

#### LS-Wing series user manual

By WorkPro

Equipson S.A.

### Copyright

© Equipson SA 2020, All rights reserved.

No part of this manual, including the products or software described herein, may be reproduced, transmitted, or translated into any language in any form or by any means without the express prior written consent of Equipson S.A.

The guarantee of the product or service will not be extended if: (1) the product is repaired, modified or altered, unless the repair, modification or alteration is authorized in writing by Equipson SA; (2) the serial number of the product cannot be clearly read or is not present.

EQUIPSON SA PROVIDES THIS MANUAL "AS IS" WITHOUT WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES, MARKET CONDITIONS OR ADJUSTMENTS FOR ANY PURPOSE. IN NO EVENT SHALL EQUIPSON SA, ITS DIRECTORS, OFFICERS, EMPLOYEES OR AGENTS BE LIABLE FOR ANY DAMAGES, WHETHER INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL (INCLUDING DAMAGES FOR LOSS OF PROFITS, BUSINESS, LOSS OF USE OR DATA, BUSINESS INTERRUPTION OR THE LIKE), EVEN IF EQUIPSON SA HAS BEEN ADVISED THAT THE POSSIBILITY OF SUCH DAMAGES MAY ARISE FROM ANY DEFECT OR ERROR IN ITS MANUALS OR PRODUCTS.

THE SPECIFICATIONS AND INFORMATION CONTAINED IN THIS MANUAL ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTICE AND MAY NOT BE USED AS A COMMITMENT BY EQUIPSON SA. EQUIPSON SA ASSUMES NO RESPONSIBILITY FOR ANY ERRORS OR INACCURACIES THAT MAY APPEAR IN THIS MANUAL, INCLUDING THE PRODUCTS AND/OR THE SOFTWARE DESCRIBED IN IT.

The products and corporate names appearing in this manual may (or may not) be trademarks or copyrights of their respective companies, and are used herein only for identification or explanatory purposes and for the benefit of the owner, without intent to infringe such standards.

#### Policy

This equipment complies with EMC Directive 2004/108/EC and LVD 2006/95/EC.

This product is approved by the following safety standards: EN 60950~1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013

AND EMC standards EN55022: 2010 EN61000-3-3: 2013 EN55020:2007+ A11 EN61000-4-2: 2009 EN61000-4-3: 2006 + A1+ A2

ATTENTION: Any modification or change made to this device, unless explicitly approved by Equipson SA, will void the authorization to use this device.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

For further details please contact: Equipson SA, AV El Saler nº14, Silla, Valencia, Spain. Telephone: +34 961 216 301 E-mail: support@equipson.es

#### **1-Overview**

- 1.1 About LS-Wing
- 1.2 Overview of the LS-Wing

#### 2-First steps

- 2.1 Selecting the mode of use of the LS-Wing
- 2.2 Wing mode of the LightShark system
- 2.3 MIDI controller mode
- 2.4 MIDI notes
- 2.5 OSC/UDP controller mode

#### 3-Access via web server

- 3.1 Connection options
- 3.2 Connecting from a mobile device
- 3.3 Connection from a PC

#### 4-Settings

- 4.1 Device settings
- 4.2 Node Settings

#### 5-OSC/UDP settings

- 5.1 Target Adjustments
- 5.2 Creating a Custom Mapping

#### **6-Remote Control Settings**

- 6.1 Remote control via OSC
- 6.2 Remote control via DMX
- 6.3 Assigning LS-Wing functions

#### 7-Software and library updates

7.1 Updating libraries

- 7.2 Software update
- 7.3 Backup

## 8-Factory Reset

8.1 Reset modes

## Section 1: Overview

#### 1.1 About LS-Wing

LS-Wing is an innovative hardware offering several products in one: a Wing for LS-1 / LS-Core, an OSC/UDP hardware controller and a MIDI controller.

LS-Wing can send/receive OSC commands over ethernet from any software or hardware supporting this protocol. In addition, it can send/receive UDP messages, making it compatible with any AV device or software on the market\*.

LS-Wing offers exceptional versatility to the lighting control market, as it can be configured to be compatible with other lighting systems. Developed as a 3-in-1 product, LS-Wing can be a simple fader wing, an OSC hardware controller or a standalone MIDI console for any device that accepts MIDI control via USB. A total of four USB ports are provided, including a USB-B port, making it easy to connect to MIDI compatible devices and to charge smart phones and tablets.

In addition, the LS-Wing has a built-in ArtNet-RDM/sACN to DMX node that offers two direct DMX universes. Existing LightShark products - the LS-1 and LS-Core - already offer two Direct DMX universes via an XLR connector, so by adding the LS-Wing it is very easy to double the number of Direct DMX universes available on each console. Its 3-in-1 design makes it easily the most versatile and functional controller on the market. In addition, lighting professionals working in theaters and live shows can have complete control of more than one device at a time, just by using different pages in the same unit.

### 1.2 Overview of the LS-Wing

The LS-Wing control surface offers the user a control system with 10 Faders and a set of 60 RGB buttons.

Thanks to its small size, it can be transported as hand luggage. On the back, there is a holder to hold devices such as tablets. In addition, it includes different USB ports, an ethernet switch and 2 DMX outputs located on the back panel:



#### Layout

- 1 Flash buttons
- 2 Playback Faders
- 3 Pause buttons
- 4 Go Buttons
- 5 Playback selection buttons
- 6 Executor buttons

Ż



#### **Rear Panel**

- 1 Connection port for 5v LLC-1 lamp (XLR-3)
- 2 DMX outputs 1 and 2 (XLR-5)
- 3 Ethernet switch
- 4 2x USB type A ports for Data
- 5 2x USB type A ports for +5V DC
- 6 1x USB 2.0 type B port
- 7 Power connection ( PowerCON TRUE 1 )



Dimensions (WxHxD): 325X100X330 mm Weight: 2,7Kg

## Section 2: First Steps

### 2.1 Selecting the mode of use of the LS-Wing

It is possible to select the operation mode of the LS-Wing during system startup. Once the power is turned on, the lower buttons will flash for 30s, during that time the user can select the operating mode by pressing one of the buttons 1 to 5 in the PlayBack selection area:

Key 1: LightShark Wing mode to control PlayBack 1 to 10.

Key 2: LightShark Wing mode to control PlayBack 11 to 20.

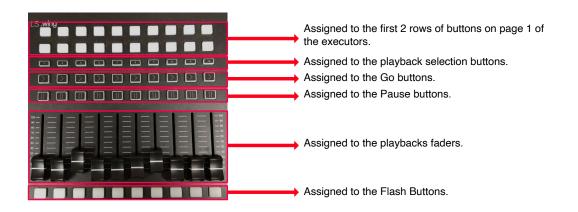
Key 3: LightShark Wing mode to control PlayBack 21 to 30.

Key 4: MIDI control surface mode.

Key 5: OSC/UDP control surface mode.

### 2.2 LightShark Wing Mode

In this mode the LS-Wing will work as a playback extender, both in the LS-1 and in the LS\_Core. The configuration of the Faders ands buttons in the Wing is the following:



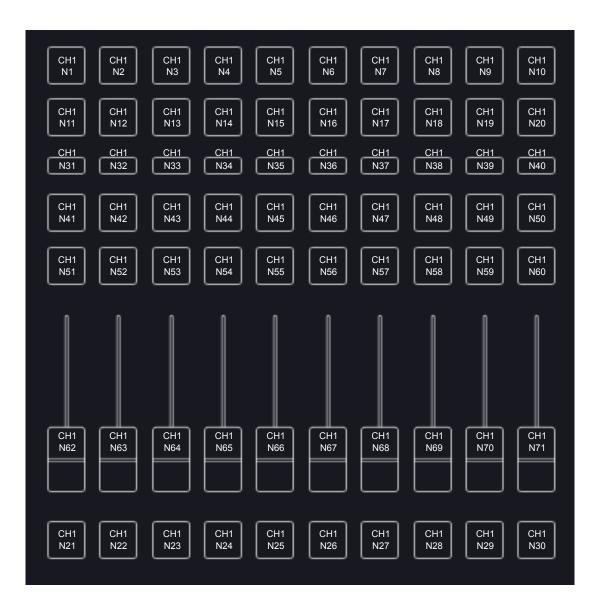
The connection between the LS-1 and the LS-Wing is made via USB, by connecting the LS-Wing to the "USB-Data" port of the LS-1.

The connection between the LS-Core and the LS-Wing is made via USB by connecting the LS-Wing to the front "USB Host" port of the LS-Core.

### 2.3 MIDI controller mode

In this mode, the LS-Wing will function as a MIDI control surface and can be used with any program or device that supports this protocol.

The note assignment is as follows:



