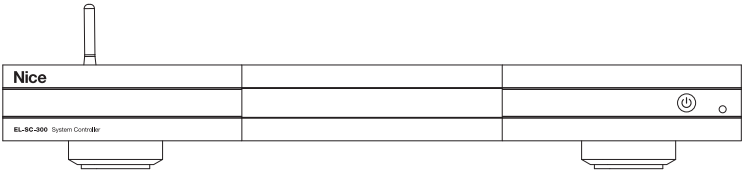
# EL-SC-300




## System Controller

**EN -** Quick Install Guide

WORKS WITH
ELAN CONTROL SYSTEMS
ELAN
a Nice brand

Nice

## Contents


Important Safety Instructions . . . . . 3

FCC and IC Information. . . . . 3

FCC and IC Radiation Exposure Statement . . . . . 3

Federal Communications Commission Interference Statement . . . . . 4

Getting Started . . . . . 5

1. Front Panel . . . . . 5
2. Rear Panel Connections . . . . . 5
3. Mounting . . . . . 6
4. RS-232 Serial Connections . . . . . 6
5. RS-485 Serial Connections . . . . . 7
6. IR Output Connections . . . . . 7
7. Signal Input Connections . . . . . 7
8. Relay Connections . . . . . 8
9. LAN / PoE Connection . . . . . 8
10. Reset Button . . . . . 8
11. Power . . . . . 8
12. LED Status Indicator . . . . . 8
13. Network Connection . . . . . 9
14. Specifications . . . . . 9

Notes . . . . . 10

Limited Warranty . . . . . 12

ATTENTION: To Our Valued Customers . . . . . 12

## Important Safety Instructions

1. Read, understand and follow ALL safety and installation instructions included in this manual. Failure to follow the included documentation may damage the product and will void manufacturer's warranty.
2. Follow ALL installation guidelines included with the product. Installation of the product in high humidity environments, in close proximity to heat sources and /or non-recommended locations will impede, interfere and/or damage the intended operation of the product.
3. Only use attachments and accessories which have been specified for use by the manufacturer.
4. The use of abrasive, liquid or solvent based cleaning fluids will damage the product. Please refer and follow all Product Care instructions included with the product.
5. Product Servicing may only be completed by authorized or certified service centers & personnel. For a complete list of product servicing options, please follow instructions included in the product documentation and /or contact original manufacturer for details.

## FCC and IC Information

This Class B digital apparatus complies with Part 15 of the FCC rules and with Canadian ICES-003 and RSS-247.

RESTRICTIONS IN THE 5 GHZ BAND: Within the 5.15 to 5.25 GHz band, UNII devices will be restricted to indoor operations.

**Operation is subject to the following two conditions:**

1. This device may not cause interference and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003 et RSS-247.

RESTRICTIONS DANS LA BANDE DE 5 GHZ: Dans la bande de 5,15 à 5,25 GHz, les appareils UNII seront restreints aux opérations.

Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.

**Warning**

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## FCC and IC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the exemption from the routine evaluation limits in section 2.5 of RSS 102.

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters from user and bystanders.

**Warning**

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102, and users can obtain Canadian information on RF exposure and compliance from the Canadian Representative Nice at Tel: 604-765-6933.

To maintain compliance, only the antenna types that have been tested shall be used.

This radio transmitter [IC: 1078A-00211] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Le présent émetteur radio [IC: 1078A-00211] a ét approuvpar Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés cidessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqu?pour tout type figurant sur la liste, sont trictement interdits pour l'exploitation de l'émetteur.

Antenna Manufacturer: JIADE WIRELESS TECHNOLOGY (SHEN ZHEN) Co., LTD

Model number: JD-B3DB-SMA; Gain (dBi): 3; VSWR: 1.92.

## Federal Communications Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

La puissance de sortie émise par l'appareil de sans fil est inférieure à la limite 'exposition aux fréquences radio d'Industry Canada (IC). Utilisez l'appareil de sans fil de façon à minimiser les contacts humains lors du fonctionnement normal. Ce périphérique a également été évalué et démontré conforme aux limites d'exposition aux RF d'IC dans des conditions d'exposition à des appareils mobiles (antennes sont supérieures à 20 cm à partir du corps d'une personne).

Z-Wave Operating Frequency

Australia/New Zealand: 919.8, 921.4 MHz

US/Canada: 908.40, 908.42, 916 MHz

European: 868.40, 868.42, 869.85 MHz

**Z-Wave Developer's Kit: 7.13.1**

This product can be operated in any Z-Wave™ network with other Z-Wave certified devices from other manufacturers. All mains operated nodes within the network will act as repeaters of vendor to increase reliability of the network.

In an SC Series System Controller, the host application controls the device reset feature.

