USER MANUAL

ATEQ VT520

Version 2.2 (4MT-05)

操作手册

www.ateq.com

Reference: UM-27200G-U

Recommendations

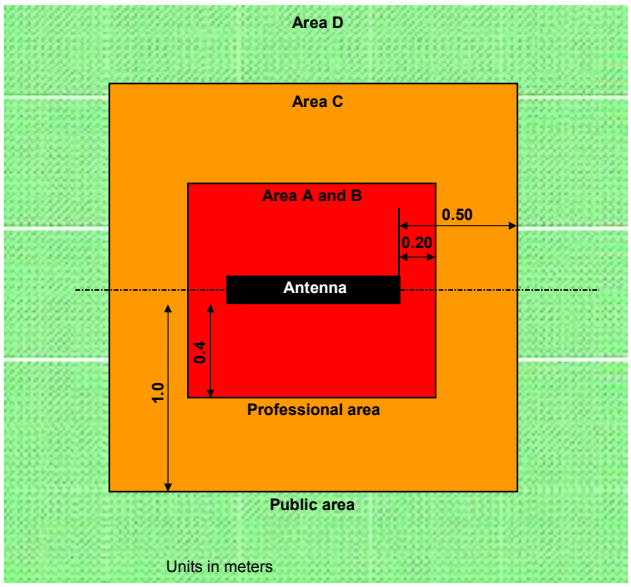
Concerning the electromagnetic fields transmitting instruments:

This instrument is an electromagnetic fields transmitter. Its use and its access are regulated.

When the instrument is not in transmitting mode, no electromagnetic field is produce, so there is no exposure risk during this period. **It is appropriate to limit the access (exposures areas) during emission period.**

Exposures areas are necessaries around the antenna. There are four areas:

- Area A: Prohibited access, unless specific arrangement,
- Area B: Strictly limited access,
- Area C: Limited access,
- Area D: Free access.



Standards and references:

In all the cases, the installation must be done with regards to the practice code and being in agreement with the French standard AFNOR UTE C99-111 (October 2002).

Security:

In the menu of the instrument, there is a security mode to avoid any start cycle by the start key located on the front panel. It is appropriate to have this option validated.

We would like to bring to your attention that ATEQ will not be held responsible for any accident connected to the improper use of this instrument, to the work bench or to the lack of compliance with safety rules.

ATEQ, THE ASSURANCE OF A COMPETENT AFTER SALES SERVICE

■ THE ATEQ AFTER SALES SERVICE IS :

- a team of qualified technicians,
- a permanent telephone assistance,
- agencies close to you for faster reaction,
- a stock of spare parts available immediately,
- a car fleet for rapid intervention,
- a commitment to quality ...

■ THE OVERHAUL

ATEQ carries out the overhaul of your instruments at interesting prices.
The overhaul corresponds to the maintenance of the instrument (checking, cleaning, replacing of used parts) as part of preventive maintenance.
Preventive maintenance is the best way to guarantee reliability and efficiency. It allows the maintenance of a group of instruments in good operational order and prevent eventual break-downs.

■ MAINTENANCE KITS

The ATEQ After Sales Service proposes, two kits destined for the preventive maintenance of the pneumatic circuits of instruments.

■ CALIBRATION

This may be carried out on site or in our offices.
ATEQ is attached to the COFRAC and delivers a certificate following a calibration.

■ TRAINING COURSES

In the framework of partnership with our customers, ATEQ offers two types of training in order to optimise the usage and knowledge of our instruments. They are aimed at different levels of technician:

- method / control training,
- maintenance / upkeep training.

■ A TARGETED TECHNICAL DOCUMENTATION

A number of technical documents are at your disposal to allow you to intervene rapidly in the event minor breakdowns:

- problem sheets describing and offering solutions to the main pneumatic and electronic problems,
- several maintenance manuals.

■ A QUALITY GUARANTEE

The instruments are guaranteed for parts and labour in our offices:

- 2 years for leak detection equipment,
- 1 year for electrical tests to norms instruments,
- 1 year for the accessories.

Our After Sales Service is capable of rapidly answering all your needs and queries.

PREAMBLE

1. DEFINITION OF THE ATEQ VT520

The principle of this instrument is to awaken and then retrieve data from smart sensors mounted on vehicle wheels, in order to check their identifiers.

The instrument interacts with the smart sensors without contact.

