

# ST-975 user manual

Model : ST—975

ST-975 is a long distance control seat screen of LED display screen family. The function is powerful, and performance is excellent. ST-975 not only can use computer mainframe to change display contents and the flow speed and mode of display contents, but also use RS485 to connect computer mainframe, and realize several tens kilometers long distance control; in addition, according to actual condition, ST-975 can be employed as master display or slave display, and can be connected in parallel 255 pieces of display screens at most. Installation is convenient; operation is simple and easy.

## ◆ Characteristics

- Cooperating with DISTOOL display screen control tool can support any language in the world, and change display contents at user's pleasure.
- Applying high brightness LED composes  $48 \times 16$  dot matrix one-color display screen, and one piece of display screen can display three Chinese characters(simplified Chinese character/traditional Chinese character  $16 \times 16$ ) or six English letters ( $16 \times 8$ ).
- Support GIF animated cartoon file, TXT text file, and BMP photograph file; the available space is 30KB, and high-grade edition has internal library, its available space exceeds 64KB.
- Using computer mainframe can replace display contents, and change the speed and mode of display contents.
- Have multi-level display brightness and flow speed adjustment function, and many kinds of time stay mode options, user can carry out adjustment according to actual needs.
- Connecting with computer mainframe can realize several tens kilometers long-distance control by a RS485; and can be connected in parallel 255 pieces of display screens at most.
- Apply constant current drive mode. Constant current can make sure that the current of every LED is identical, and can improve brightness and prolong LED's life, in a word, the display screens driven by constant current are over better than other display screens driven by constant voltage.
- May be employed as main screen or subsidiary screen, and the standard mode is a piece of main screen drives two pieces of subsidiary screens.
- May choose high-grade version; using a main screen can directly drive 31 pieces of subsidiary screens.
- May apply RS232 interface, which provide convenience for connecting with computer serial interface; using USB converting serial wire directly connect with computer.
- LED display screen may choose to apply various colors such as green, yellow, blue, and white.
- Support date display mode, and can display temperature and relative humidity.

## ◆ Application fields

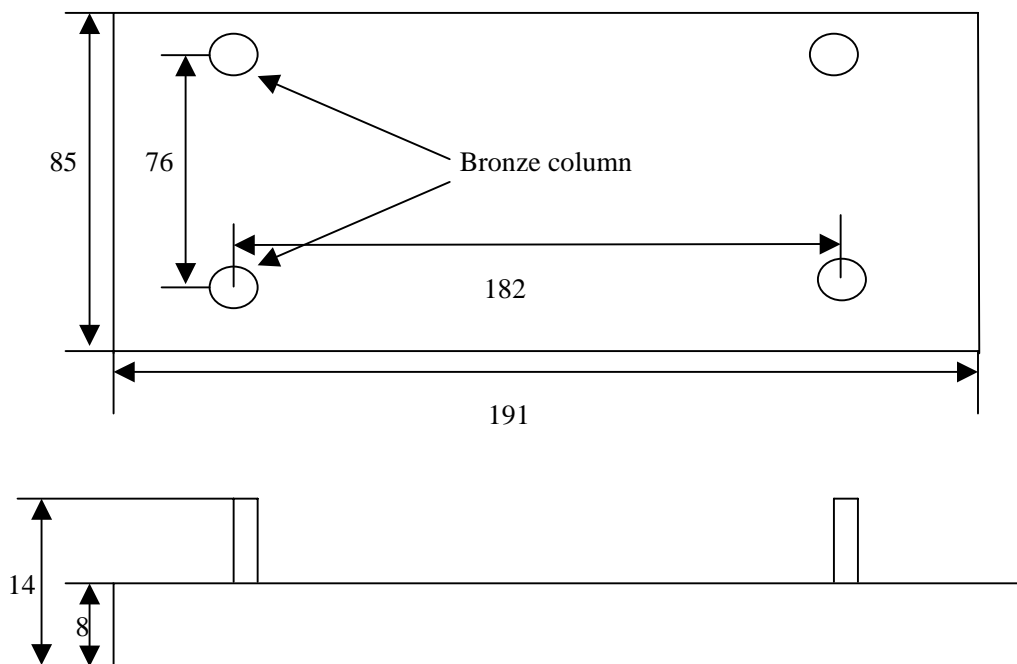
- Council house, office, etc.
- Band, stock exchange, etc.
- Dining room, hospital, etc.
- Bus, sail, train, etc.



