UDP30

（rev. 1.1）

Setting and diagnostics interface

User's Manual

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Contacts:
- *General information:* info@lamtechnologies.com
- *Technical support:* support@lamtechnologies.com
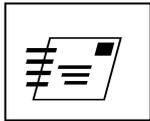- *Commercial information:* sales@lamtechnologies.com

1   Notes, Terms and Warnings

In this manual some symbols, whose meaning is listed below, are used to underline particular arguments.

There is a dangerous condition that must be measured and avoided. The not-respect of indications marked with this symbol can cause serious damages to people, animals and things.

The argument is very wide and could require a deeper examination with the technical support.
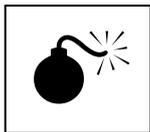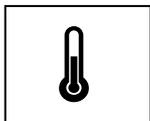
The non-observation of what described could damage the products.

Characteristics and functionalities which cannot be easily found in other products. A shortcut to reach a target is shown.

A change or repairing intervention which can be made directly by the user.

An aspect which is connected to the temperature or longevity of the product.

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The terms listed below are also used:

Product

The interface described herein.

Device

The appliance connected to the PC through the interface

User

Who selects and/or installs and /or uses the product.

Application

The machine, the equipment, the device, etc. on which the product is applied.

2 Risks and Precautions

A T T E N T I O N

Following are listed the most important warnings to be fully comprehended and applied by the user who, in case of non-complete comprehension or impossibility to apply them correctly, must not use the product at all.

⚠	The product could be permanently damaged by corrosive substances (such as gas, salts, etc), liquids or conductive dusts. Even a long and constant exposure to strong vibrations could cause the damage.

⚠	The product cannot be used in life support applications or where the failure of the products could cause death or injury to people, animals or things, or economic losses. The user not able to assure this condition must not use the products herein described.

⚠	Do not dismantle the product, do not try and repair it and do not modify it without being expressly authorized by LAM Technologies.

⚠	If the product is used in any manner that does not comply with the instructions given in this manual, then the product could be permanently damaged.

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3 Introduction

UDP30 is an interface which allows the connection between a PC and the devices provided with the DUP port. Belong to this category the drivers of the DS10xx, OS10xx, etc. series.

The UDP30 interface connects to the PC through the USB port, from which it also takes the necessary supply. Instead, the connection with the device is through the DUP port.

In many cases, the UDP30 interface is able to supply the device digital section making possible to read and modify the data it contains even in absence of supply. The advantages offered by this technique are numerous.

On the contrary, when the device is supplied, the UDP30 interface grants the absence of problems related to the ground loops and of inconveniences, thanks to the galvanic isolation between the USB port and the DUP port of the device itself.

The UDP30 interface is used by the software application, as for example, *UDP Commander*, to exchange data with the device.

3.1 Main features

- ✓ Connection to the PC through the USB port
- ✓ No external power supply is needed
- ✓ In many case it is able to supply the connected device
- ✓ Galvanic isolation between the PC and the device
- ✓ Data exchange quick and safe
- ✓ USB connected cable included
- ✓ Guided installation
- ✓ Very compact size
- ✓ Very low cost

3.2 Accessories

Code	Description
LSP2040	Adapter cable to 3pins PCB connector

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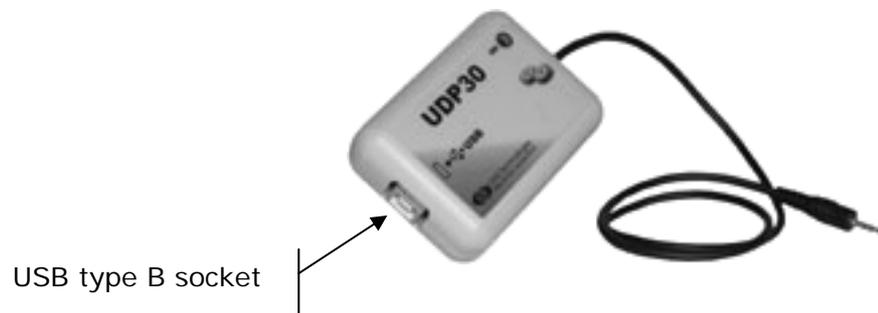
4 Installation

4.1 Inspection

Verify the interface is not damaged, the package is intact and all accessories of the ordered product are included.

Finally, control the code corresponds to the ordered one, eventual special and customized version included. In case of problems please address to the product's vendor.

4.2 Hardware installation

The hardware installation is very simple and it only requires the UDP30 connection to the PC.

Using the cable supplied with the UDP30, insert the USB type B connector in the interface and the USB type A connector in the PC.


USB type B socket

Finally, in order to make the interface operating, it is necessary to install the software drivers as better described in the following chapter.

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4.3 Device driver installation

After the UDP30 interface has been connected to the PC, wait for the operating system to find it and then proceed as follow. Consider that the described route refers to the Windows XP SP2 operating system. Different versions can produce a different installation sequence and different windows; in this case follow the instructions supplied by the operating system itself.
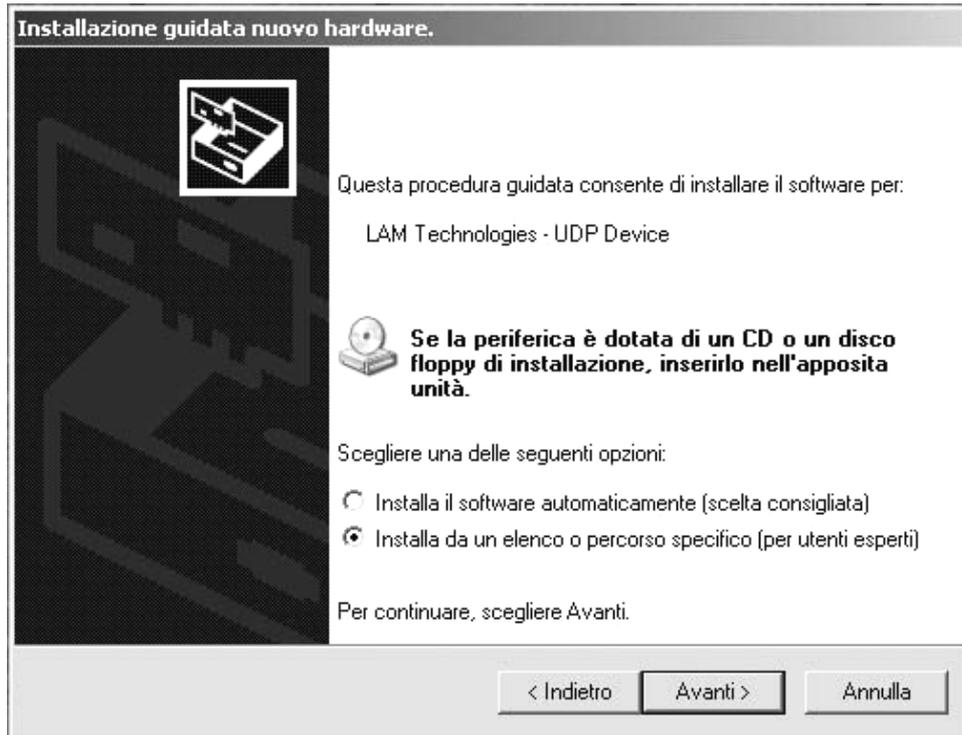
When Windows XP detect the interface, the following balloon will be shown for a few seconds:
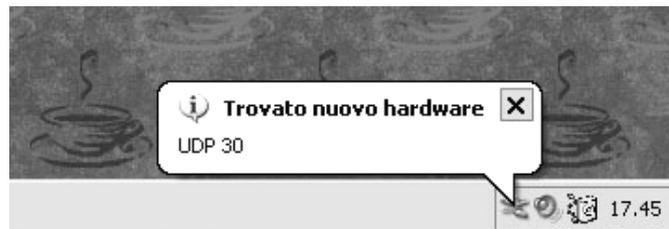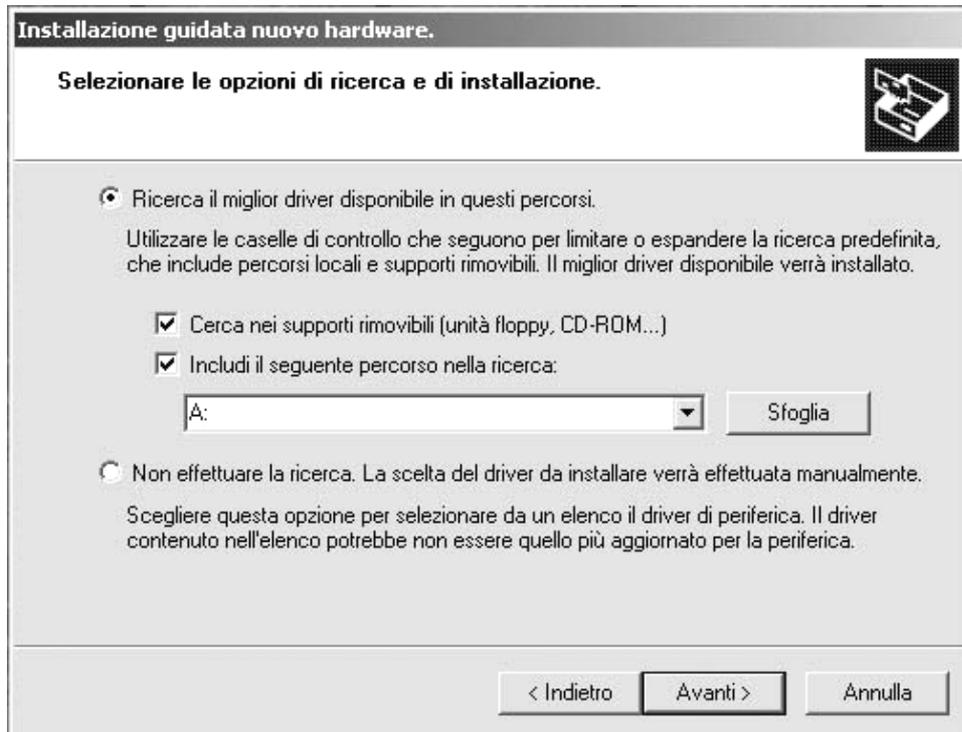

