24V Control Board (OA6-24)
User Manual

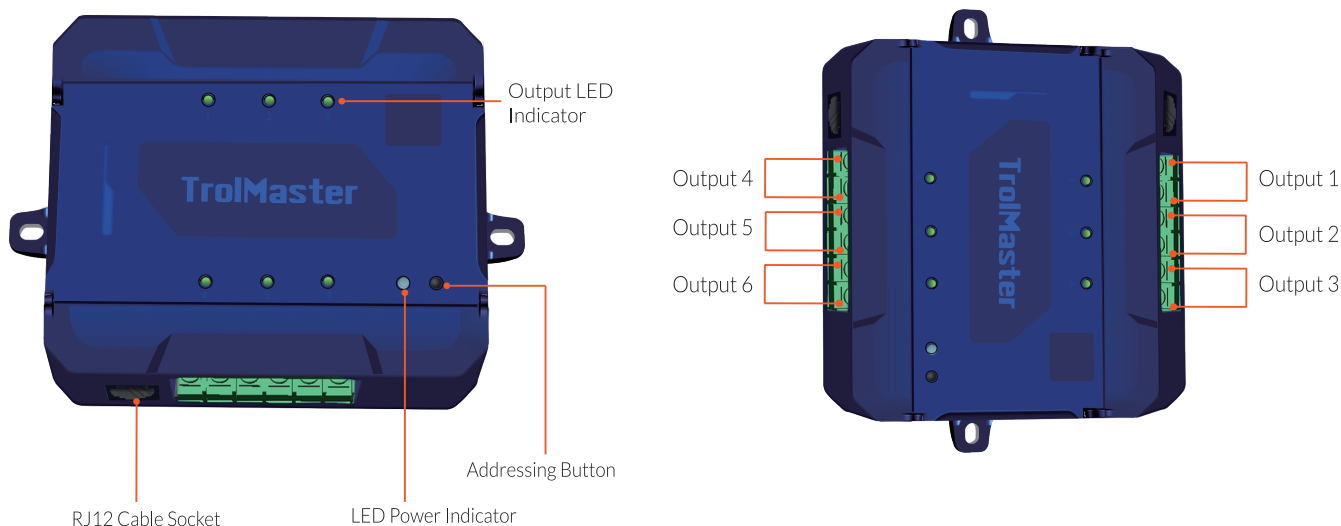**OA6-24** For Aqua-X Irrigation Control System

OVERVIEW

Thank you for purchasing our OA6-24 24V Control Board.

The OA6-24 24V Control Board is specially designed for Aqua-XIrrigation Control System. It features 6 individual 24Voutputs for the solenoid valve control in the Aqua-X Control System.A solenoid valve is a basic component in automatic flow control in the irrigation system.

With the use of 24V Control Board(s), the Aqua-X Irrigation Control System could manage up to 30 individually controlled 24Voutputs (used to control solenoid valves) for multiple watering plans (by schedule or by recycle). With the massive control outputs, user could manage water delivery schedules easily for multiple nutrients, multiple rooms and multiple zones.

FEATURES

- LED Power Indicator
- Addressing Button
- 6 individually-Controlled 24V Outputs
- Individual LED Indicator for Each Output
- Double RJ12 Cable Sockets for Daisy Chain Connectivity

Output LED
Indicator

Output 4

Output 5

Output 6

Output 1

Output 2

Output 3

Addressing Button

RJ12 Cable Socket

LED Power Indicator

OPERATION INSTRUCTIONS

1. Connections to 24 Volt Solenoids

Each of the (6)OA6-24 outputs can have a separate common wire connected to it (on the C terminal), or a single common wire can be connected to one of the terminals marked C on the OA6-24.The common terminals are all internally connected together inside the OA6-24.

*NOTE: If you have more than one OA6-24 module connected to your NFS controller, you must provide a separate common wire for EACH of the OA6-24. DO NOT "share" a common wire from one OA6-24 module to another OA6-24 module.

2. Connection to Aqua-X

Use a RJ12 Cable to connect the first 24V Control Board to the Aqua-X Controller. Plug the RJ12 cable connector into the 24V CONTROL port on the bottom of the Aqua-X Controller. Then plug the opposite RJ12 cable connector into the RJ12 cable socket on the either side of the first 24V Control Board.

Use another RJ12 cable to connect the second 24V Control Board. Plug the RJ12 cable connector into the RJ12 cable socket on the opposite side of the first 24V Control Board. Then plug the opposite RJ12 cable connector into the the RJ12 cable socket on the either side of the second 24V Control Board.

