DE LA ROSA RESEARCH

DEPTH PERCEPTION APPARATUS

USER'S GUIDE

Model
14012A

DE LA ROSA
RESEARCH

Congratulations!

You have just acquired an innovative, high quality product. We have put our highest effort into each development stage. We are sure that you will find this equipment most reliable and accurate - exceeding your expectations.

Before using this device, we strongly recommend that you carefully read the user manual. There you will find all related information for correct handling and usage of this product.

We hope that you enjoy using this equipment as much as we did creating it.

De la Rosa Research Team.

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DETAILS

The Depth Perception Apparatus tests depth perception acuity. Depth perception is the ability to see the world in three dimensions and to perceive distance (the ability to judge which of several objects is closer or farther away from you, or to judge the distance between you and an object). In addition to being aesthetically appealing, the Depth Perception Apparatus represents the state-of-the-art in sensation and perception measurement technology, and offers feature-packed high performance, unparalleled functionality, superior accuracy, ease-of-use, and expandability. The Depth Perception Apparatus is the embodiment of an experienced psychologist's vision and technical perfection.

SPECIFICATIONS

Line Voltage: 110/220 V AC - 50/60 Hz.
Current: 10 Amps.

Heigh: 11” // Wide: 10” // Depth: 27”
Weight: 11 kg Aprox.

Accuracy: 1mm-0.5mm

Supplied with User Guide.

APPLICATIONS

Good depth perception is critical among people engaged in certain occupations, trades, or professions is essential, e.g., airplane and helicopter pilots, crane operators, bus drivers, athletes etc. Since good depth perception is so important to these professions, testing devices that can determine the quality of an individual's depth perception are essential for use in the employment selection process. Furthermore, the Depth Perception Apparatus can be found in hundreds of psychology laboratories worldwide, where they are used for research, as well as demonstrations for sensation and perception classes.

FEATURES

- Quality
- Durable
- Recyclable materials
- Accurate

BODY
Aluminum - stainless steel, HDPE and acrylic body for sturdy usage.
High resistance (and 100% recyclable) polymer base, easy to clean.

LED LIGHT
High intensity calibrated white LED.

FEATURES

LCD CONTROL
LCD and key pad control
Easy to read LCD display
Allows RPM and time measurements.
255 step motor control.

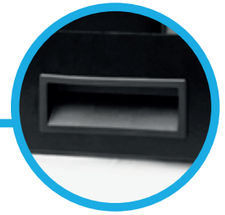
UNIVESAL CONTROL
Digital Displacement Control

FEATURES

POWER SUPPLY
Available for 110 V and 220V countries.

USB PORT
USB port for serial communication (the software will be available and supplied at no charge).

MATERIALS
Built from high-quality components manufactured in USA, Japan, Germany, Italy, etc.



HANDLE
Ergonomic handle for easy carrying.

PROCEDURE

Depth Perception Apparatus // User's manual

WARNING

Before you plug in the equipment be sure that the electric supply of your country or region is the right one to operate the equipment. Be aware that the unit can operated at 110V or 220V (50 or 60Hz). To arrange the voltage, change the position of the red switch located in the back of the equipment and select 110v or 220v supply by sliding left or right accordingly to your country's power supply. Failure to do so may cause permanent damage to the equipment.

PROCEDURE

// GENERAL RECOMMENDATIONS

Avoid using sharp objects with the product.

Always ensure the proper power input.

