

PADMATY 20



USER MANUAL



1 - THANK YOU & CONGRATULATIONS:

Thank you for purchasing the PADMATY 20™ keypad of VITY Media Bus Control® automation system. PADMATY 20 is a standalone and programmable Wall Keypad to replace all your remote controls. This manual is made to assist you to install the different models of PADMATY 20

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1 - PRESENTATION

1.1 - Principles

- PadMaty is a range of keypad that represents an interface between the user and the machine. This range is specially designed for automation and institutional applications.
- The PadMaty applications developed on PC thanks to PCToMaty software are downloaded into the device.
- PadMaty is a stand-alone device.

1.2 - Description of PADMATY 20

- 20 button keypad.
- All the buttons can be customized using one of the 192 interchangeable delivery buttons.
- Button cover not installed.
- Each button can have 8 associated functions defined during the programming.
- Key backlight by blue leds.
- Presence detection for automatic wake up of the device.
- Infrared receiver for the learning of the IR codes.
- Infrared transmitter with learning lead.
- A RS485 interface to communicate with the VITY range products.
- A RS232 interface that enables to manage devices controlled by serial link. This access also enables to download the updates of the software and of the application.
- A logic input (type: dry contact) enables to launch the macros. This input can be used as an external infrared input.
- Number of infrared codes stored: 127
- The learning of the infrared codes is directly done by the device.
- Download of infrared codes from our library (more than 10000 devices)
- The device is provided with :
- The device is available in 2 versions: White or black/silver.

1.3 - Padmaty 20 versions

1.3.1 - Desktop version



We have 2 different models for desktop version:

Padmaty 20S-D (with infrared output, RS 232 in/out, RS 485 in/out, GPI or IR in)

Padmaty 20EIB-D (with infrared out, EIB in/out, RS 485 in/out)

All desktop model have a interconnection interface with all in/out

The product includes:

- A desktop Padmaty.
- A power supply 12V.
- An interconnection cable 3 meters.
- A block of interconnection.
- A set of 450 skilled-screen buttons
- A documentation PCToMaty software.
- A PCToMaty licence.

1.3.2 - Wall version



We have 2 different models for wall version:

Padmaty 20S (with infrared output, RS 232 in/out, RS 485 in/out, GPI or IR in)

Padmaty 20EIB (with infrared out, EIB in/out, RS 485 in/out)

All wall model have a interconnection interface embedded in the case

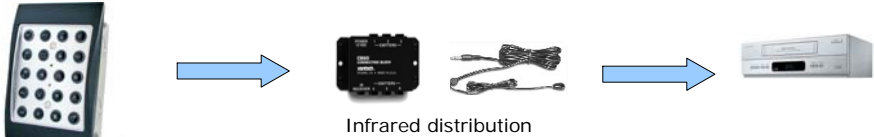
The product includes:

- A Padmaty 20 equipped with an integrated interconnection card.
- A power supply 12V.
- An interconnection cable 0.1 meters.
- A set of 450 skilled-screen buttons
- A PCToMaty documentation software.
- A PCToMaty licence

2 - STANDARDS APPLICATIONS

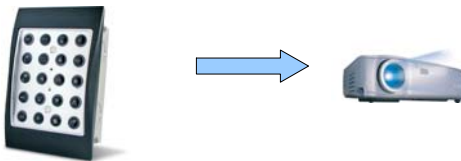
2.1 - Infrared applications

All Padmaty control one or more devices by infra-reds directly. If several devices are to be controlled, we recommend the use of an infra-red distributor standard Xantech.



2.2 - RS 232 applications

Padmaty 20S-D and Padmaty 20S have an RS 232 serial port to control 1 device in RS 232, like a videoprojector, a matrix switcher, scaler, ... The Padmaty can send commands and receive a feedback (RS-232 feedback)



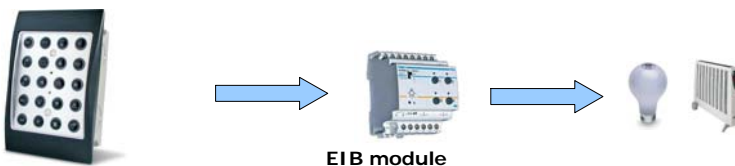
2.3 - RS 485 applications

All Padmaty 20 have an RS 485 port to command Vity controllers (Monopro, Multicustom, Minimono and Custo series). By this way, Padmaty can control many in/out to drive AV devices and automation devices.



