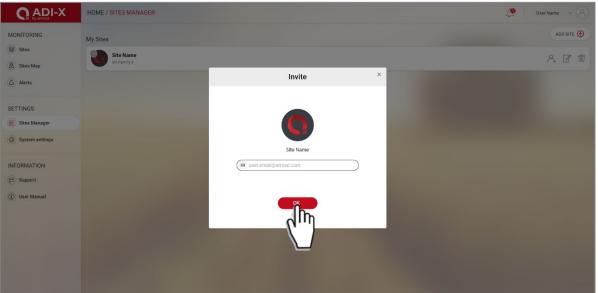


Figure 47: ADI-X Desktop application. Invite window

5. An invitation notification will appear in the Notifications Center. Click "ACCEPT" to accept the invitation. The site will appear in the linked sites list.

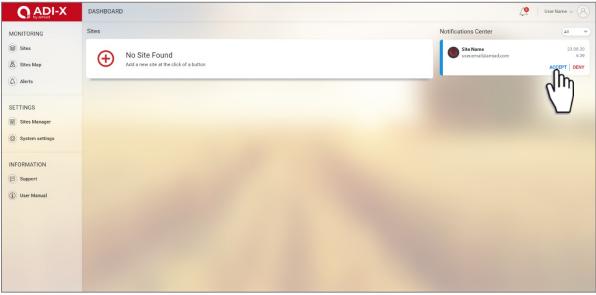


Figure 48: ADI-X Desktop application. Home page, accept invitation



To share the site using ADI-X Mobile application:

- 1. Sign in to **ADI-X** Mobile application.
- 2. On "Sites manger" screen click the "Share" icon on the site you want to share.
- 3. Click the "Invite" icon in the upper right corner to send a new invitation.
- 4. In the "Invite" window, enter the email address of the user you want to share your site with. Click "OK". The invitation has been sent.

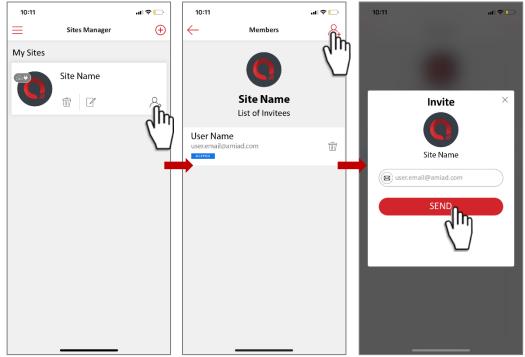


Figure 49: ADI-X mobile application. Site sharing

5. In the account you shared with an invitation notification will appear on the "Sites Manager" screen. Click "ACCEPT" to accept the invitation. The site will appear in the list of linked sites.



Figure 50: ADI-X mobile application. Accept invitation



5.3 ADI-X Controller Parameters Setting

ADI-X Controller parameters can be set via **ADI-X Desktop** application, **ADI-X Mobile** application, and **ADI-BLE Mobile** application. See the list of settings and their description in Appendix A. "ADI-X Controller Settings".

Access to the Technician Settings requires a 4-digit code: "1234".

The Technician Settings contain the system's basic and fundamental settings.

Do not change any of these settings if you are not fully familiar with the specific filtration system, filter type, and controller. Incorrect settings may lead to nonoperational system.

To set the controller parameters using **ADI-X Desktop** application:

- 1. Open **ADI-X Desktop** application. Sign in with your email and password if needed.
- 2. Go to "Sites" tab in left menu and select the site where you want to set parameters.
- 3. Go to "Settings" tab. Here you can set parameters.

	HOME / SITES	User Name 🗸 🛞
MONITORING Sites Sites Map	Site Name SK Family 4 Master	Site Name Ek Family 4 Maater Overview Reports Flushes Alerts About Settings
Alerts		Controller State Active DP Set Point 0.5 BAR Battery Ac Power
SETTINGS		Plushing Interval 01h 00m Other On On Flush Time 10 sec
INFORMATION		Image: Dwell Time 5 sec Image: Comparison of the Type Settings Image: Comparison of the Type Settings
(1) User Manual		
		Technician Settings
		Enter the PIN code

Figure 51: ADI-X Desktop application. Sites screen, Settings tab

- 4. Enter the 4-digit code (1234) and click "SUBMIT" to enter the Technician Settings. Notice: Do not change any of these settings if you are not fully familiar with the specific filtration system, filter type, and controller. Incorrect settings may lead to nonoperational system.
- 5. Make sure to click "Save" after changing any of the settings.



To set the controller parameters using ADI-X Mobile application:

- 1. Sign in to ADI-X Mobile application.
- 2. Enter the "Sites" screen and select the site to set parameters.
- 3. Click "දිුදුි" to open "Settings" menu.

