INSTRUCTION MANUAL

INOMATIC KEYPADS FOR CONTROLLING THE INTERIOR OF THE AMBULANCE

TABLE OF CONTENTS

DESCRIPTION GENERAL

The system consists of five panels on which the buttons or controls of the control devices are located. The controls and buttons have different illumination modes, which light up in their own characteristic way depending on the operating state.
The location of the panels is divided into two areas, two panels are located in the driver's compartment and three in the medical compartment. Some panels in the driver's compartment and the medical compartment have LCD colour screens displaying information in addition to buttons.

The system activates when the main auxiliary battery switch, which is located in the base of the driver's seat, is switched on. If neither the ignition nor external power is switched on, the keypads switch off 10 minutes after the last button is pressed in order to save energy. Turning on the ignition, connecting external power or pressing a button on the keypad it. Some of the keys only become active when the relevant condition is fulfilled (e.g. activation of the engine heater will only be possible if the vehicle is connected to 230 V).

KEYBOARD WITH SCREEN IN THE DRIVER'S COMPARTMENT

The keypad in the driver's cab is used to control the emergency signalling, lighting and communications and other additional functions installed on board the vehicle. It has a display that shows information on selected environmental and technical parameters of the vehicle.

Fig. 1 View of the keyboard with screen in the driver's compartment

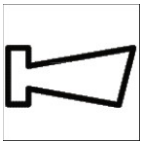
Siren and blue lights (999) , *function on/off*
sound signal in the form of a siren and blue lights on the roof of the vehicle,

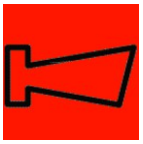
Work lights left, *function on/off work lights*
located on the left side of the vehicle,

Information: the left-hand work lights switch off automatically at 30 km/h.

Right-hand traffic *lights*, *function for switching on/off the work lights*
placed on the right side of the vehicle,

Information: the right-hand work lights switch off automatically at 30 km/h.





Additional warning signal, *function activates/deactivates an additional acoustic signal (electric or pneumatic) for 30 seconds,*

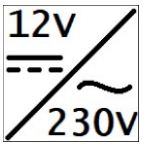
Info: The signal can only be activated if the ignition is on and the blue lights are active.

Front working lights, *light on/off function*
working on the front of the vehicle

Information: the headlights automatically switch off at 30 km/h.

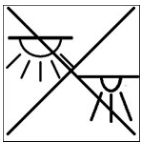
Tail lights, *function switches on/off the work lights located at the rear of the vehicle,*

Information: the rear working lights switch off automatically at 5 km/h. When reverse gear is engaged, the rear working lights and rear side lights are automatically extinguished.

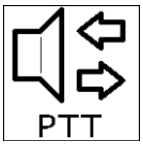


Inverter on/off , *function on/off 12* V *->> 230* V *inverters*,

Information: if the vehicle is connected to an external 230 V voltage source, it will not be possible to switch on the inverter. Button flashing yellow - the inverter has received information that the user has pressed the button, but has not yet switched on. Lighting red - inverter switched on.

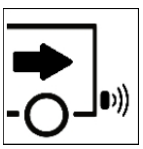


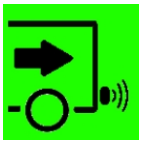
Turn off all lights, *a function that turns off all lights that are currently on,*



Push To Talk- intercom, a *voice communication function between the driver's cab and the patient compartment,*

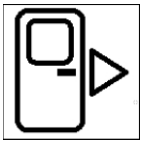
Information: the button on the driver's side must be pressed at all times to speak. Button active - orange illumination.





Switch vehicle reversing sound on/off - *function switches reversing sound on/off,*

Information: If the reverse signal is switched off, the button flashes green.



