



TechBook

in.mix-300

LED light control



Take control of your colors!





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Warnings



WARNINGS

Before installing or connecting the unit, please read the following.

THE MAIN ELECTRICAL SUPPLY OF THE IN.YT PLATFORM MUST ALWAYS BE POWERED DOWN BEFORE OPENING THE COVER. THERE IS HIGH VOLTAGE INSIDE A POWERED IN.YT PLATFORM.

- INSTALL THE UNIT ACCORDING TO THE GIVEN INSTRUCTIONS.
- THIS PRODUCT MUST BE INSTALLED INSIDE AN IN.YT PLATFORM; IT IS NOT MEANT FOR ANY OTHER USE.
- HANDLE THE UNIT WITH CARE; ENSURE YOU ARE FREE OF ELECTROSTATIC CHARGE BEFORE HANDLING BY TOUCHING AN EARTH GROUND CONNECTION.
- THERE ARE NO USER SERVICEABLE PARTS INSIDE THE UNIT.

Compatibility

Compatible spa platforms:

The LED light controller in.mix-300 is designed to be installed inside an in.yt platform with the YT-3 option.

The spa platform is named so: IN.YT-x...AMP-3...GE1, where the “-3” in the option list indicates the option YT-3.

The models with “-1” or “-2” are not compatible with the in.mix-300.

Compatible keypads:

in.k1000

In.k800 with software version 6.00 or higher.

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Introduction



in.mix-300

LED light controller

The in.mix-300 module lets you control the lighting mood of your spa directly from the central graphic keypad. It also provides DC power for the LEDs and controls the colors independently, divided in up to 3 distinct zones (depending on the version) in different modes.

The in.mix-300 module is optional and must be ordered by the spa manufacturer and installed in their factory.



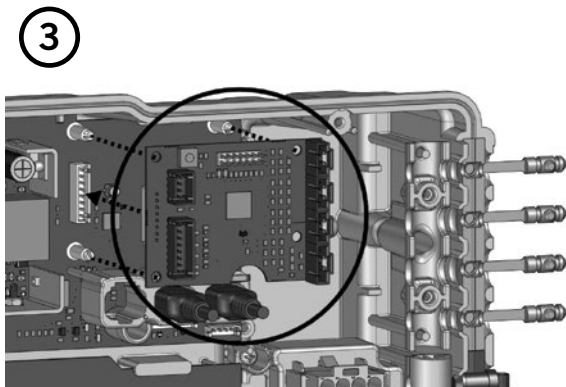
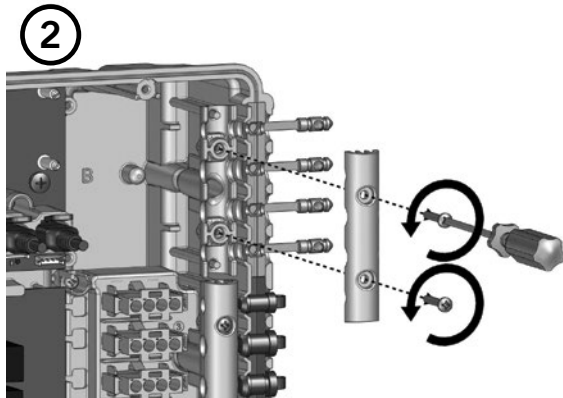
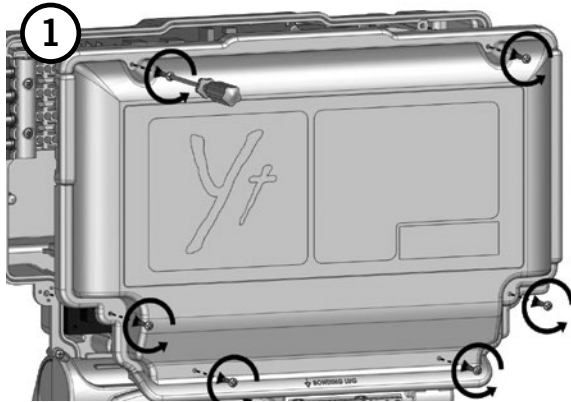
Installation

The in.mix-300 module is installed inside the in.yt spa platform. You will need a Philips #2 screwdriver.