If this controller is the primary controller for your network, resetting it will result in the nodes in your network being orphaned and it will be necessary after the reset to exclude or re-include all of the nodes in the network. If this controller is being used as a secondary controller in the network, use this procedure to reset the controller only in the event that the network primary controller is missing or otherwise inoperable.

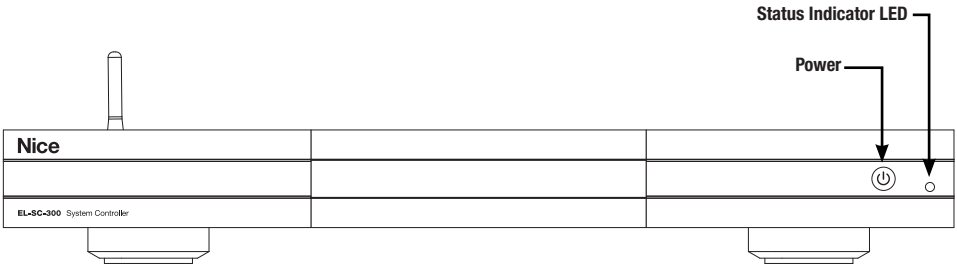
The Nice Training Guide contains valuable hardware and software reference documentation and is considered an important supplement to this document. Make sure you have the latest version by visiting the Nice Dealer website at **www.niceforyou.com** and follow the Dealer Resources link.

**Included in the box:**

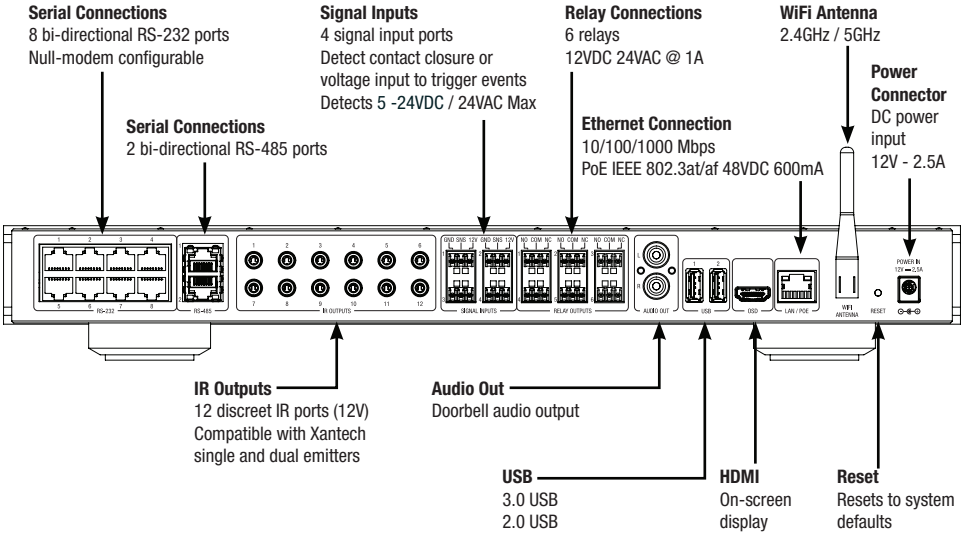
- (1) EL-SC-300 System Controller
- (2) Rack Mount Brackets
- (1) 12V DC Power Supply
- (7) Male DB9 to female RJ45 adapter
- (3) Female DB9 to female RJ45 adapter
- (10) Phoenix style male connectors, (4) black for signal inputs, (6) green for relays
- (1) Wi-Fi Antenna

## Getting Started

### 1. Front Panel




### 2. Rear Panel Connections



## 3. Mounting

### Shelf Mounting

The EL-SC-300 System Controller is designed to mount on a shelf or hang in a cabinet or rack. It has feet to protect finished surfaces. Set the controller in a location that will allow you to properly manage connected wiring so that tension is not placed on the connections. Wire tension will cause the unit to move and may cause wires to become disconnected.

Dimensions with feet: 17” W x 2.25” H x 14” D (431.8mm W x 57.2mm H x 355.6mm D)

### Rack Mounting

The Rack Mount Brackets included with the EL-SC-300 attach to the chassis using the included screws.

Do not use longer screws to attach the brackets as this may permanently damage the unit.

Remove the feet from the EL-SC-300 before rack mounting the unit. When mounting in very warm locations (i.e. enclosed rack or cabinet) leave a rack space above and/or below the unit for ventilation.

Dimensions without feet, with rack mount brackets: 19” W x 1.75” H x 14” D (482.6mm W x 44.45mm H x 355.6mm D).

## 4. RS-232 Serial Connections

Connect up to eight RS-232 serial controlled devices using an included DB9 to RJ45 adapter to the RS-232 port on the rear of the controller.

