OPERATIVE SCANNER MANUAL.
REV. 1.1 del 04-20-2019

FOREWORD

Thanks for choosing ZA ELETTRONICA as the electronic manufacturer for your replica.

I'm sure that your choice will be paid back by mutual satisfactions. I have invested a lot of time and resources along with my team on research and development, but your feedback on this product may help me to improve it, since i have the aspiration to make it become the market benchmark.

Therefore i would like, if possible, to receive your suggestions; they will be considered and eventually integrated in future free firmware developments.

Send your suggestions to info@zaelettronica.com including your invoice number.

Thank you for your cooperation and enjoy your manual!

Alessandro Zagni

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PACKAGE

In the package you will find:

- ✓ 1 SOUND board;
- ✓ 1 DRIVER board in its aluminium box;
- ✓ 2 SOUND FILTER board;
- ✓ 1 "V" form aluminium bar with 2 white PCB boards each with 4 high power led for a total of 8;
- ✓ 1 KEYBOARD;
- ✓ 1 remote controller for the scanner;
- ✓ 1 RADAR PIR sensor;
- ✓ 1 white DMX cable for connection between driver board and sound board;
- ✓ 1 RELAY cable for optional Laser;
- ✓ 1 RADAR cable to connecy front radar to driver board;
- ✓ 1 cable KEYBOARD <-> SOUND
- ✓ 1 cable 6 ROWS <-> SOUND;
- ✓ 1 BATTERY cable with 10 AMP fuse;

ATTENTION:

BEFORE POWERING ON THE ELECTRONIC SET PLEASE READ AND UNDERSTAND CAREFULLY THIS MANUAL.

REFER TO QUALIFIED PERSONS TO INSTALL THIS PRODUCT!
WE DO NOT RESPOND OF ANY DAMAGE CAUSED TO THE VEHICLE DUE TO AN INCORRECT INSTALLATION.

THIS ELECTRONIC SET IS TO BE USED IN PRIVATE PROPERTY. WE DENY ANY RESPONSABILITY IF THIS RULE IS NOT FOLLOWED.

⚠ **ATTENTION: DO NOT CONNECT OR DISCONNECT CABLES WHEN THE BOARDS ARE POWERED, DAMAGE CAN BE CAUSED** ⚠

THE SET

The scanner set you have purchased is not a simple scanner but a complete system which integrates an audio board, a 433MHZ remote controller, two sound filter, a keyboard and the cables to connect all the components, battery, electronic set installed in your dashboard and the other boards of this set.

The scanner works ONLY if connected to a ZA electronic set because it uses the can-bus network to obtain working information as for example the car speed, rpm and power status of the dashboard. There is no other way to make it work!

Brief description of the package contents and single functions.

THE CABLES

All the cables within the set have automotive specifications and IP68 connectors. This to guarantee your safety and a perfect operation in every condition.

All the cables are sheathed and marked to be identified for easier connection to its component.

The cables are divided in 2 groups: external and internal. There is a “passthrough” which is the white DMX that connects the Driver to the sound board. The passage of this cable has been studied to pass in the car near the brake pump on the drivers side.

1. The external are identified with the IP68 connector and are connected to the drivers board.
2. The internal are identified with the MODU2 connectors.

EXTERNAL CABLES

External cables list:

✓SCANNER
✓RELAY
✓RADAR
✓DMX (PASSTHROUGH)
✓BATTERY

INTERNAL CABLES

Internal cables list:
✓KEYBOARD <-> KEYS
✓6ROWS <-> SOUND

THE SCANNER

The scanner is built with an aluminium bar divided into 2 pieces soldered in the center with the classic V form molded with hood V. Inside the bar there is the led scanner circuit; to dissipate the heat in an efficient manner the circuit as been developed with a PCB metal core instead of vetronite. This procedure, more complex and expensive permits a better heat dissipation inside the circuit through the aluminum bar .

It can occur that the bar becomes hot during operation, but it is normal. A temperature of 50-60° in the bar does not create problems and does not impact the scanners efficiency.

During assembly, an external section is added for every single cell to obtain the 8 cells in the scanner bar.

To complete the scanner a red plexi is placed in front of the bar; in the left rear of the bar, two bundles of cables exit, one of them counts 8 cables and one 3. These cables end with IP68 connectors that have to be connected with the Drivers board inside the aluminium box.

So that the scanner can operate, it is essential that the electronic set is in standby mode or powered on. This because the boards have to comunicate with each other. If the electronic set is powered off also the scanner is powered off. There is a system in the drivers board that interrupts the power to the scanner if the electronic set is powered off.

To manage the power of the leds in a secure way a Drivers board has been developed. It is the heart of the scanner, it manages all the inputs and outputs that allows the scanner to interact with the outside and to send and receive the data from the ZA electronic set.

Since this board has been developed from scratch, the design has been studied in its smallest details. Tanks to the cad design it has been calculated the correct and necessary space in which this box should be placed. And precisely it is put exactly behind the right direction light near the hood latch mounting bracket, where there are the two ribs of the frame. After you have fixed the box with four screws, your box will be perfectly aligned and will never move.

The driver board is closed and tested in factory. The solders inside can be done only with specific tools. On the box, a warranty seal is present . If the warranty seals is removed, the entire warranty on the product will decay.