Other 24VControl Boards can be connected in series as above processes. However, the total connection number should not exceed 5 if the 24V Control Boards were used alone.
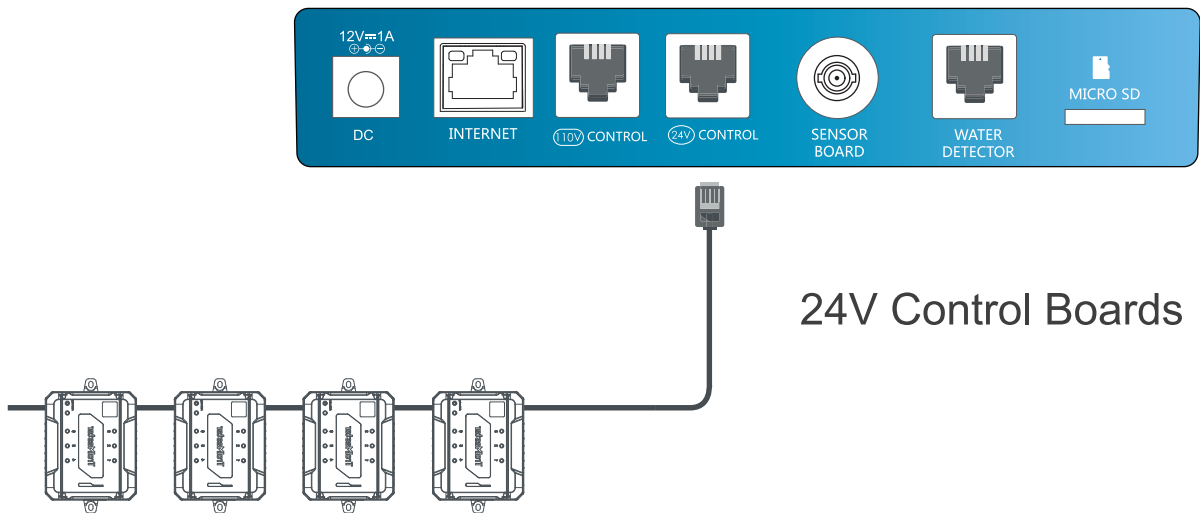
24V Control Boards

3. Address Assignment

When a 24V Control Board has been successfully connected to the Aqua-X Controller and powered on, the LED power indicator on the Control Board will keep flashing which means that the Control Board has not yet been assigned to the Aqua-X Controller.

24V Control Board   Aqua-X Controller
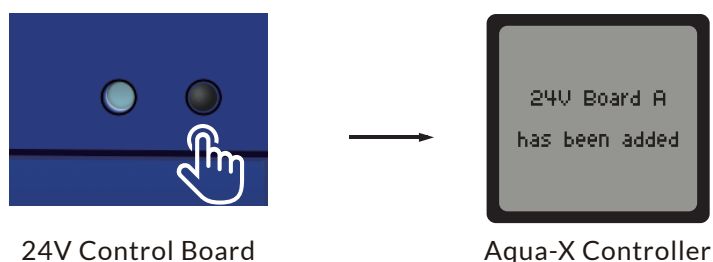
When the RJ12 cable is not correctly connected to the specific 24V CONTROL port or the 24V Control Board is not connected to the power supply or the 24V Control Board has not yet been assigned to the Aqua-X Controller, the LCD screen of the Aqua-X Controller will show "No 24V Board Online" on the setting page. Please make sure the RJ12 cable is correctly connected and power on the 24V Control Board. After power-on, the LED power indicator will keep flashing every second. Then press the ADDRESSING button on the 24V Control Board, the LCD screen of the Aqua-X Controller will display "24V Board A has been added". The first connected Control Board will be marked as "A", and the second one marked as "B", the third one as "C", and so on.