17:47	al ≑ ∎⊳	17:47		al 🕆 💷	17	:47	al 🕆 🗈
List of Sites	Ð	\leftarrow	Online Status	<u> </u>	$\left \leftarrow \right $	Settings	
Site Name	٥		Site name - Connected	hun (Site name - Connected	atl
Time from Last Flush Oh 1m Last flush DP after 0.40 BAR		Time from L Oh 1		Flush Cause	Ø	Controller State	Active
	0.40 bar				٢	DP Set Point	0.4 BAR
	DP	Pressure Re	adings		٢	Flushing Interval	2h Om
		→ Inle	et 7	7.50 BAR	Ŧ	Daily Preset Flush	Off
		C→ Out	tlet 7	7.10 BAR	C	Flush Time	30 SEC
		▲ DP	C	0.40 BAR		Battery	AC Power
						ID	
					8	Technician Settings	
			Manual Flushing		Ĵ	About	
						Restore To Filter Type Setting	s
						Restore To Factory Settings	

Figure 52: ADI-X mobile application. Go to Settings menu

- 4. Click "Technician Settings" and enter 4-digit code (1234) to access Technician Settings. Notice: Do not change any of these settings if you are not fully familiar with the specific filtration system, filter type, and controller. Incorrect settings may lead to nonoperational system.
- 5. Make sure to click "Save" after changing any of the settings.



To set the controller parameters using **ADI-BLE Mobile** application:

- 1. Open **ADI-BLE Mobile** Application. Verify that the controller is within Bluetooth[®] range (Bluetooth[®] icon is blue).
- 2. Select the required site where you want to set the parameters.
- 3. Click "දිුදුි" to open "Settings" menu.

20:20		all 🕆 🕞	20:20			al 🕈 🕞		20:21	1	all 🕈 🕞
=	Sites List	Ð	6)	0	nline Status	î		←	Settings	
•. A Sit	e Name	**		Site Na	ame - Connecte		')		Site Name - Con	nected 👫
		\$ "		me from		ist flush		٢	Controller State	On
	\mathbf{V}			ast flush 0h 1m		cause e Interval	((1)	DP Set Point	0.4 BAR
								٩	Flushing Interval	2h 0m
			Pressur	re Readings Inlet	7	.50 bar		24	Daily Preset Flush	Off
				Outlet		.10 bar		C	Flush Time	30 Sec
				DP		.40 bar	(Battery	AC Power
				Dr	0	. 40 BAR		D	ID	
				М	anual Flushing			X	Technician Settings	
								j	About	
									Export Data	

Figure 53: ADI-BLE mobile application. Go to Settings menu

- 4. Click "Technician Settings" and enter 4-digit code (1234) to access Technician Settings. Notice: Do not change any of these settings if you are not fully familiar with the specific filtration system, filter type, and controller. Incorrect settings may lead to nonoperational system.
- 5. Make sure to click "Save" after changing any of the settings.



5.4 ADI-X Controller Parameters Restoration

ADI-X Controller has two options for parameters restoration:

- 1. **Restore to Filter Type Settings** reset the controller's data and restore the default parameters for the current filter type which is controlled by this controller.
- 2. **Restore to Factory Settings** delete all the controller's data and restore the factory default settings. The default filter model will be according to the filter provided with the controller, or according to the customer's initial settings.

You can perform parameters restoration via **ADI-X Desktop** application, **ADI-X Mobile** application, and **ADI-BLE Mobile** application.

To restore parameters using **ADI-X Desktop** application:

- 1. Sign in to **ADI-X Desktop** application.
- 2. Go to "Sites" tab in the left menu and select the required site.
- 3. Go to "Settings" tab and click "Restore to Filter Type Settings" or "Restore to Factory Settings" (see options above).

	HOME / SITES	🖉 User Name 🗸 🛞
MONITORING Sites Sites Map	Site Name SK Family 4 Master	Site Name Ik ram/s 4 Master Overview Reports Flushes Alerts About Settings
(Alerts		Controller State Active DP Set Point 0.5 BAR DS Battery Ac Power
SETTINGS		Eleventing Interval Oth nom Oth Sec Sec
INFORMATION		Dwell Time 5 sec Restore To Filter Type Settings Restore To Factory Settings
(1) User Manual		
		Enter the PIN code

Figure 54: ADI-X Desktop application. Sites screen, Settings tab

4. Click "OK" in the dialog window to approve the settings restoration.



Figure 55: ADI-X Desktop application. Dialog windows



To restore parameters using **ADI-X Mobile** application:

- 1. Sign in to ADI-X Mobile Application.
- 2. On "Sites" screen select the required site.
- 3. Click "දිටු?" to open "Settings" menu.
- 4. Click "Restore to Filter Type Settings" or "Restore to Factory Settings" (see options above).