⚠ DO NOT TRY TO OPEN THE BOX FOR ANY REASON! ⚠

The driver board, for safety and protection against bad weather is enclosed in an alluninioum box and has these inputs/outputs:

- ✓ Power + 12 volt for board, scanner, radar, relay
- ✓ DMX cable for internal connection to the electronic set;
- ✓ RELAY cable for optional laser module (not included) which can be activated pressing a switchpod button ZA;
- ✓ RADAR cable to connect to the front PIR radar.;
- ✓ Interface cables for the scanner bar: 11 cables in 2 IP68 connectors, one of 8 and the other of 3;

In order to identify the components that make the drivers board, you will find a list below that explains better all their functions.

In order to avoid that more cables pass inside the car interior, it has been studied that the main power sits inside the engine bay. The drivers board has an integrated relay which interrupts power if the electronic set is switch off and of course it active when the dashboard is on. This also is done to avoid your battery drain during period of non-use.

From the dashboard, through the canbus network and the white DMX cable, it is sent a p on - signal power, that put the scanner in a standby condition. When the dashboard is switched off from the main switch, also the relay inside the drivers board disconnects the power from the battery.

The connection to the battery can be done directly with the housing on the cable. If the housing does not fit your needs can be cutted off and replaced with a correct one.

- **Red cable is positive (+12 VOLT)**
- **Black cable is negative (Earth, GND)**

NEVER LEAVE CABLES LOOSE IN THE ENGINE BAY, fix them with specific cable ties.

To be up IP68 standard, inside the rubber covered fused-holder there is an 10AMP fuse placed on the red cable. The other end part is soldered directly on the drivers board.

⚠ DO NOT TRY TO PULL THE CABLE FROM THE DRIVER BOARD. DAMAGE CAN OCCUR! ⚠

The DMX cable is used for bidirectional comunication from the driver board to the sound board. The sound board, which will be discussed later, is the one which interfaces with the ZA electronic set; this connection is done with a 6 rows<-> sound board cable; in case that the IP68 connector is used by swicthpod relay board, the sound board can be connected to a ZA relay board.

It is the only white cable and it is 4 meters long. This lenght has been determined with several tests and resulted to be plentiful for your needs.

A passage for this cable from the engine bay inside the car can be found under the brake pump, for example.

The DMX cable on one side, has black 4 pin MODU2 connector and a white IP68 connector on the other side. On the MODU2 side is marked SOUND and on the IP68 side is marked DRIVER. So it easy to identifie which connector goes to each board. The insertion direction is not be mistaken if you follow the istruction carefully. See picture for more details.

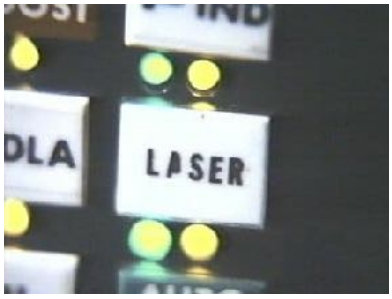
RELAY CABLE

This cable is designed to activate the laser function from inside the car with out having to use external sources.

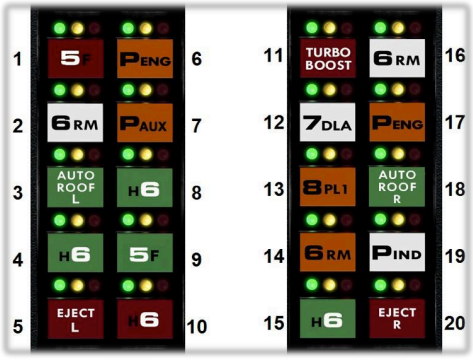
This function is usually activated from inside the car; isn't simple and external relays/ equipment must be used. This cable which comes from the drivers board can be connected to a laser diode, usually installed on top of the scanner bar, and powered from ZA swithpod.

Thanks to the ZA electronic set, ZA switchpod buttons and this new product, the laser function will not be a nightmare anymore!

The "laser" button on the swichpod will automatically switch your button press into a relay action that is inside the driver board. The button is the 17 (P ENG on the photo), and is located on right pod (the turbo boost pod), second one from top right, next button down the white "6 RM".



The LASER button for your pod unit, can be purchased as option, with the EXTRA 18 buttons see on the series.



The cables that come out of the driver board are 3:

NO (normal open): blue
NC (normal closed): brown
C (comune): black

MAX AMPERE OUTPUT: 3 AMPER resistive at 12volt

The contact is not protect and a 5 amper protection fuse must be provide.

The lasers works ONLY if the relay setting for button 17 is "on"

RADAR WITH CABLE (PIR)

This cable is used to connect the (PIR) radar to the driver board. This cable, from one side end with the radar (PIR), keep in the appropriate support, to the other side instead, there is an IP68 connector. The lenght is 2 meters and can be fixed where you like. The suggestion is to fix it under the front bumper, near the center, between the fog lights for a better performance.

WHAT IS PIR AND HOW IT WORKS IN THE SCANNER

It is a passive infrared sensor (Passive InfraRed) which measures heat from objects in front of it.

All objects with a temperature above absolute zero emit heat energy in the form of radiation. Usually this radiation isn't visible to the human eyes because it radiates at infrared wavelengths, but it can be detected by electronic devices designed for such purpose.

The term passive in this instance refers to the fact that PIR devices, do not generate or radiate energy for detection purposes. They work entirely by detecting infrared radiation emitted by or reflected from, objects. They do not detect or measure "heat".