2.4 - EIB-KNX applications

Padmaty 20EIB-D and Padmaty 20EIB have an EIB port to control many EIB modules of any brands of EIB manufacturers. By this Padmaty can control many electric devices like lights, shutters, air-conditionned, heating, ...



3 - TECHNICAL DATA

3.1 - Power

- Voltage : regulated 12 V
- Consumption: Max 300 mA (with IR output all the led powered up)

3.2 - Specifications

- Automatic and secured update of the system software.
- Possibility of 8 operating mode for each key.
- Key Configurable when pressing, holding or releasing it (for each key and each mode).
- Backlight, sleeping mode time, number and buzzer use defined in the application file downloaded.
- A logic input (dry contact type) also enables to connect an external infrared receiver.
- Learning of 127 infrared codes.
- Infrared data base downloadable on our website www.vity.com.
- Learning of infrared codes and launching of associated macros for the internal and external receiver.
- The PC2Maty development software is easy to use.
- All type Feedback (RS, IR, Relays, etc...)

4 - FUNCTIONALITIES

4.1 - Powering

When powering, PadMaty is operational.

4.2 - Key of the keypad

- Each key can have 8 different functions. (For example: The same key can send 8 different infrared codes according to the target selected) |
- Each key can view the state of a peripheral either by turning on the key or by blinking it.
- All the keys can launch macros.

4.3 - Built-in infrared receiver

- The infra-red receiver allows two applications:
 - Learning infra-red codes from any remote control.
 - Recognizing IR codes and driving actions defined by the application
- Storage capacity : 127 codes.
- The learned codes can be used in three different ways:
 - They can be emitted on the infra-red exit of Padmaty (it is necessary to connect infra-red Led on this output)
 - They can be recognized constantly by the infra-red receiver and start actions defined by the user.
 - They can be recognized constantly by the external infra-red receiver and start actions defined by the user.

4.4 - Logical input or external IR receiver

Concerns Padmaty 20S and Padmaty 20S-D

A logic input can launch actions when the states change.

We can also use this input as a second infrared input. In that case the IR frames sent on this input are recognized and launch actions that can be different from those launched by the internal receiver.

4.5 - Presence detector

The screen backlight is disabled at the end of an adjustable time.

When a presence is detected, backlight is enabled for one definite duration defined by the application.

4.6 - RS485 Interface

Concerns all the Padmaty

Padmaty 20 sends and receives data by a bus RS 485 Vity

- Speed: 115200 Bauds
- Length: 8 bits
- parity: none
- stop bit: 1

4.7 - Infrared interface

Concerns all Padmaty

Padmaty can send commands by infrared bus

This connection enables to plug directly infrared emitters

4.8 - RS232 Interface

Concerns Padmaty 20S and Padmaty 20S-D

configurable Interface

- Available Baudrates : 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200.
- Parity : paire, impaire, sans
- Length : 7 or 8 bits

This interface is not available on the EIB version.

4.9 - EIB interface

Concerns Padmaty 20EIB and Padmaty 20EIB-D

Enables the communication on the standard EIB-KNX bus

5 - PROCEDURES

5.1 - OS Update

- The update of the OS is done thanks to the "PadMaty Upgrade" software. A PC equipped with a serial link connected to the RS232 link of PadMaty is required.
- If the application uses a speed different from 115200 bauds, when programming you have to press simultaneously on reset and on one of the 4 key located at the angles of the keypad and the to drop out reset. (available on the front panel)
- The device shows that it is in the programming mode by blinking rapidly the leds of the side.
- Some of the OS updates integrate BIOS updates. For that reason, do not interrupt the power supply of PadMaty after the beginning of the update.
- On average the update lasts 5 seconds

5.2 - Infrared code learning

The learning of the infrared codes is done thanks to the IRDump software bundled in PC2Maty.

