

FGI TCS-1 Tent-X

TrolMaster TCS-1 Tent-X Main Controller User Manual

Model: TCS-1 Tent-X

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of the FGI TrolMaster TCS-1 Tent-X Main Controller. The TCS-1 is designed to integrate and manage various environmental control and irrigation devices within a controlled growing environment, such as a grow tent. It serves as a central hub for monitoring and adjusting key parameters to optimize plant growth.

2. PRODUCT OVERVIEW

2.1 Key Features

- Professional-grade garden controller suitable for home or hobby use.
- Integrated 3-in-1 sensor for monitoring temperature, humidity, and lighting conditions (on/off).
- Supports connection of up to four DS-type plug-in control modules for environmental and irrigation device management.
- Compact design with hydroponic capabilities.
- Free phone application for remote monitoring and control.

2.2 Components

The TrolMaster TCS-1 Tent-X Main Controller system includes the following primary components:

- TCS-1 Main Controller Unit
- 3-in-1 Sensor (Temperature, Humidity, Light)
- Necessary connection cables
- Power Adapter (12V/1A DC)



Figure 1: Front view of the TCS-1 Main Controller, showing the display and control buttons.



Figure 2: Rear view of the TCS-1 Main Controller, illustrating the Internet, Sensors, Devices, Line1, Line2, Micro SD, and DC power ports.

3. SETUP INSTRUCTIONS

Follow these steps to set up your TrolMaster TCS-1 Tent-X Main Controller:

- 1. Unpack the Controller:** Carefully remove all components from the packaging. Verify that all items listed in Section 2.2 are present.
- 2. Mount the Controller:** Choose a suitable location within your grow environment that is protected from direct water exposure and excessive heat. Ensure adequate ventilation around the unit.
- 3. Connect the 3-in-1 Sensor:** Plug the 3-in-1 temperature, humidity, and light sensor into the designated "SENSORS" port on the rear of the main controller. Position the sensor in an area that accurately reflects the environmental conditions you wish to monitor.
- 4. Connect Devices:** Connect your climate control and irrigation devices (e.g., fans, humidifiers, pumps) to the "DEVICES", "LINE1", or "LINE2" ports as required. Refer to the device-specific instructions for proper connection. The system supports various modules as shown in the system diagram.
- 5. Connect to Internet (Optional):** For remote monitoring and control via the phone app, connect an

Ethernet cable from your router to the "INTERNET" port on the controller.

6. **Insert Micro SD Card (Optional):** If data logging is desired, insert a Micro SD card into the "MICRO SD" slot.
7. **Power On:** Connect the 12V/1A DC power adapter to the "DC" port on the controller, then plug the adapter into a standard 110V power outlet. The controller display should illuminate.

