IGL-RA15

Remote annunciator

SW version 2.0.0

Global Guide

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1 Document information

1.1 Clarification of notation

Note: *This type of paragraph calls readers attention to a notice or related theme.*

IMPORTANT: This type of paragraph highlights a procedure, adjustment etc., which can cause a damage or improper function of the equipment if not performed correctly and may not be clear at first sight.

Example: This type of paragraph contains information that is used to illustrate how a specific function works.

1.2 About this guide

Remote annunciator IGL-RA15, order code:**EM2IGLRABAA** and

Remote annunciator IGL-RA15-FPC (FirePump version), order code:**EM2FPCRAEAA** are designed as an extension signaling units for :

▶ InteliSys-NT or InteliSys-CU

▶ IntleiGen-NT or InteliGen-CU

▶ InteliCompact-NT

▶ InteliLite-NT or InteliLite-CU

▶ IntreliDrive-DCU (Marine, Industrial)

▶ InteliDrive-Mobile (Logger)

▶ InteliDrive-Lite (Lite, Marine, FPC, IPC, IPU, EM)

IGL-RA15 is equipped with a fully configurable tri color (red, orange, green) LED for intuitive operation together with high functionality.

Note: *The FPC unit does not have any buttons, so all adjustment bellow needs to be adjusted by opening the cover and pressing the micro switches of the buttons manually,* *see Opening the IGL-RA15-FPC on page 11*

1.3 Legal notice

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General security recommendations and set of measures

1. AccessCode

• Change the AccessCode BEFORE the device is connected to a network.

• Use a secure AccessCode – ideally a random string of 8 characters containing lowercase, uppercase letters and digits.

• For each device use a different AccessCode.

2. Password

• Change the password BEFORE the device enters a regular operation.

• Do not leave displays or PC tools unattended if an user, especially administrator, is logged in.

3. Controller Web interface

• The controller web interface at port TCP/80 is based on http, not https, and thus it is intended to be used only in closed private network infrastructures.

• Avoid exposing the port TCP/80 to the public Internet.

4. MODBUS/TCP

• The MODBUS/TCP protocol (port TCP/502) is an instrumentation protocol designed to exchange data between locally connected devices like sensors, I/O modules, controllers etc. From it's nature it does not contain any kind of security – neither encryption nor authentication. Thus it is intended to be used only in closed private network infrastructures.

• Avoid exposing the port TCP/502 to the public Internet.

5. SNMP

• The SNMP protocol (port UDP/161) version 1,2 is not encrypted. Thus it is intended to be used only in closed private network infrastructures.

• Avoid exposing the port UDP/161 to the public Internet.

1.4 Document history

Revision Number	Related SW Version	Date
2	2.0.0	10.07.2019
1	2.0.0	29.5.2018

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2 System overview

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2.1 Controller type settings

Controller type	Jumper A	Jumper B	Address
InteliCompact-NT InteliLite-NT InteliDrive Lite	OPEN	OPEN	1
InteliGen-NT InteliSys-NT InteliDrive DCU InteliLite (IL3)	CLOSED	OPEN	5+6
InteliGen-NT InteliSys-NT InteliDrive DCU InteliLite (IL3)	CLOSED	CLOSED	user defined

2.2 Controller address setting

SW changing of CAN1 address is enabled only when both jumpers are closed. Any one of these addresses (1+2 or 3+4 or 5+6 or 7+8) can be set by following steps:

▶ Switch to programming mode (Hold the *Horn reset* and *Lamp test* when unit is powering on)

● Status led is yellow

▶ Press *Lamp test* sixteen times

▶ Set the address up by pressing Horn reset.

● The number of red luminous LEDs means the CAN1 addresses (two for addresses 1+2, four for addresses 3+4, six for addresses 5+6 and eight for addresses 7+8)

▶ Press *Lamp test*

2.3 LEDs color change

Each LED color is adjusted independently of controller output settings. If controller output 1 is set as "Common Shutdown" it doesn't mean red LED1 color for IGL-RA15. The LEDs color can by adjust by following steps:

▶ Switch to programming mode (Hold the *Horn reset* and *Lamp test* when unit is powering on)

  ● Status led is yellow

▶ Press *Horn reset* to change the LED1 color (green, yellow, red)

▶ Press *Lamp test* to switch to the next LED color adjusting

▶ Continue to adjust all LEDs color

▶ After LED15 color adjusting press three times Lamp test

Note: Signal LEDs are all adjusted to RED colors from production.

2.4 Horn timeout setting

The horn output is activated if any of red or yellow LED is on. Output is on until pressing Horn reset or horn timeout counts down. The timeout can by set by following steps:

▶ Switch to programming mode (Hold the *Horn reset* and *Lamp test* when unit is powering on)

  ● Status led is yellow

▶ Press *Lamp test* fifteen times

▶ Set the horn timeout by pressing *Horn reset*.

  ● The number of green luminous LEDs means timeout in 10s.

  ● Any for disabling horn output, 1 for 10s timeout, 2 for 10s timeout, 15 for disabling horn timeout.

▶ Press *Lamp test* two times

Note: Note: If there is no operator action during address setting, color adjusting or timeout timeout setting, the unit returns to normal operation without changes saving.

2.5 Signal LEDs

The signals LEDs are handled like binary outputs. It means all what can be configured to binary outputs can be also configured to the LEDs of iGL-RA15.

▶ The LED lights, if configured logical output is active on the controller

▶ The green LED is dark, if configured logical output is not active on the controller

▶ The yellow or red LED is dark, if configured logical output is not active on the controller and *horn reset* was pressed.

▶ The yellow or red LED blinks, if configured logical output is not active on the controller and *horn reset* was still not pressed.

2.5.1 PWR LED

▶ Is blinking green, if the unit is OK and the communication to the master controller is OK.

▶ Is blinking red, if the unit is OK, but the communication to the master controller is not running.

▶ Is blinking yellow, if EEPROM check not passed OK after power on

▶ Is steady yellow during the LED colour, horn timeout or controller address adjustment

Note: If the PWR LED is blinking yellow, the unit must be reconfigured (see chapter LEDs color change, Horn timeout setting or Controller address setting.)

2.6 Horn

The horn is activated if:

▶ Some of red or yellow LED lights up or

▶ At the end of the extended lamp test (see below)

The horn can be silenced:

▶ By pressing horn reset button or

▶ It silences automatically after adjusted time (see chapter Horn timeout setting above)

2.7 Lamp and horn test

Pressing and holding *lamp test* button for less than 2s execute the basic lamp test. All LEDs light up with the configured colour. If the button is hold longer than 2s, an extended test is started. Every LED is tested step-by-step in green colour and then in red colour. The horn is activated at the end of the test. After that the unit returns to normal operation. The horn can be silenced with *horn reset*.

2.8 LED labels

The labels are slipped to slots in the front foil. The slot openings are located on the upper edge of the front panel. The RA15 module is shipped with one A4 sheet of foil for printing of labels.
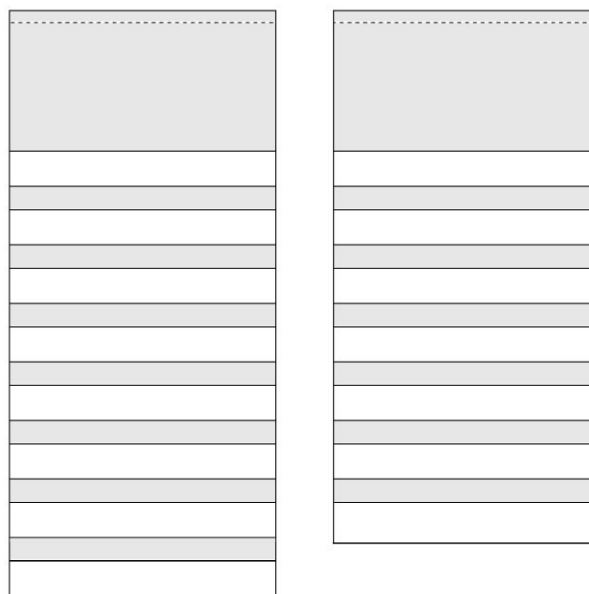
Note: *Not available in FPC version* **(EM2FPCRAEAA)**
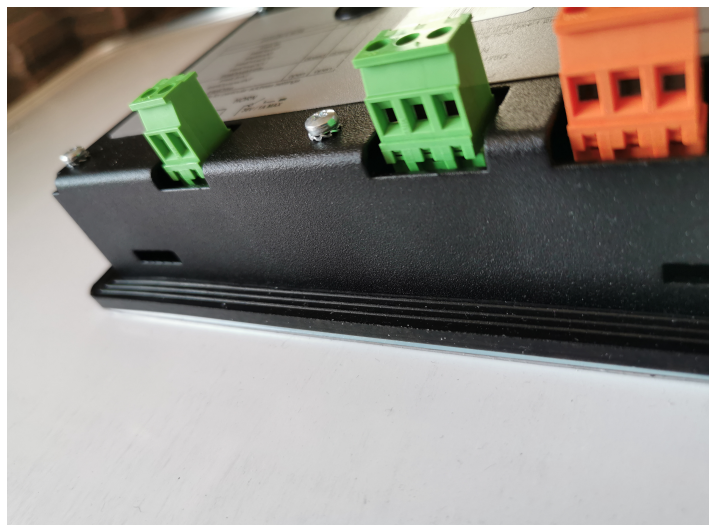
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3 Installation and wiring

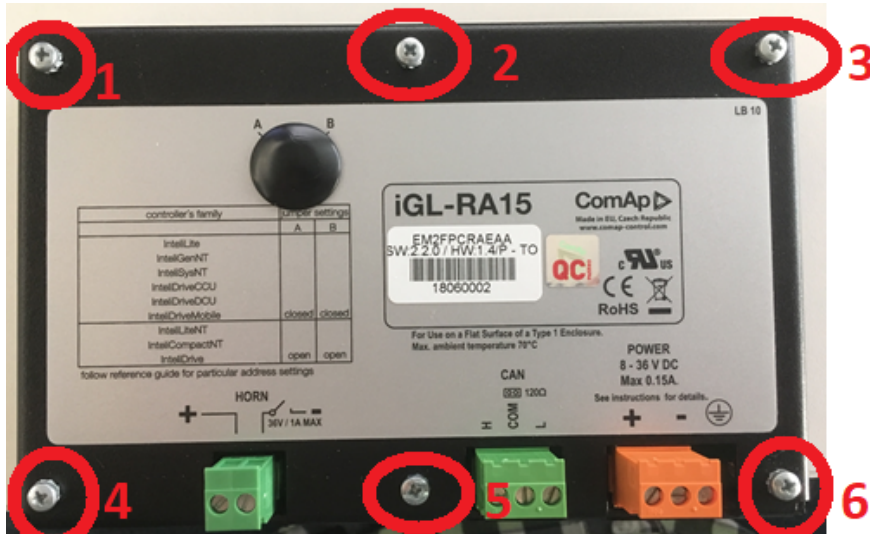⬥ **back to Table of contents**

3.1 Rubber seal installation

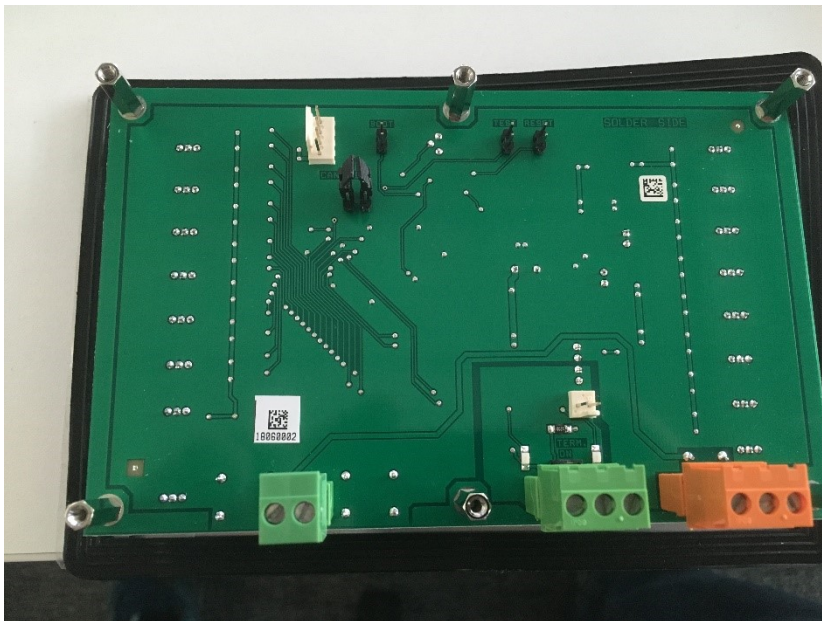The correct way to install the rubber sealing is shown on the pictures below.

3.2 Opening the IGL-RA15-FPC
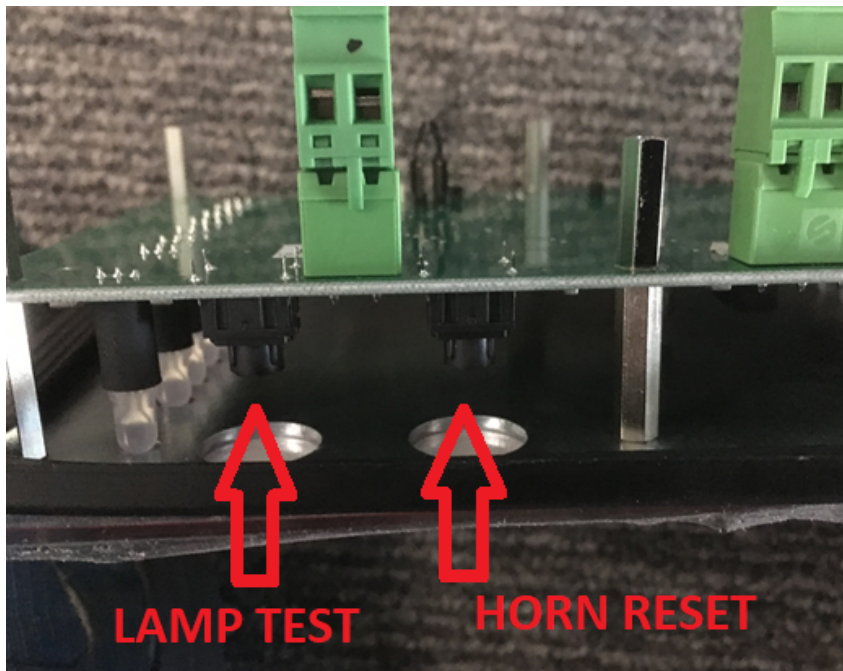
This is just for authorized acces:
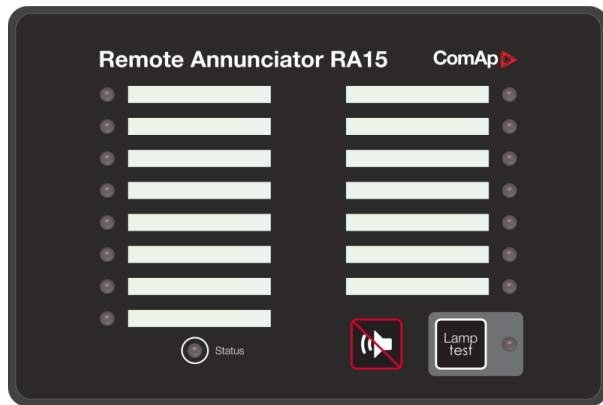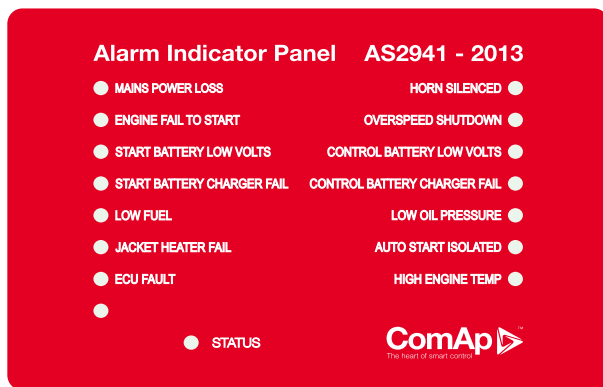
1. Remove the screws

2. Bottom side

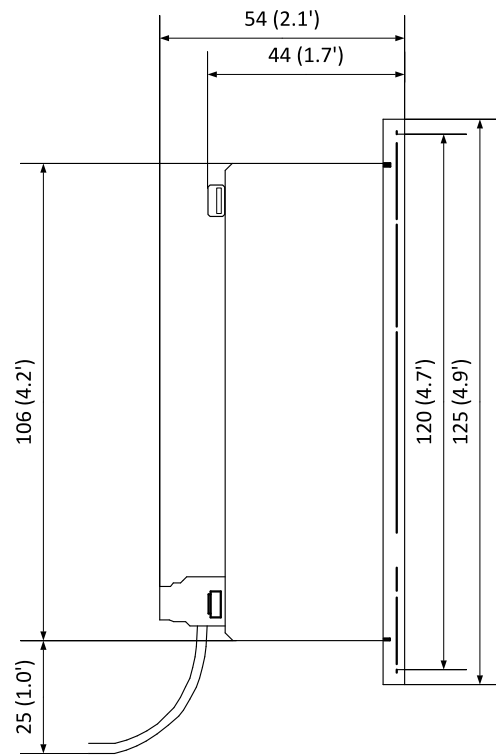3. You can directly press the micro switches on PCB
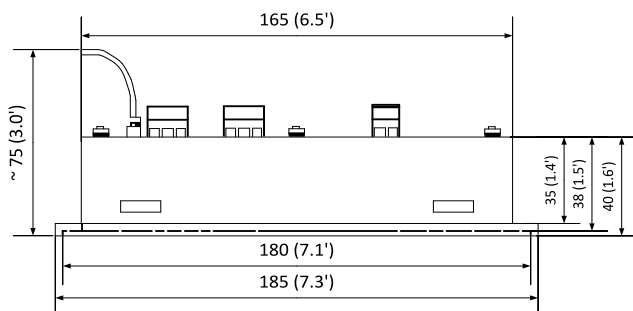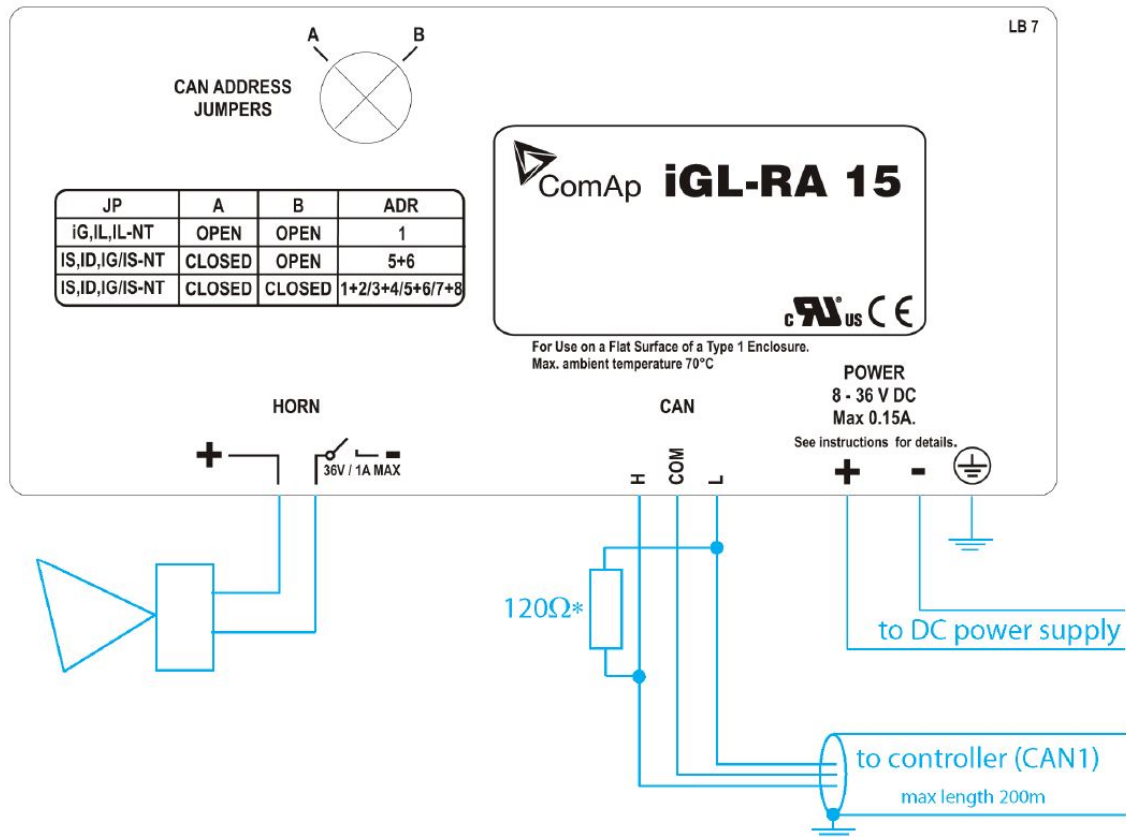
3.3 Terminals and dimensions

IGL-RA15

IGL-RA15-FPC

Dimensions: 54 (2.1'), 44 (1.7'), 106 (4.2'), 25 (1.0'), 120 (4.7'), 125 (4.9')

Dimensions: 165 (6.5'), ~75 (3.0'), 35 (1.4'), 38 (1.5'), 40 (1.6'), 180 (7.1'), 185 (7.3')

Cutout
for Remote Announciator

167 × 108 mm
(6.6 × 4.3')

3.4 Recommended wiring

* terminator resistor only when iGL-RA 15 is the last unit on the CAN1 bus.

Note: *The shielding of the CAN bus cable has to be grounded at one point only!* ***see Technical data on page 15*** *for recommended CAN bus cable type.*

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4 Technical data

Power supply

Voltage supply	8-36 VDC
Consumption	0.35-0.1A (+1Amax horn output) depends on supply voltage

Operating conditions

Operating temperature	-20 ˚C to +70 ˚C
Storage temperature	-30 ˚C to +80 ˚C
Protection front panel	IP65
Humidity	85%
Standard conformity	
Low Voltage Directive	EN 61010-1:95 +A1:97
Electro-magnetic Compatibility	EN 50081-1:94, EN 50081-2:96 EN 50082-1:99, EN 50082-2:97
Vibration	5-25 Hz, ± 1,6 mm 25-100 Hz, a = 4 g
Shocks	a=200 m/s^2
Heat radiation	2 W

Dimensions and weight

Dimensions	180×120×55mm
Weight	950g

Horn output

Maximum current	1.0 A
Maximum switching voltage	36 VDC

CAN bus interface

Galvanic separated	
Maximal CAN bus length	200m
Speed	250kBd
Nominal impedance	120Ω
Cable type	twisted pair (shielded)

Following dynamic cable parameters are important especially for maximal 200 meters CAN bus length:

Nominal Velocity of Propagation	min. 75% (max. 4.4 ns/m)
Wire crosscut	min.0.25 mm^2
Maximal attenuation (at 1 MHz)	2 dB / 100m

Recommended Industrial Automation & Process Control Cables

BELDEN (see www.belden.com):
- ▶ 3082A DeviceBus for Allen-Bradley DeviceNet
- ▶ 3083A DeviceBus for Allen-Bradley DeviceNet
- ▶ 3086A DeviceBus for Honeywell SDS
- ▶ 3087A DeviceBus for Honeywell SDS
- ▶ 3084A DeviceBus for Allen-Bradley DeviceNet
- ▶ 3085A DeviceBus for Allen-Bradley DeviceNet
- ▶ 3105A Paired EIA Industrial RS485 cable

LAPP CABLE (see www.lappcable.com):
- ▶ Unitronic BUS DeviceNet Trunk Cable
- ▶ Unitronic BUS DeviceNet Drop Cable
- ▶ Unitronic BUS CAN
- ▶ Unitronic-FD BUS P CAN UL/CSA

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