

Ulydor

Ulydor User and Service Manual
Version 1.0

Table of Contents

1	INTRODUCTION	4
1.1	FEATURES	4
1.2	MODULES	5
1.3	ENCLOSURES AND HOODS	5
1.4	ACCESSORIES	5
2	MECHANICAL INSTALLATION.....	6
2.1	SURFACE MOUNT ENCLOSURE FITMENT	6
2.2	FLUSH MOUNT ENCLOSURE FITMENT.....	6
2.3	MODULE MOUNTING FRAME ASSEMBLY	6
2.4	MODULE FITMENT AND REMOVAL	7
2.5	NAME TAG FITMENT	7
2.6	COVER FRAME FITMENT AND REMOVAL	8
3	CONTROL MODULES	9
3.1	OVERVIEW	9
3.2	CONNECTIVITY.....	9
3.2.1	Power.....	9
3.2.2	Exit button	10
3.2.3	Expansion peripheral Component Interconnect (PCI) for extra buttons & keypad	10
3.2.4	Analogue line connectivity.....	10
3.2.5	Relays	10
4	BUTTON MODULES	12
4.1	OVERVIEW	12
4.2	CONNECTIVITY.....	12
4.3	PROGRAMMING OVERVIEW	12
5	KEYPAD MODULE	13
5.1	OVERVIEW	13
5.2	CONNECTIVITY.....	13
5.3	PROGRAMMING	13
5.4	OPERATION	13
6	DOOR ENTRY SYSTEM OPERATION	14
6.1	SIGNALLING OVERVIEW.....	14
6.2	MODE OF OPERATION	15
6.2.1	Visitor access	15
6.2.2	Staff access.....	15
6.2.3	Day & Night/Groups	15
7	PARAMETER PROGRAMMING	16
7.1	PROGRAMMING WITH PHONE	16
7.1.1	Entry into the programming	16
7.1.2	Parameter programming.....	16
7.2	PROGRAMMING WITH A PC.....	16
8	DESCRIPTION OF PROGRAMMABLE PARAMETERS	17
8.1	DIRECT DIALLING – MEMORY	17
8.2	RELAYS	18
8.3	BASIC PARAMETERS	20
8.4	TIME PARAMETERS	22
8.5	SYSTEM PARAMETERS	25
8.6	PARAMETER SETTING HANDS FREE	26
8.7	TIME PROGRAMME – AUTOMATIC SWITCH DAY/NIGHT AVS	29
8.8	BASIC SETTING AND DELETION	30
8.9	END OF PROGRAMMING	30

9	TECHNICAL PARAMETERS.....	31
9.1	ELECTRICAL PARAMETERS.....	31
9.2	MECHANICAL DIMENSIONS.....	31

1 Introduction

1.1 Features

Thank you for purchasing this Ulydor product.

This new range is a continuation of the popular 'Standard' and 'Anti-Vandal' range of Ulydor products and has been designed to add extra functionality whilst maintaining many of the programming parameters that are familiar to existing users.

As with the previous Ulydor versions, the modular system is built by starting with a Zero, One or Two button controller and adding extra modules to suit your requirements.

It is now possible to extend the controller with anything from 4 to 99 buttons.

Basic functions of the new AVS line

- ❖ Continues the modular approach allowing for easy customisation and expansion
- ❖ Switchable LED backlit name tags
- ❖ Two independent relays with 8 setting regimes for an additional bell, gradual door opening etc.
- ❖ Electronic volume control without the need to open the front cover
- ❖ Programmable tone detection for call disconnection or repeat calls
- ❖ Integrated real time clock for automatic day/night switching (AVS)
- ❖ Programming via phone using DTMF tones or software using Kalika USB2PC cable (available separately)
- ❖ 24 digit telephone numbers including * # Flash and Pause
- ❖ Voice communication is powered from a telephone line
- ❖ Impulse and tone (DTMF) options
- ❖ Option to prolong a call with * or #
- ❖ Option to connect two independent locks to open doors
- ❖ Two codes to disconnect the Door Entry System from a phone
- ❖ Two codes to open doors from the phone for 1-impulse and two codes for 2-impulse
- ❖ 3 x 6 code locks for each relay (password from door buttons)
- ❖ Option to connect an exit button
- ❖ Option to disconnect a call by the repeated pressing of a button
- ❖ Option to switch on a 'baby call' regime (no number dialling)
- ❖ Option to switch on a regime to suppress the DTMF connection from the microphone
- ❖ Option to switch on a 'ticking' sound into a call to announce another call
- ❖ Option to switch on acoustic signalling for relay connection
- ❖ Option to set the number of rings before connecting a call
- ❖ Programmable parameters for tone options Flash length and Pause length
- ❖ Programmable parameters for acoustic signalisation
- ❖ Programmable parameters for tone detection
- ❖ Easy setting hardware with the help of a DIP switch
- ❖ Integrated regulated heating of the PCB
- ❖ Unit can be earthed for better protection against static electricity

1.2 Modules



UC0 0 Button Controller



UC1 1 Button Controller



UC2 2 Button Controller



C4 4 Button Master



M4 4 Button Slave



UCK 12 Button Keypad



IPC IP Colour Camera



LSPK Loudspeaker



BLK Blank



NNM Name & Number



RFIDL-R Standalone Prox

1.3 Enclosures and hoods

Modules are installed inside either surface or flush mount enclosures.

When installing flush mount outside, we recommend adding an exterior weather hood. Examples show AVS enclosures



Surface mount enclosure



Flush mount enclosure



Exterior weather hood

1.4 Accessories



LIK-EX-M
Mag lock kit for external door



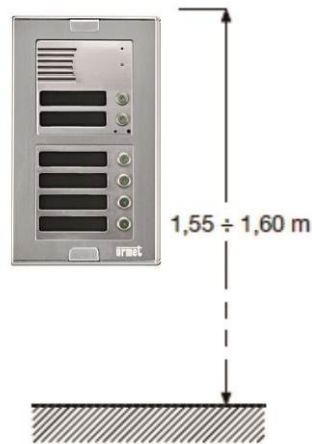
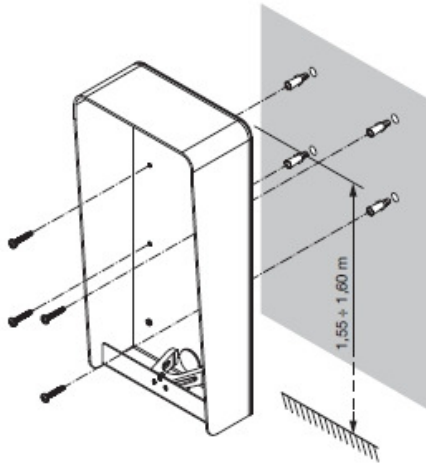
LIK-INT-M
Mag lock kit for external door



USB2PC
USB Programming lead

2 Mechanical Installation

2.1 Surface mount enclosure fitment



Screw the surface mount box to the wall with the provided screws and plugs as shown with the top of the enclosure being between 1.55m and 1.60m from ground level.

Tip: For additional weatherproofing we recommend a bead of silicon be applied to the left, top and right edges of the enclosure where it meets the wall.

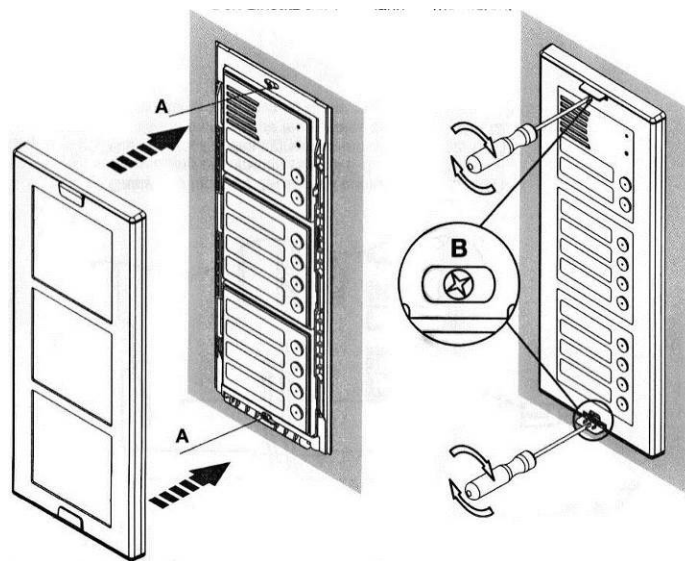
2.2 Flush mount enclosure fitment

Flush mount enclosures are made up of back boxes that are fixed into the wall/cavity with the front edge slightly under the surface. The module mounting frame is then screwed to the back box with the cover frame attached to it completing the assembly.

Note: When fitted outside, we recommend fitting an exterior weather hood between the back box and module mounting frame.

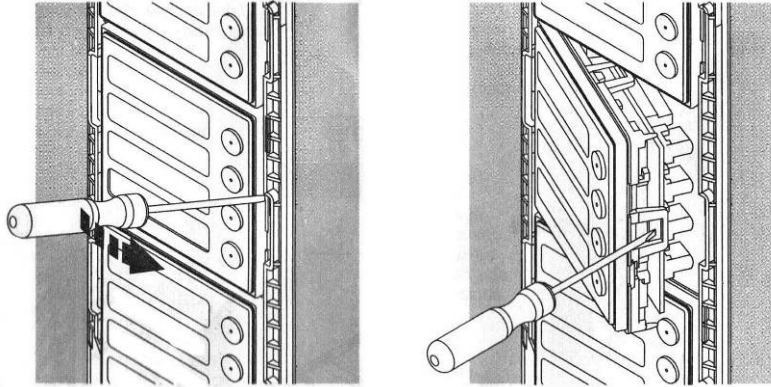
2.3 Module mounting frame assembly

The bottom part of the module frame is hinged to allow easy access to the modules. Screw on the bottom part of the frame through the hinge noting the orientation. The top of the module mounting frame is affixed with one screw.



