

ORGDRIVE CP25

ACCESSORIES

INFORMATIVE MANUAL

Rev. 02 of 20/07/2011

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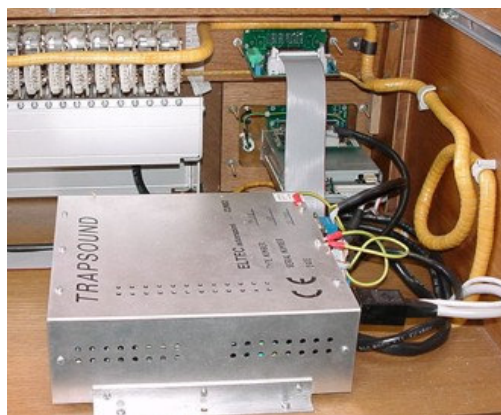
1 - TRAPSOUND RECORDER

The **TRAPSOUND** recorder is an equipment that allows to do the recording and the reproduction of single pieces or whole concerts on the organ. Connected through the serial line to the ORGDRIVE unit in console, it memorize and reproduce faithfully the condition of input and output.

Optional very easy to install and very reliable, TRAPSOUND offers the following advantages:

- Recording of single pieces or whole concerts.
- Possibilità to listen the recorded pieces.
- Store up pieces recorded in the inner memory (max 90 pieces x 99 archives).
- Store up pieces on a PC through the use of a FLASH DISK USB key memory and the proper programme "*TRAPSOUND MANAGER*".
- Use of the organ for maintenance.
- Use of the organ when the organist is absent.
- Planning of the automatic execution of one or more pieces at a given hour of a given day (only with the temporal programmer of events "**Trapsound PROGRAMMER**")

Moreover, also during the LISTENING function of a recorded piece, the console remains enabled. In this way it is possible to use it in parallel to the recorder, activating or deactivating all the functions and playing at the same time with the piece that one is listening.



1.1 - PARTS OF THE SYSTEM

The TRAPSOUND recorder consists of the following parts:

Base unit (Code TSPC25USB)

Aluminium case. Dimensions: 215 x 220 x 80 mm. Power: 220 V - 50 Hz.

It has inside an industrial Pc board (with static hard disk) and a ELTEC manufacture board (Code TSRE) that interfaces the PC board with the ORGDRIVE system.

LCD display plate and USB connector (Code TSFD2)

Brass plate to install at sight on the console. On this plate there is the USB connector and the display board (Code TSLCD-USB) for the visualization of the command messages.



To activate these commands four solutions are offered:

1 - Command plate by cable (Code TSTE1F)

Aluminium plate with all the control buttons connected to the base unit TSPC25USB through a 3 wires shielded cable. It can be installed on the console or at a distance. It is powered through the cable.

2- Remote control by infrareds (Code TSTE1)

Remote control by infrareds to steer toward the plate TSFD2. It has to be used in front of the console. 6V battery power supply.

3 - Remote control by radio (Code TSTE1R)

Remote control via radio used at a distance, without having to be directed towards the plate TSFD2. 6V battery power supply. It is always possible to use the infrared transmission.

Radio receiver module (Code TSMR1)

It is connected to the base unit TSPC25USB.

4 - Remote control by radio (Code TSTE1R)

Remote control by radio used at a distance, without having to be directed towards the plate TSFD2. 6V battery power supply. It is always possible to use the infrared transmission.

Radio receiver module with automatic starting of the organ (Code TSMRA12)

It is connected to the base unit TSPC25USB.

Relay card for the automatic starting of the organ (Code TSRELE12)

It has 2 contacts to use with 220V power for the starting of the console and so of the organ.

1.2 - LIST OF THE FUNCTIONS

LOAD	To load pieces to listen.
PLAY	To listen a piece.
PAUSE	To interrupt the listening of a piece.
INTERMEDIATE	To listen a piece from an intermediate value preset.
CONTINUOUS	To listen all the pieces in sequence.
ARCHIVE	To store the contents of the recording archive or flash disk in an internal archive.
COPY	To copy the contents of the recording archives or of an internal archives on the flash disk.
DELETE	To delete the pieces from the recording archives, from an internal archives, from the flash disk.
RECORD	To record a piece.
TEST	To record a test piece without memorizing it in the recording archives. To listen a test piece without loading it in the listen archives.
DIR (F1)	To visualize the number of pieces that are in the internal archives, in the recording archives, in the flash disk.
OFF (F2)	To stop CONSOLE/ORGAN (only mod. TS25MRA).
INFO (F3)	To visualize the information of the pieces (title, author, time)
STOP	To stop the listening or the recording, to cancel a control. To visualize the data and the system hour.
ENTER	To confirm the controls. To switch on CONSOLE/ORGAN (only mod. TS25MRA).

1.3 - TRAPSOUND RECORDER WITH AUTOMATIC STARTING OF THE ORGAN (Code TS25USB-MRA)

Sometimes for using the TRAPSOUND recorder it can be rather uncomfortable to reach the console, open it and switch on the organ.

The TRAPSOUND recorder with AUTOMATIC STARTING (Code TS25USB-MRA) gives the possibility to switch on and switch off the console (and therefore the organ) directly with the use of the remote control.

It is necessary to use an appropriate radio module (Code TSMR2) and a relay card (Code TSRELE).



1.4 - "TRAPSOUND MANAGER"

The programme "TRAPSOUND MANAGER" allows to store up the recording file of a TRAPSOUND recorder on the hard disk of one's own PC, with the possibility to give to each file useful information concerning the recording (Title, Author, Performer, Category, Liturgical Time, Creation date, Comment).

Then these file can be organized in some listen folder, ready to be reproduced from the TRAPSOUND recorder.

The main functions of the programme are three:

Import record

[Flash disk USB] → [Archives PC]

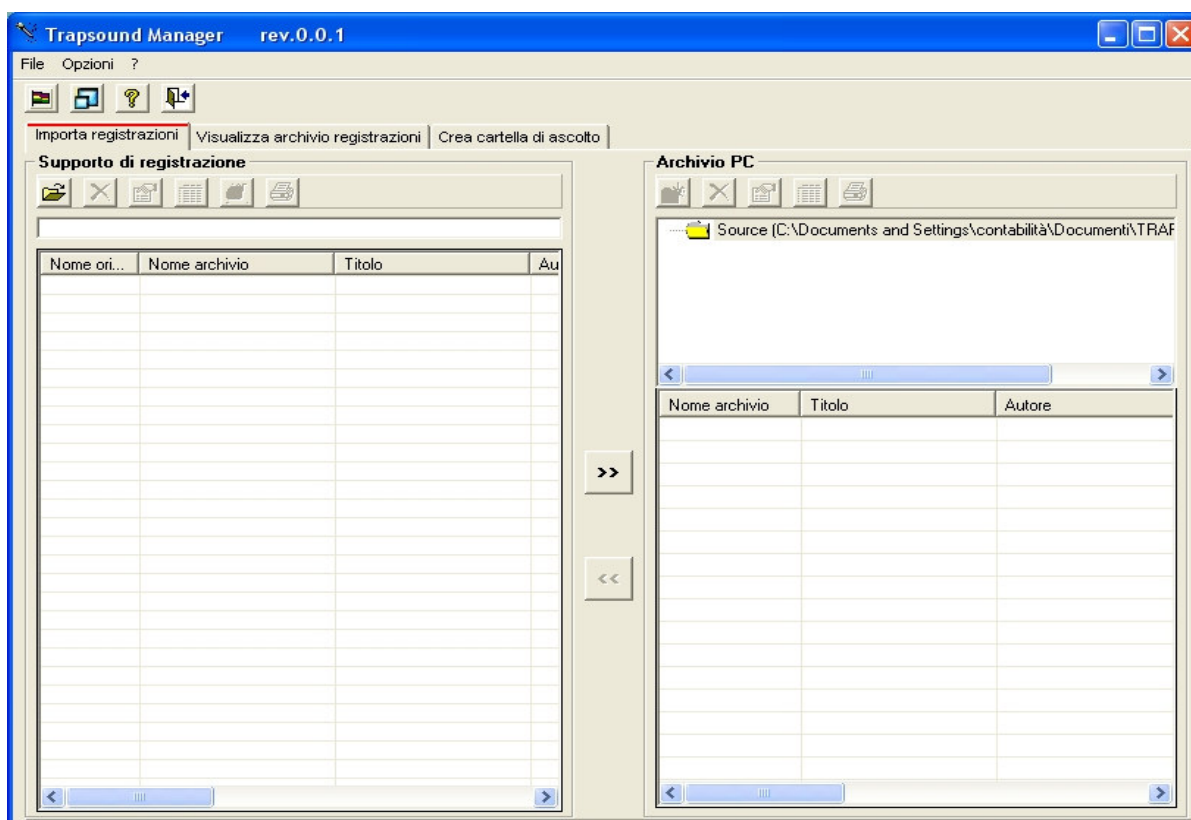
Display record folder

[Archives PC]

Create new listen folder

[Archives PC] → [Flash disk USB]

Available in English, Italian and French, "TRAPSOUND MANAGER" also allows you to print a printout containing the list of files (and associated additional information) of stored folders and listen folder.



1.5 - TRAPSOUND PROGRAMMER

“**Trapsound PROGRAMMER**” is a time programmer of events: it allows to plan the automatic playing of one or more pieces at a certain time on a given day.

The fields of application of this equipment can be several:

- Use of the organ for maintenance and preservation (for example on organs which have played little, whose lack of use, with the passing of time, compromises its working).
- Use of the organ for the enhancement of itself and the environment in which it is located (for example in places of tourist interest, where it is often possible to see the organ as an aesthetic monument, but one can't appreciate the most important features: the sound).
- Listening to recorded pieces without direct access to the console and using the Trapsound recorder.

Trapsound PROGRAMMER is available into two different versions: one for the internal installation in console, one for the external wall installation (maximum distance from the console: 200 m).

