



# PID Command & Ctrl User Guide

Version 1.2.46

# TABLE OF CONTENTS

<b>Introduction .....</b>	<b>2</b>
<b>Making connections.....</b>	<b>3</b>
Connecting via LAN.....	3
Connecting via RS-232.....	4
What's new in this version.....	4
<b>Controls and Functions .....</b>	<b>5</b>
<b>Operation .....</b>	<b>7</b>
Creating device lists.....	7
Creating a device list in the "Control" tab.....	7
Adding displays with LAN interface.....	7
Adding displays with RS-232 interface.....	8
Load from saved list in the "Control" tab.....	9
Creating a device list in the "UniWall" tab.....	9
Adding displays with LAN interface.....	9
Load from saved list in the "UniWall" tab.....	10
How to control added displays.....	10
How to control the UniWall funtion.....	11
Copying command codes.....	14
Get the checksum.....	14

# INTRODUCTION

*AG Neovo PID Command & Ctrl* is a software application tool that allows users to control, configure and test public information displays via LAN or RS-232 connections in a simple and intuitive way. It also can be used to assist system integrators with external control systems by generating and displaying the commands exchanged between the software and displays.

## Features and Benefits

*AG Neovo Command & Ctrl* provides a simple and easy-to-use interface to perform the following functions:

- Easy remote access to many common controls
- Access to advanced video wall controls
- Assists with diagnosing connection and configuration problems
- Displays all commands exchanged
- Provides control to one or all displays via display listing

## Usage Scenarios

- Finding command codes for programming into an external control system
- Remote controlling one or all of your installed displays
- Easily and Quickly configure a video wall using the UniWall settings
- Instantly switching video sources of multiple displays
- Making adjustments to displays when not physically possible or convenient to use an IR remote control

## Supported Displays

AG Neovo PID Command & Ctrl supports the following AG Neovo display models:

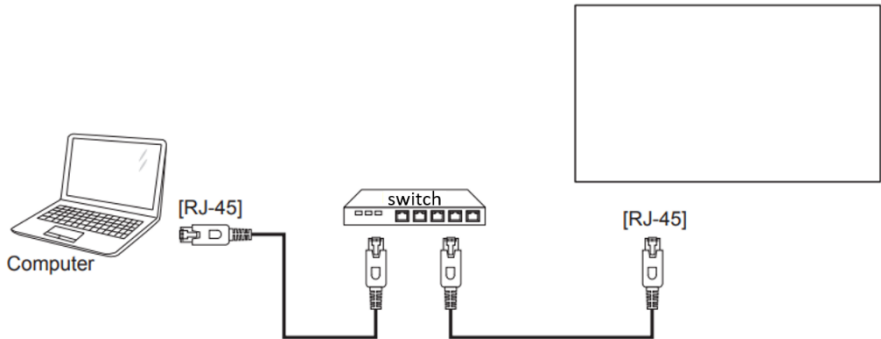
- |             |                                      |
|-------------|--------------------------------------|
| • VW-Series | • QX-Series                          |
| • PN-Series | • QD-Series                          |
| • PD-Series | • NSD-Series                         |
| • PM-Series | • IFP-Series                         |
| • QM-Series | • RX-Series (RX-32E, RX-24E, RX-55E) |

# MAKING CONNECTIONS

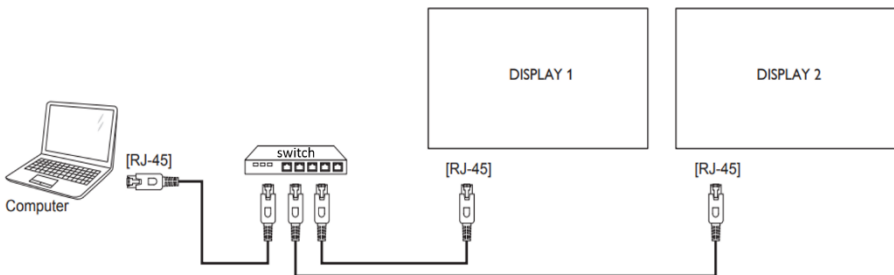
You can interconnect multiple displays for applications such as video walls via LAN or RS-232.

## Connecting via LAN

Single display setup:



Multiple display setup:

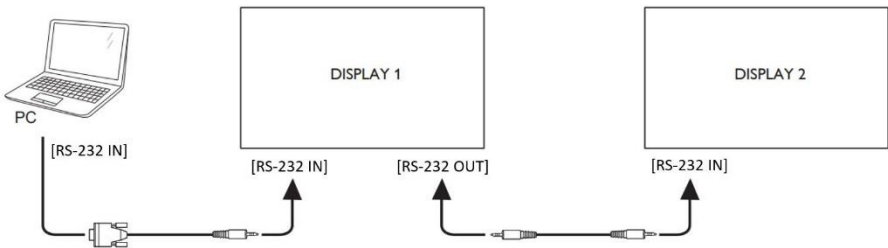


# MAKING CONNECTIONS

## Connecting via RS-232

Connect the RS-232 cable to the corresponding serial port in your computer and display respectively.

Connect the RS-232 OUT connector of DISPLAY 1 to the RS-232 IN connector of DISPLAY 2 to create a daisy-chain configuration.



Note: A USB to RS-232 adapter is necessary for computers which do not have a physical serial port.

## What's new in this version

This version of *AG Neovo PID Command & Ctrl* has the following new features and functionality since version 1.0:

- **IP Scan:** automatically scan and add supported AG Neovo displays located in the same LAN.
- **Support new display models:** added support for QM-Series and CMS/Custom sources. Added support for IFP-Series and NSD-Series.



# CONTROLS AND FUNCTIONS

## UniWall Tab

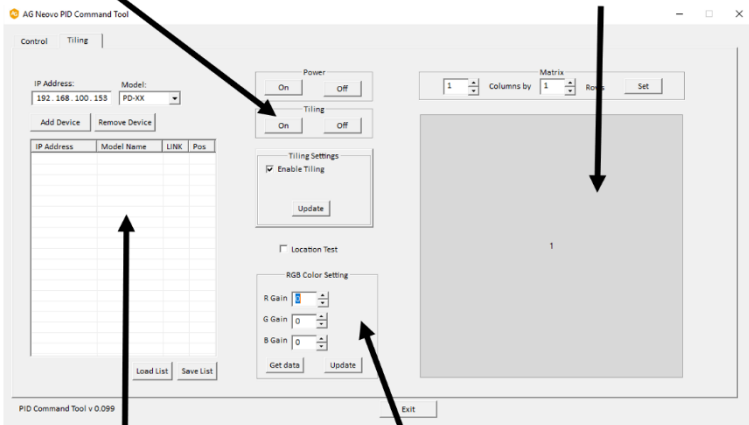
The *AG Neovo PID Command & Ctrl* UniWall tab has a display list and communications interface settings which specify how to connect to a display on the left side. The right side shows the panel with multiple controls. At the bottom of the window each command is displayed for external control system integration.

### Tiling Control

Is used to enable the tiling matrix feature of the display(s)

### Matrix Panel

Configures the tiling matrix settings for dividing a video source over multiple displays



### Device List

Easy access for tiling control of multiple displays

### RGB Color Settings

Adjust RGB Gain values of a selected display

# OPERATION

## Creating device lists

Create device lists in **Control** and/or **UniWall** Sections in order to control devices.

## Creating a device list in the “Control” tab

Device lists can be created for LAN or RS232 interface control, or previously saved lists can also be loaded.

## Adding displays with LAN interface

- Step 1. Select “LAN” as the Comms Interface
- Step 2. Enter the IP address of the AG Neovo display or click “IP Scan”
- Step 3. Select the Model of the display
- Step 4. Click “Add Device” then the device will be added to the list
- Step 5. Repeat Step 1 to 4 until all devices are added
- **\*Save the list** after creating list, every time the command tool is opened, the tool will automatically load the device list file.
- **\*\*Remove device:** a device can be removed from the list when you select the device from the list and click “Remove Device”.

The image shows two screenshots of the 'AG Neovo PID Command Tool' interface, illustrating the steps to create a device list.

**Left Screenshot (Initial State):**

- Control** | Tiling |
- Comms Interface:** LAN (selected), RS-232
- IP Address:** 192.168.100.153 (Step 2)
- Model:** PD-XX (Step 3)
- Monitor ID:** 1
- Buttons:** Add Device (Step 4), Remove Device, IP Scan
- Table:**

IP Address	Model	LINK
192.168.0.101	PN-55H	0
192.168.0.102	PN-55H	0
192.168.0.103	PN-55H	0
192.168.0.104	PN-55H	0

- Buttons at bottom:** Load List, Save List (with a red asterisk next to it)

**Right Screenshot (After Adding Devices):**

- Control** | Tiling |
- Comms Interface:** LAN (selected), RS-232
- IP Address:** 192.168.100.102
- Model:** PM-43
- Monitor ID:** 1
- Buttons:** Add Device, Remove Device
- Table:**

IP Address	Model	LINK
192.168.100.1	PN-55H	
192.168.100.2	PN-55H	
192.168.100.3	PN-55H	
192.168.100.4	PN-55H	
192.168.100.101	PM-43	
192.168.100.102	PM-43	

- Buttons at bottom:** Load List, Save List

A large black arrow points from the left screenshot to the right screenshot, indicating the progression of the process.



# OPERATION

## Adding displays with RS-232 interface

- Step 1. Select “RS-232” as the Comms Interface
- Step 2. Select the Model of the display
- Step 3. Select the Monitor ID of device
- Step 4. Click “Add Device” then the device will be added to the list
- Step 5. Repeat Step 1 to 4 until all devices are added
- **\*Save the list** after creating list, every time the command tool is opened, the tool will automatically load the device list file.
- **\*\*Remove device:** a device can be removed from the list when you select the device from the list and click “Remove Device”.

AG Neovo PID Command Tool

Control | Tiling |

Comms Interface  
☐ LAN **1.** ☒ RS-232

IP Address: 192.168.100.153 **2.** Model: PD-XX **3.** Monitor ID: 1

**4.** Add Device Remove Device

ID	Model	LINK
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		

Load List



AG Neovo PID Command Tool

Control | Tiling |

Comms Interface  
☐ LAN ☒ RS-232

IP Address: 192.168.100.153 Model: PN-55H Monitor ID: 4

Add Device Remove Device

ID	Model	LINK
1	PN-55H	
2	PN-55H	
3	PN-55H	
4	PN-55H	

Load List **\*** Save List

- Step 6. Click “Search” and select the com port on the host PC.
- Step 7. Click “Open”

COM Port Settings

**6.** Search 1

**7.** Open 0

Close

# OPERATION

## Load from saved list in the “Control” tab

Click “Load List”, then command tool would load the device list file that has saved on the same folder with Command tool.

Please note that the device list file will be updated when every time a list is saved.

## Creating a device list in the “UniWall” tab

A device list can be created manually with LAN interface control only or it can be loaded from saved list, the device list in the UniWall tab can be different from the Control tab device list.

## Adding displays with LAN interface

- Step 1. Enter the IP address of the AG Neovo display or click “IP Scan”
- Step 2. Select the Model of the display (models that support tiling)
- Step 3. Click “Add Device” then the device will be added to the list
- Step 4. Repeat Step 1 to 3 until all devices are added
- **\*Save the list** after creating list, every time the command tool is opened, the tool will automatically load the device list file.
- **\*\*Remove device:** a device can be removed from the list when you select the device from the list and click “Remove Device”.

The screenshot shows the 'AG Neovo PID Command Tool' window with the 'Control' tab selected. The interface includes fields for 'IP Address' (192.168.100.104) and 'Model' (PN-55X). Below these are buttons for 'Add Device' and 'Remove Device'. A table lists the added devices with columns for IP Address, Model Name, LINK, and Pos. At the bottom, there are 'Load List' and 'Save List' buttons. Red annotations 1, 2, 3, and \*\* are placed over the IP Address field, Model dropdown, Add Device button, and Save List button respectively.

IP Address	Model Name	LINK	Pos
192.168.100.101	PN-55X		
192.168.100.102	PN-55X		
192.168.100.103	PN-55X		
192.168.100.104	PN-55X		

# OPERATION

## Loading from a saved list in the “UniWall” tab

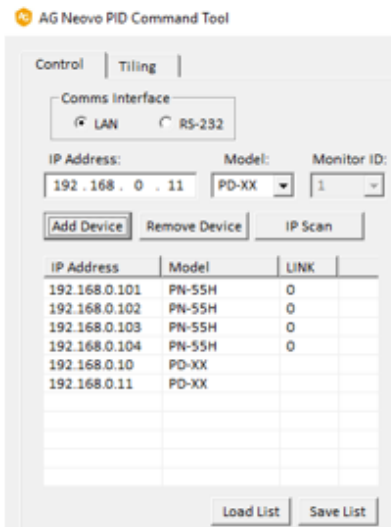
Click “Load List”, then the Command Tool will load the device list file located on the same folder where the Command Tool is running from. The device list from the Control tab will be loaded if there is no previously saved device list from the tiling tab.

Please note that the device list file will be updated when every time save a list.

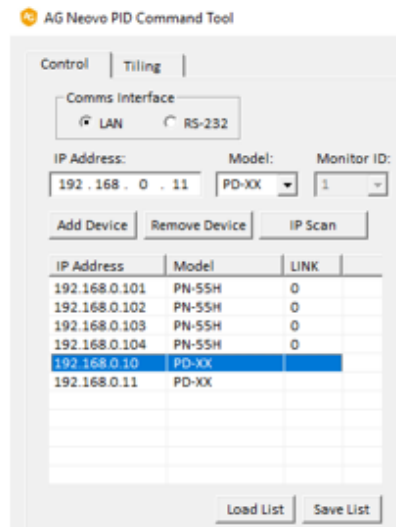
## How to control added displays

- Step 1. Select the display from the device list which you wish to control individually.

All the displays in the device list will respond to commands if nothing is selected.



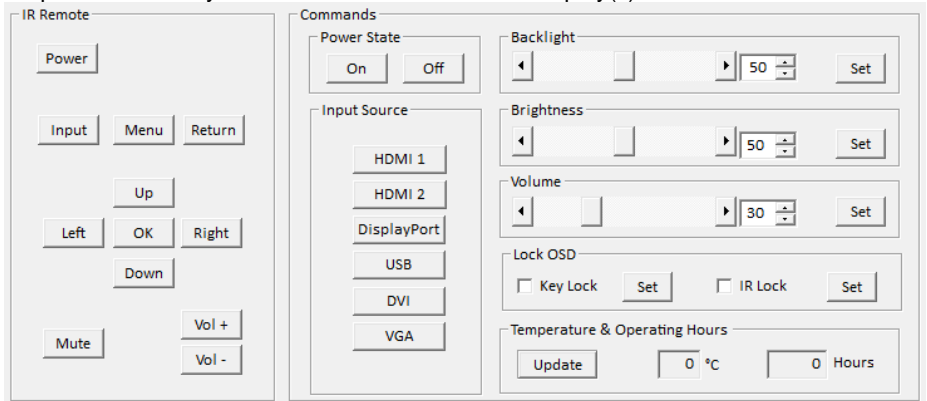
**Control all displays**



**Control an specific display**

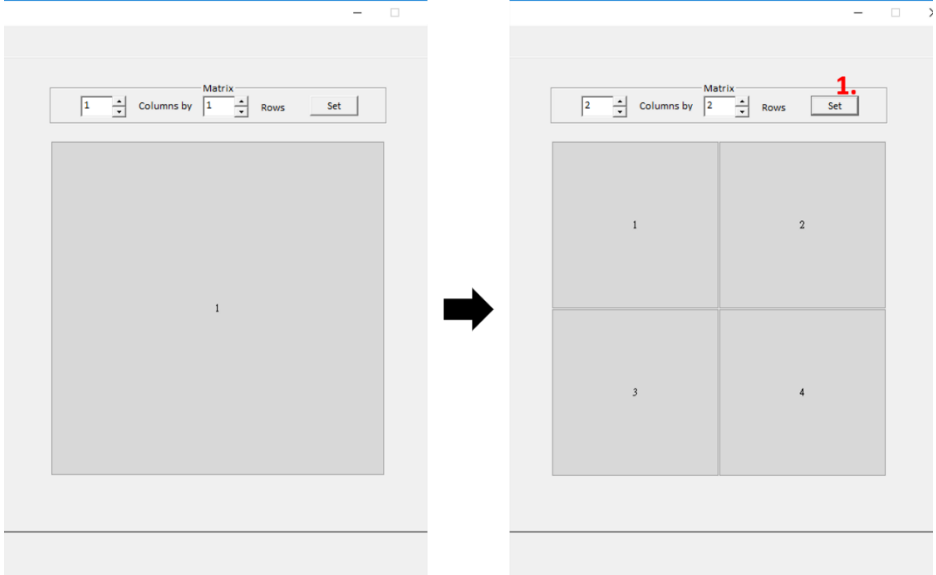
# OPERATION

- Step 2. Click on any function button to control the display(s).



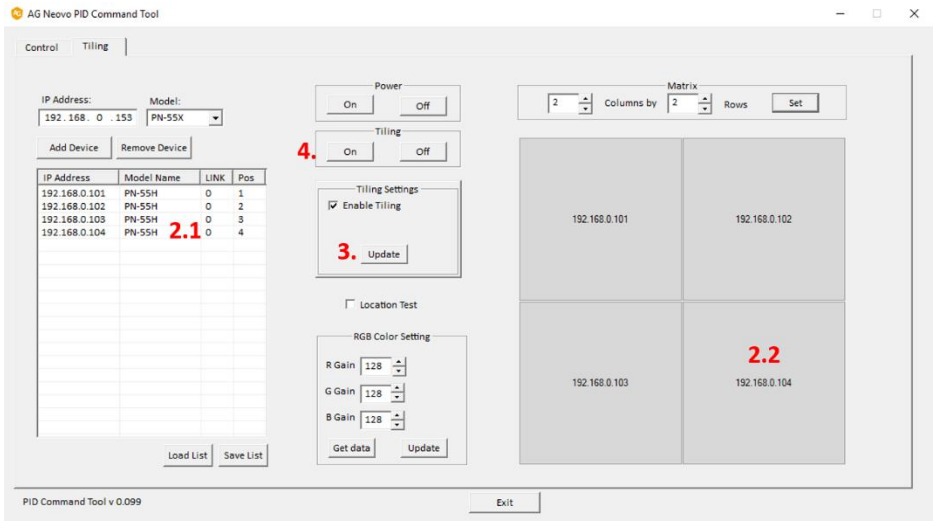
## How to control the UniWall function

- Step 1. Set the matrix size in columns and rows, then click "Set"



# OPERATION

- Step2. Assign a display to a position in the UniWall matrix by clicking on a display and then clicking the desired position.
- Step3. Click “update”
- Step4. Click “on” and “off” to control UniWall function.



# OPERATION

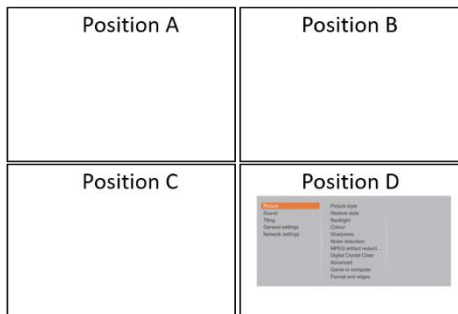
- Step5. If you want to locate each display in the Uniwall matrix, check “Location Test” function, and click on the display then click on its currently assigned position in the matrix. The OSD menu will pop up to show you the actual location of the display. You can click the same position again to hide the OSD menu.

(In the example below, a display with IP address 192.168.100.102 is located on position D but incorrectly assigned to display the image of position A. With the location test function, the user can see the assigned position is incorrect and adjust it to position D with the command tool.)

The screenshot shows the Uniwall management software interface. On the left, there is a table of displays:

IP Address	Model Name	LINK	Pos
192.168.0.101	PN-55H	0	4
192.168.0.102	PN-55H	0	1
192.168.0.103	PN-55H	0	2
192.168.0.104	PN-55H	0	3

Below the table are buttons for "Add Device" and "Remove Device". To the right of the table are controls for "IP Address" (192.168.100.155) and "Model" (PD-XX). Further right are "Power" and "Tiling" controls, both with "On" and "Off" buttons. Below these are "Tiling Settings" (checked "Enable Tiling") and "Update" buttons. At the bottom right are "RGB Color Setting" controls for R, G, and B Gain, all set to 128, with "Get data" and "Update" buttons. On the far right is a "Matrix" section with "Columns by 2" and "Rows" set to 2, and a "Set" button. The matrix itself is a 2x2 grid of squares. The top-left square is labeled "5.3" in red and contains the IP address "192.168.0.102". The top-right square is labeled "192.168.0.103". The bottom-left square is labeled "192.168.0.104". The bottom-right square is labeled "192.168.0.101".



# OPERATION

## Command and Checksum Data

This section shows all commands exchanged via LAN or RS-232. These command codes can be used for programming AG Neovo displays into an external controller.

## Copying command codes

- Step 1. Click a control button (IR Remote, power states, input source, etc.) on PID Command Tool

- Step 2. The corresponding command code will be shown on the “Command and Checksum” section right after pressing any control button.
- Step 3. The command code can be copied into an external controller.

## Get the Checksum

- Step 1. Enter each command codes into the individual column.
- Step 2. Click “Checksum”, then the tool will calculate and generate the checksum value.
- Step 3. The command code can be copied into an external controller.

Company Address: 5F-1, No. 3-1, Park Street, Nangang District, Taipei, 11503, Taiwan.

Copyright © 2020 AG Neovo. All rights reserved.

PID\_Command\_Tool\_UG\_V013