

LED RGB DMX Unit

ORDERCODE A9915011



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Congratulations!

You have bought a great, innovative product from Artecta.

The Artecta LED RGB DMX Unit 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 Artecta, 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@Artecta.info

You can get some of the best quality, best priced products on the market from Artecta.

So next time, turn to Artecta for more great lighting equipment.

Always get the best -- with Artecta !

Thank you!



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WARNING

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE YOUR INITIAL START-UP!**

Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Your shipment includes:

- Artecta LED RGB DMX Unit
- User manual



 **CAUTION!** 
**Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!**

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE YOUR INITIAL START-UP!**

SAFETY INSTRUCTIONS

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual

 **CAUTION! Be careful with your operations.** 
**With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!**

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 use anything to cover the ground contact.
- Do not open the device and do not modify the device.
- Never leave any cables lying around.
- Do not insert objects into air vents.
- Do not switch the device on and off in short intervals, as this would reduce the device's life.

- Do not shake the device. Avoid brute force when installing or operating the device.
- Only use device indoor, avoid contact with water or other liquids.
- Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.
- Only operate the device after having familiarized with its functions.
- Avoid flames and do not put close to flammable liquids or gases.
- Always keep case closed while operating.
- Always allow free air space of at least 50 cm around the unit for ventilation.
- 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 Arctecta device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Arctecta dealer for service.
- For adult use only. The device must be installed out of the reach of children. Never leave the unit running unattended.
- The user is responsible for correct positioning and operating of the LED RGB DMX UNIT. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.



OPERATING DETERMINATIONS

This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.

The minimum distance between light-output and the illuminated surface must be more than 1.3 meter.

The maximum ambient temperature t_a must never be exceeded.

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!

Make sure that the device is always connected properly to the earth!

Return Procedure

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail aftersales@highlite.nl and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

- 1) Your name
- 2) Your address
- 3) Your phone number
- 4) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any shortcomings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless otherwise agreed in writing.

Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.

Description of the device

Features

The Arctecta LED RGB DMX Unit.

- Small and compact size
- Easy connection
- 15A. maximum total load

NOTE: Knowledge of DMX is required to fully utilize this unit

Overview

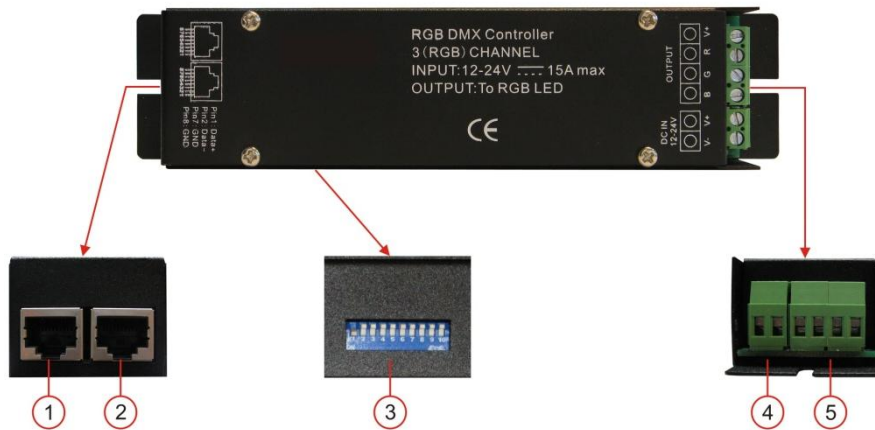


Fig. 1

1) RJ45 DMX In/ Out

Both RJ-45 sockets are wired in parallel.

2) RJ45 DMX In/ Out

Both RJ-45 sockets are wired in parallel.

3) Dipswitches

Are used to set the DMX start address for the LED RGB DMX Unit

4) DC 12-24V in

Connect a 12-24Vdc 15A power to this connector eg. Arctecta/ Showtec 60124. Watch the polarity.

5) LED output

Connect your RGB LED light to this connector eg. Showtec 42173, 42170, 42190, all Arctecta RGB 12-24V Leds etc.



You have to buy an external power supply (12-24V 15A) and construct your own XLR -> RJ-45 cable to use with your LED RGB DMX Unit (See Page 6, fig. 2 for a connection diagram).



Installation

Damages caused by non-observance are not subject to warranty.

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.

