A. Copyright

The Bluetooth® trademark is associated with the protected marks belonging to Bluetooth SIG, Inc.

The Apple® trademark is a protected mark belonging to Apple Inc., filed in the United States and other countries.

The Windows Phone® trademark is a protected mark belonging to the Microsoft Corporation., filed in the United States of America and/or in other countries.

B. Declaration of conformity

The company CCEI Inc. (Québec 1170122155) declares that the product Brio RC+ meets the safety and electromagnetic compatibility requirements of European Directives 2006/95/EC and 2004/108/EC.		
CE		Pierre-Yves Flattot Montreal, on 08/04/2016
Distributor's stamp		
Date of sale: . . . . Batch N°:		

8.3. Connection to Brio RC+

Only one device can be connected to a Brio RC+ at a time.

When the application is opened it scans the Brio RC+ in its range and displays "Looking for Brio RC+".

- If only one Brio RC+ is in range, it will connect automatically.
- If there are several available, a selection list will appear.
- If no devices are detected, the application will display the message "No Brio RC+ detected". In this case, check that your device is compatible with Bluetooth Low Energy (4.x), get closer to the Brio RC+ or try with another device. Press the button in the centre of the screen to launch a new search.
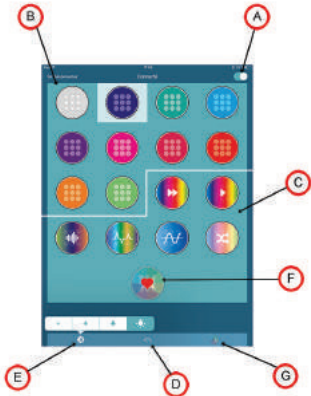
8.2. Description of the Android application

View of the Android screen	Downloading and installation
	To download the installation, find "Brio RC+" in the Play Store, or scan the following QR Code:

Refer to the table on the previous page for descriptions of the components.

8. IOS / Android applications
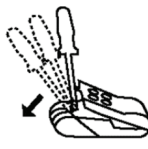
8.1. Description of the iOS application

View of the iOS screen	Downloading and installation
	To download the installation, find "Brio RC+" in the AppStore, or scan the following QR Code:

Component	Description
A	This key turns the lights on or off
B	Direct access to 10 set colours
C	Direct access to 7 sequences
D	This key lets you adjust the colour sequencing speed. After clicking the button, 3 pictograms will be displayed to select the speed. Adjusting the sequencing speed setting automatically sets the lights to psychedelic mode and the Brio RC+ display to A4. The setting is easier to judge in this mode.
E	This key lets you adjust the intensity of the lights. After clicking the button, 4 pictograms will be displayed to select the intensity. Adjusting the intensity setting automatically sets the lights to white and the Brio RC+ display to F0. The setting is easier to judge in this mode.
F	Press this key to store your favourite colour. (see below).
G	When a sequence is running, press this key to set the colour and store it as your favourite colour.

7.8. Selecting the radio code

In the event that another radio device is in the vicinity, it may interfere with the operation of your installation (e.g. a neighbour also has a Brio RC+), the code can be changed. **You will also need to change the code on the Brio RC+ and inside the remote control unit**. To do this it is necessary to
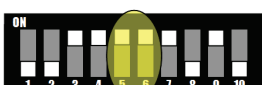
1. Cut the power to the Brio RC+,

2. Press the key ✔ and hold it,

3. Turn on the Brio RC+,

4. Release the key,

5. Change the current radio code which appears on the screen (r1 / r2 / r3 / r4),

6. Use the keys ↰ and ↶ to set it again,

7. Press the key ✔ to confirm.

There are 10 switches inside the remote control unit (under the battery cover) which are used to set the code. To open the device, use a screwdriver as illustrated in the drawing.

The code displayed on the screen (r1 / r2 / r3 / r4) must correspond to the positions of switches n °5 and 6.

• A "0" corresponds to the "OFF" switch position

• A "1" corresponds to the "ON" switch position

The other switches must always stay in the same position.

Display	Code	Positions of the switches
r1	0011**00**1010	
r2	0011**01**1010	
r3	0011**10**1010	
r4	0011**11**1010	

7.6. Adjusting luminous intensity

It is easier to use the Bluetooth® application to adjust the intensity of the lights. It is still possible to adjust it from the box Brio RC+. To do this it is necessary to

1. Cut the power to the Brio RC+,
2. Press the key ⏺ and hold it,
3. Turn on the Brio RC+,
4. Release the key,
5. The current intensity setting will be displayed on the screen (*L1* / *L2* / *L3* / *L4*),
6. Use the keys ⏺ and ⏺ to set it again,
7. Press the key ⏺ to confirm.