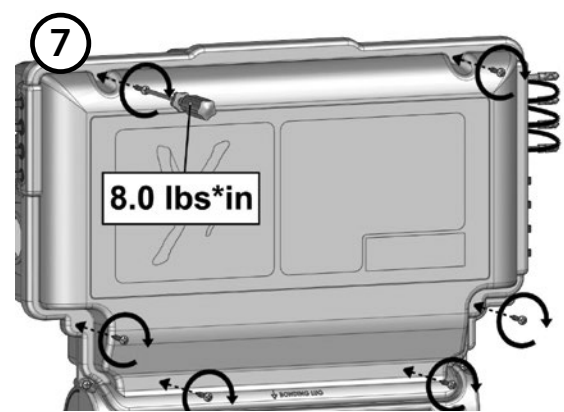
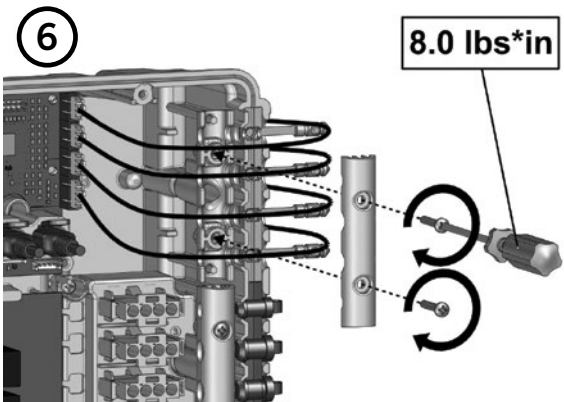
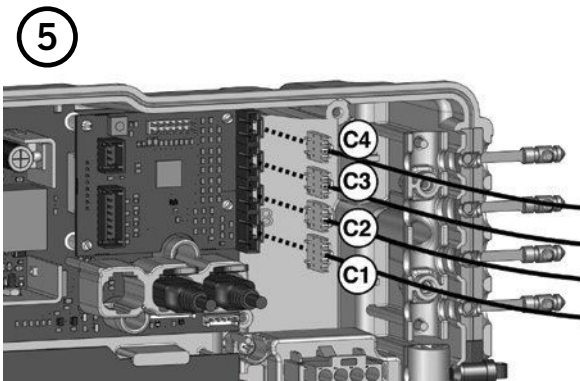
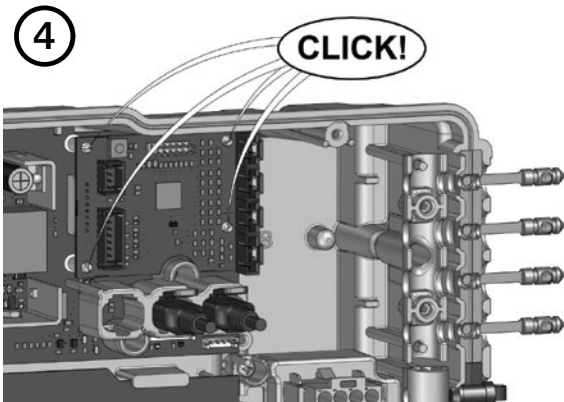
Very important:

Turn off the main power supply of the in.yt platform by turning off the circuit breaker.





Installation





Zone connections

The in.mix module supports 3 LED zones.
Zone 1 is connected to the bottom, Zone 2 follows, etc.

Zone 1 supports two types of connexions (A and B).
The connections A is made for 5 pin LEDs and the connections B is for 4 pin LEDs (see next page for the pin functions). It is important to note that these two connections will always output the same color since they are on the same Zone 1.

All zones may be used at the same time, but the total permissible power should always be respected (see [Technical Specifications](#) section).

On the in.yt keypad, there may be up to 3 keys selected to control Zones 1, 2 and 3.

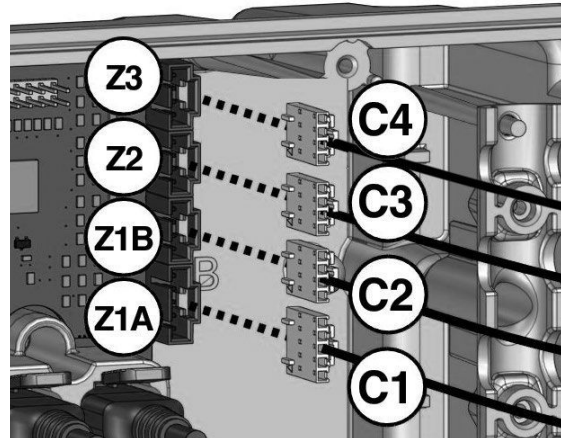


Table of correspondence between Zones and connections:

Connector	Zone
C1	1A
C2	1B
C3	2
C4	3



Technical specifications

The in.mix-300 powers the LEDs with DC current**. No matter the quantity of LEDs or their placement (Zone 1A, 1B, 2 or 3), a maximum of 1.6A can be supplied by the in.mix-300. Every color (red, green or blue) is controlled independently through switching.

The current limiting resistors **are not supplied**, they must therefore be in the LEDs. One must not connect a LED (or other light) directly on any zone.

Standard Zones 1B, 2 and 3 offer the following connections. The switching transistors are on the in.mix-300 PCB.

Pin	Function
1	BLUE (switched ground)
2	GREEN (switched ground)
3	RED (switched ground)
4	V _{cc}

Standard Zone 1A (only) offers the following connections. For this Zone, the switching transistors are included with the LEDs, which is standard with “cluster” type models.