The potential of the "Trapsound PROGRAMMER" are added to those of the "Recorder TRAPSOUND", offering a more complete product and able to meet the needs of the final user.



*Base unit PROGRAMMER
for external installation
(Code PROGEXT).*



Base unit PROGRAMME for external installation (Code PROGEXT) connection side.

WORKING

First of all it is important to create an archives of pieces from which to take for the programming. Pieces must be first recorded on an organ with the "TRAPSOUND Recorder", stored and named with the "Trapsound MANAGER" software.

All the programming operations are executed on the terminal of the "Trapsound PROGRAMMER, a **TFT 5.7' touch screen monitor**, which, thanks to its simple and intuitive graphical interface, offers ease of use and immediacy of understanding. Furthermore, the big flexibility of the programming system, allows to create personalized programmes with different levels of priority, according to the desires of the location and period of the year.

Once the programming is done and the desired programmes are enabled, it is "Trapsound PROGRAMMER" that thinks to start the organ at the right time, to control the execution of one or more pieces and finally to switch off the organ after the playing. In case "Trapsound PROGRAMMER" finds the console (and so the organ) that is already started, no control is executed, even if it is programmed. The manual use of the organ is always priority on the automatic one.



Base unit PROGRAMMER for the installation in console (Code PROGINT) with display TFT touch screen 5,7' plate (Code PD5.7).

EXAMPLES OF SCREENS

Main screen of "Trapsound PROGRAMMER".

Trapsound Programmer		Lun gg/mm/aaaa	
PROGRAMMA ABILITATO		HH:MM:SS	
TIPO	NOME PROGRAMMA		
PROSSIME LINEE DI PROGRAMMAZIONE			
10:30	Linea n. 01	00:05:17	Dettagli
12:00	Linea n. 02	00:12:05	Dettagli
15:00	Linea n. 03	01:01:29	Dettagli
SOSPENDE PROGRAMMAZIONE		RIPRENDE PROGRAMMAZIONE	
MENU PRINCIPALE			

Screen of creation of a programming line

Programmi \ Base (o Prioritari) \ Crea 2 di 2		HH:MM:SS	
<div> <div>◀</div> <div> NOME: Nome programma LINEA: XX (numero della linea) </div> <div>▶</div> </div>			
hh : mm		GG / MM / AA	
+	+	+	+
-	-	-	-
Autore1	Titolo	Durata	▲
Autore2			▼
Autore3			
Autore4			
ANNULLA		TERMINA	

1.6 - CODING OF DIFFERENT MODELS

TRAPSOUND recorder with command plate by cable (TS25USB-RC)

The model TS25USB-RC includes: (reference to the price list)	
N. 1	Base unit TRAPSOUND (Code TSPC25USB)
N. 1	Display panel LCD and USB connector (Code TSFD2)
N. 1	Control plate (Code TSTE1F)
N. 1	Shielded cable connection plate TSFD2 L = 2 m (Code 5018)
N. 1	Shielded cable connection Orgdrive unit L = 2,5 m (Code 5006)
N. 2	Flash disk USB (Cod. USB-2G)
N. 1	Power supply cable 220 V (Code 5020)
N. 1	Installation CD "Trapsound Manager"

TRAPSOUND recorder with remote control by infrareds (TS25USB-IR)

The model TS25USB-IR includes: (reference to the price list)	
N. 1	Base unit TRAPSOUND (Code TSPC25USB)
N. 1	Display panel LCD and USB connector (Code TSFD2)
N. 1	Infrared ray remote control (Code TSTE1)
N. 1	Shielded cable connection plate TSFD2 L = 2 m (Code 5018)
N. 1	Shielded cable connection Orgdrive unit L = 2,5 m (Code 5006)
N. 2	Flash disk USB (Cod. USB-2G)
N. 1	Power supply cable 220 V (Code 5020)
N. 1	Installation CD "Trapsound Manager"

TRAPSOUND recorder with remote control by radio (TS25USB-MR)

The model TS25USB-MR includes: (reference to the price list)	
N. 1	Base unit TRAPSOUND (Code TSPC25USB)
N. 1	Display panel LCD and USB connector (Code TSFD2)
N. 1	Remote control with radio transmitter (Code TSTE1R)
N. 1	Radio receiver module (Code TSMR1)
N. 1	Aerial for the receiver TSMR1
N. 1	Shielded cable connection plate TSFD2 L = 2 m (Code 5018)
N. 1	Shielded cable connection Orgdrive unit L = 2,5 m (Code 5006)
N. 2	Flash disk USB (Cod. USB-2G)
N. 1	Power supply cable 220 V (Code 5020)
N. 1	Installation CD "Trapsound Manager"

TRAPSOUND recorder with remote control by radio and self-starting of the organ (TS25USB-MRA)

The model TS25USB-MRA includes: (reference to the price list)	
N. 1	Base unit TRAPSOUND (Code TSPC25USB)
N. 1	Display panel LCD and USB connector (Code TSFD2)
N. 1	Remote control with radio transmitter (Code TSTE1R)
N. 1	Radio receiver with automatic starting of the organ (Code TSMR2)
N. 1	Aerial for the radio receiver TSMR2
N. 1	Relay board for the automatic starting of the organ (Code TSRELE)
N. 1	Flat cable connection receiver TSMR2/card TSRELE (Code 5019)
N. 1	Shielded cable connection plate TSFD2 L = 2 m (Code 5018)
N. 1	Shielded cable connection Orgdrive unit L = 2,5 m (Code 5006)
N. 2	Flash disk USB (Cod. USB-2G)
N. 1	Power supply cable 220 V (Code 5020)
N. 1	Installation CD "Trapsound Manager"

TRAPSOUND recorder with remote control by radio, self-starting of the organ and PROGRAMMER for the external assembly (TS25USB-PROGEXT)

The model TS25USB-PROGEXT includes:	(reference to the price list)
N. 1 Base unit TRAPSOUND (Code TSPC25USB) N. 1 Display panel LCD and USB connector (Code TSFD2) N. 1 Remote control with radio transmitter (Code TSTE1R) N. 1 Radio receiver with automatic starting of the organ and arrangement for the PROGRAMMER (Code TSMRP12) N. 1 Aerial for the radio receiver TSMRP12 N. 1 Relay board for the automatic starting of the organ (Code TSRELE12) N. 1 Flat cable connection receiver TSMRP12 / TSRELE12 L = 1 m (Code 5008) N. 1 Shielded cable connection plate TSFD2 L = 2 m (Code 5018) N. 1 Shielded cable connection unit L = 2,5 m (Code 5006) N. 2 Flash disk USB (Code USB-2G) N. 1 Power supply cable 220 V (Code 5020) N. 1 Installation CD "Trapsound Manager" (Code TSMCD)	
----- N. 1 Base unit PROGRAMMER (Code PROGEXT) N. 1 Kit connectors for cable connection PROGEXT / TSMRP12 (cable of variable length to order separately) N. 1 Cable connection TRAPSOUND / TSMRP12 L = 1,5 m (Code 5024) N. 1 Power Supply 9V	

TRAPSOUND recorder with remote control by radio, self-starting of the organ and PROGRAMMER for the internal assembly in console (TS25USB-PROGINT)

The model TS25USB-PROGINT includes:	(reference to the price list)
N. 1 Base unit TRAPSOUND (Code TSPC25USB) N. 1 Display panel LCD and USB connector (Code TSFD2) N. 1 Remote control with radio transmitter (Code TSTE1R) N. 1 Radio receiver with automatic starting of the organ and arrangement for the PROGRAMMER (Code TSMRP12) N. 1 Aerial for the radio receiver TSMRP12 N. 1 Relay board for the automatic starting of the organ (Code TSRELE12) N. 1 Flat cable connection receiver TSMRP12 / TSRELE12 L = 1m (Code 5008) N. 1 Shielded cable connection plate TSFD2 L = 2 m (Code 5018) N. 1 Shielded cable connection unit L = 2,5 m (Code 5006) N. 2 Flash disk USB (Code USB-2G) N. 1 Power supply cable 220 V (Code 5020) N. 1 Installation CD "Trapsound Manager" (Code TSMCD)	
----- N. 1 Base unit PROGRAMMER (Code PROGINT) N. 1 Display panel TFT touch screen 5,7" (Code PD5.7) N. 1 Cable connection plate PD5.7/ PROGINT L = 2 m (Code 5022) N. 1 Cable connection PROGINT / TSMRP12 L = 1,5 m (Code 5023) N. 1 Cable connection TRAPSOUND / TSMRP12 L = 1,5 m (Code 5024) N. 1 Power supply 9V	

2 - CONTROL SYSTEM FOR SWELL BOX

The control system **ESP10** allows the movement of the shutters of a swell box.

Speed, precision, sweetness, power, noiselessness and adaptability are the main characteristics of this equipment:

- Speed:** The revision of the system in 2009 produced an increase of about 25% of the speed. The total course of 18cm is practicable in less than 1 sec.
- Precision:** The resolution of the inner potentiometer of position allows to obtain a resolution of 0,8 mm.
- Sweetness:** The regulation of the acceleration and deceleration ramps allows to give the utmost sweetness, during the leaving and the arrival, to the movement of the shutters.
- Power:** The robustness of the inner engine and the mechanics allows to obtain a power of 78 N.
- Noiseless:** The wooden case (25 mm thick) assure a good soundproofing.
- Adaptability:** Thanks to several regulations that are carried out from the control unit, the system can perfectly adapt itself to every type of swell box.

Moreover the control system in solid oak and plywood assures robustness and elegance and it is easy to integrate in the organ.

Two models of control system are available:

STANDARD CONTROL SYSTEM:

For organ where the swell box is driver in an electric way only.