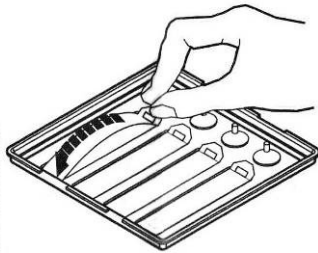
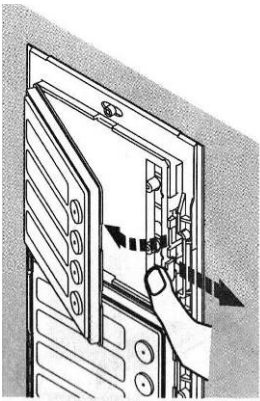
2.4 Module fitment and removal

Refer to Electrical Connection section for recommended fitting order of modules



Note: Take care when inserting and removing modules so as to avoid damage to their alignment pins on each corner.

2.5 Name tag fitment

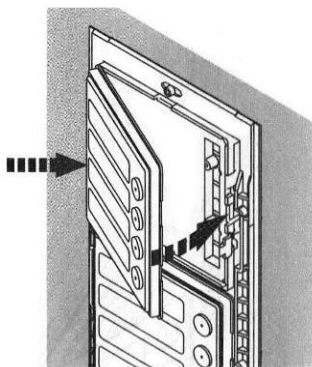


There are 2 lugs on the right side of each module. Gently pull the lugs back and lift the front cover off as shown.

Paper tags are held to the front panel with a plastic holder. Use the clear plastic holder if you are using back lighting to illuminate the tag.

The tag dimensions are 55 x 14.5 mm.

Tip: A Dymo Label maker is ideal for creating neat professional tags www.dymo.co.uk

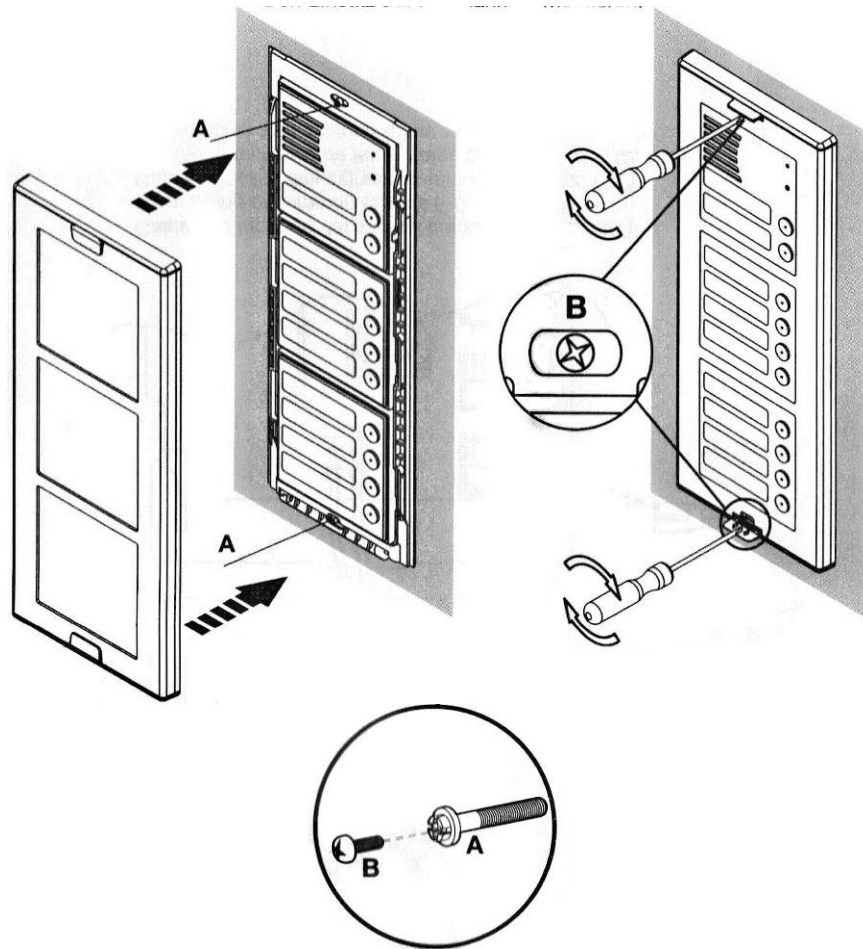


To replace the front cover, reverse the removal procedure, being careful to insert the two locating lugs on the left correctly.

Note: Be careful of the rubber seal of the microphone when changing the name tags on the controller module as improper assembly may affect the acoustics.

2.6 Cover frame fitment and removal

The cover frame is affixed and removed with 2 x supplied screws (B) as shown that screw into the head of the module frame screw (A).



Tip: Ensure correct alignment of screw (B) before tightening to avoid stripping the thread.

3 Control modules

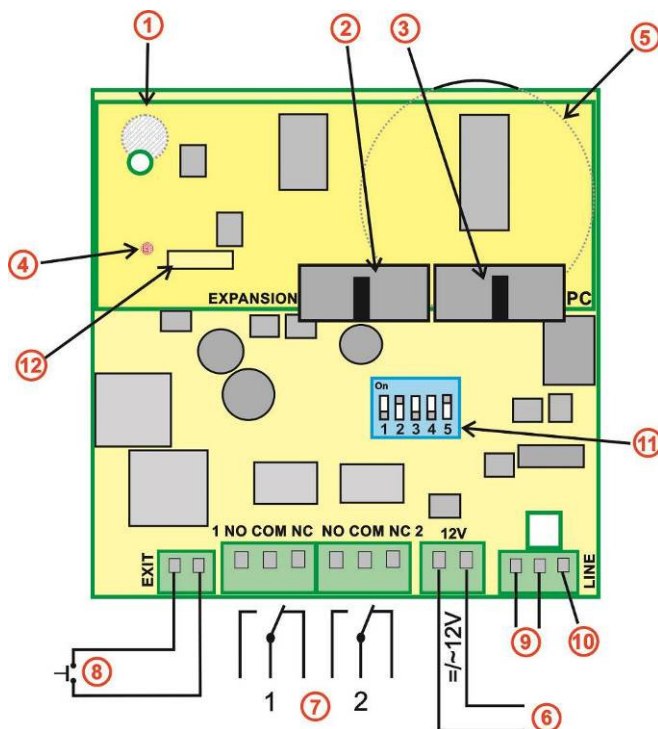
3.1 Overview

There are three types of control module, one of which MUST be chosen for each installation:

- **UC0** – Zero button control module
- **UC1** – One button control module
- **UC2** – Two button control module

3.2 Connectivity

1. Microphone
2. Expansion connection for additional modules
3. PC Connection for programming/upgrading via software using USB2PC cable
4. LED indicator
5. Speaker
6. Power connection 11-24V DC or 10-18V AC (the polarity is not important)
7. Relay connections - Galvanically isolated, load is max. 48V, max. 1,5A
8. Exit button connection
9. Analogue telephone line connection (the polarity is not important)
10. Earth connection - Protects door entry and phone system from static electricity
11. DIP switch
12. DIP switch



DIP switch settings:

1. **Service** – for use when the programming code is forgotten. Forces incoming call into programming mode where a new code can be set. MUST be switched off again for normal operation
2. **Motherboard Heating** – Helps prevent condensation build-up during changeable temperatures
3. **Internal power supply** - Always 3 and 4 together
4. **Internal power supply** - Always 3 and 4 together
Power supply is used from terminal 12V (6) and is used for 2 reasons:
 - ❖ When using Relay regime 7 or 8 Constant connection or disconnection of a relay is possible only with internal power supply. Don't forget to also set parameter 64.
 - ❖ Connection of the door entry system to the phone line switchboard that has problem with power supply after switching on (Siemens)
 - ❖ For powering exit button circuit
5. **Back lighting On/Off**

3.2.1 Power

The 12V power supply can be 10-18V AC or 11-24V DC. **Polarity is unimportant.**

The maximum load from a 12V supply is 250mA.

It is possible to use the same power supply to power up an electronic lock, but it is recommended that 12V/1A is used such as the Kalika PSU/3-1.

Supply voltage on the terminal (6) is necessary for the following functions:

- Relay control
- Motherboard heating - DIP 2 switches on, regulation of current according to voltage and temperature
- Name tag back lighting (DIP 5 switches on)
- Internal power supply of door entry system electronics (DIP 3 & 4) for relay regimes 7 and 8 (parameter 64) and Powering up the exit button circuit

3.2.2 Exit button

The exit button is used for relay control. On each relay it is possible to set up a switch on one or on two impulses. A 12V power supply must be connected to the terminal (6).

3.2.3 Expansion peripheral Component Interconnect (PCI) for extra buttons & keypad

This PCI enables you to connect additional buttons (up to 99) including a keypad. As well as data, the PCI is also used to supply the additional modules with power for backlighting.

3.2.4 Analogue line connectivity

The basic function (connection and disconnection of a call) only requires an analogue telephone line connection connected to terminal (9). The polarity of the phone line is unimportant.