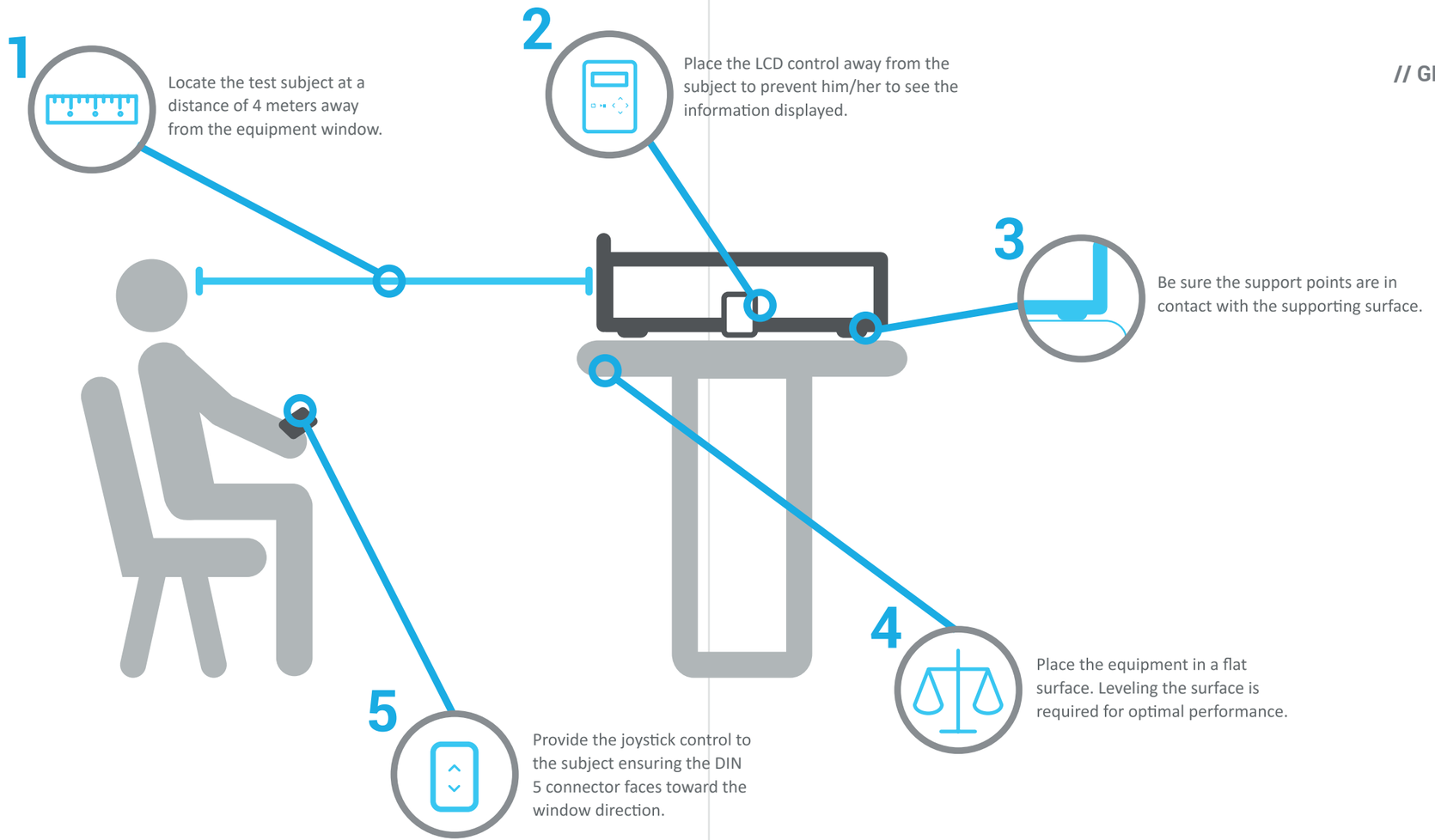
Protect the product from rain and water.

Do not try to fix or disassemble this product by yourself.

In case the product is not working properly, is damaged or needs maintenance, please contact us. We will gladly help you to solve any issue.

PROCEDURE

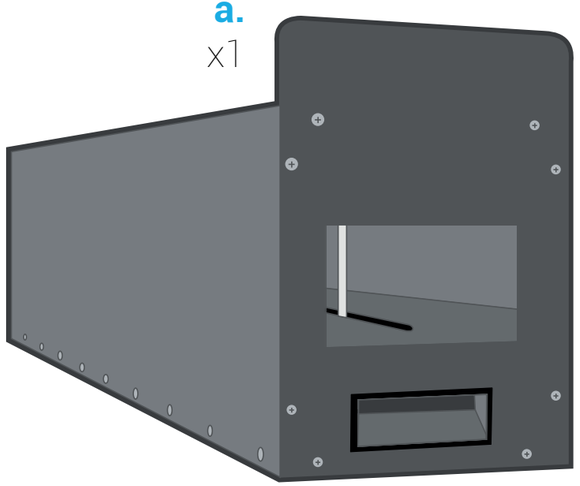
// GENERAL RECOMMENDATIONS



Depth Perception Apparatus // User´s manual

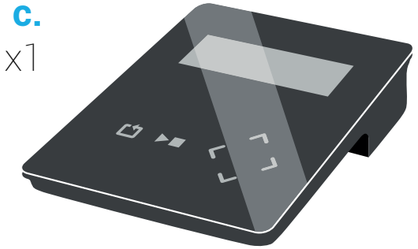
1// WHAT SHOULD BE INCLUDED IN THE PACKAGE?