2. FEATURES

2.1. RADIO FREQUENCIES

Awakening transmission frequency is: 125 kHz (LF).

触发传感器使用的信号频率为125kHz

Reception frequencies are: 433 MHz or 315 MHz (RF).

接收传感器信号频率为 433 MHz 或315 MHz

RF awakening transmission frequencies and other reception frequencies are also available upon request.

2.2. TYPE OF SENSORS

This instrument is designed and can be used for the measurement of any requested sensors.

仪器可支持当前市面上的各种此类型胎压传感器的需求

3. DESCRIPTION OF THE TEST CYCLE

The measurement cycle consists of 1 phase:

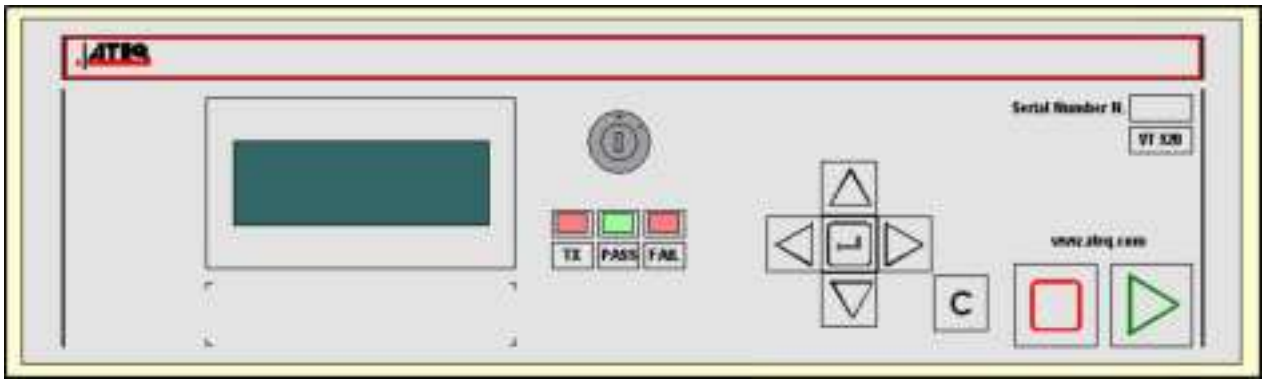
	1	
Start 开始	**Sensor checking** **触发传感器**	Cycle end 测试结束

Start	Starting the test cycle. 开始测试程序
Sensor checking	A frame is transmitted in the air and the instrument is going in receive mode to read a sensor's frame. 向空中发射低频信号，同时接收胎压传感器反馈的特定信号。
End of Cycle	The cycle stops automatically. The sensor's frame parameters are displayed. Identifier, wheel pressure, temperature, etc. 通常测试程序会在设置的条件下自动完成，并将获取到胎压传感器的信息显示及保存。

Chapter 1
INSTALLATION OF THE INSTRUMENT

***Note**: all the cables and connectors refered in this chapter can be supplied by ATEQ, contact ATEQ for more information.*

1. APPEARANCE OF THE ATEQ VT520



The **ATEQ VT520** is supplied in a moulded plastic case.

VT520的外壳使用工程塑料。

The upper cover is attached to the main body by six screws.

