

Netbell Quick Setting Instructions

Thank you for purchasing Linortek Netbell product! The Netbell is designed for ease of use, and you can have it set up and running in minutes by following these instructions carefully.

After wiring your bells/buzzers to the Netbell controller, powering it on, and connecting the Netbell to your network, you'll need to find its IP address to access the Netbell webpage. You can do this using our Discover program or one of the other methods listed below.

1. Finding the IP Address on Your Network

By default, the Netbell is DHCP enabled. When a Netbell SERVER unit is first installed on your network, it automatically obtains an IP address from your router via DHCP if your router is set up to assign one. If your router is not set this way, please use Option 3 to use default IP address to access the software, as well as how to set a static IP address for your device.

There are several ways to find the Netbell IP address on your network.

Option 1: Using the Discoverer Program to locate the IP address

We have developed two types of Discover apps to help our customers find the IP address on the network:

- Our upgraded Discover app, developed for Windows PC and Android phones
- A Java-based app that can be used on all types of computers, as long as your computer has Java runtime installed.

If you are using a Windows computer, we strongly recommend using the upgraded Discover app.

To download the Discoverer program, please go to: <https://www.linortek.com/downloads/support-programming/>.

• Linortek Discover for Windows

The program you download from our website is a zip file, you will need to extract the file first after downloading. After extracting the zip file, you will see a file called "Linortek_Discover_Windows.exe", double click the file, you will most likely to see a popup window stating that "Windows protected your PC, Microsoft Defender SmartScreen prevented an unrecognized app from starting. Running this app might put your PC at risk." with a "Don't run" button. You need to click More info, the app name, publisher information will display, click Run anyway to open the app, it won't harm your computer.

Alternatively, you can download the Java-based Discover program if you believe you have the Java runtime installed on your PC.



- **Linortek Java-Based TCP/IP Discoverer**

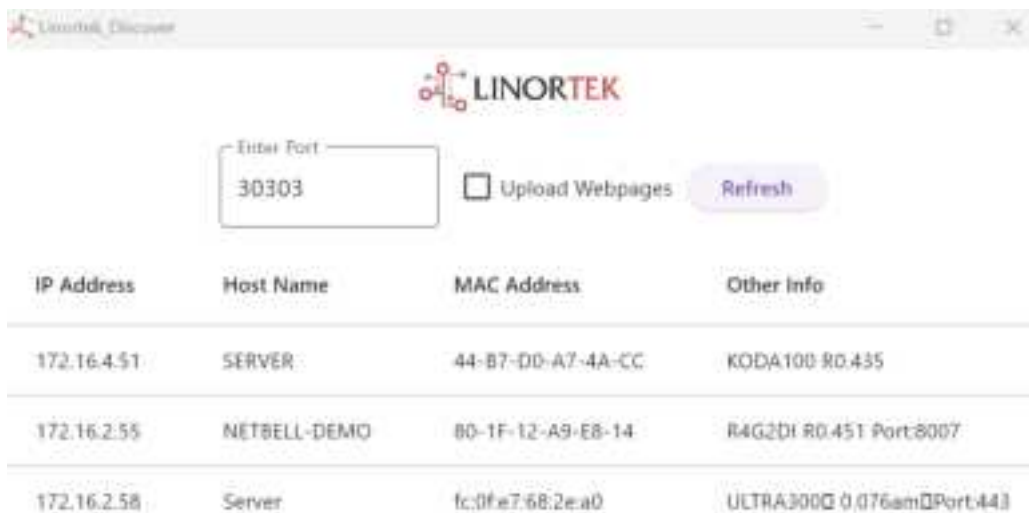
The Linortek TCP/IP Discoverer is a program that will automatically locate your Netbell server. Because discoverer is a Java program, Java runtime needs to be loaded to use this feature. Java can be found here:

<https://www.java.com/en/download/>.

When downloading the Java Discoverer program, sometimes you will see a popup warning message depending on your browser security settings, asking if you want to keep or discard this file, please click the Keep button as this is a Java program, it won't harm your computer.

Once Discover locates your device, it will display:

1. Port Number (Discover for Windows App only, it will display the port number of your device, by default it's set to 30303, which is used for most of Linortek products.
2. IP Address
3. Host Name
4. MAC Address
5. Other Info:
 1. Blue LED (if on)
 2. Product Name
 3. Server Software Revision



Click the device you want to use shown on the Discover program to launch the server's web pages in your browser. Click the **Login** button on the homepage. The default **username/password** is: **admin/admin**. You may change these as you desire or disable this feature in the **settings** menu.

Option 2: Using Command Prompt on your PC to ping the device

If you can't make the Discoverer program to work, you can ping the server to get its IP address on your network. Here is how:

1. Open the Start menu on your PC and type **cmd** on search bar, select **Command Prompt**.
2. Type **ping server** and press Enter.

If the ping is successful, you should receive replies from the address that you are trying to ping. Open your browser and type in the IP address displayed on the command prompt window.

Option 3: Connect directly to your PC to use the default IP address

If you still have trouble finding the IP address, or your network doesn't support DHCP, you can connect the SERVER directly to your computer's Ethernet port, **TURN OFF WiFi**, open your browser, and type in the SERVER's default IP address: **169.254.1.1** to access the webpage to setup your device.

Once logging in the page, you can set a static IP address by going to **Configure - Network Config** page. Once a static IP address is assigned, you can connect it to your network, access the software through the static IP address.

2. Relay Control Bells

Netbell uses relay outputs to control the bells. Here, you can turn the bells on and off manually or set your bell duration by configuring the relays, as well as their labels and status.

To set your relay properties, go to the **Service - In/Out (Relays)** page. The relay you are editing is identified by the line on which you clicked the **Edit** icon on the **RELAY** page. After clicking the Edit icon, you can give a name to the relay (bell) on the **Set Relay** page. Enter a **15-character Relay Name** (please note, use letters and numbers only, no special characters).

The default pulse width for the relay is 4 seconds (which means the bell will ring for 4 seconds when you activate it). You can change this number by entering your desired **Pulse Width** and **Pulse Width Multiplier** on the **Set Relay** page. You can also set different bell ringing durations for each schedule on the **Bells** scheduling page below.

Please note: When you set a duration on the Bells page for each schedule, it will overwrite the pulse width of that relay.

Testing the Bell

If you purchased a Netbell device that requires wiring and want to make sure you have wired it correctly, you can manually test the bell from the software. To test the bell:

- Go to the **Services – In/Out (Relays)** page
- Click the **RED** dot under **STATE** in the **RELAY CONTROL** section (page)
- When the RED dot turns **GREEN**, your bell should ring
- If the bell doesn't ring, please check the wiring

3. Setting Time and Date

When first configuring your Netbell, you will need to verify the time and date on your home page. Your Netbell is configured by default to use **Eastern Standard Time (GMT-5)** and will automatically adjust for **Daylight Saving Time**. If your location is not in the Eastern Time zone, please make sure to set your **Time Zone** first. Using an incorrect time zone will cause the BELLS to ring at the wrong time.

To set your Time Zone:

- Go to **Settings > Time/Date**
- Enter your local Time Zone (for example, -5 for Eastern Time Zone, -6 for Central Time Zone, -7 for Mountain Time Zone, -8 for Pacific Time Zone)
- Make sure the Use NTP Update box is checked (when this box is checked, the Netbell will update its time from the NTP server every 30 minutes by default)

Click the **SAVE** button

The system will update its time at the next interval (30 minutes by default, you can change the interval on the NTP Interval box).

If the device is not connected to your network after the initial setup, you can manually set it to the standard time in the Time box (one hour **BEHIND** your current time if you observe Daylight Saving Time). For example, if your current time is 9:35 AM, you should enter 8:35 AM in the Time box.

If you wish to use your internal NTP server, please check the following instructions.

<https://bit.ly/3YUf8UN>

CAUTION: Incorrect settings might cause your devices unable to update the time from the NTP server.

4. Add Bell Schedules

There are two ways to add bell schedules to ring the bells in the Netbell system:

- Add schedules from the Netbell bell scheduling page
- Add bell schedules with the BellScheduler desktop app

Option 1: Add Bell Schedules from the Bell Scheduling Page

You can add bell schedules from the Netbell webpage. To add an event schedule, click Services then select Bells, then go to Add section which is located at the bottom of **Bells** page

- **Name:** Enter the name of your schedule (15 characters max, use numbers and letters only)
- **Time:** Select the time from the drop-down box for your schedule (24-hour format, HH:MM:SS)

- **Duration:** Enter a number (1-99) and select a length (mS, Sec, or Min). This determines how long the bell rings for this schedule. If left empty, **THE BELL WILL RING UNTIL YOU MANUALLY STOP IT** (from Services – In/Outs, Relays page)

Click the **Add** button, and your first schedule will appear. The schedule is applied to Bell **1, 2, M-F** by default. You can change this by clicking the pip under the **Bell** and **Day** columns, depending on which relay you connect the bell to and what day (from Sunday to Saturday: **S M T W T F S**) you want the schedule to be used. The selected bell will show as **GREEN** (otherwise GREY).

For calendar scheduling on a specific date, the day of the week is disabled, and a date will be displayed instead.

If you have multiple Netbell devices and want to have the same schedules for each device, or if you want to save a copy of your current schedules, you can download/upload the schedules into the Netbell system using a **.txt** format after creating your full schedules.



Download & Upload Bell Schedule

If you want to save a copy of your current schedules, edit the schedules, or switch to different schedules for special days, you can use the Download & Upload function. We only cover the Download & Upload function on the webpage here. For BellScheduler app Download & Upload, please refer to the BellScheduler app instruction.

➤ Download Bell Schedule

To download the bell schedules:

- Click the **DOWNLOAD** button at the bottom right corner
- Your browser will open a new window showing the schedules you have created, which starts with the **#Start** command
- Create a **.txt** file
- Copy and paste the bell schedules to your text file, ensuring the **#Start** command is at the very beginning of the schedules as shown on the download page

Click **Save** after you paste the schedules

➤ Edit Bell Schedules

If you want to make changes to your existing schedules, you can download your existing schedules, save them to a .txt file, edit it, and then upload it to your Netbell system.

➤ Netbell Schedules Text Format

Your bell schedule should always start with the **#START** command.

The order for the schedules is: NAME (15char max), HH (2-digit, 24hr), MM (2-digit), SS (2-digit), YY (2-digit), MM (2-digit), DD (2-digit), BELLS (1-8), DOW (Sunday-Saturday), bell duration (from 1-99), duration multiplier (Ms, Sec, Min), Use (1-digit), Once (1-digit). Separate the values with commas.

- **NAME:** Use any words for the name, max. 15 characters
- **HOURL (HH):** 2-digit number, 24-hour format. For example, to set a schedule at 3 PM, use 15 in the HH area.
- **MINUTE (MM):** 2-digit number
- **SECOND (SS):** 2-digit number
- **YEAR (YY):** 2-digit number
- **MONTH (mm):** 2-digit number
- **DAY (dd):** 2-digit number
- **BELLS:** The bells you want to schedule, from 1-8, depending on the Netbell model you purchased. (Netbell-8: 1-8 bells, Netbell-2: 1-2 bells, Netbell-4: 1-4 bells, Netbell-K: 1 bell). Use "1" for the bell you want to schedule, "0" for bells not on schedule. For example, if you have a Netbell-4 and want to schedule all bells ringing at a certain time, your BELLS value should be: 11110000.
- **DAY OF WEEK (DOW):** The days you want the bell ringing. Starting from Sunday, ending with Saturday. Use "1" for the days you wish the bell to ring, "0" for no bell ringing. For example, to schedule your bell ringing from Monday to Friday, your DOW setting should be: 0111110.
- **DURATION:** How long you want the bell to ring, from 1-99.
- **DURATION MULTIPLIER :** Ms, Sec, Min.
- **USE:** Use "1" to put this schedule in use, "0" for not in use.
- **ONCE:** Use "1" to use this schedule only once, "0" for use in normal schedule.

Bell Schedule Sample:

```
#Start
New test,06,00,00,18,09,27,10000000,00000000,8,Sec,1,0
Morning bell,07,00,00,18,06,27,10000000,00000000,3,Sec,1,0
8AM,08,00,00,18,07,12,11000000,00000000,4,Sec,1,0
9AM,09,00,00,00,00,05,10000000,0111110,3,Sec,1,0
```

➤ To Clear All the Schedules You Have Set and Upload a New One:

- Copy and paste the **#!reset@memory!** command into the **Name** block
- Click **Add**

Your old schedules will be deleted from your bell memory.

➤ Upload Bell Schedules

To upload existing schedules into the Netbell system:

- Copy and paste the **#upload** command in the Name block
- Click the **ADD** button
- You will be directed to the upload page
- Browse for the file you created on your computer
- Press the **Upload** button

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- Return to the Bells page, where your schedules will be displayed
- The page will also show you how many records have been uploaded

Option 2: Add bell schedules with BellScheduler Desktop App

The Linortek BellScheduler app allows you to manage multiple Linortek Netbell devices from the BellScheduler deskapp, without the need of logging into each device, making the management of your bell systems much more convenient.

To download the BellScheduler software, please go to our website Download-Support Programming page, under Special Programs section, click Download Linortek BellScheduler, select Save as on the download popup window.

For more information on how to use the BellScheduler for multiple devices or locations, please refer to Netbell BellScheduler Quick Setting Instruction, the instruction can be found here:

<https://www.linortek.com/downloads/documentations/>

5. Use the Netbell as a Standalone Device

When you use the Netbell as a standalone device, and find the time running faster or slower after a certain period, you can adjust the Real Time Clock (RTC) Crystal Frequency value from **Settings - Time/Date** page to adjust the time.

For example, your current RTC Crystal Freq. is 32769.8, and you are losing one second a day, then you need to change the RTC Crystal Freq. to be 32769.9, and check to see if you still loose the time in one or two days later. If the clock is one second fast, you need to change the RTC Crystal Freq. to be 32769.7.

Please note, do not make too large of a change each time. 1-2 seconds should work.

For more information on Netbell User Manual for installation and schedule settings are available on our website

Download page: <https://www.linortek.com/downloads/>

Video Tutorials for installation and software configuration are available on our website Download page. For quick access to the videos, use your smartphone to scan this QR Code