The corresponding code sent to the lights in the form of micro-drops. The message *rc* is displayed as the message is sent.

Adjusting the intensity setting automatically sets the lights to blue and the Brio RC+ display to *F0*. The setting is easier to judge in this mode.

7.7. Adjusting the animations speed.

It is easier to use the Bluetooth® application to adjust the sequencing speed of the lights. It is still possible to adjust it from the box Brio RC+. To do this it is necessary to

1. Cut the power to the Brio RC+,
2. Press the key ⏺ and hold it,
3. Turn on the Brio RC+,
4. Release the key,
5. The current speed setting will be displayed on the screen (*d1* / *d2* / *d3*),
6. Use the keys ⏺ and ⏺ to set it again,
7. Press the key ⏺ to confirm.

The corresponding code sent to the lights in the form of micro-drops. The message *rc* is displayed as the message is sent.

Adjusting the sequencing speed setting automatically sets the lights to psychedelic mode and the Brio RC+ display to *A4*. The setting is easier to judge in this mode.
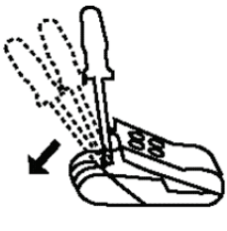
7.5. Radio-frequency remote control

The radio-frequency remote control can be used to control colour changes from a distance. A wall mount is also supplied. This mount is attached to a wall using two screws, it holds the remote control unit when not in use.

Key	Function
⏻	**On / Off** This key turns the lights on and off. When turning back on they will be the same colour or in the same sequence as when they were turned off.
�II▶	**Set / Program** When the lights are on, this key will switch between "set" and "sequence" modes. When the pool is lit in set mode, pressing this key will start sequence n°1 (*A1*). If a sequence is running when the key is pressed, the pool lighting will switch to white (*F0*).
◀◀ ▶▶	**Last and Next** These keys are used to scroll through colours and sequences.

This unit conforms to section 15 of the FCC regulations. The following conditions must be met when using it: (1) The device should not cause harmful interference and (2) the device must be able to handle any interference received, including interference which may affect its operation.

To replace the battery, open the device (using a screwdriver as illustrated in the drawing) and replace the battery (12V 23A alkaline). ⚠ **Check the polarity is correct as shown on the bottom of the device.**	

Type	Mode	Description
Fixed Colour	`F0`	White
	`F1`	Blue
	`F2`	Lagoon blue
	`F3`	Cyan
	`F4`	Violet
	`F5`	Magenta
	`F6`	Pink
	`F7`	Red
	`F8`	Orange
	`F9`	Green
	`FU`	User's favourite colour
Animation	`A1`	Slow rainbow
	`A2`	Fast rainbow
	`A3`	Sequencing of 11 colours shown below
	`A4`	Psychedelic (flashing colours)
	`A5`	Blue variations (Blue / White / Cyan)
	`A6`	Random sequence of pre-defined colours
	`A7`	Random sequence of random colours
Reset	`rt`	Resets lights to zero Deletes the favourite colour, intensity settings, sequencing speed and automatically sets the lights to blue and the Brio RC+ display to `F1`.

The selected program is saved in the event of a power cut.

Once the mode has been confirmed it will be displayed on the multi-function screen and the corresponding code sent to the lights as micro-drops. The message `rc` is displayed as the message is sent.

7.2. Power on

When the unit is turned on, various types of information will be successively displayed on the multi-function display, and all indicator lights and segments of the display will flash in sequence.

Message	Meaning
10	Software version loaded in the Brio RC+. (*10* = version 1.0)
r1 / *r2* / *r3* / *r4*	Current **r**adio code
L1 / *L2* / *L3* / *L4*	Current **L**uminous intensity
d1 / *d2* / *d3*	Spee**d** of colour sequence

7.3. Turn on / Turn off

Pressing the key at any time will turn the lights on or off

- When the lights are turned off, the indicator is off and the message *--* appears on the multi-function display.
- When the lights are turned on, the indicator is on and the currently selected mode appears on the multi-function display.

When turning back on they will be the same colour or in the same sequence as when they were turned off.

7.4. Selecting the mode

Brio LED lights are designed to produce harmonious and varied colour variations. 11 set colours and 7 sequences are available. Sequences are pre-programmed sequences of lights. In this mode the pool will change colour in sequence at a variable rate.