上盖为可拆卸结构

2. INSTALLATION OF THE INSTRUMENT

2.1. ON/OFF SWITCH

I: ON 开

O:OFF 关

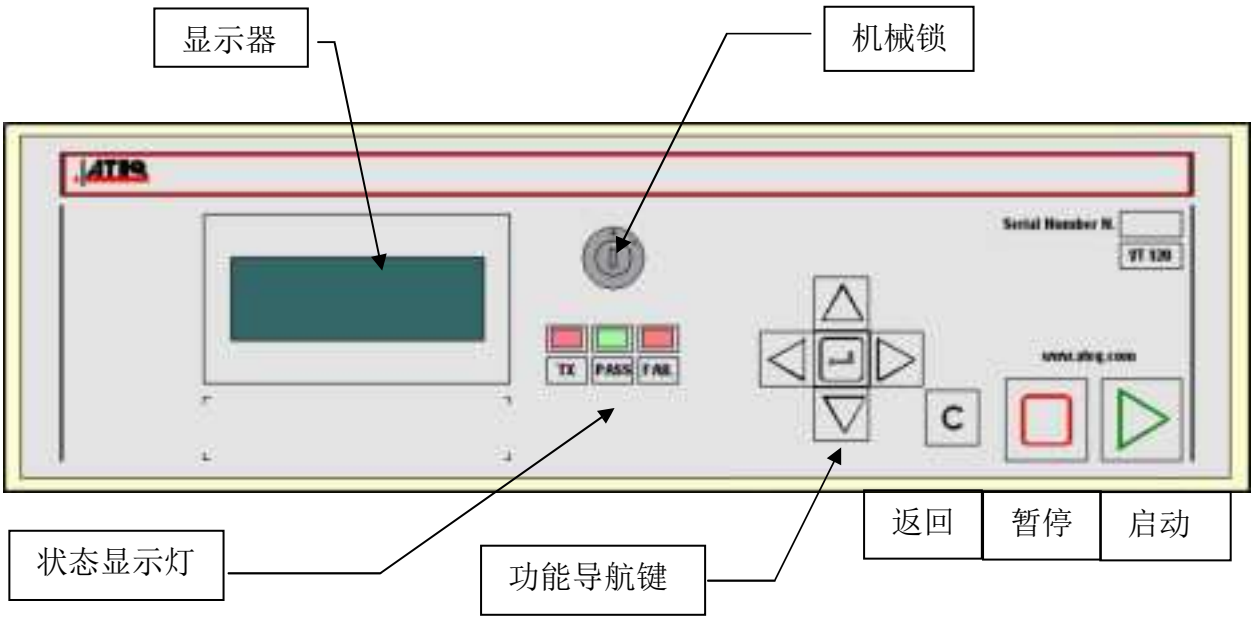
2.2. POWER SUPPLY

The **ATEQ VT520** operates under a supply of 100 to 240 V AC.

VT520的供电电压为110V～240V 交流电。

Chapter 2
USER INTERFACES

1. APPEARANCE OF VT520 FRONT PANEL前面板按钮



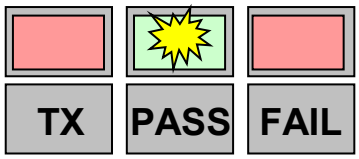
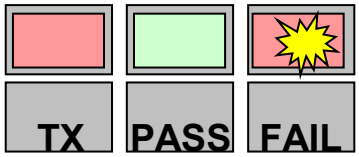
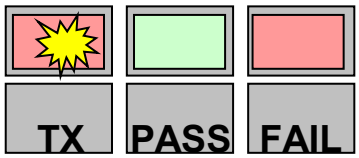
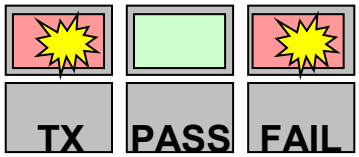
2. DISPLAY AND LIGHTS 显示及状态显示灯

2.1. 4 LINE LCD DISPLAY

当设备上电启动时，在LED上会显示当前设备的软件版本号，即左边显示的XX-XXX，不同厂商会显示的版本会不一样

2.2. FUNCTIONS OF THE INDICATOR LIGHTS
状态显示灯的说明

The  symbol represents an indicator which is lit.

Test part PASS indicator. 当测试成功，PASS绿灯常亮	
Test Part FAIL indicator. 当测试失败，FAIL红灯常亮	
Transmission indicator. 测试过程中，TX灯闪动	
Warning. 测试异常，TX与FAIL灯亮	

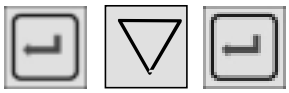
Chapter 3
START-UP AND SETTINGS

1. POWERING-UP THE ATEQ VT520 启动VT520

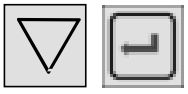
Supply the apparatus with 110 ~ 240 V AC. Switch Power ON. When powered up the instrument:
供电电压为110V～240V AC。当打开电源开关时，仪器会依次显示如下界面：

- Displays version … 软件版本的显示		ATEQ VT5 Version XX.XXi
…then displays the main menu. 设备启动完成界面		RUN/Pr:001 VALVE TRIGGER READY

