



Viale G.di Vittorio, 30

20090 Pantigliate (MI)

Tel. 02.55230061

<http://www.histoline.com>

email: [histoline@histoline.com](mailto:histoline@histoline.com)

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## TEC 2900-2 Cryo Console User Manual



The CE mark, consisting of the letters 'C' and 'E' in a stylized, bold font, indicating compliance with European safety standards.

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# 1.Important Notes

## 1.1 Symbols used in the text and their meanings



**Warning and cautions appear in a gray box and are marked by a warning triangle .**



**Notes, i.e. important information for the user, appear in a gray box and are marked with the symbol .**



**Solvents and reagents that are inflammable are marked with this symbol.**



**This warning symbol indicates the surface on the instrument that are hot during operation. Avoid direct contact to prevent risk of burning.**

**(5)**

**Figures in brackets refer to item numbers in figures.**

**ENTER**

**Figures in brackets refer to item numbers in figures.**

## *1.2 Information and specified use*

TEC 2900 Embedding Center is a paraffin embedding station full controlled by microprocessor. It is designed for embedding tissue in pathology or research laboratories.

Any other use will be considered improper..

## *1.3 User group*

- The Histo-Line Laboratories may only be operated by qualified personnel;
- The user must read the operating instructions supplied and be familiar with all the instrument's technical details before any work on the instrument can be carried out;

## *1.4 Instrument type*

All information in this instruction manual applies only to the instrument type indicated on the title page.

A name plate with the serial number is attached to the back of the instrument.

## 2.Safety



**Be sure to comply with the safety instructions provided in this chapter.  
Be sure to read these instructions, even if you are already familiar with the operation and use of other Histo-Line Laboratories products.**

### 2.1 Notes

This instrument has been built and tested in accordance with the safety regulations for electrical measuring, control, regulating and laboratory devices. To maintain this condition and ensure safe operation, the user must observe all notes, warnings and hazards contained in this Operating Manual.



**If additional requirements on accident prevention and environmental protection exist in the country of operation, this instruction manual must be supplemented by appropriate instructions to ensure compliance with such requirements.**



**The protective devices on both instrument and accessories may neither be removed nor modified. Only service personnel qualified by Histo-Line Laboratories may repair the instrument and access the instrument's internal components.**

## *2.2 Regulations on the instrument itself*



**Safety regulations marked with a warning triangle on the instrument itself mean that when operating or exchanging respective parts of the instrument, the correct operating steps as described in the instruction manual supplied, must be adhered to. Non-observance can cause accidents, injuries and/or damage to the instrument/accessories**

## *2.3 Precautions for use and installation*



**After unpacking the instrument, place it appropriately in a correct position. Prior to his work read carefully the instructions given in this manual and look at the cables, network connectors, the accessories used to working procedures and the operating systems of control**

## *2.4 Transport, installation and site requirements*



- **Once removed from the box, the instrument may only be transported in an upright position;**
- **CAUTION! The voltage selector has been preset at the factory, please check that this setting complies with the local power requirements of your laboratory;**
- **Connect the instrument to a grounded power socket only using one of the power cables provided;**
- **Do not operate in rooms with explosion hazard;**
- **Exposure to extreme temperature changes between storage and installation locations and high air humidity may cause condensation inside the instrument. If this is the case, wait at least two hours before switching on the instrument;**
- **The protective devices on both instrument and accessories must neither be removed or modified;**

## 3. Warnings and hazards



**Be sure to comply with the warnings and hazards instructions provided in this chapter.  
Be sure to read these instructions, even if you are already familiar with the operation and use of other Histo-Line Laboratories products.**

The safety devices installed in this instrument by the manufacturer only constitute the basis for accident prevention. Primarily responsible for accident-free operation is above all the owner of the instrument and, in addition, the designated personnel who operates, services or cleans the instrument. To ensure trouble-free operation of the instrument, make sure to comply with the following instructions and warnings and hazards.



### **UNPLUG THE CRYO CONSOLE WHEN NOT IN USE**

**The switch down key on the Main Control Panel, turns off the instrument but not the Power.**

**Remove the Power Cable from it's wall socket when CRYO CONSOLE is not in regular use..**

### *3.1 Servicing and cleaning*



**Switch off the instrument each time before servicing and disconnect the main plug.**

**When using cleaners, please comply with the safety instructions of the manufacturer and the laboratory safety regulations and follow a specific chapter if any in this manual for the cleaning methods.**