## 2.4 MIDI notes

Element	Channel	Туре	Note	Value
Executor Button 1-1	1	Note	1	OFF( 64 ) / ON ( 127 )
Executor Button 1-2	1	Note	2	OFF( 64 ) / ON ( 127 )
Executor Button 1-3	1	Note	3	OFF( 64 ) / ON ( 127 )
Executor Button 1-4	1	Note	4	OFF( 64 ) / ON ( 127 )
Executor Button 1-5	1	Note	5	OFF( 64 ) / ON ( 127 )
Executor Button 1-6	1	Note	6	OFF( 64 ) / ON ( 127 )
Executor Button 1-7	1	Note	7	OFF( 64 ) / ON ( 127 )
Executor Button 1-8	1	Note	8	OFF( 64 ) / ON ( 127 )
Executor Button 1-9	1	Note	9	OFF( 64 ) / ON ( 127 )
Executor Button 1-10	1	Note	10	OFF( 64 ) / ON ( 127 )
Executor Button 2-1	1	Note	11	OFF( 64 ) / ON ( 127 )
Executor Button 2-2	1	Note	12	OFF( 64 ) / ON ( 127 )
Executor Button 2-3	1	Note	13	OFF( 64 ) / ON ( 127 )
Executor Button 2-4	1	Note	14	OFF( 64 ) / ON ( 127 )
Executor Button 2-5	1	Note	15	OFF( 64 ) / ON ( 127 )
Executor Button 2-6	1	Note	16	OFF( 64 ) / ON ( 127 )
Executor Button 2-7	1	Note	17	OFF( 64 ) / ON ( 127 )
Executor Button 2-8	1	Note	18	OFF( 64 ) / ON ( 127 )
Executor Button 2-9	1	Note	19	OFF( 64 ) / ON ( 127 )
Executor Button 2-10	1	Note	20	OFF( 64 ) / ON ( 127 )
Flash Button 1	1	Note	20	OFF( 64 ) / ON ( 127 )
Flash Button 2	1	Note	22	OFF( 64 ) / ON ( 127 )
Flash Button 3	1	Note	22	OFF( 64 ) / ON ( 127 )
Flash Button 4	1	Note	23	OFF( 64 ) / ON ( 127 )
Flash Button 5	1	Note	25	OFF( 64 ) / ON ( 127 )
Flash Button 6	1	Note	26	OFF( 64 ) / ON ( 127 )
Flash Button 7	1	Note	27	OFF( 64 ) / ON ( 127 )
Flash Button 8	1	Note	28	OFF( 64 ) / ON ( 127 )
Flash Button 9	1	Note	29	OFF( 64 ) / ON ( 127 )
Flash Button 10	1	Note	30	OFF( 64 ) / ON ( 127 )
Playback Select Button 1	1	CC	31	0-127
Playback Select Button 2	1	CC	32	0-127
Playback Select Button 3	1	CC	33	0-127
Playback Select Button 4	1	CC	34	0-127
Playback Select Button 5	1	СС	35	0-127
Playback Select Button 6	1	СС	36	0-127
Playback Select Button 7	1	CC	37	0-127
Playback Select Button 8	1	CC	38	0-127
Playback Select Button 9	1	CC	39	0-127
Playback Select Button 10	1	CC	40	0-127
Go Button 1	1	СС	40	0-127
Go Button 2	1	CC	41	0-127
Go Button 3	1	СС	42	0-127
Go Button 4	1	CC	43	0-127
Go Button 5	1	CC	44	0-127
Go Button 6	1	CC	45	0-127
Go Button 7	1	CC	40	0-127
		66	47	0-127

Element	Channel	Туре	Note	Value
Go Button 8	1	CC	48	0-127
Go Button 9	1	CC	49	0-127
Go Button 10	1	CC	50	0-127
Pause Button 1	1	CC	51	0-127
Pause Button 2	1	CC	52	0-127
Pause Button 3	1	CC	53	0-127
Pause Button 4	1	CC	54	0-127
Pause Button 5	1	CC	55	0-127
Pause Button 6	1	CC	56	0-127
Pause Button 7	1	CC	57	0-127
Pause Button 8	1	CC	58	0-127
Pause Button 9	1	CC	59	0-127
Pause Button 1	1	CC	60	0-127

### 2.5 OSC/UDP controller mode

In this mode, the LS-Wing will function as a control surface to send OSC and UDP commands, and can be used with any program or device that supports these protocols.

In this mode, the user has 2 pages and each of the buttons or faders can be configured to send one or more commands to one or more targets simultaneously.

Section 5 details its operation.

## Section 3: Access via web server

#### 3.1 Connection options

The LS-Wing uses an integrated Web Server to provide all its functions to computers, tablets and smartphones that have a web browser. You only need to connect through the Ethernet port of your computer.

Due to the technology used by lightShark, the use of the following web browsers is recommended:

FireFox v67 onwards: https://www.mozilla.org

Chrome v75 onwards: https://www.google.com/chrome

Safari v11 onwards: https://www.apple.com/safari

LS-Wing has 2 IP addresses, one to connect to the LAN and another to receive ArtNet / sACN.

By default, the network interface to access the web server through the LAN, has the following configuration :

IP:	192.168.1.10
Subnet mask:	255.255.255.0
Gateway:	192.168.1.1

By default, the network interface for accessing the web server through an ArtNet/sACN network has the following configuration:

IP: 2.0.0.11

Subnet Mask: 255.0.0.0

It is also possible to connect through the Iswing.local address :

	Iswing.local	Ċ	0 1 7 +
	Wing Targets Mapping Noo		
	$\langle \cdots \rangle$		
	Wing Settings		
	Current mode: Custom		
Iswing	= LIDR Remote Control		Pamote Control

It is possible to connect over ethernet from a tablet using a lightning-ethernet adapter (for iOS devices) or an OTG-ethernet adapter (for Android devices).

## 3.2 Connecting from a mobile device

To connect to LightShark devices, over the wired network using a tablet device, the steps are as follows:

1 Ensure that the ethernet adapter is properly connected to the tablet. Then connect an ethernet cable between the adapter and the lightShark device.

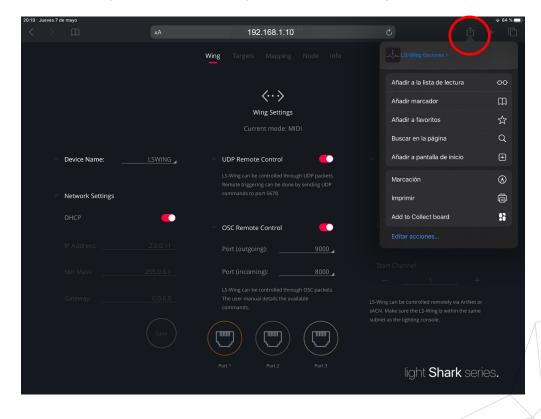
2 Go to the preferences, and in the sidebar you will find the new Ethernet interface.

6:27 A	M Fri Nov 16			🗢 93% 🔳
			General	
Se	ettings			
	•		About	>
			Software Update	>
	Apple ID, iCloud, iT	lunes & App St		
			AirDrop	>
	Mode	$\bigcirc$	Handoff	>
?	Wi-Fi	tpHen50	Multitasking & Dock	>
	Ethernet			
*	Bluetooth	On	Accessibility	>
(( <sup>†</sup> ))	Cellular Data		USE SIDE SWITCH TO:	
			Lock Rotation	
C	Notifications		Mute	
(( ◄ ))	Sounds		Rotation Lock is available in Control Center.	
C	Do Not Disturb		De el Otomono	>
Σ	Screen Time		iPad Storage	
			Background App Refresh	>
$\otimes$	General		Date & Time	>
0	Control Center			
				<b>a</b> 93% <b>a</b>
	M Fri Nov 16		Ethernet	🗢 93% 🗩
6:27 A	M Fri Nov 16			<b>?</b> 93% 🗩
6:27 A			Ethernet	🗢 93% 🗩)
6:27 A	M Fri Nov 16	<	Ethernet	<b>†</b> 93% <b>**</b> )
6:27 A	M Fri Nov 16	funes & App St	Ethernet	🗢 93% 🛋 >
6:27 A	M Fri Nov 16	funes & App St	Ethernet	····· \$ 93% ••
6:27 A	M Fri Nov 16	funes & App St	Ethernet	····· • 93% •••
6:27 A	M Fri Nov 16 Ettings Apple ID, iCloud, iT	funes & App St tpHen50	Ethernet	····· * 93% •••
6:27 A	M Fri Nov 16 Ettings Apple ID, ICloud, iT Airplane Mode	$\bigcirc$	Ethernet	···· • 93% •••
6:27 A Se	M Fri Nov 16 Ettings Apple ID, iCloud, 11 Airplane Mode Wi-Fi	$\bigcirc$	Ethernet	····· * 93% ••·
6:27 A S( ) ; ;;	M Fri Nov 16 Ettings Apple ID, ICloud, iT Airplane Mode Wi-Fi Ethernet	tpHen50	Ethernet	···· 🕈 93% 🖦
6:27 A S( ? ? *	M Fri Nov 16 Ettings Apple ID, iCloud, 17 Airplane Mode Wi-Fi Ethernet Bluetooth	tpHen50	Ethernet	···· • 93% ••
6:27 A S( ? ? *	M Fri Nov 16 Ettings Apple ID, iCloud, 17 Airplane Mode Wi-Fi Ethernet Bluetooth	tpHen50	Ethernet	···· * 93% ••·
6:27 A S ( ) ( ) ( ) ) ( ) ) ( ) ) ( ) ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ) ( ) ) ( ) ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( )) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ) ( ) ) ( ) ) ( )) ( )) ( )) ()) ()) ()) ()) ()) ()) ()) ()) ())) ())) ())) ())) ())) ())) ())) ())) ())) ())) ())) ())) ())) ())) ())) ())) ())) ()))) ()))) ()))) ()))) ())))) ())))))	M Fri Nov 16 Ettings Apple ID, ICloud, iT Airplane Mode Wi-Fi Ethernet Bluetooth Cellular Data	tpHen50	Ethernet	····· • 93% •••
6:27 A S€ ? ? ? ? ? ? ? ? ?	<ul> <li>Fri Nov 16</li> <li>Ettings</li> <li>Apple ID, iCloud, IT</li> <li>Apple ID, iCloud, IT</li> <li>Apple ID, iCloud, IT</li> <li>Ethernet</li> <li>Bluetooth</li> <li>Cellular Data</li> <li>Notifications</li> </ul>	tpHen50	Ethernet	···· • 93% ••·
6:27 A S€ ? ? ? ? ? ? ? ? ?	M Fri Nov 16 Ettings Apple ID, ICloud, iT Apple ID, ICloud, iT Vi-Fi Ethernet Bluetooth Cellular Data Notifications Sounds	tpHen50	Ethernet	···· • 93% •••

**3** Then set the interface to "Manual" and set the IP address and Subnet mask as in the following example:

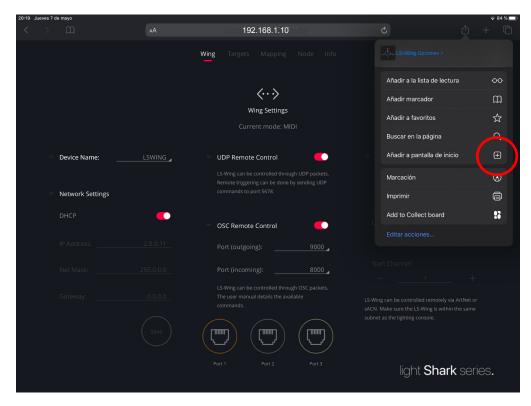
6:28 AM Fri Nov 16	Ethernet Apple USB Ethernet	중 93% 🔳 et Adapter
Settings	IPV4 ADDRESS	
	Configure IP	Manual
Apple ID, iCloud, iTunes & App St	IP Address	192.168.1.15
	Subnet Mask	255.255.255.0
➢ Airplane Mode	Router	
🛜 Wi-Fi tpHen50	DNS	$\bigcirc$
😔 Ethernet	Configure DNS	Automatic >
Bluetooth On	HTTP PROXY	
۲) Cellular Data	Configure Proxy	Off >

It is possible to add the lightShark website to the iOS or Android home screen. This will create an icon and will automatically access LS-Wing in full screen mode without having to open the web browser.