Padmaty can directly learn the infra-red codes from your remote controls. Preferably use the mode of "Normal" learning which is a mode which controls the measurements taken before validating them. This mode is thus protected than the "Forced" mode which accepts all taken measurements.

- Check the absence of parasitic infra-red sources (neon, television, LCD screen)
- Pass in learning mode by using the learn function of IRDump.
- The leaving of that mode is automatic if the learning is not completed in 1 minute.
- Transmit the infrared code of your remote control to PadMaty.
- The buzzer is activated when the code has been learnt and when the leds of the side blink 5 times.
- To force the leaving of the learning mode, you have to press one of the buttons of PadMaty.

5.3 - Update of the IR codes by serial link

The PC2Maty software associated with the infra-red data base Vity can avoid you the tiresome work of infra-red learning. You only have to declare the type of devices and the function necessary for the infra-red codes and PC2Maty generates automatically during the compilation of your project, an infra-red data file for your application.

6 - CABLING AND INSTALLATION

6.1 - Desktop version

Wiring the interface connection

Several connectors are available on the connexion interface

- One connectors "Bus 485 " (for all Padmaty desktop versions)
 - Connector: Connector block 3 points 0.14mm² with 0,5mm². (Gauge 28-20)
 - Permit MediaBus communication which is used to inter-connect all the devices of the Vity range.
 - Respect bus polarities.
 - The signal located ' 0 ' is not essential for correct operation. However in certain cases, to avoid perturbations, it can be useful to connect the shielding of the cable but that on only one side of the cable.
- The connector "To Padmaty " (for all Padmaty desktop versions)
 - Connector RJ45 8 points.
 - The connection of the screen using the cable of 3 meters provided.
- The connector "In LOG " (for Padmaty 20S-D only)
 - Connector: Connector block 2 points 0.14mm² with 0,5mm². (Gauge 28-20)
 - Connection for a standard entry dry contact which acts on the operation of your application.
 - The connection for an infra-red input which acts on the operation of your application.
- The connector "IR" (for all Padmaty desktop version)
 - Connector: Connector block 2 points 0.14mm² with 0,5mm². (Gauge 28-20)
 - Connection for an infra-red cell.
 - Respect the polarity of the provided signal.
- The connector "12V 300mA" (for all Padmaty desktop versions)
 - Connector: Connector block 2 points 0.14mm² with 0,5mm². (Gauge 28-20)
 - Connection for the 12V DC supply provided with the device.
- The connector "RS 232" (for Padmaty 20S-D only)
 - Connector: Connector block 3 points 0.14mm² with 0,5mm². (Gauge 28-20)
 - Connection for the 12V DC supply provided with the device.
- The connector "EIB-KNX" (for Padmaty 20EIB only)
 - Connector : connector block 2 points 0.14mm² with 0,5mm². (Gauge 28-20)
 - Permit to pilot directly EIB devices.
 - Respect bus polarities.
- Point located "-" on the connector "12V 300mA"

You will find here the different interconnecting bloc versions corresponding to the different Padmaty 20 desktop models:

PADMATY 20S-D connecting bloc



PADMATY 20EIB-D connecting bloc

Significant remark:

It should be noted that certain points are connected to the common mass of the device.

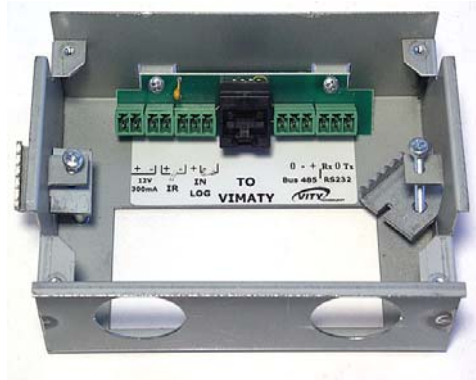
- Points located "0" on connectors "Bus 485"
- Point located "0" on connectors "Bus 232"
- Point located "-" on the connector "In LOG"
- Point located "-" on the connector "IR OUT"
- Point located "-" on the connector "12V 300mA"
- Point located "-" on the connector "EIB-KNX"

6.2 - Wall versions

Wiring of the connecting card

The case of embedding has an interconnection card in the content of the case.
 The wiring has the same definition that for the interface connection (see below).

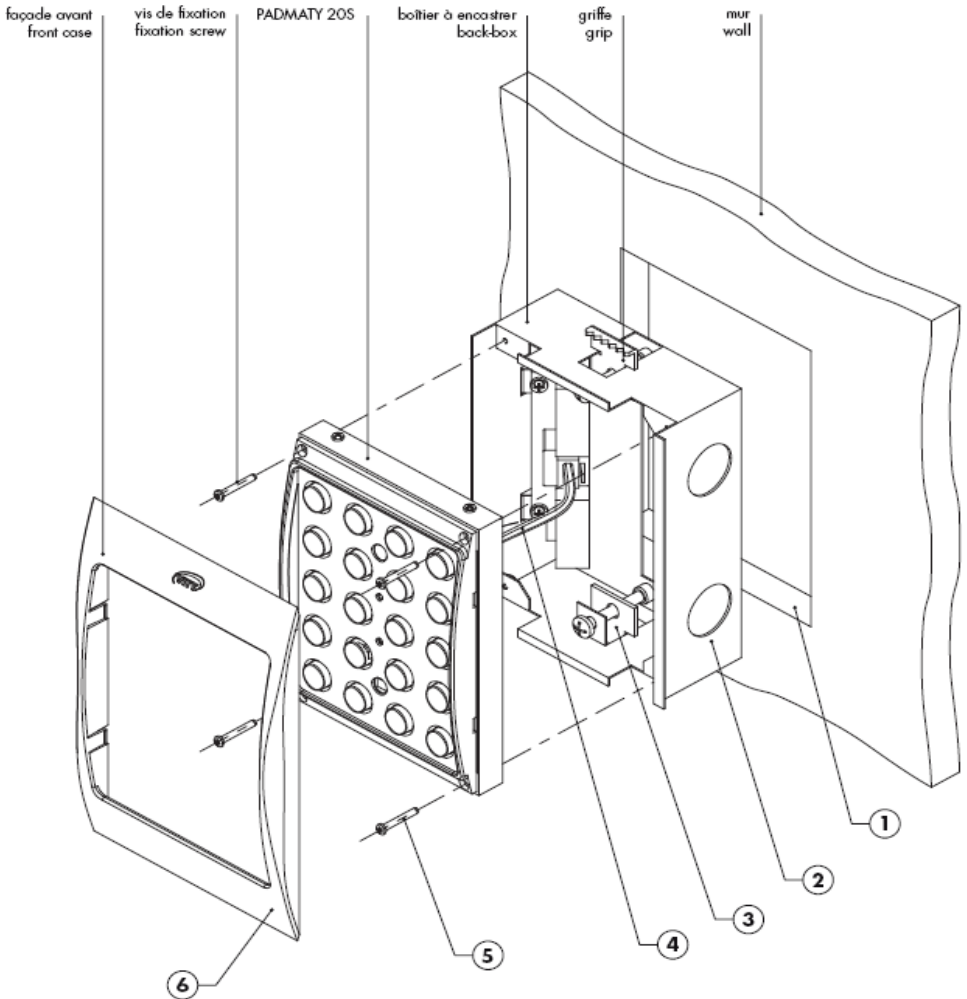
PADMATY 20S



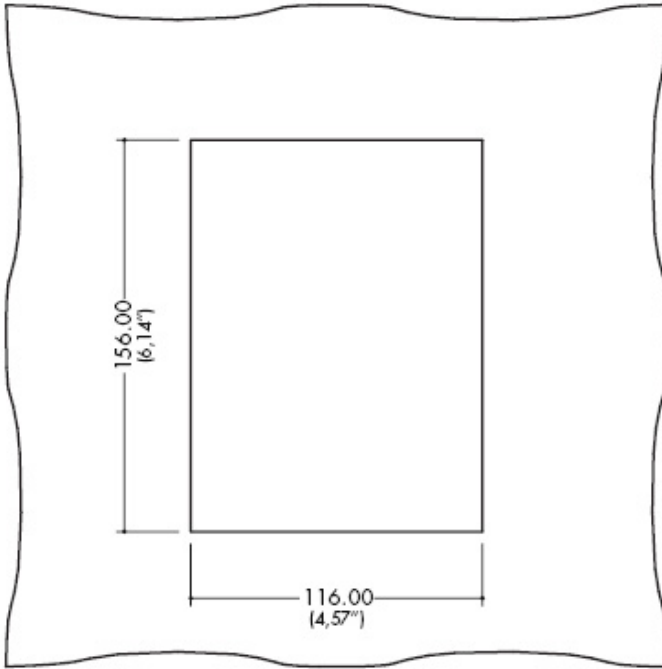
PADMATY 20E1B

6.3 - Assembly of the device

- Fix the case in the wall.
- Proceed wiring such as defined of them 5.1.1
- Connect the jack RJ45 to the back of the screen
- Set the front face in ABS
- Fix the device on the case using the four provided screws.
- Clip the belt on the device.