For null modem connections, the ports can be configured in ELAN Configurator.

Wiring pin-out for the RJ45 connector.

| RS-232 Port Pin # | 586A Color Code | 586B Color Code | Function |
|---|---|---|---|
| 1 | White / Green | White / Orange | N/C |
| 2 | Green | Orange | DCD |
| 3 | White / Orange | White / Green | DTR |
| 4 | Blue | Blue | GND |
| 5 | White / Blue | White / Blue | RXD (receive) |
| 6 | Orange | Green | TXD (transmit) |
| 7 | White / Brown | White / Brown | CTS |
| 8 | Brown | Brown | RTS |

### RS-232 Connections

The table shows the 568A and 568B color codes and the function of each conductor of the RS-232 ports. Please refer to the ELAN Integration Note for the specific device to determine the proper RJ45 to DB9 adapter to use.

**CAUTION**: Do not connect cables with PoE power on them to the RS-232 or RS-485 ports as it will damage the unit.

## 5. RS-485 Serial Connections

The two RS-485 ports allow connection to Full Duplex (Aprilaire thermostats, for example) and Half Duplex (Pentair Pool and Spa controllers, for example) RS-485 controlled devices without using adapters. The table below shows the T-568A and T-568B color codes and the function of each conductor of the RS-485 ports. Please refer to the Integration Notes for the device you are integrating for wiring and programming specifics.

**CAUTION**: Do not connect cables with PoE power on them to the RS-232 or RS-485 ports as it will damage the unit.

| RS-485 Port Pin # | 586A Color Code | 586B Color Code | Naming Conventions | | |
|---|---|---|---|---|---|
| 1 | White / Green | White / Orange | RxD + | RD (B) | B+ |
| 2 | Green | Orange | RxD - | RD (A) | B- |
| 3 | White / Orange | White / Green | TxD + | TD (B) | A+ |
| 4 | Blue | Blue | N/C | | |
| 5 | White / Blue | White / Blue | N/C | | |
| 6 | Orange | Green | TxD - | TD (A) | A- |
| 7 | White / Brown | White / Brown | GND | GND | GND |
| 8 | Brown | Brown | N/C | | |

## 6. IR Output Connections

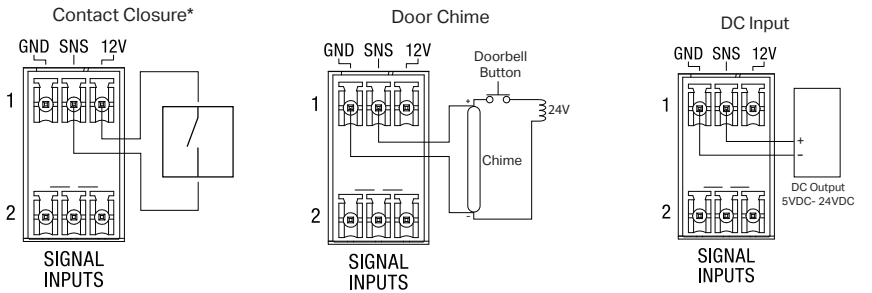
Twelve discrete IR outputs are supplied to control third party devices. Each output is compatible with Xantech single and dual emitters. IR outputs are 12V.

## 7. Signal Input Connections

Four signal input ports provide a way to trigger events based on a contact closure or voltage input. Detects 5V to 24V DC / 24VAC Max. For example, use a contact closure on driveway sensors to trigger lights or push messages. Or use the voltage detector to sense when a standard doorbell chime is rung to trigger an ELAN doorbell chime through an audio system.

**NOTE:** DO NOT WIRE DIRECTLY TO THE DOORBELL BUTTON, THIS WILL DAMAGE THE EL-SC-300.

For detailed wiring instructions, please refer to the Integration Note.




*Please verify your device can accept 12V input for contact closure, as this could cause damage the device if not rated for 12V.

## 8. Relay Connections

Six normally open relays are available for controlling third party devices - motorized lifts, window shades, and projection screens. The included removable connectors will accept up to 16ga bare copper leads. Be careful to verify that no portion of one wire touches the other wire. Prior to connection verify that the connected load does not exceed 24volts AC/DC or 1amp. If either parameter is exceeded, add a higher capacity relay to control the load and use the EL-SC-300 output to control that relay.

**NOTE**: The relays only control turning the external load on / off and do not supply any power.

For detailed wiring instructions, please refer to the Integration Note and documentation for the connected device.

## 9. LAN / PoE Connection

The EL-SC-300 can be powered over Ethernet (PoE). The minimum PoE requirement is IEEE 802.3at. 42.5 - 57 VDC, 600 mA maximum.

