Mini Controller Cabinet (SCC-4)
User Manual



OVERVIEW

The SCC-4 Mini Controller Cabinet is a compact, all-in-one control solution designed for use with TrolMaster environmental controllers such as the GCS-1 and HCS-1. It provides a clean, organized enclosure to house the main controller and up to 6 DSR-1 Relay Device Stations, protecting your equipment while streamlining setup and maintenance.

Built for performance and convenience, the SCC-4 offers a professional installation platform, keeping your wiring and device modules neatly arranged, clean, and dry.

Caution: The SCC-4 is intended for industrial use only.

PACKAGE CONTENTS

- 1x Mini Controller Cabinet (SCC-4)
- 1x GCS-1 Power Cable [Male to Male, 0.8ft DC6x4mm]
- 1x HCS-1/NFS-1/CDA-1/TCS-1 Power Cable [Male to Male, 1.1ft DC5.5x2.1mm to DC6x4mm]
- 3x Mounting Back Plate (TS-1/TS-2/TS-3/ARS-1/HS-1/TSH-1)
- 3x 1.6ft RJ12 Cable

FEATURES

- IP53 Rated Protection - Shields internal components from dust, small tools, and water spray, ensuring reliability in demanding environments.
- Intelligent Fan Speed Control- Automatically regulates cooling fan speed based on internal temperature to protect sensitive electronics and enhance cabinet lifespan. (The exhaust fan includes an LED status indicator: Green (Solid): Normal operation | Red (Flashing): Indicates internal overheating or a fan malfunction. Check if the internal temperature is too high. If the temperature is normal, the cooling fan may be malfunctioning. It is recommended to contact TrolMaster support for troubleshooting and assistance.)
- Supports up to 6 DSR-1 Relay Device Stations - Offers ample capacity for large-scale device integration and control.
- Built-in RJ12 Splitter Boards - Includes 3 sets of splitter boards for sensors and devices connectivity
- Easy Assembly & Wiring - Designed for simple, user-friendly setup with clear pathways for cable management.
- Expandable Design - Allows both internal and external expansion for future upgrades and additional devices.
- Efficient Maintenance & Servicing - All components are centrally located, making troubleshooting and upgrades faster and easier.
- Customizable & Flexible Layout - Adaptable to various grow setups and wiring requirements.
- Clean Cable Management - Keeps wires and device modules organized for a neat, professional look.

SPECIFICATIONS

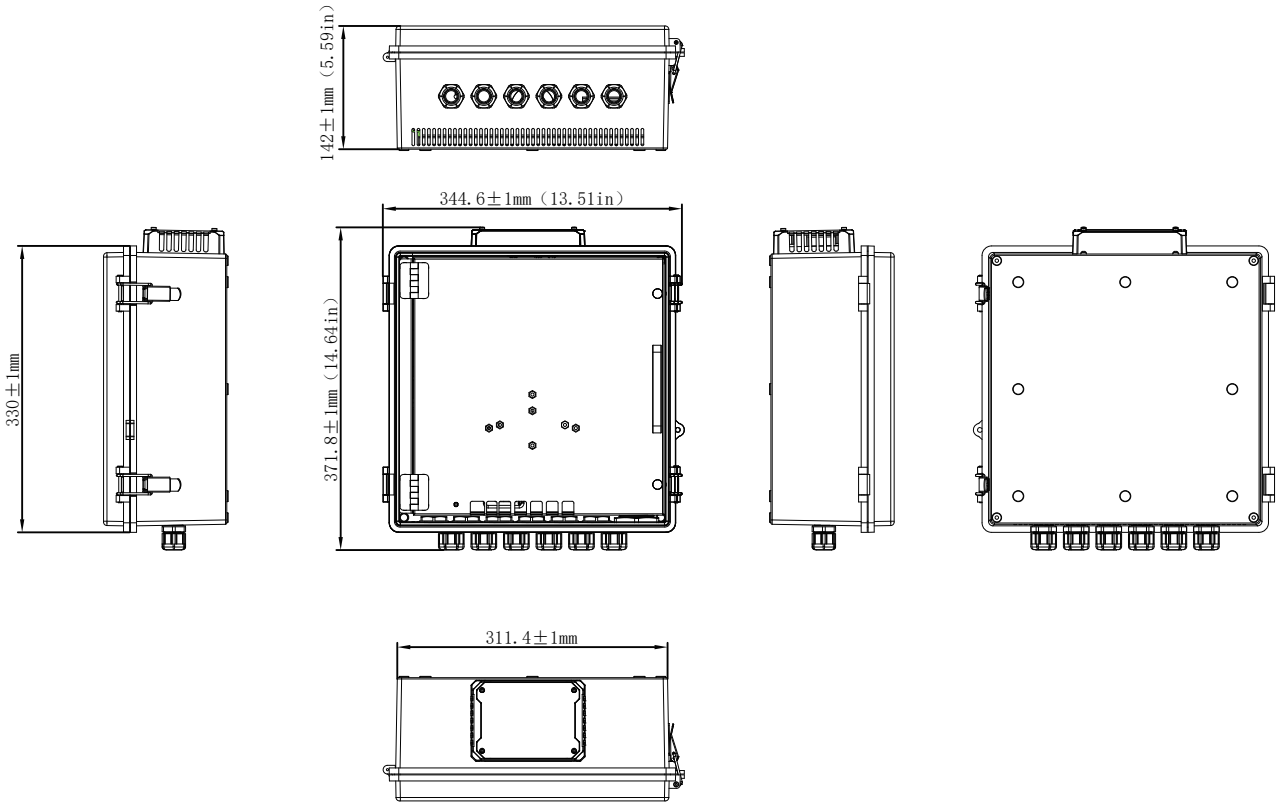
Operating Voltage	100-277V~, 50/60Hz
Maximum Input Current	60A
Maximum Output Current	10A Per output total 6 Channels
Enclosure Rating	IP53
Cabinet Weight	9.04lbs / 4.1kg
Ambient Temperature	32~104°F (0~40°C)
Relative Humidity	≤90%RH