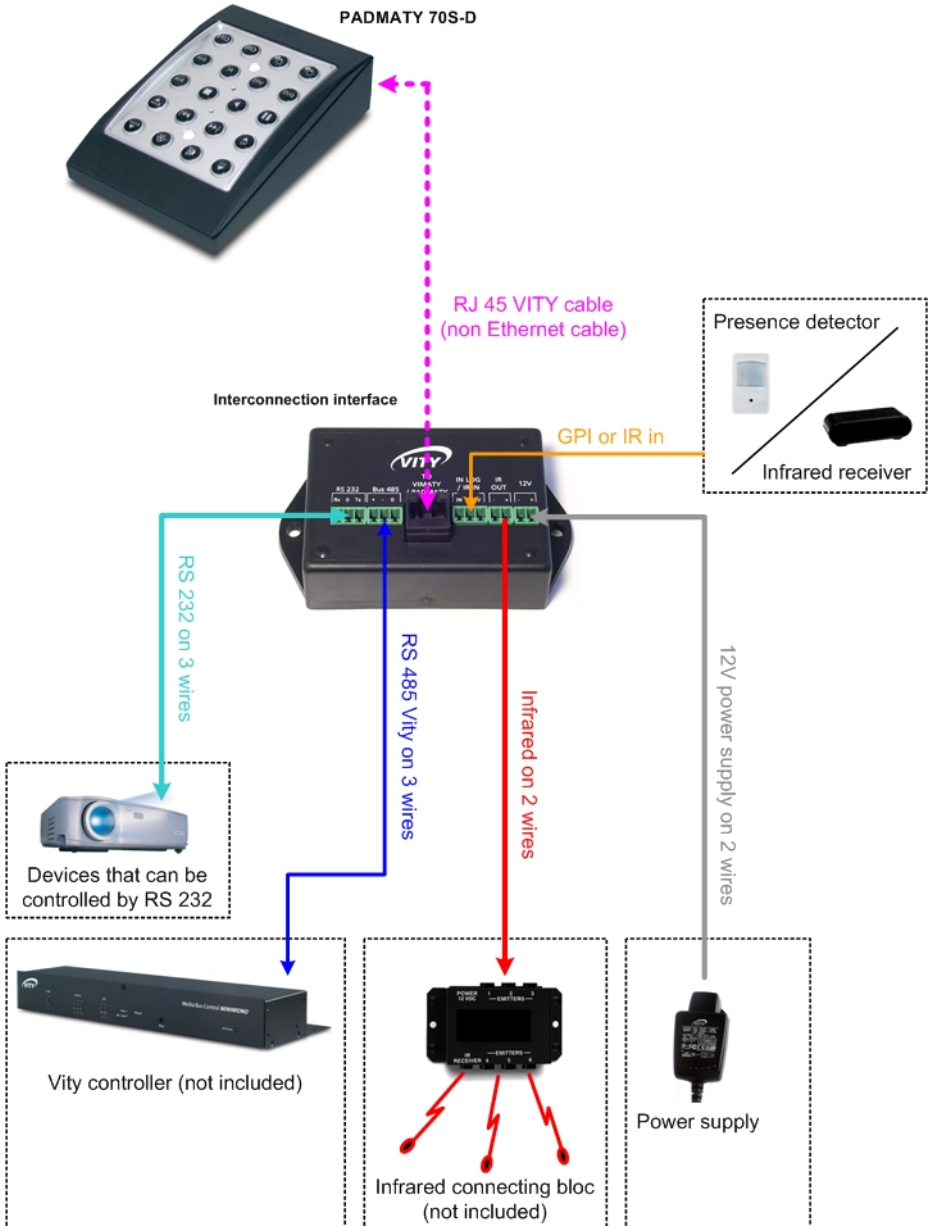


WALL-CUT OUT OF THE PADMATY 20S and PADMATY 20EIB



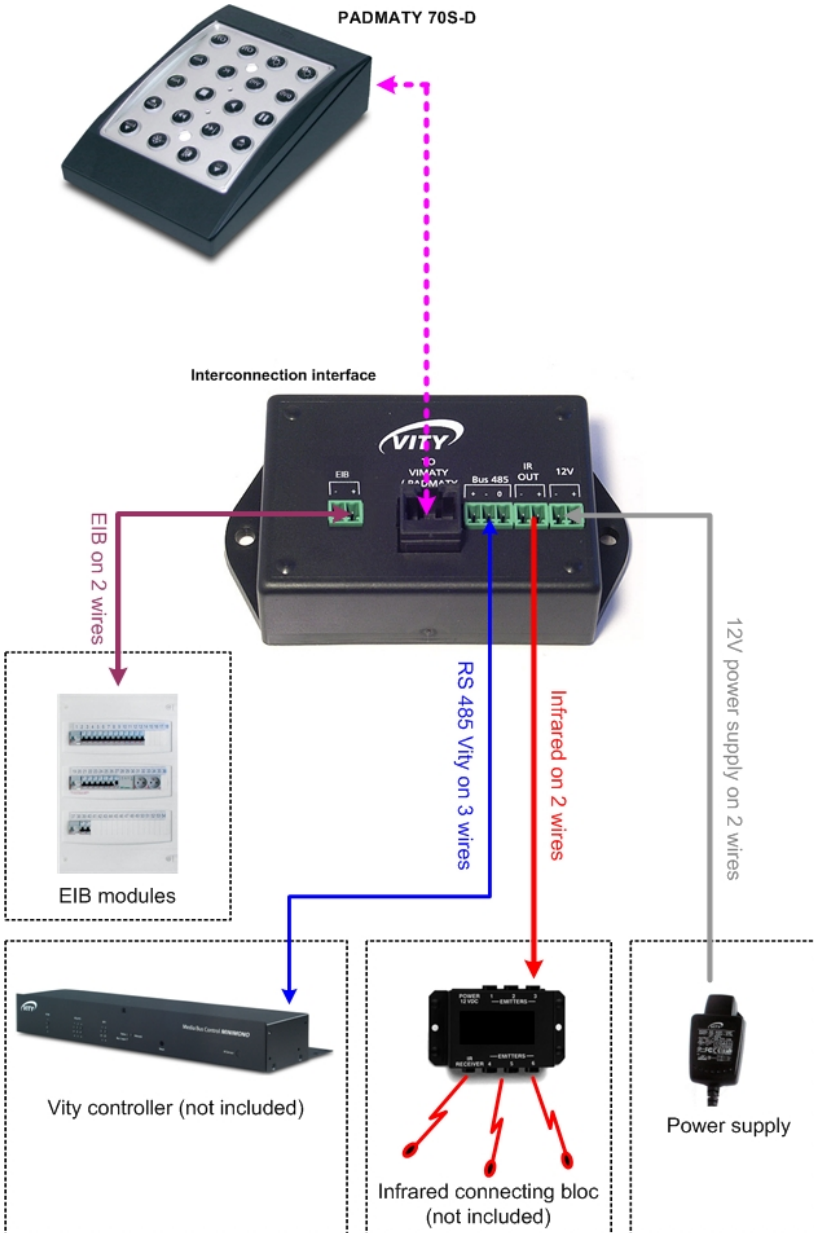
6.4 - Cabling of a PADMATY 20S-D

(It is the same cabling system for Padmaty 20S with the integrated interconnection interface)