**NOTE**: The EL-SC-300 can be connected via WiFi, however a wired connection is preferred.

## 10. Reset Button

Located on the right rear of the controller is the recessed pinhole button that can be used in three ways:

1. 2 second press and release resets the controller to DHCP
2. 20 second press and release removes all configuration information. Software version will be maintained.
3. While applying power, a 10 second press and release will perform a full factory reset. Software will revert to factory default version. DO NOT remove power during a factory reset as it will permanently damage the unit. Allow the unit to reboot and become discoverable (about 4 minutes). Note: the LED will remain red during the reset process.

   WARNING! THESE ACTIONS CANNOT BE UNDONE!

## 11. Power

Once all other connections have been completed, connect an Ethernet cable connected to a PoE switch or the 12 VDC, 2.5A power supply to the DC input.

## 12. LED Status Indicator

The LED communicates the status of the controller:

Blue
Power on / connected to network

Blue flashing slowly
Boot up

Blue flashing rapidly
Controller updating

Amber
Power on / not connected to network

Red
Boot failure

Red flashing
Self check failure

## 13. Network Connection

The EL-SC-300 is factory set to use DHCP. First, connect to a wired network. Once connected, use Configurator to set a static IP address or connect via WiFi.

## 14. Specifications

### Connections

- RS-232, Null modem configurable - (8) RJ-45 ports
- RS-485 - (2) RJ-45 ports
- IR Output, (Mono), - 12V DC - (12) 3.5mm ports
- Signal Input - (4) Terminal Block Connectors 3-pin
- Relay - (6) Terminal Block Connectors 3-pin
- HDMI 1.4b - (1) For on screen display
- USB 2.0: 5VDC / 0.5A and USB 3.0: 5VDC / 1.0A (supplied by external AC / DC adapter)
- USB 2.0: 5VDC / 0.5A or USB 3.0: 5VDC / 1.0A (supplied by PoE)
- RCA Audio - (2) Stereo audio out
- Ethernet / PoE IEEE 802.3af (802.3at) - (1) RJ-45 port
- Power (1) Coaxial Type A, 2.5mm inside diameter. 12V 2.5A
- 2.4 / 5 GHz WiFi 802.11 b/g/n/ac

### System

**Software compatibility:** Refer to the integration note for compatibility

Updates managed by ELAN Core Module software

### General

**Operating Temperature:** 0° to 40° C

**Operating Humidity:** 90% Maximum (Non-Condensing)

**Mounting:** Free standing, Rack mount

### Product Dimensions

**With feet:** 17” W x 2.25” H x 14” D (431.8mm W x 57.2mm H x 355.6mm D)

**Without feet, with rack mount brackets:** 19” W x 1.75” H x 14” D (482.6mm W x 44.45mm H x 355.6mm D)

Weight 8 lbs, 11oz / 3.95kg

### Certifications

CE, FCC, C-Tick / RCM

## Notes

## Notes

## Limited Warranty

Nice North America warrants the EL-SC-300 to be free from defects in materials and workmanship for the period of two years (2 years) from the date of purchase. If within the applicable warranty period above purchaser discovers that such item was not as warranted above and promptly notifies Nice in writing, Nice shall repair or replace the item at the company's option. This warranty shall not apply (a) to equipment not manufactured by Nice, (b) to equipment which shall have been installed by other than an Nice authorized installer, (c) to installed equipment which is not installed to Nice's specifications, (d) to equipment which shall have been repaired or altered by others than Nice, (e) to equipment which shall have been subjected to negligence, accident, or damage by circumstances beyond Nice's control, including, but not limited to, lightning, flood, electrical surge, tornado, earthquake, or other catastrophic events beyond Nice's control, or to improper operation, maintenance or storage, or to other than normal use of service. With respect to equipment sold by, but not manufactured by Nice, the warranty obligations of Nice shall in all respects conform to the warranty actually extended to Nice by its supplier. The foregoing warranties do not cover reimbursement for labor, transportation, removal, installation or other expenses which may be incurred in connection with repair or replacement. Except as may be expressly provided and authorized in writing by Nice, Nice shall not be subject to any other obligations or liabilities whatsoever with respect to equipment manufactured by Nice or services rendered by Nice.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESSED AND IMPLIED WARRANTIES EXCEPT WARRANTIES OF TITLE, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

## ATTENTION: To Our Valued Customers

To ensure that customers obtain quality pre-sale and after-sale support and service, Nice North America products are sold exclusively through authorized dealers. Nice North America products are not sold online. The warranties on Nice North America products are NOT VALID if the products have been purchased from an unauthorized dealer or an online E-tailer. To determine if your Nice North America reseller is authorized, please call Nice North America at (800) 421-1587.

**Technical Support**
800-421-1587

**Technical Support Hours**
M–F, 6am–4pm PST

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