2. CREATION OF A TEST PROGRAM

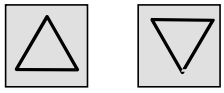
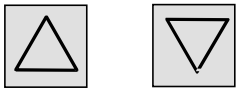
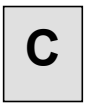
To modify the parameters, turn the key to the **ACCESS** position. 更改设备参数时，需将钥匙拧到绿色的点位		RUN/Pr:001 READY
To access the main menu, press **ENTER**. In the main menu, place the cursor in front of the **PARAMETERS** menu. Confirm with the **ENTER** key. 使用上下键选择 **PARAMETERS**，回车键进入		MAIN MENU RUN PROG. : PARAMETERS SPE CYCLE :none
The **PARAMETERS** menu is used to manage test programs. PARAMETER选项用于管理程序 If the various programs to be created have different parameters, they must be created one by one.不同的传感器或者车型须使用独立的程序号，可以单独设置各个传感器或者车型。 If the programs have identical parameters, a base program can be created and then the Copy-Paste function can be used to duplicate the program as many times as is necessary. 如果两个程序有一样的设置，可以使用复制粘贴功能		PARAMETERS Copy Paste Pr :001 Pr :002

2.1. CHOICE OF THE PROGRAM NUMBER

Position the cursor in front of the chosen program number and confirm with the **ENTER** key.可以使用上下键选择程序		PARAMETERS Copy Paste Pr :001 Pr :002

2.2. PARAMETERS SETTINGS
参数设置

The procedure to follow for setting the test parameters is identical in each case.
下面流程为更改设置的一个实例

First, position the cursor in front of the chosen parameter using the navigation keys (here, VALVE)使用上下键选择需要修改的参数		PARAM/Pr001 VALVE TYPE VALVE ID : Hex. Press.UNIT : kPa
Then, confirm with the **ENTER** key. The cursor will move to the right of the display. 使用回车键进入需要修改的参数		PARAM/Pr001 VALVE TYPE VALVE ID : Hex. Press.UNIT : kPa
Modify the value using the navigation keys. 使用上下键选择参数		PARAM/Pr001 VALVE TYPE VALVE ID : Hex. Press.UNIT : bar
Once the value is modified, confirm with the **ENTER** key. 回车键确认修改的参数		PARAM/Pr001 VALVE TYPE VALVE ID : Hex. Press.UNIT : bar
To exit from the menu, use the **CANCEL** key. C键返回主菜单		PARAMETERS Copy… Paste Pr:001 VALVE TEST Pr:002 VALVE TEST

常见参数说明

2.2.1. Time out 超时时间

Time allow to the sensor to answer. Over this time, if the device has not receiving any frame, the message "**NO RESPONSE**" is displayed.
超时时间是指仪器和传感器之间的通讯时间。如果超过这个时间没有获取到传感器的信息，则显示“**NO RESPONSE**”。如果在此时间内获取到了相关信息，则通讯结束。

2.2.2. Power 功率大小

Set the emitting power. All sensors don’t have the same sensitivity so the emitting power can be adjust. The power can also be adjust in order to limit the emission range of the instrument. Adjustment: 0 % to 100 %, step 1 %.

设置触发传感器的功率大小。不同传感器的灵敏度可能不一样，需要根据实际情况进行调整

2.2.3. LF output 低频天线的类型

The power is adjusted in the "**Power**" parameter. Power选项是用于调整低频触发信号的选项

This mode selects one or several transmitting antennas and her transmitting mode. The various modes are: **A + B** the two antennas are transmitting together, **A** or **B** antenna only,
天线板中包含A B两组天线。可以选择其中一组或者两组同时工作。

The transmitting power is modulated by the **H** letter: example **A + B : H**. "**H**" = full power and "**h**" half power.

单组天线的功率输出，可以分为满功率输出（H）和半功率输出（h）。

2.2.4. Valve ID

The sensor identifier (ID) can be displayed in hexadecimal or decimal.
设置输出传感器的格式，十六进制（HEX）或者十进制（DEC）

2.2.5. Pressure units

The different units are bar, mbar, PSI, Pa, kPa, MPa.
设置输出压力值的单位

2.2.6. Temperature units

The different units are Celsius (C) or Fahrenheit (F) degrees.
设置输出温度的单位

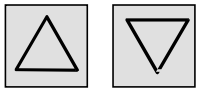
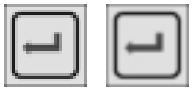
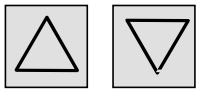
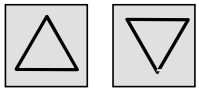
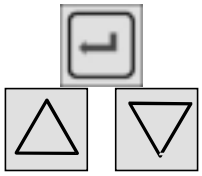
2.2.7. Functions

The **FUNCTION** menu gives access to additional parameters which must first be activated in the **CONFIGURATION** menu and then the **EXTENDED MENU**.

