



**EASYLAB SOLUTIONS COMMUNICATOR VER1.2**

**MANUAL & FEATURES**

**Revision Date: 03/2021**

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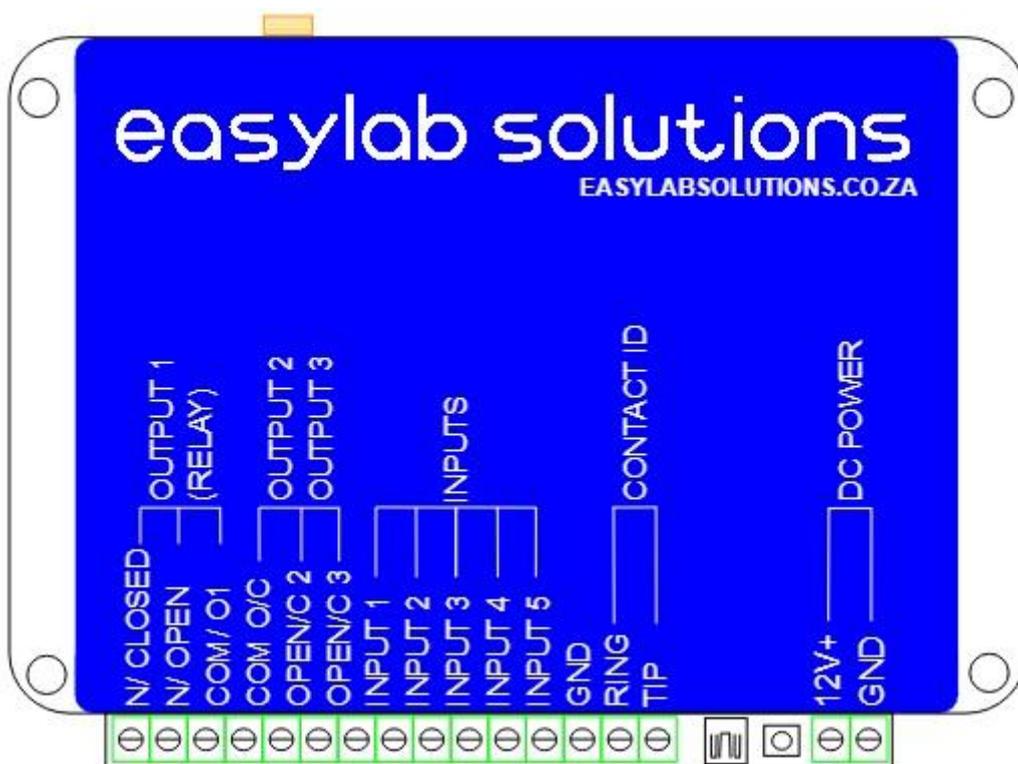
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The EasyLab Solutions Communicator was designed to be as versatile and as easy as possible to use. We strive to constantly improve and find new and better ways to help you the client. We hope you will enjoy our product and if you have any queries please email us at [easylabsales@gmail.com](mailto:easylabsales@gmail.com)

Hardware:

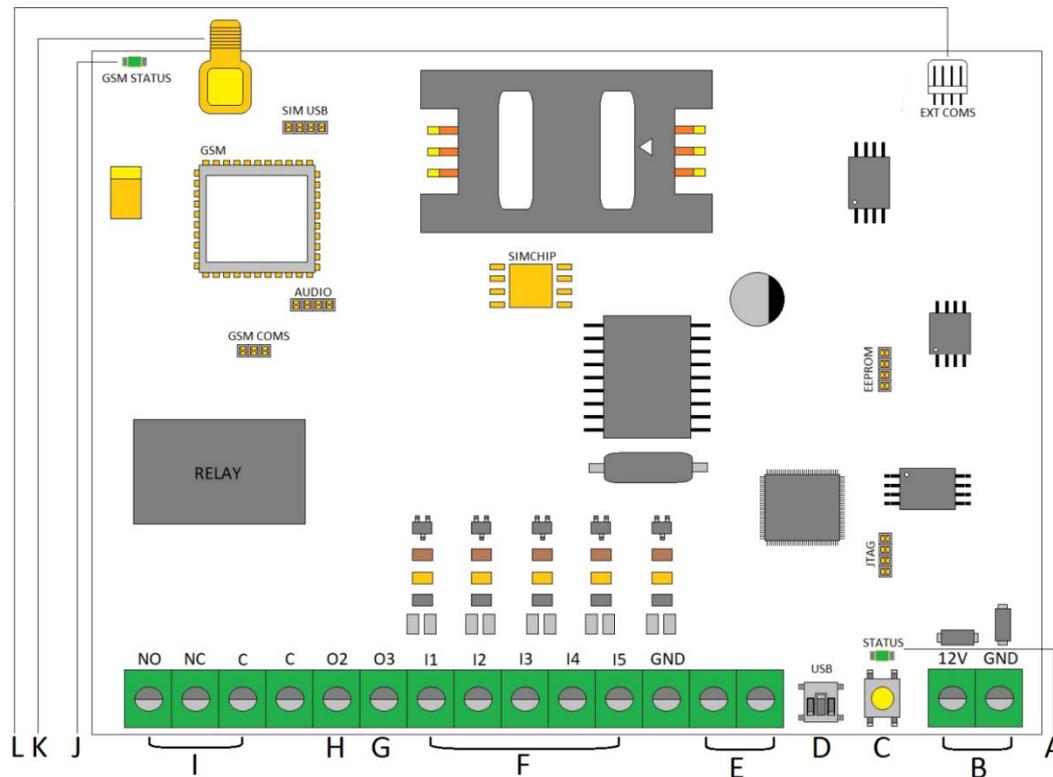
- The communicator dimensions are 146mm(L) X 95mm(W) X 35mm(H)
- Quick interchangeable GSM antenna ( SMA Type Connectors )
- Standard mini usb cable to program your configuration and to update the communicators software
- Input voltage from 9.0V DC to 36V DC MAX
- Contact ID ( Functions on all alarm panels with Contact ID Functionality )
- 5 Inputs ( Digital input: High & Low )
- 3 Outputs ( Output 1 – Onboard Relay / Output 2/3 – Open Collectors )



- Automatic connection to the cell phone network with any simcard. You can quickly change to a different cell phone network without any programming necessary
- Up to 5 recipients can receive messages
- Set a delayed trigger for each input ( from 01 second to 60 seconds )
- Receive a daily health message ( Unit responding message )
- Battery high & low voltage trip message ( Battery above & below message )
- Allow output commands only from specific recipient numbers programmed ( Can be enabled or disabled )
- Output pulse time can be programmed from 01 second to 60 seconds )
- Prepaid airtime balance received with the daily 24-hour health message ( If the airtime is depleted and the communicator needs to respond it will send you a “please call me” message )
- You can program a Easylab Solutions Communicator over the air by utilizing another Easylab Solutions Communicator with our Configuration software
- Status and testing through our Configuration software  
See the following while being connected with the mini usb cable to a communicator:
  1. Network ( ex: Vodacom, Mtn, Cell C & Telkom Mobile )
  2. Units own simcard number
  3. Network Status ( If it is registered to the network )
  4. Signal strength ( See what the signal looks like on site and “Live” )
  5. Current software version ( *software can be updated by the user through the Easylab Solutions configurations software* )
  6. Simcard CCID number
  7. Battery voltage input (ex: 12.60 V )
  8. Trigger any output to test your installation or doing troubleshooting
  9. See the status of the inputs and outputs ( 1-High/ 0-Low / delayed triggers programmed will indicate with a countdown timer before sending the message )

### Contact ID

1. Can connect to any alarm system with TIP & RING
2. Can communicate up to 60 Zones
3. Can communicate up to 20 users ( Via keypad )
4. Can communicate up to 5 Partitions
5. Easy and quick Installation & Programming



**A Status Led**

The status led has 3 functions:

1. Once the Easylab Communicator senses input power the status led turns on until it connects to the cell phone network then it will turn off.
2. While programming via usb cable (Reading or Writing) with our configuration software, the status led will constantly flash indicating data being received or written, it will turn off once it's done
3. The status led will also turn on: when an input is triggered, a command sent to the communicator or when the contact ID function is used to indicate there is a message being sent to the cell phone recipients (this can be a helpful indicator when doing troubleshooting)

**B 9.0-36V DC Input voltage**

The EasyLab Communicator has a linear power supply which will only consume the power it requires at any given time. The input voltage can range from 9.0v DC to 36v DC to be as versatile as possible

**C Programming button to upgrade communicator software****D Programming connector ( configuration and software )**

The communicator can be programmed directly with a mini usb cable from your laptop/pc with the EasyLab software that can be downloaded from our website ([easylabsolutions.co.za](http://easylabsolutions.co.za)). The EasyLab Communicator requires power to be connected first and programmed with power connected.

**E Contact ID connectors (Tip & Ring)**

The EasyLab Communicator can be connected to any alarm system with contact ID through the tip and ring connection. See further instruction for each locally available alarm system on our website ([easylabsolutions.co.za](http://easylabsolutions.co.za)).

