

# CircuitSpecialists, Inc

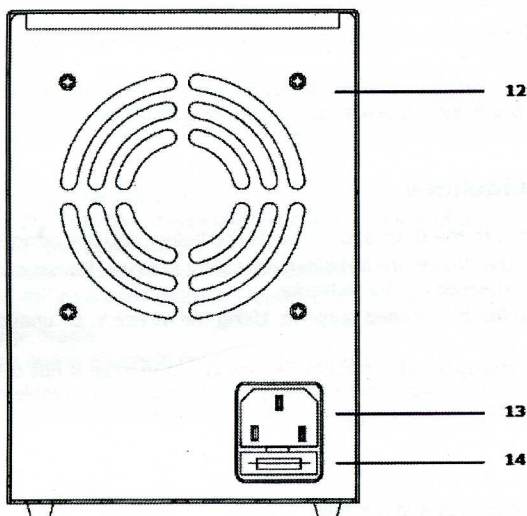
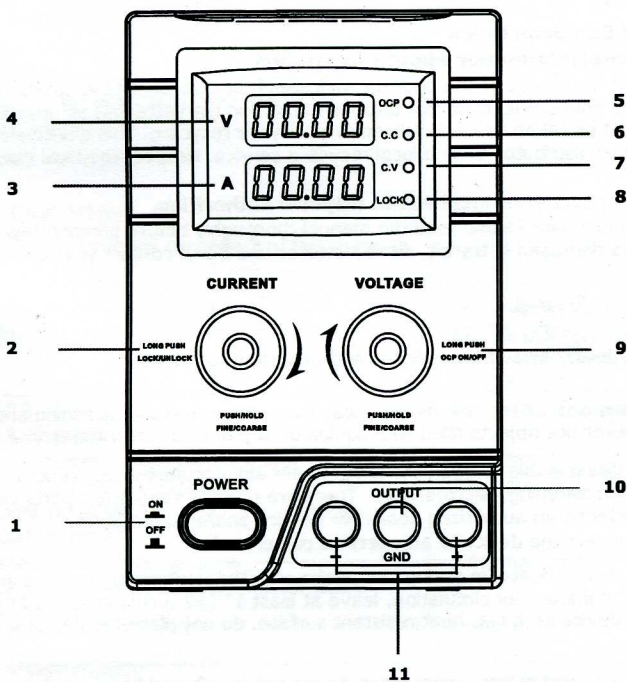
## CSI3005T

### Features

- 10mV/1mA precision and resolution
- Low noise and ripple
- Highly reliable OCP protection
- Keyboard lock function to prevent operator errors
- Large LED display









# USER MANUAL

## 1. Introduction

To all residents of the European Union

**Important environmental information about this product**



This symbol on the device or the package indicates that disposal of the device after its lifecycle could harm the environment. Do not dispose of the unit (or batteries) as unsorted municipal waste; it should be taken to a specialized company for recycling. This device should be returned to your distributor or to a local recycling service. Respect the local environmental rules.

**If in doubt, contact your local waste disposal authorities.**

Thank you for choosing Velleman! Please read the manual thoroughly before bringing this device into service. If the device was damaged in transit, don't install or use it and contact your dealer.

## 2. Safety Instructions

|  |  |
|--|--|
|  | Keep this device away from children and unauthorized users.  |
|  | <b>Indoor use only.</b> Keep this device away from rain, moisture, splashing and dripping liquids. Never put objects filled with liquids on top of or close to the device.   |
|  | <b>DO NOT</b> disassemble or open the cover under any circumstances. Touching live wires can cause life-threatening electroshocks. There are no user-serviceable parts inside the device. Refer to an authorized dealer for service and/or spare parts. Always connect the device to an <b>earthed</b> power socket. |
|  | <b>Caution:</b> device heats up during use. Make sure the ventilation openings are clear at all times. For sufficient air circulation, leave at least 1" ( $\pm 2.5$ cm) in front of the openings. Place the device on a flat, heat resistant surface, do not place the device on carpets, fabrics...                |
|  | Always disconnect mains power when device not in use or when servicing or maintenance activities are performed. Handle the power cord by the plug only.  |
|  | Keep this device away from dust and extreme temperatures.  |
|  | Protect this device from shocks and abuse. Avoid brute force when operating the device.  |
|  | Do not use the device when damage to housing or cables is noticed. Do not attempt to service the device yourself but contact an authorised dealer.   |

## 3. General Guidelines

- Familiarise yourself with the functions of the device before actually using it.
- All modifications of the device are forbidden for safety reasons. Damage caused by user modifications to the device is not covered by the warranty.
- Only use the device for its intended purpose. Using the device in an unauthorised way will void the warranty.
- Damage caused by disregard of certain guidelines in this manual is not covered by the warranty and the dealer will not accept responsibility for any ensuing defects or problems.
- Keep this manual for future reference.