The mode is changed using key and . The selected mode flashes, then press the key to confirm it. If the lights do not turn on when selecting the mode, they will turn on after confirmation.

7. BRIO RC+ operation

7.1. Control interface

The interface includes a two-digit multi-function display, 3 indicator lights and 3 keys;

Component	Description
Indicator lamp	"Radio": This indicator light lights when receiving radio commands (from the 4-way remote controller)
Indicator lamp	"Bluetooth®": Continuously on when a user is connected Flashes once a second when waiting for a connection Flashes rapidly during initialisation (Bluetooth® unavailable)
Indicator lamp	"Lights": Off when the lights are turned off Flashes when commands are sent (micro-drops) to the lights Continuously on when the lights are turned on
Key	"Up / Plus" Increases a value and scrolls up the settings
Key	"Down / Minus" Decreases a value and scrolls down the settings
Key	"Confirm / OK" Confirms selection of a parameter / colour / colour change sequence

Brio RC+ and lights connection

Black wire
1

Brown wire
2

To Brio RC+

3
Grey wire

12VAC transformer output

3x2,5mm²

BRIO lights

120W max

Connection schematics

Brio RC+

SELV transformer

12V

2 1 3

BRIO n°1

BRIO n°2
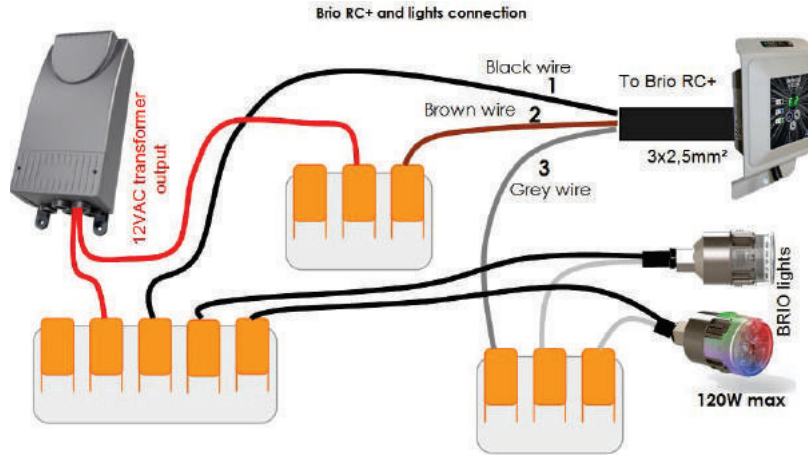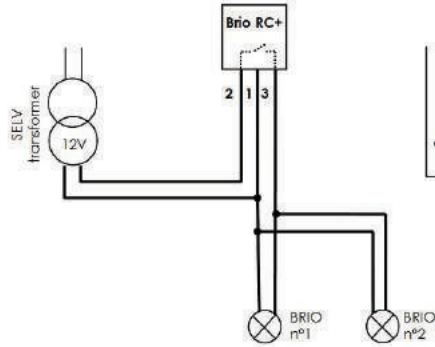
Internal connections of Brio RC+ control box

Brown

Black

Grey

2 1 **3**
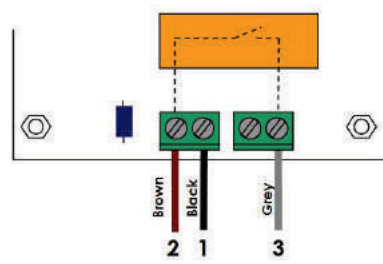
6. Installation

6.1. Electrical connections

Installation of this product involves a hazard of electric shocks. We strongly recommend you contract a professional installer. Incorrect installation places you in danger and may irreversibly damage the product and the equipment connected to it.

For reasons of safety and compliance and local and NEC directives, the Brio RC + box must be installed

- **over 3m50 (11.5 feet) away (or more if required by local legislation)) from the edge of the pool. This distance includes cable deviations around obstacles. If the box Brio RC+ is installed behind a wall, this will then be the distance required to complete the loop and connect to the box.**

- **or in an underground space immediately next to the swimming pool. In this case the space must be accessible via a hatch which requires a tool to open it.**

The box is resistant to splashing but must not be placed in a place that may become flooded. The box Brio RC+ must be placed on a flat and stable surface and attached to the wall using the screws and wall plugs supplied.

The Brio RC+ must be connected **to the secondary output** of the lighting transformer. Only Brio-compatible lights (see description) may be connected to this transformer.