**Before changing defective fuses, the instrument has to be disconnected from the mains.**

**Only fuses that are easily accessible may be replaced by the user.**

**During operation and cleaning, do not allow any liquid to penetrate inside the instrument and the transporting arm.**

**Service should be done by authorized personnel only.**



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## 4. Technical parameters

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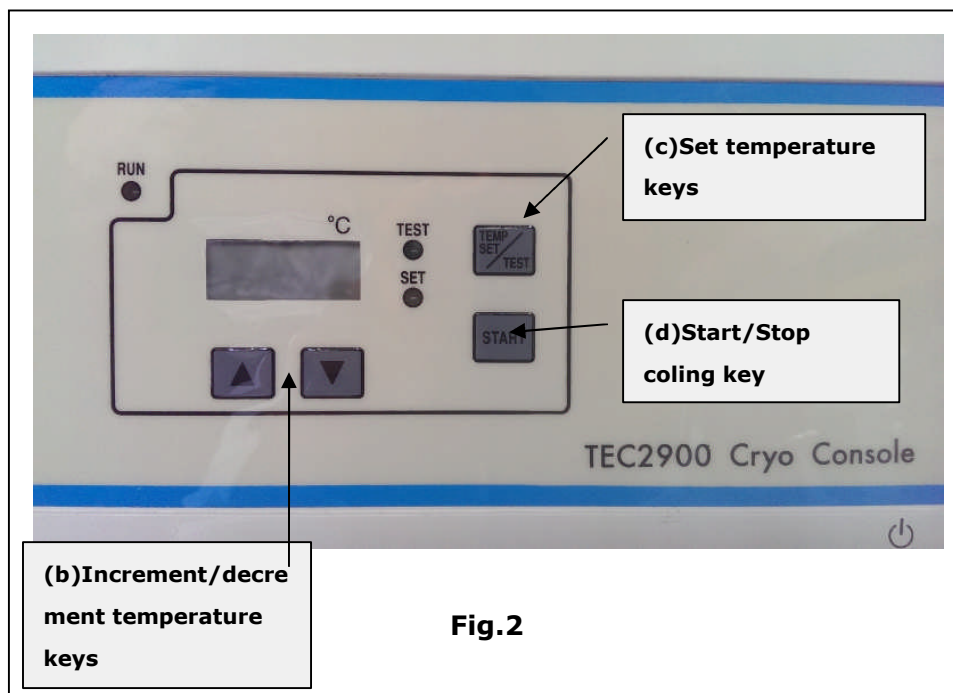
Refer to attached pages, download the electronic version of data sheet from [www.histoline.com](http://www.histoline.com) web site, or request to [customercare@histoline.com](mailto:customercare@histoline.com) for detailed information about technical data.

## 5. Product description

CC 2900 Cryo Console is provided with a control panel to set and monitor the desired temperature and a cooling surface settable.

Plexiglas cover to keep the temperature constant and avoid the formation of ice on the cooling surface and the creation of condensation.

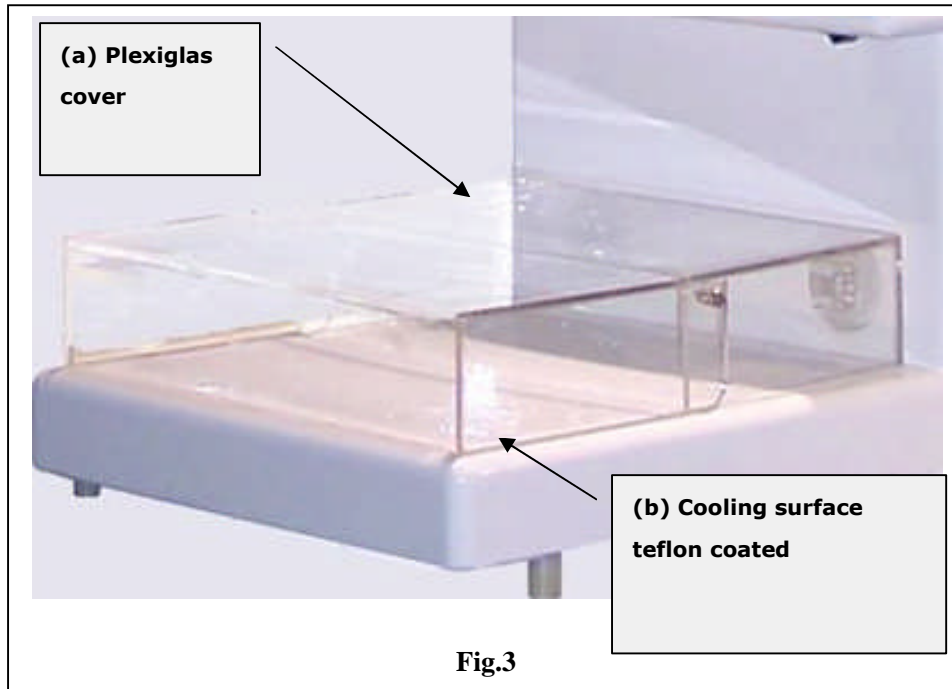
### 5.1 Control panel



**Fig.2**

By related keys it's possible to manage the cooling of the plate by setting the operating temperatures and start or end the cooling mode. **(Fig.2)**

## 5.2 Cooling surface



Equipped with Plexiglas cover (**Fig.3 a**) to maintain constant temperature and avoid the formation of ice and the creation of condensation on the cooling surface.