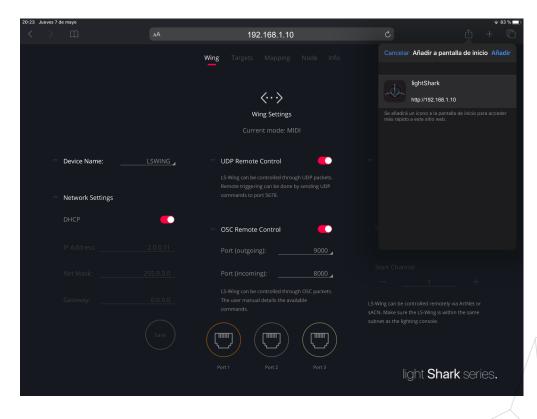


1 Launch Safari ( or Chrome in Android ) and select the share option:

2 Then select the "Add to Home Screen" option. You may have to scroll over on the icons to access this.



3 Press "Add":





### 3.3 Connection from a PC

-The following steps detail the process of connecting via a computer using the wired network interface instead of the wireless network.

Network configuration in macOS

1 Access the System Preferences and then select "Network".



**2** From the left side menu select the network interface to which the lightShark device is connected.

	Network	(	Q Search
Location	: Automatic	\$	
Thundt Slot 1     Connected  USB 10LAN 2 Connected	otataor	Connected USB 10/100/1000 LAN 2 is has the IP address 192.168	
NordVPN IKE     Connected	Configure IPv4:	Manually	0
Bluetooth PAN	IP Address:	192.168.1.15	
	Subnet Mask:	255.255.255.0	
• USB 100 LAN	Router:		
BelkinC LAN     Not Connected	DNS Server:		
• USB 10LAN 3	Search Domains:		
• Wi-Fi 奈			
iPhone     Not Connected			Advanced ?
			Revert Apply

3 Then set the interface to "Manually".

••• < >	Network	Q Search
Locatio	on: Automatic	0
<ul> <li>Thundt Slot 1</li> <li>Connected</li> <li>USB 10LAN 2</li> <li>NordVPN IKE Superior</li> <li>Bluetooth PAN Superior</li> <li>Bluetooth PAN Superior</li> <li>Bluetooth PAN Superior</li> <li>USB 100 LAN</li> <li>Not Connected</li> <li>USB 10LAN 3</li> <li>Not Connected</li> <li>Win-Fi Superior</li> <li>Not Connected</li> </ul>	has Configure IPv4: M IP Address: 19	nnected 3 10/100/1000 LAN 2 is currently active and the IP address 192.168.1.15 anually 2.168.1.15 35.255.255.0
+ - *		Advanced ? Revert Apply

4 Then set the IP address and Subnet Mask as in the following example:

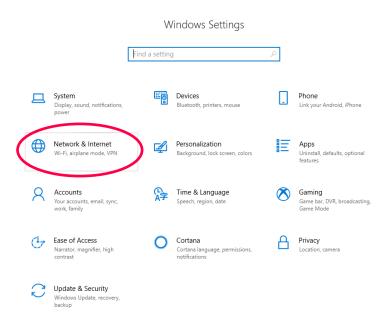
	Network	، C	Search
L	ocation: Automatic	٥	
Thundt Slot 1 Connected     USB 10LAN 2		Connected USB 10/100/1000 LAN 2 is cu has the IP address 192.168.1.	
<ul> <li>NordVPN IKE Connected</li> <li>Bluetooth PAN Not Connected</li> <li>USB 100 LAN Not Connected</li> <li>BelkinC LAN Not Connected</li> <li>USB 10LAN 3 Not Connected</li> <li>Wi-Fi Off</li> <li>Wi-Fi Off</li> <li>When the connected</li> </ul>	Configure IPv4: IP Address: Subnet Mask: Router: DNS Server: Search Domains:		
Not Connected			Advanced ?

5 Start Safari and enter the address : 192.168.1.10

		192.168.1.10	¢ • • •
		Wing Targets Mapping Node Info	
		$\langle \cdots \rangle$	
		Wing Settings	
		Current mode: MIDI	
Device Name:	LSWING	= UDP Remote Control	DMX Remote Control
	Loving		Net IP: 2.0.0.11
		LS-Wing can be controlled through UDP packets. Remote triggering can be done by	
Network Settings			
DHCP			
		OSC Remote Control	
IP Address:		Port (outgoing):9000	
Net Mask:		Port (incoming): 8000	
Gateway:		LS-Wing can be controlled through OSC packets. The user manual details the available	
			LS-Wing can be controlled remotely via ArtNet or sACN. Make sure the LS-Wing is within the same
		$\bigcirc \bigcirc \bigcirc \bigcirc$	subnet as the lighting console.
		$(\Box)$ $(\Box)$ $(\Box)$	
			light <b>Shark</b> series.

#### Network configuration in Windows10

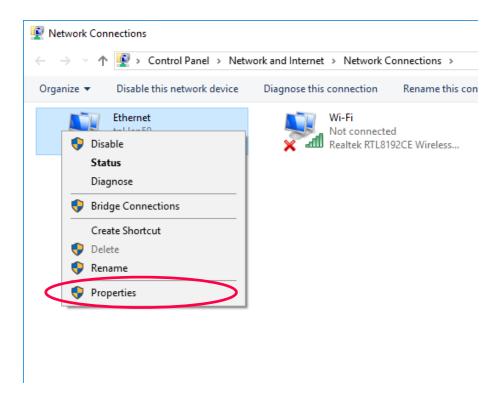
1 Access the Windows Settings and then select "Network and Internet".



2 Select the "Change Adapter Options" option.

ធ៌	Home	Status
F	ind a setting ク	Network status
Ne	twork & Internet	
₿	Status	Ethernet Public network
(la	Wi-Fi	You're connected to the Internet
P	Ethernet	If you have a limited data plan, you can make this network a metered connection or change other properties.
6	Dial-up	Change connection properties
980	VPN	Show available networks
r}>	Airplane mode	Change your network settings
(q))	Mobile hotspot	Change adapter options View network adapters and change connection settings.
G	Data usage	A Sharing options
	Proxy	Por the networks you connect to, decide what you want to share.
		Network troubleshooter Diagnose and fix network problems.
		View your network properties
		Windows Firewall
		Network and Sharing Center

**3** Right click on the network interface to which lightShark is connected, then select "Properties".



4 Then "Double click" on "Internet Protocol version 4 (TCP/IPv4)".

Ethernet Properties	$\times$
Networking Sharing	
Connect using:	
Realtek PCIe GBE Family Controller	
Configure	]
This connection uses the following items:	
✓ Internet Protocol Version 6 (TCP/IPv6)	
< >	
Install Uninstall Properties	
Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.	
OK Cancel	

**5** Enter the network configuration as shown in the following example and accept the changes:

Internet Protocol Version 4 (TCP/IPv4)	Properties	×				
	· · · · · · · · · · · · · · · · · · ·					
General						
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.						
Obtain un address automatical	ly					
• Use the following IP address:						
IP address:	192.168.1.15					
Subnet mask:	255.255.255.0					
Default gateway:						
Obtain DNS server address auton	natically					
Use the following DNS server add	resses:					
Preferred DNS server:						
Alternate DNS server:						
Validate settings upon exit	Advanced					
	OK Cance	I				

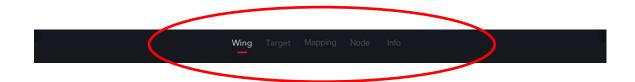
6 Start your web browser and enter the address "192.168.1.10" as shown below:

🖻 🖅 🗖 lightSHARK X + 🗸	·	
← → ୯ ଲ 192.168.1.10		
	Wing Targets Mapping Node Info	
	$\langle \cdot \cdot \rangle$	
	Wing Settings	
	Current mode: MIDI	
Device Name:LSWING	UDP Remote Control      LS-Wing can be controlled through UDP packets. Remote triggering can be done by	DMX Remote Control
Network Settings	sending UDP commands to port 5678.	
рнср 🧲	OSC Remote Control	
IP Address: 2.0.0.11	Port (outgoing):9000 _	
Net Mask:255.0.0.0	Port (incoming): 8000 _	
Gateway:0.0.0.0	LS-Wing can be controlled through OSC packets. The user manual details the available commands.	LS-Wing can be controlled remotely via ArtNet or sACN. Make sure the LS-Wing Is within the same
Save		
	Port Port2 Port3	light <b>Shark</b> series.

# Section 4: Settings

### 4.1 Device settings

The LS-Wing has a simple but comprehensive user interface. From it the user can make the necessary adjustments and configurations. The interface is organized in 5 different views:



#### WING Settings

From this window the user can make the necessary connectivity settings.

		Wing Targets Mapping Node In	
		<> Wing Settings	
		Current mode: MIDI	
Device Name:	LSWING	UDP Remote Control      LS-Wing can be controlled through UDP	DMX Remote Control     Net IP: 2.0.0.11
Network Settings		packets. Remote triggering can be done by sending UDP commands to port 5678.	
DHCP		= OSC Remote Control	
		Port (outgoing):9000 _	
		Port (incoming):8000 _	
		LS-Wing can be controlled through OSC packets. The user manual details the available commands.	LS-Wing can be controlled remotely via ArtNet or sACN. Make sure the LS-Wing is within the same subnet as the lighting console.
			light <b>Shark</b> series.

**Device Name**, the user will be able to set a host name to the wing to differentiate it in case of connecting several units to the same network. It also allows access to the web server of the wing using this name ending in **.local**. For example: **Iswing.local** 

When changing the device name it is necessary to restart the LS-Wing to apply the changes.

**TCP/UDP Remote,** it is possible to control each of the buttons or faders of the device remotely. For this purpose, a series of fixed commands are defined later on. The communication port will be 5678.

