LED Tube Basic Controller

ORDERCODE 41011

Congratulations!
You have bought a great, innovative product from Showtec.
The Showtec LED Tube Basic Controller brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated DMX show, this product provides the effect you need.

You can rely on Showtec, for more excellent lighting products.
We design and manufacture professional light equipment for the entertainment industry.
New products are being launched regularly. We work hard to keep you, our customer, satisfied.
For more information: iwant@showtec.info

You can get some of the best quality, best priced products on the market from Showtec.
So next time, turn to Showtec for more great lighting equipment.
Always get the best -- with Showtec !

Thank you!

Showtec

Showtec LED Tube Basic Controller™ Product Guide

WARNING

SAFETY INSTRUCTIONS

Every person involved with the installation, operation and maintenance of this device has to:
- be qualified
- follow the instructions of this manual

Before your initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:
> *The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.*

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never look directly into the light source.
- Never leave any cables lying around.
- Do not open the device and do not modify the device.
- Do not connect this device to a dimmerpack.
- Do not switch the device on and off in short intervals, as this would reduce the system's life.
- Only use device indoor, avoid contact with water or other liquids.
- Avoid flames and do not put close to flammable liquids or gases.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power-cord is never crimped or damaged. Check the device and the power-cord from time to time.
- If device is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.

- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your Showtec device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.
- For replacement use fuses of same type and rating only.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.

> **CAUTION ! EYEDAMAGES !.**
> **Avoid looking directly into the light source.**
> **(meant especially for epileptics) !**

OPERATING DETERMINATIONS

If this device is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.

Any other operation may lead to dangers like short-circuit, burns, electric shock, lamp explosion, crash etc. You endanger your own safety and the safety of others!

Improper installation can cause serious damage to people and property !

Rigging

Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

Do not attempt the installation yourself !
Always let the installation be carried out by an authorized dealer !

Procedure:
- If a LED tube is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Mount the LED tube to the trussing system.
- The LED tube must never be fixed swinging freely in the room.
- The installation must always be secured with a safety attachment, e.g. an appropriate safety net or safety-cable.
- When rigging, derigging or servicing the LED tube, always make sure, that the area below the installation place is blocked and staying in the area is forbidden.

Improper installation can cause serious damage to people and property !

Description of the device

Features

The LED Tube Basic Controller is designed for the more demanding user:
• 5 DMX Channels
• Controllable DMX or Stand-alone controller.
• 4000 Tubes can be controlled
• 38 programs
• DMX IN and DMX OUT.

Overview

Fig. 1

1) LCD Display
2) Mode: Change the pre-programmed modes.
3) Set Up: Change the settings of the pre-programmed modes (Speed, Flash, Colors)
4) Adjust Up: Increase the DMX address or program options.
5) Adjust Down: Decrease the DMX address or program options.
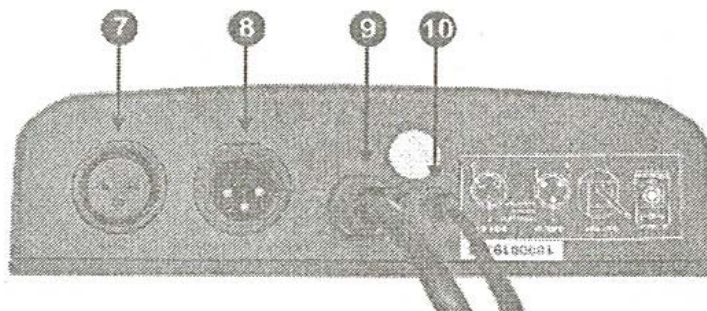**6)** ON / OFF

Backside

Fig. 2

7) 3 pin DMX IN connector: XLR male socket used to receive DMX signals.
8) 3 pin DMX OUT connector: XLR female socket used to send DMX signals.
9) Output to LED Tube
10) Power 12V DC

