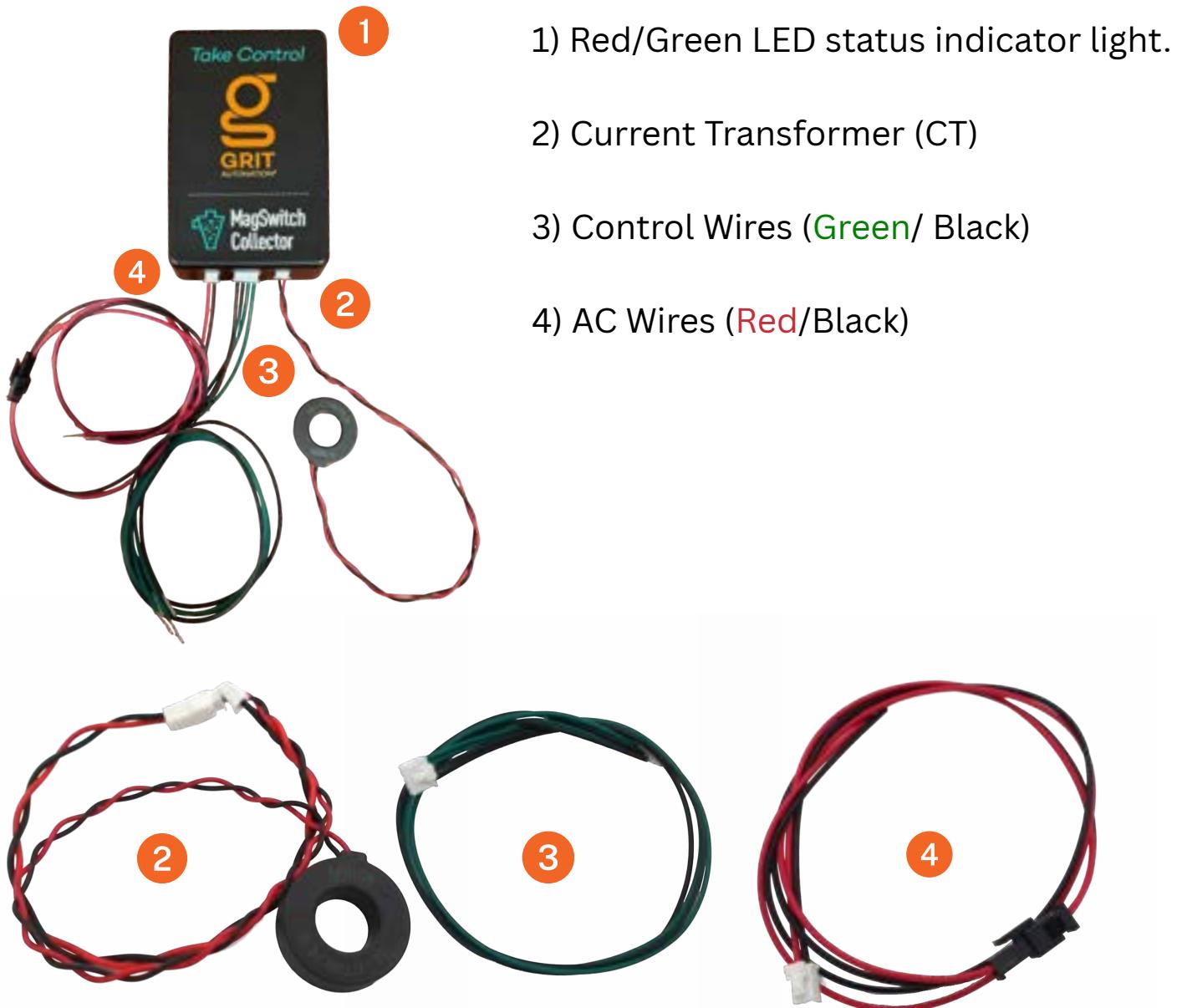


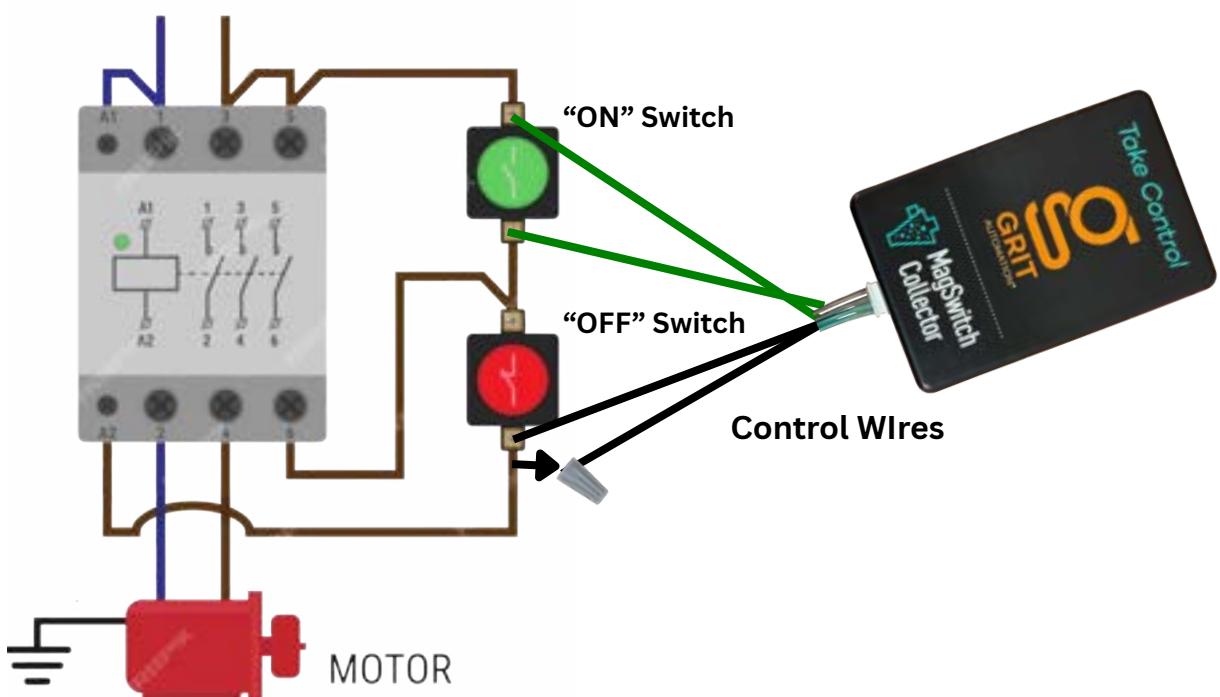
