



## Manual iCall IO Version 2.0



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## Intended use

Use this product only for the purpose it was designed for; refer to the data sheet and user documentation for details. For the latest product information, contact IndigoCare Europe or IndigoCare USA.

This hardware installation guide is a working and supporting tool for certified engineers for installing and maintaining iCall installations.

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## 1. Introduction

The iCall IO (*version 2.0*) product is a local bus device for use with an iCall IP unit. The main purpose is connecting various inputs (switches, ...) or various outputs (lights, ...) with a specific room number in our iCall system. This unit has 5 inputs and 4 outputs and can be programmed via the IP unit web interface. Each input can be given up to 10 different functions and each output can have up to 7 different functions. It is for example possible to connect 5 *Presence switches* or 4 *Call lights* to a room using only one IO (v2.0) device. This provides enormous flexibility regarding configuration of an iCall installation, but keep in mind that every IO device can have only one room number.

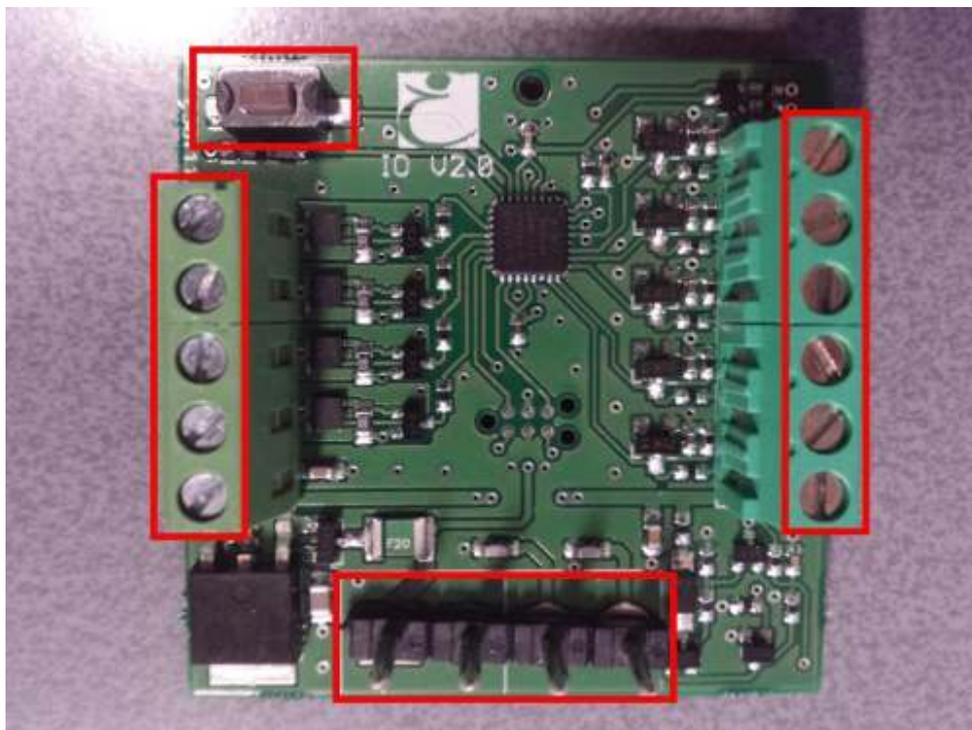


Figure 1: IO (Version 2.0) PCB

## 2. Installation

### 2.1. Topology

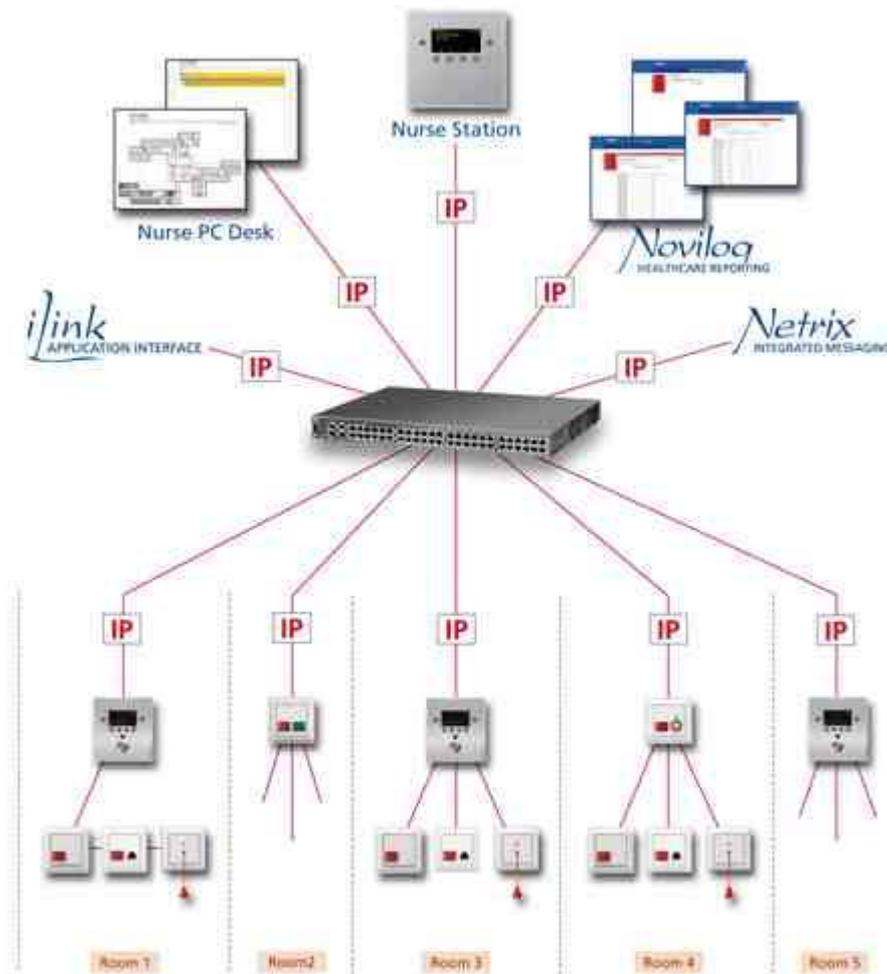


Figure 2: Topology

### 2.2. Wiring

The Installation of the IO version 2.0 is very straightforward and no different from other iCall Local Bus products. The Main unit (IP-OID, Touch, IP) is connected with the IO device over local bus: TX, RX, 24V and GND. See Figure 1 for a visual presentation of these connections.

## 3. Configuration

After the installation is complete it's necessary to program and configure the IO (V2.0) in the central IP unit. These settings will be configured using the webpage interface of the IP unit.

### 3.1. Registration

The first step is registering the device on the main unit. If a Local Bus device is not registered on the main unit, it will not respond to any action the main unit commands. There are a few prerequisites for registering a device:

- I. Local Bus unit is correctly wired
- II. Address registration needs to be enabled in the main unit

To register you need to press the button on the PCB, marked with **REG** in Figure 1. The LED will flash slowly for a (very) short period of time if registration has succeeded. If something is wrong, the unit will keep flashing until the button is pressed again and then the problem should be resolved first.

### 3.2. Input types

- Present
- Call
- Toilet
- Urgent
- Assist
- Input #1
- Input #2
- Input #3
- Input #4
- Input #5

### 3.3. Output types

- Present
- Call
- Toilet
- Output #1
- Output #2
- Output #3
- Output #4

### 3.4. Programming

After registration is complete, it is time to configure the inputs and outputs using the web interface of the IP unit. Open your browser (firefox, internet explorer, ...) and go to the IP address of the central IP unit (see Figure 3: Web interface).



Figure 3: Web interface

The registered device should be listed on the addresses page of the master unit and is ready to be configured. Press the edit [  ] button to change the room number and parameters. It is possible the IP unit needs to request the saved settings from the IO (version 2.0) after first registration and after a reboot of the IP unit. The IP unit does not store these settings but they are saved in EEPROM memory of the IO. See Figure 4 for more info.

After retrieving the parameters, they will be displayed in the webpage (see Figure 5). Change these settings according to your schematics and press 'Save'.

It is possible to change the trigger level of the inputs to 'Normal Open' or 'Normal Closed'. The name label is used to give an optional label to the **input#x** types, for example **Input#1** is connected to a fire alarm. If the input is give a name, *this name* will be send to the Netrix when triggered. If the label is empty, 'Input 1' is send to the Netrix.



Figure 4: Request parameters

## Edit address 2

Room:

Type:

Addition:

### Configuration

Input 1:	<input type="text" value="Not Configured"/>	Type:	<input type="text" value="Normal Open"/>	Name 1:	<input type="text"/>
Input 2:	<input type="text" value="Not Configured"/>	Type:	<input type="text" value="Normal Open"/>	Name 2:	<input type="text"/>
Input 3:	<input type="text" value="Not Configured"/>	Type:	<input type="text" value="Normal Open"/>	Name 3:	<input type="text"/>
Input 4:	<input type="text" value="Not Configured"/>	Type:	<input type="text" value="Normal Open"/>	Name 4:	<input type="text"/>
Input 5:	<input type="text" value="Not Configured"/>	Type:	<input type="text" value="Normal Open"/>	Name 5:	<input type="text"/>
Output 1:	<input type="text" value="Not Configured"/>				
Output 2:	<input type="text" value="Not Configured"/>				
Output 3:	<input type="text" value="Not Configured"/>				
Output 4:	<input type="text" value="Not Configured"/>				

Figure 5: Edit address options

### 3.5. Use of Input#x and Output#x

#### 3.5.1. Inputs

Input#(1-5) are used to connect external (input) events to our iCall system. There are 5 distinctive inputs to be chosen from, each with a unique group to trigger in the Netrix. For example, when Input 1 is configured as **Input#1** and **Normal Open**, a message will be send to the Netrix to the group assigned in the routing table under In#1 (in this case 600, see Figure 6) when Input 1 goes high. When the Input returns to low, another message will be send to the Netrix with parameters according to Table 1.

ID	Routename	Profile	repetitions	Assist	Urg	Door	In#1	In#2	In#3	In#4	In#5	1	2	3	4	5	6	Buzzer	Present
1	Route 1	1:1	1:1	1:1	1:1	1	1	600	601	602	603	604	1	0	0	0	0	0	0

Figure 6: Routes

The message has following parameters:

MSG1	Type (or LABEL)
MSG2	Addition
MSG3	0 (not active) / 1 (active)
MSG4	Name
MSG5	Room number
MSG6	Location

Table 1: Netrix parameters

#### 3.5.2. Outputs

Outputs#(1-4) are used to connect external outputs to our iCall system. There are 4 distinctive outputs to choose from, which can be activated/deactivated using the Netrix.

To activate/deactivate all output#1 outputs of a specific room, an IP message with correct IP address, room number and type number must be send.

Type numbers for outputs:

710	Output#1	OFF
711	Output#1	ON
720	Output#2	OFF
721	Output#2	ON
730	Output#3	OFF
731	Output#3	ON
740	Output#4	OFF
741	Output#4	ON

Table 2: Type numbers for outputs#

Refer to the chapter Examples for more information and examples of these functions.