Parallel connection with another door entry system or phone is NOT recommended

3.2.5 Relays

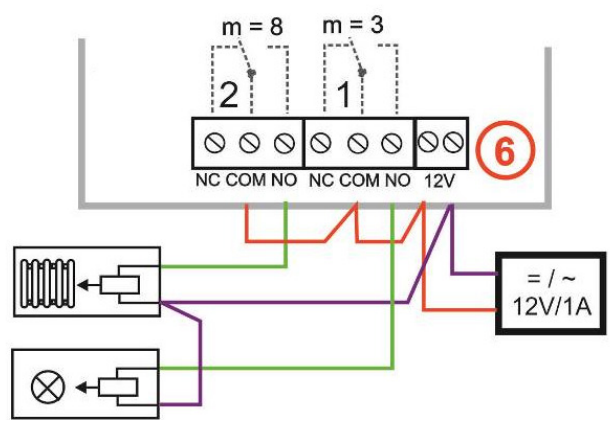
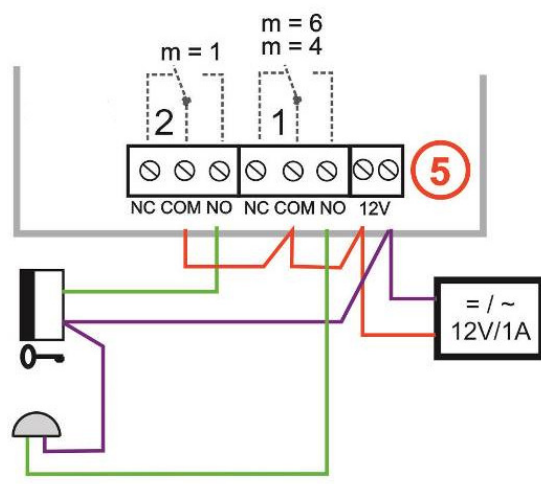
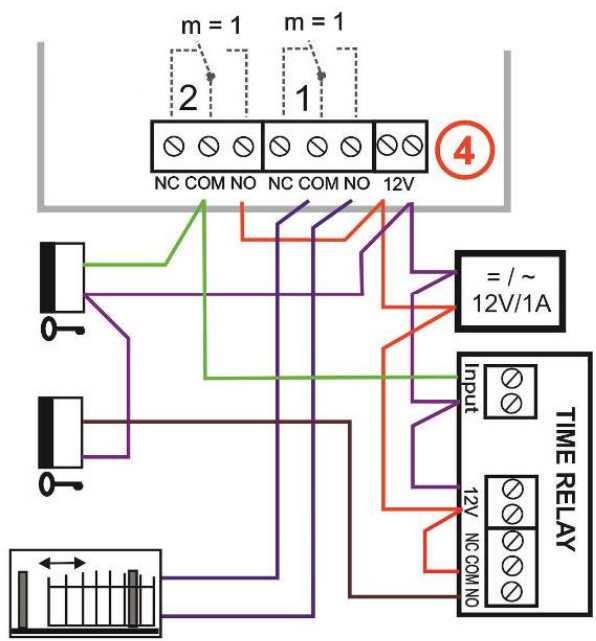
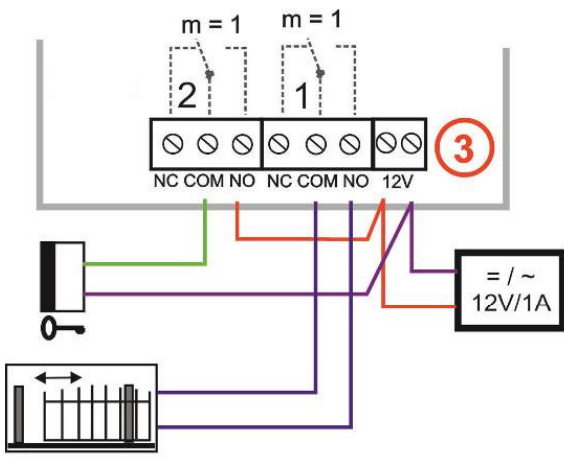
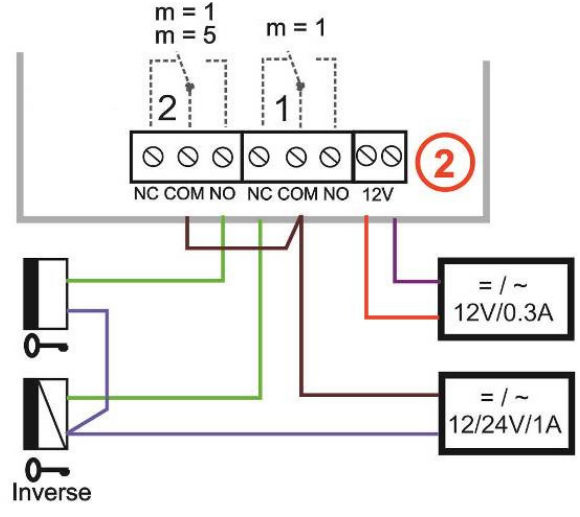
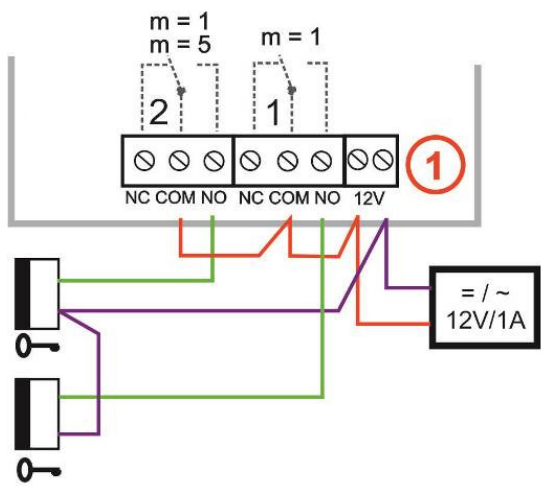
You will need to connect a 12V power supply to terminal (6) for the relays to function correctly. The door entry system is designed so that all parts are galvanically separated to avoid interaction between the telephone line and power supply circuit.

Examples of relay connection are shown on the following page.

This is not an exhaustive list of possible connections but they illustrate how to connect each circuit

1. Basic connection – 2 electric locks and the potential to control two doors independently (relay regime 1 and 2 m=1) or the gradual opening of a door (relay regime 2 - m=5)
2. Two sources – the potential to use two power sources, one for the Ulydor and a second for an electric lock. Electric lock 2 is connected inversely (i.e. emergency fire door).
3. Combination of a door with an electric lock and a sliding gate.
4. Extends the previous example to two doors with gradual opening (this function is set in Time Relay - external module).
5. Combination of an electrical lock and an add-on bell. The relay for an add-on bell can be in regime m=4 (each button switches on for a set length of time) or in regime m=6 (switches on from one pre-set button for a set length of time).
6. Light switch m=3 (i.e. lighting to the building) with relay 1. Relay 2 – controls, for example, heating according to day/night regime m=8. It requires an external power supply (DIP 3 and 4) and would require a contactor (Ulydor **cannot** switch 230V!).

Further programming instructions can be found in the section 7 of this manual.



⚠ Under no circumstances use 120V or 230V direct current (DC)!
 This can be solved by the use of contactors (power relays) as per example 6

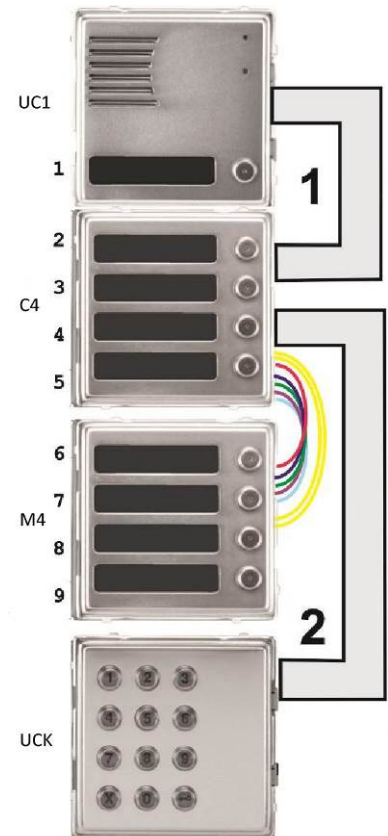
4 Button modules

4.1 Overview

There are two types of four button extension module:

- C4 - **Master module**
 - M4 - **Slave module**
- ❖ The C4 module has an eight button capacity but only has four *physical* buttons fitted. These four additional physical buttons are provided by the M4 module below it
 - ❖ M4 modules **MUST** be hardwired to C4 modules and will not function in isolation
 - ❖ To maintain correct button order, an M4 **MUST** be placed between two C4 modules e.g. C4, M4, C4, M4, C4 etc.
 - ❖ Control modules are always at the start of a Data Bus that communicates with any C4 or single UCK modules fitted
This is achieved using a flat cable which also carries the voltage for backlighting
 - ❖ Every C4 and UCK module fitted to the control module has a sequential 'position' on the Data Bus
 - ❖ When a UCK is fitted, the 'position' it occupies is required when programming the control module

The image shows the correct order of modules. Note that the UCK occupies position 2 and the C4, being first in the Data Bus, occupies position 1.



4.2 Connectivity

The image below illustrates the connectivity between a C4 and M4 viewed from the rear of the modules.