17:47	al 🕈 🔳	17:47		al 🗟 🔳	17	:47	al 🕆 🔳
List of Sites	÷	\leftarrow	Online Status	- 	$\left \leftarrow\right.$	Settings	
Site Name	_0		Site name - Connected	ر I M		Site name - Connected	atl
Time from Last Flush 0h 1m Last flush DP after 0.40 BAR		Time from Last F Oh 1m		ush Cause	Ø	Controller State	Active
7.50 BAR	0.40 bar				٢	DP Set Point	0.4 BAR
Inlet	DP	Pressure Readin	gs		٢	Flushing Interval	2h 0m
		⇒) Inlet	7.	.50 bar	Ø	Daily Preset Flush	Off
		\bigcirc Outlet	7.	.10 bar	C	Flush Time	30 SEC
		DP	0.	.40 BAR		Battery	AC Power
					D	ID	
					8	Technician Settings	
			Manual Flushing		Í	About	
						Restore To Filter Type Settin	BS
			1 .	•		Restore To Factory Setting	
		-					

Figure 56: ADI-X mobile application. Settings menu

5. Click "OK" in the dialog window to approve the settings restoration.

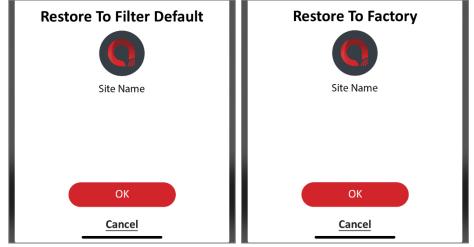


Figure 57: ADI-X mobile application. Dialog windows



To restore parameters using **ADI-BLE Mobile** application:

- 1. Open **ADI-BLE Mobile** Application. Verify that the controller is within Bluetooth[®] range (Bluetooth[®] icon is blue).
- 2. Select the required site where you want to restore the parameters.
- 3. Click "දිුදු" to open "Settings" menu.
- 4. Click "Restore to Filter Type Settings" or "Restore to Factory Settings" (see options above).

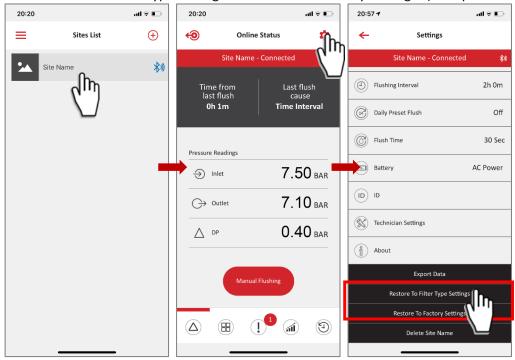


Figure 58: ADI-BLE mobile application. Settings menu

5. Click "OK" in the dialog window to approve the settings restoration.

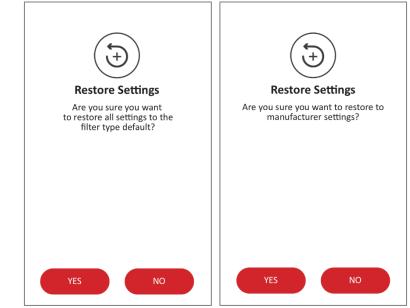


Figure 59: ADI-BLE mobile application. Dialog windows



5.5 ADI-X Controller Counters Reset

ADI-X Controller has five flushing cycles counters:

- 1. **Total flushing cycles** –overall number of cycles performed by the controller during operation. This number cannot be reset.
- 2. **DP cycles** number of flushing cycles started due to a DP signal.
- 3. Flushing Interval cycles number of flush cycles started due to the time intervals settings.
- 4. **Manual cycles** number of flush cycles initiated manually by the user.
- 5. **Preset cycles** number of flush cycles started due to the preset start times.

Counters 2-5 can be reset via **ADI-X Desktop** application, **ADI-X Mobile** application, and **ADI-BLE Mobile** application.

To reset the counters using **ADI-X Desktop** application:

- 1. Sign in to ADI-X Desktop application.
- 2. Go to "Sites" tab in left menu and select the required site.
- 3. Go to "Overview" tab and click "Reset" in the Flushing Cycles field. The counters will reset.



Figure 60: ADI-X Desktop application. Sites screen, Overview tab



To reset the counters using **ADI-X Mobile** application:

- 1. Sign in to **ADI-X Mobile** Application.
- 2. On "Sites" screen select the site where you want to reset counters.
- 3. Go to "Counters" tab.
- 4. Click "Reset" in the middle of the screen. The counters will reset.