The cooling surface teflon coated (**Fig.3 b**) can accommodate up to 90 standard molds inclusion cassettes, and is equipped with anti-drip edge.

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## 6.Operation Cryo Console

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Through an internal cooling system gas cycle (without CFC), the plate is cooled.

Here will be positioned the blocks while maintaining the set temperature.

### *6.1 Keys functions*

#### *Key for temperature setting/checking*



To be used for setting and checking the temperature to maintain on the cold plate.

#### *Keys to increase temperature*



To use for the temperature rise of cooling to maintain on the cold plate.

#### *Keys to decrease temperature*



Use to decrease the temperature of cooling to maintain on the cold plate.

#### *Start /Stop cooling key*



To use for the start and stop of the refrigeration system on the plate.

## 6.2 Setting temperatures



**The cooling mode must be set to OFF, the temperature can not be set if the plate is cooling, make sure that the RUN LED is off.**

### Key for setting setting/checking

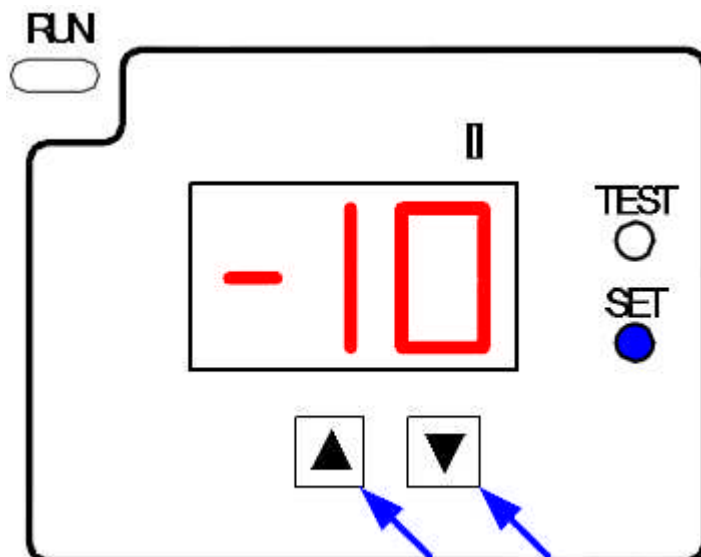


Press this button to enter setting mode temperatures. The **SET** LED on the control panel will go to **ON** and turn green.

Press this button a second time to exit the mode setting temperature. The TEST LED on the control panel will go to ON and turn green.



Using the buttons to increase or decrease the temperature on the display will show the temperature value chosen.



### *6.3 Start and stop of the cold plate*



**ATTENTION:**

**For proper cooling, avoiding too much icing, and a constant temperature, we recommend using Plexiglas cover supplied.**

#### *Start /Stop cooling key*



After you set the temperature, press this button to start the cooling of the plate. The **RUN** LED on the control panel will go to **ON** and turn green.

Press this button a second time to stop the cooling of the plate. The **RUN** LED on the control panel will go **OFF** and turn off green.

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## 7.Cleaning

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Always switch off and unplug the Power Cable from the wall socket. Each part of the equipment may be wiped using a tissue or soft cloth moistened with a little water to which a small quantity of mild detergent may be added. Take care to avoid water entering the equipment. Ensure that any traces of wax are removed from the contacts of the connector plugs and from the switch rocker.



**NEVER CLEAN CRYO CONSOLE WITH ABRASIVE OR CHEMICAL SOLVENTS.**

**The plastic parts will be damaged by abrasive cleaning agents and by solvents including alcohol, ether, xylene, toluene and chloroform. Such damage is not covered by the Product Warranty.**

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## 8. Troubleshooting

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<b>PROBLEMS</b>	<b>CAUSE</b>	<b>REMEDIES</b>
Refrigeration stops after a period of time	1. Fan damaged	1. Change it;
No refrigeration	1. Fuse blow; 2. Not enough refrigerant	1. Change it; 2. Call instrument support