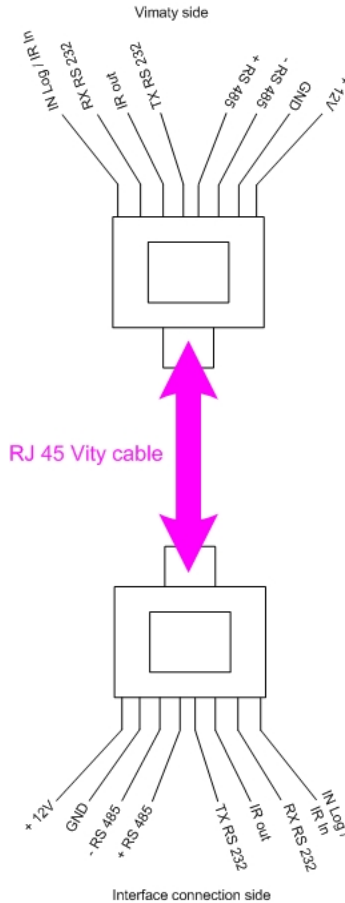
6.5 - Cabling of a PADMATY 20EIB-D

(It is the same cabling system for Padmaty 20EIB with the integrated interconnection interface)



6.6 - Direct cabling with RJ 45 Vity cable (non Ethernet)

If you use Padmaty 20S-D you don't need to use interconnection interface. You can directly connect the devices with the RJ 45 Vity cable delivered with the Padmaty. For the Padmaty20 EIB-D you have to use the interconnection interface.



Direct cabling for Padmaty 20S-D

7 - WARRANTY AND SUPPORT

1- Warranty

VITY Technology France, headquarters, 180 Rue Pierre Landais, 56850 CAUDAN - France, and its subsidiaries VITY China and Vity USA warrant that their products will be free of defects in materials and manufacture at the time of sale and will remain in good working order for a period of three years following the date of the original sales invoice from VITY.

2- What This Warranty Does Not Cover

This warranty does not apply to (a) any VITY product that has been modified, altered or repaired by an unauthorized agent or improperly transported, stored, installed, used, or maintained; (b) damage caused by acts of nature, including flood, erosion, or earthquake; (c) damage caused by a sustained low or high voltage situation or by a low or high voltage disturbance, including brownouts, sags, spikes, or power outages; or (d) damage caused by war, vandalism, theft, depletion, or obsolescence.

3- Disclaimer of Other Warranties

The warranties contained in Section 1 are the exclusive warranties given by VITY and supersede any prior, contrary or additional representations, whether oral or written. Vity disclaims and excludes all other warranties – whether express, implied, or statutory.

4- Buyer's Exclusive Remedies for Any Nonconformity

If a VITY product fails to conform to the warranties in Section 1, Buyer must notify VITY within a reasonable time and in no event more than thirty (30) days after the discovery of the nonconformity, and VITY will repair any nonconforming products or components.

5- Application of the warranty

During the period of warranty, VITY Technology will repair the defective units free. The defective products must be sent to your expenses to the Vity Technology's buildings at Caudan with a note of accompaniment. The repaired units will be turned over to our expenses with the recipient. Apart from the period of warranty, VITY Technology will repair the defective units in its buildings at Caudan, and the cost of repair will be the responsibility of the customer. In the case of the product was bought to a Vity subsidiary, it must be returned to the subsidiary before.

6- Exclusion of Consequential and Incidental Damages.

Vity shall be not liable under any circumstances for consequential or incidental damages including, but not limited to, labour costs or loss of profits arising in connection with the use of or the inability to use Vity products.

7- Transport Damage

VITY will not be responsible for items damaged during shipment to or from VITY. The shipping carrier is responsible for items damaged during shipment.

8- No Modifications

This warranty may not be modified except in writing by an authorized VITY officer.

9- Applicable Law

This Warranty will be interpreted, construed, and enforced in all respects in accordance with the laws of the European Union, without reference to its choice of law principles. The U.N. Convention on Contracts for the International Sale of Goods will not apply to this Warranty.

10- Other Notice

VITY reserves the right to modify or discontinue designs, specifications, warranties, prices, and policies without notice.

Support

In the event of problem during the installation of Padmaty 20, call your local distributor: