Commander 384

Order code: BOTE12

USER MANUAL

WARNING

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

CAUTION!

**Keep this equipment away from rain,
moisture and liquids.**

SAFETY INSTRUCTIONS

Every person involved with the installation, operation & maintenance of this
equipment should:
-        Be competent
-        Follow the instructions of this manual

**CAUTION! TAKE CARE USING THIS EQUIPMENT!
HIGH VOLTAGE-RISK OF ELECTRIC SHOCK!!**

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

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

Please note that damages caused by user modifications to this equipment are not
subject to warranty.

IMPORTANT:

**The manufacturer will not accept liability for any resulting damages caused
by the non-observance of this manual or any unauthorised modification to the
equipment.**

- Never let the power-cable come into contact with other cables. Handle the power-cable and all mains voltage connections with particular caution!
- Never remove warning or informative labels from the equipment.
- Do not open the equipment and do not modify the equipment.
- Do not connect this equipment to a dimmer-pack.
- Do not switch the equipment on and off in short intervals, as this will reduce the system's life.
- Only use the equipment indoors.
- Do not expose to flammable sources, liquids or gases.
- Always disconnect the power from the mains when equipment is not in use or before cleaning! Only handle the power-cable by the plug. Never pull out the plug by pulling the power-cable.
- Make sure that the available voltage is between 220v/240v.
- Make sure that the power-cable is never crimped or damaged. Check the equipment and the power-cable periodically.
- If the equipment is dropped or damaged, disconnect the mains power supply immediately. Have a qualified engineer inspect the equipment before operating again.
- If the equipment has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation might damage the equipment. Leave the equipment switched off until it has reached room temperature.
- If your product fails to function correctly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Prolight dealer for service.
- Only use fuses of same type and rating.
- Repairs, servicing and power connection must only be carried out by a qualified technician. THIS UNIT CONTAINS NO USER SERVICEABLE PARTS.
- WARRANTY; One year from date of purchase.

OPERATING DETERMINATIONS

If this equipment is operated in any other way, than those described in this manual,
the product may suffer damage and the warranty becomes void.

Incorrect operation may lead to danger e.g.: short-circuit, burns and electric shocks etc.

Do not endanger your own safety and the safety of others!
Incorrect installation or use can cause serious damage to people and property.

1.2 What is included:

1) DMX-512 controller
2) DC 9-12V 500mA, 90V~240V Power adaptor
3) Manual
4) LED gooseneck lamp

1.3 Unpacking instructions:

Immediately upon receiving the fixture, carefully unpack the carton, check the contents to ensure that all parts are present, and have been received in good condition. Notify the shipper 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 carton and packing.

2. INTRODUCTION

2.1 Features

• DMX512
• Controls 12 intelligent lights of up to 32 channels each (total 384 channels)
• 30 banks, each with 8 scenes; 6 chases, each with up to 240 scenes
• Record up to 6 chases with fade time and speeds
• 16 sliders for direct control of channels
• Built-in microphone for music mode
• Auto mode program controlled by fade time sliders
• DMX in/out: 3 pin XLR
• LED gooseneck lamp

2.2 General Overview

The controller is a universal intelligent lighting controller. It allows the control of 12 fixtures composed of 32 channels each and up to 240 programmable scenes. Six chase banks can contain up to 240 steps composed of the saved scenes and in any order. Programs can be triggered by music, automatically or manually. All chases can be executed sequentially.

On the front panel you will find various programming tools such as 16 universal channel sliders, quick access scanner and scene buttons and an LED display indicator for easier navigation of controls and menu functions.