This sensor is sensible to direct sun light. For this reason, during summer season, if it is exposed to direct sun light and temperature above 40°, it could loose his efficiency. This is because the sensor reads the temperature difference from environment and the object in front

of it (2,5 meters and an angle of 120° of range). More high it is fixed compered to the nose of the car better it will read a major portion of the object passing in front of the sensor.

When the scanner gets in standby mode the PIR sensor reads the enviornment temperature (20 seconds) which is set as default. Every variation read by the sensor, activates one or both of the following functions:

- scanner activation (if enabled)
- dashboard activation (if enalbed)

When calibration of the sensor is done, the scanner will activate for a defined period of time and an mp3 file reproduction.

The timer to an action and the next one is set by default, of a minimum of 10 seconds (it is configurable in the scanner menu, see next paragraph) . Some exceptions to this setting are expected .

- If the mp3 played lasts more than the minimum time set, the scanner will continue to function till the file ends.
- If during this minimum time the Pir is engaged it will send another scanner activation signal to the electronic set making another mp3 file played and continuing to run the scanner.

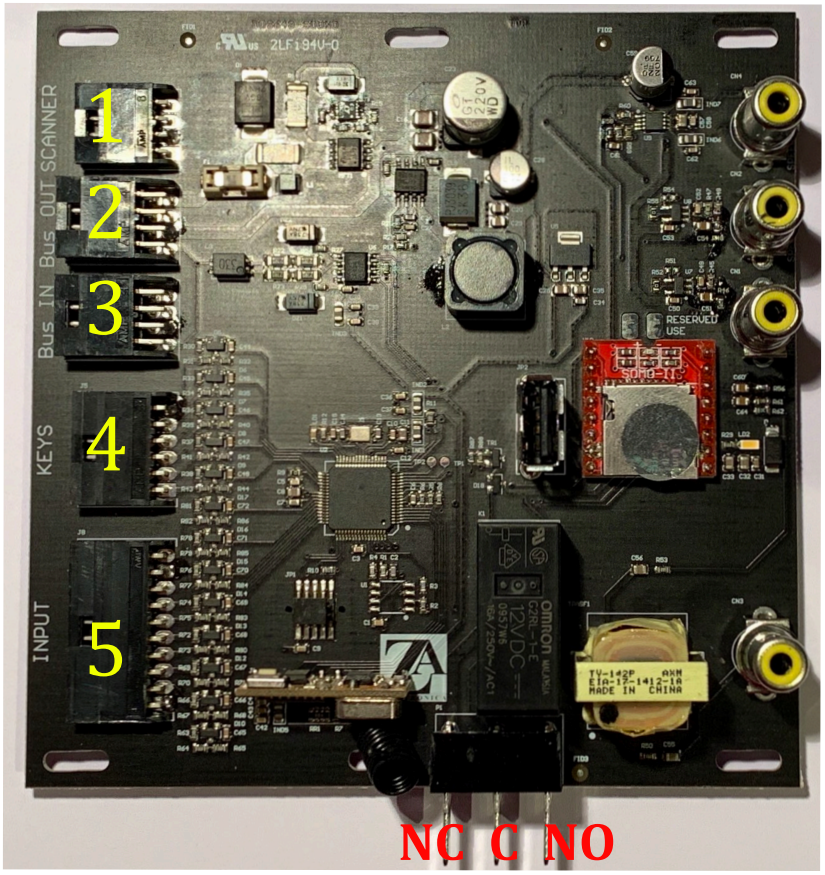
Every Pir engagement plays an mp3 file.

 DON'T COVER PIR SENSOR WITH PAINT! 

SOUND BOARD

This board is part of the scanner system and has its own smd 3 Amp fuse.

It is the board which interfaces with the ZA electronic set.



INPUT PORT IS NOT ENABLED.

DO NOT CONNECT ANYTHING.

DAMAGE CAN OCCUR

Lets look it in detail. The board has 5 MODU2 connectors with specific functions:

1- SCANNER:
to be used with the white DMX cable; its function is to provide bidirectional comunication between driver-scanner and the ZA electronic set.

2- BUS OUT:
connector for future ZA products. It is used to connect the sound board to the the ZA electronic set and provide data exchange through the canbus protocol.

3- BUS IN:
to be used for the connection between 6 rows <-> sound; If the connector on the 6 rows is used by the relay board you can connect it to the free connector on the relay board. It is used to connect the sound board to the ZA electronic set and provide data exchange through the canbus protocol.

4- KEYS: connector for the 5 buttons scanner keyboard with the Keyboard cable

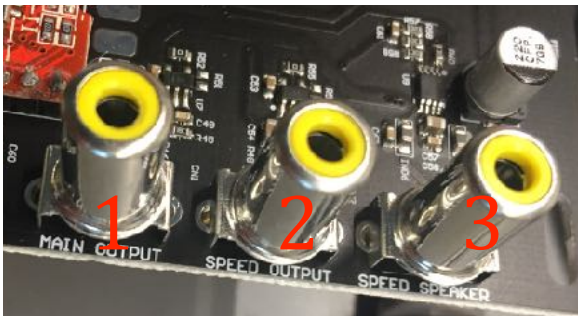
5- INPUT:
connector for future ZA products. It will be used to connect the sound board to external sources.

Near the ZA logo there is a 433Mhz receiver to be used with a remote controller. Detailed instructions, in the remote controller section.

There is also an mp3 reader with an usb connector. As for the Mph board, also this reader uses the same directory/file structure.So it is possible to use SD card or Usb pen.

DO NOT USE AT THE SAME TIME SD CARD WITH USB PEN.