41010 LED TUBE BASIC

1) Signal Input: Low voltage Signal Input must be connected to the Signal Output (**6**) of the previous tube or with the Signal Output cable from the LED Tube Basic controller.
2) Ground: Be sure to ground the LED tube properly.
3) Mains Input Cable: This cable must be connected to the Mains Output (**5**) of the previous tube or to any mains wall socket
4) Aluminum Tube Holder: To install the tube on a surface.
5) Mains Output Cable: This cable must be connected to the Mains Input (**3**) of the next tube. If there are no further tubes to be connected, you must seal this connector against humidity if the tubes are used outdoor.
6) Signal Output

Installation
Remove all packing materials from the LED Tube Basic Controller and the LED Tube. Check that all foam and plastic padding is removed. Connect all cables.
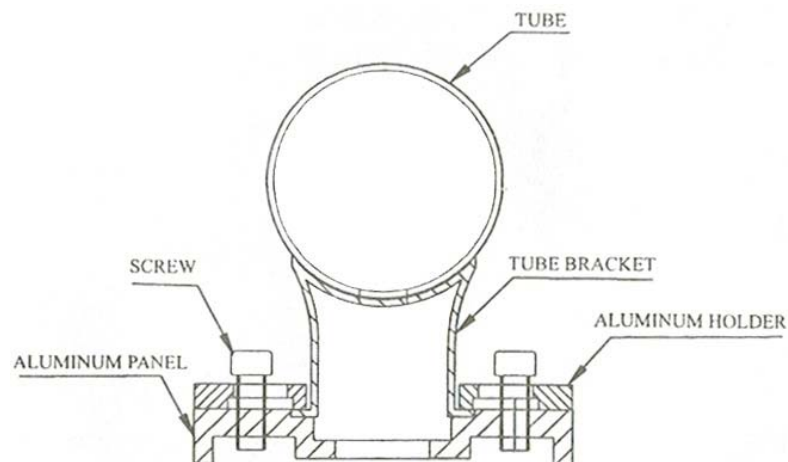
Installing the Tube

Fig. 4

Set Up and Operation

Follow the directions below, as they pertain to your preferred operation mode.
Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

Note: It's necessary to insert a XLR termination plug (with 120 Ohm) in the last fixture in order to ensure proper transmission on the DMX data link.
Do not supply power before the whole system is set up and connected properly.
Always disconnect from electric mains power supply before cleaning or servicing.
Damages caused by non-observance are not subject to warranty.

1) Test each LED Tube independently before installing. Connect each LED Tube separately to the mains voltage (do not connect the signal cables!). The LED Tube is ok if it lights up in white.
2) Connect the signal cables of all LED Tubes together. Make sure to fasten the plastic ring well.
3) Connect the mains cables of the LED Tubes together. The mains connectors have an IP44 protection. However to have full IP44 protection, you must hear a **CLICK** when you put the connectors together! In outdoor applications you must close and seal it with silicones.
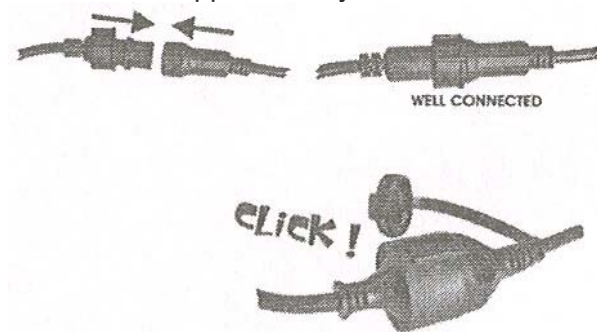

Fig. 5

4) Test the connection between the controller and **ALL** LED Tubes. Switch on the controller, press the MODE button, select TEST MODE and press the SET UP button, the screen will show **Connection OK if tubes are red ?** All LED Tubes will be full red if the connection is OK.
5) LED Tube Setting: Press MODE, select ADDRESS MODE and press the SET UP button, the screen will show **Initializing addr Waiting…** about 2-3 seconds. The screen will show **OK! Address is done** once, thus finishing the setting.
6) Select working mode: Press MODE to select the working mode. Note: Please do as stated above in the 3 steps if you connect the LED Tubes for the first time or reconnect them, otherwise the LED Tubes will not work correctly.
7) Installation sample
   Each time you use more than 200 LED Tubes, they have to be powered by another power source otherwise you could blow the main fuse.
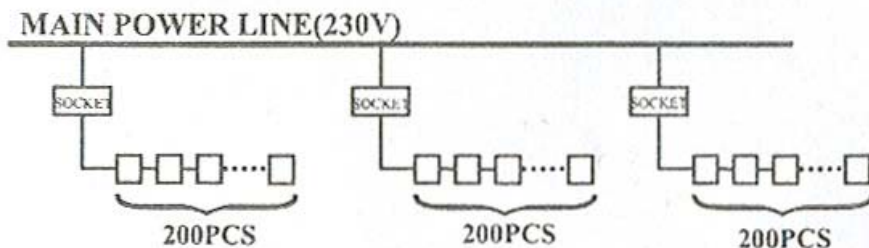

Fig. 6

8) Connect the signal input cable of the first LED Tube to the signal Output connector of the controller. Eventually use the optional 5m or 10m extension cables.
9) Connect the mains cable of the first tube to the wall socket.
10) Switch the controller on

Stand-alone

Press MODE button to enter mode setting. You can select 43 options. You will find all the pre-programmed scenes below.

Menu

From Program 1 – 38 you can push the SET UP button and select:
- Tube Quantity: 0 – 4000 Tubes
- Interval: 0 – 100
- Speed: 0 – 100
- Flash: 0 – 100

Set up options Controller

1	Blackout
2	Red
3	Green
4	Yellow
5	Blue
6	Purple
7	Cyan
8	White
9	Fast Change
10	Slow Flow 1
11	Fast Flow 1
12	Fast Flow 2
13	Black Run 1
14	Roll Chase
15	Roll Color
16	Color 1/4
17	Color1 1/4
18	Color 1/2
19	Color Flash
20	B & W Flow
21	R & G Flow
22	G & B Flow
23	R & B Flow
24	R & G Chase 1
25	R & G Chase 2
26	R & B Chase 1
27	R & B Chase 2
28	R & W Chase 1
29	R & W Chase 2
30	B & G Chase 1
31	B & G Chase 2
32	W & G Chase 1
33	W & G Chase 2
34	Rainbow Chase 1
35	Rainbow Chase 2
36	Rainbow Chase 3
37	Rainbow Chase 4
38	Rainbow Chase 8
39	AUTO Mode
40	TEST Mode
41	ADDRESS Mode
42	Factory Setting load
43	DMX Mode

DMX Controlled

1. Turn the power switch on. Press MODE button and select DMX Mode.
2. Then press the Set Up-button; the display shows the current DMX starting address.
3. For **DMX Controlled** you have to use **DMX Channel: 1-255**.
4. Then press the Set Up-button again to confirm your setting.
5. Now your unit is DMX-Controlled. You will find all the pre-programmed scenes below.

Channel 1 - Colors

0-5	Blackout
6-11	Red
12-17	Green
18-23	Yellow
24-29	Blue
30-35	Purple
36-41	Cyan
42-47	White
48-53	Fast Change
54-59	Slow Flow 1
60-65	Fast Flow 1
66-71	Fast Flow 2
72-77	Black Run 1
78-83	Roll Chase
84-89	Roll Color
90-95	Color 1/4
96-101	Color1 1/4
102-107	Color 1/2
108-113	Color Flash
114-119	B & W Flow
120-125	R & G Flow
126-131	G & B Flow
132-137	R & B Flow
138-143	R & G Chase 1
144-149	R & G Chase 2
150-155	R & B Chase 1
156-161	R & B Chase 2
162-167	R & W Chase 1
168-173	R & W Chase 2
174-179	B & G Chase 1
180-185	B & G Chase 2
186-191	W & G Chase 1
192-197	W & G Chase 2
198-203	Rainbow Chase 1
204-209	Rainbow Chase 2
210-215	Rainbow Chase 3
216-221	Rainbow Chase 4
222-255	Rainbow Chase 8

Channel 2 – Setting of Speed, Flash or Color combinations

0-255	Speed

Channel 3 –Time Interval

0-255	Adjust the Time Interval from 0-255 (0-100%).

Channel 4 – Strobe

0-255	Adjust the Strobe from 0-255.

Channel 5 – RGB Mode

For RGB Mode the Channel 5 Fader has to be set to 255 (100%) to be active. Otherwise there will be no RGB Mode.

When you activate RGB Mode, the Channels are:
Channel 2: Red
Channel 3: Green
Channel 4: Blue

When you want to stop the RGB mode, be sure to deactivate Channel 5.
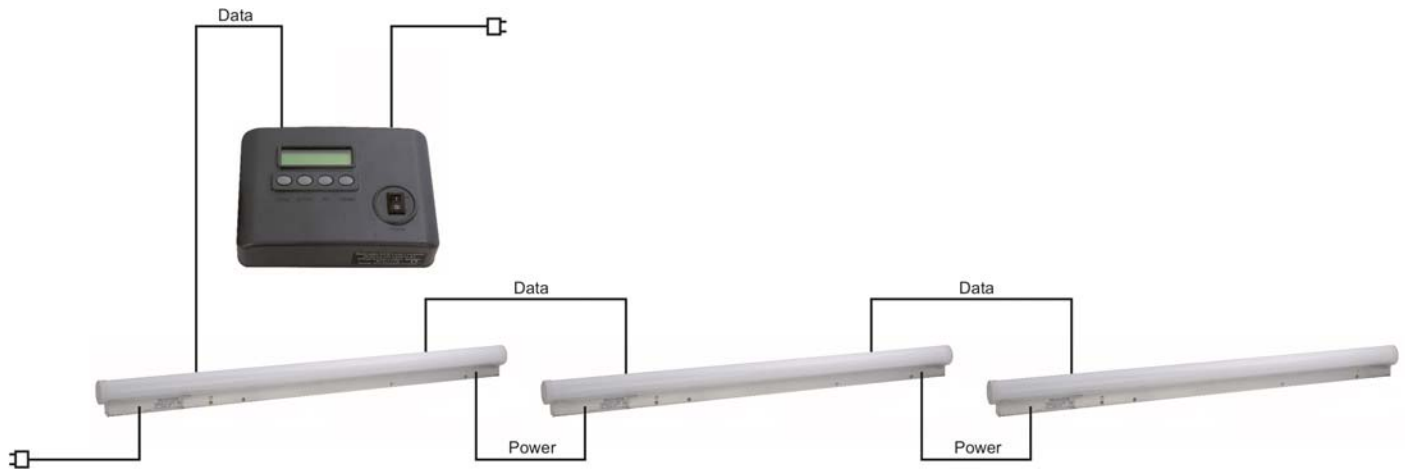
Set Up Example

Fig. 7

Maintenance

The Showtec LED Tube Basic Controller requires almost no maintenance. However, you should keep the unit clean. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Do not use alcohol or solvents.
Keep connections clean. Disconnect electric power, and then wipe the DMX and audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Troubleshooting

Showtec LED Tube Controller
This troubleshooting guide is meant to help solve simple problems. If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.
1. If the device does not operate properly, unplug the device.
2. Check power from the wall, all cables, the fuse, etc.
3. If all of the above appears to be O.K., plug the unit in again.
4. If nothing happens after 30 seconds, unplug the device.
5. Return the device to your Showtec dealer.

Product Specification

Model: Showtec LED Tube Basic Controller (41003)
Voltage : AC 230V-50Hz (CE)
Input Voltage: 9-12V / 500mA external adapter
Dimensions :180 x 125 x 49 mm (LxWxH)
Weight : 0,4 kg

Model: Showtec LED Tube Basic (41010)
Voltage : AC 230V-50Hz (CE)
Power: 12W
IP Protection: IP44
Led Quantitiy: 48 Red, 48 Green, 48 Blue
Dimensions: 1000 x 50 x 75 mm (LxWxH)
Weight : 1,82 kg

Design and product specifications are subject to change without prior notice.

CE

Show **tec** ®