4.3 Programming overview

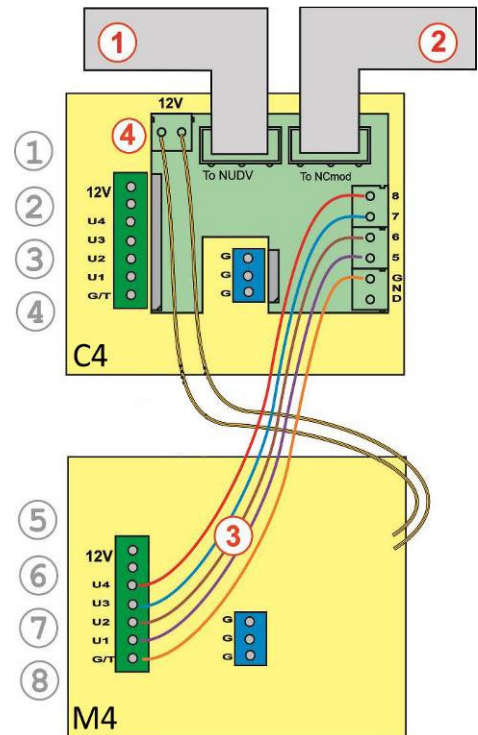
Programming each button is achieved by one of two methods:

1. Dialling into the control module and programming via DTMF tones
2. Connecting a USB2PC cable to the control module's PC connector and programming via software

Tip: The buttons on a button module can be used as an access code without a UCK keypad being fitted.

- ❖ Count the number of buttons physically fitted including those on the control module e.g. 5
- ❖ Create an access code up to 6 digits long containing any combination of the number of physical buttons fitted e.g. 135421 or 5511
- ❖ Enter the access code by pressing the buttons in the correct order

Further programming instructions can be found in the section 7 of this manual.



5 Keypad module

5.1 Overview

The keypad module has two modes of operation:

- PIN codes for access/activation
- Direct Dial or Memory Dial
 - ❖ **Direct Dial** - Behaves like a normal telephone by typing numbers directly into the keypad
 - ❖ **Memory Dial** – Will dial any pre-programmed telephone number stored using a two digit code from 01-99 which represents the number of available buttons on the system, regardless of the number of *physical* buttons installed

5.2 Connectivity



- ❖ The keypad is connected either directly to a control module or a C4 AVS. This is achieved using a flat cable which also carries the voltage for backlighting
- ❖ The keypad module can have 58 *physical* buttons connected before it and can be extended beyond to a maximum of 99

5.3 Programming

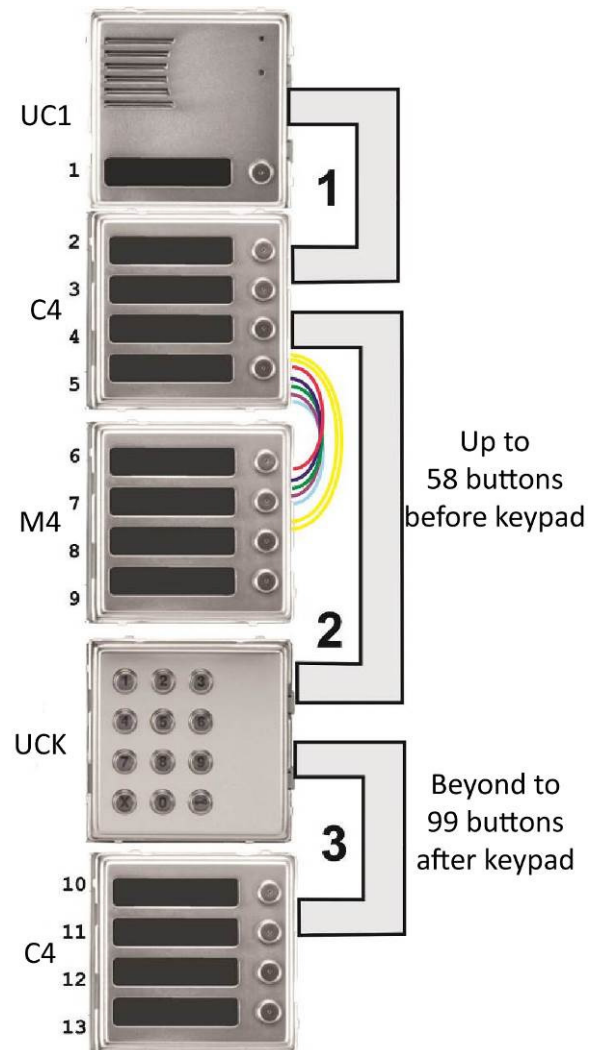
Programming the keypad is achieved by one of two methods:

1. Dialling into the control module and programming via DTMF tones
 2. Connecting a USB2PC cable to the control module's PC connector and programming via software
- ❖ The position in the data bus that the UCK AVS occupies **MUST** be programmed into the control module - Parameter **48**
 - ❖ By default, the keypad is set to Direct dial but can be changed to memory dial – Parameter **49**
 - ❖ Access codes can be programmed into the keypad to allow various options for coded entry – Parameters **32,33 & 34**

5.4 Operation

- ❖  Press the key button followed by the access code/s you have programmed
- ❖  Press the X button to terminate the call or cancel process

Further programming instructions can be found in the section 7 of this manual.



6 Door Entry System Operation

The Ulydor entry system's functions are set by establishing parameters (see section 7 of this manual).

6.1 Signalling overview

It's useful to know what tones the Ulydor plays during installation to assist in the analysis of its state and operation. The sounds can be turned off in several levels using parameters 61,62,63 and 65.

The table below shows the acoustic signals that occur during operation. Samples of these sounds can be listened to in the setting programme 'UlySet' or from www.kalika.co.uk

State	Tones	Tone frequency
Pick up line type 1		980-1333-1650
Disconnection of line type 1		1650-1333-980
Pick up line type 2		800-1067-1200-1333
Disconnection of line type 2		1333-1200-1067-800
Confirmation of command from the phone		800
Ticking during a call		
Notice about the end of a call		1333
Relay switch signal		Modulated
Entry into programming from the phone		980-1067-1180
Programming from the phone		Modulated
Parameter confirmation		800
Entry into programming from the PC		980-1067-1180
Line connection (Reset)		1850-1067-1850
Error (generally something is not right)		800
Empty memory (no number is programmed)		1300-2100

6.2 Mode of operation

6.2.1 Visitor access

Once installed and configured, the basic operation of the Ulydor is very simple and straight forward.

- Visitors arrive and press the button on the Ulydor that corresponds to the company or person on the name tag
- A call is then placed based on the telephone number programmed for that button
- The recipient's phone/s ring and are answered
- The visitor and the recipient have a conversation and if the Ulydor unit is setup to enable remote access, a two digit number can be pressed on the recipient's phone to allow entry otherwise the recipient hangs up
- The call is terminated at the Ulydor unit
- The visitor enters through the now unlocked or opening gate

6.2.2 Staff access

If the Ulydor unit is setup and wired to enable remote access through a locked door or gate, staff members can gain access using either the UCK AVS keypad, RFIDU-R AVS standalone proximity reader or third party proximity reader mounted behind an RFIDL-H AVS connected to an access control system e.g. Paxton. It is also possible to dial in to the Ulydor unit and remotely activate relays to unlock doors, gates etc. via DTMF tones.

- Via UCK AVS Keypad – Staff member presses key button followed by one of the programmed access codes
- Via RFIDL-R AVS Standalone Proximity Reader - Staff member presents a valid fob to the reader
- Via third-party access control system e.g. Paxton - Staff member presents a valid fob to the reader mounted behind RFIDL-H AVS reader housing module

6.2.3 Day & Night/Groups

Telephone numbers and access codes can be programmed into Day and Night modes of the Ulydor unit.

If the unit is in Day mode, the telephone numbers and access codes for Day mode only will work.

If the unit is in Night mode, the telephone numbers and access codes for Night mode only will work.

The Ulydor unit can be switched between Day and night modes manually or automatically according to schedules set in the programming parameters.

It is also possible to utilise the Groups function of Ulydor where the number programmed for Day mode is called first followed by the Night number if the first is busy or unanswered.

Tip: *If you do not intend to use the Day & Night/Groups feature - i.e. you will let the PBX phone system manage the calls - we recommend that Day & Night modes for each button are programmed with the same number/hunt group so that in the event of an accidental switch between modes, the Ulydor will continue to call a valid number/hunt group.*

Use only parameter 32 only when setting access codes to avoid issues if the unit is accidentally switched between modes.

7 Parameter programming

7.1 Programming with phone

7.1.1 Entry into the programming

There are two ways to enter the Ulydor programming mode:

1. **With the help of a password** - Pick up a phone and dial the number that the Ulydor is connected to (*either the extension number if you are connected to a PBX, or the direct number of the line if it is connected to GSM gateway or BT PSTN line for example*). Ulydor will answer and you will hear the pick-up tone – see chapter 6.1 page 14). Within 10 seconds press '#xxxx', where xxx is the service password to enter programming mode *Default = 0000*. You will hear a pick-up tone immediately followed by a programming tone (see chapter 6.1 page.14).
2. **With the help of DIP 1 "SERVICE"** – If the programming password has been changed from its default setting of 0000 and is not known or forgotten, you can force Ulydor into programming mode:
 - ❖ Move switch 1 of the DIP switch pack to ON
 - ❖ Dial into Ulydor as in part 1 above
 - ❖ Ulydor will go straight to programming mode – you will hear the pick-up tone followed immediately by the programming tone (see chapter 6.1 page.14)
 - ❖ You can now program Ulydor in the usual fashion including changing the service password
 - ❖ When programming is finished, press 9 to terminate call
 - ❖ **IMPORTANT!** Move switch 1 of the DIP switch pack to OFF position when programming is complete

7.1.2 Parameter programming

The default state for programming is announced with a programming tone, the Ulydor always returns to this state after a specified time (5sec), whether you started programming or not.

