User Manual

Audio Sources Selector
SSS4_1

v. 2.0

essol
ENERGY & SECURITY SOLUTIONS

Table of Contents

Specifications

Input Voltage:	12 V DC
Current:	21mA (No channel selected)
	81mA (One stereo channel selected)
	51mA (One mono channel selected)
LED 12V Supply:	40mA (max) / Button (Led)

WARNING: ***All wiring must be performed with the power off and always respected the technical characteristics.***

Functional description SSS4_1

Four bidirectional channel

According to our selection, the Essol SSS4_1 module drives one of the four inputs (LR1-4), to the output (L R) and vice versa. The selection is made by using external buttons, which are connected at the pcb connectors (B1-4) on the module and is corresponding one for each input.

Four LED channels

For an even more complete experience, there is the possibility to use buttons with LED inside it and the module turns on only the LED which corresponding to the selected button (channel).

Full switching control of the signal

Each one of the four channels controls two DPDT relays, one for left and one for the right channel, of an audio source. For each of the audio channels, both of the poles (signal and the GND), are switched by the relay. The module ensures that only one input (sound source), will be driven to the output each time.

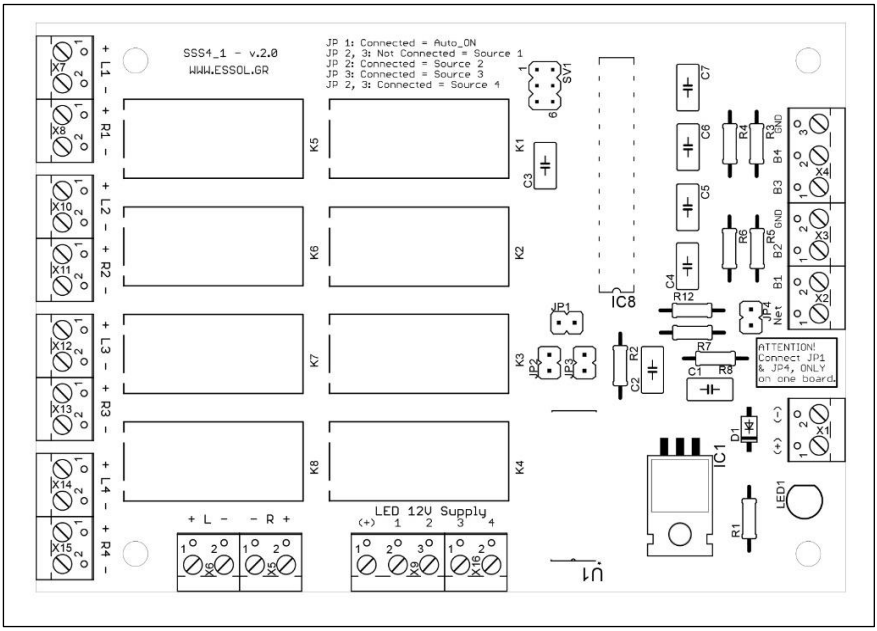
No limitation on the number of exhibits

In order to increase beyond four, the number of the audio sources samples which are exhibited simultaneously, is afforded the opportunity to establish of a network with

more than one modules. This is achieved using one cable, connecting all the pcb terminals, which noted as "Net", between them.

AUTO-ON function

The SSS4_1 module supports the AUTO-ON function. When enabled, after each restoration of the power supply, the preselected channel in any of the network's modules, will be selected automatically among others and will drive the audio accordingly. If none of the audio sources, shouldn't automatically be selected, this can be set.



Picture 1 – Audio Source Selector module SSS4_1.

Wiring and Connections

Input - Output

On input terminals (LR1-4) and output (LR) of each card SSS4_1, stands the internal connection through the relays: Ln + / L +, Ln- / L-, Rn + / R +, Rn- / R-. In case of multiple modules on network, the output terminals (LR), must be connected to each other, one by one.

Selection Buttons

Buttons with an NO contact, must be used. One pin connects at the pcb's connector with the letter B1 to B4 and the second to GND.

