PITAGORA

Portable TrueScan User's Manual

Portable security document analyzer instrument

Swiss Instruments

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Introduction

Portable TrueScan constitutes the answer to the most modern requirements regarding mobility and flexibility in the analysis and control of documents and fiduciary papers, and banknotes.

This new solution tackles a specific request from our customers, who are faced with the need for a quick control and secure verification of documents, by means of a portable compact forensic analysis station, that is always ready for its use without delays.

Portable TrueScan is the natural evolution of TrueScan, capable of assuring mobility, readiness and reliability; the instrument is activated in a few seconds and can be easily transported anywhere thanks to its lightweight and small volume.

The most privileged users for this new instrument configuration, are without doubt, the Border Guards or Border Patrol, the National Guard, Federal, Regional or Local Police, counterfeited object Inspectors, Customs officers, document experts and specialists who need to perform controls of fiduciary documents, banknotes, security labels, passports, and ID cards, in the field.

PORTABLE TRUESCAN CARACTERISTICS

Portable TrueScan is contained in an aluminum case, which is ready to use at any time, meaning that all components are already connected; the LCD flat color monitor, the light tablet for transparency verification, an autonomous rechargeable battery system, (which guarantees continuous operation for up to 4 hours), and the latest TrueScan color instrument. Everything has been integrated thanks to a powerful microprocessor board, capable of handling the power management and saving operations, and the activation of the different peripherals depending on the user's commands.

TrueScan can perform a spectral analysis of the document under study, by generating seven colors of visible light, complemented by two frequencies of infrared light, and two frequencies of ultraviolet light.

The total analysis of the surface and of relieves can also be performed by means of the tangential IR lights, which allow the user to detect the presence of small imperfections due to mechanical interventions on the paper, or cancellation attempts, abrasion, micro surgery, presence of security threads or fibers, either magnetic or fluorescent, hidden within the paper, and also to confirm the presence of intaglio printing, relief, micro letters, nano letters within a hologram, and any other system used against counterfeiting.

Installation

Portable TrueScan is delivered with its batteries already charged and ready to use. However, due to the fact that the instrument may have been in storage for some time before delivery, we recommend that you perform a full charging cycle of the unit.

External power adaptor connections for Portable TrueScan

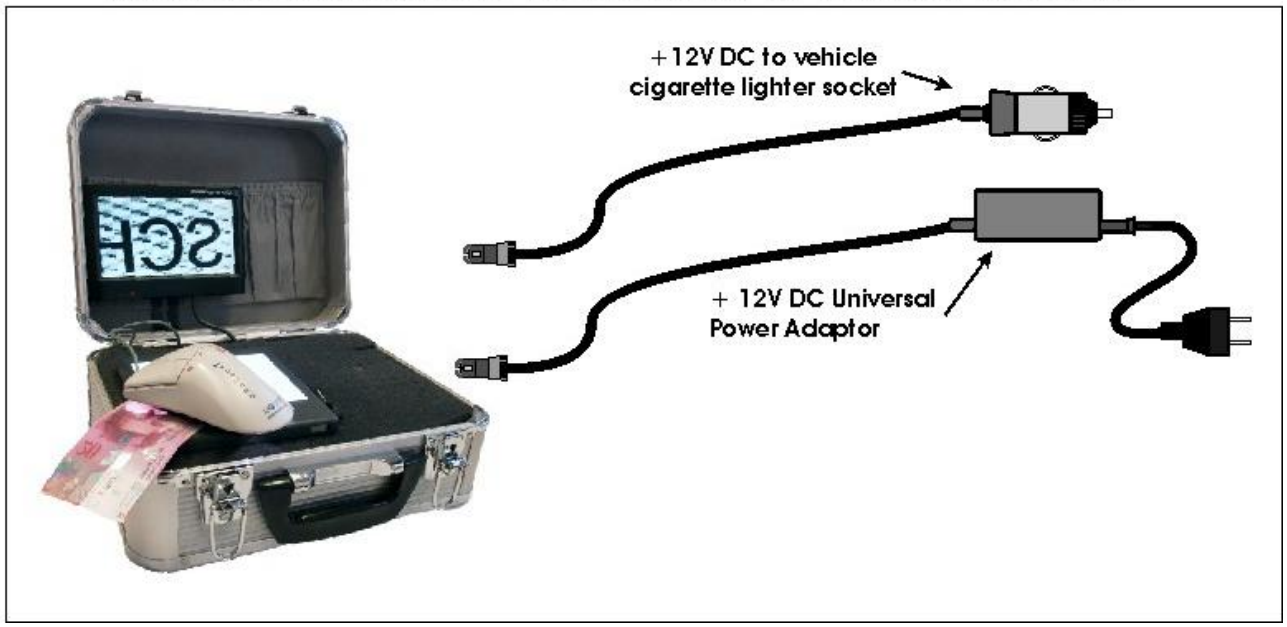

Figure 1

CHARGING CYCLE

In order to perform the charging cycle of the instrument, just insert the power connector as indicated in Figure 1. If the battery charge status is less than 80%, the charging process starts automatically. Otherwise, the external red light will turn on indicating the unit is charged and the charging process will not be activated. This is made so as to prevent the batteries from performing too many unnecessary charging and discharging cycles, and to lengthen the life of the batteries.

The unit indicates that the batteries are being charged when the red light goes on and off slowly and continuously.

During the charging cycle, the user can work normally and the charging cycle can be interrupted at any time by removing the power connector from the case. However, we recommend that you complete the charging cycles without interruptions, before you remove the power connector, so as to minimize the possibilities of shortening the life of the batteries.

Once the charging cycle has finished, the external red light (led) will remain constantly on, it will not blink.

MODIFICATION OF THE COMBINATION LOCK

If the user does not wish to modify the combination number in the aluminum case lock, just keep the blocking plastic that comes from factory, in its place. In case the blocking plastic is accidentally broken, substitute it with a similar locking plastic, so as not to modify the original "000" code involuntarily.

On the contrary, if you wish to modify the unlocking code, follow these instructions:

1. With the lock in the open position, press the number 1 button in the direction indicated by the red arrow, (as shown in the drawing below) keep the button pressed in this position until you complete the second operation described as follows.

2. Rotate the number wheels according to the number you wish to use as lock. Important: do not forget this number.

3. Now you can release button number 1 and you can press it once more to verify the operation.

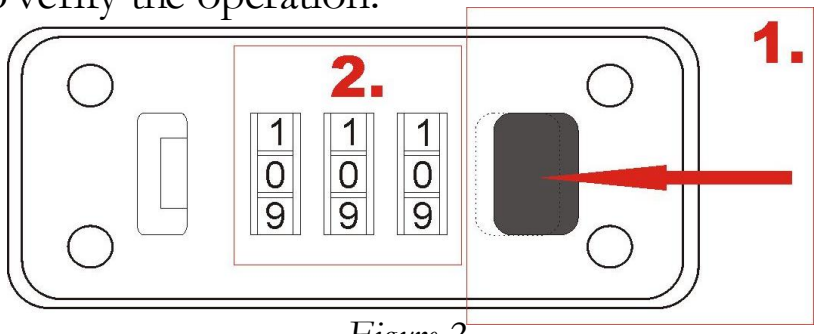

Figure 2

Portable TrueScan operation

Portable TrueScan is always ready for use, and in order to activate it, the user just needs to open the case and press the power on button temporarily.

TURNING THE UNIT ON AND OFF

In order to turn the unit ON, just press the Power ON button gently, the blue lights or leds will immediately turn on signaling the battery charge status, and the TrueScan instrument will lit up and the lights will go on and off slowly varying intensity (this is a self test routine). At this moment just press any button in the TrueScan instrument and the analysis can begin. Please follow the User's Manual instructions for TrueScan operation.

Once the job has been completed, you can power the unit OFF completely by pressing the Power ON/OFF button for two seconds; the blue lights indicating battery charge status will go off, confirming that power has been turned OFF.

In the case that the unit is not turned off manually, the TrueScan instrument will turn itself off automatically after 4 minutes of complete inactivity. The processor will place the complete unit in stand-by mode and after 10 minutes the processor will turn the whole unit OFF showing the blue leds off.