There are two types of parameters used during programming:

- ❖ **Fixed length** – An immediate confirmation tone is heard when a parameter with a fixed length is entered
- ❖ **Variable length** – A confirmation tone is only heard after a time of inaction (5 sec). For example, in the case of a telephone number or access code being entered that has less digits than the maximum permissible length, Ulydor will wait for a period of inactivity before committing it to memory. If the maximum permissible length is reached, a confirmation tone will be heard immediately. For dialling parameters 1 and 2 the maximum length is 24, for access code parameters 32,33,34 it is 6.

If you input a number (sign) that is unacceptable during the programming, Ulydor immediately sends an error tone, the parameter is not committed and Ulydor reverts to a default state where it is possible to either repeat the programming parameter or start programming a different parameter.

Ulydor will automatically disconnect from programming mode after a 30 second period of inaction. With each DTMF tone dialled the time will always reset to 30 sec. It is also possible to end the programming mode by pressing 9.

Tip: *If you want to keep a connection opened during the programming (prolong the 30 sec time) mode (i.e. before a customer decides what else he wants to be set) then you can press * or #, the Ulydor immediately responds with an error tone but will prolong the time before disconnecting.*

7.2 Programming with a PC

To program Ulydor with a PC you will need a USB2PC lead (available separately).

- ❖ Connect the USB2PC to your PC and install the latest driver for your operating system
- ❖ Install the latest version of Ulyset on your PC
- ❖ Connect Ulydor to a telephone line or to a 12V power supply with DIP 3 & 4 switched on
- ❖ Connect the USB2PC lead to the PC socket of Ulydor. It will pick up a line and within 3 seconds a tone for programming entry will be heard (see chapter 6.1 Page.14).
- ❖ Run Ulyset software. Connection between the Ulydor and the program is indicated by the firmware on the bottom edge and a time on the upper left. If you lose connection, you will need to reconnect the USB cable
- ❖ For ease of programming, the parameters in the software are marked with the same codes as per the phone programming.

The details about parameter setting can be found in 'help' of the program and also at www.kalika.co.uk

8 Description of programmable parameters

Parameters always start with a fixed/mandatory part (address) followed by a variable part, which is your choice. The range and explanation is always under the table, sometimes with examples. Everything is dialled exactly as it is shown in the table, nothing needs to be confirmed in any way, after writing into a memory a confirmation tone can be heard and if an incorrect value is input then an error tone will be heard.

8.1 Direct dialling – memory

Parameter	Value	Meaning	Basic
1	tt nn...	number nn under button tt	-

tt = Button number (memory), always input 2 digits [01-99]

nn = Telephone number as long as 24 digits that are to be saved. For saving of other sign choices always use the assignment as per the table.

Numbers saved in parameter 1 are numbers of the **first group**, or numbers of the regime **Day**.

Basic settings never change or delete these saved numbers.

meaning	choice
0 - 9	0 - 9
#	#
*	**
Flash	* #
Pause	* 0

Parameter	Value	Meaning	Basic
2	tt nn...	number nn under button tt	-

tt = Button number (memory), always input 2 digits [01-99]

nn = Telephone number as long as 24 digits that are to be saved. For saving of other sign choices always use the assignment as per the table.

Numbers saved in parameter 2 are numbers of the **second group**, or numbers of the regime **Night**.

Basic settings never change or delete these saved numbers.

meaning	choice
0 - 9	0 - 9
#	#
*	**
Flash	* #
Pause	* 0

Note. The Day/Night regime switch over remains set in the Ulydor even after a line disconnection, in version (C) this regime switches over according to actual time (if this function is on – parameter 084)

Examples of setting:

1. first button is supposed to dial 358 during the day and 0603441296 during the night, then the programming is - 101358 and wait for 🎵 , then 2010 *0 603441296 and wait for 🎵
2. second button is supposed to dial 123#1*2Flash3 during day and night, then the programming is 102123#1 ** 2 *# 3 and wait for 🎵 , then 202123#1 ** 2 *# 3 and wait for 🎵

Note. If you are not using regime Day/night or regime 2 groups of numbers, then it is recommended to set regime Day/Night (parameter 47) and then set the same code for switching over Day/Night (parameters 45 and 46). His way it is guaranteed that Ulydor will always be in Day regime and you can only program telephone numbers for the day regime (parameter 1).

8.2 Relays

Parameter	Value	Meaning	Basic
31	r m	relay r operates in mode m (1-8)	11 21

r = Relay number [1-2]

m = Relay mode [1-8 for r=1 is not regime m=5]

regimes **m=1, 4, 5, 6** are explained in detail in Relay Regimes **Error! Reference source not found.** on page **Error! Bookmark not defined.**

m=1 mode **relay** – switched on with command (internal code) or with a password (external) 1 impulse for length of time t1/t4 (use for electric locks) or 2 impulses when it switches on for time t1/t4, off for t2/t5 and again switches on for t1/t4 (opening of sliding gates).

m=2 is switched on for time when the line is picked up (**camera**) – switches on when system picks up and off when it disconnects.

m=3 is switched on for time when the line is picked up and extra time t1/t4 after disconnection (**lights**) - switches on for time when the line is picked up and extra time t1/t4 after disconnection (for this time the line is busy, with version **(C)** is after switching DIP 3, 4 and setting of *parameter 64* line after t1/t4 disconnected)

m=4 regime **button** – switched on when any button m is pressed and off after t1/t4 (use is for example connection of external bell or siren)

m=5 regime **gradual opening** – into this regime it is possible to set only relay 2, because relay 1 will then automatically be set to m=1. With command (internal code) or password (external code) relay 1 is activated for length of time t1, then time t3 is running before relay 2 is switched, then relay 2 is activated for time t4 and after the system disconnects. If given command or password answers to 2 impulses then in the sequence there will be always 2 impulses separated by time t2/t5. Explanation is in Tab.1.

Note. Command or password for relay 1 starts the whole sequence, if you use command or password for relay 2 then only relay 2 is controlled in the same way as in regime m=1.

m=6 switches on depending on pressed button (it is set in parameter 31r*). In this way it is possible to choose only **one button** for each relay, which when pressed switches on relay for time t1/t4. This regime is used instead of connecting separate doorbell to the system.

m=7 **permanent switch on / off** – only for version **(C)** for switching (DIP 3, 4). With command for 1 impulse it is switched on, for impulse 2 is off. The system remembers its state even after the line is disconnected. This regime is used for watering, green house opening, switching on heating etc.

m=8 switching **depends on setting Day/Night** – only for version **(C)** for switching (DIP 3, 4). Version **(LC)** enables only copying of manual switching Day/Night, but version **(C)** enables copying of times from the weekly table (if it is on - *parameter 084*) and it is possible to use it for example switching on heating etc.

Parameter	Value	Meaning	Basic
30	r zz	time zz [sec] between impulses for switching on relay r 2 impulses- time t2/t5 (01-99)	105 205

r – relay number [1-2]

zz – time t2 / t5 between first and second impulse for switching on relay 1 / 2 [2 spaces 00-99], where time 00 means 0,5sec

Parameter	Value	Meaning	Basic
31	r* tt	button tt switches on relay r in regime m=6 (01-99)	01

r – relay number [1-2]

tt – button number (memory), always in two digits [01-99]

This parameter is only for relay regime m=6. Value tt determines which button starts switching on for time t1/t4 of relay r.

Parameter	Value	Meaning	Basic
32	rp hh...	In regime Day + Night password hh... for relay r , in order p=1-5 for 1 impulse and p=* for 2 impulses (00-999999)	-
33	rp hh...	In regime Day password hh... for relay r , in order p=1-5 for 1 impulse and p=* for 2 impulses (00-999999)	-
34	rp hh...	In regime Night password hh... for relay r , in order p=1-5 for 1 impulse and p=* for 2 impulses (00-999999)	-

- r** – relay number [1-2]
p – order [1 - 5] for 1 impulse. 5 passwords (external codes) from Ulydor's buttons (external code of code lock)
p – order = * to set password (external code) for 2 impulses
hh... – password (external code) for relay switching on from button or keypad [2 to 6 places]. Buttons 1 - 10 are programmed as numbers 1-0.

All together 3x12 passwords, depending on the Day/Night setting, combinations are be input either with the help of the buttons (first 10) or from the connected keypad (after pressing the key sign). Switching on a relay is affected by the relay **regime** and the choice **Day/Night**, if the regime **2 groups of numbers** is set, the system is constantly in regime **DAY**.

There are several rules that need to be followed when setting a password:

- Choose the first button of password from buttons that are the least used for direct dialling (-prolonging time) (n/a for keypad).
- Be mindful about conformity of numbers (i.e. when 1 password contains another for example for relay 1 it is 1234 and for relay 2 12345) as the first password will start the action once button 4 is pressed and you will never be able to input button 5 to start action for password 2, and if you choose 234 for a second relay, then after pressing 4 both relays will start.

Note. When setting parameter **32,33,34** signs # and * are not used because they are not on the button panel, number 0 represents button no. 10.

Parameter	Value	Meaning	Basic
35	r aa	command aa from phone for switching relay r 1 impulse (00-99,*0-*9)	155 266

- r** – relay number [1-2]
aa – command (internal code) for switching on the relay from the phone [2 spaces]¹

To set the same commands for both relays (internal code) so that both relays activate at the same time. It is also recommended that the same command is set for 'relay on' and 'command to disconnection of system (*parameter 43*) **aa=bb**.