Then a dialogue window will appear requiring if we want to search the files on Internet:
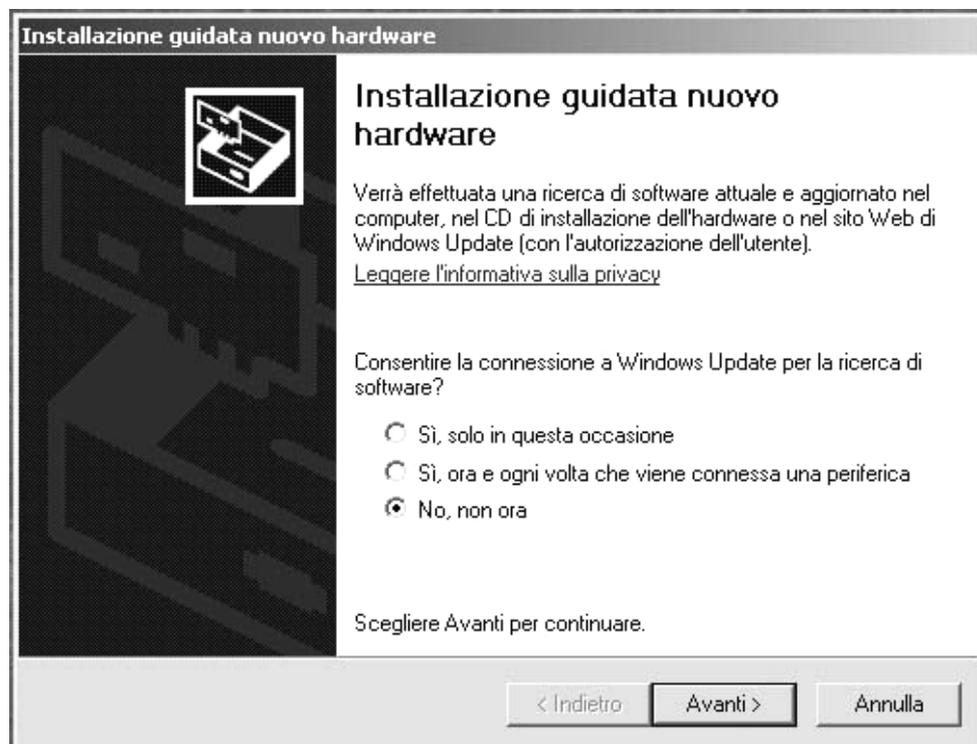
Select "*No, non ora*" and click on "*Avanti*" to proceed with the installation.