2.3 Product Overview (front)
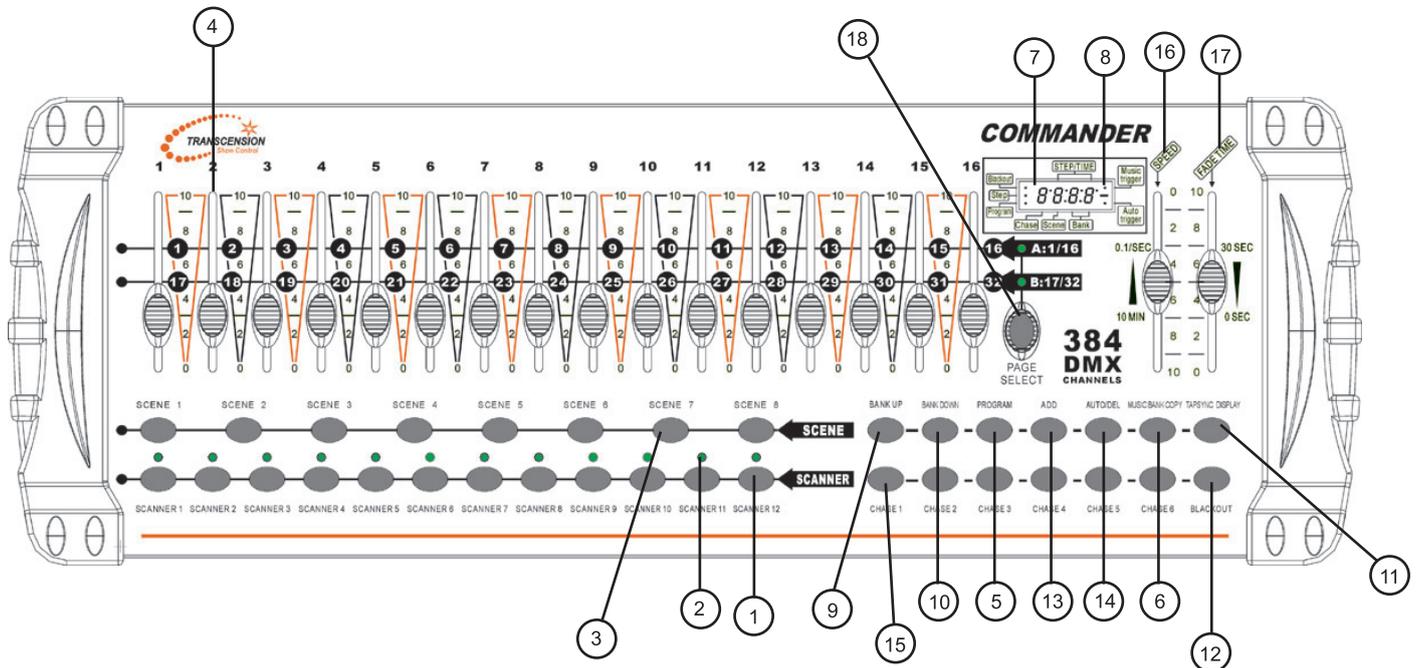
2.4 Product Overview (rear panel)

Note: For the Overview Identification please see page 6.

2.5 Overview Identification

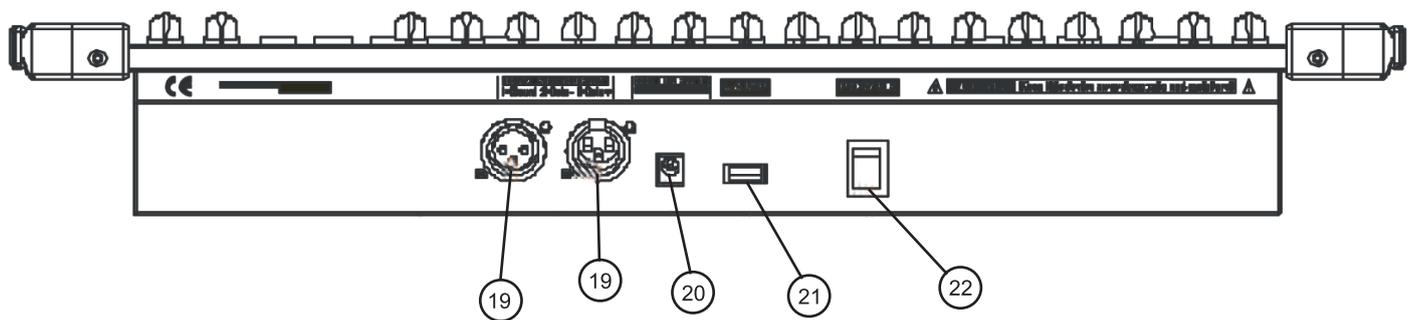| Item	Button or Fader	Function
1	Scanner select buttons	Fixture selection
2	Scanner indicator LEDS	Indicates the fixtures currently selected
3	Scene select buttons	Selector buttons representing scene location for storage and selection
4	Channel sliders	For adjusting DMX values, Ch 1~32 can be adjusted immediately after pressing the respective scanner select button
5	Program button	Used to enter programming mode
6	Music/Bank Copy button	Used to activate Music mode and as the copy command during programming
7	LED display window	Status window displays operational data
8	Mode Indicator LEDs	Provides operating mode status, (manual, music or auto)
9	Bank Up button	Function button to Scene/Steps in banks or chases
10	Bank Down button	Function button to select Scene/Steps in banks or chases
11	Tap Display button	Sets the chase speed by tapping, and toggles between values and percentages.
12	Blackout button	Sets the shutter or dimmer value of all fixtures to "0" causing all light output to cease
13	ADD button	Activates external control and also used to confirm the record/save process
14	Auto/Del button	Used to activate Auto mode and as the delete function key during programming
15	Chaser buttons	Chase memory 1 ~ 6
16	Speed slider	Adjusts the hold time of a scene or a step within a chase
17	Fade-Time slider	Sets the interval time between two scenes in a chase
18	Page select button	In manual mode, press to toggle between pages A or B
19	DMX output connector	DMX control signal
20	DC Input jack	Main power
21	USB Lamp socket	
22	ON/OFF power switch	Switch on/off controller

3. OPERATION INSTRUCTIONS

3.1 Setup

3.1.1 SETTING UP THE SYSTEM

1) Plug the AC to DC power supply to the system back panel and to the mains outlet.

2) Plug in your DMX cable(s) to your intelligent lighting as described in the fixtures respective manual. For a quick reference on DMX refer to the Appendix of this manual.

3.1.2 FIXTURE ADDRESSING

The Controller is able to control 32 channels of DMX per fixture, therefore the fixtures you wish to control with the corresponding **"SCANNER"** buttons on the unit, must be spaced 32 channels apart.

FIXTURE OR SCANNER #	DEFAULT DMX STARTING ADDRESS	BINARY DIPSWITCH SETTINGS SWITCH TO THE " ON POSITION"
1	1	1
2	33	1,6
3	65	1,7
4	97	1,6,7
5	129	1,8
6	161	1,6,8
7	193	1,7,8
8	225	1,6,7,8
9	257	1,9
10	289	1,6,9
11	321	1,7,9
12	353	1,6.7.9

Please refer to your individual fixture's manual for DMX addressing instructions. The table above refers to a standard 9 dipswitch binary configurable fixture.

3.1.3 PAN AND TILT CHANNELS

Because not all intelligent lighting fixtures are alike or share the same control attributes, the Controller allows the user to assign the correct pan and tilt channel for every individual fixture.

Action:

1) Press and hold **PROGRAM & TAPSYNC** to enter Pan/Tilt assignment mode
2) Press a **SCANNER** button that represents the fixture whose faders you would like to re-assign.
3) Move one fader of 1-32 channels to select the pan channel.
4) Press the **TAPSYNC DISPLAY** button to select pan / tilt
5) Move one fader of 1-32 channels to select the tilt channel.
6) Press and hold **PROGRAM & TAPSYNC DISPLAY** buttons to exit and save setting. All LEDs will blink.

Notes:

All pan/tilt can be reassigned to output on a different DMX channel.
Press **AUTO/DEL** buttons to delete the channel assignment mode.

All pan/tilt can be reassigned to output on a different DMX channel.

3.1.4 RESETTING THE SYSTEM

Warning:
This will reset the controller to its factory defaults.
This will erase all programs and settings.
Action:
1) Turn off the unit.
2) Press and hold **BANK UP** and **AUTO/DEL.**
3) Turn on power to the unit
    (while still holding **BANK UP** and **AUTO/DEL**).

Notes:

3.1.5 COPY SCANNER

Example: Copying Scanner 1 into Scanner 2
Action:
1) Press and hold **SCANNER** button # 1.
2) While holding button # 1 press **SCANNER**
    button # 2.
3) Release **SCANNER** button # 1 first before
     releasing **SCANNER** button # 2.
4) All **SCANNER LED** indicators will flash to
     confirm successful copy.

Notes:
To save time, you can copy the settings of one
Scanner button to another.