a.
x1



b.
x1

c.
x1

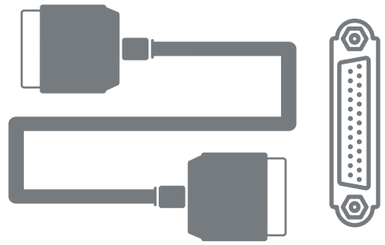


a. Depth Perception Apparatus body X1 // **b**. Universal Control x1 // **c.** LCD control x 1 // **d.** DIN 5 cable x 1
e. Serial cable DB25 x 1 // **f.** USB cable A-B x1 // **g.** Power cable (AC cable) x 1.

PROCEDURE
// INITIAL SETTINGS

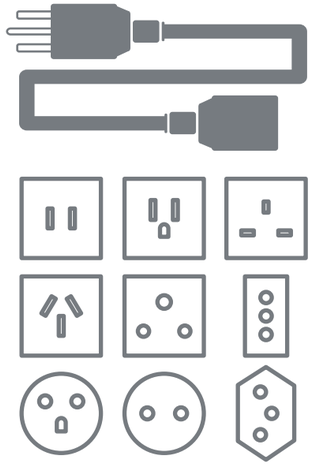
d.
x1

e.
x1



f.
x1

g.
x1



Depending on the geographical area, you will be given one of these AC cables (one per package).

2// HOW TO ASSEMBLE IT?

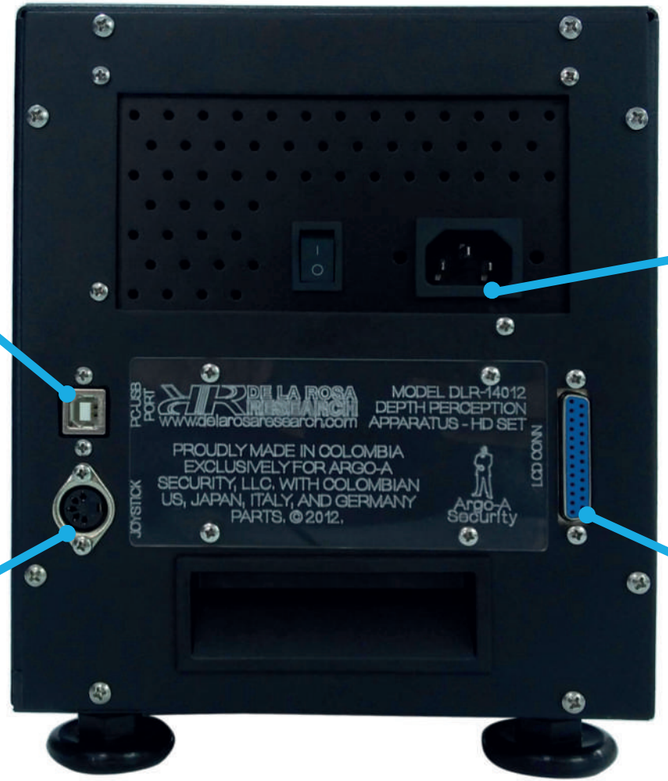
USB CABLE

USE ONLY IF USING CONTROL SOFTWARE.
The smallest end B of the USB cable **(f)** should be connected to this port.
The opposite end of cable A should be connected to a computer USB port.

This USB cable has two different ends:

DIN 5 CABLE

Connect the male end of any DIN 5 cable **(d)** to the Left DIN 5 female left side connector. The opposite end of the cable should be connected to one knob control **(b)**.
Repeat the process with right side connector.
*Knob controls works in any DIN 5 port of this device



PROCEDURE
// INITIAL SETTINGS

A/C POWER CABLE.

Connect the A/C cable **(g)**, to this port.
The opposite end should be connected to a 110/220VAC- 50/60Hz power outlet.

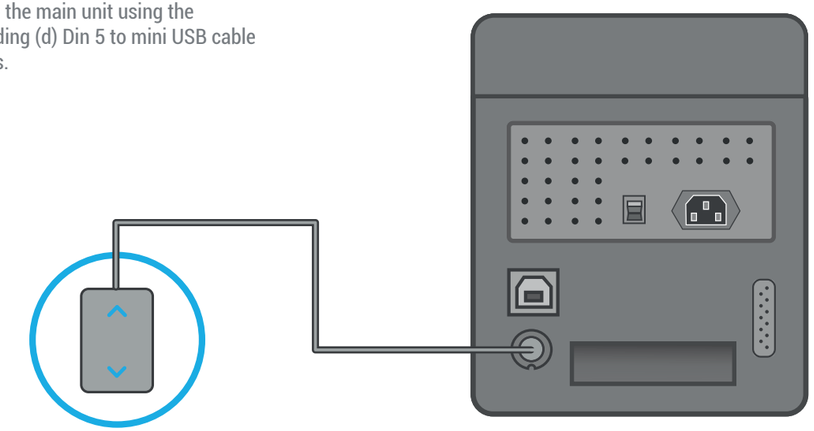
SERIAL DB25 CABLE.

Connect the male end of the Serial DB 25 cable **(e)** to this port.
The female end of the cable should be connected to the LCD control **(c)**.

1" CABLE CONNECTION SET UP

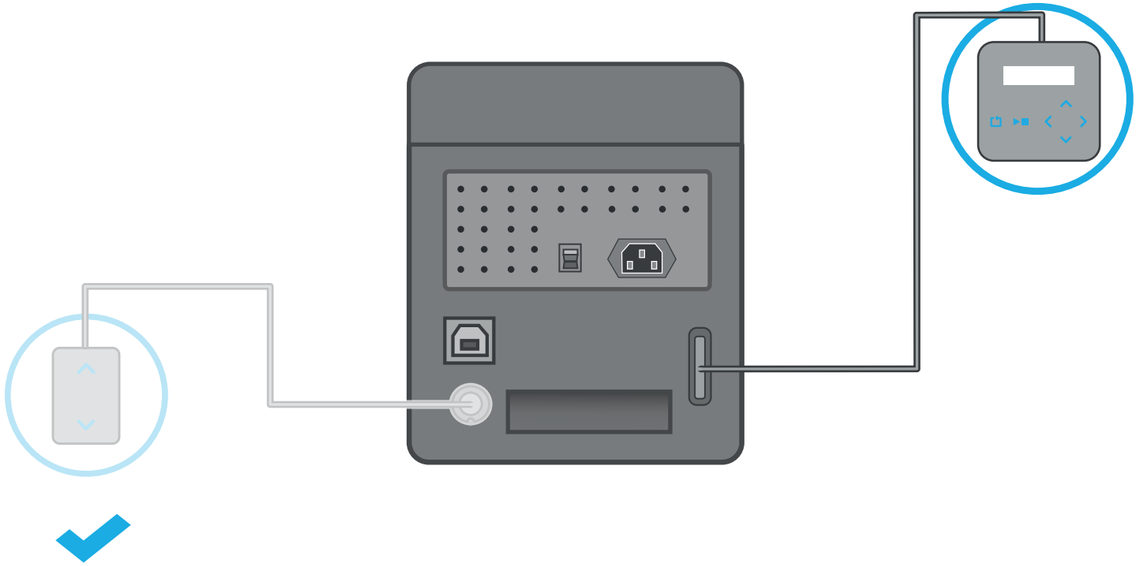
HANDHELD UNIVERSAL CONTROL

Connect the two handheld universal controls to the main unit using the corresponding (d) Din 5 to mini USB cable connectors.



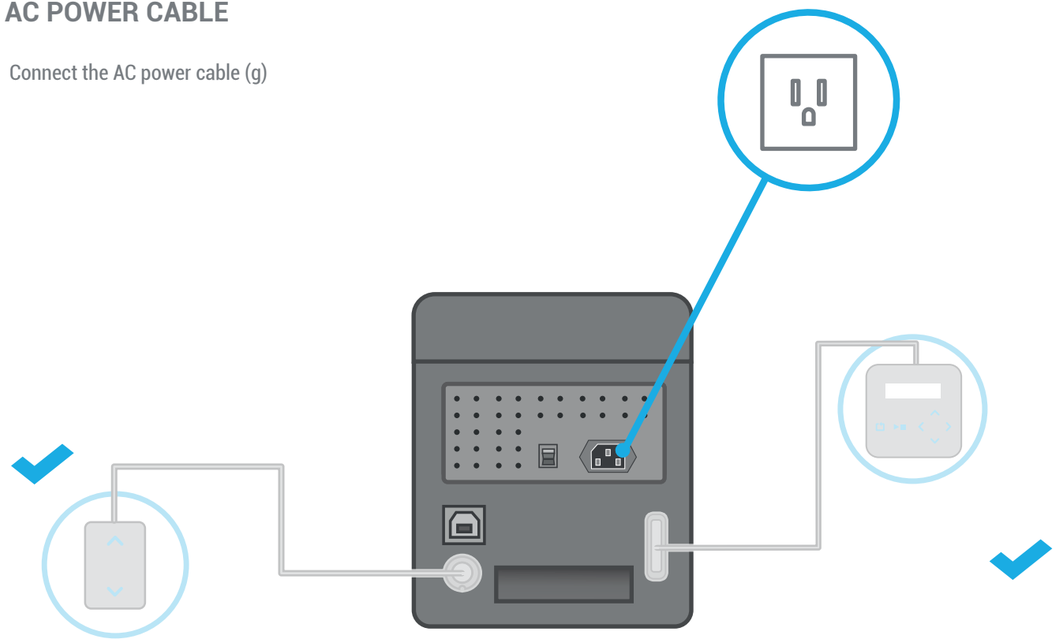
MAIN LCD CONTROL

Connect the main LCD control to the main unit using the corresponding (e) DB25 to USB 3.0 cable connector.



AC POWER CABLE

Connect the AC power cable (g)

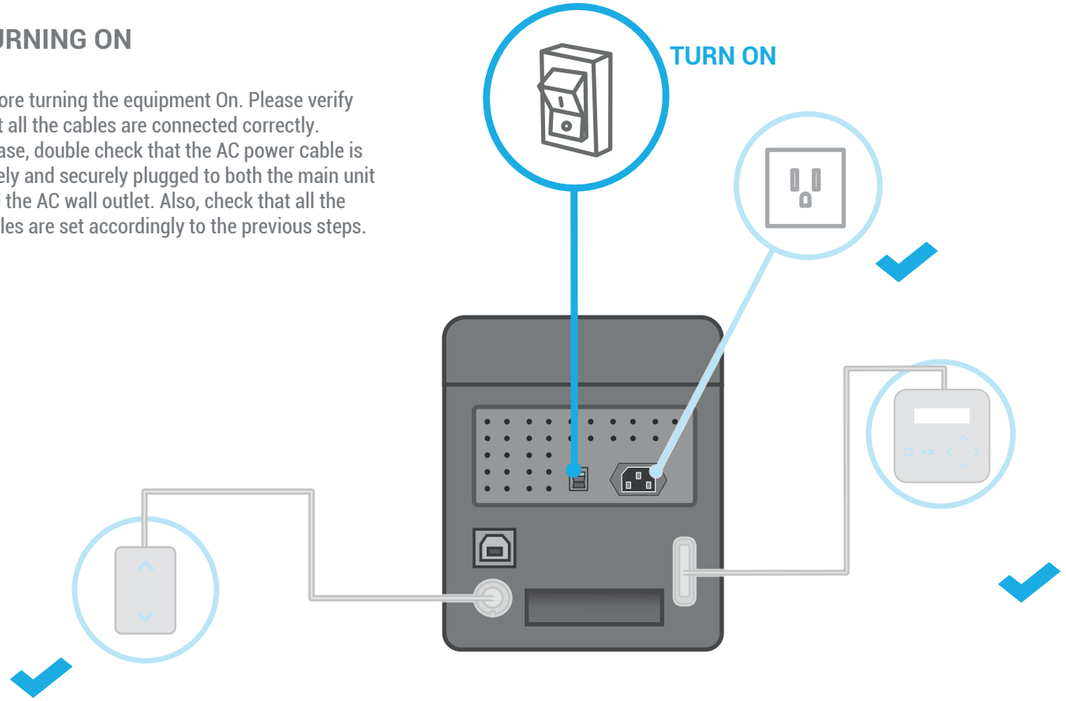


ATTENTION!

Please verify that the neither (f) USB B connector is connected to the equipment or the USB A connector is connected to the PC when you start the equipment.

TURNING ON

Before turning the equipment On. Please verify that all the cables are connected correctly. Please, double check that the AC power cable is safely and securely plugged to both the main unit and the AC wall outlet. Also, check that all the cables are set accordingly to the previous steps.



If you wish to use this equipment with the controlling software please follow the steps on page 43, else, please continue to follow the next steps, but without plugging the USB cable connector.

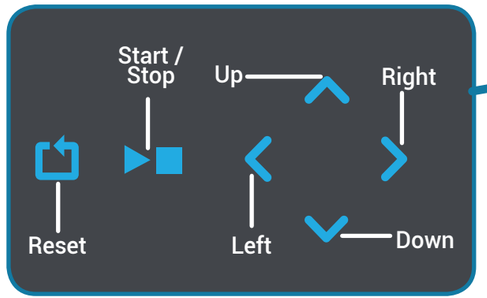
3" WHAT DOES IT MEAN?

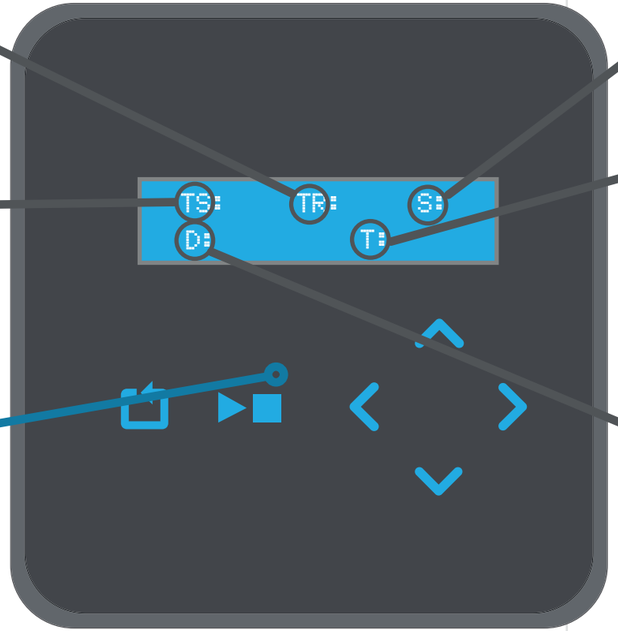
TR

Makes reference to the trial number. System is ready to save a maximum of 10 trials. Each trial saves position and time.

TS

TS means TEST and makes reference to the kind of test that you are running out. TEST can be A: Automatic or M: Manual





S

S means STATUS and makes reference to the TEST STATUS.

T

T means TIME and make reference to time taken by the subject to align mobile row with static row.
It will be measured in milliseconds.

1000 milliseconds = 1 second !

D

D means DISTANCE, in this space you will see the mobile row distance in reference to the static row. This distance can be positive or negative. It will be measured in millimeter.

12.3 millimeter = 1.23 centimeter !

PROCEDURE
// INITIAL SETTINGS

FAMILIARIZE
WITH STATUS CODES

STRT
Means that there is a test on course.

STP
Means that there is NO test on course.

CAL
Means that equipment is being calibrated. Moving row is aligning to static row.

ADJ
When TS is Automatic, ADJ means that moving row is adjusting to an automatic position

SLCT
When TS is Manual, SLCT means that mobile row's position is being selected by evaluator.

SAVE
Means that Trial information is being stored. It will take a few seconds.

1// SELECT THE KIND OF TEST.

Manual Test // Automatic Test

a.

Once the device has been plugged and turned ON, follow these steps.

Press the LEFT button to choose Manual Mode (M)

b.

Press the RIGHT button to choose Automatic Mode (A)

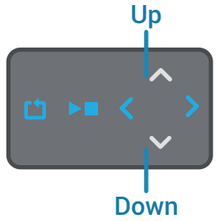
The manual test allows the researcher to manually adjust the distance from which he/she will set the starting point of the rod for depth perception evaluation.

The automatic test the equipment automatically adjusts the distance for the depth perception evaluation. In this mode you can select up to ten (10) different distances presented by the manufacturer.

2// SELECT THE TRIAL MEMORY LOCATION

a.

Once test mode has been selected, you should select the position to store the data of each test. Follow this steps:



By pressing UP or DOWN buttons, you can select one of the 10 posible location to store the data.

Please note that if you do not change location number each time that a new test starts, the information will be rewritten in the same location. To avoid that, each time that you end a test, change the location number to prevent data lost.

The equipment has 20 memory locations, ten (10) correspond to manual mode and ten (10) for automatic mode. These positions go from zero (0) to (9) in either of the two modes.

You can store distance (D) and time (T) information acquired during the performed test in any of the ten (10) memory positions that are independent for each mode.

2// MANUAL MODE

Calibration.

a.

If the rod is not at zero position (0) or if not aligned with the fixed rod indicator, the system will need a self-calibration to zero position (0).

Start / Stop

Press START/STOP button.

The equipment state (S) changes from Stop (STP) to Calibration (CAL).

b.

In the case when the distance is zero (0) or the indicators are aligned, system will not need to calibrate. System will start immeditely.

Start / Stop

Press START/STOP button.

The equipment state (S) changes from Stop (STP) to Select (SLCT).

Selection moving rod position.

This has to be done at the beginning of each test trial .

a.

Use the joystick control to slide the rod FORTH to the desired position.

Distance (D) will show the distance of the moving rod in reference to the static rod position.

b.

Use the joystick control to slide the rod BACK to the desired position.

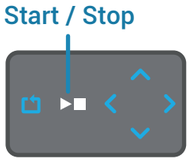
Distance (D) will show the distance of the moving rod in reference to the static rod position.

2// MANUAL MODE

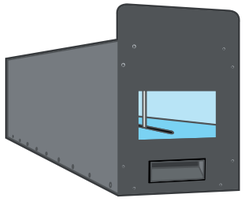
Starting a test.

a.

Once the desire position has been selected, evaluator shoul give the JoyStick control to the subject.



Evaluator should press START/STOP button to Start the test.



A white light inside the equipment body will turn on.

Time (T) will start running.

b.

Subject should decide if moving the joystick lever forth or back to align both rows.

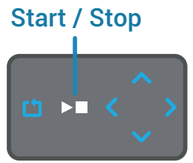
When Joystick lever is incline FORTH the moving rod will move FORTH in the rail.

A When Joystick lever is incline BACK, the moving rod will move BACK in the rail.

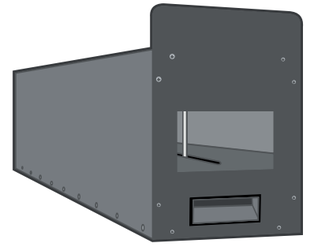
Ending a test.

a.

Once evaluated subject has announce that both rows are aligned, follow these steps:



Press START/STOP button.



The white light inside the equipment body will turn off.

TIME (T) will stop and will save the data at the selected position.

A few seconds after stoping the test the STATUS (S) will change from SAVE to STOP (STP)

After this steps you will be able to startup a new trial, repeat the current trial or start a new test.

3// AUTOMATIC MODE

Starting a test // Calibrating

Start / Stop

Evaluator should press START/STOP button to Start the test.

a.

If the rod is not at zero position (0) or if not aligned with the fixed rod indicator, the system will need a self-calibration to zero position (0).

The STATUS (S) will change from STOP (STP) to CALIBRATING (CAL).

b.

In the case when the distance is zero (0) or the indicators are aligned, system will not need to calibrate. System will start ADJUSTING (ADJ) mobile rod distance immeditely.

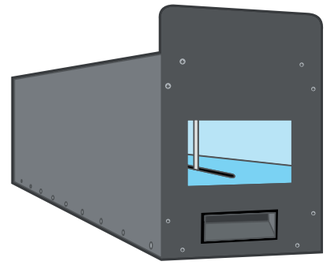
The STATUS (S) will change from STOP (STP) to ADJUSTING (ADJ).

Warning: Once the equipment has finished the automatic adjustment of the movable rod the equipment state (S) will change immediately from Adjust (ADJ) to Start (STRT), be sure the evaluated subject holds the joystick control, as evaluation will begin right at this point.

Starting a test

a.

Immediately after STATUS (S) will change from ADJUST (ADJ) to START (STRT), these two things will happen:



A white light inside the equipment body will turn on.

Time (T) will start running.

When equipment is set at Automatic (A) mode, each Trial Location (TR) has a predeterminated distance for the moving rod, these are the values for each TR:

TR # 0: -90.2	TR # 5: 37.53
TR # 1: 1.25	TR # 6: -37.53
TR # 2: 62.57	TR # 7: -1.25
TR # 3: 87.6	TR # 8: -62.57
TR # 4: -87.6	TR # 9: 90.2

Ending a test

a.

Once evaluated subject has announce that both rows are aligned, follow these steps:

Start / Stop

Press START/STOP button.

The white light inside the equipment body will turn off.

TIME (T) will stop and will save the data at the selected position.

A few seconds after stoping the test the STATUS (S) will change from SAVE to STOP (STP)

After this steps you will be able to startup a new trial, repeat the current trial or start a new test.

Note

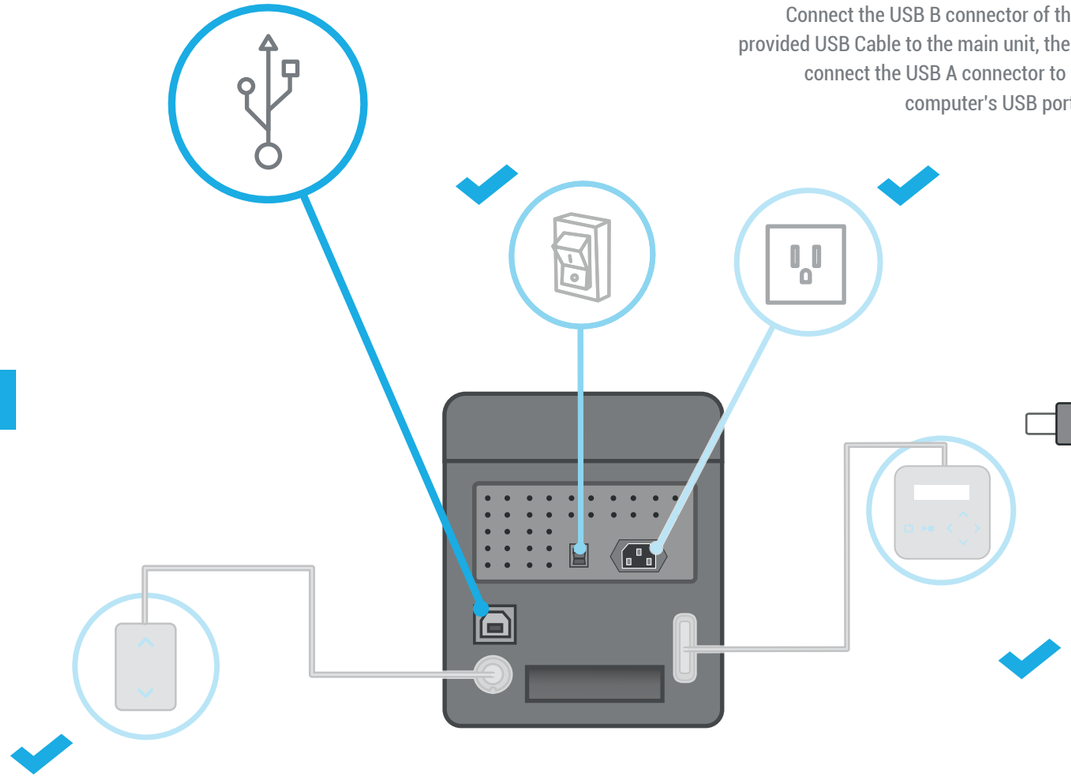
At this point you have been followed the connection and execution steps without the software;
If you want to implement the device with this, you can go to:

www.delarosaresearch.com/downloads.php?t=delarosa

A Then follow the next steps to plug-in the device with the computer.

USB Cable

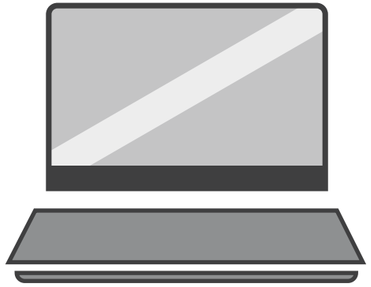
Connect the USB B connector of the provided USB Cable to the main unit, then connect the USB A connector to a computer's USB port.



Running the Controlling Software

While the computer is on and OS is running, execute the Controlling software by double-clicking on its icon. Follow up the instructions presented therein.

TURN ON



Please keep in mind that the equipment will start the communication protocol once the USB is plugged into the computer. The main unit will re-start automatically and the LCD control will display the re-start sequence. That means the unit has been reset by the computer to initiate the communication protocol.

If you wish to acquire the controlling software please follow this link:

http://www.delarosaresearch.com/downloads.php?t=delarosa

THIS IS THE END OF THIS USER GUIDE.

This was all the basic information you need for using the DEPTH PERCEPTION APPARATUS; but this is just the beginning of the fun.

If there is something that is not clear to you, or if you have any questions, please feel free to contact us at any time.

We will be very happy to hear from you.

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