In the section Remote Control Settings the list of commands is detailed.

**OSC Remote**, it is possible to control each of the device's buttons or faders remotely via OSC. The commands are defined in section 6.1.

The default ports are:

Outgoing Port 9000

Incoming Port 8000

The list of commands is detailed in the Remote Control Settings section.

**Network Settings**, the ethernet port has 2 different IP addresses, so it is possible to connect LS-Wing devices to multiple networks using the same physical connection. From this window, you can configure the address of the miniPc that includes the Wing:

Ethernet: Allow you to connect to the local area network shared with other devices. It can be configured both in manual and automatic mode. By default, it is configured with a fixed IP.

The default address of this connection will be 192.168.1.10 and the subnet mask 255.255.255.0.

This allows you to control lightShark from the same network where other devices are located (sound boards, control software...) and at the same time, receive ArtNet / sACN from a console that requires a specific network configuration according to the protocol used.

To connect to lightShark through ethernet, you must set the IP address of your device in the same subnet.

Remote Control, it is possible to control each of the device's buttons or faders remotely. In the Remote Control Settings section, the list of commands is detailed.

The control of the device via DMX will be done through the ArtNet/sACN protocols, the user must choose the protocol manually and define the universe.

At the bottom of the window, there are three icons representing each of the ethernet ports. Each of the icons will have a different color depending on its status:

> Gray: Inactive Port Green: 1000 Orange: 10/100

#### 4.2 Node Settings

From this window, the user can make all the settings related to the configuration of the input/output universes of the LS-Wing .

		Wing Targets Mapping	g <b>Node</b> Info		
		Node Setting	gs		
Node Network Settir	ngs	= DMX Port 1	•	= DMX Port 2	•
IP Address:	2.0.0.10 🖌	ArtNet	ACN	ArtNet	ACN
Net Mask:	255.0.0.0 🖌				
		Universe —19		Universe —19_	
<ul> <li>DMX Output Rate</li> </ul>		If enabled, LS-Wing will run as a No ArtNet/ACN messages and converti DMX512.		If enabled, LS-Wing will run as a ArtNet/ACN messages and com DMX512.	
< 35Hz	>				
				light <b>S</b> I	h <b>ark</b> series.

**DMX Port**, LS-Wing includes a 2 universe node that can be completely configured independently. Each of the universes can have a different protocol or universe configured.

Each of the output ports can be activated or deactivated independently.

Supported protocols: sACN / ArtNet-RDM.

The universe is defined from 0 to n , no need to enter subnet and universe in case of ArtNet.

Frame Rate: Configurable between 40-10 Hz

**Node Network Settings**, The ethernet port has 2 different IP addresses, so it is possible to connect LS-Wing devices to multiple networks using the same physical connection. From this window you can configure the IP address and subnet mask of the integrated node within the LS-Wing.

The default address of this connection is 2.0.0.10 and the subnet mask is 255.0.0,0,

# **Section 5:** Configuration in OSC/UDP Mode

## 5.1 Target Adjustments

The targets are the software or target devices to be controlled from the LS-Wing.

LS-Wing includes an internal library of devices so that the user can make the necessary configurations without having to write any command or code.

Wing <b>Targets</b> Mapping Node Info	
レーユ レーユ Targets Settings	
Resolume V7_osc V7_osc +++	+ >
= Device Settings	
Name:Figure53 QLab4_osc _	
IP Address:192.168.1.23 _	
Port:53000 _	
Delete Disable	light <b>Shark</b> series.

**Targets**, Through the circular buttons, the user can select the targets to make the necessary configuration:

Circular button with a + : The "slot" is empty , the user can click on this button to add a new target.

Circle button with a label : The "slot" is busy, the user can click on this button to see the target configuration, edit it , delete it or deactivate it temporarily.

Wing	Targets Mapping Node Info					
「コ 」」 Targets Settings						
Resolume V7_osc QLab4_osc	) $(+)$ $(+)$ $(+)$ $>$					
= Target Device						
	> Millumin3_osc +					
Chamsys	>					
Figure53	>					
HighEnd	>					
Obsidian	>					
Reaper	>					
	light <b>Shark</b> series.					

To add a new target, the steps are the following:

1°-Click on a circle containing a +

2°-Click on the circle at the bottom of the window, a column will be displayed with the different devices added in the libraries, ordered by manufacturer name.

3°-Clicking on the arrow displays a new column on the right showing all the devices of the selected manufacturer.

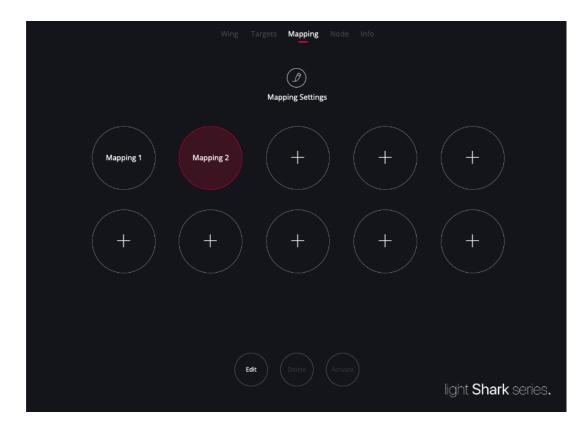
 $4^{\circ}\mbox{-}To$  add one of the devices you must press the + icon on the right of each device.

5°-Once the device is added, the selected circle will be filled in with the name of the device and the basic information of the device will be shown.

= Device Settings	
Name:Figure53 QLab4_osc _	
IP Address: 192.168.1.23 _	
Port:53000 _	
Delete Disable	light <b>Shark</b> series.
	26

## 5.2 Create a Custom Mapping

By clicking on one of the circles that shows the + icon, we access the configuration menu that will allow us to create a new Custom Mapping.



	Wing	Targets	Mapping Node Info	
EXIT				
Name: Mapping 1				
= Selected:	Page	1 >		
				·
The console is in MIDI mode, to enable the sending of custom com control surface please select Custom mode (select key 5 on startup		n the		
light <b>Shark</b> series.				
				$\mathbb{N}$

27

#### ASSIGN A FUNCTION TO A FADER/BUTTON

To assign a function to a button or slider, a button or slider must first be selected in the image on the left. When the object is selected, it will light up in red and we can add a command through the "Add" button

	Wing Targets <b>Mapping</b> Node Info
EXIT	
Name: Mapping 1	
= Selected: Button 1 - Page 1	Page 1 >
	Add the actions you want to perform
The console is in MIDI mode, to enable the sending of cus control surface please select Custom mode (select key 5 o	
light <b>Shark</b> series.	Add Save
ight <b>Shark</b> schos.	

By clicking on the "Add" button, a column will appear showing the previously added targets.

EXIT	Wing Targets	Mapping Node Info	) 
Name:			
= Selected: Button 1 - Page 1	Page 1 >		
		Resolume V7_osc	
		Figure53 QLab4_osc	
The console is in MIDI mode, to enable the sending of cus control surface please select Custom mode (select key 5 o			
light <b>Shark</b> series.			OK Cancel

Clicking on the arrow icon of the taget displays a column to the right, showing the different groups of commands created in the library.

	Wing Targets	Mapping Node Info			
EXIT					
Name: Mapping 1					
= Selected: Button 1 - Page 1	Page 1 >				
		Resolume V7_osc	>	Play Mode	+
		Figure53 QLab4_osc	>	Play Mode (Selected)	+
				PlayModeAway	+
				PlayModeAway (Slected)	+
				Play Direction	+
				Play Direction (Selected)	+
The console is in MIDI mode, to enable the sending of c control surface please select Custom mode (select key 5					
light <b>Shark</b> series.				Cancel	

By clicking on the arrow icon of a group of commands, it is possible to access all the commands contained in that group. To assign one of the commands to the button, the user should press on the + icon.

LS-Wing will display the properties of the selected command as defined in the device library.

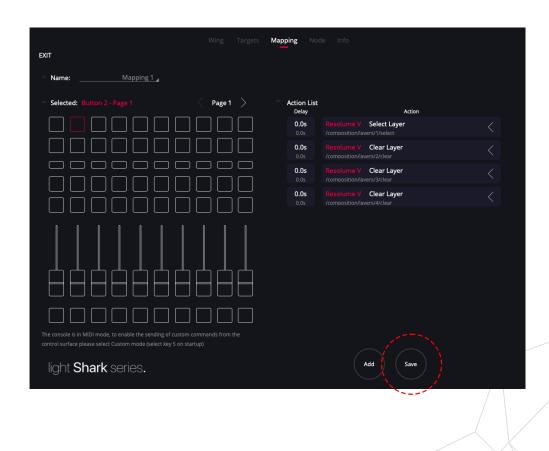
From this window, the user can also test if the configuration of the command he has made works correctly through the example widget.

Once the necessary configuration is done, the user should press "Apply" to apply the changes. Pressing the "Apply" button also returns to the assignment window.

29

	Wing	Targets	Mapping	Node Info
EXIT				
Name:Mapping 1				
= Selected: Button 1 - Page 1	Page 1	>	Action:	: <b>Play Mode</b> /composition/layers/1/clips/1/transport/position/behaviour/playmode
			layer	1
				<u>'</u> 4
				Test iti
			clip:	1
				Push
	1	I	Mod	e:
				0 >
╴┍┻╷┍┻╷┍┻╷┍┻╷┍┻╷┍┻	┖╷┸			
The console is in MIDI mode, to enable the sending of custom com	mands from	the		
control surface please select Custom mode (select key 5 on startup				
light Shark series.				OK Cancel Delete

Once you have added all the commands and assigned the times, you must press "Save" to save the changes.



#### COMMAND AND DELAY ORDER

Each action can be delayed so that it runs a certain number of milliseconds after the button is activated. Delays can be configured to be either Absolute (default) or Relative.

**Absolute:** All actions are executed in a certain number of milliseconds from the start of the button ( or fader ) press.

**Relative:** Each action is executed a certain number of milliseconds after the previous action started.

When the delay is absolute, the LS-Wing will automatically order the commands according to their delay time. When the delay is relative, the commands will be ordered according to their order of inclusion.