Pin	Function
1	0V
2	+12V
3	RED (TTL output)
4	GREEN (TTL output)
5	BLUE (TTL output)

The in.mix-300 is compatible with *Molex*'s SL series LED connectors.

Compatible LED lights:

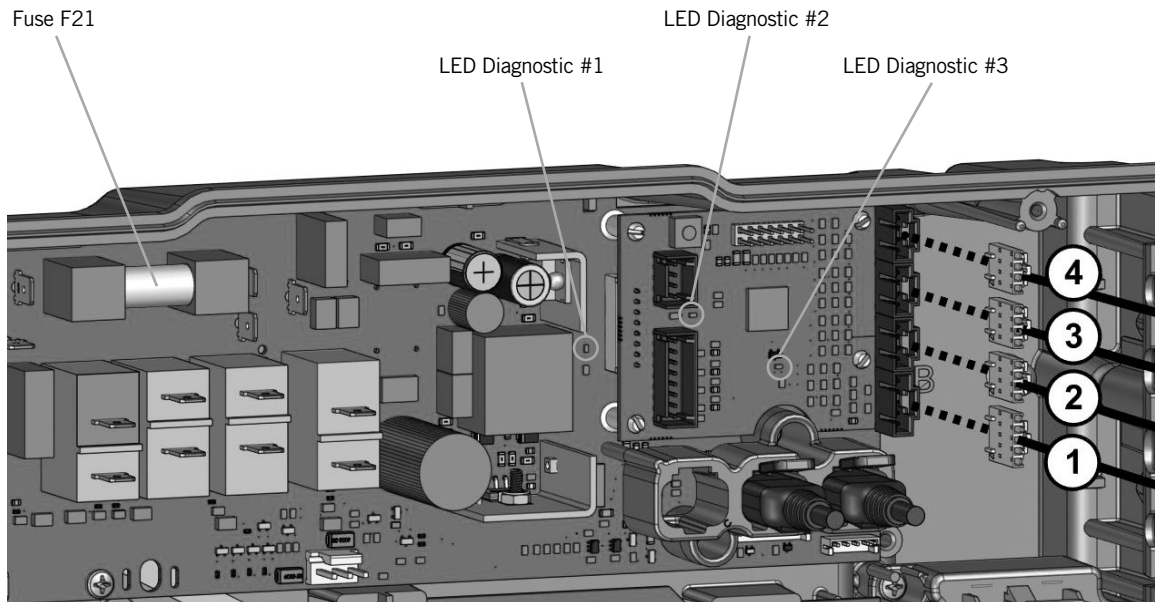
Contact Gecko Alliance to determine if the LED models you plan on using are compatible, different options are available depending on the situation.

If J&J Electronics Inc.'s *Spyder* LEDs from their ColorCHOICE™ series are used, a maximum of 100 are supported by the in.mix-300. They may be distributed in any way through the 3 Zones.

** The output voltage is switched (at about 17%) to simulate the power of a 5V output.



Problem resolution



LED Diagnostic #1

This LED is normally always lit (red). If it is not lit, this indicates a short circuit (or an overload) on the V_{CC} power supply. This unit supplies a maximum of 1.6A.

- Turn off the power of the in.yt. Verify that the F21 fuse is intact.
- Unplug all Zones (1 to 3).
- Turn on the power of the in.yt. If the LED lights up then, there is a problem with one of the Zones.
- Plug back the Zone connectors one by one to see which one is causing the problem.
- If none of these seem to be the source of the problem, turn off the power for the in.yt once again.
- Take out the in.mix-300 PCB by pulling slowly, but firmly, towards yourself to release the 4 clips.
- Turn the power back on for the in.yt. If the LED lights up then, there is a problem with the in.mix-300 module, replace it.
- If none of these seem to be the source of the problem, there is a problem with the yt-3 PCB of the in.yt, replace it.

LED Diagnostic #2

This LED is normally always lit (yellow). If the in.mix-300 PCB is not inserted correctly in the yt-3, this LED will stay off. Verify the in.mix-300 PCB is inserted correctly and that the 4 plastic clips are holding it in correctly. Check that the 3 low voltage cables are connected correctly. If all of the connections are verified, replace the in.mix-300 PCB.

LED Diagnostic #3

This LED is normally always lit (red). If the in.mix-300 PCB is not inserted correctly in the yt-3, this LED will stay off. Verify the in.mix-300 PCB is inserted correctly and that the 4 plastic clips are holding it in correctly. Check that the 3 low voltage cables are connected correctly. If all of the connections are verified, replace the in.mix-300 PCB.

How to order

Consult your Gecko Account Specialist to order using the following format:

B-IN.MIX-300-SL-CCC

Where: **CCC** is the customer code (-GE1 for the standard Gecko model)



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Gecko Alliance
450 des Canetons, Quebec City (Qc), G2E 5W6 Canada, 1.800.78.GECKO
www.geckoalliance.com

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