DMX Connection / Making the XLR-RJ45 cable

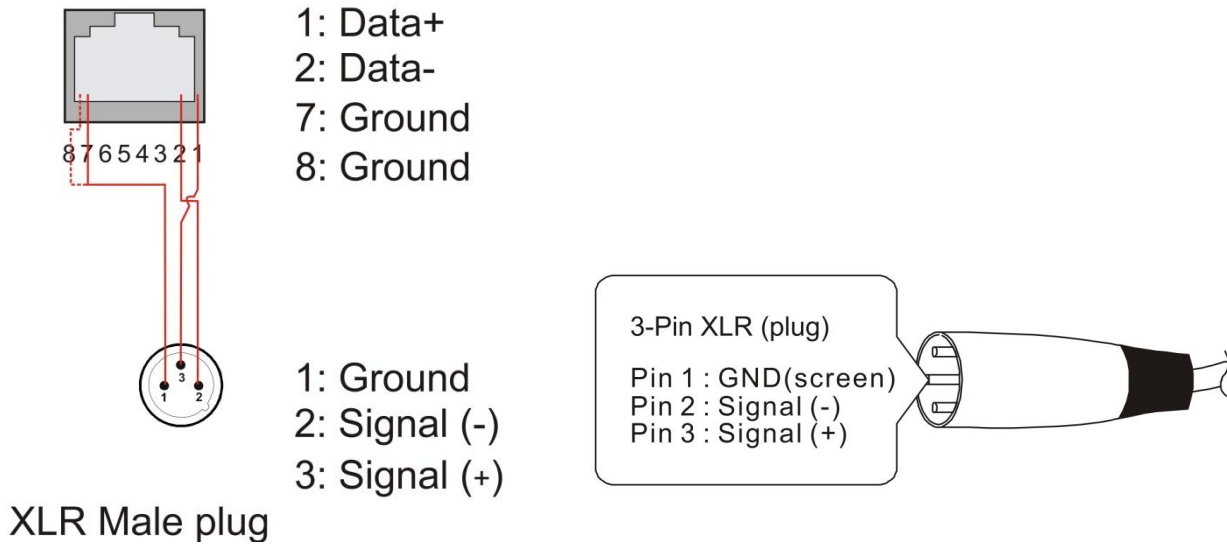
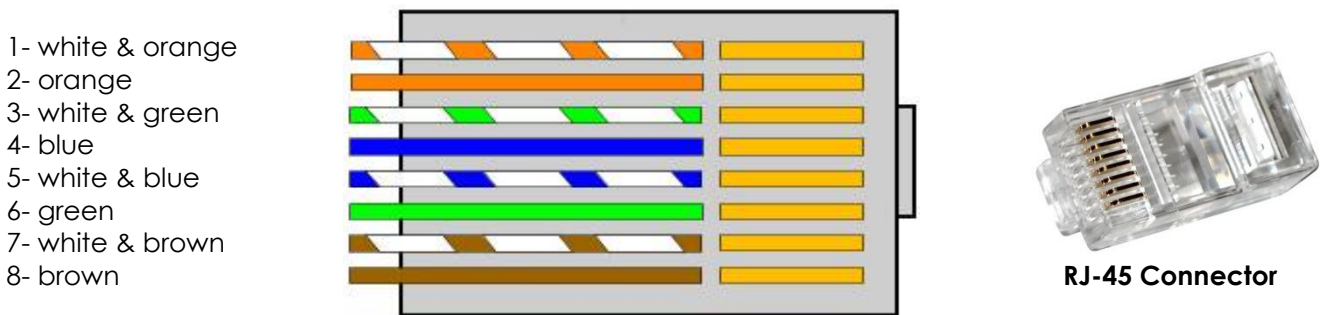


Fig. 2

Making an additional Data cable

Take a standard net cable (Cat5/ 5E /6) and connect it to the RJ-45 connector just like displayed on the picture. The wires should now be colored as following:



Insert each wire into an RJ-45 connector with the white & orange wire connected to PIN 1, the orange wire connected to the second PIN, etc.

DMX Control

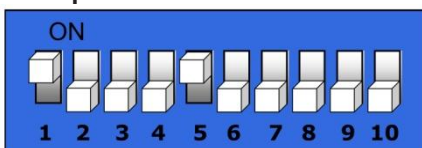
The LED RGB DMX Unit uses dipswitch 1-9 set the preferred start adress. Switch 10 is not used. If you set a start adress for the first channel ie. 50, the adress for the second channel will be 51 and the adress for the third channel will be 52.

DMX Dipswitch Settings

DMX products must have their own "address" to receive DMX signals. Addresses on the controller are set by flipping the appropriate DMX dipswitches.

You need to know that DMX address settings are the sum of the dip switch values where switch 1 = 2^0 , switch 2 = 2^1 , switch 3 = 2^2 , switch 4 = 2^3 etc., finally switch 9 = 2^8 .

Example



Switch	Value
#1 (2^0)	1
#5 (2^4)	16 +
Total sum	17

A much better approach is using the DMX Address Quick reference Chart as shown in figure 3 on page 6. You can find an example using the quick reference chart on page 7.

DMX Address Quick Reference Chart

DMX DIP SWITCH SET 0=OFF 1=ON					Dip Switch Position																		
					#9	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1			
					#8	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1		
					#7	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	1	
					#6	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
#1	#2	#3	#4	#5																			
0	0	0	0	0		32	64	96	128	160	192	224	256	288	320	352	384	416	448	480			
1	0	0	0	0	1	33	65	97	129	161	193	225	257	289	321	353	385	417	449	481			
0	1	0	0	0	2	34	66	98	130	162	194	226	258	290	322	354	386	418	450	482			
1	1	0	0	0	3	35	67	99	131	163	195	227	259	291	323	355	387	419	451	483			
0	0	1	0	0	4	36	68	100	132	164	196	228	260	292	324	356	388	420	452	484			
1	0	1	0	0	5	37	69	101	133	165	197	229	261	293	325	357	389	421	453	485			
0	1	1	0	0	6	38	70	102	134	166	198	230	262	294	326	358	390	422	454	486			
1	1	1	0	0	7	39	71	103	135	167	199	231	263	295	327	359	391	423	455	487			
0	0	0	1	0	8	40	72	104	136	168	200	232	264	296	328	360	392	424	456	488			
1	0	0	1	0	9	41	73	105	137	169	201	233	265	297	329	361	393	425	457	489			
0	1	0	1	0	10	42	74	106	138	170	202	234	266	298	330	362	394	426	458	490			
1	1	0	1	0	11	43	75	107	139	171	203	235	267	299	331	363	395	427	459	491			
0	0	1	1	0	12	44	76	108	140	172	204	236	268	300	332	364	396	428	460	492			
1	0	1	1	0	13	45	77	109	141	173	205	237	269	301	333	365	397	429	461	493			
0	1	1	1	0	14	46	78	110	142	174	206	238	270	302	334	366	398	430	462	494			
1	1	1	1	0	15	47	79	111	143	175	207	239	271	303	335	367	399	431	463	495			
0	0	0	0	1	16	48	80	112	144	176	208	240	272	304	336	368	400	432	464	496			
1	0	0	0	1	17	49	81	113	145	177	209	241	273	305	337	369	401	433	465	497			
0	1	0	0	1	18	50	82	114	146	178	210	242	274	306	338	370	402	434	466	498			
1	1	0	0	1	19	51	83	115	147	179	211	243	275	307	339	371	403	435	467	499			
0	0	1	0	1	20	52	84	116	148	180	212	244	276	308	340	372	404	436	468	500			
1	0	1	0	1	21	53	85	117	149	181	213	245	277	309	341	373	405	437	469	501			
0	1	1	0	1	22	54	86	118	150	182	214	246	278	310	342	374	406	438	470	502			
1	1	1	0	1	23	55	87	119	151	183	215	247	279	311	343	375	407	439	471	503			
0	0	0	1	1	24	56	88	120	152	184	216	248	280	312	344	376	408	440	472	504			
1	0	0	1	1	25	57	89	121	153	185	217	249	281	313	345	377	409	441	473	505			
0	1	0	1	1	26	58	90	122	154	186	218	250	282	314	346	378	410	442	474	506			
1	1	0	1	1	27	59	91	123	155	187	219	251	283	315	347	379	411	443	475	507			
0	0	1	1	1	28	60	92	124	156	188	220	252	284	316	348	380	412	444	476	508			
1	0	1	1	1	29	61	93	125	157	189	221	253	285	317	349	381	413	445	477	509			
0	1	1	1	1	30	62	94	126	158	190	222	254	286	318	350	382	414	446	478	510			
1	1	1	1	1	31	63	95	127	159	191	223	255	287	319	351	383	415	447	479	511			

Dip Switch Position

DMX Address

Fig. 3

Example:

1. If you want to give an the LED RGB DMX UNIT DMX start address 133, you first have to find the number 133 in the DMX Chart.
2. Then look at the left side (Dip Switches #1-#5) horizontally from 133.
In the Table you'll see #1=ON, #2=OFF, #3=ON, #4=OFF, #5=OFF.
3. Finally look at the upper side of the table (Dip Switches #6-#9) vertically from 133.