There are also 4 RCA connectors on the sound board: 3 outputs (near each other) and 1 AUX input



1- MAIN OUTPUT:
It outputs an audio signal in high quality which can be used as in-line of an amplifier.
The sounds played from this connector are:

- MP3 Sound
- Turbine sound
- Scanner sound
- Aux input sound

USE THE DECOUPLING FILTER PRESENT IN THE PACKAGE TO CONNECT MAIN OUTPUT TO YOUR AMPLIFIER.

2- **SPEED OUTPUT:**
It outputs an audio signal in high quality which can be used as in-line of an amplifier.
The sounds played from this connector are:

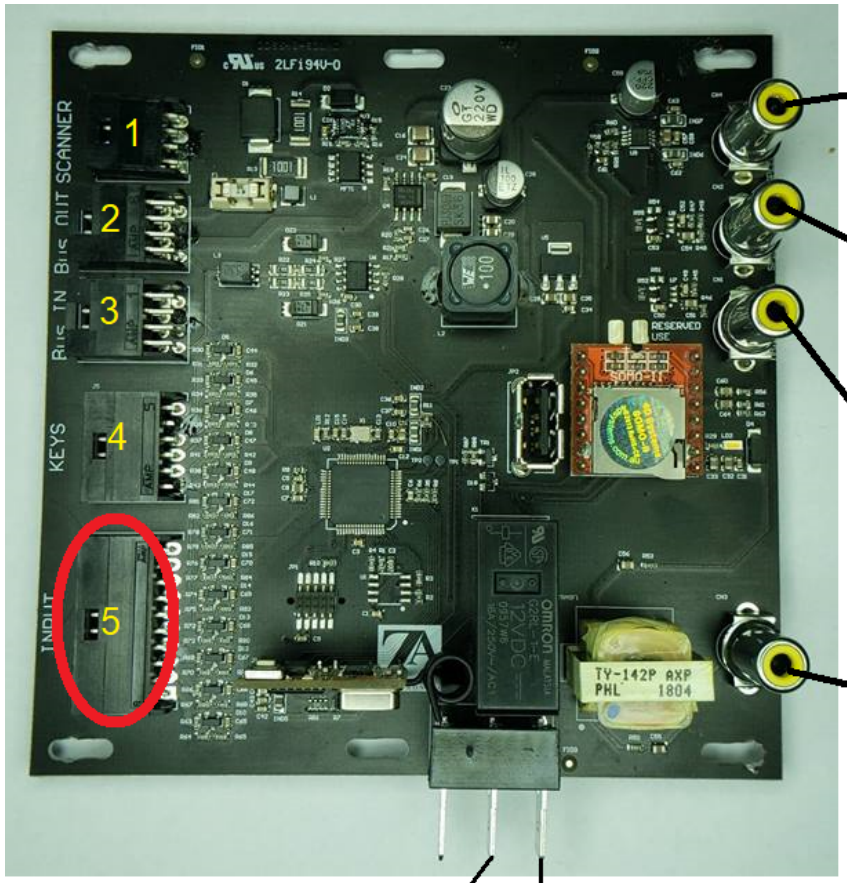
- Click speed sound. It plays a click everytime there is a vehicle speed change. The sound is variable depending on the speed, higher the speed is faster the click is played.

USE THE DECOUPLING FILTER PRESENT IN THE PACKAGE TO CONNECT MAIN OUTPUT TO YOUR AMPLIFIER.

3- SPEED SPEAKER:
It outputs an audio signal in high quality which can be used to connect an independant speaker.
The sounds played from this connector are:

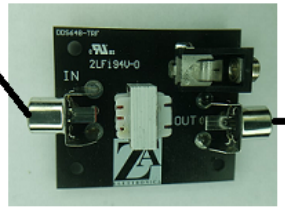
- Click speed sound. It plays a click everytime there is a vehicle speed change. The sound is variable in base of the speed, higher the speed is faster the click is played.

DO NOT CONNECT FOR ANY REASON "SPEED SPEAKER" TO A SPEAKER CONNECTED IN PARALLEL TO OTHER SOURCES! IT WILL DAMAGE THE SOUND BOARD!



For Speedo Tick only. Not for Amplified connection
NOTE - Do not connect any other sound source to this speaker, or Damage to the Soundboard will occour

If you choose to have an Amplified Speedo Tick, Connect this to Amplifier



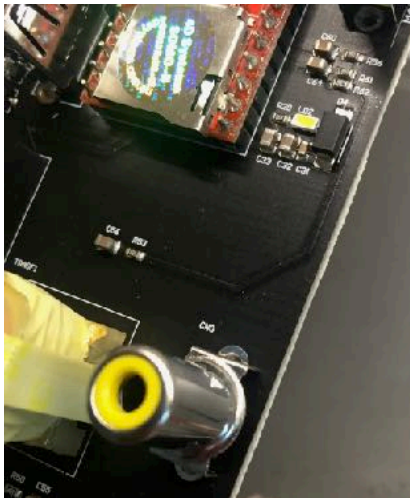
Connect this to Amplifier's Input. this will provide the Main output of Scanner, Turbine & MP3's

This is Aux input Only. if you want to channel another sound source to the Scanner speakers. NOT for an Amplified input signal

If you want the soundboard to turn On/Off the Amplifier that you are using for your scanner, Connect a 12v line here

Connect this to the Remote terminal of your Amplifier

1- Connection from Scanner DMX Cable
2 - ***NOT USED - for Future upgrades!***
3 - If you have ZA Electtronica Pod Relays, You will connect this to the unused port on your relay board. If you do Not have the ZA Pod Relays, this will connect to the Unused port on your ZA Electtronica 6 Row board
4 - Connect the Keyboard cable supplied with your package.
5 - ***THIS PORT IS NOT ENABLED. DO NOT CONNECT ANYTHING - DAMAGE CAN OCCOUR, AND THIS WILL VOID YOUR WARRANTY ON THE PACKAGE***



AUX INPUT: This RCA connector allows to input in the system an in-line sound thorugh the mixer of the sound board. This input is played by the board through the main output.