EXIT	Wing Targets	Mapping Node Info	
Name:			
= Selected: Button 2 - Page 1	Page 1 >	Action List Delay Action	
		0.0s Resolume V Select Layer / 0.0s /composition/lavers/1/select	
		0.5s Resolume V Clear Layer / 0.5s /composition/lavers/4/clear <	
		1.0s         Resolume V         Clear Layer            0.5s         /composition/lavers/3/clear	
		1.7s         Resolume V         Clear Layer           0.7s         /composition/lavers/2/clear	
The console is in MIDI mode, to enable the sending of cus			
control surface please select Custom mode (select key 5 o	n startup)	Add Save	

## **Section 6:** Remote Control Settings

It is possible to control the LS-Wing remotely, simulating the pressing of buttons or the adjustment of fader levels, through OSC, UDP or DMX.

This functionality is very useful in case you have programmed different actions or commands in the LS-Wing and you want to trigger them from an external device.

#### 6.1 Remote control via OSC

To control the LS-Wing via OSC you must enable the reception of commands from the settings window.



Control	Cmd	Element	Parameter	Example
Toggle Button	/LSW/ToggleButton/[x]/[y]	[x]= Page Number From=1 To=2 [y]= Button Number From=1 To=60		
Focus Button	/LSW/FocusButton/[x]	[ <b>x]=</b> Button Number From=1 To=60	0 = Released 1 = Pressed	To select the Playback number 9: /LSW/FocusButton/9
Page Button	/LSW/Button/[x]/[y]	[x]= Page Number From=1 To=2 [y]= Button Number From=1 To=60	0 = Released 1 = Pressed	To select the Playback number 9 on page 2: /LSW/Button/2/9
Focus Fader	/LSW/FocusFader/[x]	[ <b>x]=</b> Fader Number From=1 To=10	0-255	To adjust the Playback number 9: /LSW/FocusFader/9
Page Fader	/LSW/Fader/[x]/[y]	[x]= Page Number From=1 To=2 [y]= Fader Number From=1 To=10	0-255	To adjust the Playback number 9 on page 2: /LSW/Fader/ <mark>2/9</mark>
Sync All	/LSW/Sync	-	0 = Released 1 = Pressed	-
Sync Only Faders	/LSW/Sync/Faders	-	0 = Released 1 = Pressed	-
Sync Only Buttons	/LSW/Sync/Buttons	-	0 = Released 1 = Pressed	-
Set All Faders	/LSW/PB/Level	-	0-255	- /
All to Zero	/LSW/Buttons/Reset	-	0 = Released 1 = Pressed	-
Reboot	/LSW/Reboot	-	0 = Released 1 = Pressed	- 32

## 6.2 Remote control via DMX

To control the LS-Wing via DMX, ArtNet or sACN reception must be enabled from the settings window as explained on section 4.1.

Channel	Parameter	Range	Value
		000-127	Release
CH-1	Executor Button 1-1	128-255	Press
		000-127	Release
CH-2	Executor Button 1-2	128-255	Press
		000-127	Release
CH-3	Executor Button 1-3	128-255	Press
		000-127	Release
CH-4	Executor Button 1-4	128-255	Press
011.5		000-127	Release
CH-5	Executor Button 1-5	128-255	Press
011.0		000-127	Release
CH-6	Executor Button 1-6	128-255	Press
011.7		000-127	Release
CH-7	Executor Button 1-7	128-255	Press
011.0	<b>E D B B B B B B B B B B</b>	000-127	Release
CH-8	Executor Button 1-8	128-255	Press
011.0	Fundation Duttion 1.0	000-127	Release
CH-9	Executor Button 1-9	128-255	Press
011.40	Fundation Dutter 1 10	000-127	Release
CH-10	Executor Button 1-10	128-255	Press
CH-11	Evenuter Button 0.1	000-127	Release
0-11	Executor Button 2-1	128-255	Press
04 12	Even the Dutter C.C.	000-127	Release
CH-12	Executor Button 2-2	128-255	Press
CH-13	Executor Button 2-3	000-127	Release
01-13	Executor Button 2-5	128-255	Press
CH-14	Executor Button 2-4	000-127	Release
011-14	Executor Button 2-4	128-255	Press
CH-15	Executor Button 2-5	000-127	Release
01-15		128-255	Press
CH-16	Executor Button 2-6	000-127	Release
		128-255	Press
CH-17	7 Executor Button 2-7	000-127	Release
01-17		128-255	Press
CH-18	Executor Button 2-8	000-127	Release
		128-255	Press
CH-19	Executor Button 2-9	000-127	Release
51113		128-255	Press
CH-20	CH-20 Executor Button 2-10	000-127	Release
		128-255	Press

Channel	Parameter	Range	Value
		000-127	Release
CH-21	Flash Button 1	128-255	Press
		000-127	Release
CH-22	Flash Button 2	128-255	Press
		000-127	Release
CH-23	Flash Button 3	128-255	Press
011.01		000-127	Release
CH-24	Flash Button 4	128-255	Press
011.05		000-127	Release
CH-25	Flash Button 5	128-255	Press
011.00		000-127	Release
CH-26	Flash Button 6	128-255	Press
011.07		000-127	Release
CH-27	Flash Button 7	128-255	Press
011.00		000-127	Release
CH-28	Flash Button 8	128-255	Press
011.00		000-127	Release
CH-29	Flash Button 9	128-255	Press
011.00		000-127	Release
CH-30	Flash Button 10	128-255	Press
		000-127	Release
CH-31	PlayBack Select 1	128-255	Press
011.00		000-127	Release
CH-32	PlayBack Select 2	128-255	Press
CH-33	PlayBack Select 3	000-127	Release
00-33	FlayDack Select S	128-255	Press
CH-34	PlayBack Select 4	000-127	Release
01104	Tayback Ociocit 4	128-255	Press
CH-35	PlayPack Salast F	000-127	Release
Сп-35	PlayBack Select 5	128-255	Press
011.00	Disu Da sh Oalast C	000-127	Release
CH-36	PlayBack Select 6	128-255	Press
01107		000-127	Release
CH-37	PlayBack Select 7	128-255	Press
	PlayPook Salast 9	000-127	Release
CH-38	PlayBack Select 8	128-255	Press
011.00	PlayBack Select 9	000-127	Release
CH-39	FlayDauk Seleci S	128-255	Press
011.40	Diou De als O als st 40	000-127	Release
CH-40	PlayBack Select 10	128-255	Press