3.1.6 FADE TIME ASSIGN

You can choose whether the controllers fade time during scene execution is implemented to all output
channels or only to the Pan & Tilt movement channels. This is relevant because often you will want gobos
and colours to change quickly while not affecting the movement of the light.
Action:
1) Turn OFF the controller.
2) Hold the BLACKOUT and **TAPSYNC**
    DISPLAY buttons simultaneously.
3) Turn **ON** the controller.
4) Press the **TAPSYNC DISPLAY** button to toggle
    between the two modes. Either all channels (A)
    or select channel Pan & Tilt only (P)
5) Press **BLACKOUT** and **TAPSYNC DISPLAY**
    to save settings. All LEDs will blink to confirm.

Notes:
A: All channels   P: Only Pan & Tilt

3.2 Operation

3.2.1 MANUAL MODE

The manual mode allows direct control of all scanners. You are able to move them and change attributes by
using the channel faders.
Action:
1) Press the **AUTO DEL** button repeatedly until
    neither music trigger or auto trigger indicators
    are lit.
2) Select a SCANNER button.
3) Move faders to change fixture attributes.
    TAPSYNC DISPLAY button: Press to toggle
    the output indicator on the LED display between
    DMX values (0-255) and percentage (0-100)

Notes:
All changes made while in Manual Mode are
temporary and will not be recorded.

3.2.2   REVIEW SCENE OR CHASE

This instruction assumes that you have already recorded scenes and chases on the controller. Otherwise skip this section and go to programming.

Action: (SCENE Review)
1) Select any one of the 30 banks by
   pressing the **BANK UP/DOWN** buttons.
2) Select a **SCENE** button (1~8) to review.
3) Move faders to change fixture attributes.

Action: (CHASE Review)
1) Press any one of the 6 **CHASE** buttons.
2) Press the **TAP DISPLAY** button to view
   the step number on the display.
3) Press the **BANK UP/DOWN** buttons
   review all scenes in the chase.

Notes:
Make sure you are still in MANUAL Mode.

3.3 Programming
A program (bank) is a sequence of different scenes (or steps) that can be called up one after another. In the controller 30 programs can be created of 8 scenes in each.

3.3.1 ENTERING PROGRAM MODE
Press the **PROGRAM** button until the LED blinks.

3.3.2CREATE A SCENE:

A scene is a static lighting state. Scenes are stored in banks. There are 30 bank memories on the controller and each bank can hold 8 scene memories. The controller can save up to a total of 240 scenes.

Action:
1) Press the **PROGRAM** button until
   the LED blinks.
2) Position **SPEED** and **FADE TIME** sliders
   all the way down.
3) Select the **SCANNERS** you wish to include
   in your scene.
4) Adjust your lighting fixture to the scene
   you require by moving the sliders.
5) Tap the **ADD** button.
6) Choose a **BANK** (01~30) to change
   if necessary.
7) Select a **SCENES** button to store.
8) Repeat steps 3 through 7 as necessary.
   8 scenes can be recorded in a Program.
9) To exit program mode, hold
    the **PROGRAM** button.

Notes:
Deselect Blackout if LED is on.

You can select more than one fixture.

There are 8 scenes in each bank.
All LEDs will flash to confirm. The LED display will now indicate the Scene number and Bank number used.

3.3.3 RUNNING A PROGRAM
Action:
1) Use **BANK UP/DOWN** buttons to change
   Programme banks if necessary.
2) Press the **AUTO DEL** button repeatedly until
   the **AUTO LED** turns on.
3) Adjust the **PROGRAM** speed via the **SPEED**
   fader and the loop rate via the **FADE TIME** fader.
4) Alternatively you can tap the **TAPSYNC
   DISPLAY** button twice. The time between two
   taps sets the time between **SCENES**
   (up to 10 minutes).

Notes:
Deselect Blackout if LED is lit.

3.3.4 CHECKING A PROGRAM
Action:
1) Press and hold the **PROGRAM** button
   until the LED blinks.
2) Use the **BANK UP/DOWN** buttons to select
   the **PROGRAM** bank to review.
3) Press the **SCENES** buttons to review each
   scene individually.