On the sound board it is also present a relay to enable remote control of an external amplifier to be used for the sounds played through the RCA Main output.

In the schema in the upper section you can see from left to the right the pin of realy:

NO = Normally Open
C= Common
NC= Normally Closed.

This relay is used for activate the "remote" of your amplificator. It can provvide 5 amp at 12 volt. The contact isn't protect and a 5 amper protection fuse must be provide on common line.

Please take a look and understand the next page before running your new scanner & sound unit. Is a general connection diagram of your sound board!

PLEASE DON'T TRY DIFFERENT SCHEMA CONNECTION OR PARALLEL CONNECTION!

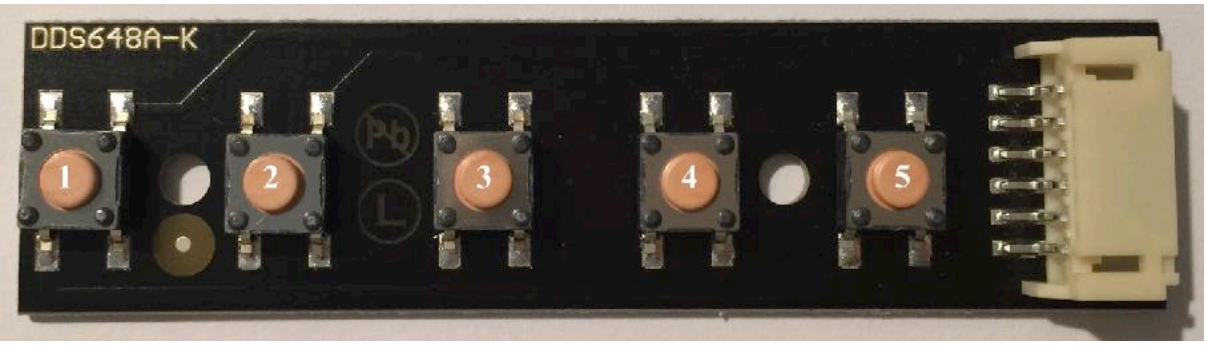
ALWAYS USE THE FILTER FROM THE BOARD TO YOUR AMPLIFICATOR!

DIFFERENT CONNECTION MAY CAUSE THE DAMAGE OF THE BOARD AND THIS WILL VOID YOUR WARRANTY ON THE PACKAGE!

SCANNER CONTROLS: KEYBOARD & REMOTE CONTROLLER

Your scanner can be controlled with 2 independant systems: 433 mhz remote controller or by the keyboard, both in the set. .

KEYBOARD



BUTTON ***FUNCTION***

[1] **=** ***ON/OFF/STBY.*** *When in stanby (PIR RADAR ACTIVE) the 3 rows board has the first led blinking. When the scanner enters in standby, the scanner plays 2 blinks for confirm.*

[2] **=** ***Light Effect lchange;*** *Holding down the button, all the seven available combinations are shown consecutively.*
Keeping it pressed for 2 seconds DEMO mode is activated. (all effects are played in sequence)

[3] **=** ***Light effect,*** *increase speed;*
[4] **=** ***Light effect,*** *decrease speed;*
[5] **=** ***Master volume 3-2-1-0-3.***

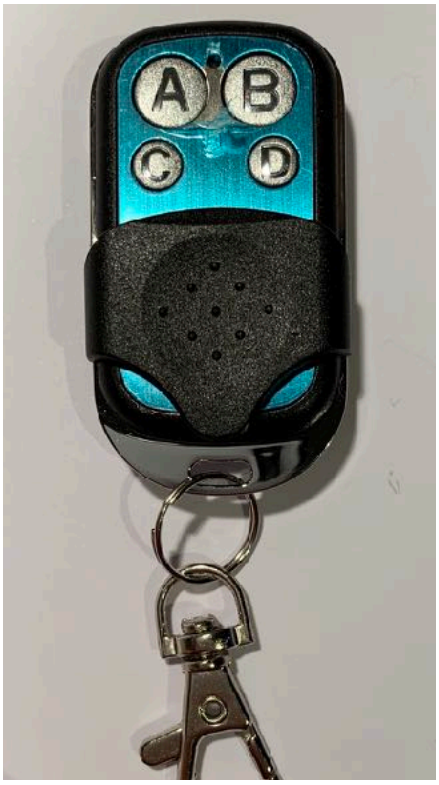
This keyboard is connected on one side to the sound board by its cable supplied. The cables lenght as been studied so that the keyboard is easily fixed under the mph board. In this way the use of the keyboard will be easier and simpler.

HOTKEY

- Pressing together button [3] e [4] flat turbine sound is played;
- Pressing for 3 seconds button [2] DEMO mode is activated;
- Pressing together button [2] e [3] temporized mp3 file is played.

By each pressure (simultaneous) the option cycles between three "fixed times" (1, 2, 3 minutes). Pressing a fourth time, the function is deactivated.