CH-41         Go Button 1         000-127         Release           CH-42         Go Button 2         128-255         Press           CH-43         Go Button 3         128-255         Press           CH-43         Go Button 3         128-255         Press           CH-43         Go Button 4         128-255         Press           CH-44         Go Button 4         000-127         Release           CH-45         Go Button 5         128-255         Press           CH-46         Go Button 6         128-255         Press           CH-47         Go Button 6         128-255         Press           CH-48         Go Button 7         Release         128-255         Press           CH-47         Go Button 7         128-255         Press         128-255         Press           CH-48         Go Button 7         128-255         Press         128-255         Press           CH-48         Go Button 9         128-255         Press         128-255         Press           CH-49         Go Button 10         100-127         Release         128-255         Press           CH-51         Pause Button 1         128-255         Press         128-255         Press	Channel	Parameter	Range	Value
Image: CH-42         Image: CH-42         Image: CH-42         Image: CH-43         Image: CH-43         Go Button 2         Image: CH-43         Go Button 3         Image: CH-43         Image: CH-43         Go Button 3         Image: CH-44         Image: CH-44         Go Button 4         Image: CH-43         Image: CH-44         Go Button 4         Image: CH-45         Image: CH-45         Go Button 5         Image: CH-45         Image: CH-45         Go Button 6         Image: CH-46         Go Button 6         Image: CH-47         Release           CH-46         Go Button 7         Image: CH-47         Image: CH-47         Release         Image: CH-47         Release           CH-47         Go Button 7         Image: CH-47         Release         Image: CH-47         Release           CH-48         Go Button 7         Image: CH-47         Release         Image: CH-47         Release           CH-49         Go Button 9         Image: CH-47         Release         Image: CH-47         Release           CH-48         Go Button 9         Image: CH-47         Release         Image: CH-47         Release           CH-49         Go Button 10         Image: CH-47         Release         Image: CH-47         Release           CH-51         Pause Button 1         Image: CH-47         Rele				Release
CH-42         Go Button 2         128-255         Press           CH-43         Go Button 3         128-255         Press           CH-44         Go Button 4         128-255         Press           CH-44         Go Button 5         128-255         Press           CH-45         Go Button 5         128-255         Press           CH-46         Go Button 6         128-255         Press           CH-47         Go Button 7         Release         Release           CH-48         Go Button 7         Release         Release           CH-48         Go Button 7         128-255         Press           CH-48         Go Button 7         128-255         Press           CH-48         Go Button 8         000-127         Release           CH-48         Go Button 8         000-127         Release           CH-49         Go Button 9         128-255         Press           CH-50         Go Button 10         128-255         Press           CH-51         Pause Button 1         128-255         Press           CH-52         Pause Button 1         128-255         Press           CH-53         Pause Button 1         128-255         Press	CH-41	Go Button 1	128-255	Press
Image: CH-43         Go Button 3         128-255         Press           CH-43         Go Button 4         128-255         Press           CH-44         Go Button 4         128-255         Press           CH-44         Go Button 5         128-255         Press           CH-45         Go Button 5         128-255         Press           CH-46         Go Button 6         128-255         Press           CH-47         Go Button 7         Release         128-255         Press           CH-48         Go Button 7         128-255         Press         128-255         Press           CH-47         Go Button 7         000-127         Release         128-255         Press           CH-48         Go Button 7         128-255         Press         128-255         Press           CH-48         Go Button 9         128-255         Press         128-255         Press           CH-49         Go Button 10         128-255         Press         128-255         Press           CH-50         Go Button 10         128-255         Press         128-255         Press           CH-51         Pause Button 2         000-127         Release         128-255         Press			000-127	Release
CH-43         Go Button 3         128-255         Press           CH-44         Go Button 4         128-255         Press           CH-45         Go Button 5         128-255         Press           CH-46         Go Button 6         000-127         Release           CH-46         Go Button 6         128-255         Press           CH-47         Go Button 7         Release         128-255         Press           CH-47         Go Button 7         128-255         Press         128-255         Press           CH-48         Go Button 7         128-255         Press         128-255         Press           CH-48         Go Button 9         000-127         Release         128-255         Press           CH-49         Go Button 9         128-255         Press         128-255         Press           CH-49         Go Button 10         128-255         Press         128-255         Press           CH-50         Go Button 10         128-255         Press         128-255         Press           CH-51         Pause Button 1         128-255         Press         128-255         Press           CH-52         Pause Button 10         128-255         Press         12	CH-42	Go Button 2	128-255	Press
Image: CH-44         Image: CH-44         Go Button 4         Image: OD-127         Release           CH-45         Go Button 5         000-127         Release           CH-45         Go Button 5         128-255         Press           CH-46         Go Button 6         128-255         Press           CH-46         Go Button 7         Release         128-255         Press           CH-47         Go Button 7         Release         128-255         Press           CH-48         Go Button 7         128-255         Press           CH-48         Go Button 8         128-255         Press           CH-48         Go Button 9         128-255         Press           CH-49         Go Button 9         000-127         Release           CH-49         Go Button 10         000-127         Release           CH-50         Go Button 10         128-255         Press           CH-51         Pause Button 1         128-255         Press           CH-52         Pause Button 1         128-255         Press           CH-52         Pause Button 1         128-255         Press           CH-52         Pause Button 2         128-255         Press           CH-5			000-127	Release
CH-44         Go Button 4         128-255         Press           CH-45         Go Button 5         128-255         Press           CH-46         Go Button 6         128-255         Press           CH-46         Go Button 7         Release         128-255         Press           CH-47         Go Button 7         128-255         Press         Press           CH-47         Go Button 7         128-255         Press         Press           CH-48         Go Button 7         128-255         Press         Press           CH-48         Go Button 8         000-127         Release         000-127         Release           CH-49         Go Button 9         128-255         Press         000-127         Release           CH-50         Go Button 10         128-255         Press         000-127         Release           CH-51         Pause Button 1         128-255         Press         000-127         Release           CH-51         Pause Button 2         000-127         Release         128-255         Press           CH-52         Pause Button 3         128-255         Press         128-255         Press           CH-53         Pause Button 5         128-255	CH-43	Go Button 3	128-255	Press
Image: CH-45         Go Button 5         Image: Imag		0.0.0.	000-127	Release
CH-45         Go Button 5         128-255         Press           CH-46         Go Button 6         128-255         Press           CH-47         Go Button 7         128-255         Press           CH-47         Go Button 7         128-255         Press           CH-48         Go Button 8         000-127         Release           CH-48         Go Button 9         128-255         Press           CH-49         Go Button 9         000-127         Release           CH-49         Go Button 9         128-255         Press           CH-49         Go Button 9         000-127         Release           CH-50         Go Button 10         128-255         Press           CH-51         Pause Button 1         000-127         Release           CH-51         Pause Button 1         128-255         Press           CH-52         Pause Button 2         000-127         Release           CH-53         Pause Button 3         128-255         Press           CH-54         Pause Button 4         128-255         Press           CH-54         Pause Button 5         128-255         Press           CH-55         Pause Button 6         128-255         Press	CH-44	Go Button 4	128-255	Press
Image: CH-46         Go Button 6         128-255         Press           CH-47         Go Button 7         128-255         Press           CH-47         Go Button 7         128-255         Press           CH-48         Go Button 8         000-127         Release           CH-48         Go Button 8         000-127         Release           CH-48         Go Button 9         000-127         Release           CH-49         Go Button 9         000-127         Release           CH-49         Go Button 9         000-127         Release           CH-50         Go Button 10         128-255         Press           CH-51         Pause Button 1         128-255         Press           CH-51         Pause Button 1         128-255         Press           CH-51         Pause Button 2         128-255         Press           CH-52         Pause Button 2         128-255         Press           CH-53         Pause Button 3         128-255         Press           CH-54         Pause Button 4         128-255         Press           CH-54         Pause Button 5         128-255         Press           CH-56         Pause Button 6         128-255	011.45		000-127	Release
CH-46         Go Button 6         128-255         Press           CH-47         Go Button 7         128-255         Press           CH-48         Go Button 8         000-127         Release           CH-48         Go Button 9         128-255         Press           CH-49         Go Button 9         128-255         Press           CH-49         Go Button 9         000-127         Release           CH-50         Go Button 10         128-255         Press           CH-50         Go Button 10         000-127         Release           CH-51         Pause Button 1         000-127         Release           CH-52         Press         Press         Press           CH-52         Pause Button 2         000-127         Release           CH-53         Pause Button 2         000-127         Release           CH-54         Pause Button 3         000-127         Release           CH-54         Pause Button 4         000-127         Release           CH-54         Pause Button 5         128-255         Press           CH-55         Pause Button 6         128-255         Press           CH-56         Pause Button 7         128-255         Press <td>CH-45</td> <td>Go Button 5</td> <td>128-255</td> <td>Press</td>	CH-45	Go Button 5	128-255	Press
128-255         Press           CH-47         Go Button 7         000-127         Release           CH-48         Go Button 8         000-127         Release           CH-48         Go Button 8         000-127         Release           CH-49         Go Button 9         128-255         Press           CH-49         Go Button 9         000-127         Release           CH-50         Go Button 10         128-255         Press           CH-50         Go Button 10         128-255         Press           CH-50         Go Button 10         128-255         Press           CH-51         Pause Button 1         128-255         Press           CH-51         Pause Button 1         128-255         Press           CH-52         Pause Button 2         000-127         Release           CH-53         Pause Button 2         128-255         Press           CH-54         Pause Button 3         128-255         Press           CH-54         Pause Button 4         000-127         Release           CH-54         Pause Button 5         128-255         Press           CH-56         Pause Button 6         128-255         Press           CH-57	011.40	0.0.0	000-127	Release
$\begin{array}{c c c c c c c } \mbox{CH-47} & \mbox{Go Button 7} & 128-255 & \mbox{Press} \\ \hline \mbox{CH-48} & \mbox{Go Button 8} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-49} & \mbox{Go Button 9} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-49} & \mbox{Go Button 10} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-50} & \mbox{Go Button 10} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-51} & \mbox{Pause Button 1} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-52} & \mbox{Pause Button 1} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-52} & \mbox{Pause Button 2} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-53} & \mbox{Pause Button 3} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-53} & \mbox{Pause Button 3} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-54} & \mbox{Pause Button 4} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-55} & \mbox{Pause Button 5} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-56} & \mbox{Pause Button 5} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-56} & \mbox{Pause Button 6} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-57} & \mbox{Pause Button 6} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-58} & \mbox{Pause Button 7} & \mbox{Release} \\ \hline \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-58} & \mbox{Pause Button 7} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-58} & \mbox{Pause Button 7} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-58} & \mbox{Pause Button 8} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-58} & \mbox{Pause Button 8} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-59} & \mbox{Pause Button 9} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-50} & \mbox{Pause Button 9} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-50} & \mbox{Pause Button 9} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-50} & \mbox{Pause Button 9} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-50} & \mbox{Pause Button 9} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-50} & \mbox{Pause Button 9} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-50} & \mbox{Pause Button 9} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-50} & \mbox{Pause Button 9} & Pause$	CH-46	Go Button 6	128-255	Press
Image: Heat Heat Heat Heat Heat Heat Heat Heat	<u></u>		000-127	Release
CH-48         Go Button 8         128-255         Press           CH-49         Go Button 9         000-127         Release           CH-49         Go Button 10         128-255         Press           CH-50         Go Button 10         128-255         Press           CH-50         Go Button 10         128-255         Press           CH-51         Pause Button 1         128-255         Press           CH-51         Pause Button 1         128-255         Press           CH-52         Pause Button 2         128-255         Press           CH-52         Pause Button 2         128-255         Press           CH-53         Pause Button 3         000-127         Release           CH-53         Pause Button 3         000-127         Release           CH-54         Pause Button 4         128-255         Press           CH-55         Pause Button 5         000-127         Release           CH-56         Pause Button 7         128-255         Press           CH-56         Pause Button 7         128-255         Press           CH-57         Pause Button 7         128-255         Press           CH-58         Pause Button 8         000-127	CH-47	Go Button 7	128-255	Press
Image: Hermitian Hermi		0.0	000-127	Release
$\begin{array}{c c c c c c c } \mbox{CH-49} & \mbox{Go Button 9} & 128-255 & \mbox{Press} \\ \hline \mbox{CH-50} & \mbox{Go Button 10} & 128-255 & \mbox{Press} \\ \hline \mbox{CH-51} & \mbox{Pause Button 1} & \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-51} & \mbox{Pause Button 2} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{128-255} & \mbox{Press} \\ \hline \mbox{CH-52} & \mbox{Pause Button 3} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-53} & \mbox{Pause Button 3} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-54} & \mbox{Pause Button 3} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-54} & \mbox{Pause Button 4} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-54} & \mbox{Pause Button 5} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-56} & \mbox{Pause Button 5} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-56} & \mbox{Pause Button 6} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-57} & \mbox{Pause Button 6} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-58} & \mbox{Pause Button 7} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-58} & \mbox{Pause Button 8} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-58} & \mbox{Pause Button 8} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-58} & \mbox{Pause Button 8} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-58} & \mbox{Pause Button 8} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-58} & \mbox{Pause Button 9} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-58} & \mbox{Pause Button 9} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-59} & \mbox{Pause Button 9} & \mbox{000-127} & \mbox{Release} \\ \hline \mbox{CH-60} & \mbox{Pause Button 10} & \mbox{O00-127} & \mbox{Release} \\ \hline \mbox{CH-60} & \mbox{Pause Button 10} & \mbox{O00-127} & \mbox{Release} \\ \hline \mbox{CH-60} & \mbox{Pause Button 10} & \mbox{O00-127} & \mbox{Release} \\ \hline \mbox{CH-60} & \mbox{Pause Button 10} & \mbox{O00-127} & \mbox{Release} \\ \hline \mbox{CH-60} & \mbox{Pause Button 10} & \mbox{O00-127} & \mbox{Release} \\ \hline \mbox{CH-60} & \mbox{Pause Button 10} & \mbox{O00-127} & \mbox{Release} \\ \hline \mbox{CH-60} & \mbox{Pause Button 10} & \mbox{CH-60} & $	CH-48	Go Button 8	128-255	Press
$ \begin{array}{c c c c c c c c c } \medskip \meds$		0.0	000-127	Release
CH-50         Go Button 10         128-255         Press           CH-51         Pause Button 1         000-127         Release           CH-51         Pause Button 2         128-255         Press           CH-52         Pause Button 2         000-127         Release           CH-52         Pause Button 2         128-255         Press           CH-53         Pause Button 3         000-127         Release           CH-53         Pause Button 3         128-255         Press           CH-54         Pause Button 4         000-127         Release           CH-54         Pause Button 4         000-127         Release           CH-54         Pause Button 5         000-127         Release           CH-55         Pause Button 5         128-255         Press           CH-56         Pause Button 6         128-255         Press           CH-57         Pause Button 7         000-127         Release           CH-57         Pause Button 8         000-127         Release           CH-58         Pause Button 8         000-127         Release           CH-58         Pause Button 9         000-127         Release           CH-59         Pause Button 9         <	CH-49	Go Button 9	128-255	Press
128-255         Press $H-51$ Pause Button 1         000-127         Release $H-51$ Pause Button 2         128-255         Press $H-52$ Pause Button 2         128-255         Press $H-52$ Pause Button 2         128-255         Press $H-53$ Pause Button 3         000-127         Release $H-53$ Pause Button 3         000-127         Release $H-53$ Pause Button 4         128-255         Press $H-54$ Pause Button 4         000-127         Release $H-54$ Pause Button 5         000-127         Release $H-55$ Pause Button 5         000-127         Release $H-55$ Pause Button 6         128-255         Press $H-56$ Pause Button 7         128-255         Press $H-57$ Pause Button 7         000-127         Release $H-57$ Pause Button 8         000-127         Release $H-58$ Pause Button 8         000-127         Release $H-58$ Pause Button 9         128-255         Press		0.0.4	000-127	Release
CH-51         Pause Button 1         128-255         Press           CH-52         Pause Button 2         000-127         Release           CH-53         Pause Button 2         128-255         Press           CH-53         Pause Button 3         000-127         Release           CH-53         Pause Button 3         128-255         Press           CH-54         Pause Button 4         000-127         Release           CH-54         Pause Button 4         128-255         Press           CH-54         Pause Button 5         000-127         Release           CH-55         Pause Button 5         000-127         Release           CH-56         Pause Button 6         128-255         Press           CH-56         Pause Button 7         Release         128-255         Press           CH-57         Pause Button 7         128-255         Press         128-255         Press           CH-58         Pause Button 8         000-127         Release         128-255         Press           CH-58         Pause Button 9         000-127         Release         128-255         Press           CH-59         Pause Button 9         000-127         Release         128-255         Pr	CH-50	Go Button 10	128-255	Press
Image: https://icit.org/128-255         Press $A = A^{2}$ $A = A^{2}$ $A = A^{2}$ $A = A^{2}$ $C H - 52$ $Pause Button 2$ $128 - 255$ $Press$ $C H - 53$ $Pause Button 3$ $000 - 127$ $Release$ $C H - 53$ $Pause Button 3$ $000 - 127$ $Release$ $C H - 54$ $Pause Button 4$ $128 - 255$ $Press$ $C H - 54$ $Pause Button 5$ $000 - 127$ $Release$ $C H - 55$ $Pause Button 5$ $000 - 127$ $Release$ $C H - 56$ $Pause Button 6$ $128 - 255$ $Press$ $C H - 57$ $Pause Button 6$ $128 - 255$ $Press$ $C H - 57$ $Pause Button 7$ $128 - 255$ $Press$ $C H - 57$ $Pause Button 7$ $128 - 255$ $Press$ $C H - 58$ $Pause Button 7$ $128 - 255$ $Press$ $C H - 58$ $Pause Button 7$ $128 - 255$ $Press$ $C H - 58$ $Pause Button 9$ $000 - 127$ $Release$ $C H - 59$ $Pa$	011.54		000-127	Release
CH-52         Pause Button 2         128-255         Press           CH-53         Pause Button 3         000-127         Release           CH-54         Pause Button 4         128-255         Press           CH-54         Pause Button 4         000-127         Release           CH-54         Pause Button 4         128-255         Press           CH-54         Pause Button 5         000-127         Release           CH-55         Pause Button 5         000-127         Release           CH-56         Pause Button 6         128-255         Press           CH-56         Pause Button 7         Release         128-255         Press           CH-57         Pause Button 7         128-255         Press         128-255         Press           CH-57         Pause Button 7         128-255         Press         128-255         Press           CH-58         Pause Button 8         000-127         Release         128-255         Press           CH-59         Pause Button 9         000-127         Release         128-255         Press           CH-60         Pause Button 9         000-127         Release         128-255         Press           CH-60         Pause Button	CH-51	Pause Button 1	128-255	Press
$ \begin{array}{c c c c c c } \hline \begin{tabular}{ c c c } \hline & 128-255 & Press \\ \hline \end{tabular} $			000-127	Release
CH-53         Pause Button 3         128-255         Press           CH-54         Pause Button 4         000-127         Release           CH-54         Pause Button 4         128-255         Press           CH-55         Pause Button 5         000-127         Release           CH-55         Pause Button 5         128-255         Press           CH-56         Pause Button 6         128-255         Press           CH-56         Pause Button 6         128-255         Press           CH-56         Pause Button 7         Release         000-127         Release           CH-57         Pause Button 7         000-127         Release         000-127         Release           CH-57         Pause Button 7         000-127         Release         128-255         Press           CH-58         Pause Button 8         000-127         Release         128-255         Press           CH-59         Pause Button 9         000-127         Release         128-255         Press           CH-60         Pause Button 10         000-127         Release         128-255         Press	CH-52	Pause Button 2	128-255	Press
Image: mark text relation text relatined text relatined text relation text relation text r	011.50		000-127	Release
CH-54         Pause Button 4         128-255         Press           CH-55         Pause Button 5         000-127         Release           CH-56         Pause Button 6         128-255         Press           CH-56         Pause Button 6         000-127         Release           CH-56         Pause Button 6         128-255         Press           CH-57         Pause Button 7         000-127         Release           CH-57         Pause Button 7         128-255         Press           CH-57         Pause Button 7         000-127         Release           CH-58         Pause Button 8         000-127         Release           CH-58         Pause Button 9         000-127         Release           CH-59         Pause Button 9         000-127         Release           CH-59         Pause Button 9         000-127         Release           CH-60         Pause Button 10         000-127         Release	CH-53	Pause Button 3	128-255	Press
	011.54		000-127	Release
CH-55         Pause Button 5         128-255         Press           CH-56         Pause Button 6         000-127         Release           CH-56         Pause Button 6         128-255         Press           CH-57         Pause Button 7         000-127         Release           CH-57         Pause Button 7         128-255         Press           CH-58         Pause Button 8         000-127         Release           CH-58         Pause Button 8         128-255         Press           CH-59         Pause Button 9         000-127         Release           CH-59         Pause Button 9         128-255         Press           CH-59         Pause Button 9         000-127         Release           CH-60         Pause Button 10         000-127         Release	CH-54	Pause Button 4	128-255	Press
Image: CH-56         Press           Pause Button 6         000-127         Release           CH-56         Press         128-255         Press           CH-57         Pause Button 7         000-127         Release           CH-57         Pause Button 7         128-255         Press           CH-57         Pause Button 7         000-127         Release           CH-58         Pause Button 8         000-127         Release           CH-59         Pause Button 9         128-255         Press           CH-59         Pause Button 9         000-127         Release           CH-60         Pause Button 10         000-127         Release	011.55	D D	000-127	Release
CH-56         Pause Button 6         128-255         Press           CH-57         Pause Button 7         000-127         Release           CH-57         Pause Button 7         128-255         Press           CH-58         Pause Button 8         000-127         Release           CH-58         Pause Button 8         128-255         Press           CH-59         Pause Button 9         000-127         Release           CH-59         Pause Button 9         000-127         Release           CH-60         Pause Button 10         000-127         Release	CH-55	Pause Button 5	128-255	Press
Image: Heat CH-57         Pause Button 7         128-255         Press           CH-57         Pause Button 7         000-127         Release           CH-58         Pause Button 8         000-127         Release           CH-58         Pause Button 9         128-255         Press           CH-59         Pause Button 9         000-127         Release           CH-59         Pause Button 9         000-127         Release           CH-60         Pause Button 10         000-127         Release	011 50		000-127	Release
CH-57         Pause Button 7         128-255         Press           CH-58         Pause Button 8         000-127         Release           CH-59         Pause Button 9         128-255         Press           CH-59         Pause Button 9         000-127         Release           CH-60         Pause Button 10         000-127         Release	CH-50	Pause Button 6	128-255	Press
Image: CH-58         Pause Button 8         128-255         Press           CH-58         Pause Button 8         000-127         Release           CH-59         Pause Button 9         000-127         Release           CH-60         Pause Button 10         000-127         Release	01157	Davias D. 11. 7	000-127	Release
CH-58Pause Button 8128-255PressCH-59Pause Button 9000-127ReleaseCH-60Pause Button 10000-127Release	GH-57	57 Pause Button 7	128-255	Press
128-255         Press           CH-59         Pause Button 9         000-127         Release           CH-60         Pause Button 10         000-127         Release	011 50	50 D D	000-127	Release
CH-59     Pause Button 9     128-255     Press       CH-60     Pause Button 10     000-127     Release	UH-58	Pause Button 8	128-255	Press
128-255         Press           CH-60         Pause Button 10         000-127         Release	011 50	Dougo Dutter 0	000-127	Release
CH-60 Pause Button 10	СН-59	Pause Button 9	128-255	Press
CIT-OU Pause Button 10 100 OFF	011.00		000-127	Release
128-255 Press	CH-60	Pause Button 10	128-255	Press

