



# **HPU Operation Manual**

**(Pressure Testbay Box)**

*Issued by*

**Chongqing Weiyun Technology Development Co.,Ltd**

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# 1. Installation Process

## 1.1 Computer Configuration

- Supports WIN10 vsreion1903 and above.
- Display resolution of 1920\*1080.

## 1.2 Configure IP

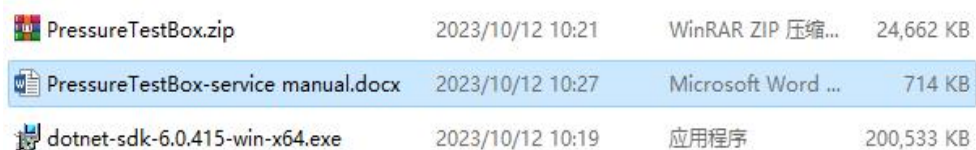
- The IP address needs to be on the same LAN as the remote communication system.




Open the Control Panel → Network and Internet → Network and Sharing Center  
→ Change adapter settings → Ethernet Properties

- Use the following IPv4 and subnet mask(IP 192.168.10.1).

## 1.3 Install .NET Core 6.0 RunTime

- RunTime needs to be installed for initial use.
- Open the folder.






|   |                  |                    |            |
|---|------------------|--------------------|------------|
|  PressureTestBox.zip                 | 2023/10/12 10:21 | WinRAR ZIP 压缩...   | 24,662 KB  |
|  PressureTestBox-service manual.docx | 2023/10/12 10:27 | Microsoft Word ... | 714 KB     |
|  dotnet-sdk-6.0.415-win-x64.exe      | 2023/10/12 10:19 | 应用程序               | 200,533 KB |

- Double click dotnet-sdk-6.0.415-win-x64.exe and wait for the installation to complete.

## 1.4 Installation

- Copy PressureTestbayBox.zip to a directory other than C drive.
- Unzip it.
- Double click PressureTestbayBox\_Russia.exe to run the program.

|  |                 |                  |          |
|--|-----------------|------------------|----------|
|  PressureTestBox_Russia.dll | 2023/9/26 10:46 | 应用程序扩展           | 8,858 KB |
|  PressureTestBox_Russia.exe | 2023/9/26 10:46 | 应用程序             | 211 KB   |
|  PressureTestBox_Russia.pdb | 2023/9/26 10:46 | Program Debug... | 66 KB    |

## 2. Power Supply Spec

Voltage: 380V

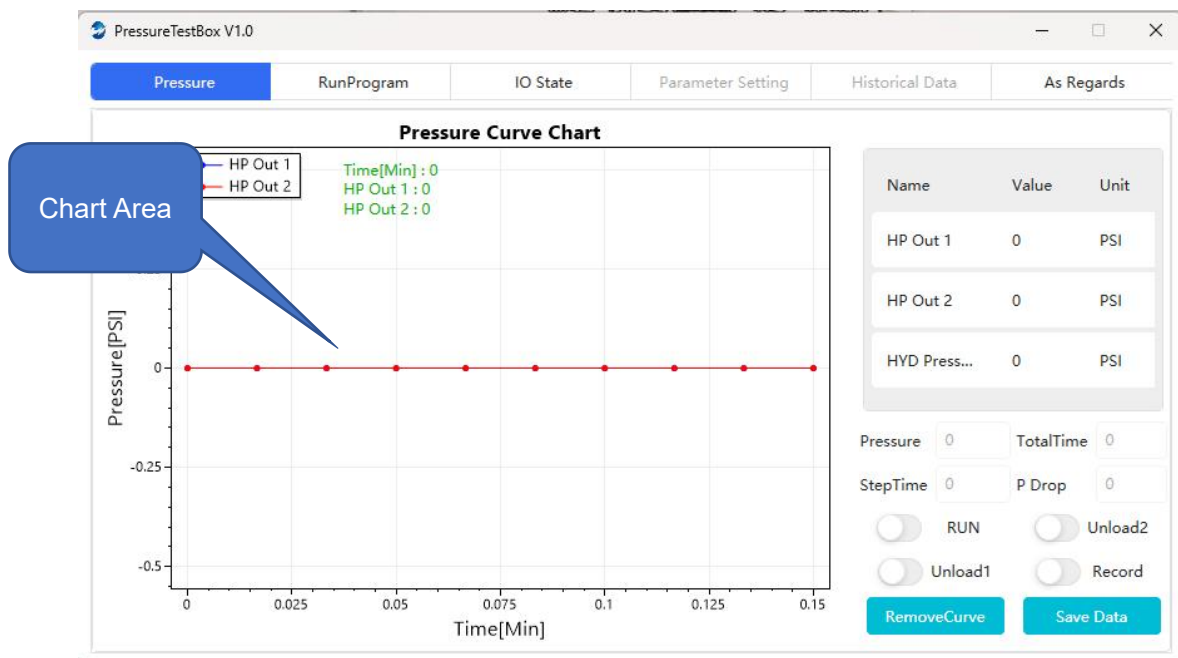
Frequency: 50HZ

Power Consumption: 10KW

Use three-phase five-line system.

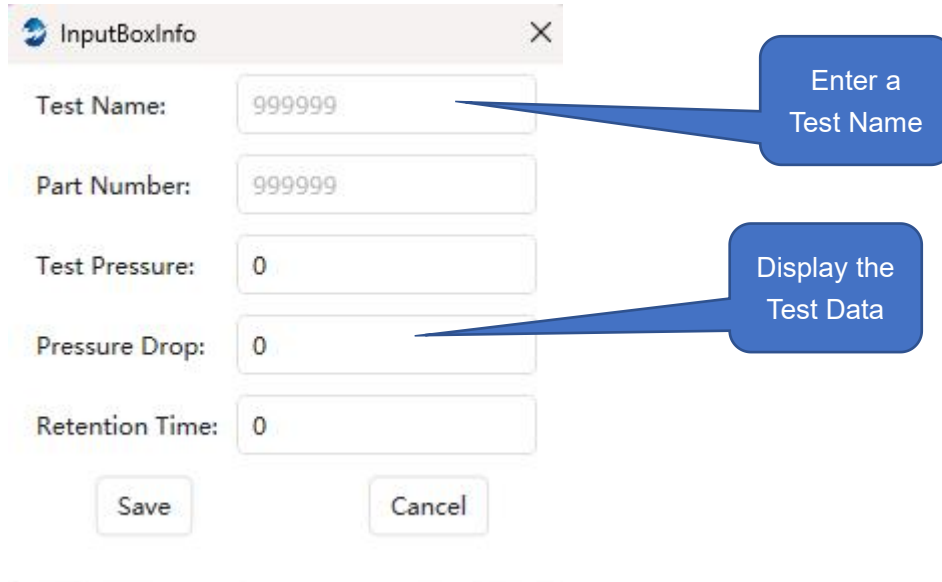
## 3. Panel Details

### 3.1 Pressure Control



- Pressure: Display the pressure value of the running step sequence.
- TotalTime: Display the total running time.
- StepTime: Display the time of the running step sequence.
- P Drop: Display the current pressure drop value.
- Run: Run the set automatic program (view the editing of the RunProgram).
- Unload1: Pressure relief button that unloads HP1 pressure.

- Unload2: Pressure relief button that unloads HP2 pressure.
- Record: Data recording of the chart.
- Save Data: Save the data to the database.



- Remove Curve: Remove data from the chart.

### 3.2 Program Running

| Pressure      | RunProgram        | IO State    | Parameter Setting | Historical Data | As Regards |
|---------------|-------------------|-------------|-------------------|-----------------|------------|
| Operate       | Set pressure[PSI] | Run Time[S] |                   |                 |            |
| HP Out1 Boost | 2000              | 10          |                   |                 |            |
| HP Out1 Boost | 2000              | 10          |                   |                 |            |

#### Sequence editing of program operation

- Operate: The operation of the running step sequence.

- Set Pressure: Set the required pressure value of the running step sequence.
- Run Time: The time of the running step sequence.

### 3.2.1 Program Editing

- Click the right mouse button on the program editing chart.

| Operate       | Set pressure[PSI] | Run Time[S] |
|---------------|-------------------|-------------|
| HP Out1 Boost | 2000              | 10          |
| HP Out1 Boost | 2000              | 10          |

ADD

Delete


Amend

ADD: Add one step sequence.

Delete: Delete the selected sequence.

Amend: Amend the selected sequence.

- Select the function that needs to be operated.

 InputBoxInfo ✕

Operate:  ^

Set Pressure:

Run Time:

HP Out1 Boost

HP Out2 Boost

HP Out1 Unload

HP Out2 Unload

HP Out1 Boost: Pressure boost of HP Out1.

HP Out2 Boost: Pressure boost of HP Out2.

HP Out1 Unload: Pressure relief of HP Out1(Set Pressure will be automatically ignored when Unload is selected).

HP Out2 Unload: Pressure relief of HP Out2(Set Pressure will be automatically ignored when Unload is selected).

- Click “Set” to complete the editing step (maximum of 30 steps).

### 3.3 IO Status

PressureTestBox V1.0

| Pressure                | IO State | Parameter Setting      | Historical Data          | As Regards         |
|-------------------------|----------|------------------------|--------------------------|--------------------|
| 01 : E_STOP             | IO.0     | 21 : Box3DoorDownLimit | 01 : Box1ConnError       | 01 : Check Valve 1 |
| 02 : AutoOrManual       | IO.1     | 22 : Box4DoorUPLimit   | 02 : Box2ConnError       | 02 : Check Valve 2 |
| 03 : DoorUP             | IO.2     | 23 : Box4DoorDownLimit | 03 : Box3ConnError       | 03 : UnloadValve   |
| 04 : DoorDown           | IO.3     | 24 : Box5DoorUPLimit   | 04 : Box4ConnError       | 04 : TotalValve    |
| 05 : DoorLock           | IO.4     | 25 : Box5DoorDownLimit | 05 : Box5ConnError       | 05 : DoorLockValve |
| 06 : HYDStation         | IO.5     | 26 : Box6DoorUPLimit   | 06 : Box6ConnError       | 06 : HYDPump       |
| 07 : Pre_Fill           | IO.6     | 27 : Box6DoorDownLimit | 06 : HYDhyperPressure    | 07 : Pre_FillPump  |
| 08 : Recyle             | IO.7     |                        | 06 : ErrorDoorLock       | 08 : RecylePump    |
| 09 : Lighes             | IO.0     |                        | 06 : E_SafetyLightGrid   | 09 : DoorUPValve   |
| 10 : Check Button 1     | IO.1     |                        | 06 : E_HPout1Pressure    | 10 : DoorDownValve |
| 11 : Check Button 2     | IO.2     |                        | 06 : E_HPout2Pressure    | 11 : RedLight      |
| 12 : Unload             | IO.3     |                        | 06 : E_HydMotorOverload  | 12 : GreenLight    |
| 13 : HYDStationError    | IO.4     |                        | 06 : E_FillMotorOverload | 13 : YellowLight   |
| 14 : Pre_FillError      | IO.5     |                        | 06 : E_PhaseSequence     | 14 : Buzzer        |
| 15 : Box1DoorUPLimit    | IO.6     |                        |                          | 15 : FloodLight    |
| 16 : Box1DoorDownLimit  | IO.7     |                        |                          | 16 : LocatingLight |
| 17 : SafetyLightCurtain | IO.0     |                        |                          |                    |
| 18 : Box2DoorUPLimit    | IO.1     |                        |                          |                    |
| 19 : Box2DoorDownLimit  | IO.2     |                        |                          |                    |
| 20 : Box3DoorUPLimit    | IO.3     |                        |                          |                    |