RECOGNIZED COMPONENT
C ETL US LISTED
Intertek
5008191

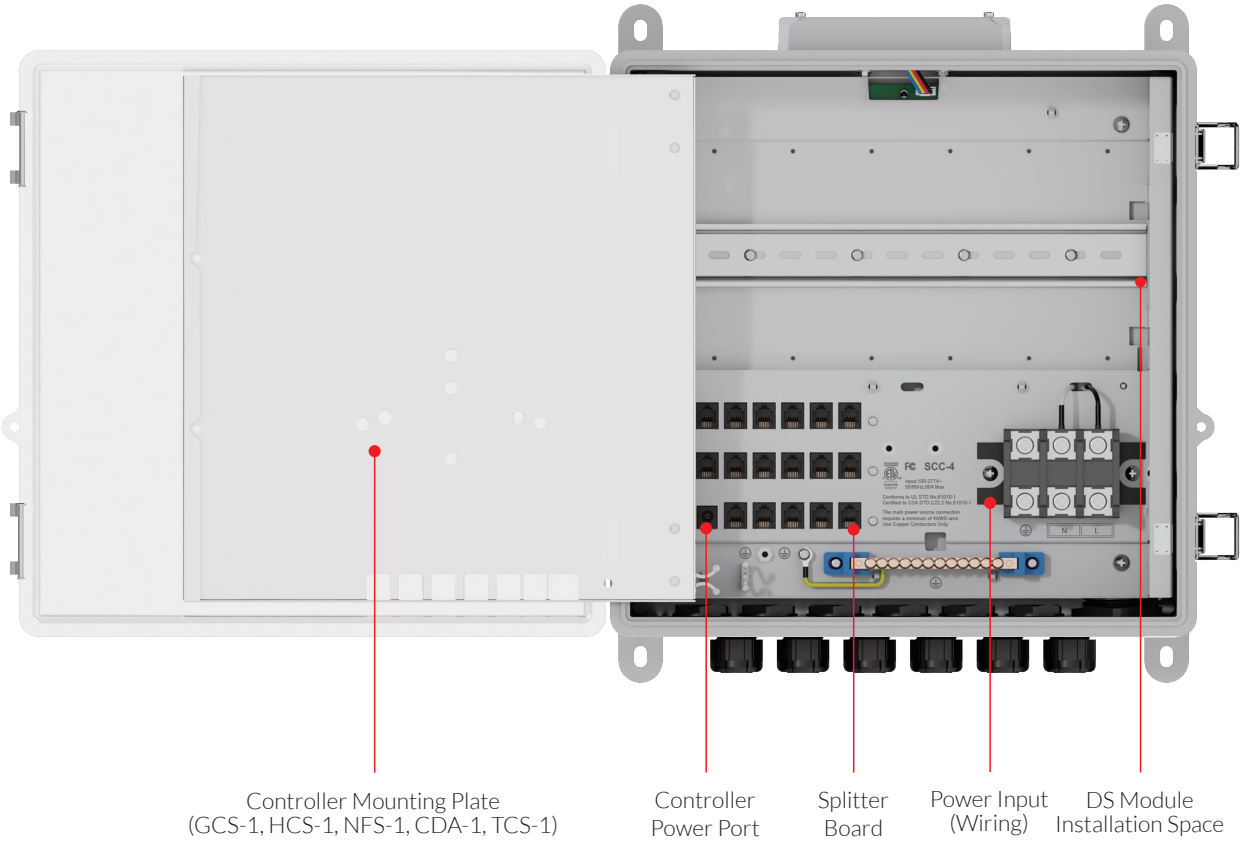
CONFORMS TO
UL STD.61010-1
CERTIFIED TO CSA
STD.C22.2#61010.1

FC

DIMENSIONS



CABINET LAYOUT



CABINET CAPACITY

This cabinet provides 3 groups of splitter boards with RJ12 cable connection ports. Each group can be connected to the various TrolMaster sensors and device modules. Connection in each group is bi-directional, which means they can provide both input and output connections using the same port. Multiple groups can also be connected into one big group by linking 2 groups together with a male-to-male



DS Module Install Brackes: 3-6 slots



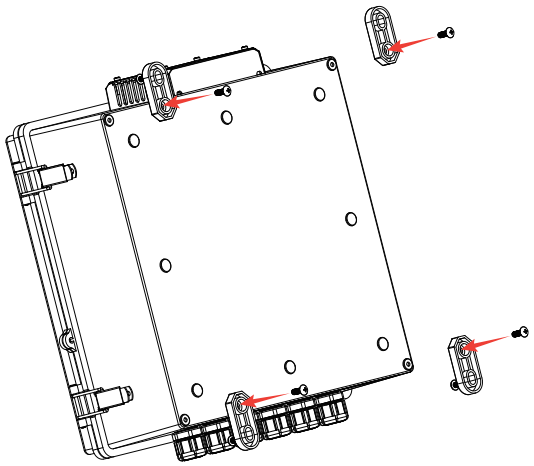
Splitter Board #1: 6 ports #2: 6 ports #3: 5 ports

Note: You cannot mix sensor, device modules, or lighting onto the same group of the splitter board.

