Controller and Decoder quick start guide

The DMX 8 Zone WiFi Controller is capable of controlling 8 individual decoder addresses independently. This guide will cover basic setup and troubleshooting of a typical RGB installation. You may contact Martin Supply Co. for consultation on more complex systems.

Begin by correctly wiring all the necessary components together working from the DMX Controller to the LED’s. This should include a 12 volt power supply for the DMX Controller, the DMX Controller, Decoders for each string of LED’s and a 12v or 24v power supply for each LED string depending on the power requirements of the LED’s.

1. DMX Controller connections.

   a. Connect a 12v power supply to the power input terminal block on the DMX Controller. Make sure the polarity is correct. If you are using 12v RGB LED’s then you may use the same power supply as the first decoder as the power draw is minimal. DO NOT USE A 24 VOLT POWER SUPPLY TO POWER THE DMX CONTROLLER.
   
   b. Connect a DMX signal wire to one of the outputs on the DMX Controller. The wire used may be either a shielded RJ45 network cable (Cat 5 or Cat 6) or a 3 pin DMX Cable.
   
   c. Connect the WiFi antennas to the antenna connectors on the DMX Controller. If the DMX Controller is to be mounted on the inside of an enclosure (recommended), use the included antenna extension cables to mount the antennas on the outside of the enclosure.

The BTC-DXD-S218A-5CH 5-Channel DMX Decoder is capable of controlling up to 5 channels of LED’s. For this application only 4 channels will be used as the 8 Zone WiFi Controller will only broadcast on up to 4 channels per zone.

2. DMX Decoder connections.

   a. Connect a 12v or 24v power supply to the DC power input section of the terminal block on the Decoder depending on the power requirements of the LED’s. Make sure the polarity is correct. If you are using 12v RGB LED’s then you may use the same power supply to power the Controller and the first Decoder.
b. Connect the DMX signal wire coming from the Controller to one of the inputs on the DMX Decoder. The wire used may be either a shielded RJ45 network cable (Cat 5 or Cat 6) or a 3 pin DMX Cable.

Note: Network and DMX cables can be mixed. For example, a DMX cable could be used to connect the Controller to the first Decoder and Network cable could be used to daisy chain the remaining Decoders together.

c. Connect the RGB LED’s to their proper connection points on the output section of the terminal block.

![Diagram of DMX Decoders and Connections]

The DMX Decoders will need to be programmed to work properly with the DMX 8 Zone WiFi Controller. The DMX 8 Zone WiFi Controller broadcasts to 4 channels per zone and the Decoders are capable of decoding up to 5 Channels per zone. This will cause an address overlap that will cause the decoders to not respond as expected.

3. Programming the DMX Decoders.

   a. To change the number of reception channels on the Decoder, press either the Up or Down buttons until “CH05” is displayed on the LED panel. Press the “Enter” button to enable editing of that parameter and press the Up or Down until “CH04” is displayed. Press the “Back” button to accept the setting. This will set the Decoder to only receive on 4 channels. This must be done for all the Decoders in the project.

   b. Change the DMX address on the Decoder to correspond to the Zone on the Controller that will be controlling it. Refer to the chart below for the correct addressing for each zone. To change the address on the Decoder, press the Up or Down buttons until “A001” is displayed. Press the Enter to enable editing of the address and press the Up or Down button until the correct address is displayed. Press the Back button to accept the setting.

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<thead>
<tr>
<th>Zone Address</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<td>A001</td>
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