Aqua-X Controller   Aqua-X Controller

```
No 24V Board          24V Board A
   Online             has been added
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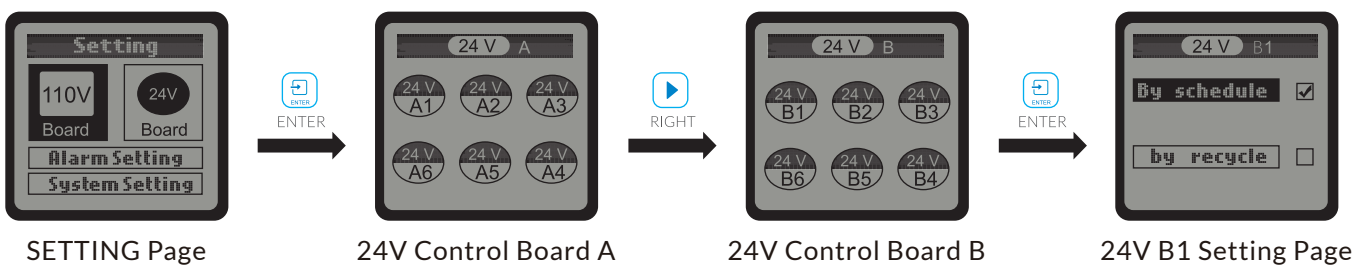
Unsuccessful Connection   Successful Connection

4. 24V Control Board Setting

On the SETTING page, press the ENTER button to enter the 24V Control Board list page. The connected Control Board(s) will be shown page to page. User can press RlGHT button to select the 24V Control Board (A, B, C...) to change the setting.

When the Control Board is selected, press ENTER button and the 1st output will be highlighted and blinking. Press LEFT, RIGHT, UP or DOWN button to select the output such as 24V A1. Press ENTER button to confirm and enter the SETTlNG page of that output.

```
  Setting              24 V   A           24 V   B            24 V   B1
110V     24V         24 V  24 V  24 V    24 V  24 V  24 V
Board    Board       A1    A2    A3      B1    B2    B3     By schedule  ☑
Alarm Setting        24 V  24 V  24 V    24 V  24 V  24 V
System Setting       A6    A5    A4      B6    B5    B4     by recycle   ☐
```

       ENTER   RIGHT   ENTER

SETTING Page   24V Control Board A   24V Control Board B   24V B1 Setting Page

On the SETTING page of selected output such as 24V A1, press ENTER button and the tick icon on the "By schedule" will be highlighted and blinking. You can also press DOWN button to select "By recycle". Press the ENTER button to confirm and save the setting.

a. By schedule:

Once the "By schedule" setting is selected, user can press ENTER button to activate the setting for the 1 line of total 12 lines of schedules. The HOUR of "On at" time will be highlighted and blinking, which means that it's ready for change. User can press UP or DOWN button to change the HOUR. Press ENTER button and the MINUTE of "On at" will be highlighted and blinking, user can press UP or DOWN button to change the minute. Press ENTER button and the MINUTE of "Time" will be highlighted and blinking, user can press UP or DOWN button to change the minute. Press ENTER button and the SECOND will be highlighted and blinking, user can press UP or DOWN button to change the second. Press ENTER button and the tick symbol will be highlighted and blinking. Finally, press ENTER button to confirm and save the changes and the LCD screen will display "Setting saved".
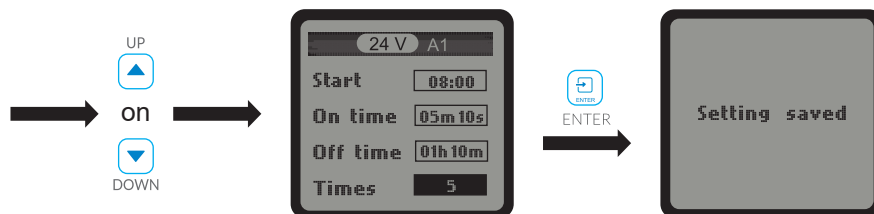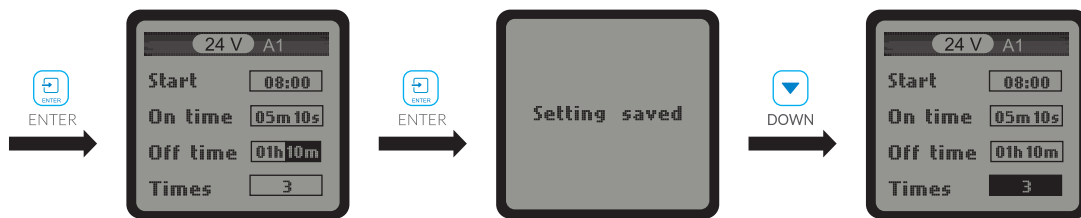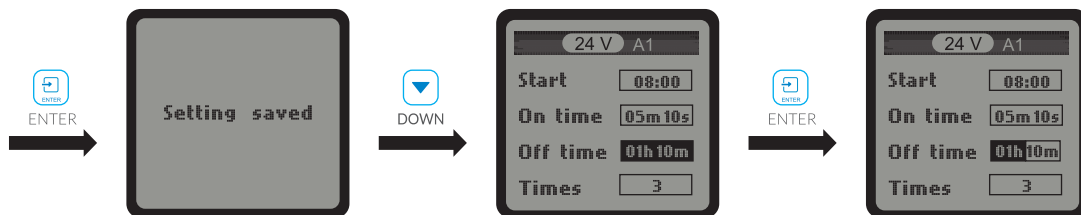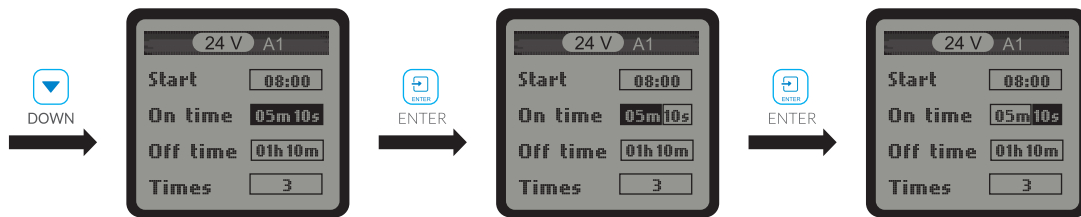
Similarly, user can change the "On at" & "Time" for other schedules (up to 12 lines) following the steps above.
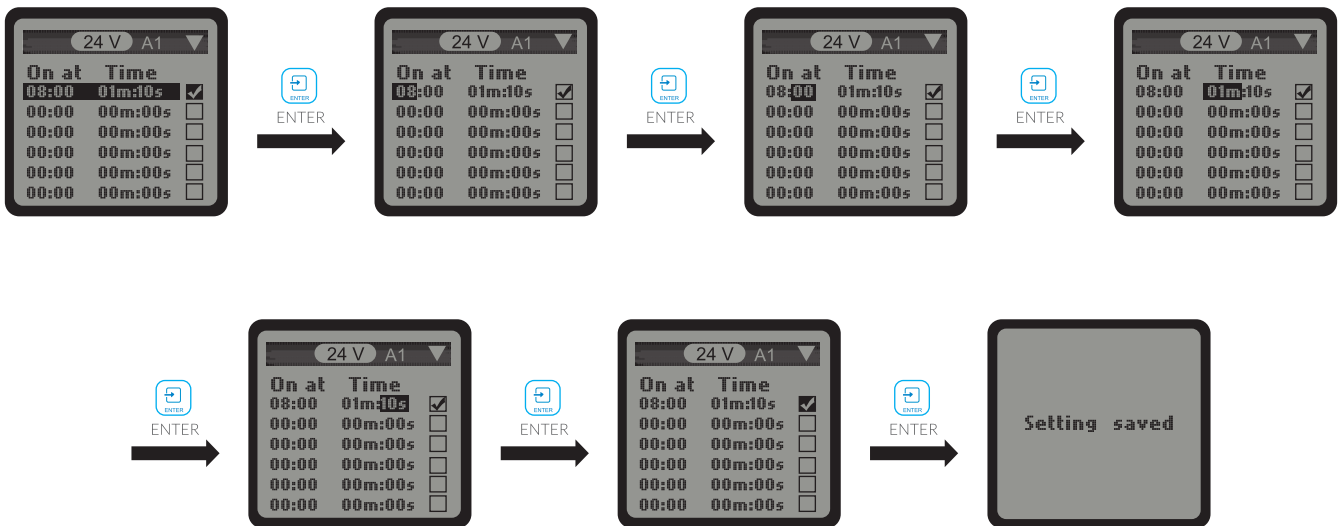
b. By recycle:

Once the "By recycle" setting is selected, user can press UP or DOWN button to select "Start", "On time", "Off time" & "Times" to edit. Press ENTER button to activate the setting. For example, When "Start" is selected, press "ENTER" button and the HOUR will be highlighted and blinking, user can press UP or DOWN button to change the hour. Press ENTER button and the MINUTE will be highlighted and blinking, press UP or DOWN button to change the minute. Finally, press ENTER button to confirm and save and the LCD screen will display "Setting saved".

Similarly, user can change the "On time", "Off time" and "Times" accordingly.

24 V A1
Start   08:00
On time 05m10s
Off time 01h10m
Times   3

ENTER →

24 V A1
Start   08:00
On time 05m10s
Off time 01h10m
Times   3

ENTER →

24 V A1
Start   08:00
On time 05m10s
Off time 01h10m
Times   3

ENTER →

Setting saved

DOWN →

24 V A1
Start   08:00
On time 05m10s
Off time 01h10m
Times   3

ENTER →

24 V A1
Start   08:00
On time 05m10s
Off time 01h10m
Times   3

ENTER →

24 V A1
Start   08:00
On time 05m10s
Off time 01h10m
Times   3

ENTER →

Setting saved

DOWN →

24 V A1
Start   08:00
On time 05m10s
Off time 01h10m
Times   3

ENTER →

24 V A1
Start   08:00