FREE ROD CONTROL SYSTEM:

For organ where the swell box can be driver both electric and mechanical way. (Ex: organ with two console, one electric and one mechanical)



2.1 - PARTS OF THE SYSTEM

CONTROL UNIT (Code ESC10A - ESC10M)

Sheet box with door that can be opened inside which there is an electronic card and a power supply transformer. It must be installed in an easily accessible place, where it is possible to see the pulling system. In this way the adjustment and learning phase will be simplified.

CHARACTERISTICS:

- Power supply: 220 VAC
- Sheet box with door that can be opened and key
- Dimensions: 200 x 400 x 125 mm
- Weight: 7 kg



PULLING SYSTEM (Code EST10A - EST10M)

Wooden box with movable rod. It contains a motor that transmits the motion to the rod with the pinion - rack system.

The EST10A model is connected to the control unit through 5 wires.

The EST10M model has a mechanism inside controlled by an electromagnet that, when the system is powered, pull the gear of the motor against the pinion - rack system.

This system can be controlled both electrically and mechanically and it is connected to the control unit through 7 wires.

Both models can be installed in any positions: horizontal, vertical, on a horizontal plane, on a vertical plane.

CHARACTERISTICS:

- Solid oak box
- Base and top in plywood
- Positioning resolution: 0,8 mm
- Power: 78 N
- Stroke of the rod: 18 cm
- Length of the rod: 800 mm
- Base dimensions: 300 x 230 mm
- Total height: 195 mm
- Weight: 6,7 kg



2.2 - LIST OF THE FUNCTIONS

- **Learning of the STROKE OF THE PEDAL**
It allows to keep the total stroke of the pedal installed in console or to reduce the stroke.
- **Learning of the STROKE OF THE ROD**
It allows to regulate the stroke of the rod according to the needs of opening of the swell box.
- **Regulation of the MINIMUM SPEED of movement of the engine**
It allows to regulate set the minimum speed of movement of the engine according to the minimum power necessary to move the doors of the swell box.
- **Regulation of the MAXIMUM SPEED of movement of the engine**
It allows to reduce the maximum speed of movement of the engine preset as maximum value.
- **Regulation of the ACCELERATION/BRAKING RAMP of the engine**
It allows to regulate the slope of the acceleration/braking ramps, namely to establish the sweetness of the movement of the swell box, in departure and arrival.
- **STANDARD OPENING CURVE**
Preset opening curve, not linear: the first steps are very short, the last ones are longer.
- **Memorization of a PERSONALIZED OPENING CURVE**
It allows to memorize, step by step, a personalized opening curve according to one's own needs.
- **Selection of the POSITION OF THE SWELL BOX AT THE STOP OF THE ORGAN**
At the stop of the organ it is possible to open the doors of the swell box automatically, close or leave them unchanged (namely in the position where they are in the moment of the stop of the organ).
- **Selection of the kind of CONTACTS: TRUE OR FALSE**
It allows to adapt the system to the two types of existing contact pedal: with opened contacts that close themselves, with closed contacts that open themselves.
- **INTERNAL POTENTIOMETER FOR THE SIMULATION OF THE PEDAL**
It is available, on the board inside the command panel, a potentiometer that, with the appropriate settings, can simulate the pedal of the console. In this way, some test and regulations can be made directly to the control unit, without using the console.
- **WORKING TEST**
Series of tests and useful functions that offer a support during the testing phase:

- stroke of the rod step by step
 - total stroke of the rod between minimum and maximum limits.
 - manual forward/back.
 - test of the switch, buttons and inputs of the pedal.
 - test of the position of the rod.
 - test of the internal/external potentiometer of the pedal.
 - manual forward/back (visualization of the peak current of the engine).
- Switch for the selection of the TYPE OF PEDAL

It allows to use, on the pedal of the expression in console, a slider or contacts in the following modes:

 - 7 contacts with hexadecimal code (max 128 positions)
 - 16 contacts (max 16 positions)
 - Analogue (max 16 positions)
 - Analogue (max 128 positions)
 - 4 contacts with Gray code (max 16 positions)
 - PROTECTION AGAINST MECHANICAL BLOCK

If the engine stops on the mechanical stops of the pulling system, after 2 seconds, a safeguard protection of the engine and internal mechanisms intervenes. The equipment is locked and the display of the control unit visualizes an error message: it is necessary to solve the problem.

2.3 - CODING OF THE PRODUCTS

PULLING SYSTEM FOR STANDARD SWELL BOX (Code ESP10-A)

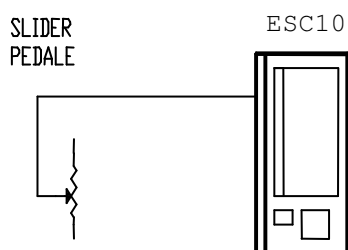
The ESP10-A model includes:	(reference to the price list)
N. 1 Command Panel (Code ESC10A)	
N. 1 Pulling system (Code EST10A)	

PULLING SYSTEM FOR SWELL BOS WITH FREE ROD (Code ESP10-M)

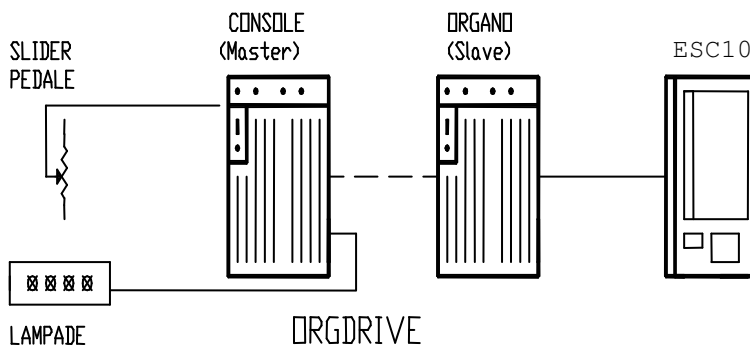
The ESP10-M model includes:	(reference to the price list)
N. 1 Command Panel (Code ESC10M)	
N. 1 Pulling system with free rod (Code EST10M)	

2.4 - CONFIGURATIONS OF THE SYSTEM

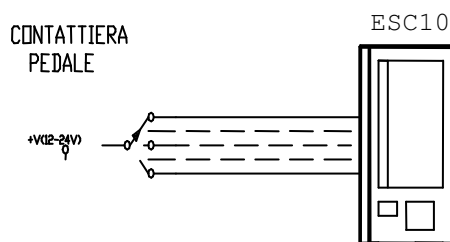
**With SLIDER
without ORGDRIVE system**



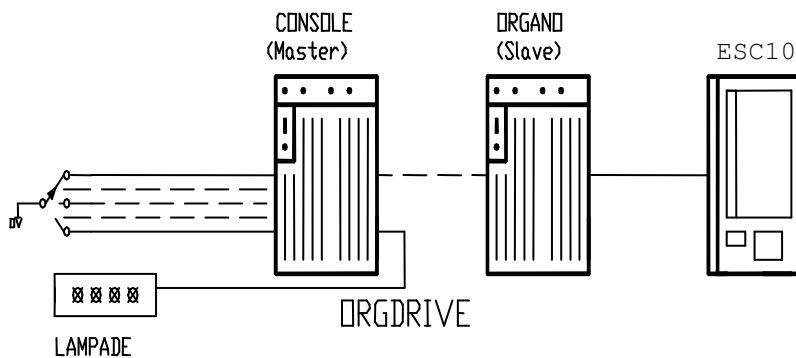
**With SLIDER
and ORGDRIVE system**



**With CONTACT
without ORGDRIVE system**



**With CONTACT
and ORGDRIVE system**



3 - RADIO TRANSMISSION SYSTEM

The RADIO TRANSMISSION SYSTEM allows to do the transmission of data between the MASTER unit (console) and SLAVE unit (organ) without using the serial cable. It is enough to install a transmitter in console and a receiver in organ.

The advantages that this kind of transmission offers are:

- Elimination of the serial cable between the console and the organ, that it is not always easy to stretch out.
- Possibility to freely move the console, without being tied to the length of the cable or to the location of the sockets.

3.1 - RADIO / CABLE TRANSMISSION SYSTEM

It is also possible to provide for both the RADIO TRANSMISSION and the CABLE TRANSMISSION. In this case, using a selector (Code ORGSRC), the selection happens automatically by the insertion of the cable, namely:

- When the cable is plugged in: working with CABLE TRANSMISSION
- When the cable is not plugged in: working with RADIO TRANSMISSION

The MASTER unit provides an output for a signalling lamp to install on the console:

- Lamp switches off: working with CABLE TRANSMISSION
- Lamp switches on : working with RADIO TRANSMISSION



3.2 - CODING OF DIFFERENT MODELS

RADIO TRANSMITTER for ON/OFF system (Code MTX800-ST)

RADIO TRANSMITTER for PROPORTIONAL system (Code MTX800-PR)

It is installed inside the console and it is connected to the MASTER unit through a serial cable.

CHARACTERISTICS:

- Frequency band: UHF 869 MHz
- Power: 220 VAC (8 VA)
- Dimensions: 75 x 125 x 30 mm
- Length of the aerial: 65 mm



RADIO RECEIVER for ON/OFF system (Code MRX800-ST)

RADIO RECEIVER for PROPORTIONAL system (Code MRX800-PR)

It receives signals from the transmitter and it transfers them to the SLAVE unit by which it is connected through a serial cable. It activates, with an internal rélé, the starting of the organ.