**F Input 1 to 5 (Digital High & Low)**

All inputs are low current and triggers from +0.0V DC Low to any voltage from +3.0V DC High (+0.0V – +12V DC only). Each input also has a delay trigger setting that can each be set individually from 01-60 seconds (for example: *when set to 15 second delay, the input needs to be in a constant triggered state for 15 seconds before a message will be sent to eliminate receiving multiple messages from the same input*).

**G Output 3 (Open Collector 3 / 100mA MAX)**

Output 3 is a low current output. If you want to use output 3 you will require an external relay to switch the application, you want to use it on. Only use the Common next to output 2 & 3. *Output triggers Negative.*

**H Output 2 (Open Collector 2 / 100mA MAX)**

Output 2 is a low current output. If you want to use output 2 you will require an external relay to switch the application, you want to use it on. Only use the Common next to output 2 & 3. *Output triggers Negative.*

**I Output 1 (onboard Relay / 5A MAX ~ 15v DC MAX power supply voltage when using output 1)**

Output 1 can be connected normally closed, normally open and has its own common. Only use the Common next to output 1. *Common can be positive or negative.*

**J Gsm Status Led**

The gsm status led will start pulsing when power is connected.

**K** Gsm Antenna connection (SMA Type)

The EasyLab Communicator can accommodate any SMA type gsm antenna (Male type SMA connector). A 2dB gsm antenna will be sufficient in built up areas with good reaching network. A 5dB/ 9dB gsm Antenna is recommended for rural areas or when struggling with good signal quality and slow responses from the communicator, alternately try a different network provider.

**L** Ext Coms (Serial port connection)

For Future Use

## Starting up the Easylab Solutions Communicator:

Before connecting power for the first time remember to insert a registered simcard of your choice (***the simcards pin must be disabled beforehand by testing within a phone!!!***), also connect the gsm antenna supplied with your communicator, and hand tighten only, do not use a spanner as it will damage the onboard connector and potentially damage the pc board.

Minimum power needed is 9.0V DC 1Amp, and no more than 36V DC Max can be applied, exceeding the max voltage will damage the input circuit and void the warranty. South African networks used will automatically connect to the network upon start up and if good signal is received between the Easylab Communicator and the specific network used. The communicator will also set its time automatically. ***Always remove power when testing or changing simcards from the communicator.***

Once power is sensed the Status Led will turn on, once it is connected to the cell phone network the led will turn off ( The communicator will send a health message to each number programmed on start-up )

## Programming and software

Programming with the mini usb cable and software can only be done while the communicator has power connected and a simcard installed before-hand.

Steps to follow:

1. Connect power to the Easylab Solutions Communicator ( ***Simcard and Gsm Antenna installed without power before-hand !!!*** )
2. Open the Easylab Solutions Configuration software ( Current: Ver 3.1 )
3. Connect the mini usb cable from your pc/laptop to the communicator ( You should hear a connection tone from the pc/laptop )
4. Click – Connect (It should automatically search for the usb port and show connected)
5. You can “Read” what is currently programmed on the communicator by selecting “Select All” & Clicking on “Read Config”. A Loading screen will appear and load until it shows Done

Or you can Click “Open” and selecting our default file: Easylab Default.ecf as a base file to create and modify your own file. If you have created and modified your own file, click “Select All” and “Write Config”. A Loading screen will appear and load until it shows Done

Once done, click “Disconnect” or remove the mini usb cable and save your created file by clicking “Save”

**EasyLab Communicator Commands:**

**Test** / Will give you an overall status of the unit, this command is not case sensitive but needs to be the correct format and with no spaces in between.

- Signal Strength
- Battery voltage
- Input 1-5 status (if the input is low or high at that specific time)
- Output 1-3 status (if the output is on/off at that specific time)
- Software version (FW 3.01)
- Time (What the time is currently programmed/ received from the cell phone network automatically)
- What the health message time is programmed, and if programmed when the 24-hour health message will be sent

**Numbers** / Will return with message by showing all the recipient numbers programmed on the communicator (Cell 1 to 5)

**Out1=On** / Will turn output 1 on (latch), This command is not case sensitive but needs to be the correct format and with no spaces in between.

**Out1=Off** / Will turn output 1 off (unlatch), This command is not case sensitive but needs to be the correct format and with no spaces in between.

**Out1=Pulse** / Will pulse output 1 determined by the trigger pulse time programming, default is 02 seconds, this command is not case sensitive but needs to be the correct format and with no spaces in between.

**Out2=On** / Will turn output 2 on (latch), This command is not case sensitive but needs to be the correct format and with no spaces in between.

**Out2=Off** / Will turn output 2 off (unlatch), This command is not case sensitive but needs to be the correct format and with no spaces in between.

**Out2=Pulse** / Will pulse output 2 determined by the trigger pulse time programming, default is 02 seconds, this command is not case sensitive but needs to be the correct format and with no spaces in between.

**Out3=On** / Will turn output 3 on (latch), This command is not case sensitive but needs to be the correct format and with no spaces in between.

**Out3=Off** / Will turn output 3 off (unlatch), This command is not case sensitive but needs to be the correct format and with no spaces in between.

**Out3=Pulse** / Will pulse output 3 determined by the trigger pulse time programming, default is 02 seconds, this command is not case sensitive but needs to be the correct format and with no spaces in between.

### What if the Status Led does not turn on-on my Easylab Communicator?

- Measure input voltage. Minimum voltage 9.0V DC 1Amp.
- Recheck if wiring is correct. 9.0V DC MINIMUM Positive from power source to **12V** designator on Easylab Communicator. Ground from power source to far right **GND** designator on Easylab Communicator.

### What if the Gsm Led does not turn on-on my Easylab Communicator?

- Remove power source **12V** designator wire for 10 seconds and re-apply power. The onboard capacitor stores energy for at least 10 seconds before being completely depleted.

### What if an input does not trigger and send me messages from my Easylab Communicator?

- The Easylab Communicator requires a positive source to trigger the inputs.
- Recheck programming of inputs using our software by downloading the complete file programmed, or reprogram the Easylab communicator (check: Trigger Delay, Input message is filled in and programmed, ticked boxes of cell recipients required to receive messages)
- Does your device output wired to the communicator function? .Test your wiring between the device and the communicator, measure the voltage of your devices' output while testing.
- If you are using a prepaid simcard, does your simcard have sufficient airtime?

### What if an output does not trigger on my Easylab Communicator?

- Is your message format being sent correctly, using no spaces in between the command?
- Is the "*allow output commands only from specific cell phones*" tick box unticked? If enabled, check to see if your number is ticked to be able to trigger on the programming
- If pulsing the output, is the pulse time set correctly?  
Read programming from communicator and go through the programming at the relevant section.

**What if I receive delayed messages from my Easylab Communicator?**

- Send the following command below to the communicator and note the response of the signal strength (signal out of 31, for ex: 15/31 is approximately 50% signal quality)  
Command to sms to the communicator: Test
- Make sure that the input trigger delays are not programmed, default is 01 second.
- Try a higher gain GSM antenna (Remember to remove power before changing out the gsm antenna)
- Try a different GSM/ Cell phone network.

**What if I do not receive any messages from my Easylab Communicator?**

- If a prepaid simcard is used, check the airtime balance.
- Try a different GSM network.
- Try a higher gain GSM antenna (Remember to remove power before changing out the gsm antenna)
- If using a new simcard, double check that the simcard pin is removed by inserting it into a cell phone and test.
- Last resort is to try it in a different location all together, if still not functional, contact Easylab Solutions.

**What if my Easylab Communicator does not want to program?**

- Does the communicator have sufficient power connected, before trying to write or read from the communicator?
- The communicator requires a simcard to be programmed
- Try a different mini usb cable.
- Turn off power from the communicator for 10 seconds.
- Restart your laptop/pc.
- Close the Easylab software and open it again and try to read or write through the software again, Follow steps below:
  1. Start-up communicator ( **Simcard inserted and GSM antenna connected without power connected** )
  2. Open Easylab Solutions Configuration software
  3. Connect mini usb cable from pc/laptop to communicator
  4. "Click" Connect ( Will pick up usb port automatically )

### **Contact ID Troubleshooting:**

**What if I do not receive any messages from my EasyLab Communicator while using the contact ID functionality?**

*See installer's manual for each specific alarm system downloadable from our website (easylabsolutions.co.za)*

### **Warranty**

There is a one-year warranty from date of sale. If no physical damage is detected or from being installed incorrectly repairs will be done free of charge within the first year. The warranty is taken from the IMEI number seen on each gsm engine and logged by our admin team.

### **Future Development**

We are currently working on an app to work in conjunction with our EasyLab Solutions Communicator. More about the app will be disclosed in the near future, but we are sure you will be pleased once its released.

If you have any new features or products you would like to see from us, please email us at: [easylabsales@gmail.com](mailto:easylabsales@gmail.com)