If no additional parameters are confirmed in the **EXTENDED MENUS**, the **FUNCTION** menu will be empty when selected.

功能菜单里面包含扩展功能，扩展功能需要在**CONFIGURATION**选项中打开后，才能在此被选择。

3. DUPLICATION OF A TEST PROGRAM 复制测试程序

To modify the parameters, turn the key to the **ACCESS** position. 将钥匙打到绿点位置		
Starting from the main menu, position the cursor in front of the **PARAMETERS** function. 按C键，进入主菜单，用上下导航键选择PARAMETERS		MAIN MENU RUN PROG. : 01 PARAMETERS SPE CYCLE :none
Confirm with the **ENTER** key. Select the Copy-Paste function. Confirm the function again using the **ENTER** key. 使用回车键进入右图程序列表选择Copy Paste,回车键进入		PARAMETERS Copy Paste Pr:001 VALVE A Pr:002 VALVE B
Next, confirm the **COPY** function. 选择COPY，按回车键，左侧三角会跳到右侧		PARAM/Copy Paste COPY :Pr PASTE :Pr
Display the number of the program to be copied using the navigation keys. (In this case, program no.1). 用上下键选择需要复制的程序		PARAM/Copy Paste COPY :Pr 001 PASTE :Pr
Confirm using the **ENTER** key. 使用回车确定需要复制的程序		PARAM/Copy Paste COPY :Pr 001 PASTE :Pr
Placer the cursor in front of the **PASTE** function. 上下键选择PASTE选项		PARAM/Copy Paste COPY :Pr 001 PASTE :Pr
Confirm with the **ENTER** key. Assign a number to this new program using the navigation keys (For example no.3). 使用上下键选择需要粘贴的程序号		PARAM/Copy Paste COPY :Pr 001 PASTE :Pr 003
Confirm with the **ENTER** key, the display confirms that the program has been copied.		COPY IN PROGRESS

回车键确定粘贴的程序（注意此操作会覆盖原程序，且不可撤销）		
The program 1 parameters are copied into program 3. In this example program 3 and 1 are identical. 此时复制粘贴成功		PARAM/Copy Paste COPY :Pr 001 PASTE :Pr 003

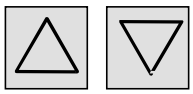
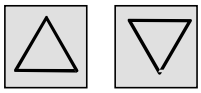
Press the **CANCEL** key **C** twice to return to the main menu.

按C键，可以返回到主菜单。将钥匙扳回到红点，此操作完成。

4. STARTING A CYCLE

开始一个程序测试

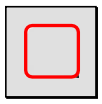
4.1. CHOICE OF THE PROGRAM TO BE RUN选择需要运行测程序

Position the key in the **ACCESS** position. 将钥匙旋转到绿点		
Starting from the main menu, place the cursor in front of the **RUN PROG.** function. 用上下键选择 RUN PROG		MAIN MENU ▶RUN PROG. : 01 PARAMETERS SPE CYCLE :none
Confirm with the **ENTER** key. The cursor will move to the right of the display. 回车键进入选择程序		MAIN MENU RUN PROG. : 01 ◀ PARAMETERS SPE CYCLE :none
Display the number of the program required by scrolling through the numbers with the navigation keys. 上下键选择需要运行的程序		MAIN MENU RUN PROG. : 04 ◀ PARAMETERS SPE CYCLE :none
Confirm your choice with the **ENTER** key. 回车键确定选择的程序		MAIN MENU ▶RUN PROG. : 04 PARAMETERS SPE CYCLE :none

5. STARTING A MEASUREMENT CYCLE 运行选择的程序

Press the **START** key to start a measurement cycle. 运行键开始程序		RUN/Pr:001 LEAR 315 LF CODE 3 READY
The cycle phase is displayed on the LCD window: **CYCLING** 运行中		RUN/Pr:001 LEAR 315 LF CODE 3 CYCLING

6. STOPPING A CYCLE 终止运行的程序

Press the **RESET** key to stop the measurement. The display "**READY**" indicates that the instrument is ready to perform a new measurement test. 使用暂停键终止当前程序		RUN/Pr:001 LEAR 315 LF CODE 3 READY

Chapter 4
FUNCTIONS OF THE INSTRUMENT

1. MENU STRUCTURE

Program sequencing 程序内循环的设置

This function enables several tests to be carried out by the instrument one after the other following sequencing conditions.