CHARACTERISTICS:

- Frequency band: UHF 869 MHz
- Power: 220 VAC (8 VA)
- Dimensions: 75 x 125 x 30 mm
- Length of the aerial: 65 mm



Each model of radio includes:		(reference to the price list)
N. 1	Transmitter / Receiver for ON/OFF or PROPORTIONAL system	
N. 1	Aerial	
N. 1	Connection serial cable L = 3 m (Code 5013-300)	

3.3 - SELECTORS

RADIO/CAVO SELECTOR for ON/OFF system (Code ORGSRC)

RADIO/CAVO SELECTOR for PROPORTIONAL system (Code ORGSRC-PR)

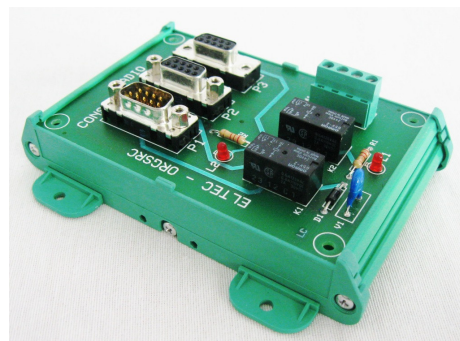
SELECTOR for the automatic commutation between RADIO and CABLE. It allows to enable the radio transmission when the cable is disconnected. It is installed in console, near the MASTER unit.

The supply also includes:

N.1 Kit connectors 9 pole (male + female + case).

CHARACTERISTICS:

- Baseboard with screw holes
- Dimensions: 75 x 125 x 30 mm



SERIAL SELECTOR for ON/OFF system (Code ORGTAS)

SERIAL SELECTOR for PROPORTIONAL system (Code ORGTASP)

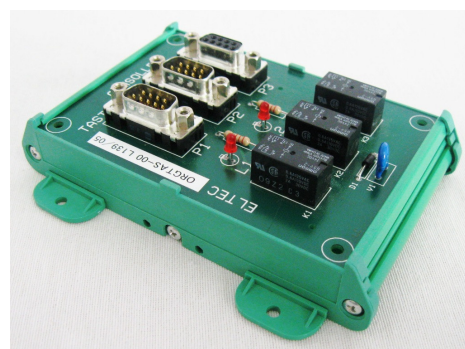
SERIAL SELECTOR that cuts the serial connection between the MASTER and the SLAVE (with the possibility to insert another MASTER, a RADIO or a TUNING KEYBOARD) and executes an automatic commutation between the two input lines. The first line (connector on the left) has priority over the second one (central connector).

The supply also includes:

N.1 Kit connectors 9 poles (male + female + case).

CHARACTERISTICS:

- Baseboard with screw holes
- Dimensions: 75 x 125 x 30 mm



4 - MIDI INTERFACE (Code MIDIKIT)

MIDI (Musical Instrument Digital Interface) is a communication language and a regulations of hardware specifications that permits systems which respect this code to communicate with one another.

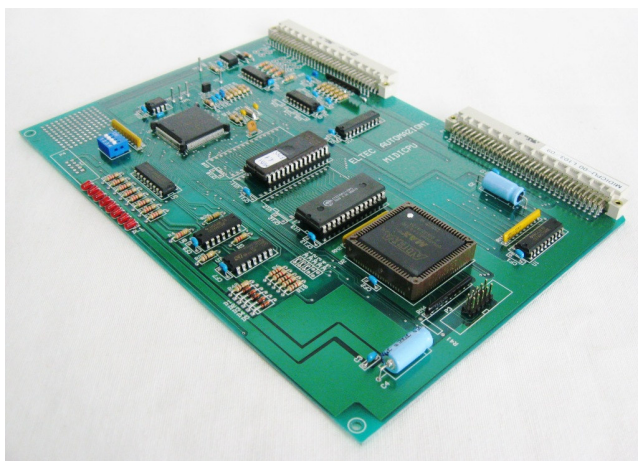
With the MIDI KIT, the ORGDRIVE system can receive and transmit these signals through the MIDI IN and MIDI OUT ports and therefore connect it to other devices such as keyboards, sequencers, personal computers, etc.

The MIDI interface can be applied to any type of ORGDRIVE system, both monocable and multicable. The installation is very easy and can be made before or after the delivery of the ORGDRIVE system. It is enough to mount a special BACK PANEL in the slot 2 of the MASTER system, insert the MIDI CPU card and connect it to the MIDICON plate installed in console.

The MIDI KIT includes:

(reference to the price list)

- N. 1 CPU MIDI card (Code MIDICPU)
- N. 1 Back panel for CPU MIDI card (Code MIDIBP)
- N. 1 Plate with MIDI connectors (Code MIDICON)
- N. 1 Terminal for the programming of the MIDI configuration data (Code MIDITER)
- N. 1 Cable for MIDI connectors L = 2,5 m (Code 5007)
- N. 1 Terminal MIDI cable L = 2,5 m (Code 5001)



5 - TUNING KEYBOARD

The TUNING KEYBOARD is an equipment that is used for tuning all the pipes of the organ. It is able to simulate all the manuals and all the stops of the console (max 8 manuals and 256 stops).

Available with 13 or 61 keys, with or without radio remote control for the shift of notes, the TUNING KEYBOARD gives the following advantages:

- Possibility to tune the organ without the need to have a person to the console (or to act on the connection strips of the output in organ)
- Practicalness in the displacements in narrow places (Code ORGTA13T – ORGTA13R).
- Possibility to use a small radio remote control for the shift of notes.
- Possibility to test the organ during the construction phase.

The TUNING KEYBOARD is compatible with ALL ORGDRIVE systems (ORGDRIVE, ORGDRIVE 16, ORGDRIVE CP, ORGDRIVE CP25 version).

The organ-builder can:

- Use the same TUNING KEYBOARD on all systems that he has installed.
- Leave a fixed TUNING KEYBOARD in organ.
- Leave a fixed TUNING KEYBOARD in organ with a preset number of stops (for example the reed stops), to give the organist the possibility to tune the pipes in question.

The TUNING KEYBOARD is connected with a shielded cable to the connector of the serial line of the SLAVE unit installed in organ.

To prevent direct access to this connector that is on the back of the unit and often difficult to access, it is possible to install, in an easily accessible place and served by a power of 220V if possible, a SERIAL SELECTOR card (Code ORGTAS).

Possibility to use a small radio remote control for the sliding of notes

5.1 LIST OF THE FUNCIONS

- Selection of the keyboards (8 push buttons with led).
- Selection of the stops (5 push buttons with led - button for the selection of the group).
- Selection of the octave (5 push buttons with led).
- Selection of the notes (13 push buttons with led) (Code ORGTA13T).
- N. 25 of programmable stops.
- Mode of selection of the note: push button, switch, selector.
- Mode of selection of the keyboards: push button, switch, selector.
- Possibility to enable more keyboards, stops, octaves, notes at the same time.
- Function of the sliding of the notes to the high and to the low (chromatic, diatonic, major third, minor third).
- Controls for the swell box.
- Selection of the language (Italian, English, French, Spanish).

5.2 - ACCESSORIES OF THE TUNING KEYBOARD

RADIO REMOTE CONTROL FOR THE SLIDING OF THE NOTES (Code ORGTA/TEL)

Radio remote control with three push-buttons to enable and suspend the sliding of the notes:

- 1 - Sliding of the notes to the HIGH
- 2 - Sliding of the notes to the LOW
- 3 - Pause

The receiver, installed in the ORGTAF keyboard unit, assures an high reliability in the reception and a good working also in disturbed environments.

Four modes of sliding of the notes are available; they are selectable through a menu:

- CHROMATIC: step per semitone
- DIATONIC: step per tone
- M THIRD: step per Major third
- M THIRD: step per minor third

CHARACTERISTICS:

- Power: alkaline battery 12V
- Absorption: 7 ma circa
- Frequency of work: 433,92 MHz
- Dimensions: 40 x 90 x 20 mm



SERIAL SELECTOR for ON/OFF system (Code ORGTAS) SERIAL SELECTOR for PROPORTIONAL system (Code ORGTASP)

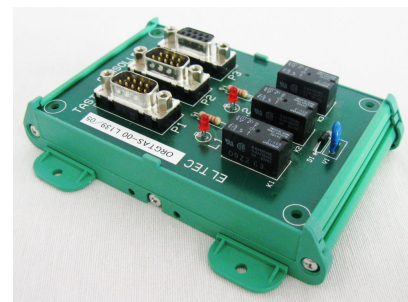
SERIAL SELECTOR that cuts the serial connection between the MASTER and the SLAVE (with the possibility to insert another MASTER, a RADIO or a TUNING KEYBOARD) and executes an automatic commutation between the two input lines. The first line (connector on the left) has priority over the second one (central connector).

The supply also includes:

N.1 Kit connectors 9 pole (male + female + case).

CHARACTERISTICS:

- Baseboard with screw holes
- Dimensions: 75 x 125 x 30 mm



ON/OFF - PROPORTIONAL ADAPTER (Code ORGTA/CP)

Essential adapter to connect the TUNING KEYBOARD to an ORGDRIVE proportional system.

It is used to adapt the signals and the voltage of the keyboard (CURRENT LOOP – 24V) to the signals of the proportional system (RS485 – 12V).

CHARACTERISTICS:

- Dimensions: 125 x 65 x 50 mm



5.3 - CODING OF DIFFERENT MODELS

- Code **ORGTA13T** - TUNING KEYBOARD with 13 keys
- Code **ORGTA13R** - TUNING KEYBOARD with 13 keys and radio remote control for the sliding of the notes

CHARACTERISTICS:

- Plastic box
- Aluminium top panel
- Hooks for shoulder belt
- Dimensions: 260 x 150 x 90 mm
- Weight: 1,2 kg



The ORGTA13T model includes: (reference to the price list)

- N. 1 Complete box with keyboard 13 keys (Code ORGTAF)
- N. 1 Power supply for ORGTAF unit (Code ORGTAP)
- N. 1 Connection cable of the keyboard 13 keys. L = 10 m (Code 5014-1000)
- N. 1 Connection serial cable ORGTAP / system. L = 2 m (Code 5013-200)
- N. 1 Power supply cable 220 V (Code 5020)

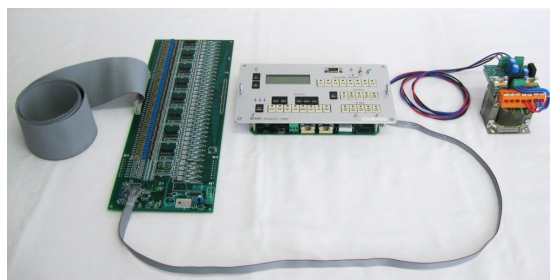
The ORGTA13R model includes: (reference to the price list)

- N. 1 Complete box with keyboard 13 keys (Code ORGTAF) and radio receiver
- N. 1 Radio remote control for the sliding of the notes (Code ORGTA/TEL)
- N. 1 Power supply for ORGTAF unit (Code ORGTAP)
- N. 1 Connection cable of the keyboard 13 keys. L = 10 metres (Code 5014-1000)
- N. 1 Connection serial cable ORGTAP / system. L = 2 m (Code 5013-200)
- N. 1 Power supply cable 220 V (Code 5020)

- Code **ORGTA61KIT** - TUNING KEYBOARD with 61 keys
(assembly KIT)

CHARACTERISTICS:

- Boards without boxes to install in a one's own case and connect to a one's own keyboard.