Channel	Parameter	Range	Value
CLLC1	Feder 1 Level	000-127	Release
CH-61	Fader 1 Level	128-255	Press
CH-62	Feder 0 Level	000-127	Release
UI-02	Fader 2 Level	128-255	Press
011.00	Foder 0 Lovel	000-127	Release
CH-63	Fader 3 Level	128-255	Press
CH-64	Fader 4 Level	000-127	Release
0⊓-04	Fader 4 Lever	128-255	Press
	Foder 5 Lovel	000-127	Release
CH-65	Fader 5 Level	128-255	Press
011.00	Foder Clause	000-127	Release
CH-66	Fader 6 Level	128-255	Press
011.67	Feder 7 Level	000-127	Release
CH-67	Fader 7 Level	128-255	Press
CH-68	Fader 8 Level	000-127	Release
	Fader & Lever	128-255	Press
CH-69	Fader 9 Level	000-127	Release
CH-09	Fader 9 Lever	128-255	Press
CH-70	Fader 10 Level	000-127	Release
Сп-70	Fadel 10 Level	128-255	Press
CH-71	Control	000-99	No Function
00-71	Control	100-124	Release Exec Row 1
		125-149	Release Exec Row 2
		150-174	Release All Exec
		175-199	Set Faders @ 0
		200-224	All to Zero
		225-249	Reboot
		250-255	No Function