此功能用于设置多个程序之间的内循环

The sequencing order can be edited; the choice of the following program is defined in the parameters. By default the programs are sequenced according to their original number P+1 which can be modify. This function is not operative in the SNIFFING mode (infinite test time).

此循环是可以被编辑，可以选择下一个程序号。默认情况是选择下一个程序号。但是此功能选择 SNIFFING触发命令时默认是未开启。

When an active program is sequenced with another program, a "+" is displayed behind the program number.

当一个程序开启了内循环功能，在程序号后面会出现“+”号。

NEXT PROGRAM, INTER-CYCLE (wait or coupling time between two cycles). Sequencing conditions: ALL RESULTS (under all result conditions), PASS (test good), FAIL (test not good), ALARM.

循环条件可包括：程序间的跳转时间，成功与失败时候的跳转条件。

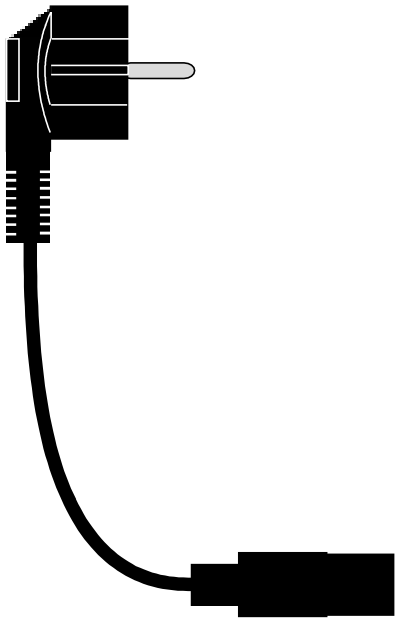
Position the key in the **ACCESS** position. 将钥匙旋转到绿点		
Starting from the main menu, position the cursor in front of the **FUNCTIONS** function. 按C键，进入主菜单，用上下导航键选择**FUNCTIONS**	△ ▽	PARAM / Pr001 ▶FUNCTIONS
Confirm with the **ENTER** key. Select the **FUNCTIONS**. 回车键进入**FUNCTIONS**		RAM / Pr001/FUNCTIONS ▶ATTENUATION : No PR:SEQUENCE : No
Position the cursor in front of the **PR:SEQUENCE** function. 用上下导航键选择 **PR:SEQUENCE**	△ ▽	RAM / Pr001/FUNCTIONS ▶PR:SEQUENCE : No

Confirm with the **ENTER** key. Choose Yes with the navigation keys 用上下键，选择Yes打开此功能		RAM / Pr001/FUNCTIONS PR:SEQUENCE : Yes
Confirm with the **ENTER** key. 使用回车键进入此功能		UNCTIONS/PR:SEQUENCE NEXT PROG: 02+ INTER-CYC :0.0S ALL :No
Confirm with the **ENTER** key. Choose the **NEXT PROG** with the navigation keys 使用上下键选择此功能		UNCTIONS/PR:SEQUENCE NEXT PROG: 09+ INTER-CYC :0.0S ALL :No
Choose Sequencing conditions with the navigation keys 回车和上下键设置循环条件		UNCTIONS/PR:SEQUENCE ALL :No PASS :No FAIL :Yes
Confirm your choice with the **ENTER** key. 回车键确认设置		UNCTIONS/PR:SEQUENCE PASS :No FAIL :Yes ALARM :Yes

Chapter 5
ACCESSORIES

1. ACCESSORIES SUPPLIED WITH THE INSTRUMENT

1.1. MAINS POWER CABLE
主电源线



The power supply cable of the **VT520** with the integrated antenna allows its connection to the mains supply network (from 100 to 240V AC).