The ORGTA61KIT model includes: (reference to the price list)

- N. 1 Keyboard 13 keys without box (Code ORGTA61)
- N. 1 Expansion card for connection of the keyboard 61 keys (Code ORGTAE61)
- N. 1 Flat cable 64 conductors connection of the keyboard. L = 2 m
- N. 1 Flat cable 9 conductors extension. L = 1 m
- N. 1 Power supply (Code ORGTAP61)
- N. 1 Connection serial cable of the system L = 10 m (Code 5013-1000)

Code **ORGTA61R** - TUNING KEYBOARD with 61 keys and radio remote control for the sliding of the notes

CHARACTERISTICS:

- Wooden solid painted box
- Keyboard with 61 semi-weighted keys
- Power supply: 220 VAC
- Dimensions 115,5 x 25,5 x 16 cm
- Weight: 12,5 kg



The ORGTA61R model includes: (reference to the price list)

- N. 1 Complete box with keyboard 61 keys and radio receiver
- N. 1 Radio remote control for the sliding of the notes (Code ORGTA/TEL)
- N. 1 Connection serial cable of the system L = 10 m (Code 5013-1000)
- N. 1 Power cable 220 V (Code 5020)

6 - CAPTURES MODULE

The CAPTURE MODULE is a programmable device (such as the ORGDRIVE unit) but limited to a predetermined number of inputs and outputs, particularly suitable for the management of the capture memories of the mechanical organs.

The two or three boards (depending on the models) are assembled in an aluminium case.

On one side of the case there are all the connectors that connect, through some flat cables, the unit to the ORGMIE strips (for inputs) and ORGMUE (for outputs).

The maximum number of capture combinations that is available is 8x255 (8 pistons x 255 levels).

The visualization of the piston and level happens through a four digits DISPLAY provided with brass plate.

MODELS:

Code MA 64	120 inputs and 64 outputs
Code MA 128	120 inputs and 128 outputs
Code MA 192	120 inputs and 192 outputs
Code MA 256	120 inputs and 256 outputs

The module includes:

- Basic module
- Inputs/Outputs connection strips with flat cable (L = 2 m)
- Display plate with flat cable (L = 2,5 m)
- External power supply

CHARACTERISTICS:

- Maximum current each output: 0,5 A
- Dimensions: 150 x 590 x 70 mm (MA64 - MA128)
150 x 590 x 100 mm (MA192 - MA256)



Since 2001 the CAPTURE MODULE has not been updated, either as hardware or as software. So the module is equipped with a CPU Z180, that is programmable using the ORGDRIVE configuration programme. So, some functions that are present on ORGDRIVE CP25 system are not available.

The CAPTURES MODULE has been replaced with the MB24N module.

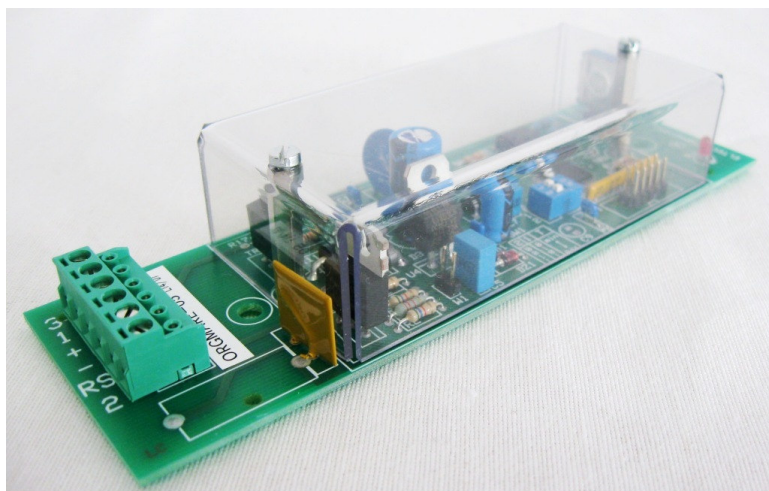
In this way it is possible to use a standard system ORGDRIVE CP25, with CPU board, input and output boards in use today and programmable with the last version of the configuration software (with the possibility to enable all the functions that are available now).

7 - CONTROL BOARD FOR SLIDER ACTION SOLENOIDS (Code ORGMARE)

Control board for the slider action solenoids of the stops.

CHARACTERISTICS:

- Voltage: from 12 to 24 V
- Input: positive (jumper W1 for negative input)
- Output with power MOS
- Protection fuse (4 A - restorable)
- Regulation of the CONTROL FORCE (forward-back) with a trimmer out to the cover
- Fixed excitation time (0,8 sec)
- Overexcitation time at the maximum voltage at the beginning of the movement selectable through a DIP SWITCHES (6-12-25-50 msec)
- Led for the visualization of the excitation time
- Removable terminal strip with the possibility to solder the wires.
- Plexiglass protection cover
- Same dimensions and fixing perforation of the Laukuff board 10E359.2
- Dimensions: 160 x 50 x 28 mm



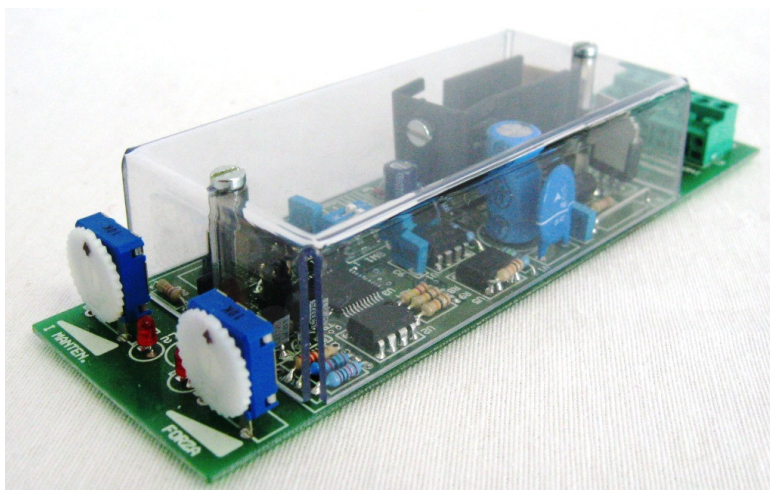
8 - CONTROL BOARD FOR VERTICAL SLIDER ACTION SOLENOIDS (Code ORGMARE-V)

It can happen that, for organ need, some windchests are placed in a vertical way. The sliders of the stops will have to be supported by magnets also after the initial impulse of 0,8 sec. Otherwise, after the initial impulse, the slider will return to the original position because of the force of gravity.

The control card for the VERTICAL SLIDER ACTION SOLENOIDS (Code ORGMARE-V) allows to regulate, besides the CONTROL FORCE, also the MAINTENANCE CURRENT that is a current that keeps the magnet always pull when the stop is active. This current can be regulated with a potentiometer depending on the need.

CHARACTERISTICS:

- Voltage: da 12 a 24 V
- Input: positive (jumper W1 for negative input)
- Output with power MOS
- Protection fuse (4 A - restorable)
- Regulation of the CONTROL FORCE (forward-back) with an trimmer out of the cover
- Regulation of the MAINTENANCE CURRENT with a trimmer out of the cover
- Fixed excitation time (0,8 sec)
- Overexcitation time at the maximum voltage at the beginning of the movement selectable through a DIP SWITCHES (6-12-25-50 msec)
- Led for the visualization of the excitation time
- Led for the visualization of the maintenance current
- Removable terminal strip with the possibility to solder the wires.
- Plexiglass protection cover
- Same dimensions and fixing perforation of the Laukuff board 10E359.2
- Dimensions: 160 x 50 x 28 mm



9 - TRANSPOSER BOARD

Stand alone microprocessor board that makes the tone trans position (- 4, +3) of a 61 keys keyboard or of a 32 keys pedalboard.

This board can be used on electric organs where, during ORGDRIVE system absence, one wants to insert the function of tone transposer.

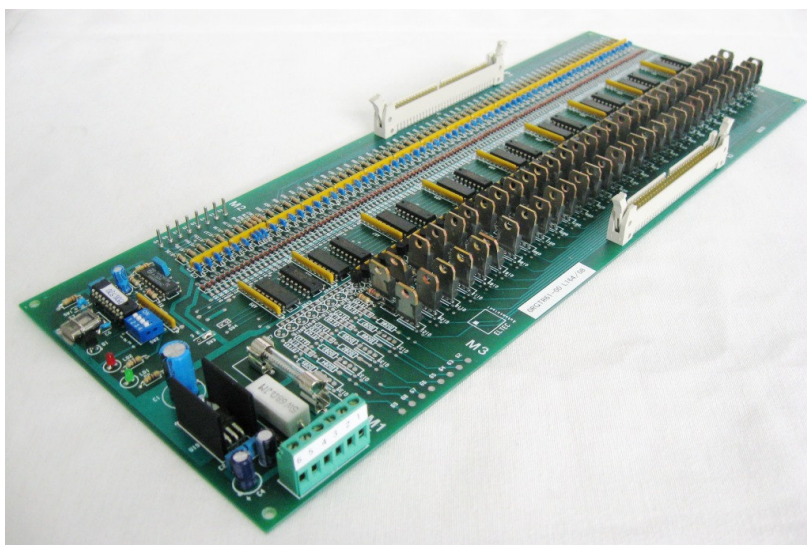
MODELS:

- Code **ORGTR61L** - 61 inputs and 61 outputs for the manual
8 inputs for the buttons - 8 outputs for the lamps of the buttons
- Code **ORGTR61** - 61 inputs and 61 outputs for the manual
8 inputs for the selector
- Code **ORGTR32** - 32 inputs and 32 outputs for the pedalboard
8 inputs for the buttons or the selector

Note: The two connection flat are included with the card.