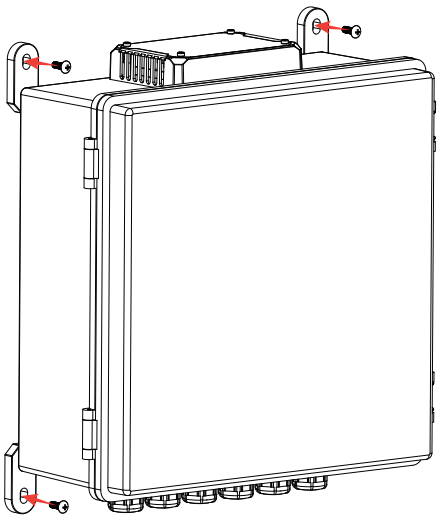
INSTALLATION

- The cabinet is designed for Wall Mount Only (Regular ¼" Screw is not included in the package). Verify that your wall is strong enough to hang the cabinet. Drill and fasten the cabinet onto the wall using appropriate fasteners.

  STEP 1: Use T5x12 fasteners to secure the four adapter plates to the back of the SCC-4 cabinet.



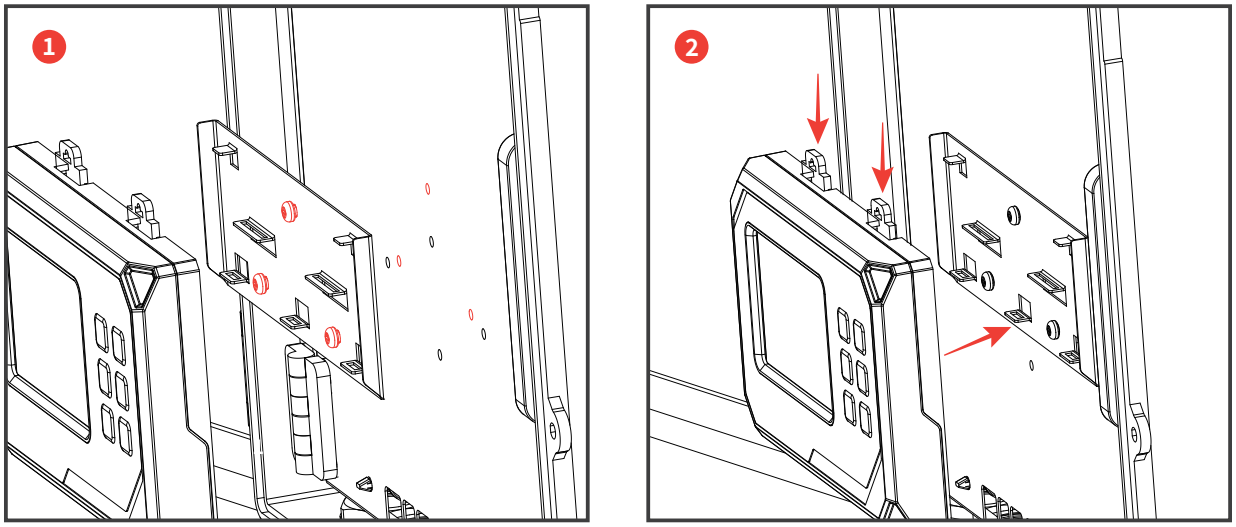
  STEP 2: Position the cabinet on the wall and use T4.8x25 fasteners to securely mount the unit through the adapter plates.



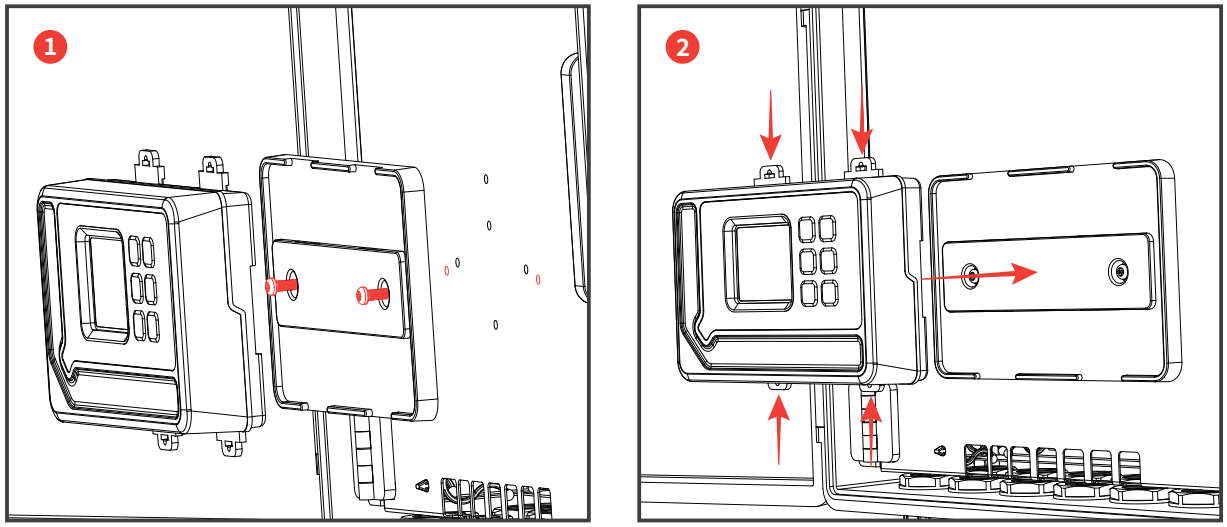
- Install the DS Modules into their designated slots within the SCC-4.
- Open the transparent cover and loosen the panel screws to remove the panel.
- Install the controller unit on the panel.

