

# RT Control Panel

**Retrofit control panel for single  
gen-set applications**

**SW version 1.0.0**

1 Document information .....	2
2 Quick Start Guide .....	5
3 Terminal diagram .....	6
4 Optional Accessory Setup .....	7

# 1 Document information

1.1 Clarification of Notation .....	2
1.2 About this guide .....	2
1.3 Document history .....	2
1.4 Legal notice .....	2

## 1.1 Clarification of Notation

**Note:** This type of paragraph calls the reader's 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.

**WARNING:** 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

The Remote Annunciator IGL-RA15 installed in a Flat Panel, P/N 90600788 is designed as an extension signaling unit for ComAp products.

## 1.3 Document history

Revision number	Version	Date of issue	Author
1	2.0.0	23.11.2022	Ben Killoy

## 1.4 Legal notice

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**Warning:** Some forms of technical support may be provided against payment. There is no legal or factual entitlement for technical services provided in connection to resolving problems arising from cyber-attack or other unauthorized accesses to ComAp's Products or Services.

General security recommendations and set of measures

1. Production mode
  - Disable production mode BEFORE the controller is put into regular operation.
2. User accounts
  - Change password for the existing default administrator account or replace that account with a completely new one BEFORE the controller is put into regular operation mode.
  - Do not leave PC tools (e.g. InteliConfig) unattended while a user, especially administrator, is logged in.
3. AirGate Key
  - Change the AirGate Key BEFORE the device is connected to the network.
  - Use a secure AirGate Key – preferably a random string of 8 characters containing lowercase, uppercase letters and digits.
  - Use a different AirGate Key for each device.
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. By its 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 using MODBUS/TCP in unprotected networks (e.g. Internet).

## 5. SNMP

- The SNMP protocol (port UDP/161) version 1 and version 2 are not encrypted. They are intended to be used only in closed private network infrastructures.
- Avoid using SNMP v1 and v2 in unprotected networks (e.g. Internet).

 **back to Document information**

## 2 Quick Start Guide

After obtaining your retrofit panel before disassembling existing controls please identify the following.

- How does the generator set crank (starting circuit) locate and note the wire location.
- How does the generator set Run? (fuel solenoid, Powering an electronic governor, etc).
- How does this generator set build voltage (integrated voltage regulation?) if it needs a voltage regulator what information can you gather? Frame size, rated voltage, voltage sensing location, field excitation resistance, field excitation current, Excitation source? (Brushed, PMG, Self-excited windings?).
- What is your current transformer ratio (for example 5:200 or 1:1250) and does your controller have the capability to properly display current based on your equipment.
- What is your DC supply voltage of your generator set? 12 V DC or 24 V DC.
- What is your generator set winding configuration? (High y, Low y, Delta, ETC).
- Do you need to replace the existing remote annunciator? (RA-15 factory configured for current RT panel).

Now that you have identified what you need to successfully install the panel remove existing panel and install RT4MRS16.

- Terminate wiring according to the supplied wire diagram and install the supplied oil pressure sender, coolant temperature sender, and coolant level indicator.
- Controller is factory set for 250kW generator set, 480 V, 1800 RPM, RA-15 NFPA 110 level 1 annunciator ready, user safety's should be reviewed according to application, as well as tested before commissioning.
- Install supplied 12 V DC however 24 V DC relays are included if necessary to convert the system.

**Note:** ComAp is available to assist with your startup with our expert on-site and remote technical support, to receive a quote for these services please contact +1 844 267 1226 or see [comap-control.com](https://comap-control.com) for additional help information.

### 3 Terminal diagram

① GENERATOR CURRENT MEASUREMENT		② GENERATOR VOLTAGE MEASUREMENT		③ BINARY INPUTS	
T30	COM	T38	N	T46	BI1
T31	L1	T39	L1	T47	BI2
T32	L2	T40	L2	T48	BI3
T33	L3	T41	L3	T49	BI4
				T50	BI5
				T51	BI6
				T52	BI7
				T53	BI8

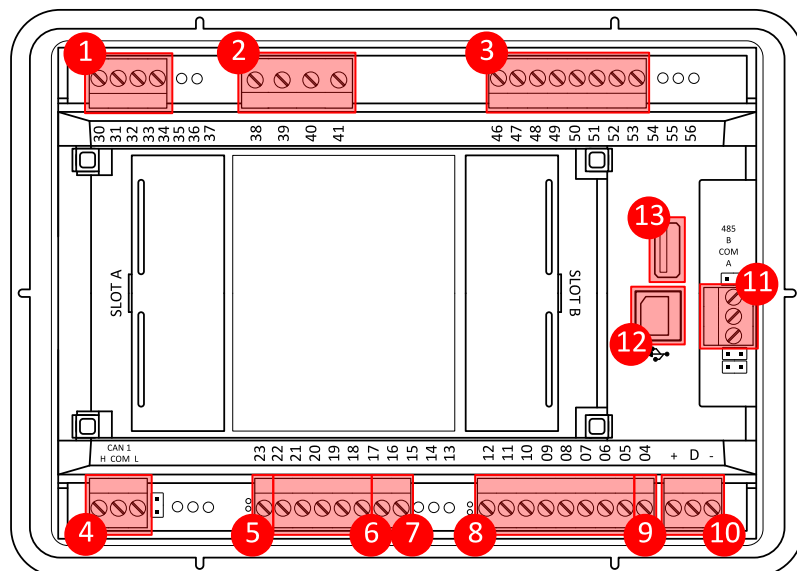


Image 3.1 Terminal diagram for IL4 MRS16

④ CAN1		⑥ ANALOG INPUTS		⑧ BINARY OUTPUTS		⑩ POWER SUPPLY, D+	
T27	L			T12	BO8	T01	BATT -
T28	COM	T22	AI4	T11	BO7	T02	D+
T29	H	T21	AI3	T10	BO6	T03	BATT +
		T20	AI2	T09	BO5	⑪ RS485	
⑤ +5 V		T19	AI1	T08	BO4	T56	B
T23	+5 V	T18	ACOM	T07	BO3	T57	COM
				T06	BO2	T58	A
		⑦ RPM		T05	BO1	⑫ USB	
		T17	RPM IN	⑨ E-STOP		⑬ USB HOST	
		T16	RPM GND	T04			

# 4 Optional Accessory Setup

## 4.1 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 be adjusted 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 the *Lamp test* three times.

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

## 4.2 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 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* fifteen times.
- Set the Horn timeout by pressing *Horn reset*.
  - The number of green luminous LEDs means timeout in 10 s.
  - Any for disabling horn output, 1 for 10 s timeout, 15 for disabling horn timeout.
- Press *Lamp test* two times.

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

## 4.3 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-R15.

- 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.