CHARACTERISTICS:

- Inputs: POSITIVES or NEGATIVES (selectable through dip switches)
- Outputs: POSITIVES
- Maximum current each output: 2 A
- Power supply: 10 ÷ 20 VDC
- Connection through flat cable (L = 2 m)
- Function of test for inputs/outputs test
- Dimensions: 156 x 412 mm



10 - 61 POWER AMPLIFIERS BOARD

Card with 61 transistors power amplifiers.

It can be used to amplify the logical signals with very low currents in power signals.

MODELS:

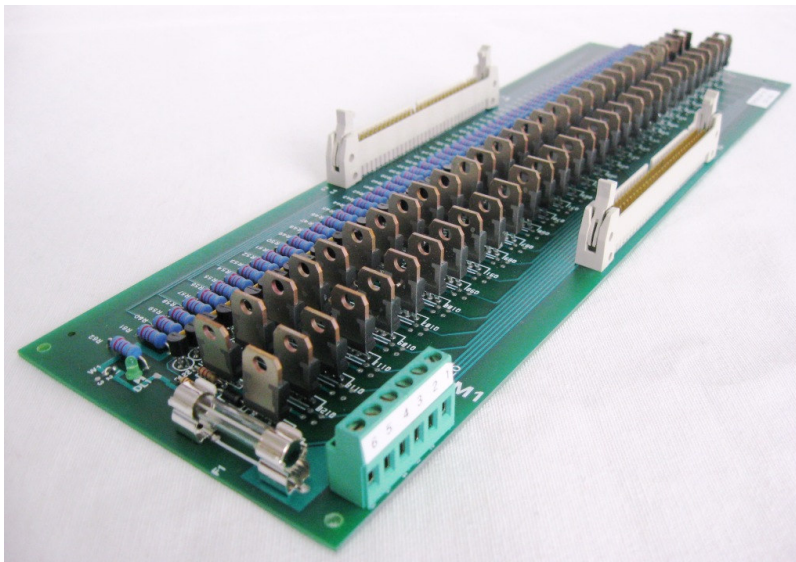
Code **ORG61UP** - POSITIVES inputs and POSITIVES outputs.

Code **ORG61UN** - NEGATIVES inputs and NEGATIVES outputs.

Note: The two connection flat are included with the card.

CHARACTERISTICS:

- Maximum current each output: 2 A
- Power supply: 12 ÷ 24 VDC
- Connection through flat cables (L = 2 m)
- Dimensions: 105 x 330 mm

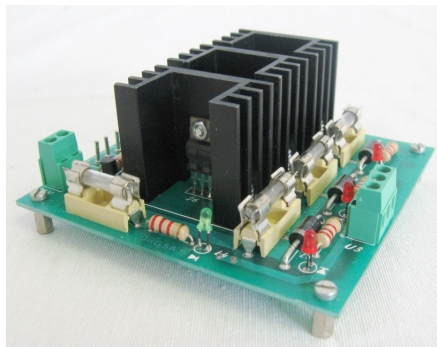


11 - 3 POWER AMPLIFIERS BOARD (Code ORG5A)

Card with 3 transistors power amplifiers for the control of particular magnets or more than one magnet at the same time.

CHARACTERISTICS:

- Inputs: POSITIVES (to be connected to the outputs of the ORGDRIVE system)
- Outputs : POSITIVES
- Maximum current each output: 5 A
- Power Supply: 12 ÷ 24 VDC



12 - INVERTER BOARDS

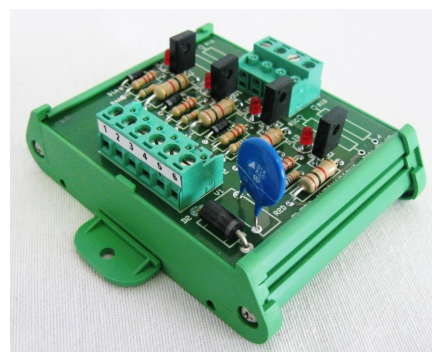
Boards to reverse the signals, at voltage level or at logical level.

MODELS:

- | | |
|---------------------|--|
| Code INV-PN | POSITIVES inputs – NEGATIVES outputs |
| Code INV-NP | NEGATIVES inputs – POSITIVES outputs |
| Code INV-NN/ | NEGATIVES inputs – NEGATIVES FALSE outputs |
| Code INV-PP/ | POSITIVES inputs – POSITIVES FALSE outputs |

CHARACTERISTICS:

- N.4 reversers
- Maximum current each output: 0,5 A
- Dimensions: 67 x 92 mm
- Baseboard with screw holes
- Extractible terminals with the possibility to solder/weld the wires.



13 - BUTTON CONTROL BOARD WITH LAMP (Code RELED)

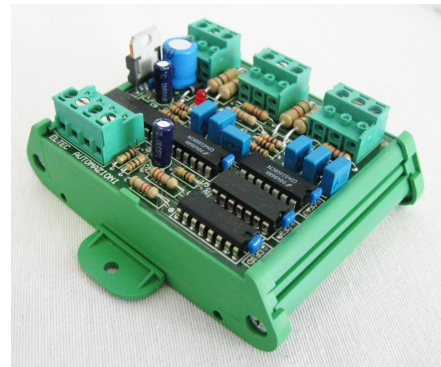
Control card for button stops with lamp.

With an impulse the lamp switches on (stop ON) and with another impulse the lamp switches off (stop OFF).

This board can be used when, on an organ with stops control magnet (on/off coil), we wish to add further stops, unions or couplers with button control.

CHARACTERISTICS:

- Control for n.2 stops
- Power supply 12 ÷ 24 VDC
- Dimensions: 67 x 92 mm
- Baseboard with screw holes
- Extractible terminals with the possibility to solder/weld the wires



14 - CONTROL CARD FOR SLIDING STOPS (Code RESCOR)

Control card for sliding stops.

This board can be used when on an organ there are some couples of stop keys that control the same stop and these stop keys must never be operating at the same time.

This board is connected to the OFF controls of the stop keys of the console and provide an impulse to the corresponding stop keys when it is necessary to position them at rest.

CHARACTERISTICS:

- Control for n.2 couples of stops
- Power: 12 ÷ 24 VDC
- Fuses of protection
- Dimensions: 67 x 92 mm
- Baseboard with screw holes
- Extractible terminals with the possibility to solder the wires



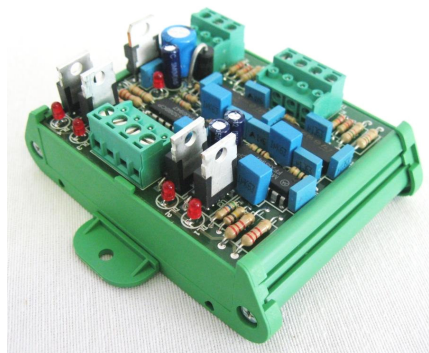
15 - CONTROL CARD FOR REVERSERS (Code ORGREV)

Control card for the stop keys with reverser control.

If there are not the captures, the ORGDRIVE configuration programme disables the function of the reversers. This board can be therefore used on organs without captures (or with the free combination), when the function of reversers is required.

CHARACTERISTICS:

- Control for n.2 reverser stop keys
- Power: 12 ÷ 24 VDC
- Dimensions: 67 x 92 mm
- Baseboard with screw holes
- Extractible terminals with the possibility to solder the wires



16 - STRIP 128 LED FOR SIMULATION

Connection strip for the outputs equipped with LED.

It can be used to test the programme of the MASTER and SLAVE units (functions of the console, output groups, unions and couplers, etc.) and all the outputs of the unit, to be sure that there are any problems during the installation phase.

Very useful for the organ builder that do the programming of the organ independently in his workshop.

Note: for the connection are used the flat of the unit.

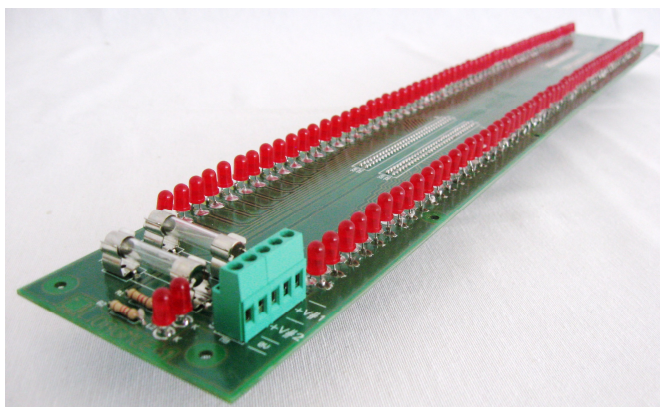
MODELS:

Code ORGMUEL: strip 128 led for the simulation of the cards U64

Code ORGMTEL: strip 128 led for the simulation of the cards U128T

CHARACTERISTICS:

- N°led: 128 (for 2 cards U64)
- Fuses of protection each 64 outputs.



17 - POWER SUPPLIES

A wide range of SINGLE-PHASE and THREE-PHASE POWER SUPPLIES, with levelling off of the output current, is available.