Controller Mounting Diagrams:

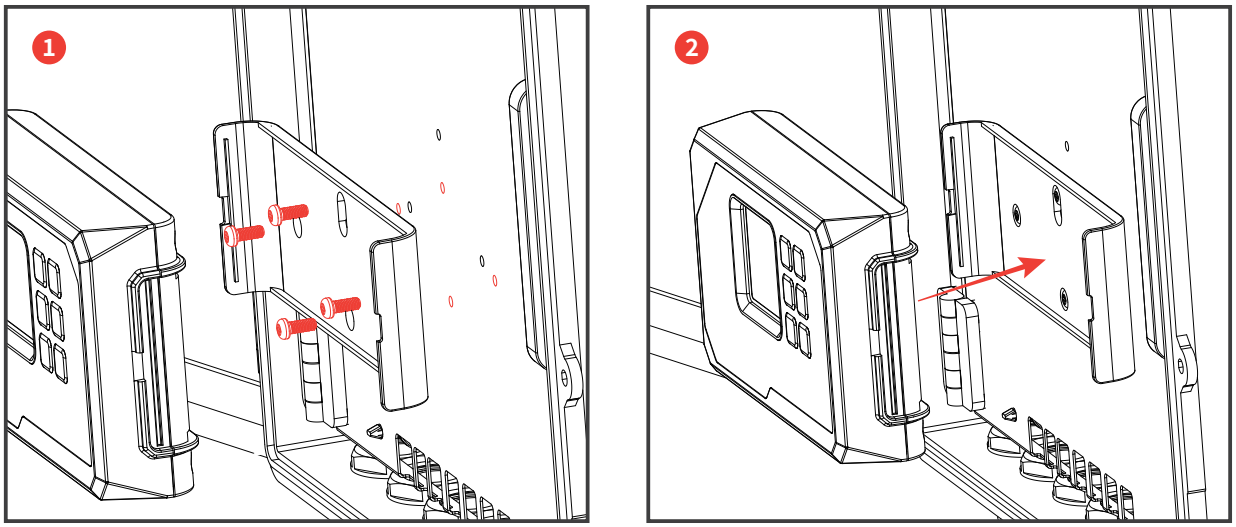
GCS-1:



HCS-1 / NFS-1 / CDA-1:



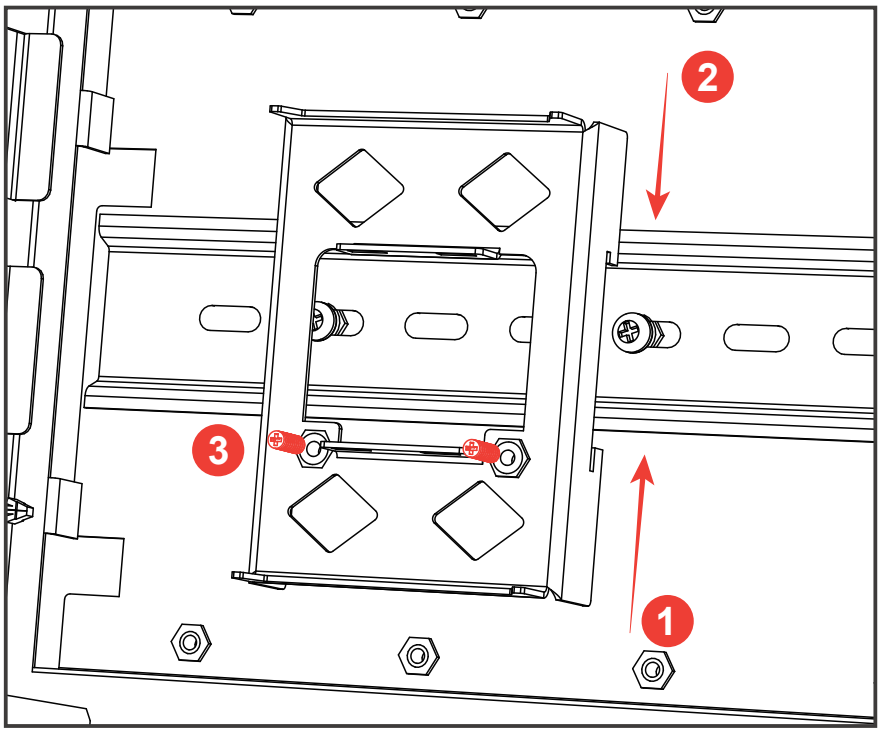
TCS-1:



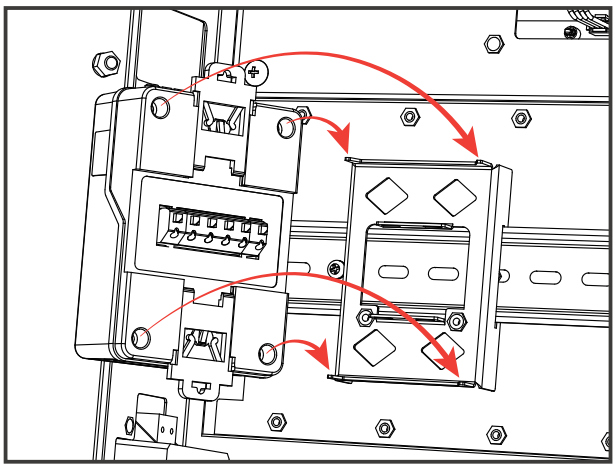
Back Plate Mounting Diagrams:

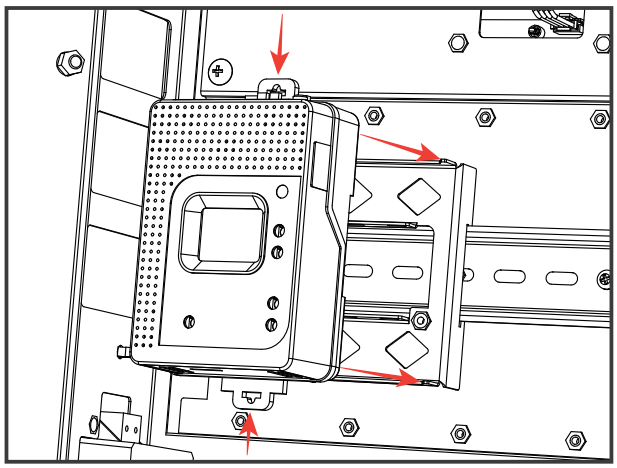
Step 1&2: Install and secure the back plate onto the DIN-rail.

Step 3: Use 2 screws to fasten and secure the back plate in position.



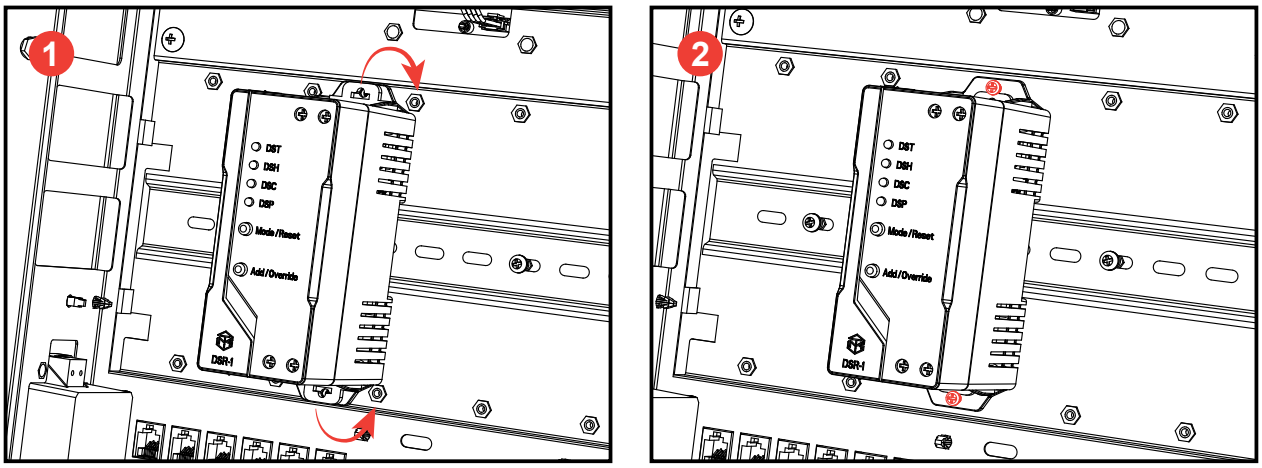
DS Modules Mounting Diagram:





Release the two tabs at the back of the DS Module (TS-1/TS-2/TS-3/ARS-1/HS-1/TSH-1). Hold it in position to the back plate, press both tabs inward to secure in place. Connect the DS Module to the main controller/splitter board using an RJ12 cable.

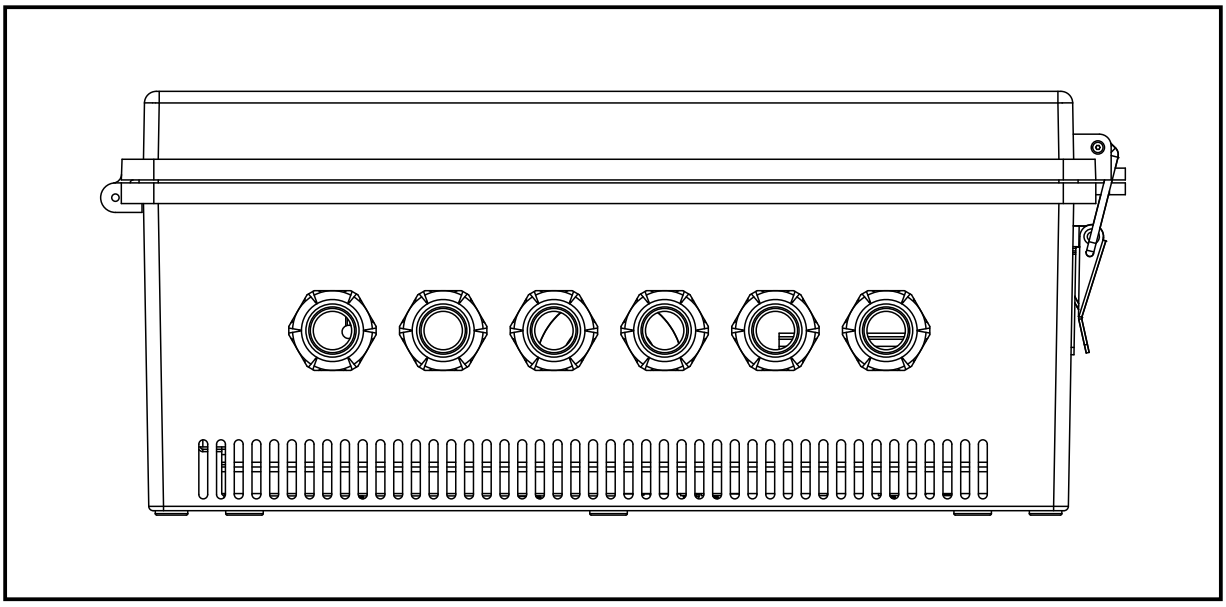
DSR-1 Mounting Diagram:



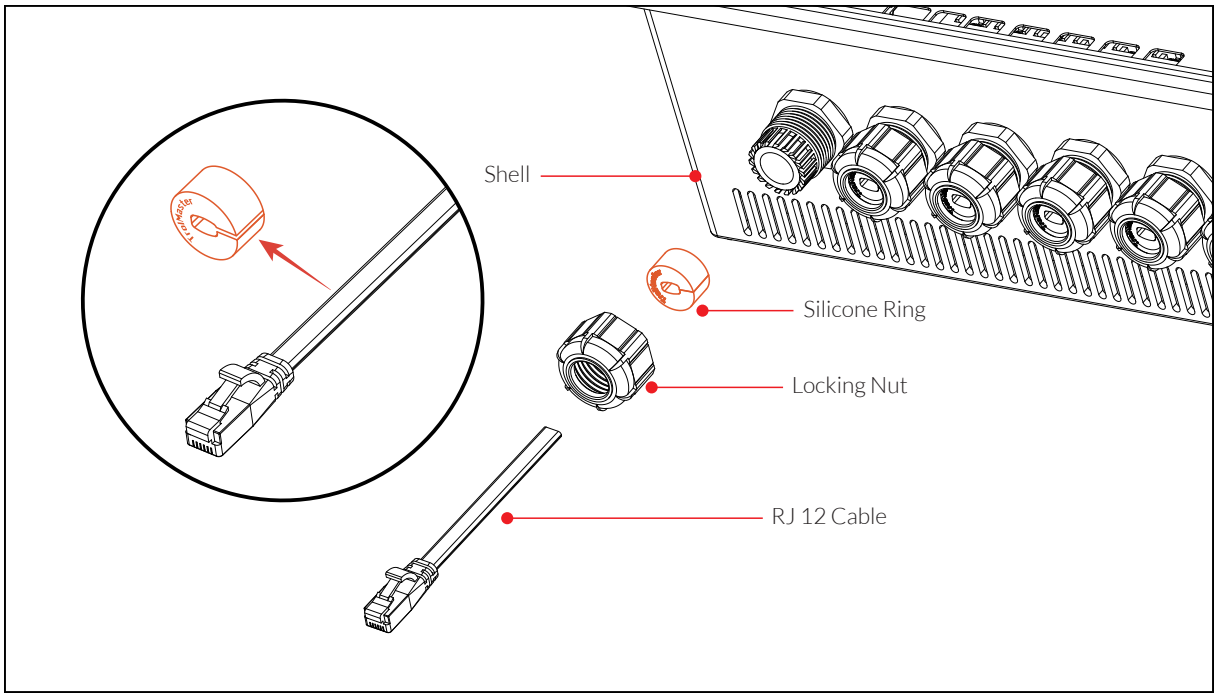
Release the 2 tabs at the back of the DSR-1. Hold it in position on the DIN-rail, and press both tabs inward to secure in place.

***Optional:** Use screws to fasten and secure the DSR-1 in position.

Waterproof Connectors:



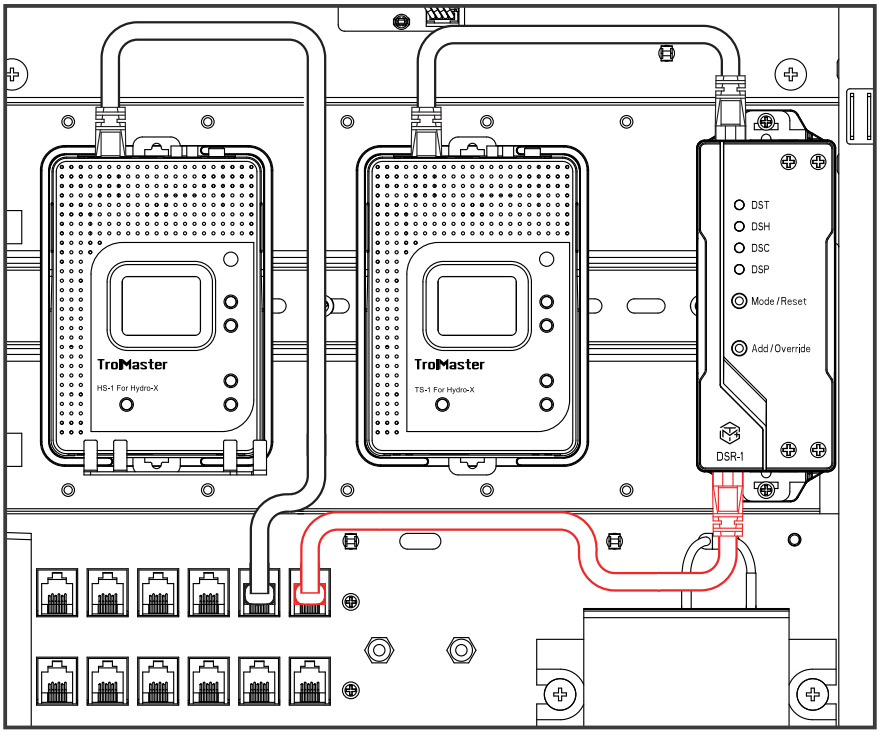
There are a total of 6 waterproof connectors located on the bottom of the SCC-4 cabinet. Designed for the main power source, RJ12, or DSR-1 power wire outputs.



Instructions:

1. Unscrew the locking nut and remove the silicone ring from the shell.
2. Insert and go through the proper wire to the proper connector.
3. Put the silicone ring on the wire between the locking nut and the shell.
4. Hold everything back in position and rescrew the locking nut back to the shell.

Signal Wiring

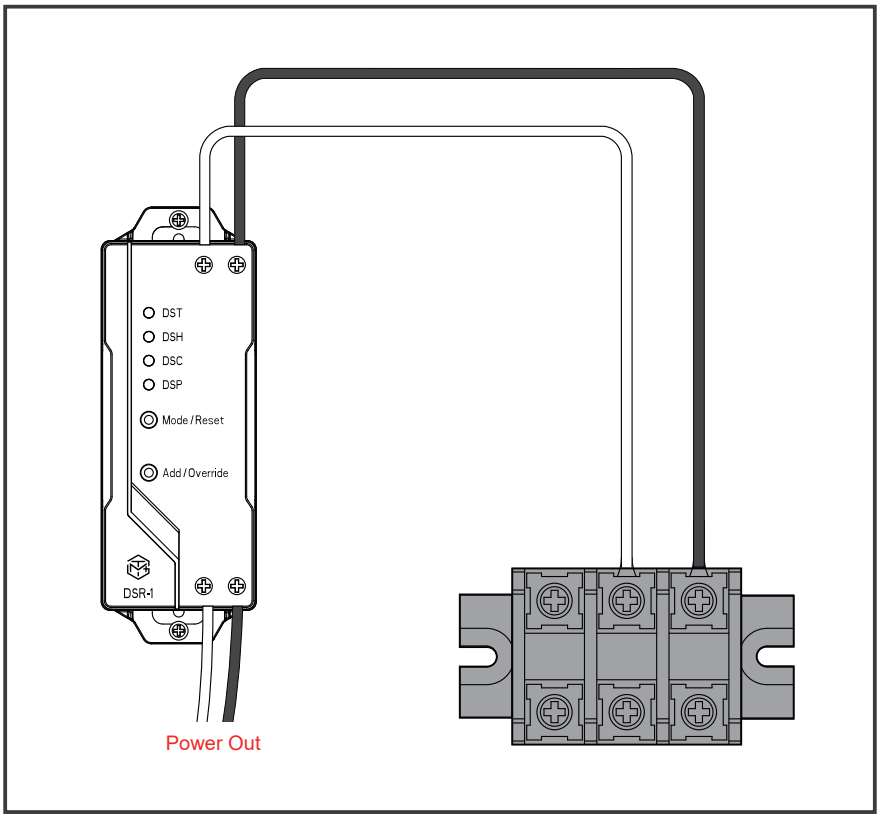


Connect the DSR-1 to the main controller/splitter board using an RJ12 cable.

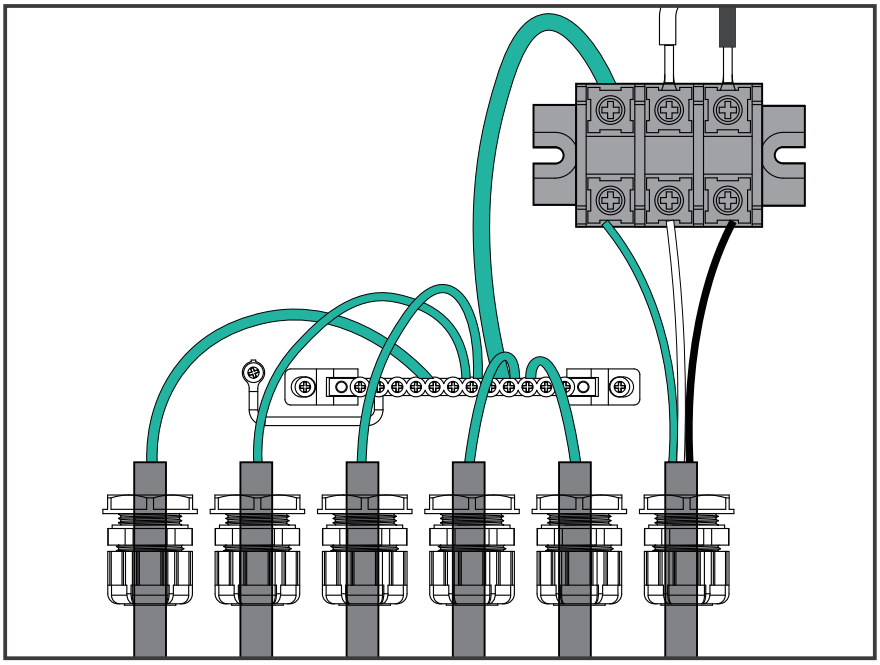
***Note:**

- While the other modules only have a single RJ12 connection port, the signal connection for the DSR-1 can be daisy-chained to each other using their in/out ports.
- You CANNOT mix sensors, device modules or lighting on the SAME splitter boards. Each splitter board must have EITHER sensors, device modules, or lights connected to it.
- All RJ12 ports built inside the cabinet are bi-directional (universal), which means they can provide both input and output connections using the same port. Two Splitter Boards can also be connected into one big group. Simply link them together by using a male-to-male RJ12 cable.

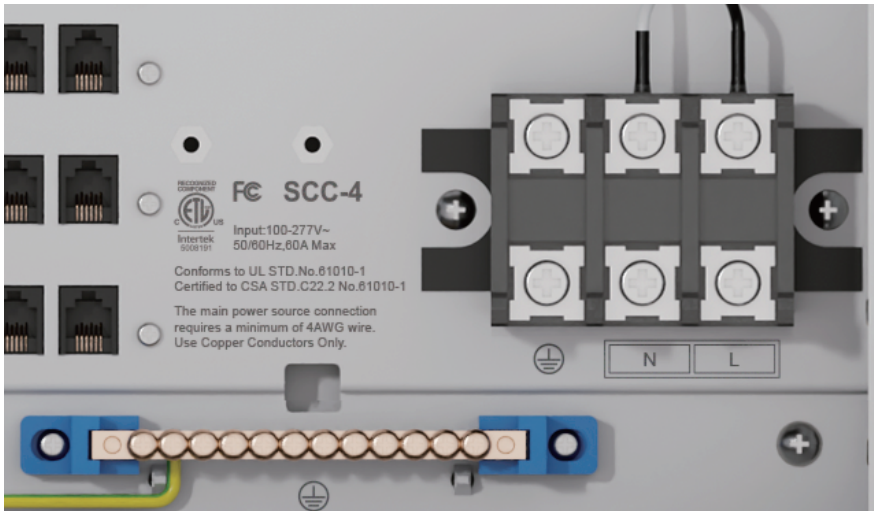
Power Wiring:



The DSR-1 requires a separate power source. Read the DSR-1 instructions manual for wiring guidelines. Use the upper N & L terminals to connect the power for the DSR-1.



