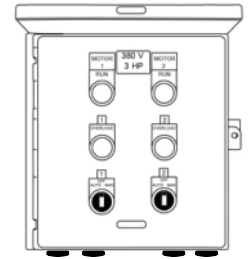




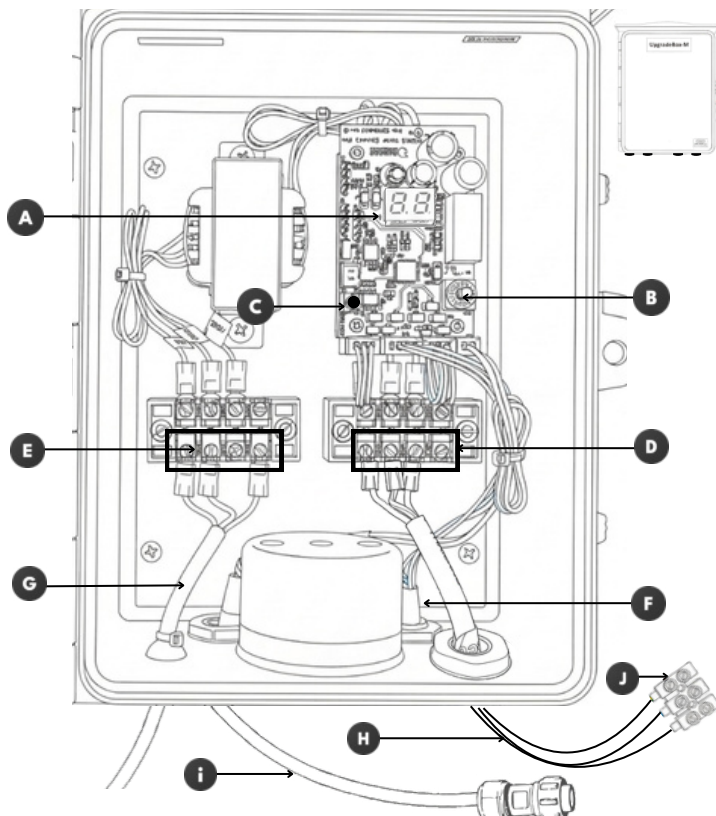
Quick Installation Guide Upgrade Box-M

UpgradeBox-M Compatibility

The Upgrade Box-M works with a Mini Controller to control HydroNeo MCB-C or 3rd-party motor control that have no digital interface and operate only via electrical signals, allowing easy upgrades without replacing existing hardware.

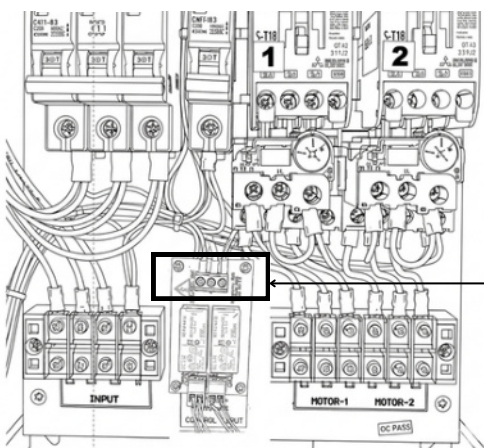


HydroNeo's MCB-C or
3rd-party motor control



Inside the Upgrade Box-M

- A** — **ID Display**
Shows the currently assigned device ID. Every device connected to one Mini Controller needs a unique ID.
- B** — **Device ID Switch**
Rotary switch for setting the device ID (0–15).
- C** — **Reset Button**
Used to apply a new ID after adjusting the Device ID Switch.
- D** — **Motor Control Output Terminal**
Connection point for the control wires (CH1, CH2, AC-IN).
- E** — **AC Power Input Terminal**
For connecting the 1-phase or 3-phase power cable to the terminal, to supply power to the Upgrade Box-M.
- F** — **Data Output Socket**
Used for daisy-chain connection to another Upgrade Box-M, MCB-M, or any other –M device of HydroNeo
- G** — **Power Supply Cable**
Insert your power cable through the cable gland, as illustrated
- H** — **Motor Control Cables**
Entry point for routing the motor control signal cable from the Upgrade Box-M to MCB-C or a third-party MCB.
- i** — **Data Input Cable**
Data connection from Mini Controller to UpgradeBox-M.
- J** — **Motor Control Cables Output**
Exit point for routing the motor control signal cable from the Upgrade Box-M to MCB-C or a third-party MCB.



Inside the MCB-C

- K** — **Motor Control Input Terminal**
Terminal block for receiving control signals from Upgrade Box-M.



Note: After installation of the Upgrade Box-M, the PCB with the terminal block **K** of the MCB-C will no longer be used.



Safety Notes:

- All electrical installation and wiring must be performed by a qualified and certified electrician.
- Switch off all power at the source and verify with a voltage tester that cables are de-energized before beginning any work.
- Lock out or clearly mark the circuit breaker as "Do not switch on" during installation.
- Ensure the Upgrade Box-M and all connected motors are properly grounded.
- Complete all high-voltage wiring before connecting the Mini Controller.
- Use appropriately rated cables and ensure all terminals and cable glands are securely fastened.
- Never bypass protective devices such as circuit breakers or fuses.
- Route signal cables separately from high-voltage power cables.
- Do not modify or tamper with the device. Unauthorized modifications may void the warranty and compromise safety.
- Keep the enclosure sealed and protected from water contact, splashing, and excessive moisture at all times.
- Do not operate the system if any cable is damaged, loose, or has exposed conductors.
- All wiring must comply with local electrical regulations and safety standards.