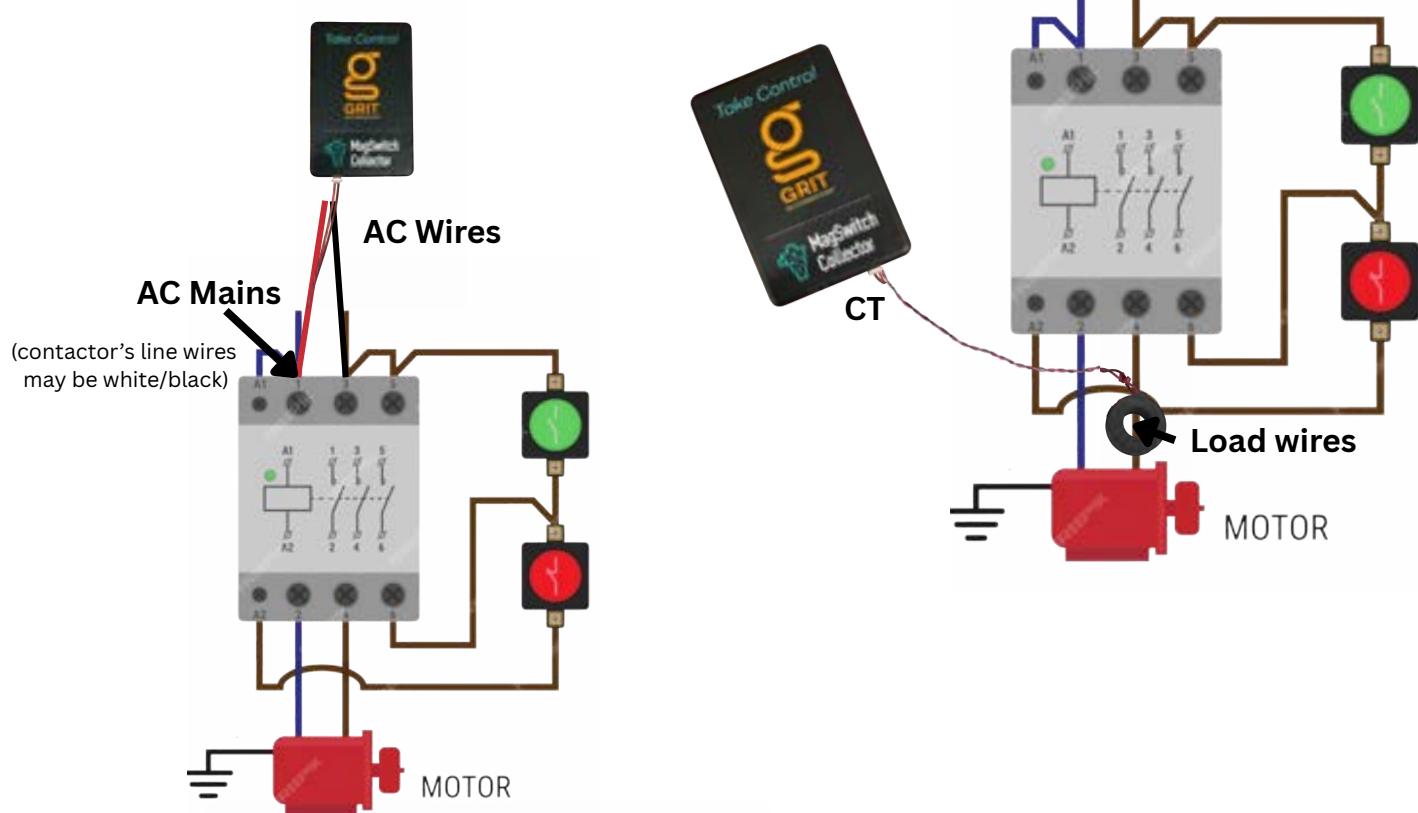
# MagSwitch Collector

This document provides installation instructions and configuration overview for the GRIT MagSwitch Collector.

## Anatomy of the MagSwitch



# Wiring Diagram





## You will need the following tools to complete this installation:

- Power drill with step bit (for installations when the MagSwitch does not fit into the contactor box, the knockout must be at least 5/8").)
- Flathead screwdriver (provided)
- Phillips screwdriver
- wire nut (provided)

## Overview

The MagSwitch installation wiring process consists of three essential steps that must be completed to ensure proper operation and safety.

## Installation Steps

### Step 1: Power the GRIT Device: Connect the AC wires

#### Procedure:

1. Verify that the main power supply to the dust collector is disconnected/ breaker is turned off before beginning installation
2. Connect the GRIT device AC wire leads to the AC Mains according to the wiring diagram (please note: side does not matter when placing the **Red** and **Black** AC wires).
3. Ensure all connections are secure

### Step 2: Measure Current Draw: Place the CT around a load wire to the motor

#### Procedure:

1. Verify that the main power supply to the dust collector is disconnected/ breaker is turned off before continuing.
2. Place the GRIT device CT over a load wire that leads to the dust collection motor.
3. Ensure the load wire is securely in place again.



## Step 3: Allow GRIT to “press” the on/off buttons: Place Control Wires

### Procedure for Momentary Switches:

1. Locate “On” button.
2. Connect the two **Green** GRIT Control wires on either side of the “On”/ Normally Open button.
3. Locate the “Off” button.
4. Remove one of the existing wires leading to the “Off”/ Normally Closed button.
5. Secure one **Black** GRIT Control wire in its place.
6. Twist the removed wire with the other **Black** GRIT Control wire and secure with provided wire nut.
7. Ensure wire connections match the control diagram provided.

### Procedure for Latching Switches:

1. Locate “On” button
2. Connect the two **Green** GRIT Control wires on either side of the “On”/ Normally Open button.
3. Twist the **Black** GRIT Control wires together and secure with provided wire nut.

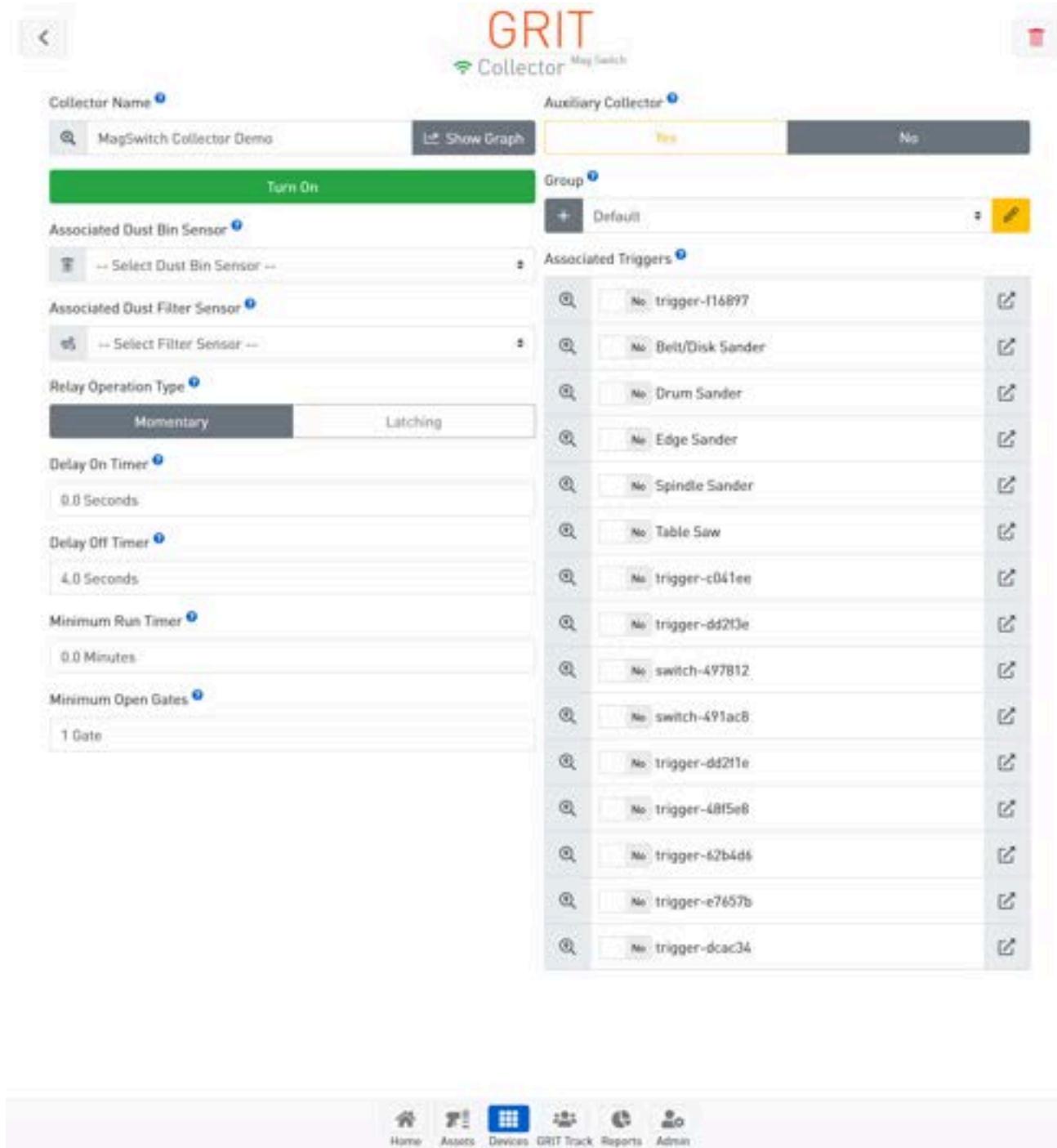
## Step 4: Finish installation, Bind the new device, and Configure

### Procedure:

1. If space allows, mount the MagSwitch Collector inside the tool’s cabinet or contactor. If not, drill a knockout to pass the connection wires (AC, CT, Control) through and mount the device on the outside of the contactor. The MagSwitch Collector can also be mounted inside an additional enclosure if you do not wish to mount it directly outside of the cabinet/ contactor.
2. Reconnect power/ flip breaker on.
3. Assuming wiring is correct and secure, the GRIT MagSwitch’s LED will begin to flash red/green to indicate that it is ready to Bind with the HUB.
4. Turn on Binding.
5. Find the new MagSwitch device listed in the Collector section of the Devices page in the GRIT App.
6. Complete Collector configuration and Trigger associations, being sure to select whether the dust collector is ‘Momentary’ or ‘Latching’ under ‘Relay Operation Type’.
7. Once the MagSwitch Collector is associated with at least one Trigger, test the ‘On’ and ‘Off’ commands.

# MagSwitch Configuration

With the MagSwitch Collector physically installed, the next phase involves configuring the device through the GRIT App. This section provides an overview for each available configuration option.



The image shows the GRIT Collector MagSwitch configuration interface. At the top, there is a header with the GRIT logo and the text "Collector MagSwitch". Below the header, there is a "Collector Name" input field containing "MagSwitch Collector Demo", a "Show Graph" button, and two radio buttons: "Yes" (which is selected) and "No".

The main configuration area is divided into several sections:

- Turn On:** A green button labeled "Turn On".
- Associated Dust Bin Sensor:** A dropdown menu showing "Select Dust Bin Sensor".
- Associated Dust Filter Sensor:** A dropdown menu showing "Select Filter Sensor".
- Relay Operation Type:** A dropdown menu showing "Momentary" (which is selected) and "Latching".
- Delay On Timer:** An input field showing "0.0 Seconds".
- Delay Off Timer:** An input field showing "4.0 Seconds".
- Minimum Run Timer:** An input field showing "0.0 Minutes".
- Minimum Open Gates:** An input field showing "1 Gate".

On the right side, there is a "Group" section with a "Default" option and a "Edit" button. Below the group section is a "Associated Triggers" list:

Trigger ID	Trigger Name	Action
No. trigger-116897	No. Belt/Disk Sander	
No. trigger-116897	No. Drum Sander	
No. trigger-116897	No. Edge Sander	
No. trigger-116897	No. Spindle Sander	
No. trigger-116897	No. Table Saw	
No. trigger-c041ee	No. trigger-c041ee	
No. trigger-dd210e	No. trigger-dd210e	
No. switch-497812	No. switch-497812	
No. switch-491ac8	No. switch-491ac8	
No. trigger-dd211e	No. trigger-dd211e	
No. trigger-48f5e8	No. trigger-48f5e8	
No. trigger-62b4d6	No. trigger-62b4d6	
No. trigger-e7657b	No. trigger-e7657b	
No. trigger-dcac34	No. trigger-dcac34	

At the bottom of the interface, there is a navigation bar with icons for Home, Assets, Devices, GRIT Track, Reports, and Admin.



## What's on this screen?

- 1. Locate Button-** Activate the device's LED indicator for easy identification.
- 2. Real-time Power Graph-** Monitor real-time power data from the connected equipment.
- 3. Collector Name-** Replace the default device name by clicking in the text field and entering a descriptive identifier that matches your connected equipment for easy system management.
- 4. Turn On/ Turn Off Button-** Use this button to manually turn the dust collector on or off. When delay-off settings are configured, pressing this button can override the delay and immediately shut down the collector.
- 5. Associated Dust Bin Sensor-** Use this dropdown to associate a Dust Bin Sensor.
- 6. Associated Dust Filter Sensor-** Use this dropdown to associate a Pressure Sensor.
- 7. Relay Operation Type-** Configure the relay operation mode for dust collector activation. Select 'Momentary' for most magnetic contactors (recommended default), or choose 'Latching' if required by your specific collector model.
- 8. Delay On Timer-** Set the number of seconds the collector should wait to turn on after an associated Trigger has been activated. If no gates need to be changed, the collector will immediately turn on. This setting gives the system a chance to move the gates first when a collector is too powerful. The LED on the Collector device will flash green to indicate that it has received the message to turn on.
- 9. Delay Off Timer-** Set the number of seconds the collector should wait to turn off after all associated Triggers have been deactivated. The LED will flash red to indicate that it has received the message to turn off.
- 10. Minimum Run Timer-** Set the number of minutes that the collector must run after it has been turned on. The timer for this feature starts when the collector first turns on. If all Triggers have been deactivated and this minimum time has not elapsed, the collector will remain on until this minimum time has passed. If the value is set to 0, the feature is disabled.
- 11. Minimum Gates Open-** Set the minimum number of open gates for this collector. The system finds all gates connected to this collector through the associated triggers and ensures that the number of gates that are open is at least this number even if the number of tools running should dictate they are not open. It also takes into account any branch gates that would be required to open.
- 12. Auxiliary Collector-** Set whether this Collector is a primary dust collector or an auxiliary collector. Primary collectors can be associated to multiple gates and tools. Auxiliary collectors can only be associated with a single tool and will not affect the open/close
- 13. Associated Triggers-** Select the Triggers that when running will cause the collector to turn on.