Notes:

3.3.5 EDITING A PROGRAM
Scenes will need to be modified manually.
Action:
1) Press and hold the **PROGRAM** button until
   the LED blinks.
2) Use **BANK UP/DOWN** buttons to change
   Program banks if necessary.
3) Select the desired fixture via the
   SCANNERS button.
4) Adjust and change fixture attributes using
   the channel faders.
5) Press the **ADD** button to prepare
   the save.
6) Select the desired **SCENES** button to save.

Notes:
Deselect Blackout if LED is lit.

3.3.6 COPY A PROGRAM
Action:
1) Press and hold the **PROGRAM** button until
   the LED blinks.
2) Use **BANK UP/DOWN** buttons to select the
   PROGRAM bank you want to copy.
3) Press the **ADD** button to prepare to copy.
4) Use **BANK UP/DOWN** buttons to select the
   destination **PROGRAM** bank.
5) Press the **MUSIC BANK COPY** button to
   execute the copy. All LEDs on the
   controller will blink.

Notes:
All 8 scenes in a Program bank will be copied.

3.4 Chase Programming

A chase is created by using previously created scenes. Scenes become steps in a chase and can be arranged in any order you choose. It is highly recommended that prior to programming chases for the first time; you delete all chases from the memory. See **"Delete All Chases"** for instructions.

3.4.1 CREATE A CHASE

A Chase can contain up to 240 scenes as steps. The term steps refers to a scene when used within a chase.

Action:
1) Press the **PROGRAM** button until the LED blinks.
2) Press the **CHASE** (1~6) button you wish to program.
3) Change **BANK** if necessary to locate a scene.
4) Select the **SCENE** to insert.
5) Tap the **ADD** button to store.
6) Repeat steps 3 ~ 5 to add additional steps in the chase. Up to 240 steps can be recorded.
7) Press and hold the **PROGRAM** button to save the chase

Notes:

3.4.2 RUNNING A CHASE

Action:
1) Press a **CHASE** button then press the **AUTO DEL** button.
2) Adjust the Chase speed by tapping the **TAPSYNC DISPLAY** button twice at a rate of your choice.

Notes:
The time between 2 taps will set the chase speed (up to 10 minutes)

3.4.3 CHECKING A CHASE

Action:
1) Press and hold the **PROGRAM** button until the LED is lit.
2) Select the desired **CHASE** button.
3) Press the **TAPSYNC DISPLAY** button to switch the LED display to steps.
4) Review each scene/step individually by using the **BANK UP/DOWN** buttons.

Notes:

3.4.4 EDIT CHASE (COPY BANK INTO CHASE)

Action:
1) Press and hold the **PROGRAM** button to enter programming mode.
2) Press the desired **CHASE** button.
3) Select the **BANK** to be copied using the **BANK UP/DOWN** buttons.
4) Press **MUSIC/BANK COPY** button to prepare to copy.
5) Press **ADD** button to copy the bank. All LEDs will blink.

Notes:

3.4.5 EDIT CHASE (COPY SCENE INTO CHASE)
Action:

1) Press and hold the **PROGRAM** button
   to enter programming mode.
2) Press the desired **CHASE** button.
3) Select the **BANK** that contains the scene
   to be copied using the **BANK UP/DOWN** buttons.
4) Press the **SCENE** button that corresponds
   to the scene to be copied.
5) Press **ADD** button to copy the scene.
   All LEDs will blink.

Notes:

3.4.6 EDIT CHASE (INSERT SCENE INTO A CHASE)
Action:

1) Press and hold the **PROGRAM** button to
   enter programming mode.
2) Press the desired **CHASE** button.
3) Press the **TAPSYNC DISPLAY** to switch the
   LED display to steps view.
4) Use the **BANK UP/DOWN** buttons to navigate
   steps and locate the insert point of the new
   scene. The display will read the step number.
5) Press **ADD** button to prepare the insert.
6) Use the **BANK UP/DOWN** button to locate
   the **SCENE**.
7) Press the **SCENE** button that corresponds
   to the scene to be inserted.
8) Press **ADD** button to insert the scene.
   All LEDs will blink.

Notes:

I.e. To insert a scene between Steps 05 and 06
navigate using BANK buttons until the display
reads STEP05.

3.4.7 DELETE A SCENE IN A CHASE
Action:

1) Press and hold the **PROGRAM** button to
   enter programming mode.
2) Press the desired **CHASE** button that
   contains the scene to be deleted.
3) Press the **TAPSYNC DISPLAY** button to
   switch the LED display to steps.
4) Select the scene/step to be deleted using
   the **BANK UP/DOWN** buttons.
5) Press **AUTO DEL** button to delete the
   step/scene. All LEDs will blink.