Opening a wicket door -
This function unlocks/locks the transition door between the driver's compartment and the medical compartment,

Information: If the door is slid but not locked the button lights up yellow.When the door is slid and locked the button is not illuminated. If you want to open the door, the electromanges releases the grip for 5 seconds and the button flashes orange during this time. At speeds of 5 km/h and above it is not possible to open the door. An audible alarm will sound if you drive with the door open.

Seat belt information *light*
informs of unfastened belts.

Information: the light comes on in red if the seat belt is not fastened. No interaction possible.

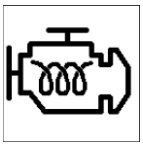
AUXILIARY KEYBOARD IN THE DRIVER'S COMPARTMENT

The panel below is located in the middle of the driver's compartment above his head.

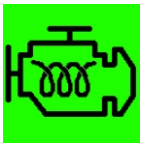
Fig. 2 View of the auxiliary keyboard in the driver's compartment

Blown fuse *indicator light*, fuse *indicator light*
blown fuse - must be replaced,

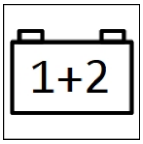
Information: the light turns red when a blown fuse is detected. No interaction possible.



Motor heater on/off, *function turns the motor heater on/off*,



Info: activation of the motor heater is only possible the external voltage NAK (230 V) is connected. Transparent button - conditions for activation of the heater not fulfilled. Button shining white - possible activation of the heater. Button shining green - heater on.

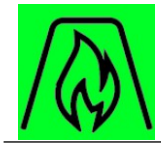


Two-battery short-circuit , *two-battery short-circuit function used when the starter battery is discharged,*

Information: if the button is activated, the key will illuminate red for 20 seconds.

Activate/deactivate Webasto air oven, *function switches the Webasto air oven on/off,*

Note: A higher temperature setting than the measured temperature is necessary to activate the cooker.
No illumination - the condition of being able to switch on is not fulfilled.
White lighting - cooker off, possibility of switching on. Yellow illumination- cooker has received information about user interaction, but has not yet switched on.
Green light - cooker on.
The orange illumination is displayed when the side door of the medical compartment is opened and the furnace enters Boost mode (increased operation) to maintain the set temperature - up to 30 minutes.
Blue illumination - furnace enclosure (furnace cooling).

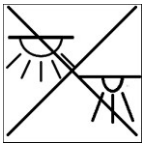


Switching the lighting on/off in 100% light intensity mode,
function turns the light on/off at 100 % brightness,

Lighting on/off in 50% light intensity mode,
function turns the light on/off at 50 % brightness,

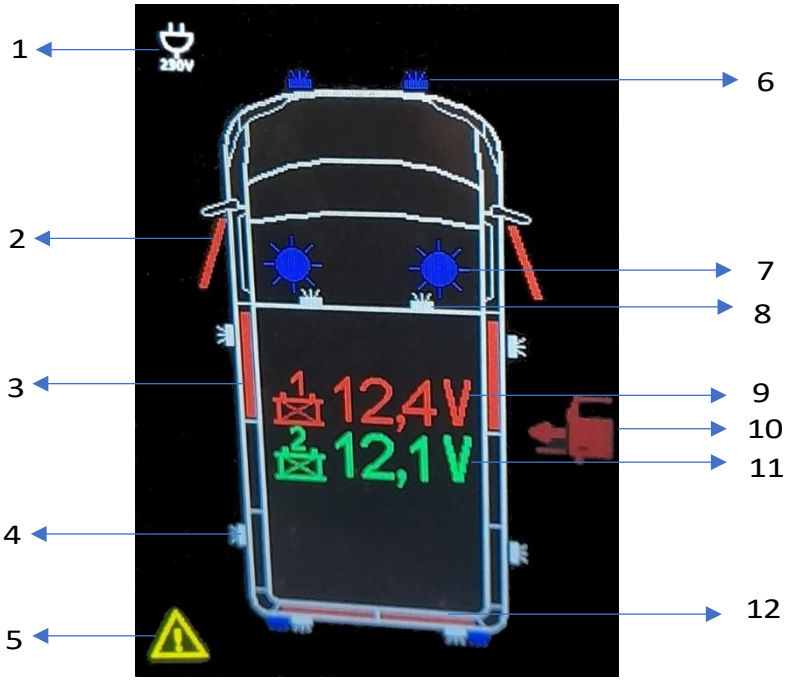
Information: when the door is opened and the light is off, the lights at the front of the compartment and the rosette will illuminate at 50% brightness for 20 seconds to facilitate entry into the compartment.