¹ – command is always 2 digits, but if you wish to control relay with a single digit from the phone, there is an option to input "***a**", where **a** is a single number and the star represents an empty space and must be in the first place.

Example:

- 1 relay switch on internal code 48 – is programmed **35148** 🎵
- 2 relay switch on internal code 8 - is programmed **352*8** 🎵

By choosing no 8 on the phone we switch on just the second relay, with option 48 we switch on both relays

Parameter	Value	Meaning	Basic
36	r cc	command aa from phone for switching relay r 2 impulses (00-99,*0-*9)	150 260

- r** – relay number [1-2]
cc – command (internal code) for switching on the relay from the phone [2 spaces]¹

To set the same command for both relays (internal code) so that both relays activate at the same time

¹ – command is always 2 digits, but if you wish to control relay with a single digit from the phone, there is an option to input "***a**", where **a** is a single number and the star represents an empty space and must be in the first place.

Switching a relay on with 2-impulses is used for sliding gates replacing a gate entry.

Example:

Command for switching on 2 relays 1 impulse is for example ***8**, the command for disconnection is ***8** and the command for switching on 2 relays 2 impulses is ***9**.

Programming: **352*8** 🎵 , **432*8** 🎵 , **362*9** 🎵 .

If you are in conversation with the Ulydor, the command to open a gate would be button **9**, the first impulse starts and the gate opens, the second impulse stops it, the time the gate is opened "opened space" is set by time between the impulses (*parameter 30*) after people enter press **8**, then Ulydor makes 1 impulse and disconnects, gate closes.

Parameter	Value	Meaning	Basic
37	r ss	time ss [sec] of relay r on for time t1/t4 (01-99)	105 205

r – relay number [1-2]

ss – time **t1 / t4** for which relay 1 / 2 is switched on [2 spaces 00-99], where time 00 means 0,5sec

Parameter	Value	Meaning	Basic
38	r p	relay r control during incoming call (0/1)	11 21

r – relay number [1-2]

p – parameter whether it is allowed **p=1** or disallowed **p=0** to control relay during incoming call.

To prohibit 'control' during an incoming call, for use with relay 2 in mode 1 for controlling a garage door, so the electronics open the garage door and the car passing through the door, closes the door. Then control from the phone could result in a permanently opened door (i.e. the door doesn't close because car didn't enter).

Parameter	Value	Meaning	Basic
39	xx	time xx [sec] between switching on relays 1 and 2 in regime m=5 - time t3 (01-99)	10

xx – time **t3** between switching on relays 1 and 2 when regime **m=5** is set (gradual opening) [2 spaces 00-99] , where time 00 means 0,5sec

Parameter	Value	Meaning	Basic
3*	r e	Exit button for relay r (0/1/2)	10 20

r = Relay number [1-2]

e = Exit button regime: **e=0** - off, **e=1** – on for 1 impulse, **e=2** – on for 2 impulses

8.3 Basic parameters

Parameter	Value	Meaning	Basic
41	v	Type of choice v – time/impulse (0/1)	0

v – type of choice **v=0** is DTMF tone choice, **v=1** is impulse choice

Parameter	Value	Meaning	Basic
42	z	Sign for call prolonging (* / #)	*

z – sign for prolonging a call * or # (10 Seconds before the end of the call the Ulydor sends signal, after pressing this the Ulydor prolongs the call)

Parameter	Value	Meaning	Basic
43	g bb	Command for disconnecting Ulydor from the phone (00-99,*0-*9)	155 266

g – Command order [1-2] (there are 2 to disconnect the Ulydor from both relays)

bb – Command for disconnecting the Ulydor from the phone [2 spaces]

^{/1} It is advantageous to set the same command for relay switching on (*parameter 35,36*) and command for the Ulydor disconnection **aa=bb** or **aa=cc**.

^{/1} – command is always 2 digits, but if you wish to control relay with a single digit from the phone, there is an option to input "***a**", where **a** is a single number and the star represents an empty space and must be in the first place (e.g. at *parameters 35,36*).

Parameter	Value	Meaning	Basic
44	xxxx	Service password (0000-9999)	0000

xxxx – service password to program from a phone (DTMF)



If you forget the password, the following procedure is recommended:

1. Open the Ulydor front cover;
2. Switch 'DIP 1' to 'ON';
3. Call the Ulydor;
4. Once the Ulydor picks up the system is in programming regime. In this regime it is possible to change the password 44xxxx;
5. Switch 'DIP 1' to 'OFF'; and
6. Close the front cover.

Parameter	Value	Meaning	Basic
45	dd	Command for switch over to DAY (00-99,*0-*9)	11
46	nn	Command for switchover to NIGHT (0099,*0-*9)	10

Dd command to switch over to the **DAY** regime [2 spaces] /¹

Nn command to switch over to the **NIGHT** regime [2 spaces] /¹

/¹ command is always 2 digits, but if you wish to switch over from Day to Night with a single digit from the phone, there is an option to input "***a**", where **a** is a single number and the star represents an empty space and must be in the first place (e.g. parameters 35,36)

Note. The Day/Night switch over regime stays set following line disconnection.

Parameter	Value	Meaning	Basic
47	e	Regime system choice (0/1)	1

e – Choice of regime numbers; **e=0** selects numbers from first and second group, **e=1** selects numbers in accordance with the **Day/Night** regime.



WARNING !! setting this parameter materially affects the number dialling!

Parameter	Value	Meaning	Basic
48	c	Keypad connection (0-8)	0

c – **c=0** connecting the NC-mod to the basic module only

c=1 - 8 keypad connected to the first to eight place

If the parameter is **48=0**, all the buttons (including the keypad if connected) connected to the basic module behave like normal buttons and the first 10 buttons can be used as a lock for a code.



WARNING !! setting this parameter materially affects whole systems function!

Parameter	Value	Meaning	Basic
49	o	Regime keypad (0/1)	0

o – **o=0** choses a number like a phone (input the whole number)



o=1 input a 2 digit number (memory) on the keypad, where the number is saved into the memory (the memory number is the same as button number and respects Day/Night switch over – numbers 01 - 99)




WARNING !! setting this parameter materially affects keypad function!

Parameter	Value	Meaning	Basic
40	d	Choses DTMF from the keypad during a call (0-3)	0

- d – d=0 during a call it is **not** possible to dial DTMF from the keypad
- d=1 DTMF can be dialled, the Key button dials *
- d=2 DTMF can be dialled, the Key button dials #
- d=3 DTMF can be dialled, the Key button dials A


You can set the DTMF dialling option with parameter 40 during a phone call. Because on the keypad the button  is used purely for disconnection and cancelling, you can set option * / # under button  for parameter 40.

parameter 40 – choses the DTMF from the keypad during a call.

Parameter value 40	Meaning of symbol 
0	No DTMF from the keypad
1	DTMF *
2	DTMF #

Parameter	Value	Meaning	Basic
4*	k	Line disconnection function by repeatedly pressing a button (0/1)	1

- k – Line disconnection by repeated pressing of the same number:
 - k=0 function is disabled; and
 - k=1 repeatedly pressing the same button to disconnect the line.

 **WARNING !!** setting of this parameter materially affects number dialling!

8.4 Time parameters

Parameter	Value	Meaning	Basic
51	q	Number of rings before the Ulydor picks up (1-9)	2

- q – The number of rings before an incoming call is picked up. The Ulydor picks up between rings 2 Seconds after detecting the q-th ring. It is possible to set the number of rings between 1 and 9.

Parameter	Value	Meaning	Basic
52	d	Maximum length of a call (0-9, *,#)	2

- d – The maximum length of time for which the Ulydor is busy. It is possible to prolong this time during the call by choosing a key (* or #) from the phone (*parameter 42*). The setting of this time is in accordance with the adjacent table.

Time [min]	Option
0,5	0
1 - 9	1 - 9
15	*
30	#

Parameter	Value	Meaning	Basic
53	w	Time between button presses (1-9)	2

w – maximum time [in seconds] between button presses [range 1 - 9]

- **Normal buttons**


Relay switch on – if the time between presses is longer than time w, then the code will not work correctly.

Choice of number – if the pressed button is the first number of a password to switch on a relay then the choice is delayed by time w.

- **Keypad**

Switch on Relay – if the time between presses is longer than the time w then the code will not work correctly.

Choosing of number

Choose from the phone, if the time after the last pressed button is longer than time w, then the choice commences, if the number is incomplete, it is necessary to disconnect (press the X key ) and repeat the choice

Choose from the memory, if the time after the last pressed button is longer than the time w, then the choice needs to be repeated.

Parameter	Value	Meaning	Basic
54	z	Time of disconnection for repeat dialling (1-5)	2

z – Time [Seconds] the Ulydor disconnects before it picks up again for repeat dialling (press of a button during a call, detection of busy tone) [range 1-5].

Parameter	Value	Meaning	Basic
55	z	Time before commencing a choice (1-5)	1

z – Time [sec] after the Ulydor picks up, before it commences a choice [range 1-5]. This time is different for each switchboard phone system, but generally most operate within 2 seconds after a line is picked up.

Parameter	Value	Meaning	Basic
56	hh	Number of rings before it disconnects (04-99)	12

h After the choice finishes it will start counting CRT (control ringing tones), if the number is higher than hh, then it will disconnect [range 04-99]. It repeats the choice if the regime of dialling 2 groups of numbers is set.