Select the second option and click on "*Avanti*" to proceed.

Now select the research route according to files allocation on the PC, then click on "*Avanti*". The operating system will start to search for the software driver right for the interface. At the end the following warning could appear:

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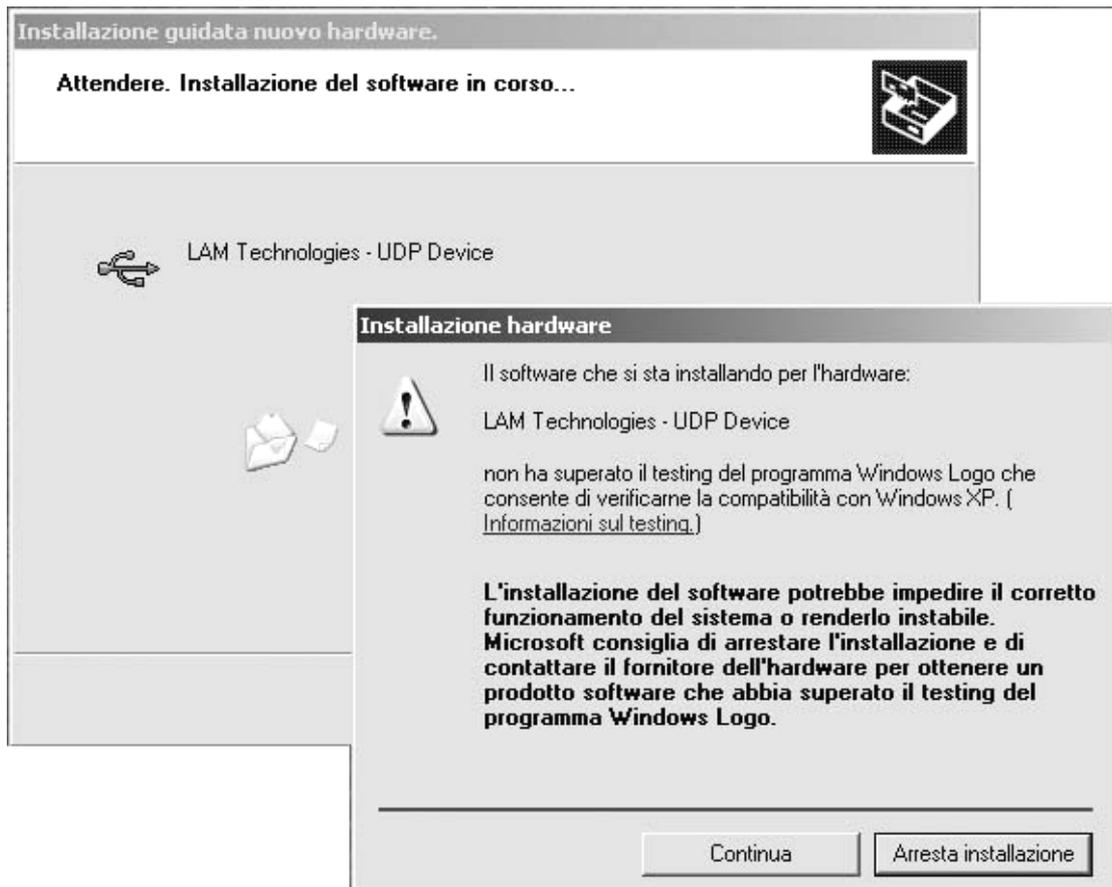
This message appears as the driver has not be submitted to the "Windows Logo" approval. Anyway, the supplied driver has been exhaustively tested and verified as functioning.

To proceed click on "*Continua*".

After a few instants the following dialogue window will appear confirming the installation has been completed:

Click on "*Fine*" and the software driver installation is over.