### 3.4 Parameter Setting

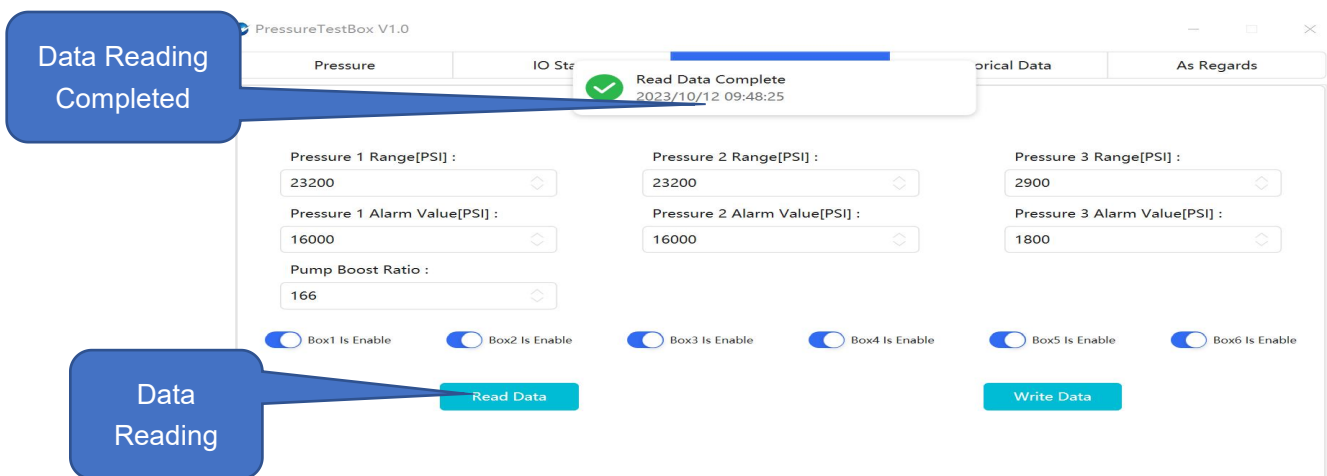
PressureTestBox V1.0

| Pressure   | IO State | Parameter Setting | Historical Data | As Regards |
|--|----------|-------------------|-----------------|------------|
| <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>Pressure 1 Range[PSI] :</p> <input type="text" value="0"/> <p>Pressure 1 Alarm Value[PSI] :</p> <input type="text" value="0"/> <p>Pump Boost Ratio :</p> <input type="text" value="0"/> </div> <div style="width: 30%;"> <p>Pressure 2 Range[PSI] :</p> <input type="text" value="0"/> <p>Pressure 2 Alarm Value[PSI] :</p> <input type="text" value="0"/> </div> <div style="width: 30%;"> <p>Pressure 3 Range[PSI] :</p> <input type="text" value="0"/> <p>Pressure 3 Alarm Value[PSI] :</p> <input type="text" value="0"/> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <span><input type="checkbox"/> Box1 Is Enable</span> <span><input type="checkbox"/> Box2 Is Enable</span> <span><input type="checkbox"/> Box3 Is Enable</span> <span><input type="checkbox"/> Box4 Is Enable</span> <span><input type="checkbox"/> Box5 Is Enable</span> <span><input type="checkbox"/> Box6 Is Enable</span> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <input type="button" value="Read Data"/> <input type="button" value="Write Data"/> </div> |          |                   |                 |            |

- Pressure 1 Range: Set the pressure sensor range of HP Out1.
- Pressure 1 Alarm Value: Set the pressure alarm value for HP Out1(Stops when the pressure alarm value is exceeded).
- Pressure 2 Range: Set the pressure sensor range of HP Out2.
- Pressure 2 Alarm Value: Set the pressure alarm value for HP Out2(Stops when the pressure alarm value is exceeded).
- Pressure 3 Range: Set the pressure sensor range of the hydraulic station.
- Pressure 3 Alarm Value: Set the pressure alarm value for the hydraulic station(Stops when the pressure alarm value is exceeded).
- Pump Boost Ratio: The boost ratio of the high pressure pump.

### 3.4.1 Parameter Readout

- Read data first when setting the parameters.



The screenshot displays the 'PressureTestBox V1.0' software interface. A notification window at the top center indicates 'Read Data Complete' with a green checkmark and the timestamp '2023/10/12 09:48:25'. The main interface is divided into several sections:

- Pressure Parameters:** Three columns of input fields for 'Pressure 1 Range[PSI]', 'Pressure 2 Range[PSI]', and 'Pressure 3 Range[PSI]'. Below these are 'Pressure 1 Alarm Value[PSI]', 'Pressure 2 Alarm Value[PSI]', and 'Pressure 3 Alarm Value[PSI]'. A 'Pump Boost Ratio' field is also present.
- Enablement Toggles:** Six toggle switches labeled 'Box1 Is Enable' through 'Box6 Is Enable', all of which are currently turned on.
- Action Buttons:** A blue 'Read Data' button and a blue 'Write Data' button are located at the bottom of the interface.

Two blue callout boxes highlight key actions: 'Data Reading Completed' points to the notification window, and 'Data Reading' points to the 'Read Data' button.