Strength and reliability are the main characteristics of these equipments. They are made by a firm that is specialized in the field of electro-mechanics.

All the models are fitted with regulation power connections on the primary of the transformer for calibrating the output voltage.

In addition to the input and output protection fuses, the transformers have a shield between primary and secondary to connect on the ground for the protection against the lightning.

The available models are different, depending on the maximum current absorbed, the output voltage and the mechanical layout of the components. The solutions that we suggest are the aluminium plate for the smaller power supplies and the plate with grid shade or the box for the bigger ones.

In the following pages there is a list of all models, listing their features.

Below there is a summary table:

CODE	INPUT	OUTPUT	CURRENT	DISPOSITION
ORGPSM15-15	230 VAC	15 VDC	15 A	Aluminium support
ORGPSM20-15	230 VAC	15 VDC	20 A	Aluminium support
ORGPSM35-15	230 VAC	15 VDC	35 A	On a plate
ORGPSM35-15S	230 VAC	15 VDC	35 A	On a plate (with box)
ORGPSM10-24	230 VAC	24 VDC	10 A	Aluminium support
ORGPSM15-24	230 VAC	24 VDC	15 A	Aluminium support
ORGPSM25-24	230 VAC	24 VDC	25 A	On a plate
ORGPSM25-24S	230 VAC	24 VDC	25 A	On a plate (with box)
ORGPST40-15	380 VAC	15 VDC	40 A	On a plate(with grid shade)
ORGPST60-15	380 VAC	15 VDC	60 A	On a plate(with grid shade)
ORGPST100-15	380 VAC	15 VDC	100 A	On a plate(with grid shade)
ORGPST300-15S	380 VAC	15 VDC	300 A	On a plate (with box)
ORGPST40-24	380 VAC	24 VDC	40 A	On a plate(with grid shade)
ORGPST60-24	380 VAC	24 VDC	60 A	On a plate(with grid shade)
ORGPST100-24	380 VAC	24 VDC	100 A	On a plate(with grid shade)
ORGPST250-24	380 VAC	24 VDC	300 A	On a plate (with box)

OTHER MODELS CAN BE AVAILABLE UPON REQUEST.

SINGLE-PHASE POWER SUPPLIES FOR THE CONSOLE

Single-phase (220 VAC) for the captures magnets and the lamps of the console.

MODELS:

Code **ORGPSM15 - 15** (15 A - 15 V - 300 VA)

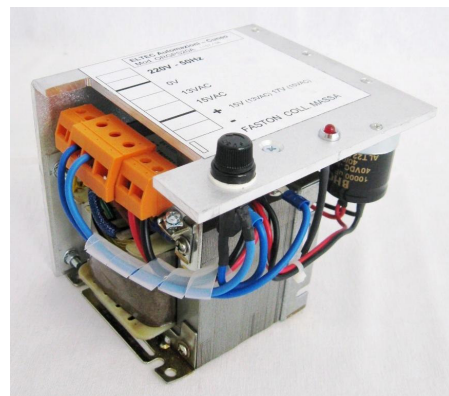
Code **ORGPSM20 - 15** (20 A - 15 V - 400 VA)

Code **ORGPSM10 - 24** (10 A - 24 V - 300 VA)

Code **ORGPSM15 - 24** (15 A - 24 V - 400 VA)

CHARACTERISTICS:

- Aluminium support
- Protection fuse
- 15 - 17 V sockets (mod. 15 V)
- 24 - 26 V sockets (mod. 24 V)
- Shield between primary and secondary
- Dimensions: 150 x 145 x 135 mm
- Weight: 5,7 kg (300 VA) - 6,6 Kg (400 VA)



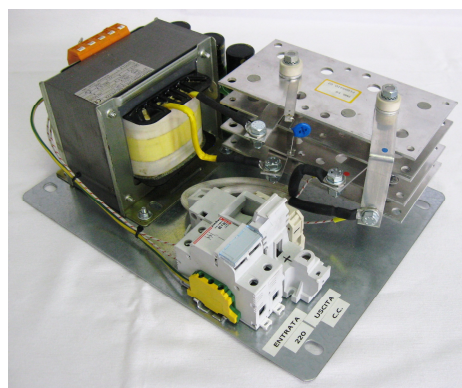
MODELS:

Code **ORGPSM35 - 15** (35 A - 15 V - 600 VA)

Code **ORGPSM25 - 24** (25 A - 24 V - 600 VA)

CHARACTERISTICS:

- Mounted on a plate
- Protection fuses
- 12 - 14 - 16 - 18 V sockets (mod. 15 V)
- 20 - 22 - 24 - 26 V sockets (mod. 24 V)
- Shield between primary and secondary
- Dimensions 350 x 260 x 140 mm
- Weight: 14 kg



MODELS:

Code **ORGPSM35 - 15S** (35 A - 15 V - 600 VA)

Code **ORGPSM25 - 24S** (25 A - 24 V - 600 VA)

CHARACTERISTICS:

- Ventilated protective box with cable gland
- Protection fuse
- 12 - 14 - 16 - 18 V sockets (mod. 15 V)
- 20 - 22 - 24 - 26 V sockets (mod. 24 V)
- Shield between primary and secondary
- Dimensions: 350 x 450 x 180 mm



THREE-PHASE POWER SUPPLIES FOR THE ORGAN

Three-phase power supplies (380 VAC) for the magnets of the organ.

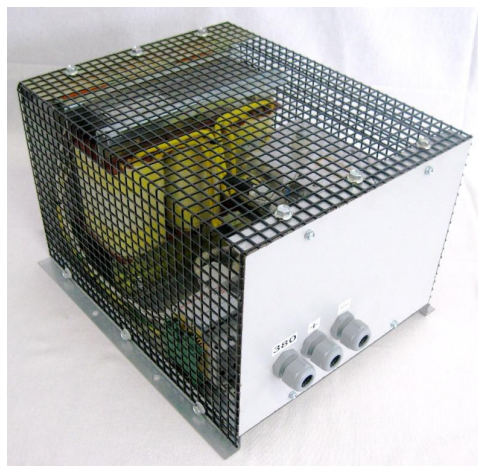
MODELS:

Code **ORGPST40 - 15** (40 A - 15 V)
 Code **ORGPST60 - 15** (60 A - 15 V)
 Code **ORGPST100 - 15** (100 A - 15 V)

Code **ORGPST40 - 24** (40 A - 24 V)
 Code **ORGPST60 - 24** (60 A - 24 V)
 Code **ORGPST100 - 24** (100 A - 24 V)

CHARACTERISTICS:

- 12 - 14 - 16 - 18 V sockets (mod. 15 V)
- 20 - 22 - 24 - 26 V sockets (mod. 24 V)
- Protection fuses
- Shield between primary and secondary
- External protective grid shade removable with cable gland
- Protective plexiglass on the strips on the primary of the transformer
- Dimensions: 380 x 300 x 240 mm (mod.15 V)



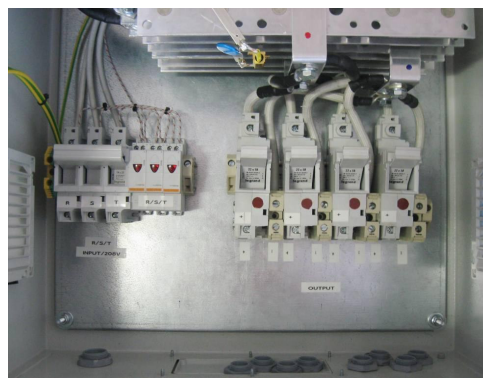
MODELS:

Code **ORGPST300 - 15S** (300 A - 15 V)

Code **ORGPST250 - 24S** (250 A - 24 V)

CHARACTERISTICS:

- 12 - 14 - 16 - 18 V sockets (mod. 15 V)
- 20 - 22 - 24 - 26 V sockets (mod. 24 V)
- Lamps on the 3 input phases
- Protection fuses
- 4 shunt lines
- Shield between primary and secondary
- Protective box with cable gland
- Dimensions: 500 x 750 x 320 mm

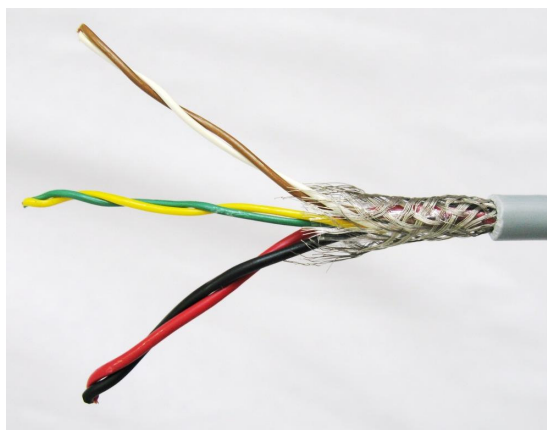


18 - SERIAL CABLE

6 conductors shielded and twisted cable, realized specifically for the serial line fo the ORGDRIVE system.

The main features are:

- Shield: tinned copper braid
- Laying up of the two elements in pair
- RED/BLACK conductor with increase cross sectional area for power supply
- High flexibility



The cable is available in coils of 200 m or retail (by the metre).

Note: All data on the ORDGRIVE manuals on the maximum length of the serial cable are calculated using this type of cable.

All the wiring plans of the serial cable found in the ORGDRIVE manuals refer to the colours of the conductors of this type of cable.