## ◆ The Files Relating to ST-975

- 《DISTOOL Display Screen Control Tool User Manual》-----cnstl802.pdf
- 《ST-991AR5 Upgrading device User Manual》-----cnstl201.pdf
- 《the serial interface communication protocol of LED display screen 》-----cnstl101.pdf

## ◆ Outline Dimension (unit: mm)



## ◆ SETUP Setting Key-press Instructions

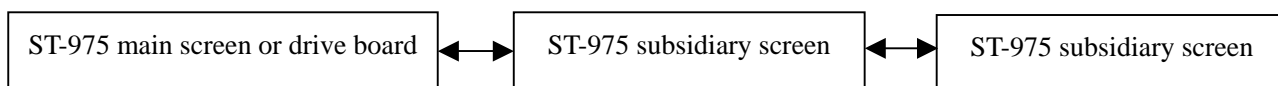
Two internal switches: SETUP1 and SETUP2.

User doesn't pay attention to SETUP1 at present.

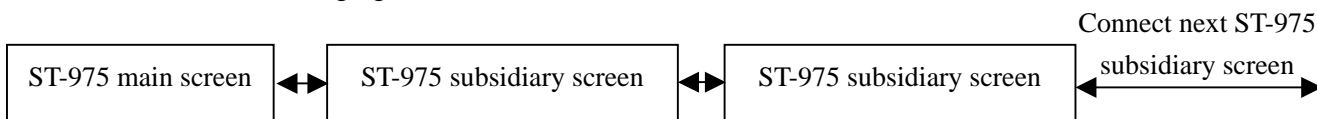
SETUP2 is used to modify the IP address of display screen. Connecting with power supply can converter IP address from 01 to 255 in order.

## ◆ Basic Application Instructions

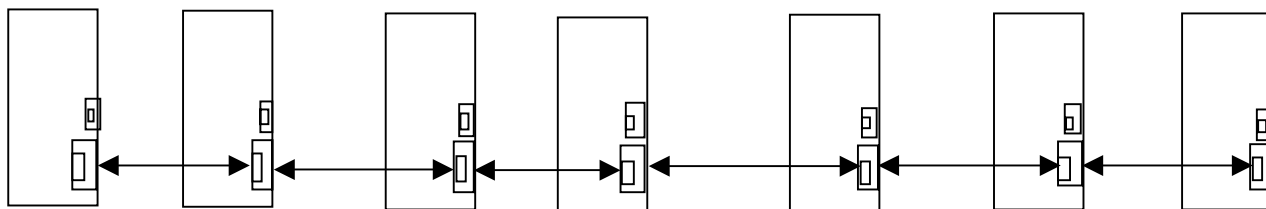
ST-975 may be employed as main screen, and the standard mode is a piece of main screen drives two pieces of subsidiary screens. High-grade version can directly use a piece of main screen to drive 31 pieces of subsidiary screens. In addition, applying DL61A or DL61C drive board to drive ST-975 is acceptable. Connection mode is as fellow:



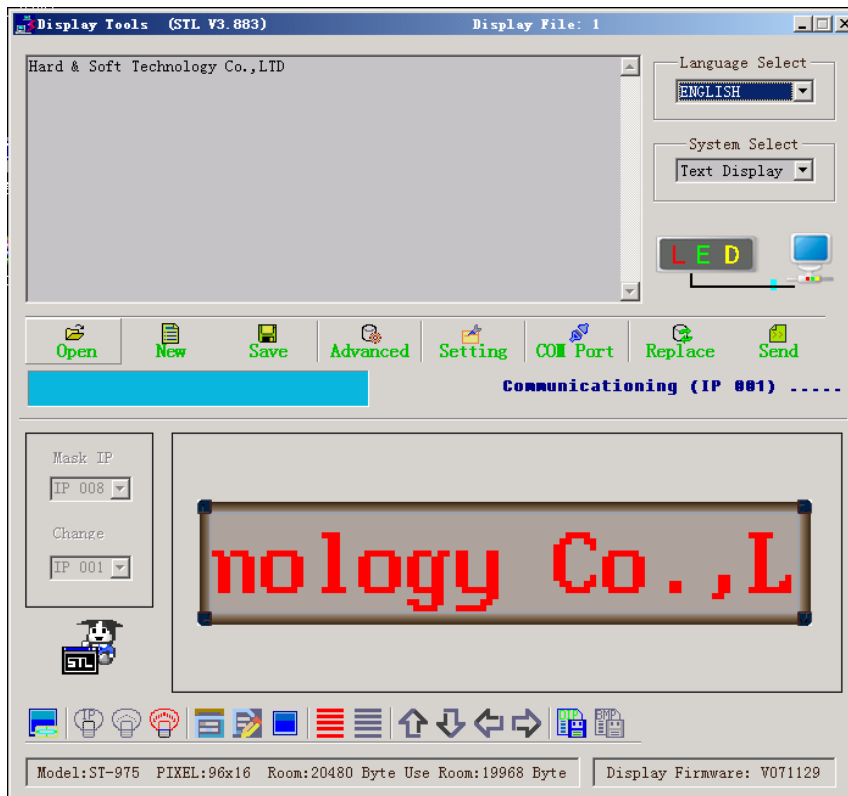
The connection mod of high-grade version is as fellow:



Connecting with computer mainframe can realize several tens kilometers long-distance control by a RS485; and can be connected in parallel 255 pieces of display screens at most. The display screens have been connected in parallel cooperate with DISTOOL display screen control tool, which can ascertain the IP of every display screen and control the display contents of every display screen. Connection mode (only connecting in serial 4-pin 2.54mm space between sockets is ok.) is as fellow:



## ◆ Using DISTOOL Display Screen Control Tool Controls High Brightness Display Screen

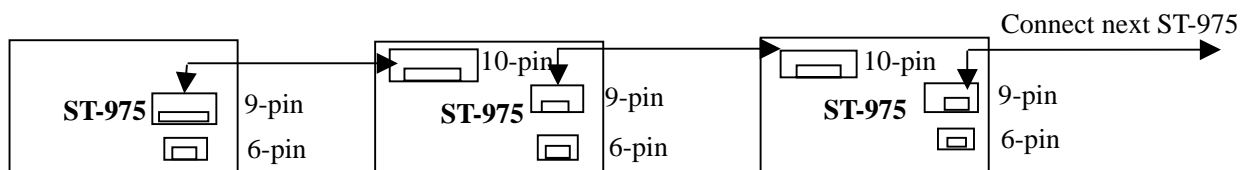


More information, please refer to 《DISTOOL Display Screen Control Tool User Manual》.

## ◆ Interface Instructions

- A 3-pin 2.54mm space between socket, it is used to telecontrol display screen.
- A 4-pin 2.54mm space between socket, it is used for RS485 interface connection; connecting with computer mainframe, cooperates with display screen control tool.
- A 4-pin 2.0mm space between socket, it is used to upgrade display screen.
- A 5-pin 2.54mm space between socket, it is used for RS232 interface connection; connecting with computer mainframe, cooperates with display screen control tool.
- A 6-pin 2.54mm space between socket, it is used to connect power supply.
- A 9-pin 2.54mm space between socket, it is used for signal output.
- A 10-pin 2.54mm space between socket, it is used for display screen both sides same display.
- Subsidiary screen has only sockets of 6-pin, 9-pin, and 10-pin.

## ◆ Communication Connection Diagram



## ◆ The Methods of Upgrading ST-975

### the first method:

Upgrading device connects with computer through serial port, at the same time connects with ST-975, and then supplying power can directly upgrade ST-975.

### the second method:

First, upgrading device connects with computer, and downloads files used to upgrade ST-975 to the upgrading device; second, after breaking away computer, upgrading device directly connects with ST-975; finally, supplying power can directly upgrade ST-975.

## ◆ Electrical Characteristics, Temperature and Humidity specifications

- Working life: exceeds five years.
- working temperature: 0°C ~ +85°C。 If user needs the product of industry level, can directly ask for our company when orders goods.
- working humidity: 0% ~ 80%。
- working current and working voltage: please refer to the following table:

Model	Normal voltage	Peak voltage	Normal current	Peak current
ST-975 (one-color)	12V	24V	12V/0.13A	12V/0.71A
			24V/0.1A	24V/0.36A

The specifications of this product will be updated and perfected unceasingly, and specifications subject to

**change without notice.**