### 3.4.2 Parameter Write

PressureTestBox V1.0

Pressure | IO State | Historical Data | As Regards

Write Data Complete  
2023/10/12 09:49:07

Pressure 1 Range[PSI] : 23200  
Pressure 2 Range[PSI] : 23200  
Pressure 3 Range[PSI] : 2900  
Pressure 1 Alarm Value[PSI] : 16000  
Pressure 2 Alarm Value[PSI] : 16000  
Pressure 3 Alarm Value[PSI] : 1800  
Pump Boost Ratio : 166

Box1 Is Enable | Box2 Is Enable | Box3 Is Enable | Box4 Is Enable | Box5 Is Enable | Box6 Is Enable

Read Data | Write Data

Data Writing

Data Writing Completed

### 3.5 Historical Data

PressureTestBox V1.0

Pressure | IO State | Parameter Setting | Historical Data | As Regards

StartTime: 2023-09-01 09:49:49 | EndTime: 2023-10-12 09:49:49 | Query Data

| Name | Time                  | Data       | ExportWord | ExportExcel |
|------|-----------------------|------------|------------|-------------|
| jack | 9/1/2023 10:47:59 PM  | DeleteData | ExportWord | ExportExcel |
| save | 9/1/2023 1:48:15 PM   | DeleteData | ExportWord | ExportExcel |
| 55   | 9/1/2023 4:13:56 PM   | DeleteData | ExportWord | ExportExcel |
| savs | 9/13/2023 12:04:49 AM | DeleteData | ExportWord | ExportExcel |
| DSJ  | 9/13/2023 10:08:59 PM | DeleteData | ExportWord | ExportExcel |
| stad | 9/16/2023 8:46:10 PM  | DeleteData | ExportWord | ExportExcel |

Query Start Time

Query End Time

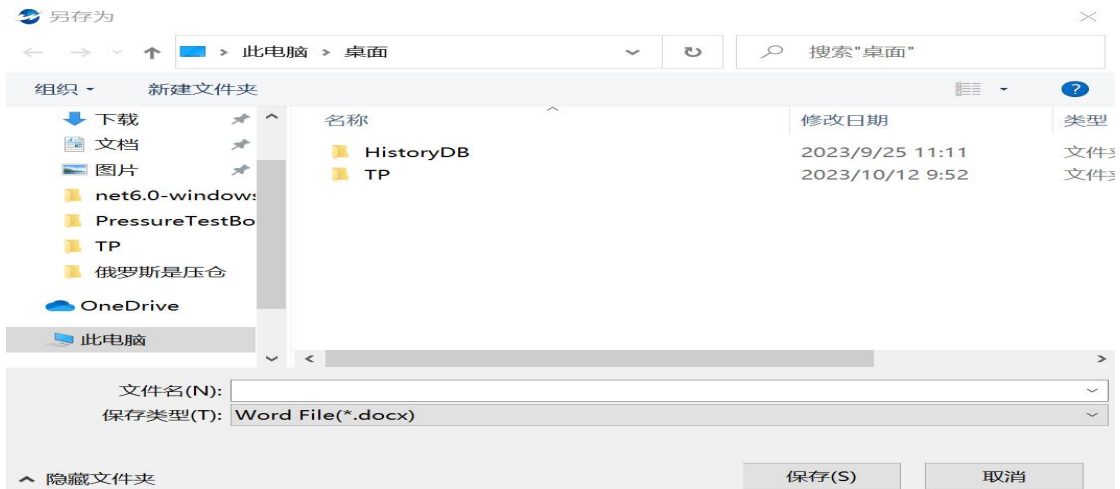
Query

Data List

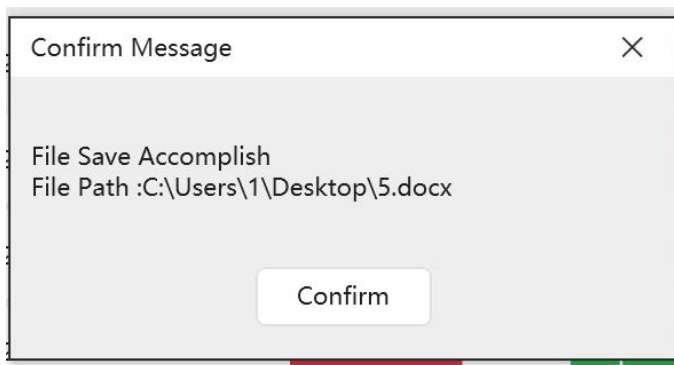
- Enter the start and end time of the query.
- Click “Query Data”.
- Export or delete the data.

### 3.5.1 Export Data

- Click the export button to export the data.



- Select the file location.
- Enter the file name.



- File export completed.

## 4. About

Version: PressureTestbayBox v1.0

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