### 6.3 Assigning LS-Wing functions

In the target library it is possible to select "LS-Wing". This function allows the user to assign LS-Wing actions to a button. Actions:

-Switch to Page 1

-Switch to Page 2

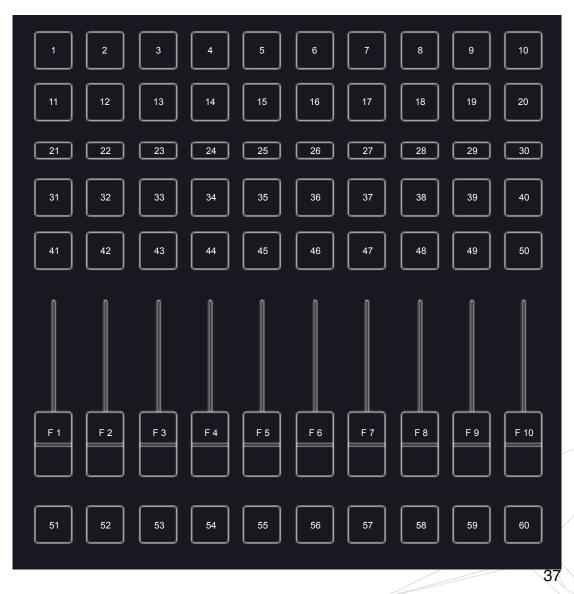
-Turn off the Leds of all buttons

-Lock physical access to the console

-Lock access to the web server

### 6.4 Numerical correspondence

The correspondence of each button or fader of the LS-Wing is detailed below:



## **Section 7: Software and library updates**

### 7.1 Updating libraries

Through the download area of the Lightshar / LS-Wing website, it is possible to download the latest library packages.

Update procedure:

- 1°- Download the library package, it is a file with the extension .devpkg
- 2°- Open the web browser and connect to LS-Wing
- 3°- In the "Info" tab click on "Upload" in the Update Libraries section

	Wing Targets Mapping Node Info
	() LS-Wing Info
= Update Libraries	= About
	LS-Wing can send OSC commands via ethernet networks to any device or software controlled by the OSC protocol. What's more, it can also use ethernet networks to send UDP/IP commands, making it compatible with virtually every lighting, music, video and media server software in use today.
<ul> <li>Software Update</li> <li>① Upload</li> </ul>	The launch of LS-Wing brings huge versatility to the lighting market because it can be configured in a variety of different modes to suit different applications. Developed as a 3 In 1 product, LS-Wing can be a straightforward fader wing, an OSC hardware controller or a standalone MIDI console for any device that accepts MIDI control via USB. A total of four USB ports are provided, including a USB-B port, making it easy to connect to MIDI devices and charge smartphones and tablets.
= BackUp File	In all three modes, LS-Wing has a built-in ArtNet/SACN to DMX converter node offering two Direct DMX universes, WORK PRO's existing LightShark products - the LS-1 and LS-Core – already offer two Direct DMX universes via an XLR connector, so by adding LS-Wing it is very easy to double the number of Direct DMX universes available to each console.
Image: Second price     Image: Second price     Image: Second price     Image: Second price	Versions           Software Version: 1.0.0         Firmware Version: 1.0.19           Wing MAC: 00:25:80:5c:ff:05         DMX Remote MAC: 00:25:80:24:23:3b           Node MAC: 00:25:80:ff:ff:01         Node MAC: 00:25:80:ff:ff:01
	light <b>Shark</b> series.

4°- When you click on "Upload", a window of the file explorer will open, where it is possible to select the downloaded library file.

Once the file is uploaded, the web page will be reloaded.

#### 7.2 Software Update

Through the download area of the Lightshar / LS-Wing website, it is possible to download the latest software version.

Update procedure:

- 1°- Download the software from the LS-Wing website, it is a file with the extension .lswupdt
- 2°- Open the web browser and connect to the LS-Wing
- 3°- In the "Info" tab click on "Upload" in the Software Update section

	Wing Targets Mapping Node Info
	LS-Wing Info
<ul> <li>Update Libraries</li> </ul>	= About
	LS-Wing can send OSC commands via ethernet networks to any device or software controlled by the OSC protocol. What's more, it can also use ethernet networks to send UDP/IP commands, making it compatible with virtually every lighting, music, video and media server software in use today.
<ul> <li>Software Update</li> <li>① Upload</li> </ul>	The launch of LS-Wing brings huge versatility to the lighting market because it can be configured in a variety of different modes to suit different applications. Developed as a 3 In 1 product, LS-Wing can be a straightforward fader wing, an OSC hardware controller or a standalone MIDI console for any device that accepts MIDI control via USB. A total of four USB ports are provided, including a USB-B port, making it easy to connect to MIDI devices and charge smartphones and tablets.
	In all three modes, LS-Wing has a built-in ArtNet/SACN to DMX converter node offering two Direct DMX universes. WORK
	PRO's existing LightShark products - the LS-1 and LS-Core – already offer two Direct DMX universes via an XLR connector, so by adding LS-Wing it is very easy to double the number of Direct DMX universes available to each console.
<ul> <li>BackUp File</li> <li></li></ul>	= Versions
$(\underline{\Psi})$ Save	Software Version: 1.0.0
	Firmware Version: 1.0.19 Wing MAC: 00:25:80:5c:ff:05
	DMX Remote MAC: 00:25:80:24:23:3b
	Node MAC: 00:25:80:ff:ff:01
	light <b>Shark</b> series.

4°- When you click on "Upload" a file explorer window will open, where you can select the downloaded software file.

During the update process do not turn off the console, it may take up to 3 minutes. Once the LS-Wing has been updated, the website will be reloaded automatically.

#### 7.3 Backup

It is possible to back up the current status of the LS-Wing.

Generate a Backup File :

1°- Open the web browser and connect to the LS-Wing

2°- In the "Info" tab click on "Save" in the BackUp File section

	PRO's existing LightShark products - the LS-1 and LS-Core – already offer two Direct DMX universes via an XLR connector,
BackUp File	so by adding LS-Wing it is very easy to double the number of Direct DMX universes available to each console.
Restore	= Versions
Save	Software Version: 1.0.0 Firmware Version: 1.0.19

3°- When you click on "Save" LS-Wing will generate a backup file, once the file is ready it will be downloaded to the Downloads folder of your computer / tablet.

Restoring a Backup File :

- 1º- Open the web browser and connect to the LS-Wing
- 2°- In the "Info" tab click on "Restore" in the BackUp File section.

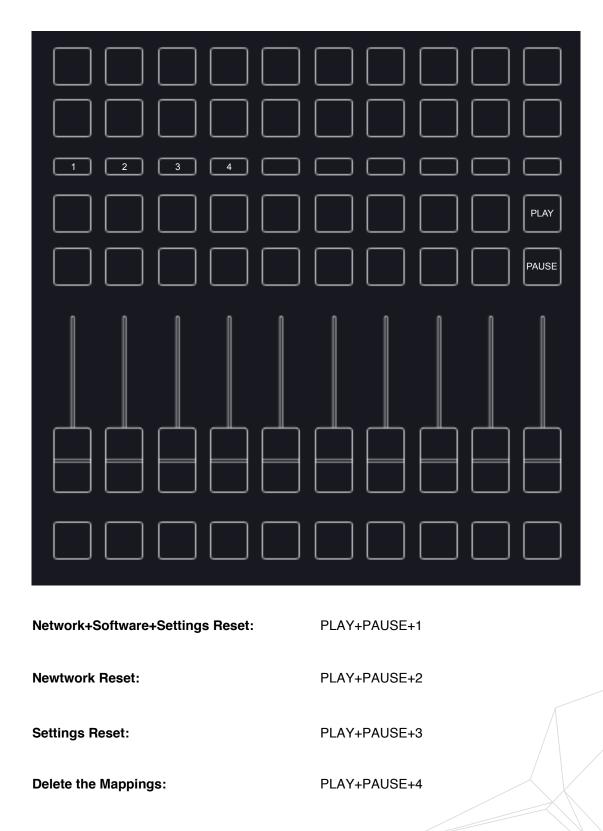
3°- When you click on "Restore", a window of the file explorer will open, where it is possible to select the previously generated Backup file.

4°-During the restoration process do not turn off the console, it can take up to 4 minutes. Once the restoration is completed, the website will be reloaded automatically.

# Section 8: Factory Reset

### 8.1 Reset modes

Different types of reset are possible, depending on the key combination used:



# **Section 9: Datasheet**

Buttons	20 executor, 10 selection, 20 Playback, 10 Flash, fully configurable
Faders	10 faders fully configurable
I/O ports	1xLamp port (XLR-3 5V) 2xDMX (XLR-5) 3xLAN (EtherCon®) 2xUSB-A (Data) + 1xUSB-A(only power 5V) 1xUSB-B 1xTrueOne® mains
Configuration interface	Via Built-in Webserver. Accesible through LAN connection
DMX Outputs	Built-in LAN to DMX ArtNET, sACN node with 2 universe outputs
Lamp connector DC Voltage	5V
USB POWER connector max. current	2A
USB Data connectors max Current	500mA each
Dimmensions	325 x 100 x 330 mm
Weight	2,7 kg
Power supply	90-230V 50/60Hz TrueOne® connector