Notes:

3.4.8 DELETE A CHASE
Action:

1) Press and hold the **PROGRAM** button to
   enter programming mode.
2) Press the **CHASE** button (1~6) to be deleted.
3) Press and hold **AUTO DEL** button and the
   respective **CHASE** button to delete the chase.
   All LEDs will blink.

Notes:

3.4.9 DELETE ALL CHASE PROGRAMS
CAUTION! This procedure will result in irrevocable loss of chase step memory. The individual scenes and programme banks will be preserved.

Action:
1) Turn **OFF** the controller.
2) Press and hold the **BANK DOWN** button and the **AUTO DEL** button while turning **ON** the controller.
3) All LEDs will blink.

Notes:

3.5   Scene Programming (Steps)

3.5.1 INSERT A SCENE
Action:
1) Press and hold the **PROGRAM** button to enter programming mode.
2) Press the desired **CHASE** button.
3) Press the **TAPSYNC DISPLAY** to switch the LED display to steps view.
4) Use the **BANK UP/DOWN** buttons to navigate steps and locate the insert point of the new scene. The display will read the step number.
5) Press **ADD** button to prepare the insert.
6) Use the **BANK UP/DOWN** button to locate the SCENE.
7) Press the **SCENE** button that corresponds to the scene to be inserted.
8) Press **ADD** button to insert the scene. All LEDs will blink.

Notes:

I.e. To insert a scene between Steps 05 and 06 navigate using BANK buttons until the display reads STEP05.

3.5.2   COPY A SCENE
Action:
1) Press and hold the **PROGRAM** button to enter programming mode.
2) Select the **BANK** that contains the scene to be copied using the **BANK UP/DOWN** buttons.
3) Press the **SCENE** button that corresponds to the scene to be copied.
4) Press **ADD** button to copy the scene.
5) Select the destination BANK that contains the scene memory to record into using the **BANK UP/DOWN** buttons.
6) Press the desired **SCENE** button to complete copy. All LEDs will blink.

Notes:

3.5.3 DELETE A SCENE
Action:
1) Press and hold the **PROGRAM** button to enter programming mode.
2) Select the **BANK** that contains the scene to be deleted by using the **BANK UP/DOWN** buttons.
3) Press and hold the **AUTO DEL** button.
4) Press t**he SCENE** button that corresponds to the scene you want to delete. All LEDs will blink.

Notes:
When deleting a scene the physical location is not removed, however, all 384 DMX channels available to the scene will be set to value 0.

3.5.4 DELETE ALL SCENES
Action:
1) Press and hold the **PROGRAM** button and the **BANK DOWN** button while turning **OFF** power to the controller.
2) Turn the controller back **ON** whilst still holding the **PROGRAM** and **BANK DOWN** buttons.
3.6 Playback

Notes:
CAUTION! This process is irreversible. All scenes with data will be set to 0.

3.6.1 SOUND MODE
Action:
1) Press the **MUSIC BANK COPY** button until the **MUSIC LED** turns on.
2) Select the program **BANK** to run in sound active mode using the **BANK UP/DOWN** buttons.
3) Alternatively you can press a single **CHASE** button (1~6) or several **CHASE** buttons in sequence and all selected chases will loop in the order selected.
4) You can adjust the duration time using the **FADE TIME** fader.

Notes:
In the Sound mode, programs will be triggered by the sound using its built-in microphone.

Multiple chases selected will loop and run in the order originally selected.

3.6.2 AUTO MODE
Action:
1) Press the **AUTO DEL** button until the **AUTO LED** turns on.
2) If a **CHASE** button is not pressed the controller will automatically run a **BANK** program.
3) Change **BANK** programs by using the **BANK UP/DOWN** buttons.
4) Alternatively you can press a single **CHASE** button (1~6) or several **CHASE** buttons in sequence and all selected chases will loop in the order selected.
5) You can adjust the time between steps by moving the **SPEED** fader and the duration of the step by moving the **FADE TIM**E fader.

Notes:
In the Auto mode, programs will be triggered by controllers fade and speed time as set on the faders.