The total power of the connected lights must never exceed 120W.

Electrical connection is facilitated by factory-fitting of a 3x2.5mm² cable.

5. Description

Brio RC+ remotely controls the colour changes of the Brio® LED spots.

The controller is installed in series on the power circuit of the spots and can control up to 3 X30 spots or 10 X15 spots.

Brio RC+ is intended for connection to a SELV 12VAC transformer designed for use with underwater lights and installed in a separate box or inside the pool's electrical cabinet.

A radio-frequency remote control unit (with wall mount) sends instructions to the controller from a distance, these are then sent to the lights connected to it. Instructions are sent by combinations of power micro-drops which are then interpreted by the lights. This patented solution is very simple and can withstand interference, lights several dozens of metres away can be controlled in this way.

5.1. Bluetooth® Control

The Brio RC+ includes a Bluetooth® transmitter, which allows your lights to be controlled by a smart-phone or tablet. To be able to control the Brio RC+, you will need an iOS (Apple®) or Android device with Bluetooth® Low Energy (v4.x) connectivity.

> **Other operating systems (Windows Phone®,...) or devices equipped with Bluetooth® versions older than 4.0 will not work with it.**

5.2. Lights compatibility

All CCEI lights manufactured after February 2016 are compatible with the RC + control mode. Here is the list:

Light model	Reference number
BRIO Eolia WEX30	PF10R200 / **V05** (and higher)
BRIO Eolia WEX60	PF10R104 / **V05** (and higher)
BRIO Eolia WEX100	PF10R005 / **V06** (and higher)
BRIO Gaïa GAX30	PK10R102 / **V03** (and higher)
Mini BRIO X15	PK10R303 / **V02** (and higher)
BRIO ZX30	PK10R007 / **V03** (and higher)
BRIO ZX60	PK10R008 / **V02** (and higher)
BRIO ZX100	PK10R009 / **V02** (and higher)
BRIO Stella WPX30	PF10R410 / **V04** (and higher)

4. Technical characteristics

Power voltage	12V ~ AC 50/60Hz
Power consumption	5W maximum
Switching power (spots connected)	**120W** maximum
Ingress Protection	IP-55
Dimensions	110x160x42 mm
Installation	Box: Wall fasteners (2 screws/wall plugs supplied) Remote control wall mount: Wall fasteners (2 screws/wall plugs supplied)
Weight	Box: 390 g / Remote control: 40 g Full box: 600 g
Radio-frequency remote control	4 way - Frequency: 433.91Mhz Battery: 12V 23A alkaline Consumption when sending: 18 mA max Power rating < 0.1 mW In-built antenna Max range 30m in open space M/N.: MPRD0136 FCC: 2AF5D-MPRD0136 IC: 20710-MPRD0136
Bluetooth®	Low Energy (v4.x) FCC: T9JRN4020 IC: 6514A-RN4020

1. Pack contents

- 1 Brio RC+ control box with 1.5m of 3x2.5mm² pre-fitted cable
- 1 "BRiO®" 4 way radio-frequency remote control
- 1 bag containing
  - 4 screws and 4 wall plugs (box + wall mount for the remote control)
  - Wall mount for the remote control unit
- Technical instructions (this document)
- Rapid connectors for connections : 2 x 3 points et 1 x 5 points.

2. Technical support

Website: www.ccei.ca / Tel: +1.514.649.7748

3. Warnings

This product must be installed by an approved or certified electrician or a qualified pool professional in compliance with the National Electrical Code (NEC), NFPA 70 or the Code Canadien de l'électricité (CCE) , CSA C22.1. All local installation codes and by-laws must also be respected. Incorrect installation creates electrical hazards which can lead to death or serious injury for users, installers and other persons from electric shocks, it can also lead to damage to the power source. Always disconnect power at the circuit-breaker board before installation. A failure to do this can lead to death or serious injury for people using the swimming pool, installers and other persons from electric shocks.

For countries which comply with the regulations of the International Electrotechnical Commission (IEC): Light fittings must be installed by and approved or certified electrician or a pool maintenance professional, in compliance with the current IEC 364-7-702 standard and all local applicable codes and by-laws. Incorrect installation creates electrical hazards which can lead to death or serious injury for users, installers and other persons from electric shocks, it can also lead to damage to property.

Technical instructions

Brio RC+

Remote control for LED lighting

Réf : PF10R08E

Table of Contents

Read these instructions carefully before installing, commissioning and using this product.