Blue light on/off (trauma), *function switches the special blue light on/off,*



Turn off all possible lights, *a function that turns off all the lights that are on.*

Information shown on the display in the driver's compartment



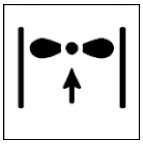
1- Information on connected NAK sockets
2- Information on open driver's or passenger's door (on the other side)
3- Information on open sliding doors
4- Rear working lights on
5- Information on blown fuse
6- Information about lights on
7- Information on blue lights on
8- Information about headlights on
9- Information on the charge level of the first battery
10- Information on the extended side step
11- Information on the charge level of the second battery
12- Rear door open information

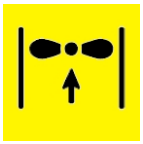
1 - primary battery voltage
U< 11.5V - red, flashing symbol 11.5V<= U< 12.0V - yellow
U<= 12.0V - colour green
2 - primary battery voltage U< 11.5V - red, flashing symbol 11.5V<= U< 12.0V - yellow
U<= 12.0V - colour green
3 - temperature outside the vehicle

KEYBOARD WITH SCREEN IN THE MEDICAL COMPARTMENT

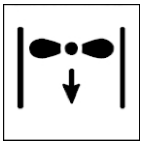
The keypad in the medical compartment is aimed at controlling the functions of the providing adequate thermal and lighting conditions.

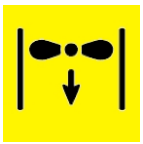
Fig. 3 View of the keyboard in the medical compartment





Blowout on/off, *function turns on/off the* blowing *of air from the medical compartment to the outside.*





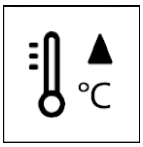
Fresh air blower on/off, *function turns fresh air blowing into the medical compartment on/off.*

Temperature setting, *a function that informs the system of user interaction to set the temperature*

Information: The button flashes yellow during temperature adjustment.

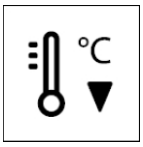
Activate/deactivate automatic heating/cooling,
function enables/disables automatic heating/cooling,

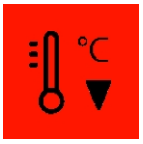
Information: The heating control is in 2 gears depending on the temperature difference between the set temperature and the measured temperature. In case of a difference of no more than 5 degrees - 1st gear (yellow colour). In case of a difference of more than 5 degrees - 2nd gear (orange colour). In the case of cooling, the control is divided into 10 gears - each additional degree of difference between the set temperature and the measured temperature is the next gear (blue colour).



Increase set temperature, *a function that increases the set temperature by 1 °C at a single press,*

Information: temperature control from 5° *C* - 35° *C*





Reduce set temperature, *a function that reduces the set temperature by 1 °C at a single press,*

Information: temperature control from 5° *C* - 35° *C*

Additional button *to be programmed*

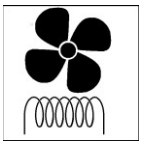
Information: The button can be added and promoted at the customer's request.

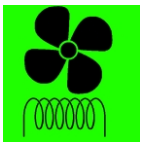
Switch heating/cooling on/off in manual control mode, *the function switches manually controlled heating/cooling on/off,*

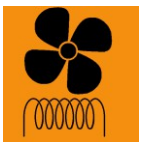
Information: allows manual stepless control of cooling/heating.