DMX Address Quick Reference Chart

DMX DIP SWITCH SET					#9	0	0	0	0	0	0
0=OFF					#8	0	0	0	0	0	1
1=ON					#7	0	0	1	1	0	0
					#6	0	1	0	1	0	1

#1	#2	#3	#4	#5
0	0	0	0	0
1	0	0	0	0
0	1	0	0	0
1	1	0	0	0
0	0	1	0	0
1	0	1	0	0
0	1	1	0	0

	32	64	96	128	160
1	33	65	97	129	161
2	34	66	98	130	162
3	35	67	99	131	163
4	36	68	100	132	164
5	37	69	101	133	165
6	38	70	102	134	166

In the Table you'll see #6=OFF, #7=OFF, #8=ON, #9=OFF.

Now you can address channel 1 (R) on 133, channel 2 (G) on 134 and channel 3 (B) on 135.

Maintenance

The operator has to make sure that safety-relating and machine-technical installations are to be inspected by an expert after every four years in the course of an acceptance test.

The operator has to make sure that safety-relating and machine-technical installations are to be inspected by a skilled person once a year.

The following points have to be considered during the inspection:

1. All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.
2. There may not be any deformations on housings, fixations and installation spots.
3. Mechanically moving parts like axles, eyes and others may not show any traces of wearing.
4. The electric power supply cables must not show any damages or material fatigue.

The Arrecta LED RGB DMX Unit requires almost no maintenance. However, you should keep the unit clean. Otherwise, the light-output will be significantly reduced. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Wipe lens clean with glass cleaner and a soft cloth. Do not use alcohol or solvents.

The front glass will require weekly cleaning, as smoke-fluid tends to build up residues, reducing the light-output very quickly.

Please clean internal components once a year with a light brush and vacuum cleaner.

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

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 the fuse, power from the wall, all cables etc.
3. If all of the above appears to be O.K., plug the unit in again.
4. If you are unable to determine the cause of the problem, do not open the device, as this may damage the unit and the warranty will become void.
5. Return the device to your Arrecta dealer.

No Power

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.

If the LED RGB DMX Unit does not operate properly, refer servicing to a technician.

Problem area: the power supply.

1. Power supply. Check that the unit is plugged into an appropriate power supply.

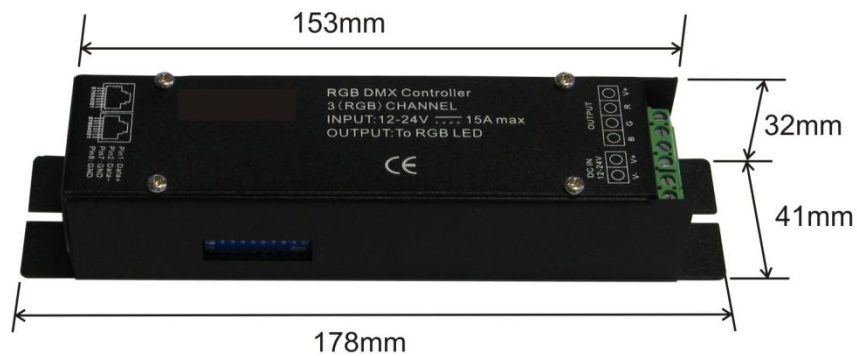
No Response to DMX

Response: Suspect the DMX cable or connectors, a controller malfunction.

1. Check the DMX setting. Make sure that DMX addresses are correct.
2. Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power. Try your DMX control again.
3. Determine whether the controller or light effect is at fault. Does the controller operate properly with other DMX products? If not, take the controller in for repair. If so, take the DMX cable and the light effect to a qualified technician.

Product Specification

Model: Arctecta LED RGB DMX Unit
Power input: DC 12-24V
Power consumption: 15A max.
Power input connector: terminal
Channel output: 5A
Output connector: terminal
DMX input/ link connectors: RJ-45
DMX channels: 3
DMX settings: Dipswitches
Dimensions: 34 x 177 x 45 mm (LxWxH)
Weight: 0.22 kg



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



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