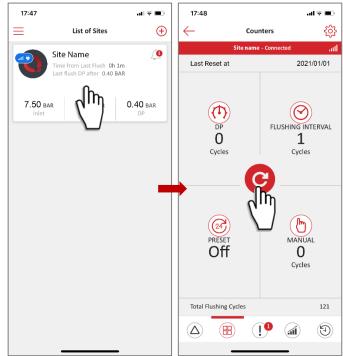


Figure 61: ADI-X mobile application. Sites screen, Counters tab



To reset the counters using **ADI-BLE Mobile** application:

- 1. Open **ADI-BLE** Mobile Application. Verify that the controller is within Bluetooth[®] range (Bluetooth[®] icon is blue).
- 2. Select the required site.
- 3. Go to "Counters" tab.
- 4. Click "Reset" in the middle of the screen. The counters will reset.

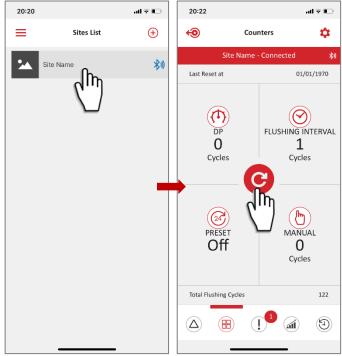


Figure 62: ADI-BLE mobile application. Counters screen



5.6 Manual Flushing

Manual flushing can be performed manually via **ADI-X** controller panel, or remotely via **ADI-X Desktop** application, **ADI-X Mobile** application, and **ADI-BLE Mobile** application.

To initiate manual flushing using the ADI-X controller panel:

- 1. Open the **ADI-X** protection cover.
- 2. If needed, Press the left button to enable LED backlight.
- 3. Press the right button (short press). The flushing will start.

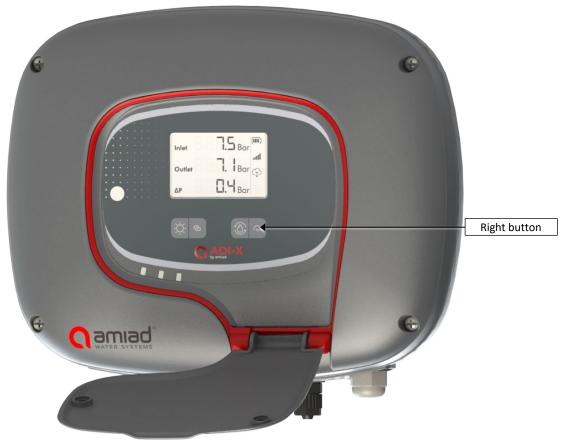


Figure 63: ADI-X controller control panel



To initiate manual flushing using **ADI-X Desktop** application:

- 1. Sign in to ADI-X Desktop application.
- 2. Go to "Sites" tab in the left menu and select the site you want to initiate manual flushing.
- 3. On "Overview" tab click "Manual Flushing". The flushing will start.

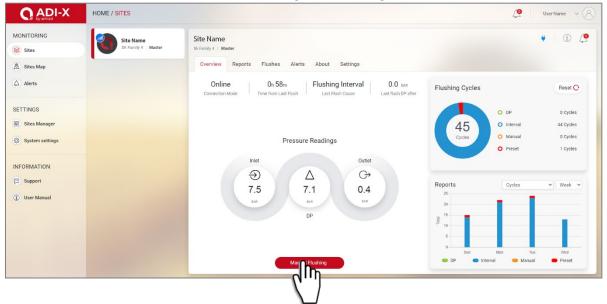


Figure 64: ADI-X Desktop application. Sites screen, Overview tab

To initiate manual flushing using **ADI-X Mobile** application:

- 1. Sign in to ADI-X Mobile Application.
- 2. On "Sites" screen select the site you want to initiate manual flushing.
- 3. On "Online Status" tab select "Manual Flushing". The flushing will start.

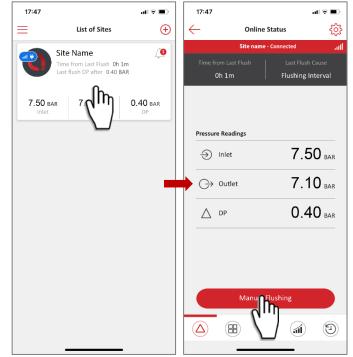


Figure 65: ADI-X mobile application. Sites screen, Online status tab



To initiate manual flushing using **ADI-BLE Mobile** application:

- 1. Open **ADI-BLE Mobile** Application. Verify the controller is within Bluetooth[®] range (Bluetooth[®] icon is blue).
- 2. Select the site you want to initiate manual flushing.
- 3. On "Online Status" tab select "Manual Flushing". The flushing will start.