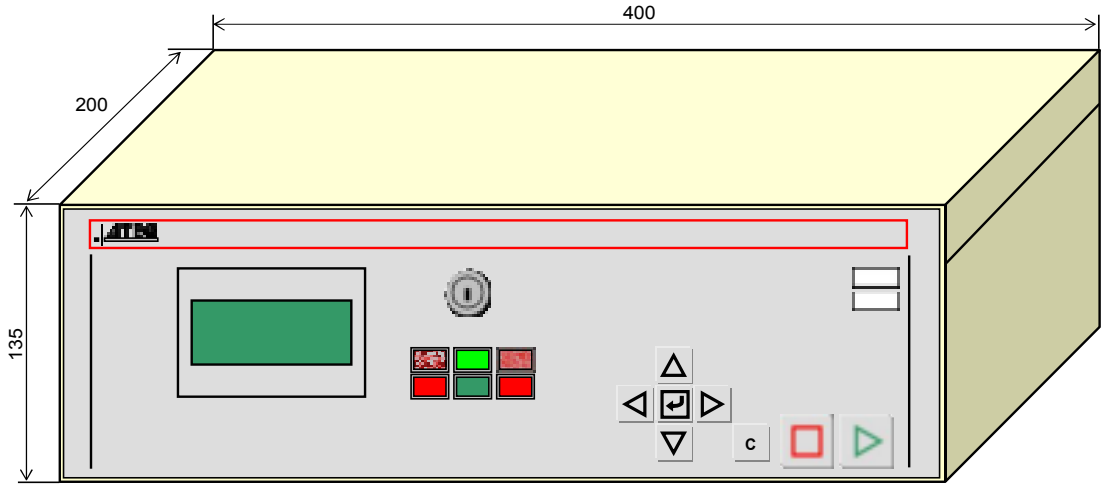
VT520的供电电压为110V～240V 交流电。

1. TECHNICAL CHARACTERISTICS VT520

1.1. CHARACTERISTICS

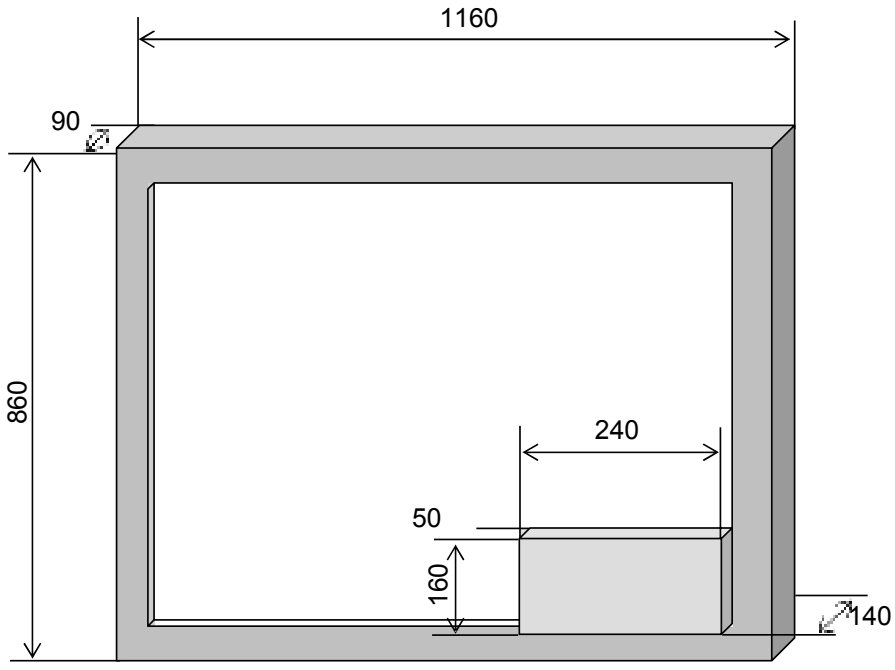
	VT520
Dimensions H x L x D (mm):	400 x 200 x 135
Power supply:	100 to 240 V AC 2.5 A minimum.
Weight (kg)**:**	About 2.5.
Temperatures :	
Operational:	+10°C to +45°C
Storage :	0°C to +60 °C

1.2. DIMENSIONS



1.3. ANTENNA CHARACTERISTICS

	ANTENNA
Dimensions H x L x D (mm) :	1160 x 860 x 140 (overall)
Weight (kg)**:**	about 27
Temperatures :	
Operational:	+10°C to +45°C
Storage :	0°C to +60 °C



FCC Caution:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception,which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different
from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC' s RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.