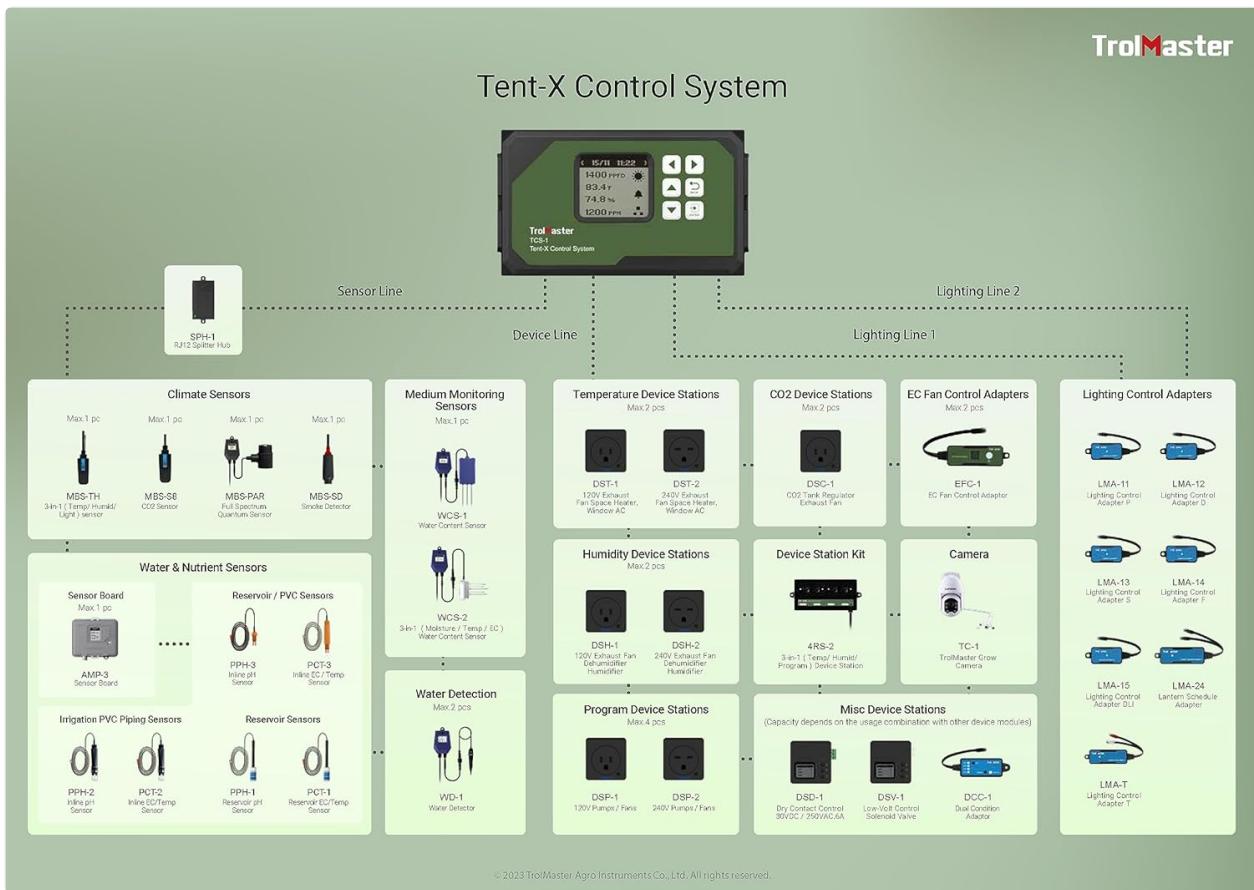


Figure 3: Comprehensive system diagram illustrating the connectivity of the TCS-1 Main Controller with various climate, water, nutrient, and lighting devices.

4. OPERATING INSTRUCTIONS

4.1 Basic Navigation

The TCS-1 controller features a display screen and several buttons for navigation and setting adjustments:

- **Up/Down Arrows:** Navigate through menu options and adjust values.
- **Left/Right Arrows:** Move between different screens or sub-menus.
- **ENTER Button:** Confirm selections or enter a menu.
- **BACK Button:** Return to the previous screen or exit a menu.

4.2 Initial Configuration

Upon first power-up, the controller may prompt you to set basic parameters such as date, time, and measurement units. Follow the on-screen instructions using the navigation buttons.

4.3 Setting Environmental Parameters

Access the main menu to configure desired temperature, humidity, and lighting schedules. The 3-in-1 sensor

provides real-time data, allowing the controller to activate or deactivate connected devices to maintain your set points. Consult the on-screen menu for specific parameter adjustments.

4.4 Using the Mobile Application

Download the official TrolMaster mobile application from your device's app store. Once installed, follow the app's instructions to connect it to your TCS-1 controller via the internet connection. The app allows for remote monitoring of environmental conditions, adjustment of settings, and receiving alerts.

5. MAINTENANCE

To ensure optimal performance and longevity of your TCS-1 Tent-X Main Controller, observe the following maintenance guidelines:

- **Cleaning:** Periodically wipe the controller's exterior with a soft, dry cloth. Avoid using abrasive cleaners or solvents.
- **Sensor Care:** Keep the 3-in-1 sensor clean and free from dust or debris. Ensure it is not obstructed, as this can affect readings.
- **Firmware Updates:** Check the TrolMaster website or mobile app periodically for firmware updates. Keeping your controller's firmware up-to-date ensures access to the latest features and performance improvements.
- **Environmental Conditions:** Operate the controller within its specified environmental limits (temperature, humidity) to prevent damage.

6. TROUBLESHOOTING

If you encounter issues with your TCS-1 Tent-X Main Controller, refer to the following common troubleshooting steps:

- **Controller Not Powering On:**
 - Ensure the power adapter is securely connected to both the controller and a working power outlet.
 - Verify the power outlet is functional by plugging in another device.
- **Inaccurate Sensor Readings:**
 - Check if the 3-in-1 sensor is properly connected to the "SENSORS" port.
 - Ensure the sensor is clean and not obstructed.
 - Relocate the sensor if it is exposed to direct airflow from a fan or heater, which can cause localized readings.
- **Devices Not Responding:**
 - Verify that the devices are correctly connected to the appropriate ports ("DEVICES", "LINE1", "LINE2").
 - Check the controller's settings to ensure the devices are enabled and configured with the correct parameters.
 - Ensure the devices themselves are powered on and functional independently.
- **Mobile App Connectivity Issues:**
 - Confirm the controller is connected to the internet via an Ethernet cable.
 - Check your network connection and router status.
 - Ensure the mobile app is updated to the latest version.

For further assistance, please contact FGI/TrolMaster customer support or visit their official website for detailed FAQs and support resources.

7. SPECIFICATIONS

Product Dimensions	6"L x 2.5"W x 8"H (1.8 Pounds)
Item Model Number	TCS-1 Tent-X
Manufacturer	TrolMaster
Brand	FGI
Color	Green
Material	Plastic
Voltage	110 Volts
First Available	August 22, 2023



Figure 4: Physical dimensions of the TCS-1 Main Controller.

8. WARRANTY AND SUPPORT

For warranty information and customer support, please refer to the official FGI or TrolMaster website. Keep your purchase receipt as proof of purchase for any warranty claims.

Online Resources:

- FGI Store: [Visit the FGI Store on Amazon](#)
- Manufacturer: TrolMaster (refer to their official website for direct support)