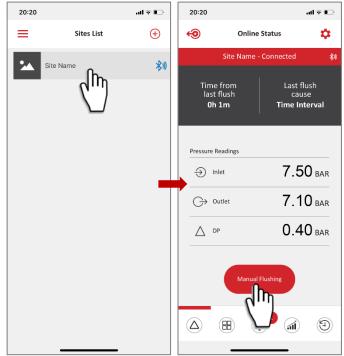


Figure 66: ADI-BLE mobile application. Online status screen



5.7 Downloading Reports

Interfacing the ADI-X controller via the **ADI-BLE Mobile** application, allows logging, storing, downloading, and exporting status and operation data through the user's mobile device.

- 1. Sign in to **ADI-BLE Mobile** Application. Verify the controller is within Bluetooth[®] range (Bluetooth[®] icon is blue).
- 2. Select the site you want to download report for.
- 3. Click " < > " to open "Settings" menu. Click "Export Data".

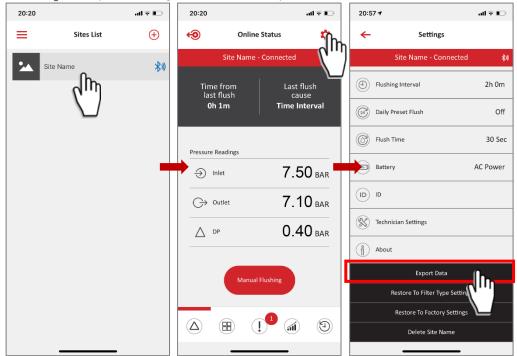


Figure 67: ADI-BLE mobile application Export Data.

- 4. **ADI-BLE Mobile** application displays the various options for sending the reports, depending on the general communication applications installed on your mobile device. Select the preferred application, the recipient, and send the reports.
- 5. **ADI-BLE Mobile** application sends 5 reports in CVS (Excel file format): *system-id*, *parameters-setup*, *flush-events*, *alarm-events*, and *params-setup-audit*.



5.8 Chaining ADI-X Controllers

ADI-X controller can be set as primary controller that controls up to 3 secondary ADI-X controllers. Primary controller flushing trigger is performed by the secondary controllers. All flush settings are set on each secondary controller separately.

To chain controllers:

1. Connect each secondary controller to the primary controller using "Ext" A and B contacts.

Primary

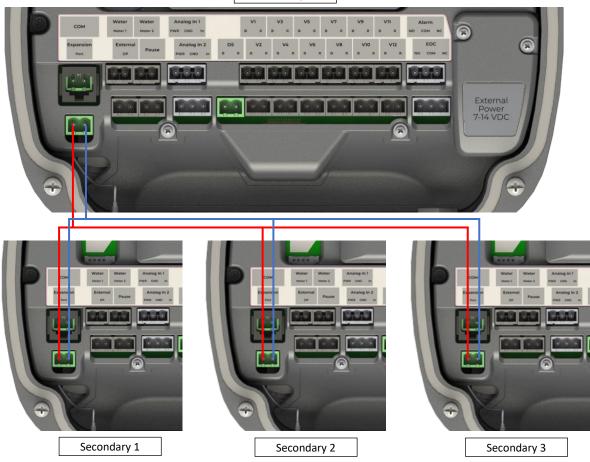


Figure 68: ADI-X controllers chaining

- 2. Set the primary controller Operation mode to "Primary" and select the number of the secondary controllers (for primary controller settings see 5.3).
- 3. Set the secondary controllers Operation mode to "Secondary" (see 5.3).



6 Appendix A. "ADI-X Controller Settings"

This Appendix contains the list of all ADI-X Controller settings with descriptions. The settings are available on Settings tab of the site in ADI-X applications (see 4.3 and 4.4).

6.1 The Basic Settings

Controller State Active	DP Set Point 0.5 BAR	Battery Ac Power
Flushing Interval 04h 00m	Daily Preset Flush Off	Flush Time 20 sec
Dwell Time 5 sec	Restore To Filter Type Settings	Restore To Factory Settings