TRANSPARENCY TABLET POWER ON/OFF

Portable TrueScan automatically controls the power on/off for the transparency light tablet, which is automatically activated when the user selects the transparency mode step, in the VL menu, in the TrueScan instrument (VL mode, lights off, camera on), the tablet is turned off in all other modes and steps.

The light tablet can also be manually turned on in order to perform a visual control. Once the general power is on, just press momentarily the case power-on button again, the tablet will be turned on; the power on the tablet will go off by pressing the same button again.

RED LIGHT OR LED – EXTERNAL INDICATOR

The external red indicator signals the presence of the external power connection. This red indicator is immediately turned on, when either the power supply or power adapter, (for car cigarette lighter connection) is correctly connected.

The red light indicates also the charging period by modulating the blinking speed, the faster the blinking, the closer the charge is to 100%.

Figure3 – Power on

Figure 4 – Blinking

Figure 5 – Power off

BLUE LIGHTS – CHARGE STATUS

The blue lights or leds have a double function: they indicate the battery charge status and they show the power on/off state of the complete system.

Figure 6 – System on and charged at 40%

Figure 7 – System off

Disclaimer:

Pitagora SA does not assume any responsibility for eventual losses of data, tardiness on the delivery to a customer or other direct or indirect expenses caused by an eventual malfunctioning of the proprietary products or any other product mentioned within this manual.

Pitagora S.A. does not assume any responsibility whatsoever regarding physical or moral damages caused directly or indirectly by any of the products or operations described within this manual, be that due to defective malfunctioning equipment or due to improper use.

To avoid time and data losses, we strongly recommend the use of an efficient backup system, so as to limit to a minimum possible the damage caused by an eventual fire, virus, theft or hard disk failure.

All commercial products mentioned within this manual are the exclusive property of their respective owner companies.

Accessories

Portable TrueScan is sold with a certain number of accessories, which are included in the package, and there are a number of other accessories, which are optional, as described below.

TRUESCAN TO PC CONNECTION

Universal Power adapter The universal power adapter is included with the Portable TrueScan; it provides power to charge the batteries and it can work on any country around the world thanks to its switching technology.

Figure 8 – Universal Power adapter

Cigarette lighter adapter This connector allows the unit to be connected and charged from the car batteries through the cigarette lighter receptacle, specially used by Police and Border Patrol mobile units, or other traveling experts.

Figure 9 – Cigarette lighter socket adapter

Video to USB optional adapter

This option allows the user to connect the Portable TrueScan directly to a table top or Laptop PC using the USB communications port. This adapter is provided complete with cables and the necessary programs to capture video clips in MPEG format or JPEG images. This allows the user to create a personal reference library of images or video clips recorded during the analysis of documents or banknotes, and to edit the images and to print them as well. All explanations, which concern the installation and use of this option and its programs, can be found on the respective User's Manual. We invite you to read the instructions and in case of difficulties you can request additional information from our technical support team.

Figure 10 – Video to USB optional adapter.