The number of minutes is displayed on the 8 LEDs of the scanner by "long" pulses, that is longer than the PIR activation flashes or the demo mode, so that they are distinguishable and can be counted.



Remote controller functions:

- A: like button 1 KEYBOARD(scanner mode)
- B: like button 2 KEYBOARD (effect selection)
- C: like button 3 KEYBOARD (increase speed)
- D: like button 4 KEYBOARD (decrease speed)

HOTKEY

- Pressing together [C] e [D] turbine sound;
- Pressing 3 seconds [B] DEMO mode activated;
- Pressing together [B] e [C] temporized mp3 file is played

Temporized MP3:

By each pressure (simultaneous) the option cycles between three "fixed times" (1, 2, 3 minutes). Pressing a fourth time, the function is deactivated.

The number of minutes is displayed on the 8 LEDs of the scanner by "long" pulses, that is longer than the PIR activation flashes or the demo mode, so that they are distinguishable and can be counted.

COMANDS INTERACTION

The MASTER VOLUME and the SCANNER mode (StandBy / ON / OFF) have two adjustment points:

- The menu '(as we will see in the appropriate paragraph);
- The keys on the keyboard.

The first (menu) determines the default when the instrument panel is switched on (when the power comes on).

The adjustment with the keys is temporary: at the next switch-on, the value set in the menu is restored.

This allows you to play with the keys without compromising the default values.

Example:

Scanner in 'StandBy' from the menu '. At power-on, the LED on the 3ROWS flashes to indicate that the sensor is active.

Pressing the 1 key on the KEYS or the 'A' key on the remote control, the scanner can immediately switch on or off, but at the next power-on power supply, it will be in standby again.

The MASTER VOLUME acts as a "limiter" for the individual settings (turbine, speed, scanner, mp3).

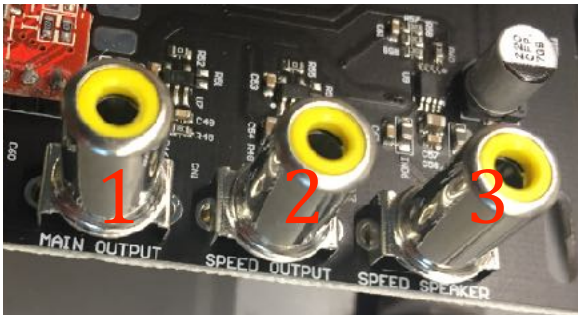
If the master volume is set to 2, all the effects will not be reproduced at a higher volume even if they are set to 3 (the individual setting is not altered, the volume is only limited).

Also in this case, the MASTER VOLUME setting on the menu is applied to each dashboard power supply, while with the keys (KEYS / RADIO) it is possible to change it temporarily.

Your new scanner has integrated 3 different functions, that coexist in a single board, the SOUND board. The board provides with an internal mix to bring together all the main "external" sounds (MP3, TURBINE, SCANNER, AUX) on the MAIN OUTPUT output.

It will be possible to modify the default values of the single sounds (not of the aux, as dependent on the input source) or in a group using the special key [5] of the keyboard.

As we saw earlier, the SOUND board has 3 outputs, which for practicality summary below:



1. MAIN OUTPUT:

Emits a clean, high quality audio signal suitable for use as an in-line source of an amplifier. The sounds emitted by this RCA are:

- MP3 sound
- turbine sound
- scanner sound
- AUX input

⚠ USE THE DECOUPLER UNIT SUPPLIED TO CONNECT THE MAIN OUTPUT TO THE LINE-IN INPUT OF YOUR AMPLIFIER. ⚠

2. **SPEED OUTPUT:**

It outputs a clean, high quality audio signal that is suitable for use as an in-line source of an amplifier. The sounds emitted by this RCA are:

- Sound click speed. A click is issued each time the speed value changes. The sound will be as fast as the change of value will be.

⚠ USE THE DECOUPLING FILTER PRESENT IN THE PACKAGE TO CONNECT MAIN OUTPUT TO YOUR AMPLIFIER. ⚠

3. SPEED SPEAKER:

It outputs a clean audio signal suitable for use directly on an INDEPENDENT cabinet.
The sound emitted by this RCA is:

- Sound click speed. A click is issued each time the speed value changes. The sound will be as fast as the change in value will be.

⚠

DO NOT CONNECT "SPEED SPEAKER" FOR ANY REASON IN PARALLEL ON A SPEAKER THAT HAS OTHER SOUND SOURCES, OR IT WILL DAMAGE THE BOARD

⚠

MP3 PLAYER

It is used to reproduce a file when the scanner is turned on, when an event occurs through the PIR radar (see PIR section of this manual) or through the random function (see HOTKEY functions of the keyboard and remote in this manual).

Please format your USB or SD unit as FAT32.

As for the electronics and switchpods, you need to create a **folder 01** in which you will have to insert only one file:

017_yourfilename.mp3 This is the presentation file. All times your scanner comes on form your remote or keyboard butoon, this file will be reporduced.

When the scanner will be activated by PIR sensor, reproduce random phrases. You need to create a new folder called 03. In the folder 03 you will have to insert your favorite mp3 files, according to the usual pattern that I report for convenience.