Setting	Description
Controller State	Displays the current controller state and allows the user to switch the controller
	on Pause or Active
DP Set Point	Displays the DP level for starting a flush cycle and allows the user to enable or
	disable the DP operation.
	The recommended setting is displayed at the bottom of the screen.
Flushing Interval	Allows the user to set the time intervals for flushing and enable or disable the
	flushing according to time intervals.
Daily Preset Flush	Allows the user to set specific flushing start times. Start time can be set as daily
	start times or single time start times. The user can set up to 8 start times.
Flush Time	Allows the user to set the duration of the flush operation.
Dwell Time	If the system operates two or more filters, this parameter allows the operator to
	set the time delay between the flush cycles of the filters.
Battery	Displays the current charge level of the controller's batteries.
ID	Allows the user to set the site's picture, name, and ID parameters such as: filter
(only in ADI-X Mobile	model, controller serial number and filter serial number.
application)	The second screen allows the user to select the type of the water source, flow
	rate, the working pressure, and the filtration degree of the filter.
	The third screen allows the user to select site location.
	Click "SUBMIT" to submit the data.
Restore to Filter Type	Allows the user to reset the controller's data and restore the default parameters
Settings	for the current filter type which is controlled by this controller.
Restore to Factory	Allows the user to delete all the controller's data and restore the factory default
Settings	settings; The default filter model will be according to the filter provided with the
	controller, or according to the customer's initial settings.



6.2 Technician Settings

This section contains the system's basic and fundamental settings.

Notice: Do not change any of these settings if you are not fully familiar with the specific filtration system, filter type, and controller. Incorrect settings may lead to nonoperational system.

Communication Method Online	Filter Type Spinklin Nova	Number of Filtration Units 2
Operation Mode Primary	Interval Flush Pause Off	Ignore DP After Flush 01m 00s
DP Delay 00m 10s	DP Sampling Interval	High DP Alarm 0.7 BAR
Repeated Flushes to Start Fault Mode 9	(∞) Cycle Time for Continuous 1 min	Action to Take in Continuous Fault Mode
Downstream Valve Off	System DP Device Primary	Downstream Valve Address Primary
External DP address Primary	Flush Sequence Standard	Solenoid Pulse Length 80 ms
End Of Cycle Relay Output Off	Alarm Relay Off	Water Meter 00h 30m
Water Meter 1 Off	Water Meter 2 Off	Analog Input
Analog Input 1 Off	Analog Input 2 Off	Freezing Protection On
LCD Display Unit BAR		

Access to the Technician Settings requires a 4-digit code: "1234".



Setting	Description
Communication	Online or offline. When online, the controller is connected to the cloud and
Method	constantly performs synchronization, allowing real-time communication with the
	controller. When offline, the controller connects to the cloud once a day at a
	defined hour. During this connection, the controller will upload the controller
	history log and download pending configuration. In offline mode the controller
	will initiate communication in case of alert. Any changes in configuration while
	the controller is offline will be stored on the cloud under pending status and will
	be download to the controller when connected.
Filter Type	Select the specific filter(s) model controlled by the current controller.
Number of Filtration	Select the number of filtration units connected to the controller (1-12).
Units	
Operation Mode	Select the operation mode of this controller:
	Primary = the first controller in a chain of controllers or a stand-alone controller.
	Secondary = a member of a chain of controllers which is controlled by a primary
	controller.
Interval Flush Pause	When enabled, if interval flush period finished and the current DP is below Time
	Operation Mode Threshold, the controller will not perform flushing.
Ignore DP	Set the time duration after the end of a flush cycle during which the DP reading is
	ignored.
DP Delay	Set the time that the DP signal should be ON before starting flushing according to
	a DP signal. This parameter is used to eliminate unnecessary flushing due to a
	momentary high DP.
High DP Alarm	Set the DP level for issuing a High DP Alarm Message (System Log).
Repeated Flushes to	Set the number of continuous flush cycles so the ADI-BLE controller enters Fault
Start Fault Mode	Mode.
Cycle Time for	Set the cycle time for counting a flush cycle as continuous flushing. If the time
Continuous	between two flush cycles is shorter than "Cycle Time for Continuous" – then it is
	counted as continuous flushing.
Action to Take in	Select the Action to Take when Continuous Fault Mode is detected:
Continuous Fault	Ignore: Ignore the alert and continue flushing according to DP Set Point. Time
Mode	only: Stop flushing according to DP measurement and flush according to Time
	Interval only.
Downstream Valve Delay	Delay between downstream valve closing and start of filter flushing.
System DP Device	When there is a system with Primary and Secondary controllers, the user can
	define where the DP measurement will be performed: Primary / Secondary 1 /
	Secondary 2 / Secondary 3.
Downstream Valve	When there is a system with Primary and Secondary controllers, the user can
Address	define where the physical connection of downstream valve is located: Primary /
	Secondary 1 / Secondary 2 / Secondary 3.
External DP Address	When there is a system with Primary and Secondary controllers, the user can
	define where the physical connection of external DP is located: Primary /
	Secondary 1 / Secondary 2 / Secondary 3.
Flush Sequence	Set the flushing sequence as follows:
	Standard: flush order is from first to last.
	Reverse order: flush order is from last to first.
	Rotate:
	the first flush starts from 1 and finishes at the last
	the second starts at 2 and finishes at 1
	next starts at 3 and finishes at 2
	next starts at 4 and finishes at 3
	and so on.