Selection Button with LED

A button with LED inside it, can be connected between the "LED 12V Supply" pcb's connector, marked as "+" and "1 to 4". Connect in series with the LED, a resistor with the appropriate value. Check the polarity of the LED.

CAUTION: ***The maximum current per channel (1-4) is 40mA.***

Light All Buttons

To turn on the lights of all the buttons, do not connect the LED as previously. Connect it directly to 12V main power. Do not forget to connect in series with the LED, a resistor with the appropriate value. Check the polarity of the LED.

Autonomous or in network operation

CAUTION: ***Connect the JP4, ONLY ON ONE of the networked modules every time.***

Each module, in order to operate autonomous (not in network), must have the JP4, connected. In network mode, only one module must have the JP4 connected.

Networking two or more modules, is achieved using one cable, connecting all the pcb terminals, which noted as "Net", between them. Through networking, ensured communication between the modules and their integration into a unified group, with 4 x N audio source, where N is the number of networked modules.

In each group of networked modules, an audio source is driven to the exit, after the isolation of the previously selected source.

In case of interruption of the link cable, if this action isolates from the network, a module with the JP4 jumper closed, then immediately all the other modules turn off their relays, until the connection repaired. If a module with the JP4 open, is disconnected from the network, then only this module turns off its relays. The rest of the system remains in operational state, until the connection is repaired and the lost module connect to the network again.

Auto-On

Through JP1, JP2 and JP3, are regulated the functions associated with automatic startup of a selected channel, when the module powered.

CAUTION: ***Connect the JP1, ONLY ON ONE of the networked modules every time.***

JP1 {**Open**} = Auto-On is disabled, **JP1** {**Close**} = Auto-On enabled

JP2 & **JP3** {**Open}** = Channel 1 selected

JP2 {Close} & JP3 {Open} = Channel 2 selected

JP2 {Open} & JP3 {Close} = Channel 3 selected

JP2 & **JP3** {**Close}** = Channel 4 selected

Application Examples

Example 1 - Sampling car audio sources.

At inputs (LR 1-4), are connected the audio sources. At the output (LR), are connected the speakers.

In this case, the selected audio source is played in a pair of speakers.

Example 2 - Sampling car speakers.

At the (LR) terminal block connect the audio source. At the (LR1-4) terminal block, connect the demonstrated speakers.

In this case, the selected pair of speakers will reproduce the constant audio source.

Example 3 - Sampling car audio sources and speakers.

You can use the SSS4_1 to demonstrates simultaneously audio sources and speakers, combining at least two modules. The first module handles the sources and the second one the speakers.

To achieve this, connect the output (LR) of the first to the input (LR) of the second. At the inputs (LR1-4) of the first, connect the audio sources and at the outputs (LR1-4) of the second, connect the speakers.

Alternative management of waste electrical and electronic equipment

For the countries of the European Union

This label is affixed to the product to remind you that the electrical and electronic products must not in any event be considered municipal waste.

Electrical and electronic products, including cables, plugs and accessories should be separated at source, to allow the necessary treatment, with the ultimate goal to reuse or recovery.

These products should be available in specified units with the best techniques of collection, treatment and alternative management.

The separate treatment provides the following significant advantages: valuable materials can be reused and thus prevent the generation of municipal waste.

This action helps to protect the environment and human health. Please be aware that fine may be imposed for illegal disposal of electrical and electronic equipment. Please drop your old electronic equipment at appropriate recycling electronics or contact your local authorities for further information.

For countries outside the European Union

The management of electric and electronic equipment in countries outside the European Union should be in accordance with local regulations. Please contact your local authorities for further information.

CE

The manufacturer Christos N. Chiotis, with contacts details: Address: Rodou 24 Koridallos, 18120, Attiki – Greece Phone/Fax: 210-2018328 - Email: christos.chiotis@essol.gr

Declares that this device SSS4_1 V2.0, meets the requirements of European Directives: 2004/108/EK (EMC), 2011/65/EE (RoHS).

www.essol.gr

220217-EN