The copper rail at the bottom is designed to gather grounding wiring. Tapping one wire from the main ground terminal, and the rest can be tapped to the rail.



Connect the input power lines to the designated wiring terminals. Ensure proper wiring according to local electrical codes.

Caution:

- Ensure all the power wires are well sealed/insulated before powering on.
- A transparent plastic cap is provided and pre-installed on top of the power terminals. To prevent accidental shocks, ensure that the cap is on before powering the cabinet.
- The lower power terminal G/N/L vertically shares the same polarity as the upper terminal.
- Only the DSR-1 requires an individual AC power source. The rest of the modules are powered from the RJ12 connections.

SAFETY PRECAUTIONS

Read the installation and operation instructions carefully before installing and operating this device. Proper adherence to these instructions is essential.

The maximum amperage for the mini controller cabinet is 60 amps.

CAUTION !

- Read all instructions carefully before installation.
- This product is not intended for use by persons and children with reduced physical, sensory, or mental capabilities or lack of experience and knowledge.
- The device is designed to be installed INDOORS IN A SPACE THAT IS PROTECTED FROM RAIN AND FLOODING.
- DO NOT clean the interior of the enclosure with any chemicals that might cause damage. Use a damp cloth only.

WARNING:

- Users are responsible for correct and safe installation and usage.
- It' s highly recommended to have a licensed electrician install your controller system.
- Ensure the existing electrical system can support the voltage and current requirements (100-277V, 50/60Hz, Max output 60A).
- Power supply may cause serious injury from an electric shock. Ensure that all power is disconnected before starting the installation.
- Sharp edges of the cabinet may cause serious injury from cuts. Install with care.
- The enclosure is heavy. It may cause serious injury or equipment damage if dropped. Secure the enclosure to a wall or supports using appropriate fasteners (if wall mounting is intended). Follow the installation instructions carefully.
- Do not operate the device if the power cord is deformed or damaged. Perform any maintenance only after disconnecting power and unplugging.
- Do not subject the device to external impact during use.
- Do not place heavy objects on the packaged product to avoid damage.
- Ensure the ambient temperature does not exceed 40℃. Exceeding this temperature may cause damage or shorten the lifespan.
- Transport the device in its original packaging to prevent deformation or damage.
- Do not modify or create new openings in the enclosure.
- Do not use in explosive or corrosive environments.
- Ensure installation complies with local mechanical and electrical codes.
- DO NOT allow the Dry Contact Board to become wet or otherwise dirty. DO NOT operate or attempt to repair or disassemble the controller, as there are no user-serviceable parts inside. Opening the controller will void the warranty.

PRÉCAUTIONS DE SÉCURITÉ

Veuillez lire attentivement les instructions d' installation et d' utilisation avant d' installer et d' utiliser cet appareil. Le respect de ces instructions est essentiel.

L' ampérage maximal pour le mini-coffret de commande est de 60 ampères.

ATTENTION !

- Lisez attentivement toutes les instructions avant l' installation.
- Ce produit n' est pas destiné à être utilisé par des personnes et des enfants ayant des capacités physiques, sensorielles ou mentales réduites ou manquant d' expérience et de connaissances.
- L' appareil est conçu pour être installé À L' INTÉRIEUR DANS UN ESPACE PROTÉGÉ DE LA PLUIE ET DES INONDATIONS.
- NE nettoyez PAS l' intérieur du boîtier avec des produits chimiques qui pourraient causer des dommages. Utilisez uniquement un chiffon humide.

AVERTISSEMENT:

- Les utilisateurs sont responsables de l'installation et de l'utilisation correctes et sûres.
- Il est fortement recommandé de faire installer votre système de commande par un électricien agréé.
- Assurez-vous que le système électrique existant peut supporter les exigences de tension et de courant (100-277 V, 50/60 Hz, sortie max. 60 A).
- L ' alimentation électrique peut provoquer des blessures graves dues à un choc électrique. Assurez-vous que toute l'alimentation est déconnectée avant de commencer l'installation.
- Les bords tranchants de l' armoire peuvent provoquer des blessures graves dues à des coupures. Installez avec soin.
- Le boîtier est lourd. Il peut provoquer des blessures graves ou des dommages matériels s' il tombe. Fixez le boîtier à un mur ou à des supports à l' aide de fixations appropriées (si l' intention est de le fixer au mur). Suivez attentivement les instructions d' installation.
- N'utilisez pas l'appareil si le cordon d'alimentation est déformé ou endommagé. Effectuez toute maintenance uniquement après avoir déconnecté l'alimentation et débranché l'appareil.
- Ne soumettez pas l'appareil à un impact externe pendant l' utilisation.
- Ne placez pas d'objets lourds sur le produit emballé pour éviter tout dommage.
- Assurez-vous que la température ambiante ne dépasse pas 40 ° C. Le dépassement de cette température peut causer des dommages ou raccourcir la durée de vie.
- Transportez l'appareil dans son emballage d'origine pour éviter toute déformation ou dommage.
- Ne modifiez pas et ne créez pas de nouvelles ouvertures dans le boîtier.
- Ne pas utiliser dans des environnements explosifs ou corrosifs.
- Assurez-vous que l'installation est conforme aux codes mécaniques et électriques locaux.
- NE laissez PAS la carte de contact sec devenir humide ou autrement sale. N ' utilisez PAS, ne tentez PAS de réparer ou de démonter le contrôleur, car il n'y a aucune pièce réparable par l'utilisateur à l'intérieur. L'ouverture du contrôleur annulera la garantie.

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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