Multiple chases selected will loop and run in the order originally selected.

3.6.3 BLACKOUT
The Blackout button brings all lighting output to 0 or off.

4 Appendix

4.1 DMX-512:
• DMX (Digital Multiplex) is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions form the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA "IN" and DATA "OUT" XLR terminals located on all DMX fixtures (most controllers only have a data "out" terminal).

4.2 DMX Linking:
• DMX is a language allowing all makes and models of different manufactures to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, when using several DMX fixtures try to use the shortest cable path possible. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example; a fixture assigned to a DMX address of 1 may be placed anywhere in a DMX line, at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

Figure 1

Further DMX cables can be purchased from all good sound and lighting suppliers or Prolight dealers.
Please quote:
CABL10 – 2M
CABL11 – 5M
CABL12 – 10M

Also remember that DMX cable must be daisy chained and cannot be split.

Notice:

• Be sure to follow figures 2 & 3 when making your own cables. Do not connect the cable's shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR's outer casing. Grounding the shield could cause a short circuit and erratic behaviour.

common

DMX-512 out
3-pin XLR

1
3
2

DMX +
DMX -

1
3
2

DMX-512 in
3-pin XLR

XLR MALE SOCKET

XLR FEMALE SOCKET

1 ground

2 cold

2 cold

1 ground

3 Hot

3 Hot
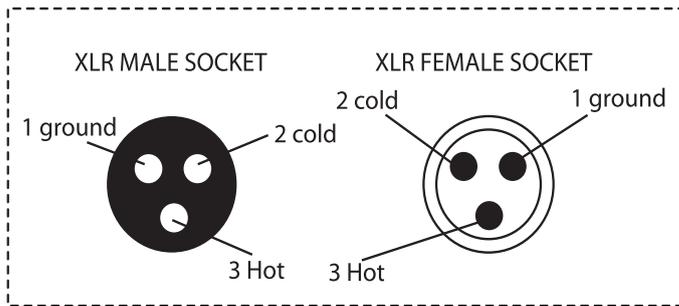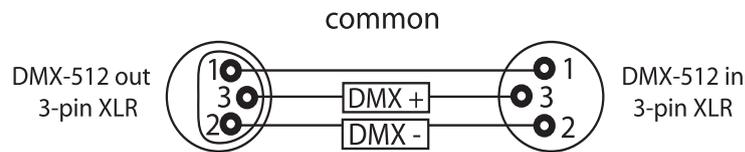
XLR Pin Configuration
Pin 1 = Ground
Pin 2 = Negative
Pin 3 = Postive

FIGURE 3

FIGURE 2

Special Note: Line termination:

   • When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behaviour.

1
3
2
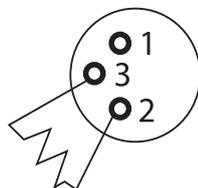
Termination reduces signal transmission problems and interferance. it is always advisable to connect a DMX terminal, (resistance 120 Ohm 1/4 W) between pin 2 (DMX-) and pin 3 (DMX+) of the last fixture.

Using a cable terminator (part number CABL90) will decrease the possibilities of erratic behaviour.

5-Pin XLR DMX Connectors:

   • Some manufactures use 5-pin XLR connectors for data transmission in place of 3-pin. 5-Pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-pin XLR connectors in to a 3-pin line a cable adaptor must be used. The chart below details the correct cable conversion.

5-Pin canon (socket)
Pin 1: GND (screen)
Pin 2: signal (-)
Pin 3: Signal (+)
Pin 4: N/C
Pin 5: N/C

3-Pin canon (socket)
Pin 1: GND (screen)
Pin 2: N/C
Pin 3: N/C

3-Pin canon (socket)
Pin 1: GND (screen)
Pin 2: N/C
Pin 3: N/C

5-Pin canon (socket)
Pin 1: GND (screen)
Pin 2: signal (-)
Pin 3: Signal (+)
Pin 4: N/C
Pin 5: N/C
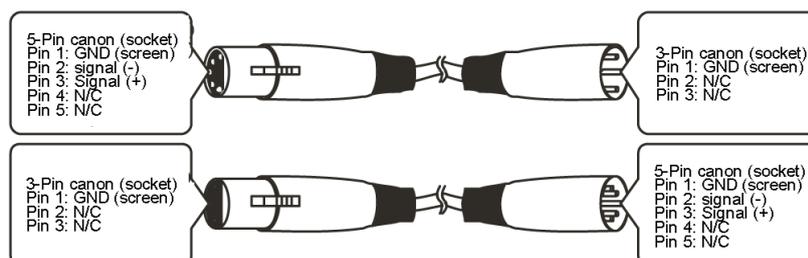
4.3 DMX Dip Switch Quick Reference Chart