On time 05m10s
Off time 01h10m
Times   3

ENTER →

24 V A1
Start   08:00
On time 05m10s
Off time 01h10m
Times   3

ENTER →

Setting saved

DOWN →

24 V A1
Start   08:00
On time 05m10s
Off time 01h10m
Times   3

UP / on / DOWN →

24 V A1
Start   08:00
On time 05m10s
Off time 01h10m
Times   5

ENTER →

Setting saved

SPECIFICATIONS

Input Voltage **Tension d'entrée**	110-240VAC, 50/60Hz **110-240VAC, 50/60Hz**
Certifications **Certifications**	ETL/FCC **ETL/FCC**
Degree of Ingress Protection **Indice de protection**	IP20 **IP20**
Max Output Voltage/Current	24VAC/0.15A per Output
Working Environments	Temperature 32-104°F
	Humidity≤90%
Package Dimensions	275mm(L) x 164mm(W) x 40mm(H)

GENERAL INFORMATION

a). Please use TrolMaster's components for better performance.

b). In the case of defects of the Control Board, the Control Board will either be replaced or repaired using new or reconditioned products or parts by TrolMaster within three-year warranty from the original date of purchase. For service, return the Control Board in good packaging to our agent with the original sale receipt.

c). Non-professionals DO NOT open the cabinet to prevent electric shock or damage to the Control Board.

c (ETL) US
LISTED
CM
Intertek
5008191

OA6-24
Input:100-240V ~ 50/60Hz 0.42 A
MAX. Per output:24V~0.15A
CONFORMS TO
UL STD.61010-1
CERTIFIED TO CSA STD.
C22.2#61010-1
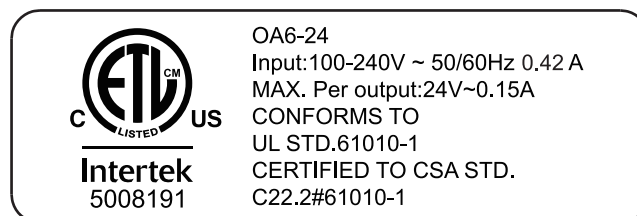
WARNNING

DO NOT allow the Control Board to be exposed to water or excessive heat.

DO NOT open or attempt to repair or disassemble the Control Board, as there are no user-serviceable parts inside.

Opening the controller will void the warranty.

1. If the surface of Control Board is dirty, wipe it with a dry towel.
2. The Control Board is designed for indoor use only, it should be operated under natural ventilation conditions.
3. For safety, it's necessary to connect the ground wire. If a short circuit did occur, the current would flow through the ground wire, causing a blown fuse or tripped circuit breaker.
4. The Control Board should be positioned in a place that it's easily to be pull out when a fault occurs.

AVERTISSEMENT

N'exposez PAS le Control Board à de l'eau ou à une chaleur excessive.

NE l'ouvrez PAS, NE tentez PAS de le réparer ou de le démonter, car il ne contient aucune pièce réparable par l'utilisateur.

L'ouverture du régulateur entraîne l'annulation de la garantie.

1. Si la surface du Control Board est sale, essuyez-la à l'aide d'un chiffon sec.
2. Le Control Board fonctionne sous des conditions de ventilation naturelle.
3. Pour la sécurité, il est nécessaire de connecter le fil de terre. Si un court-circuit se produisait, le courant circulerait à travers le fil de terre, causant un fusible grillé ou un disjoncteur déclenché.
4. La Control Board de l'appareil doit être placée dans un endroit où il est facile de la retirer en cas de panne.

For any issues or concerns with our products, DO NOT return them to the store. Please contact our tech support department at **support@trolmaster.com** or call **877-420-9876**.

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