Parameter	Value	Meaning	Basic
500	x	Medium frequency of tone detector (1-0)	3 (375-475Hz)
501	y	Number of busy tones (2-0)	4
502	z	Time length of permanent tone (1-5)	3 (3s)

- x Medium frequency of tone detector is set if there is a non-standard signal from the telephone switchboard.
- y Minimum number of busy tones necessary for detection [2-0], where 0 means 10 busy tones.
- z Minimum length of time of a permanent tone (for detection of notification tone at branch switchboard) [1-5 sec].

frequency [Hz]	x - choice
275-375	1
325-425	2
375-475	3
425-525	4
475-575	5
525-625	6
575-675	7
625-725	8
675-775	9
725-825	0

Parameter	Value	Meaning	Basic
503	tt	Tone length of time for DTMF (tone) choice (04-16)	10 (100ms)
504	mm	Time of gap between DTMF tones (04-16)	10 (100ms)
505	f	Length of flash time (1-6)	1 (100ms)
506	p	Length of time of pause/digit gap(1-0)	4 (800ms)

- tt** Length of DTMF tone choices is specified by the formulae:
(the entered number) x 10 = time length of tone [ms]
 [range 04-16 which is 40-160ms]
- m** Length of gap between DTMF tone choices is specified by the formulae:
(the entered number) x 10 = time length of gap [ms]
 [range 04-16 which is 40-160ms]
- f** Length of flash is specified by the formulae:
the entered number x 100 = time length of flash [ms]
 [range 1-6 which is 100-600ms]
- p** Length of pause is specified by the formulae:
the entered number x 100 + 400 = time length of pause [ms]
 [range 1-0 which is 500-1400ms]
- Time **p** is the simultaneously length of gap between button taps for an impulse choice.

Parameter	Value	Meaning	Basic
507	uu	Transmit level of DTMF choice v [-dBm] (04-16)	10

- uu** Transmission level of (DTMF) choice to the line, the range is -4 to -16dBm, input the required level where uu=04 is -4dBm, uu=10 is -10dBm

Parameter	Value	Meaning	Basic
508	p	preemphasis DTMF (0/1)	0
509	s	Listening in DTMF – level (1-4)	2

- p** Preemphasis is the ratio of the upper and lower groups of DTMF frequencies. It is possible to choose ratio 2.2 dB - p=0 (Europe) or ratio 3.2dB - p=1 (Australia)
- s** Choice of **DTMF** volume levels (4 levels):

Volume in DTMF [dB]	s - choice
-15	1
-9	2
-3	3
+3	4

8.5 System parameters

Parameter	Value	Meaning	Basic
61	z	Acoustic signals (confirmation, error, empty memory, end of call) (0/1)	1

The Ulydor comes with standard acoustic signals. However, using parameter “z” it is possible to switch off the acoustic signals. The values are:

- z=0 Acoustic signals **off**; and
- z=1 Acoustic signals **on**.

Parameter	Value	Meaning	Basic
62	v	Acoustic signals introduction/conclusion (0/1/2)	1

The acoustic signals for the connection and disconnection of a line are standard, but this may cause false choices with some phone systems. So using parameter “v” it is possible to switch off these signals. The values required are:

- z=0 Introduction/conclusion signalisation is off;
- z=1 Pick up and disconnection signalisation on (intro/concl.- type1);
- z=2 Pick up and disconnection signalisation on (intro/concl.- type2).

Parameter	Value	Meaning	Basic
63	u	Acoustic ticking signal during a call (0/1)	0

Ticking during a call is switched off as standard. However, by switching it on you can differentiate on the switchboard a call from the Ulydor by a faint ticking. The values are:

- u=0 Ticking into a call is off
- u=1 Ticking into a call is on

Parameter	Value	Meaning	Basic
64	w	Internal power supply from connected supply 12V (DIP 3,4) (0/1)	0

For version (C) only.

The external power supply is turned off as standard.

You only need to turn this function on if the Ulydor is supposed to operate functions when at rest (i.e. relay control).

Relay in regime **m=7** enables permanent switch-on even after call disconnection, regime **m=8** enables switch-on depending on the Day/Nigh setting even after call disconnection. In these cases it is necessary to connect an internal power supply so that there is no current flowing through the Ulydor when the system is at rest. Switching on of this parameter **w=1** condition switching over DIP switch 3 and 4 to "on". Off - **w=0**.

Parameter	Value	Meaning	Basic
65	z	Acoustic signals for switching on a relay (0/1)	0

The signal for switching on a relay is standard, **z=0**. However, it is possible to use this function when using a uni-directional supply 12V, so when the door lock is open there is **no** buzzing so the person at the door won't know the door is open. When set to **z=1** the time the relay is switched (door open) then there is a specific sound.

Note1 This function is available only for regimes **m=1** and **m=5**

Note2 During the relay switch-on (2 impulses) there is acoustic signal for the whole time of the sequence (even during gap between impulses).

Parameter	Value	Meaning	Basic
66	i	Suppression of the reception DTMF from the microphone (0/1)	0

Suppression of the reception DTMF from the microphone is off as a default **i=0**. It is possible to open the door with a personal dialler without disturbing a person inside the building. For higher security it is possible to switch on the suppression function **i=1** and stop a person with an unauthorised copy of the DTMF code from entering.

Parameter	Value	Meaning	Basic
67	b	Baby Call – call without the need to programme a telephone number (0/1)	0

This function is turned **off** as standard **b=0**. By switching on this function **b=1** the acoustic signal for an empty memory is cancelled, so after pressing a button with an empty memory there is only a beep (confirmation) and a call is activated as if there were a number.

Warning: During the first 10 seconds of a call the tone detector is inactive (there is a pause before the switchboard responds or number dialling by the switchboard).

Parameter	Value	Meaning	Basic
68	b	Mute at the lock activated (0/1)	0

Default is off m = 0 By enabling the m = 1 mutes the acoustic path at close relay (1 or 2) in "electric lock" (modes 1 and 5). This feature is there because if you often use code lock function or exit button, so the switch-on time to hear the tone exchange. For some customers, this can be distracting.

Parameter	Value	Meaning	Basic
6#	s	Setting of the number of buttons on the main panel.	2

This constant serves a purpose to identify the no.1 button in the composition of the module. After entering the number of buttons s the button no 1 is moving so it is always first.

⚠ WARNING !! setting this parameter materially affects number dialling.

Number of buttons on the main panel	s - choice
0	0
1	1
2	2

Parameter	Value	Meaning	Basic
6*	t	Delayed start for switchboards with line testing (Siemens) (0/1)	0

This function is off as standard **t=0**. By switching this function on **t=1** the processor goes into sleep mode immediately after the line connection, and after 3 seconds the Ulydor initialises. The line connection after the power supply connection is then delayed - state switching on/restarting of the switchboard. If this function is not working and the telephone switchboard still identifies a line fault, then there is no other option but to use an internal power supply, by switching over **DIP** switch **3** and **4** to "**on**" – this is only possible with version **(C)**. This measure has the same use as the **Best Box** for older type of communicators.

8.6

Parameter setting Hands Free



First ensure that the rubber seal on the microphone fits properly, otherwise setting the acoustic parameters will be difficult.

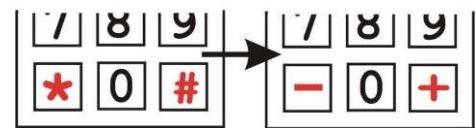
Parameter	Value	Meaning	Basic
71	gg	Reception volume 01-16 (16 is the highest) (SPK)	07
72	ff	Transmission volume 01-16 (16 is the highest) (MIC)	07
73	rr	Speaker volume 01-16 (16 is the highest) (TRH)	07

gg/ff/rr Each number is entered as 2 digits with a range 01-16. After receiving a confirmation tone 🎵 the new value is immediately active and can be tested.

Facilitation: you can also add/reduce the volume with help of buttons on the phone * = - and # = +

Stops for the maximum and minimum volume are acoustically signalled (3 tones like the signal for the end of a call). If you don't press anything for 5 seconds then the 'set value' is saved and you hear a confirmation tone 🎵.

WARNING !! Default values are set by the manufacturer and it is not recommended that you change them unless absolutely necessary.



The principle of setting acoustic paths:

Here we have three parameters 71, 72 and 73. Using the interaction of these parameters can be set to sound in different conditions.

1. quiet environment parameters 71, 72, 73 are set to 7
2. environment where there is a strong ambient noise at the communicator and quiet environment at the phone. Here it is both necessary to reduce the microphone gain (parameter 72 = 1-3) and also change the ratio of the parameters 71/73. Way 73 enlarges the parameter (parameter 73 = 11-15) and 71 parameter smaller value (71 = 2-4)
3. environment where there is a strong ambient noise at the phone and quiet environment at the communicator. Here we leave the parameter value of 72 = 7 and 73 and 71 parameters set as follows - parameter 71 = 11 to 14 and 73 = 2 to 4

The principle of setting parameters is - signal from the microphone is amplified by the sum of parameters **72+71 = volume of microphone** and signal to the speaker is amplified by the sum of parameters **71+73 = volume of speaker**. To switch the direction of the ratio is evaluated parameters (**threshold**) 73/72.

- If parameter 72 is greater than the parameter 73, thus favoring the direction from the microphone. We choose when the direction to the phone is interrupted.
- If parameter 73 greater than parameter 72, thus favored direction to the speaker. We choose this if the interrupted sound in the speaker of communicator.

Parameter	Value	Meaning	Basic
74	c	Soft transition of switch over (0/1)	1

This function is set to **off** as standard **c=0**, it is a character of the semi-duplex operation switch over on the telephone line. If the character of silencing is too steep, it is possible to soften it using **c=1**.

