

**Extension module for iL/iG/iS genset
controllers**

**Remote annunciator
iGL-RA15**

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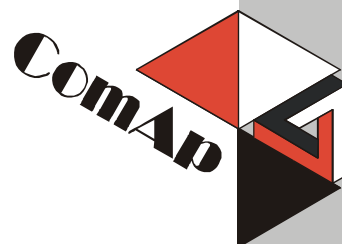


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What describes this manual?

This manual describes the Remote annunciator iGL-RA15 module, which is designed as an extension signalling unit for iL/iG/iS genset controllers.

What is the purpose of the manual?

This manual provides general information how to install and operate iGL-RA15 module.

This manual is dedicated for

Operators of gensets

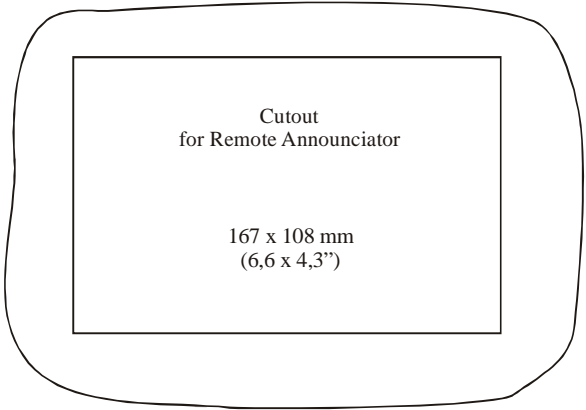
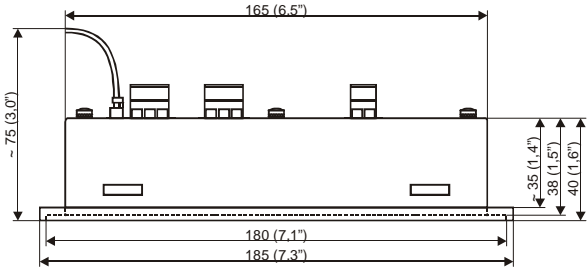
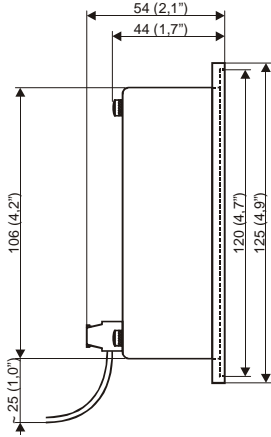
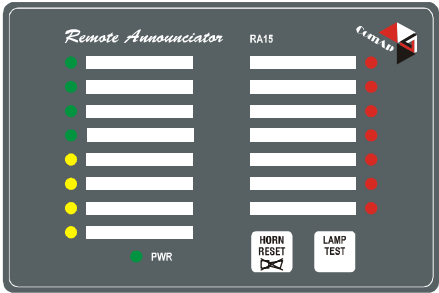
Gen-set control panel builders

For everybody who is concerned with installation, operation and maintenance of the genset

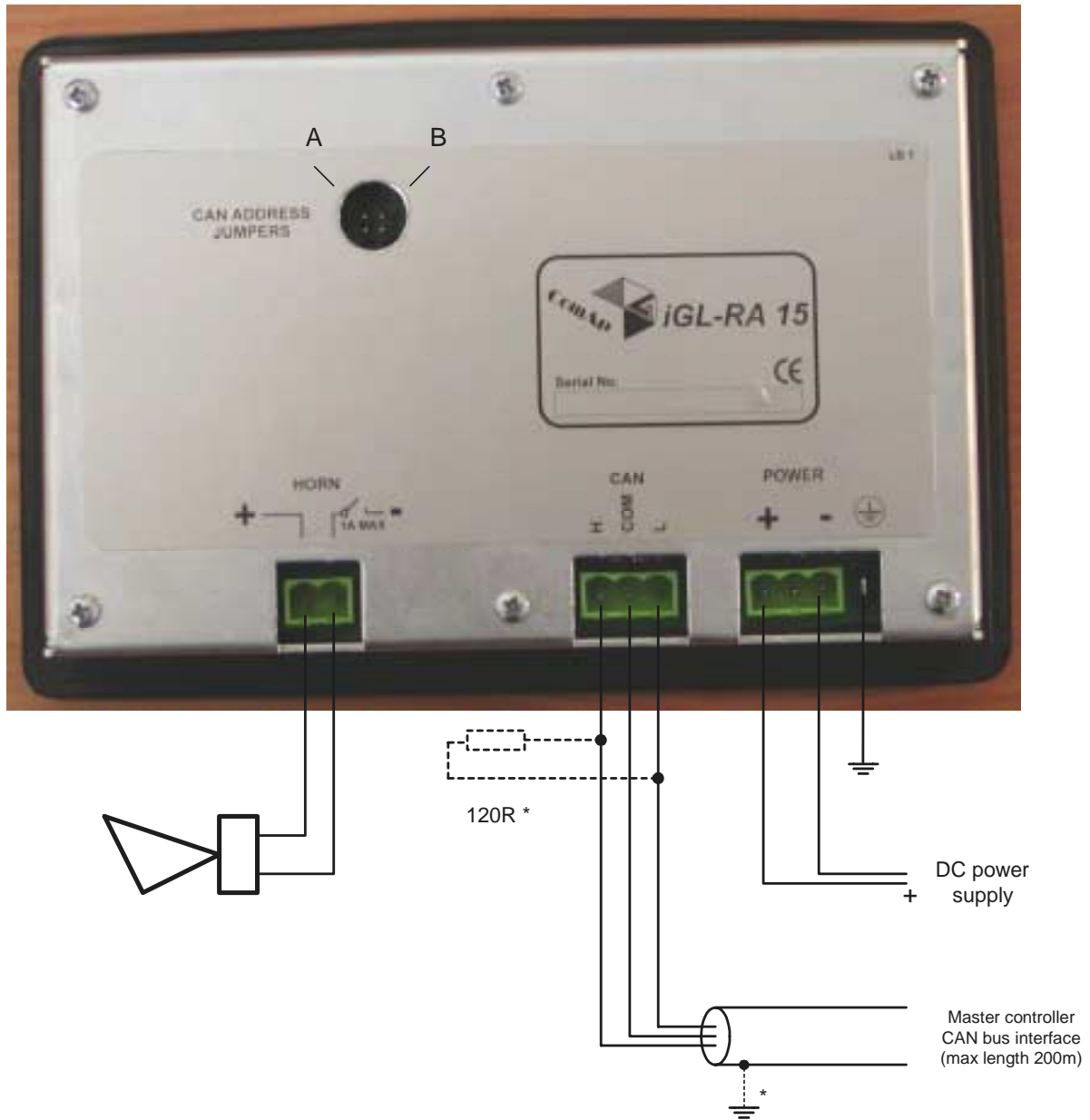
Note:

ComAp believes that all information provided herein is correct and reliable and reserves the right to update at any time. ComAp does not assume any responsibility for its use unless otherwise expressly undertaken.

Terminals and dimensions



Configuration and wiring



Note:

1. The shielding of the CAN bus cable shall be grounded at one point only.
2. There can be only one 120R resistor connected to the CAN bus (on the RA15 side or on the controller side)
3. See the section Technical data for recommended CAN bus cable type

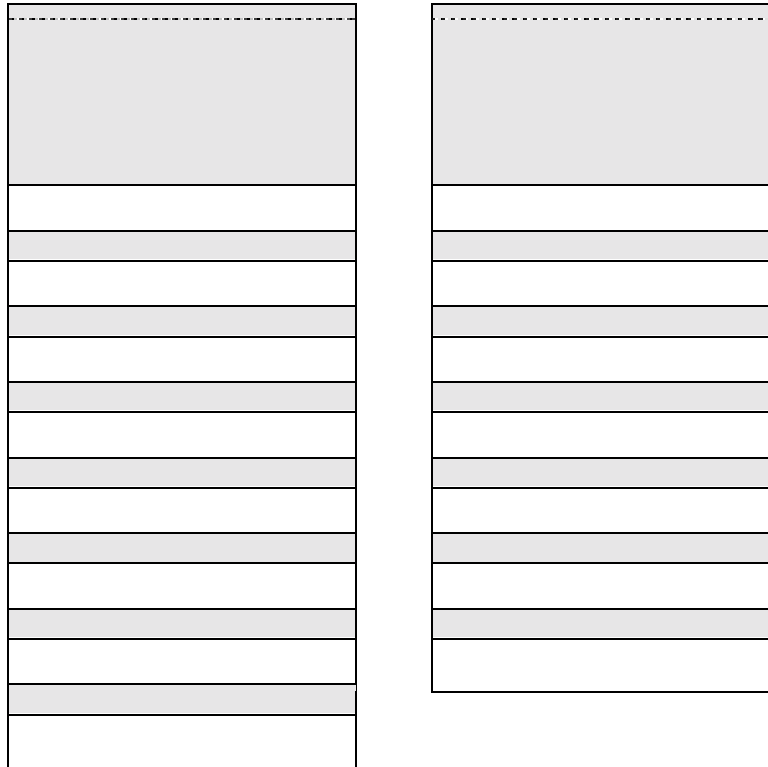
LED labels

The labels are slipped to slots in the front foil. The slot openings are located on the upper edge of the front panel. Labels can be created using a standalone MS word document "RA15LabelsForm.doc" on the LiteEdit installation CD.

The RA15 module is shipped with one A4 sheet of foil for printing of labels.

Hint:

Please note that labels in "RA15LabelsForm.doc" file are designed for printer "Paper format" A4. Other Paper format setting can change labels dimension. Following figure is only an example.





LED colour change

To change colour of the LEDs, press simultaneously both buttons on the front panel and then switch the power on. PWR indicator starts to light steady yellow.

- Use **HORN RESET** button to change the colour of selected LED
- Use **LAMP TEST** button to go step by step over all LEDs.

Pressing **LAMP TEST** button after adjusting of the last LED finishes the colour adjust process and horn timeout adjusting follows:

Horn timeout setting

After LED colours adjusting the timeout for the horn can be set. The PWR LED changes its colour to steady green. Signal LEDs are now used as “bargraph” indicating the current value of the horn timeout (one LED = 10s). The value can be changed by pressing **HORN RESET** button. If all 15 LEDs on, the horn timeout is deactivated. The range for setting is then 0 to 140s or infinite time.

Pressing **LAMP TEST** button finishes the timeout setting. Adjusted colours and horn timeout are written into EEPROM memory and the unit returns to normal operation.

Note: If there is no operator action during LED colour adjusting or horn timeout setting, the unit returns to normal operation without writing changes to EEPROM.

Controller type selection

The type of the controller to be used with iGL-RA15 is selected via jumpers accessible through the opening marked "CAN ADDRESS JUMPERS" in the rear cover. Both jumpers must be open for iG/iL controller; jumper "A" must be closed for iS controller. See picture above to see the position of the jumpers.

Function description

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.

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 and horn timeout adjustment

Hint: If the PWR LED is blinking yellow, the unit must be reconfigured (see chapter [LED colour change](#) and [Horn timeout setting](#).) If the situation repeats every time the unit is switched on, it must be sent to repair.

Horn

The horn is activated if:

1. Some of red or yellow LED lights up or
2. At the end of the extended lamp test (see below)

The horn can be silenced:

1. By pressing **HORN RESET** button or
2. It silences automatically after adjusted time (see chapter *Horn timeout setting* above)

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**

Technical data

Power supply

Voltage supply	8-36V DC
Consumption	0,35-0,1A (+1A max horn output) Depend on supply voltage

Operating conditions

Operating temperature	-20..+70°C
Storage temperature	-30..+80°C
Protection front panel	IP65
Humidity	85%
Standard conformity	
Low Voltage Directive	EN 61010-1:95 +A1:97
Electromagnetic Compatibility	EN 50081-1:94, EN 50081-2:96 EN 50082-1:99, EN 50082-2:97
Vibration	5 - 25 Hz, $\pm 1,6$ mm 25 - 100 Hz, $a = 4$ g
Shocks	$a = 200$ m/s ²

Dimensions and weight

Dimensions	180x120x55mm
Weight	950g

Horn output

Maximum current	1 A
Maximum switching voltage	36 VDC

CAN bus interface

Galvanic separated	
Maximal CAN bus length	200m
Speed	250kBd
Nominal impedance	120 Ω
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 <http://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 <http://www.lappcable.com>)

- Unitronic BUS DeviceNet Trunk Cable
- Unitronic BUS DeviceNet Drop Cable
- Unitronic BUS CAN
- Unitronic-FD BUS P CAN UL/CSA