Dip Switch Position

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

4.4 Technical Specifications
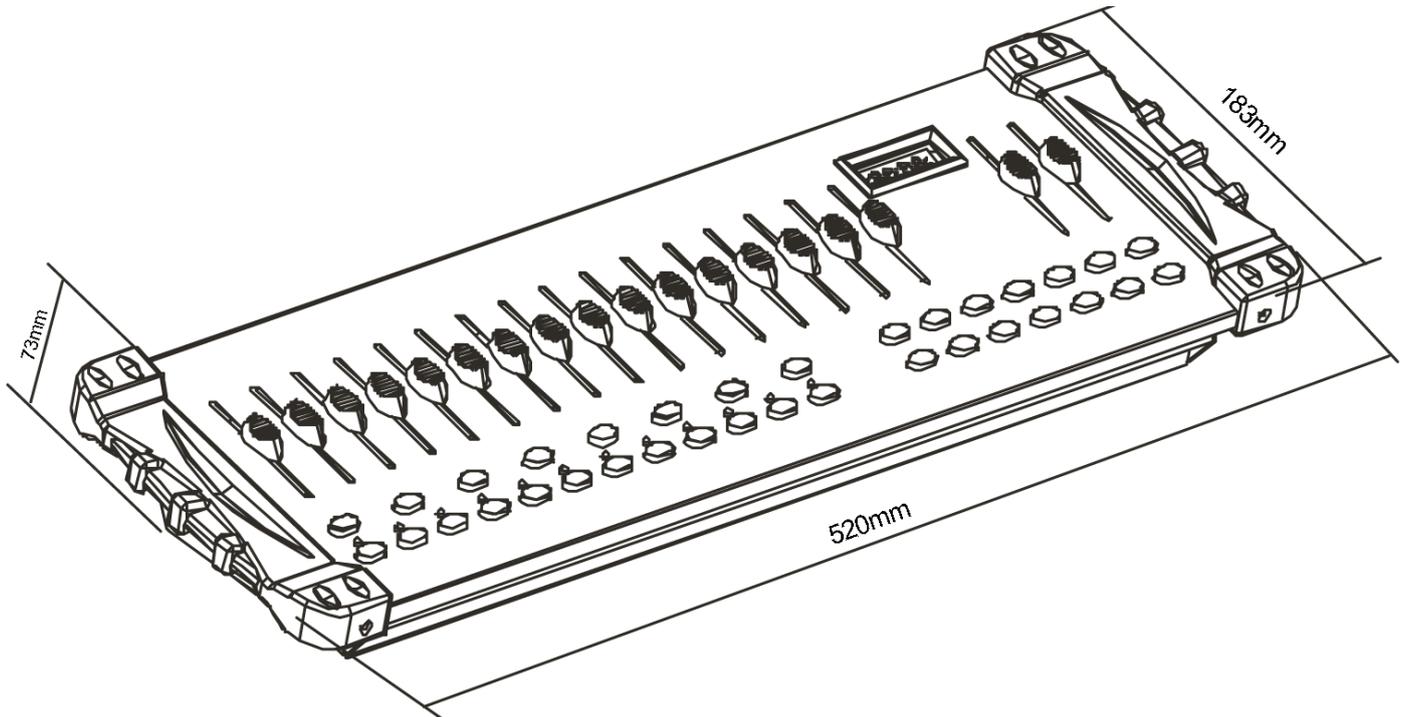
Maximum ambient temperature ....45°C
Data input .... locking 3-pin XLR male socket
Data output .... locking 3-pin XLR female socket
Data pin configuration ....pin 1 shield, pin 2 (-), pin 3 (+)
Protocols ....DMX-512 USITT
Power supply ....DC 9V-12V 500mA min
Dimensions (L x W x H)... 520 x 183 x 73mm
Weight.. 3.0 Kg