18.1 - TECHNICAL BOARD

1) Costruzione cavo

1) Cable Construction

0.50 mm²	
Conduttore Conductor	Conduttore flessibile di Rame rosso Stranded bare copper
Sezione (mm²) Cross Sectional area (mm ²)	0.50 (21AWG)
Isolamento Insulation	PVC qualità R2 (CEI 20-11) con proprietà ritardante la fiamma Special flame retardant PVC compound acc. to CEI 20-11 quality R2
Colori Colour code	Rosso, Nero Red, Black

0.22 mm²	
Conduttore Conductor	Trefolo flessibile di rame rosso Stranded bare copper
Sezione (mm²) Cross Sectional area (mm ²)	0.22 (24AWG)
Isolamento Insulation	PVC qualità R2 (CEI 20-11) con proprietà ritardante la fiamma Special flame retardant PVC compound acc. to CEI 20-11 quality R2
Colori coppia Pair colour code	Bianco, Marrone; Giallo, Verde White, Brown; Yellow, Green
Riunitura coppia 2x0.22 lay up	Binatura singola delle coppie sez. 0.22 Laying up of the two elements in pair
Riunitura totale Total lay up	Riunitura delle coppie e dei 2 conduttori (0.50) in formazione rotonda Laying the pairs and two elements (0.50) in round shape

Schermo Shield	Schermo a treccia in rame stagnato copertura >75% Tinned copper braid. Coverage >75%
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Guaina esterna Jacket	PVC qualità TM2-RZ (CEI 20-11) con proprietà non propaganti l'incendio Special flame retardant PVC compound acc. to CEI 20-11 quality TM-RZ
Diametro nominale (mm) Nominal diameter	6.5 ±0.1
Colore Colour code	Grigio 7001 Gray 7001
Stampigliatura II – 80° Marking	2x0.50+2x2x0.22 – CEI 20-22

2) Proprietà Elettriche

2) Electrical Properties

Tensione di esercizio (V) Working voltage (V)	0,22 50	0,50 300
Tensione di prova (V) Test voltage (V)	1000	2000
Tensione d'isolamento (verso l'esterno) Insulation voltage (KV)	300/500 V	

3) Proprietà Meccaniche e Fisiche

3) Mechanical & Physical Properties

Raggio di curvatura Bending Radius	10 volte il diametro esterno 10 times outer diameter
Temperatura di Esercizio (°C) Working Temperature (°C)	-15 + 80
NON PROPAGAZIONE DELLA FIAMMA Flame test	CEI 20-35/1-2, EN 60332-1-2, IEC 60332-1-2
NON PROPAGAZIONE DELL'INCENDIO Flame propagation	No CEI 20-22/II, EN 50266-2-2, IEC 60332-3A

19 - CONNECTORS FOR SERIAL CABLE

Plastic screw AMPHENOL CONNECTORS suitable for industrial applications, where safety is an important factor.

Each configuration is equipped with 6 poles and a ground contact pre-installed. Contacts are to be soldered.

The plug connectors have integrated a cable protection, while the stuffing box nut on the back of the connector has a thread PG9.

The panel sockets must be mounted on a front panel and fixed through two holes.

Due to their robustness and reliability, these connectors are ideally suited for organ applications (serial cable of the console, wall socket).

AVAILABLE CONFIGURATIONS:

Female panel – Male plug

Male panel – Female plug



20 - ORGDRIVE CONFIGURATION CABLE

Special cable (L = 2,5 m) that allows the programming of ORGDRIVE system, namely the transfer of the configuration programme developed with the ORGDRIVE software in the CPU memory of the unit.

21 - USB TO SERIAL ADAPTER

Adapter from USB to serial RS232.

It allows to get a male 9 pin serial port from a USB port type A of the PC.

It is useful to program the ORGDRIVE system in case your laptop is not equipped with RS232 serial port.

Each pack contains:

- USB – SERIAL Adapter
- Extension cable (L = 80 cm)
- Mini installation CD
- Installation instructions



22 - POCKET (Code ORGPK)

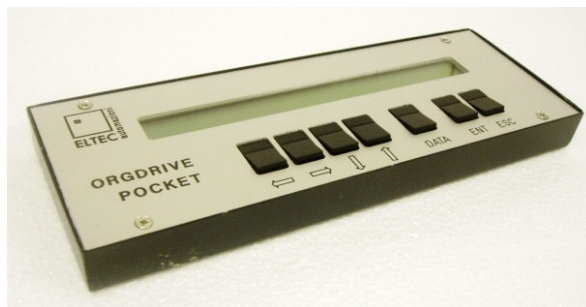
Terminal that allows to do the programming of the P-TABLE.

It is possible to set or modify the data of the FIXED COMBINATIONS, MIXTURES, TUTTI, CRESCENDO, AUTOMATIC PEDAL, VENTILS, without using a PC.

It is connected to the MASTER unit in console through the connector P2-POCKET that is on the panel of the ORGVIM serial card.

CHARACTERISTICS:

- Display LCD
- Connection cable: L = 1,5 m
- Dimensions: 225 x 80 x 20 mm
- Weight: 0,5 kg



23 - DRILL GAUGE (Code DIMA61)

DRILL GAUGE for the keyboards with bushes in hardened steel.

When you use the STATIC KEYBOARD WITH HALL SENSORS it is necessary to insert, on each key of the keyboards, a SCREW WITH MAGNET corresponding to the sensors. It is therefore necessary to drill the keyboards.

The DRILL GAUGE has a drilling step equal to that of the sensors mounted on the HALTA card (13,75 mm).

Its use allows to pierce the keyboards with great precision.

CHARACTERISTICS:

- Material: aluminium
- N° of holes: 61
- Bushes in hardened steel
- Dimensions: 900 x 30 x 5 mm
- Weight: 0,5 kg



24 - REGULATION BOARD FOR HALL SENSORS (Code HALTA TEST)

The HALTA TEST card allows to do the regulation of the hall sensors of an HALTA card without using the ORGDRIVE system.

Note: SENSOR REGULATION means the regulation of the screws with magnet that are inserted on each key of each keyboard.

This regulation is ESSENTIAL for the right working of the system.

For this and any other information about the installation of the HALTA card it is possible to consult the "Static keyboards with hall sensors" manual.

It may happen, in fact, that the sensors can only be regulated during the construction and assembly phase of the keyboards and not later.

Example:

On an organ with mechanical transmission but with electric unions it is necessary to install the HALTA cards with hall sensors. The keyboards, however, once linked to the rollerboard of the mechanics, can not be lifted or overturned any more (as it is for the keyboards of an electric console).

Often, however, during the construction of the keyboards and the installation of the HALTA sensors cards, the organ builder has not yet completely installed the ORGDRIVE system. Sometime he is even still lacking of it.

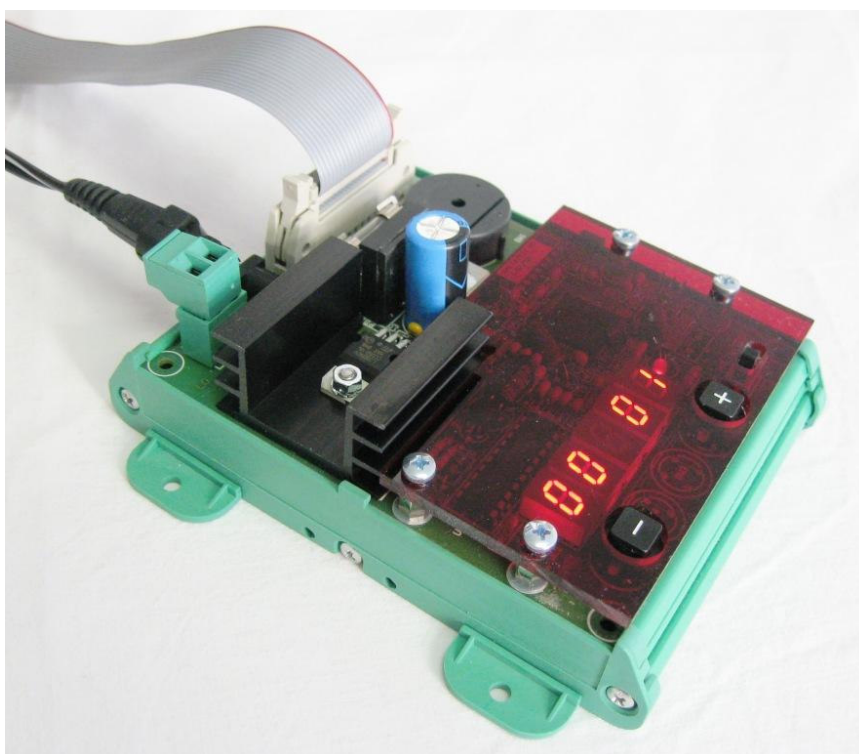
HALTA TEST test card allows to visualize the values of each sensors, to do a learning and to make a series of additional tests without the need to have the ORGDRIVE system: it is enough to connect the cable of the HALTA sensor card to the connector 20 poles on the HALTA TEST card.

FONCTIONS

- **TEST SINGLE KEY:**
It visualizes the analog value of each single key.
- **TEST MINIMUM VALUE KEY:**
It visualizes the keys with the minimum value under the minimum limit.
- **TEST MAXIMUM VALUE KEY:**
It visualizes the keys with the maximum value over the maximum limit.
- **TEST MINIMUM RANGE KEY (SPAM):**
It visualizes the keys with the minimum range (spam) lower to the minimum value.
- **SOUND SIGNALLING:**
Signalling in case of: full range, errors or malfunctions.

CHARACTERISTICS:

- Power: 9 ÷ 15 VAC / VDC (recommended 9 V)
- Direct test of a keyboard with Hall sensors
- Numbers of keys: 26 ÷ 61
- SELECTION [-] and CONFIRM [+] buttons
- Operability compatible with test of the ORGDRIVE system and of the pulling system for the swell box ESP10
- Selector for TRUE/FALSE sensors
- Test menu, settings, learning
- Signalling buzzer
- Baseboard with screw holes
- Dimensions: 92 x 125 x 40 mm
- Weight: 190 g



The HALTA TEST card includes:	(reference to the price list)
N. 1 Test card regulations/control/adjustment of the Hall sensors (Code HALTA TEST)	
N. 1 Power 9 VDC	
N. 1 Flat cables 20 conductors connection of the keyboards L = 3 m	