## 4. Features

- dual LED display for voltage and current
- coarse and fine adjustments of voltage and current

- protection mode: voltage or current limitation
- output connectors: insulated safety plugs
- organic glass front panel / other panels made of steel
- low noise temperature controlled fan
- 4 digit display
- button lock function
- constant voltage / constant current
- fuse-protected
- colour: white-grey

## 5. Overview

Refer to the illustrations on page 2 of this manual.

|   |   |    |  |
|---|---|----|--|
| 1 | power button  | 8  | panel lock indicator   |
| 2 | current adjustment dial   | 9  | voltage adjustment dial  |
| 3 | Ampere meter  | 10 | earth (ground) terminal, connected to the chassis and earth pin of the power supply socket |
| 4 | Volt meter<br>Displays the voltage limit.   | 11 | output terminals   |
| 5 | over current protection indicator   | 12 | fan  |
| 6 | constant current indicator<br>Light up when the device is in constant current mode. | 13 | power supply socket  |
| 7 | constant voltage indicator<br>Light up when the device is in constant voltage mode. | 14 | fuse holder  |

## 6. Operation

### Switching the Power Supply On or Off



Always connect the device to an **earthed** power socket.

1. Connect the included power cord to the back of the device and plug the other end into a suitable, earthed power socket.
2. Press the **Power** button to switch the power supply on.  
The device displays the last used setting.
3. Press the **Power** button to switch the power supply off.

### Set the voltage limit

To set the voltage limit you want to use:

1. Push the voltage dial until the coarse digit on the Volt meter blinks.
2. Turn the dial to set the value you want.
3. Push the button again to set the fine adjustment.
4. When done, wait for 2 seconds until the display stops blinking.

### Set Constant Voltage Mode

If you want to use the power supply in constant current mode:

Set the voltage limit.

Press and hold the Current button until the C.C indicator lights up. Press again to switch off constant voltage mode.

### Set the current limit

To set the current limit you want to use:



1. Push the current dial until the coarse digit on the Ampere meter blinks.
2. Turn the dial to set the value you want.
3. Push the button again to set the fine adjustment.
4. When done, wait for 2 seconds until the display stops blinking.

#### Connecting a Load

1. Connect the load's positive terminal to the red + terminal of the power supply.
2. Connect the load's negative terminal to the black - terminal of the power supply.
3. You can connect the + or - terminal to the green earth terminal of the power supply to pin the voltage to 0V (earth potential) at that terminal.  
If you leave the earth terminal unconnected, the output floats with respect to the ground.

#### Locking the Panel keys

To prevent unwanted operation of the panel keys, you can lock the front panel.

1. Press and hold the **Voltage adjustment dial** until the Lock indicator lights up. The buttons are now locked.
2. To unlock the panel, press and hold the button until the Lock indicator switches off.

#### Overcurrent Protection

1. To protect against overcurrent, set up the maximum current and then press and hold the **Current** dial until the **OCP** indicator lights up.
2. Press **Off/On** to apply the output to the load.  
If the output current becomes higher than the set value, the power supply cuts off the output and the **OCP** indicator flashes.
3. Disconnect the load.
4. To recover, press the **OCP** key.

## 7. Troubleshooting

- Nothing happens when you press the panel buttons.  
The buttons are locked. Press and hold the **Voltage** button for about 2 seconds.
- Power is on and output is switched on, but there is no output.  
The load is not properly connected, or the current setup is 0.
- The output voltage rises slowly when the output is switched on.  
The current setup is too small.

## 8. Cleaning and Maintenance



- Disconnect the device from the mains prior to maintenance activities.
- The power supply cables must not show any damage. Have a qualified technician maintain the device.
- Wipe the device regularly with a moist, lint-free cloth. Do not use alcohol or solvents.
- There are no user-serviceable parts, apart from the fuse. Contact your dealer for spare parts if necessary.
- Store the device in a dry, well-ventilated, dust-free room.

#### Replacing the Fuse

Only replace the fuse by a fuse of the same type and rating.

1. Before replacing the fuse, unplug the mains lead.
2. Wedge the fuse holder out of its housing with a flat-head screwdriver.
3. Remove the damaged fuse from its holder and replace with the exact same type of fuse.
4. Insert the fuse holder back in its place and reconnect power.

## 9. Technical Specifications

|                |   |
|----------------|---|
| input voltage  | 110 V  60 Hz       |
| output voltage | 0-30 V  adjustable |
| output current | 0-5 A adjustable  |

**CSI3005T**

|                        |                    |
|------------------------|--------------------|
| ripple voltage         | 1 mV               |
| ripple current         | 3 mA               |
| dimensions (W x H x D) | 110 x 156 x 260 mm |
| weight                 | 4.8 kg             |