Solenoid Pulse Length	Set the Pulse Length for Solenoid in ms.	
Solehola Puise Length	Default value: 80 ms.	
End of Cyclo Polay	Set the Relay operation on End of Cycle event (Off / On).	
End of Cycle Relay Output	Default value: Off.	
Ομιραί		
	Set the Relay operation time.	
	Default value: 10 sec.	
Alarm Relay	Set the Relay operation on Alarm event (Off / On).	
Alarmi Kelay	Default value: Off.	
Water Meter	Water Meter inputs allow connecting external Water Meters to ADI-X, recording	
water weter		
	the values, and comparing with filter system values / events.	
	Mater Mater Internal (min) - Concelling Internal for flow and and	
	Water Meter Interval (min) – Sampling Interval for flow record.	
	Default value: 30 min.	
Water Meter 1	Water Meter setting properties:	
Water Meter 2	Water Meter Pulse Volume (liter).	
	Default value: 100 liters.	
	Water Meter Role (Main Line / Flush) – Set the water meter as it is assembled on	
	the main line or on the flush line.	
	Unit (liter / Gallon).	
	Default value: liter	
Analog Input	Analog Input allows connecting external Analog Sensor to ADI-X, recording the	
	values, and comparing with your filter system values / events (as Pressure,	
	Temperature, Conductivity, Turbidity, Humidity).	
	Sampling Interval for record:	
	Stabilization Time – The time to wait from sensor power up until measurement	
	start.	
	Default value: 1 sec.	
	Analog Input Interval – Sampling Interval for Analog Input value record.	
	Default value: 1 hour.	
Analog Input 1	Analog Input setting properties:	
Analog Input 2	Input Type (volt / mA) – Select the input type.	
0	Default value: mA	
	Lower value (4 mA / 0 volt) – Set the lower value.	
	Higher value (20 mA / 10 volt) – Set the higher value.	
	Sensor Type (Pressure, Temperature, Conductivity, Turbidity, Humidity).	
	Units (BAR/PSI, Celsius/Fahrenheit, S/m, NTU, %).	
	Default value: BAR.	



Freezing Protection	Freezing Protection – This function is to prevent the filter from freezing in low temperature while it is connected to water source. Default value: Enable
	Low Temperature Threshold – Temperature setpoint to start filter flushing. Default value: 4°C.
	Protecting Flushing Interval – Flushing Interval while freezing protection Is activated. Default value: 60 min.
LCD Display Unit	Allows switching units on the controller screen between bar and psi.

Important note: make sure to press SAVE after changing any of the above settings.

7 Appendix B. "Alarms and Faults List"

Alert	Possible cause	Recommended Action
Low battery	Low battery voltage	Replace all 4 controller batteries
Low battery pause	Controller paused due to low battery voltage	Replace all 4 controller batteries
High DP alarm	DP value is >= HDA threshold (units: bar/100)	Alert only
High DP fault	DP value is >= HDF threshold (units: bar/100)	Alert only
Continuous mode alert	Controller exceeded number of consecutive flushes for alerts	Check configuration/check DP: If high, perform manual flush with downstream valve closed, open the filter for inspection
DFU failed	Firmware update fail	Validate cellular reception and try again
Out of range app connection	Controller out of range during connection session	Get closer to the controller with the mobile device (within Bluetooth [®] range)
Sensor pressure read failed	The number of the sensor that failed to read. Inlet (0), Outlet (1), Piston (2).	If continues - contact support
	There is a vacuum in the system	Perform air release Equip the system with anti-vacuum valve
Capacitor charger start failed	Unable to charge capacitor	Contact support
Load capacitor timeout	Capacitor charge timeout	Check battery voltage level, contact support
Low downstream pressure	The outlet pressure is less than 1.5 bar	Check the filter and the water system
High upstream pressure	The inlet pressure is greater than maximum allowed pressure for the filter	Adjust the water system inlet pressure
Anti-Freeze Active	Freezing Protection start, as a result of Low Temperature Threshold	
Anti-Freeze Exit	Stop Freezing Protection procedure	