Example of file names, only the first three characters (numbers) are important, others can be used at well:

001_yourfilename.mp3
...
123_ourfilename.mp3

⚠ CAUTION: DO NOT CHANGE OR REMOVE THE FIRST THREE CHARACTERS (NUMBERS) OR THE MP3 PLAYER WILL NOT OPERATE! ⚠

TURBINE

The turbine file, which cannot be changed by the user, varies with the rpms of your engine. You will no longer hear a "flat" sound, but a sound, as in real life, that continually varies according to the rpm speed of your engine.

How is it possible?

The electronic set, thanks to the CAN bus system, reads the engine rpm and adjusts the sound of the turbine every 2 milliseconds. During this operation you will not notice any delay.

If you activate the DEMO 3 mode, in the driving simulation the turbine will read the values in your RPM board and reproduce the variation, without your engine is switched on!

SPEED SOUND

As we saw earlier, this sound can be played in two ways, on two separate outputs:

- SPEED OUTPUT
- SPEED SPEAKER

If you want to have a very loud sound, you can use the SPEED OUTPUT output as the LINE-IN input of an amplifier.

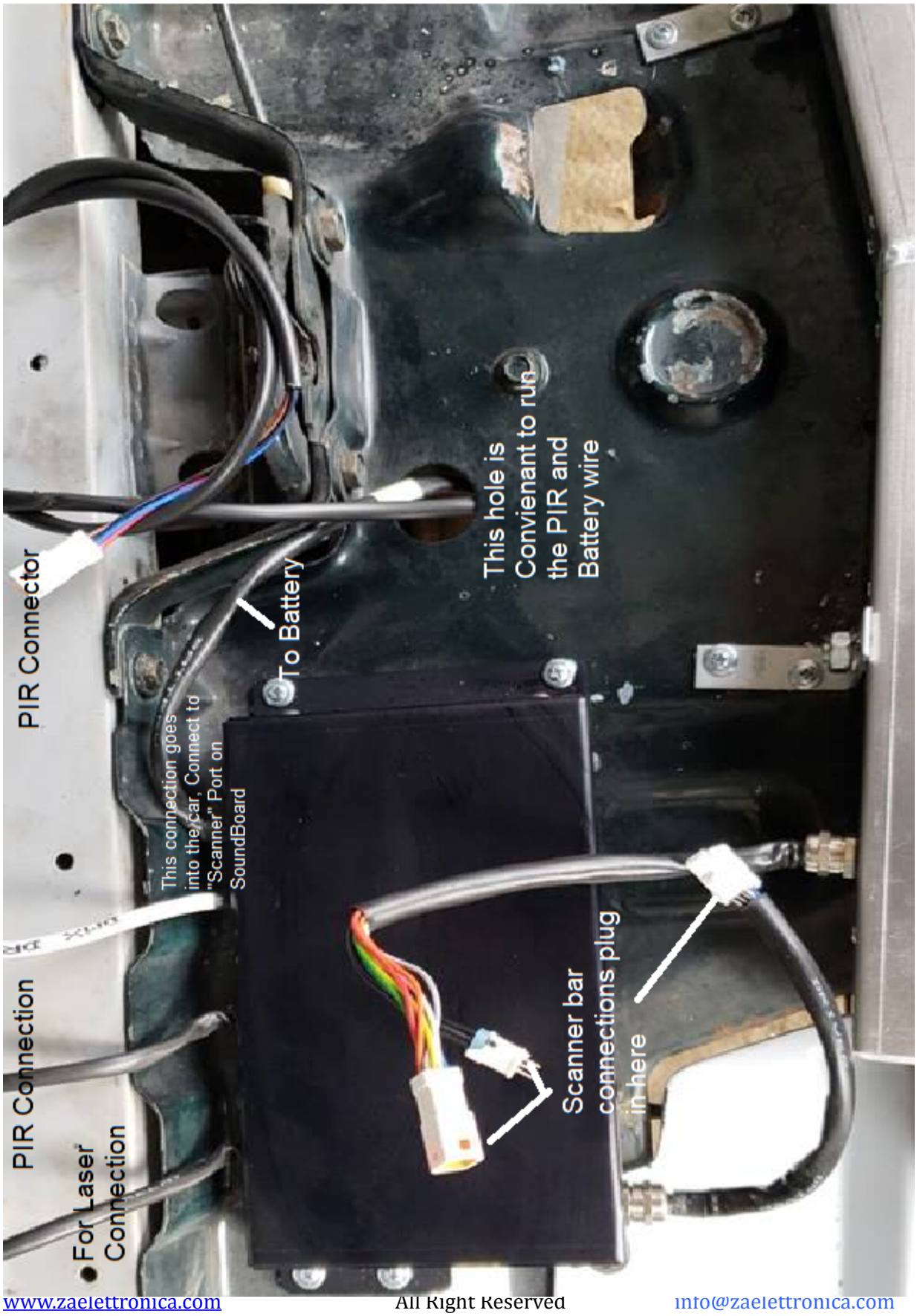
If you wish to have a weaker sound (recommended) and you want to controll it directly from the electronics menu, connect an INDEPENDENT speaker directly to the SPEED SPEAKER output.