The following balloon will appear to confirm the installation.
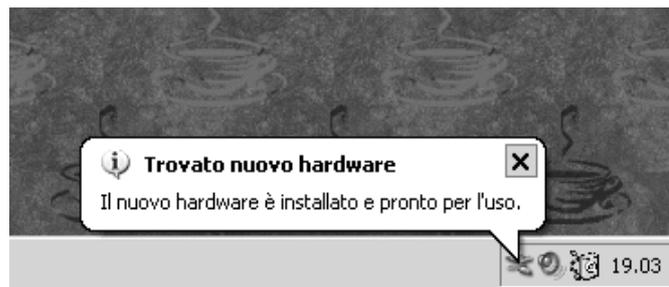

When the installation is correctly completed, the green colored LED on the UDP30 interface lights up, indicating the interface is ready to work.

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4.4 Device connection

The UDP30 interface is connected to the driver by the 2.5 mm jack cable.

2.5mm Jack

Some devices use a different connector: in this case it is necessary to recur to the bundled LSP2040 adapter cable to complete the connection.

LSP2040
Adapter
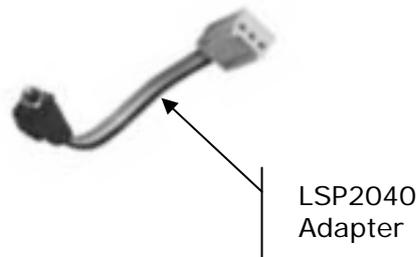
Following is the description on how to proceed to connect the interface with the DS10xs series drivers.

Before inserting the jack into the driver DUP socket it is necessary to open the transparent protection lid. Use and insert a small flat bladed screwdriver at the base of the transparent lid.
Lever delicately with the screwdriver till the transparent lid hook leaves its own seat as shown in the figure below.

Then insert the jack into the driver DUP socket and press it to the bottom as shown in the figure.

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To connect the UDP30 interface to the OS10xx drivers series act as following.

Connect the LSP2040 adapter to the 2.5mm jack, therefore insert the connector in the driver as shown in the following figure:

To take off the connector, catch the plastic among fingers and pull upwards.
For no reason try and remove the connector pulling the cable, otherwise the cable could be broken.

Once the connection is completed it is possible to start the software application, as for example *UDP Commander*, to work on the device.

Note that the UDP30 interface is able to supply the electronic digital section inside the device and allows to act on it also in absence of the main power supply. To make possible this functionality, there is a +5Vdc voltage on the 2.5mm jack. For this reason, avoid to put the jack in contact with objects which could be damaged by such voltage. Anyway, in case of a random short circuit the interface is not damaged as provided inside with efficient protections.

5 Technical details

The following are the electric, physical and mechanical details of the UDP30 interface.

UDP30					
Symbol	**Description**	**Value**			**Unit**
		Min	**Typ**	**Max**	
Vp	Power supply (obtained from the USB port)	4.6		5.4	**Vdc**
Ip	Absorbed current (not in stand by)	30		400	**mA**
USBrev	USB port version compatible	1.1, 2.0			
USBdrv	Operating system compatible with the drivers	Windows 98, 98SE, ME, 2000, XP, XP SP2			
Vo	2.5mm jack connector available voltage			5.2	**Vdc**
Io	2.5mm jack connector available current		200		**mA**
Mechanical Specifications					
FDh	Height		25		**mm**
FDl	Depth (cable excluded, only case)		80		**mm**
FDw	Width		56		**mm**
FDnw	Weight		60		**gr**
Rated range of use					
FCa	Altitude			2000	**m**
FCt	Temperature	0		50	**°C**
FCh	Humidity (no condensing)	5		90	**%**
Conditions of storage and transport					
SCa	Altitude			4000	**m**
SCt	Temperature	-20		60	**°C**
SCh	Humidity (no condensing)	5		95	**%**

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LAM Technologies
Viale Ludovico Ariosto, 492/D
50019 Sesto Fiorentino – FIRENZE
Tel. 055-4207746 – Fax 055-4207651

General information: info@lamtechnologies.com
Technical support: support@lamtechnologies.com
Sales information: sales@lamtechnologies.com