8 Amiad Limited Warranty

- 1. This certificate applies to Amiad Water Systems Ltd. ("Amiad") products purchased by you (the "Buyer") from Amiad unless specifically agreed otherwise in writing by Amiad. This Warranty extends only to the original purchaser, and is not transferable to anyone who subsequently purchases, leases, or otherwise obtains the product from the original purchaser.
- 2. Amiad hereby warrants that the products are and will be free from defects in material and workmanship under normal use and service. Amiad warrants that it will correct manufacturing defects in the products, in accordance with the conditions set out in this Warranty.
- 3. This Warranty is enforceable for a period of 12 months after the date upon which the products were delivered (the "Warranty Period").
- 4. In the event that during the Warranty Period the Buyer discovers a defect in material and/or workmanship in any product or part (the "Defective Product"), it shall submit a written complaint to Amiad using Amiad's standard Buyer Complaint Form. For the receipt of the Buyer Complaint Form, the submission of the complaint or any questions please contact your service representative.
- 5. Upon written demand by Amiad the Buyer shall return the Defective Product or a sample thereof to Amiad, at Amiad's cost. If the Buyer ships any such Defective Product, Amiad suggests the Buyer package it securely and insure it for value, as Amiad assumes no liability for any loss or damage occurring during shipment. Provided however that in the event Amiad determines that this Warranty does not apply to such product, Buyer shall promptly reimburse Amiad for such cost (including freight and customs). Any returned product or part must be accompanied by the Warranty certificate and the purchase invoice. It is clarified that the Buyer may not return the Defective Product unless such return was coordinated and approved by Amiad in advance.
- 6. Amiad's obligation under this Warranty shall be limited to, at Amiad's option, the repair or exchange, free of charge, of the product or any part which may prove defective under normal use and service during the Warranty Period. The provision of a repair or replacement of a product during the Warranty Period will result in an extension of the Warranty Period by an additional period of 12 months, provided that the total accumulated Warranty Period shall in any event be no more than 18 months from the date upon which the products were delivered.
- 7. This Warranty is valid on the condition that the products are installed according to Amiad's instructions as expressed in Amiad's instruction manuals and according to the technical limitations as stipulated in Amiad's literature or as stated by a representative of Amiad.
- 8. This Warranty will not apply to damaged or defective products resulting from or related to:
 - (i) Fire, flood, power surges or failures or any other catastrophe and/or unforeseen occurrence, such as but not limited to those for which the Buyer is customarily insured for, or any force majeure events;
 - (ii) Fault, abuse, or negligence of the Buyer;
 - (iii) Intake water not meeting the agreed standards, as set forth in a written document, approved by Amiad, or improper storage;
 - (iv) Improper or unauthorized use of the product or related parts by the Buyer, including Buyer's failure to operate the product in conformity with the recommendations and instructions of Amiad, as set forth in Amiad's manuals and other written materials, the operation of the product other than by a trained and qualified operator, or improper installation of the product by a third party not authorized by Amiad;
 - (v) Performance by the Buyer of maintenance or operation other than in conformity with the recommendations and instructions of Amiad, or other than in accordance with procedures defined in the literature supplied for products (including the timely replacement of requisite parts), and for services provided other than by a trained and qualified advanced operator; or
 - (vi) Any alteration, modification, foreign attachment to or repair of the products, other than by Amiad or its authorized technical representatives.
- 9. In no event shall Amiad be liable to the Buyer or any third party for any damages to property, or for any intangible or economic loss, including loss of profits, loss of customers or damage to reputation, for any damages, including indirect, special, consequential damages, or punitive damage arising out of or in connection with this Warranty, or arising out of or in connection with the product's performance or failure to perform, even if it has been advised of the possibility of such damages.
- 10. Amiad will be excused for failure to perform or for delay in performance hereunder if such failure or delay is due to causes beyond its reasonable control or force majeure preventing or hindering performance.
- 11. This Warranty set forth herein is the only contractual warranty given by Amiad and is provided in lieu of any other warranties created by any documentation, packaging or otherwise.
- 12. Amiad makes no warranty whatsoever in respect to accessories or parts not supplied by Amiad. In the event that Amiad is required to correct a Defective Product or product not covered by this Warranty, it will do so solely in consideration for additional fees.
- 13. The parties will actively endeavor to amicably settle any dispute arising between them. In the event that the parties are unable to reach an equitable settlement of such dispute, any claim or lawsuit related to the Warranty, its validity execution, its performance be brought before only the courts of Tel-Aviv, Israel. Israeli law will govern the Warranty, to the exclusion of any conflict of law rules.



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 Amiad Water Systems Ltd. D.N. Galil Elyon 1, 1233500, Israel.

 Tel: +972 4690 9500 | Fax: +972 48141159 | Email: info@amiad.com

 Obelis s.a.
 Bd Général Wahis 53, 1030 Brussels, Belgium.

 Tel: +(32) 2732 5954 | Fax: +(32) 27326003 | Email: mail@obelis.net

 EC Declaration
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