MENU SCANNER

MENU':
--> SCANNER

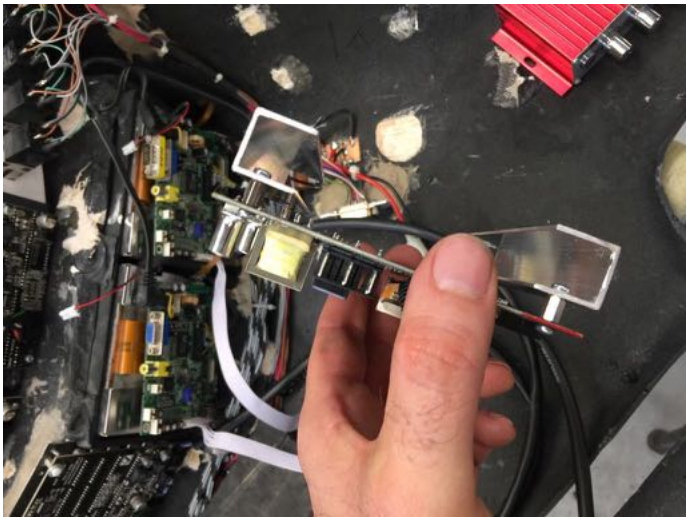
--> PRESEN	
(ON/OFF)	Enable MP3 reproduction when the scanner is turned on
--> SENSOR	
(ON/OFF)	Enable PIR motion sensor that activates the scanner (flashing light on 3 rows board)
--> S_TIME	
(5-600)	Duration of switch-on time from sensor, expressed in seconds (MIN 10 SEC)
--> S_PON	
(ON/OFF)	If 'ON', the sensor activates the dashboard as default setting. At the next power on scanner start in st.by mode
--> TURBO V	
(0-3)	turbine volume; 0 = OFF, 3 = MAX
--> SPEED V	
(0-3)	click speed volume; 0 = OFF, 3 = MAX
--> SCAN VOL	
(0-3)	scanner effect volume; 0 = OFF 3 = MAX
--> MP3 VOL	
(0-3)	MP3 volume 0 = OFF, 3 = MAX
--> MASTER V	
(0-3)	Master volume: all other cannot work above this value
--> SECURE	
(ON/OFF)	If 'ON', the scanner is off when the car is moving MPH > 0
--> SPEED	
(ON/OFF)	If 'ON', the scanners speed is proportional to the cars speed

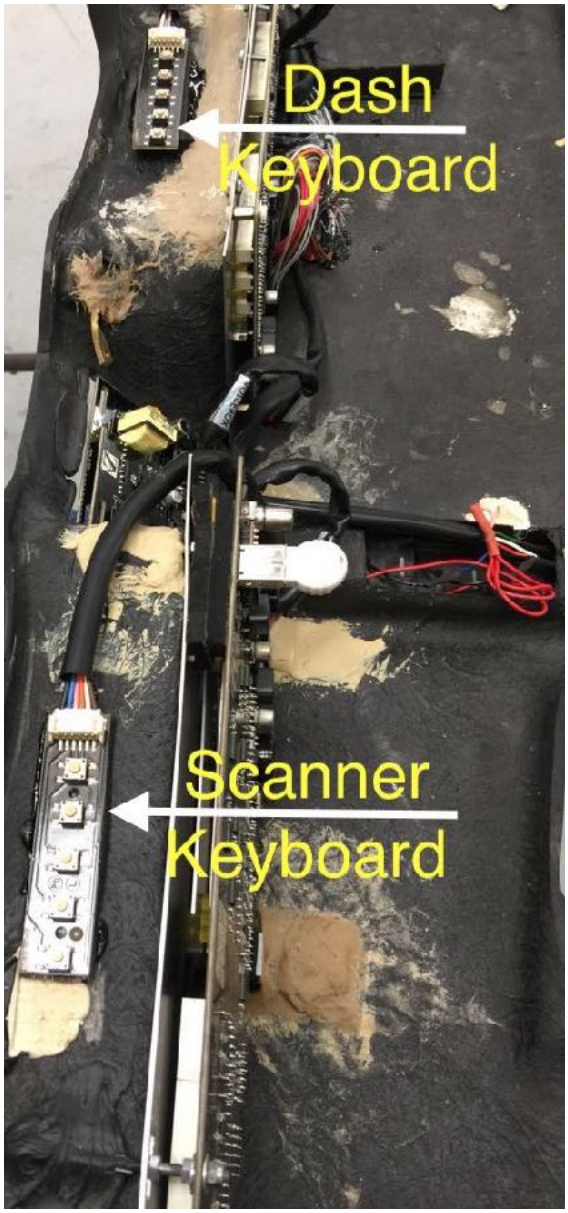
⚠ ATTENTION: Saving is done only when exiting the menu with the “4 button” of keyboard of electronic set! ⚠



INSTALLATION EXAMPLE

info@zaelettronica.com





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3 ROWS BOARD AS A SCANNER STATUS INDICATOR

One of the objectives of the ZA electronics has always been to simplify the installations, and to keep the cables necessary for its operation, to a minimum.

The scanners currently on the market expect that there is a sort of internal controller that provides, in addition to turning it on / off, to show the status of the scanner, and what light effect is playing.

Taking advantage of the can-bus technology of that the electronics is equipped with, the first 3 rows board, in the lower bar, fulfills this task. It has seemed logical to use this bar as it shows in the overlays, the word RADAR and SENSOR RANGE

THE STATES OF THE BAR 3 ROWS

Depending on the status of the scanner, the bar can work in the following ways

- SCANNER OFF: the 3 ROWS bar works as default, just as you are used to seeing it.
- STANDBY SCANNER: The first red LED on the ROWS 3 bar clashes. This indicates that the PIR sensor is enabled.
- SCANNER ON: the 3 ROWS bar plays the movement the scanner is currently doing at the moment. The internal wake effect is limited, while the outer one is perfectly regular.