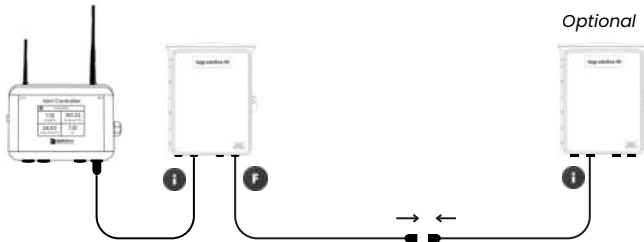


Installation & Wiring Procedure

Step 1: Install the Upgrade Box-M

Install Upgrade Box-M next to your MCB-C or 3rd-party motor control.

Note: If the distance between Mini Controller and the Upgrade Box is too far, extend the line by using a HydroNeo Data Cables.



Optional: Daisy-Chain Additional Devices

If multiple devices are used, connect the Data Output Socket **f** to the Data Input **i** of the next device.

Step 3: Connect the AC Power Supply

Connect the power supply cable **e** to the AC Power Input Terminal **e** according to the table below.

The Upgrade Box-M will power on automatically once electricity is supplied.

Motor Type	Input Terminal Wiring (Upgrade Box-M)
1-Phase (220V)	Connect L to L1 and N to N.
3-Phase (380V)	Connect L1 to L1 L2 to L2 L3 to L3

Step 4: Set the Upgrade Box-M Device ID

- Adjust the Device ID Switch **B** to the desired ID (0-15).
- The ID is shown on the display **A**.
- Press the Reset Button **C** to save the new ID.
- Each device connected must have a unique device ID.

Step 5: Connect the Upgrade Box-M to the Mini Controller

Connect the Mini Controller directly or via a data cable to the Upgrade Box's data input cable.



Connect the Mini Controller only after all high-voltage wiring is completed to avoid risk of damage.

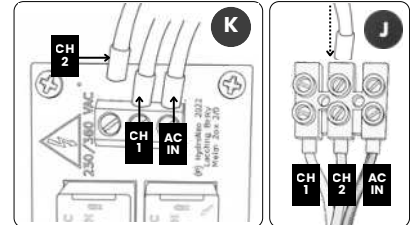
Step 2: Connect Upgrade Box-M to MCB-C or 3rd-party MCB

Using the insulated connectors from the Motor Control Input terminal **K** to connect with the terminal **J** from the Upgrade Box-M as follows:

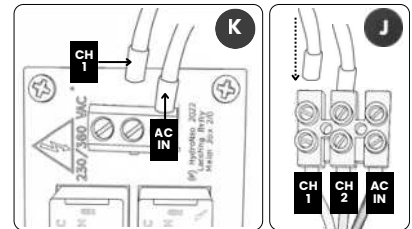


The CH1 cable and CH2 must be connected strictly to the CH1 and CH2 terminals as illustrated. Do not connect to any other available channel.

- Take the cable CH2 out of the terminal block **K** in your MCB-C and connect it to CH2 of the terminal block **J** from the Upgrade Box-M.



- Take the cable CH1 out of the terminal block **K** in your MCB-C and connect it to CH1 of the terminal block **J** from the Upgrade Box-M.

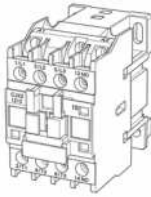


- Continue to connect the AC IN cable by following the same process.
- Ensure the next unit's ID is set properly before using the system.

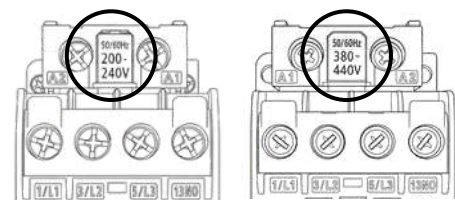


Note: For third-party motor control, connect the wires directly to the magnetic contactor coil terminals.

If the terminal locations or wiring configurations are unclear, consult a certified electrical professional or a licensed electrician to ensure a safe and compliant installation.



Ensure that the MCB-C or third-party motor control box matches the motor's voltage and phase configuration before wiring.



Step 6: Set up the automation

Turn on the Mini Controller and open the app to configure the device by following these steps:

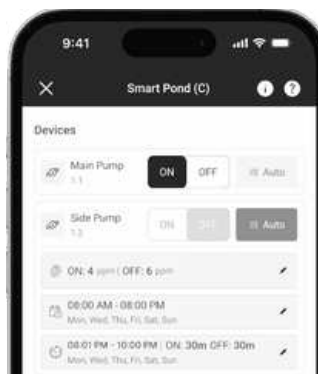
- Select the pond you want to set up automation. Then go to "Control", and click **+ Set up device**.
- The Device Set up window will pop up. Input the necessary info, such as Device ID, Channel, and Equipment type.
- Repeat this step to set up each motor individually.



Device ID is the ID you set in step 4 for each Upgrade Box-M. Ensure all devices are assigned unique IDs.



Each Device ID can connect up to 2 channels (CH1 and CH2). Each Channel is for connecting farm equipment.
Example: CH1 - Aerator 1
CH2 - Sludge Pump



Users can select the device's operational mode here, whether to remote control (ON/OFF) or to automate.



For more information about the available automation modes, tap the **i** icon in the top-right corner.



When Automation mode is activated, users can view and edit the details here.