Locking the door from inside the vehicle, *the function locks/unlocks the vehicle door*

Information: After the doors have been locked for 15 seconds, the vehicle illuminates the road with the headlights and sidelights (function - "way home").







Thermoelectric fan on/off, *function switches the fan heater (DEFA) on/off,*

Note: The prerequisite for switching on the fan heater is that the vehicle must be connected to 230 V via the NAK socket. In addition, there must be a temperature difference - the setpoint temperature must be greater than the measured temperature.

Orange illumination - the fan heater is in operation. Green illumination- the fan heater enters automatic energy saving mode due to door opening.

AUXILIARY KEYBOARDS IN THE MEDICAL COMPARTMENT

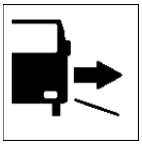
The system is equipped with two auxiliary keypads mounted in the medical compartment at the rear and side doors. These allow control of the lighting inside the medical compartment as well as the external working lighting.

Fig. 4 View of the auxiliary keypad in the medical compartment by the front door lateral

Fig. 5 View of the secondary keypad in the medical compartment located inside the compartment.

Switching on/off the lighting above the worktop, *function switches the lighting above the worktop on/off,*

Switching on/off bedside lighting, *function switches the lighting above the patient's bed on/off,*

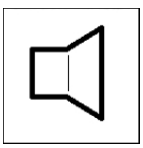


Extend/retract step, *function extends/retracts the step at the side door of the medical compartment,*

Information: the step automatically retracts when the door closes and automatically extends when the door opens.

Driver call signal, *the button activates an audible signal summoning the driver to the medical compartment.*

Info: the illumination of the button (orange colour) lasts the same amount of time as the call signal - 5 seconds.



Switching on/off the radio in the medical compartment, *function turns the radio on/off.*

Information shown on the display in the medical compartment

Fig. 6 Information displayed on the keypad's LCD display in the medical compartment (heating)

1 - Set temperature
2 - temperature setting mode automatic/manual
3 - interface showing heating level
4 - temperature measured inside the vehicle
5 - temperature measured outside the vehicle

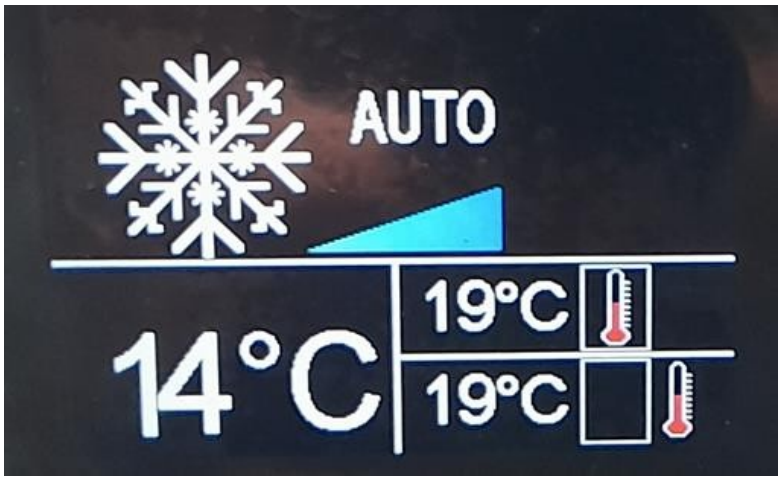


Fig. 7 View of information displayed on the keypad's LCD display in the medical compartment (cooling)

PREFERENTIAL SIGNALLING

Fig. 8 Layout of priority signalling

1- Blue front lights
2- Blue upper lights - front
3- Top blue lights - rear

ARRANGEMENT OF WORK LIGHTS

The figure below indicates the location of the working lights.

Fig. 9 Arrangement of working lights on the vehicle

COMMENTS FINAL

In the event of a problem, make sure you follow the instructions and that the supported equipment is properly configured.

Remember that not all icons on the keyboard are interactive, some of them are only the controls.