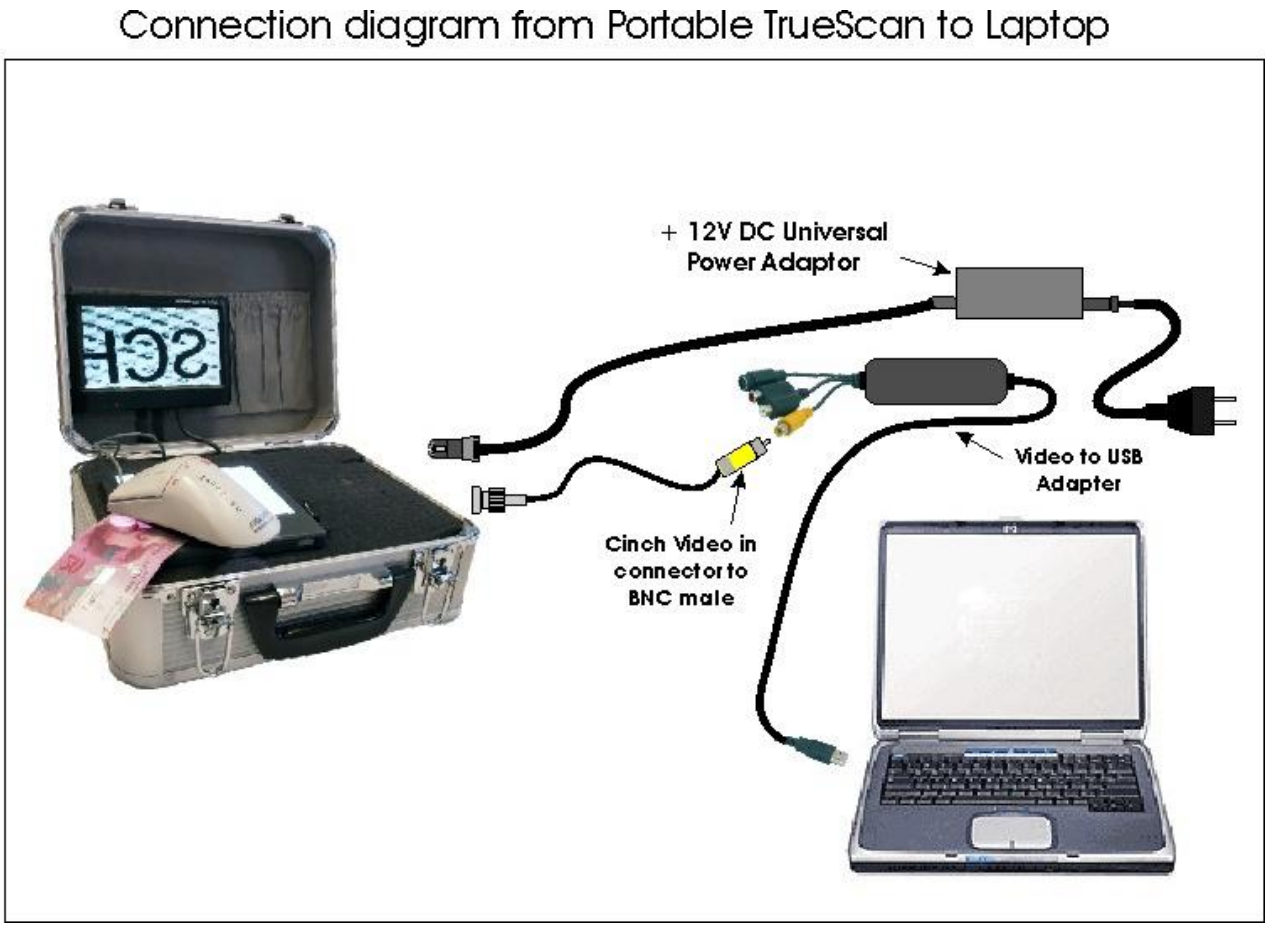
Connection diagram from Portable TrueScan to Laptop
+ 12V DC Universal
Power Adaptor
Video to USB
Adapter
Cinch Video in
connector to
BNC male

Figure 11

Technical specifications

Enlargement:	20 times on a 7" display
Video output:	Composite video signal NTSC color; resolution 510x492 pixels; 380 TV lines.
Light sources:	White; red 615 nm.; yellow 575 nm.; green 528 nm.; cyan 510 nm.; blue 470 nm. Magenta 410 nm.; UV1 375 nm.; UV2 385 nm.; IR1 780 nm.; IR2 880 nm.
Standby time:	After 10 minutes from TrueScan automatically turn off, the case will turn off automatically.
Manual turn off:	Pressing the case power-on button for more than two seconds turns the unit off; (the same button turn the case on).
External power supply:	Universal switching supply; Input voltage 100-240 AC, 50/60Hz; Output voltage adjusted at 12 Volts DC./ 2500 mA.
Consumption:	12 Volts DC, 2100 mA, maximum consumption 25 Watts.
Endurance:	4 hours of continuous use (6000 mAh at 12 Volts) / 8 hours of normal use.
Charge:	at 500 mA for 12 hours maximum.
Operating temperature:	–0°C to +40°C (-32°F to +104°F)
Storage temperature:	–20°C to +60°C (-4°F to +140°F)
Humidity:	0% to 90% (from 0°C to 35°C or from 32°F to 95°F). 0% to 70% (from 35°C to 50°C or form 95°F to 122°F)
Dimensions:	Length 200 mm.; width 280 mm.; height 110 mm.
Weight:	Case 3,6 Kg.