Parameter	Value	Meaning	Basic
75	n	Suppression of background noise (0/1)	1

This function is set to **off** as standard **n=0**. If the Ulydor is installed in a noisy location (train station, busy street, car park etc.) by switching on this circuit **n=1** the noise level is set as a default threshold for switching on the microphone and is not one way opened. This is related to setting of parameters 71, 76, 77.

Parameter	Value	Meaning	Basic
76	b	Threshold for switching on the microphone 1-4 (4 is the highest)	2

There is a simultaneous signal from the microphone and the speaker on the telephone line, to ensure that the Ulydor doesn't produce acoustic feedback. In the Hands Free circuit there are several functioning blocks for suppressing this feedback. The basic one is a circuit for semi-duplex operation, where the incoming signal weakens the microphone and the signal from the microphone weakens the incoming signal. Thresholds for switching on the microphone are set in this

parameter, the lower the value the higher the sensitivity of the microphone. In noisy surroundings it is recommended to use a higher value with combination of parameters 71,75, 77.

Parameter	Value	Meaning	Basic
77	s	Speed of switching over voice atomisation 1-4 (4 is the slowest)	2

Parameters 75, 76 describes the principle of acoustic feedback and the speed with which the circuit switches over, the quality of incoming or outgoing sounds are set with parameter 77.

Switchover time [ms]	s - choice
1	1
2	2
4	3
8	4

Parameter	Value	Meaning	Basic
78	l	VA characteristic for line connection (0/1)	1

Nearly every country in the world has different telephone norms and this parameter enables you to lower the voltage on the Ulydor's terminals to connect telephone line voltages in active state by 1V. Where it is required the respective norm **l=0** lowers line voltage by 1V, as standard it is **l=1**.

Parameter	Value	Meaning	Basic
79	k	Compensation for loss of conduit depending on line current (0/1/2)	1

The Ulydor has a circuit for installations remote from the switchboard (>100m) that can compensate for the loss caused by a conduit. This function is switched **off** as standard **k=0**, but it is possible to set on 2 levels, depending on the current that switchboard can supply (short circuit current I_0).

Switchboard current I_0	k - choice
Function off	0
20mA-50mA	1
45mA-75mA	2

Parameter	Value	Meaning	Basic
70	uu	Level of signal transmission v [-dBm] (04-16)	10

uu The signal transmission range to the line is -4 to -16dBm, entered is required level, which is uu=04 is -4dBm, uu=10 is -10dBm ...

8.7 Time programme – automatic switch day/night AVS

Parameter	Value	Meaning	Basic
09	a	Automatic on/off switch over for Day/Night and control of time setting (0/1/#)	0

The Ulydor AVS has an RTC circuit - version **(C) (M)**, it is possible to switch on the automatic switch over time **a=1**. Condition is correct time setting. It is possible to make easy control **a=#**, the Ulydor answers either with confirmation tone (all is OK or with an error tone (it is necessary to set the time). Choice **a=0** switches off automatic switch over.

Parameter	Value	Meaning	Basic
081	hhnn	Time setting hh-hours, nn-minutes	-
082	ddmmyyw	Date setting dd-day,mm-month,yy-year, w-day of the week	-
083	#	Waits 1 minute to reset to zero seconds	-

Setting of time parameters of internal clock. After setting it is possible to switch command **083#** zero sec and exactly reconcile clock to the sec.

w is number representing day of the week [0-6], where 0 is Sunday and 6 is Saturday

Day of week	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
w	0	1	2	3	4	5	6

Example: to set 27.5.2011 Friday 9:39, the sequence is:

0822705115 listen for tone 🎵, then 0810939 listen for tone 🎵 and finally 083 – wait for exact time sec=0, in this moment choose # and hear tone 🎵 - finished.

Parameter	Value	Meaning	Basic
00	hhnnkkjj	Sunday – time setting hours hh and minutes nn starts day and hours kk and minutes jj starts night	00000000
01	hhnnkkjj	Monday - time setting hours hh and minutes nn starts day and hours kk and minutes jj starts night	00000000
02	hhnnkkjj	Tuesday - time setting hours hh and minutes nn starts day and hours kk and minutes jj starts night	00000000
03	hhnnkkjj	Wednesday - time setting hours hh and minutes nn starts day and hours kk and minutes jj starts night	00000000
04	hhnnkkjj	Thursday - time setting hours hh and minutes nn starts day and hours kk and minutes jj starts night	00000000
05	hhnnkkjj	Friday - time setting hours hh and minutes nn starts day and hours kk and minutes jj starts night	00000000
06	hhnnkkjj	Saturday - time setting hours hh and minutes nn starts day and hours kk and minutes jj starts night	00000000
07	#	overwrites (copies) setting from Sunday (00) to the whole week	-
00	hhnnkkjj	Sunday – time setting hours hh and minutes nn starts day and hours kk and minutes jj starts night	00000000

In parameters 00-06 automatic Day/Night switch over times are set for each day of the week. Parameter 07 is used when it is not necessary to program the whole week if the times are the same, then it is enough to program 00 (Sunday) and with parameter 07# this setting will be copied to the rest of the week.

Examples:

- On Monday at 8:00 day starts, 17:05 night starts, Tuesday at 7:30 day starts and at 16:00 night starts
Programming sequence: 0108001705 and 🎵, then 0207301600 and 🎵
- On Thursday day starts at 6:45 and night starts at 15:05, on Friday night continues till 15:00 when day starts and continues until Saturday 12:00 and then it is night again. Here it is possible to use setting in the frame of one day switching over day to the night even though the night is already on since the previous day and again to the day even though day is on from the previous day, then for time setting over midnight a time 00:00 is entered.
Programming sequence: 0406451505 and 🎵, 0515000000 and 🎵, 0600001200 and 🎵

8.8 Basic setting and deletion


Parameter	Value	Meaning	Basic
8#	#	Basic setting	provide

This setting does not affect parameters **1** and **2** (numbers saved in memory)

Parameter	Value	Meaning	Basic
81		Deletes all numbers in 1st group (regime Day)	
82		Deletes all numbers in 2nd group (regime night)	
83		Basic setting only for parameters 3x	only 3..
84		Basic setting only for parameters 4x	only 4..
85		Basic setting only for parameters 5x	only 5..
86		Basic setting only for parameters 6x	only 6..
87		Basic setting only for parameters 7x	only 7..
80		Basic setting only for parameters 0x	only 0..

Parameters 81 and 82 deletes all numbers saved in the button memory.

Parameters 83 – 87,80 deletes selective basic setting for parameters starting with 3,4,5,6,7,0. Values for the basic setting are stated for each parameter in the right hand - column "Basic".

 **WARNING !!!** deletion is irreversible and it would be necessary to re-program them again!

8.9 End of programming

Parameter	Value	Meaning	Basic
9		E N D of programming	

After choosing **9** programming tone the Ulydor disconnects.

9 Technical parameters

9.1 Electrical parameters

Parameter	Value	Conditions
Minimum line current	18mA	Line picked up
Minimum line voltage	18V	Line disconnected
Voltage on the line when Ulydor picks up (VA characteristic)	< 8V < 12V ¹⁾	I = 20mA I = 60 mA
Lead in in disconnected state	< 30uA	U = 60V
Impedance of line ending	220R + 820R paral. 115nF	Line picked up
Bandwidth	300Hz – 3400 Hz	20 - 60mA
Impedence of ringing	> 2Kohm	25 – 60 Hz
Sensitivity of ringing detector	min. 10 – 25 V	
Impulse choice	40 / 60 ms	
Level of tone choice	-6 a -8 dB ¹⁾	20 – 60 mA
Sensitivity of tone choice	min. -40 dB	20 – 60 mA
Sensitivity of tone detector	min. -30 dB	20 – 60 mA
Power supply for name tag back lighting, relay, heating and current circuit for exit button	12V DC(11V-24V) , 12V AC(10V-18V)	
Max off take of backlighting and heating	250mA	12Vss
Max. Voltage of relay contact	48V	When I < 1A
Max. Current of relay contact	1,5A	When U < 30 V
Operating temperature	- 20 to + 60 st.	
Level of cover	IP45	
Weight	Depends on variation and composition	

1) Potential to change by programming.

9.2 Mechanical dimensions

Type of item	dimensions HxWxL [mm]			
	1 module	2 modules	3 modules	4 modules
Module	90 x 90			
Assembly box (1158/4x)	118x118x45	208x118x45	298x118x45	388x118x45
Frame cover (1158/6x)	127x125x12	217x125x12	307x125x12	397x125x12
Roof (1158/61x)	152x157x50	242x157x50	332x157x50	422x157x50
Rain cover (1158/31x)	152x157x79	242x157x79	332x157x79	422x157x79

WARRANTY:

Each and every product has been tested before it leaves the factory.

The manufacturer guarantees that the product and its features will work in accordance with the descriptions in this manual as long as the customer uses the product in accordance with the manufacturer's instructions.

Warranties will be extended when a warranty repair has been undertaken.

Although all warranty repairs will be handled by the manufacturer it is important that warranty claims are handled through your dealer. Warranty claims should be accompanied by:

- The product in question;
- A description of the problem;
- Proof of purchase; and
- Your full name and address.

The warranty does not cover:

- Mechanical, chemical, thermal or any other faults caused by the user
- Faults caused by natural disasters
- Faults caused by repairs or changes made by the user or any other authorised or unauthorised person(s)
- Purposely done damage
- Incorrect use of the product, caused by incorrect installation, programming etc., and
- Damages cause during the transport of the product to and from the purchaser.

Manufacturer:
Dealer:
Date of sale: