[pro**multis**]

uno**table**elite

USER'S MANUAL

Uno Elite Table Screen Controller
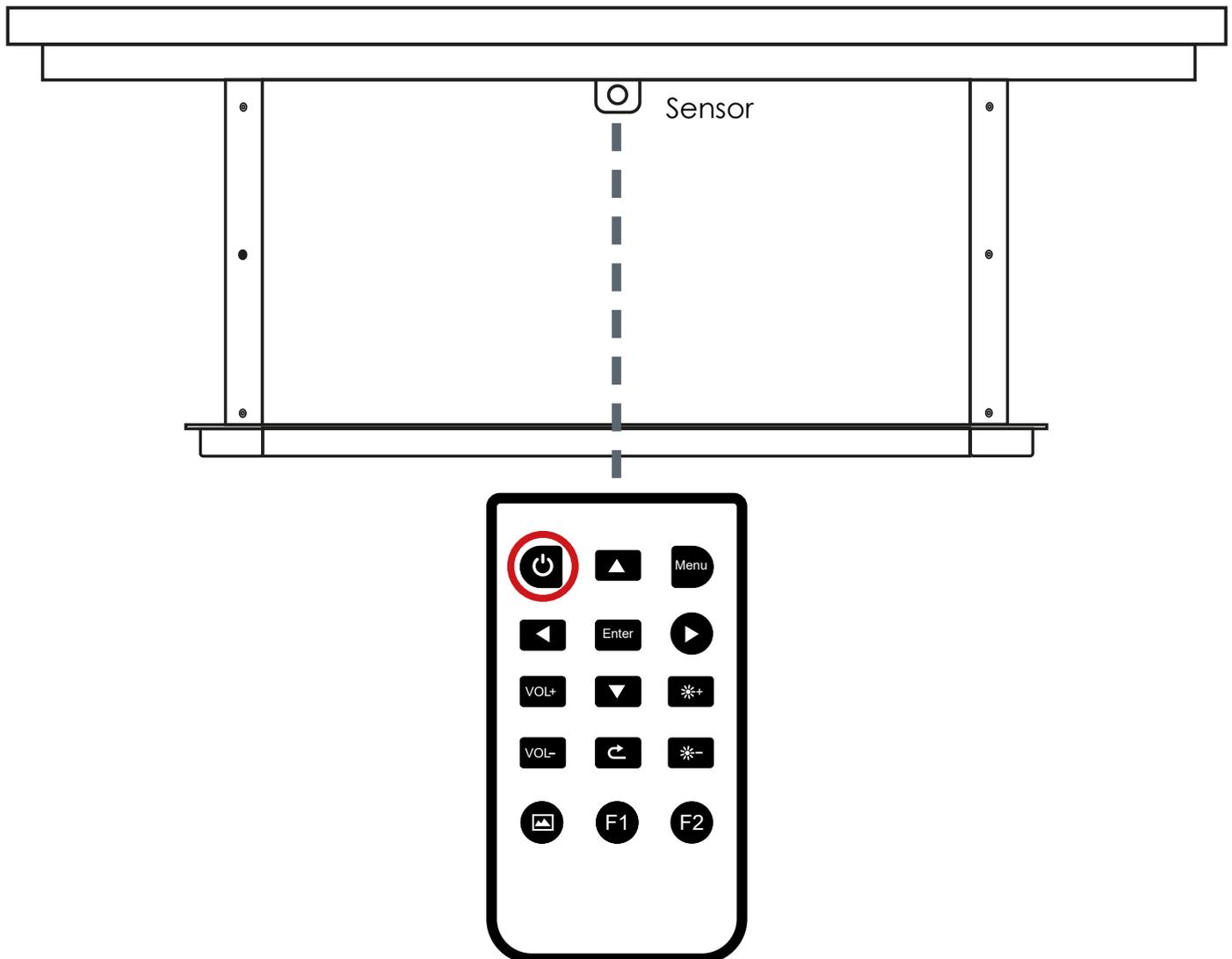
Sensor

To start the Uno Elite Table screen point the remote control unit at the sensor placed under the cente of the top box unit which holds the screen. Press the control icon to start up the screen.

Uno Elite Table Table Controller

Height
controller
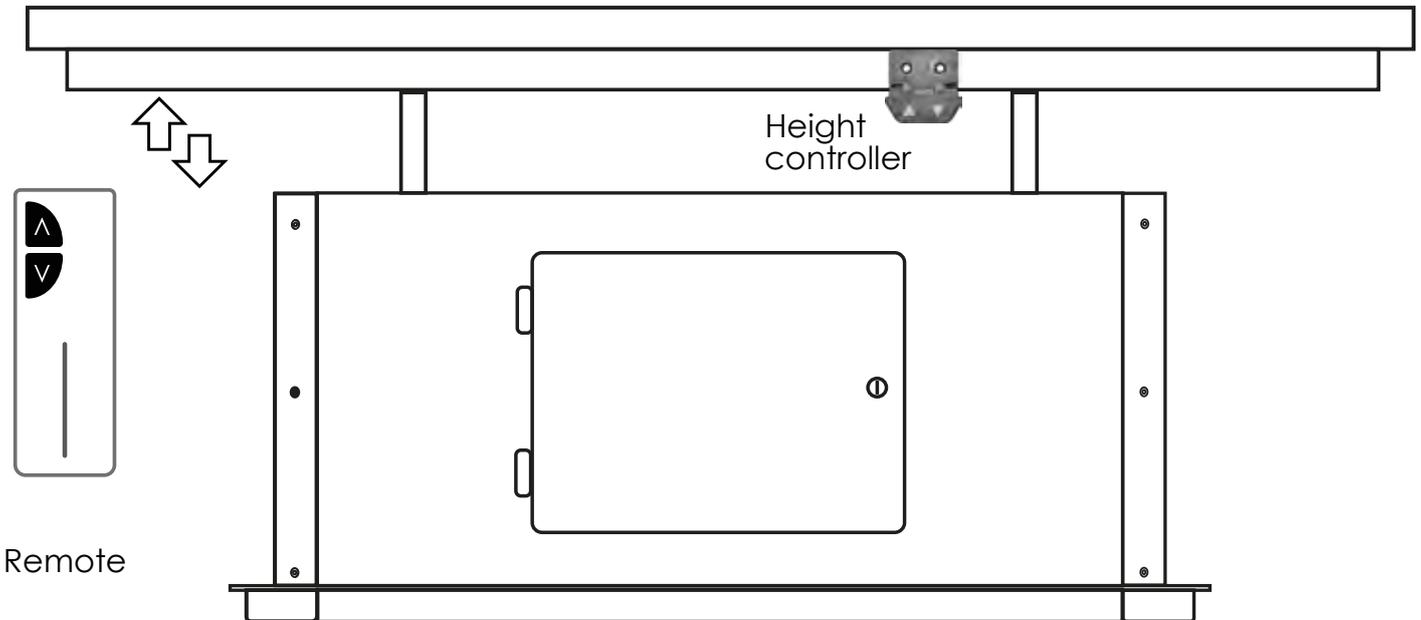
Remote

The Promultis Uno Elite Table Screen can be raised and lowered via the controller fixed to the boxtop unit or by using the remote control.

For security the controller can be fixed inside the base unit which can be locked.

Displax Set-up for Uno Elite table screen

Configuration wizard for touch skin

The Configuration Wizard is a tool that will assist you setting the Gain, Threshold, Shield and Calibration for the video wall touch skins.

The configuration of these settings is required to have touch recognition.

The 'Configuration Wizard' was developed to analyze and to configure the Touch Sensor and the Touch Controller parameters. It helps you to achieve a configuration based on objective data and not on subjective user input. It can always be reviewed by the user.

This process follows the following six steps:

- Touch Controller: verifies sensor signal, sensor matrix and identifies the Displax product;

- Sensor Scan: verifies the sensor integrity and checks if the FFCs are properly connected;

- EMI (ElectroMagnetic Interference): checks the electromagnetic interference level that may exist between the LCD and the sensor active area;

- Display: variations in the intensity of light are displayed to analyze the electromagnetic interferences and find an appropriate shielding level;

  Touch Sensor: establishes a relation between the analyzed data and the touch contact, in order to select the best Gain, Threshold and Shielding level;

- Calibration: calibration process to match the physical touch with the Operating System digital coordinates.

The configuration tool can be opened via the Displax Connect icon on the desktop.
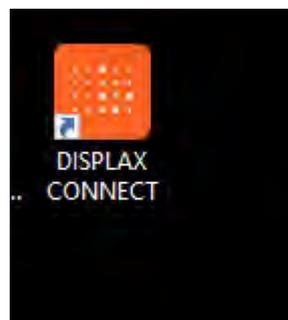
DISPLAX CONNECT

HOW TO USE 'DISPLAX CONNECT'

The features A to F provide information relative to 'DISPLAX Connect' Control Panel. The remaining letters from G on provide information relative to settings or information stored in the Touch Controller.
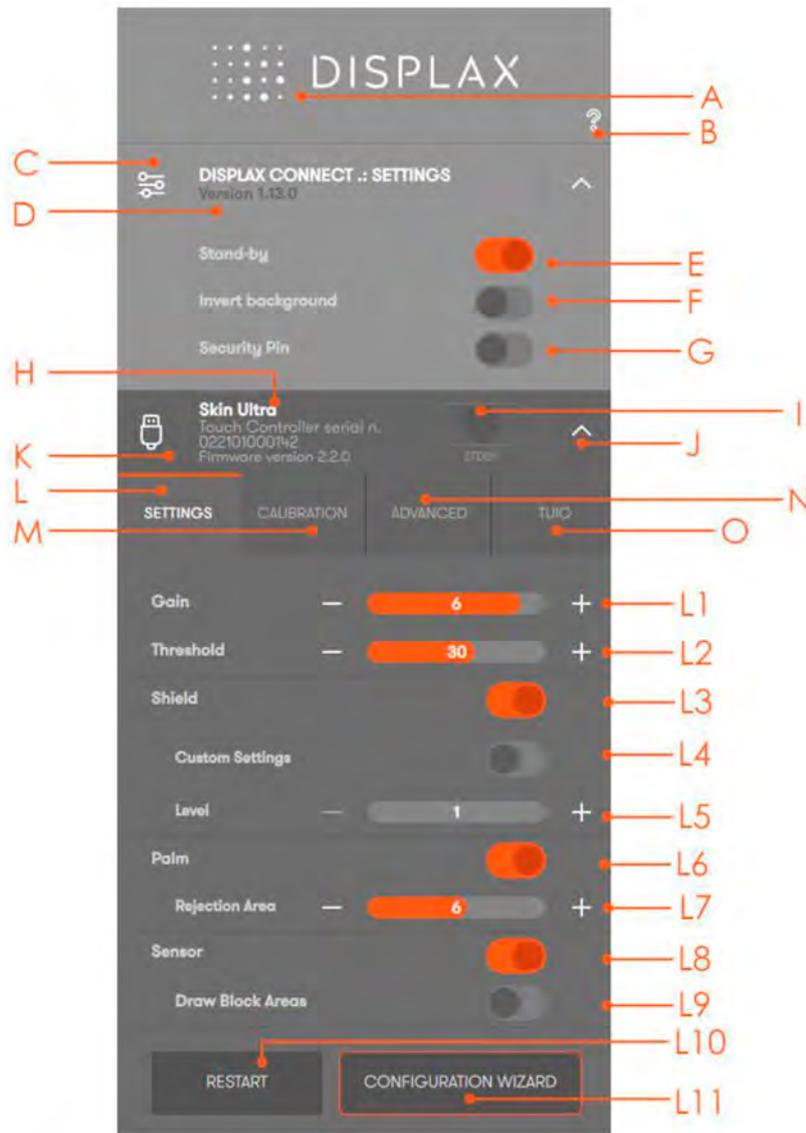
A. Displax Connect: drag floating menu.

B. Help menu: shortcut keys and help per feature.

C. Hide and show 'DISPLAX Connect' settings.

D. DISPLAX Connect version.

E. Stand by: the touch is temporally disable when opening the control panel. This way, if you want to adjust some setting you will be able to do it. When you close 'DISPLAX Connect' the touch injection will be automatically re-enabled and the STAND-BY status will change to ON. This stand-by status is only active when 'DISPLAX Connect' is open.

F. Invert background: alternate between a white and a black background

G. Security Pin: a security pin to protect the configured settings.

H. Skin Ultra serial number.

I. Touch Injection Status: touch injection to the Operating System. This has 3 modes: ON: Operating system will receive touch events from Skin Ultra. OFF: Operating system will not receive touch events from Skin Ultra.

   STAND-BY: Operating system will temporarily not receive touch events from Skin Ultra. This way, if you want to adjust some setting you will be able to do it. When you close 'DISPLAX Connect' the touch injection will be automatically re-enabled and the STAND-BY status will change to ON. This stand-by status is only active when 'DISPLAX Connect' is open.

J. Hide/show Touch Controller settings.

K. Touch Controller firmware version.

L. Settings tab: 'DISPLAX Connect' configuration settings.

L1. Gain: adjusts the signal strength injected by the Touch Controller on the Touch Sensor - thicker glasses and bigger Touch Sensors will require a strong signal (higher GAIN values). Gain values range between 0 and 7.

L2. Threshold: adjusts the threshold level of what is considered a touch. Values vary between 0 and 50 starting on firmware version 1.5.0. (0 to 15 on firmware version equal or previous to 1.4.0).

L3. Shield: electromagnetic shielding reduces noises that may exist between the Skin Ultra and the LCD.

L4. Shielding level: adjusts the level of shielding. Ranges between 1 and 6, with 6 being the strongest shielding level. The shielding level should be maintained as low as possible.

L5. Palm: allows the rejection of areas with dimensions larger than a finger, such as a hand or an arm.

L6. Rejection area: allows the rejection of touches from a hand, arm or other object placed over the touch sensor.

L7. Sensor: checks the Touch Sensor electrical conditions on rows and on columns to visualize electromagnetic interferences and permits to enable and disable rows and columns, and to draw block areas.

L8. Draw block areas: allows disabling the touch on specific Touch Sensor active areas, where you do not want touch being processed.

L10. Configuration wizard: this is an assisted process to configure the current setup. This feature is available depending on the version of the Touch Controller and firmware you are using. This feature is explained with more detail in the Configuration Wizard chapter.
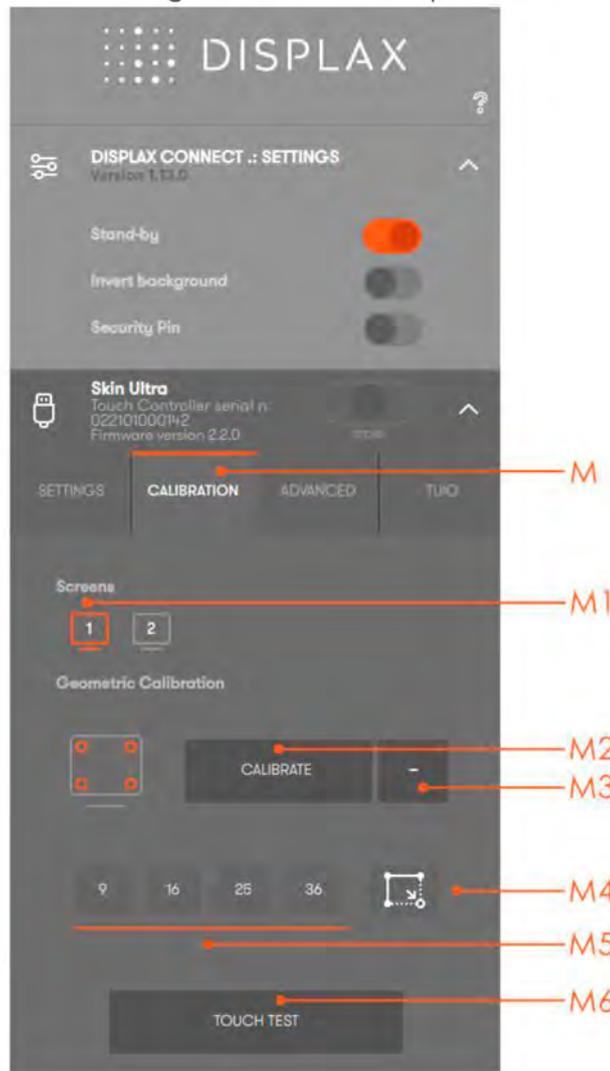
M. Calibration tab: calibration process to match the physical touch with the Operating System digital coordinates.

M1. Screens: select the display where you want to perform the geometric calibration.

M2. Calibrate: Click the button to start the geometric calibration. M3. + Advanced geometric calibration

M4. Calibration points: Number of points used to perform the geometric calibration. Please refer to the advanced calibration chapter.

M5. Drag mode: Calibration of Touch sensor smaller than the LCD. Please refer to the advanced calibration chapter.

M6. Touch Test: Touch Test app.
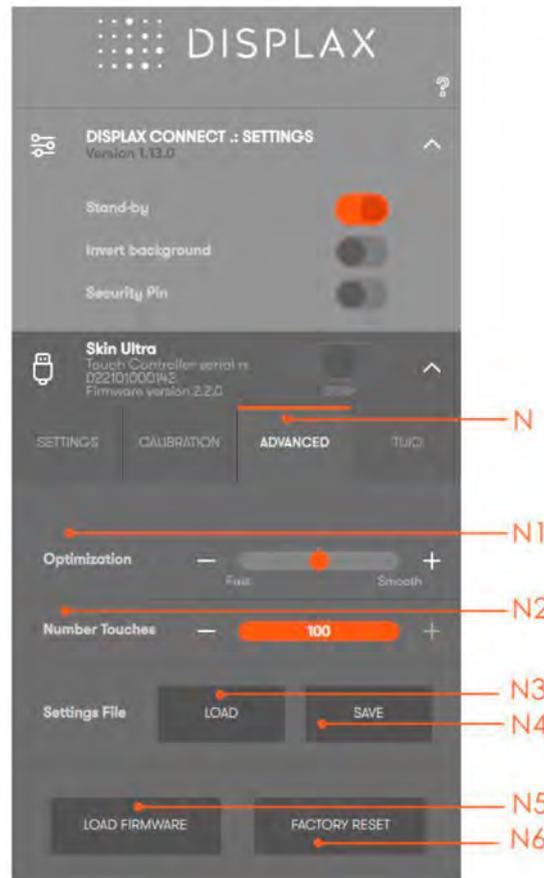
N.   Advanced tab: advanced configuration tools.

N1. Optimization: establishes a reason between Touch speed and Touch precision.

N2. Number of touches: limits the number of touches reported by the Touch Controller (always between 1 to 100 touches). This feature is available depending on the version of the Touch Controller and firmware you are using.

N3. Load settings file: allows loading previously saved configuration files. The user has to wait 10 seconds after changing settings, before changing to other settings, in order to correctly save them into the controller.

N4. Save current settings to file: Allows saving the current settings to be used in other configurations. This feature should be used with equivalent setups, i.e. same LCD, glass thickness and size, sensor size and air gap.

N5. Load firmware: allows to load a firmware file to the Touch Controller. N6. Factory reset: sets the Touch Controller to its default settings.
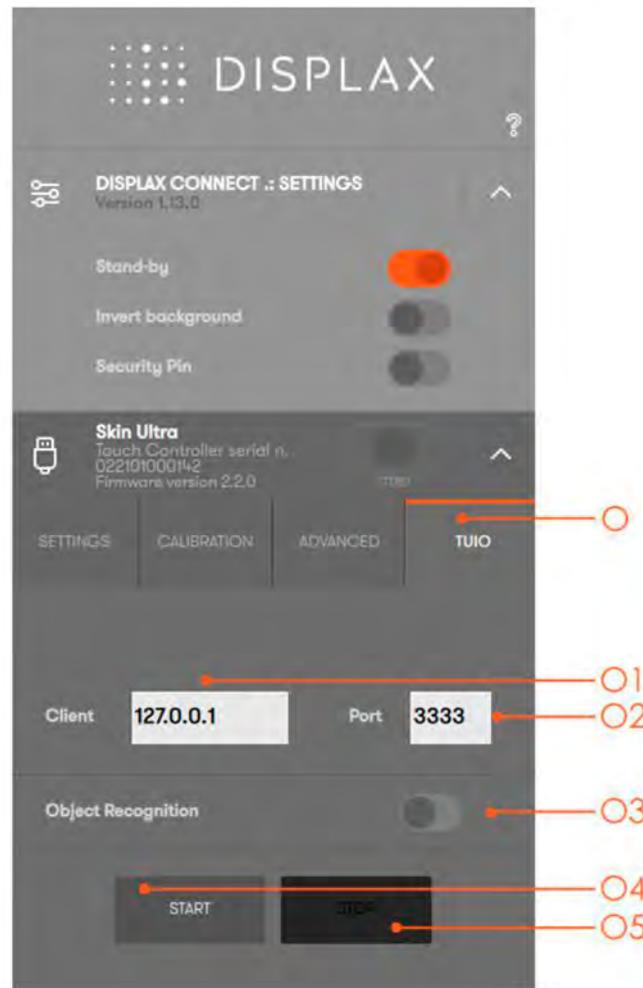
O.   TUIO tab: touches transmission protocol. O1. Client: introduce the client IP.

O2. Port: introduce the client port number.

O3. Object recognition: activate or deactivate the object recognition feature.

O4. Start: starts sending TUIO events from the chosen device to the defined client.

O5. Stop: stops sending TUIO events from the chosen device to the defined client.
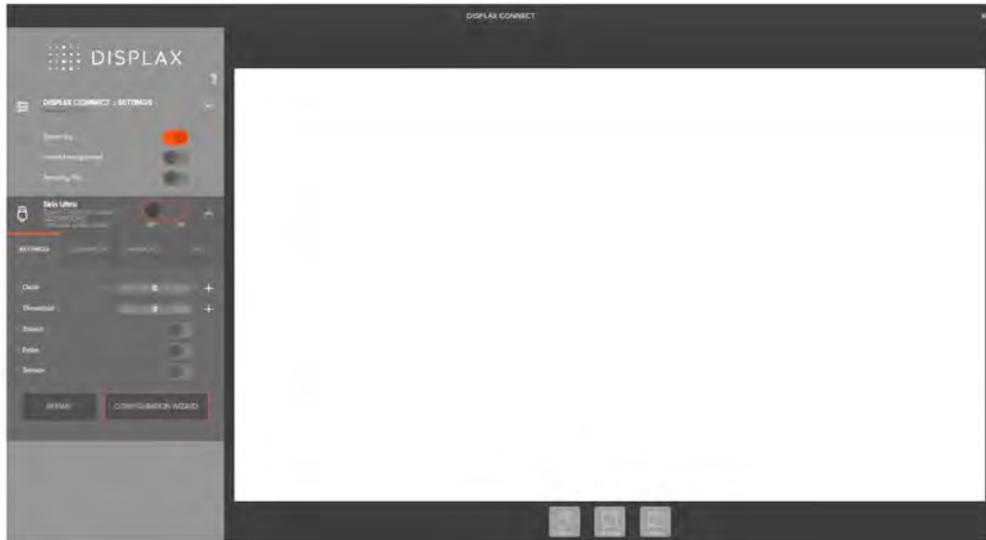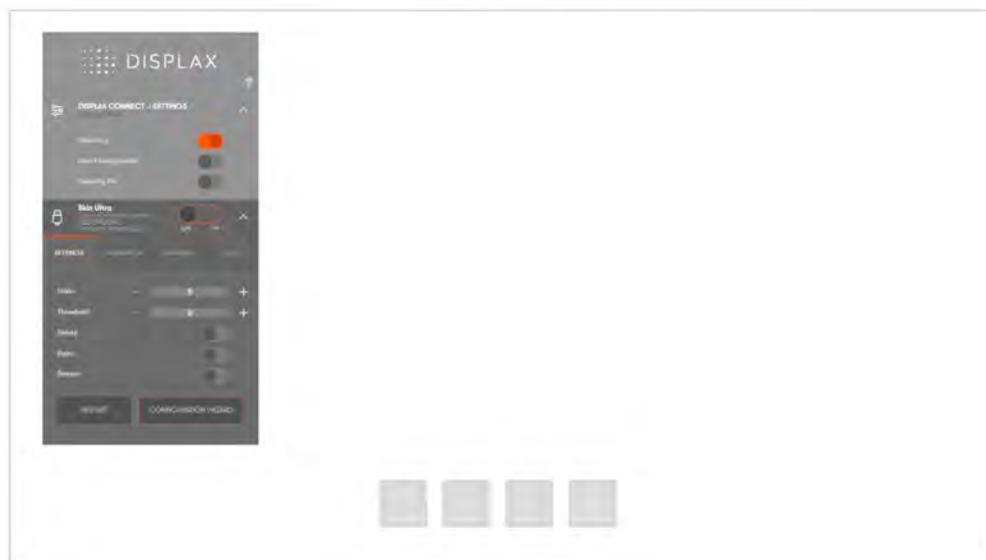

P.   Touch Test: Touch Test app.

Q.   Hide Menu: Hides 'DISPLAX Connect'.

S.   Fixed and Float menu: Transition between the fixed and the floating
       'DISPLAX Connect' view.

Fixed view

Float view

1.1 Hardware Warranty Details.

Your Promultis uno elite touch table is made up of several components. The following is the warranty for each device. For service and support, please call Sourcetech on **02392 512799**.

Promultis Screen– 3 Year Swap out warranty on site. No de-install / Re-install (Customer is required to unplug and demount a faulty screen and we will swap the screen. Customer is required to re-mount the screen).

PQ Labs Touch Overlay – 1 Year Return to Base Warranty hardware warranty. If the overlay comes unstuck from the glass on the videowall, Sourcetech will attend site and re-stick the overlay.

Control Box – 1 Year return to base warranty hardware warranty.

HDMI Switch Boxes – Located behind the Screens – 1 Year Return to Base Warranty.

Promultis Server – 3 Year return to base warranty. Hardware / labour Only. Software is not covered under the standard warranty.

Uno Table Frame Metalwork – 3 Year On-Site warranty.

Full warranty details are detailed below.

Extended Warranty

A 3 Year on-site extended warranty upgrade is available, this will upgrade all equipment to 3 years on-site support, with an engineer visit to de-install and re-install the faulty components. Please call your account manager for details.

Please note that any warranty services or questions must be accompanied by the order number from the transaction through which the warranted product was purchased. The order number serves as your warranty number and must be retained. SOURCETECH will offer no warranty service without this number.

SOURCETECH warrants this product and its parts against defects in materials or workmanship (as described in 1.1 above) from the original ship date. During this period, SOURCETECH will repair or replace defective parts with new or reconditioned parts at SOURCETECH's option, without charge to you.

All original parts (parts installed by SOURCETECH at the original system build) replaced by SOURCETECH or its authorised service centre, become the property of SOURCETECH. Any after-market additions or modifications will not be warranted. The system owner is responsible for the payment, at current rates, for any service or repair outside the scope of this warranty.

SOURCETECH makes no other warranty, either express or implied, including but not limited to implied warranties of merchantability, fitness for a particular purpose, or conformity to any representation or description, with respect to this product other than as set forth below.

SOURCETECH makes no warranty or representation, either express or implied, with respect to any other manufacturer's product or documentation, its quality, performance, merchantability, fitness for a particular purpose, or conformity to any representation or description.

Except as provided below, SOURCETECH is not liable for any loss, cost, expense, inconvenience or damage that may result from use or inability to use the system. Under no circumstances shall SOURCETECH be liable for any loss, cost, expense, inconvenience or damage exceeding the purchase price of the product.

The warranty and remedies set forth below are exclusive and in lieu of all others, oral or written, expressed or implied. No reseller, agent or employee is authorized to make any modification, extension or addition to this warranty.

Warranty Conditions

The above Warranty is subject to the following conditions:

1. This warranty extends only to products distributed and/or sold by SOURCETECH. It is effective only if the products are purchased and operated in the European Union

2. This warranty covers only normal use of the product. SOURCETECH shall not be liable under this warranty if any damage or defect results from (i) misuse, abuse, neglect, improper shipping or installation; (ii) disasters such as fire, flood, lightning or improper electric current; or (iii) service or alteration by anyone other than an authorised SOURCETECH representative; (iv) damages incurred through irresponsible use, including non-recommended practices.

3. You must retain your proof of purchase to receive warranty service.

4. No warranty extension will be granted for any replacement part(s) furnished to the purchaser in fulfilment of this warranty.

5. SOURCETECH and its Authorised Service Centre accepts no responsibility for any software programs, data or information stored on any media or any parts of any products returned for repair to SOURCETECH.

6. All pre-installed software programs are licensed to customers under non-SOURCETECH software vendor's term and conditions provided with the packages.

7. This warranty does not cover any third party software or hardware related problems.

8. SOURCETECH makes no warranty either expressed or implied regarding third-party software or hardware.

To return a defective product, please contact our Customer Service Department for a Return Merchandise Authorization (RMA) number and follow the Return of Products Instructions below. The RMA is valid for 10 days from date of issuance. Returns will not be accepted without an RMA. Manufacturer restrictions do apply.

Procedures for Obtaining Warranty Service

RMA (Returning Merchandise Authorisation) Policy:

If repairs are required, the customer must obtain a RMA number and provide proof of purchase. RMA and services are rendered by SOURCETECH only. Any shipping costs after 30 days (starting from the original date of purchase) on any item returned for repair is the customers' responsibility. All returned parts must have a RMA number written clearly on the outside of the package along with a letter detailing the problems and a copy of the original proof of purchase. No COD packages will be accepted. No package will be accepted without a RMA number written on the outside of the package. RMA numbers are only valid for 30 days from the date of issue.

Should you have any problems with your computer, please follow these procedures to obtain the service:

1. If you have purchased our on-site warranty, please find your warranty# (the order number from the transaction through which the warranted product was originally purchased) and contact SOURCETECH Customer Service at 02392 512 799.

2. If the item must be repaired, a RMA number (Return Merchandise Authorization Number) will be issued for shipment to our repair department. Please follow the instructions given by SOURCETECH technical support staff to ship your computer. SOURCETECH will not accept any shipments without a RMA number.

3. Pack the computer in its original box or a well-protected box, as outlined in the Return Shipping Instructions. SOURCETECH will not be responsible for shipping damage/ loss of any product outside the original 30-day SOURCETECH-paid service period. It is very important that you write the RMA number clearly on the outside of the package. Ship the computer with a copy of your bill of sale or other proof of purchase, your name, address, phone number, description of the problem(s), and the RMA number you have obtained to:

SOURCETECH

RMA#_____

ADDRESS

4. Upon receiving the item, SOURCETECH will repair or replace your item (at SOURCETECH's discretion) and will ship it back to you

5. Cross-exchange (Parts only): You will need to provide a valid credit card number as a deposit guarantee when the RMA number is issued. Once approval has been obtained on your credit card, the part(s) will be shipped. You will need to ship defective part(s) back to SOURCETECH within 15 days to avoid charges to your credit card. If such charges are incurred, the shipped part(s) will be billed at the then current price.

6. SOURCETECH will pay for shipping to and from the customer only within the first thirty days following the original product ship date. Following this 30-day period all shipping fees both for under warranty and post warranty repairs are the sole responsibility of the customer. The customer also assumes full liability for losses or damages resulting from shipping as well as all responsibility to pursue remuneration for such issues with their selected carrier.

After Three-Year Warranty – Post Warranty Repair

For post warranty repair, the procedure is the same as outlined above for RMA and shipping. However, you are responsible for shipping charges both ways, current labour and the current price of part(s) used in repair.

WARRANTY EXCLUSIONS

SOURCETECH does not offer technical support for any software including installed OS or other programs. Technical support should be pursued through channels offered by the software's individual tech support.

SOURCETECH accepts no liability for problems caused by after-market software or hardware modifications or additions. SOURCETECH is not responsible for giving any technical support concerning the installation or integration of any software or component the customer did not pay SOURCETECH to install. SOURCETECH is not responsible for loss of data or time, even with hardware failure. Customers are responsible for backing up any data for their own protection. SOURCETECH is not responsible for any loss of work ("down time") caused by a product requiring service. This warranty is null and void if the defect or malfunction was due to damage resulting from operation not within manufacturer specifications. It will also be null and void if there are indications of misuse and/or abuse. SOURCETECH has the option of voiding the warranty if anyone other than an SOURCETECH technician attempts to service the product.

SOURCETECH will not warrant any problems arising from an act of God (lighting, flooding, tornado, etc.), electrical spikes or surges, or problems arising out of hardware, software, or additional devices added to complement any system/component bought at SOURCETECH. Under no circumstances will SOURCETECH be responsible for any refund or remuneration exceeding the original purchase price of the product less any shipping fees. SOURCETECH will not be held responsible for typographical errors on sales receipts, repair tickets, or on our website. SOURCETECH makes every effort to make sure all information on our website is correct

![promultis touch videowall]

Phidgets RFID Reader

Introduction

RFID (radio frequency identification) systems use data strings stored inside RFID tags (or transponders) to uniquely identify people or objects when they are scanned by an RFID reader. These types of systems are found in many applications such as passport protection, animal identification, inventory control systems, and secure access control systems.

Principles of operation

RFID works on the same principle as a transformer. When the reader is powered up, it gives power to a large coil. The coil creates an external magnetic field which can then be paired with a coil inside a nearby tag. This delivers a small amount of power wirelessly to the tag. With that power, the tag is able to access a small internal memory bank and transmit a key string back to the reader via modulation on the wireless signal.

RFID Protocols

In order for an RFID reader like the 1024 - Phidget RFID Read/Write to communicate with an RFID tag, they must share a common protocol. This protocol acts as a set of rules for the way data is transmitted wirelessly between the reader and tag. It's common for people to assume that an RFID tag and reader need only share the same operating frequency to be compatible, but they also need to use the same communication protocol. Check the user guide for your device to determine which protocols it supports.

RFID Reader
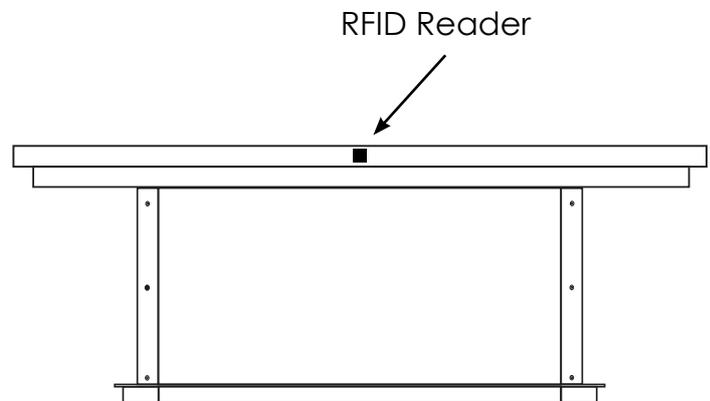
Common RFID protocols:

EM4100 Series
ISO11784/ISO11785 (FDX-B)
ISO18000-2
ISO10536
ISO14443
ISO18000-3
ISO18000-6
EPC class 0
EPC class 1
EPC GEN II
ISO18000-4
Intellitag
μ-chip

Communication and Effectiveness RFID tags come in two main varieties: passive and active. Active tags have their own power supply which they use to power an antenna to broadcast data. Passive tags derive the power they require to operate directly from the RF output of the RFID reader, and no other power supply is necessary. This makes passive tags cheaper to produce and much more suitable for common applications whereas active tags are used in situations where very large read distance is desirable(train cars for example are one of the few places active tags are used).

Phidgets RFID Reader

Because passive tags require a strong RF field to operate, their effective range is limited to an area in close proximity to the RFID reader. In the case of the PhidgetRFID, tags brought within approximately 3-4" of the reader can be read. The distance over which the RFID tag is usable is affected by such things as the tag shape and size, materials being used in the area near the reader, and the orientation of the reader and tag in respect to each other and in their operating environment. The smaller a tag, the closer it must be to the reader to operate. A reader's range cannot be increased with any sort of simple modification.

Some varieties of tags such as T5577 support writing. These tags can have any protocol or data written to them.

Multiple Readers

Multiple RFID readers within 1 to 2 meters will interfere with each other. This can be overcome in software by enabling the antennae of individual RFID readers in sequence. Starting with all readers disabled, enable the antenna of the first RFID reader. Wait for 100ms or more to detect any tags. Disable the antenna of the first reader and enable the antenna of the second, and perform another wait cycle and repeat. This can cause some issues if the tag is expected to only be present for a short period of time since a particular reader may be inactive at that moment. For more details on this method, have a look at this article.

The other way to attack this problem is to shield the readers from one another. This is more difficult than it appears on the face of it however. In general this will involve placing metallic barriers between the readers of indeterminate size. The shielding required will vary from set up to set up but sufficed to say, air on the side of more shielding than less shielding in all situations and it may end up that shielding just isn't not drastic enough to work for your system in which case you will have to revert to plan A which is the polling method.

Multiple Tags

While some RFID readers offer the capability to read multiple tags at once, the majority do not. In order to read a tag, any other tags must first be removed from the reader's field of effect.

RFID Tags

RFID tags come in a variety of shapes and sizes to suit various applications. All RFID tags of the same type sold by Phidgets are guaranteed to be uniquely identifiable, and are available as:

- 30mm Disc Tags
- Credit Card Sized Tags
- Key Fob Tags (attach easily to key rings)
- Wrist Strap Tags
- 'Nail' Tags (Could be hammered into a crate)
- Threaded Cylindrical Tags
- Bird Leg Ring Tag

For more information

https://www.phidgets.com/?&prodid=23