

MAGUIRE PRODUCTS INC.

Weigh Scale Blender®

For: 12-12 Controllers and LIW Controllers

WEIGH SCALE BLENDER®

- COMMUNICATION BOARD BINARY UPDATE

The Maguire 12-12 Controller uses an Ethernet based communication board. The communication board provide several types of communication including, Ethernet based Modbus, Profibus, a web interface and an Ethernet pass-through to the controller. The software within the communication board can be updated if necessary. These instructions will explain how to update the software within the controller's communication board by uploading a binary file to the controller using a program called the **Network Download Utility** (file name **UDPDownload.exe**).

The **Network Download Utility** (file name **UDPDownload.exe**) can be downloaded here: <http://www.maguire.com/page.php/manuals.htm> under Communications: *Maguire 12-12 Controller Ethernet Configuration Tool*.

The utility as well as the latest binary files can also be downloaded at the following web address: <http://www.maguire.com/public/mpi/12-12/Binaries/>

The files necessary to update the communication board software are:

UDPDownload.exe – The program necessary to send the new binary to the controller.

PDL-Generic.bin – RAM Uploader

Binary File – The binary file specific to your communication board. These files are within subdirectory at the above web address. The communication boards in use are 3700, 3710, 3720. The early releases of the communication boards used 3700 and 3710 (2006, early 2007). Controllers sold in late 2006 and later may have used the 3720 board. Before applying a binary file to your communication board it is important that you identify your communication board version. Applying the wrong binary to your board may disable it. The version of the communication board can be identified by looking at the title of the web page of the controller (using your web browser). If you are unsure about your communication board, please contact Maguire Products and ask for Technical Support.

Download the three necessary files and save them to a convenient place on your computer.

Using [UDPDownload.exe](#) to update the communication board

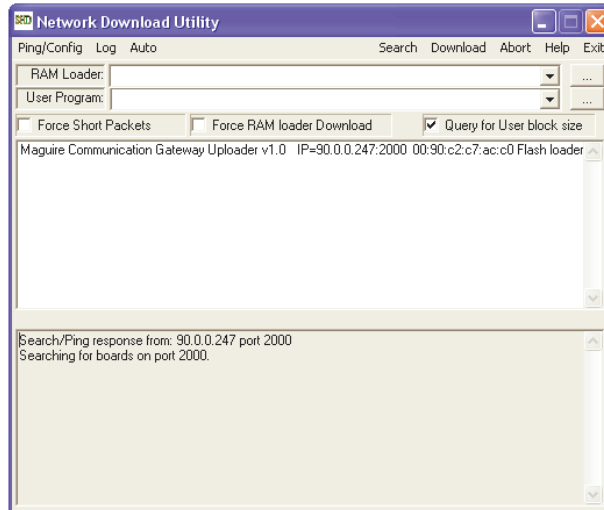


NOTE: Do not use a binary that is not specifically designed for your communication board. Downloading a binary that is not intended for your communication board may result in your communication board being disabled.

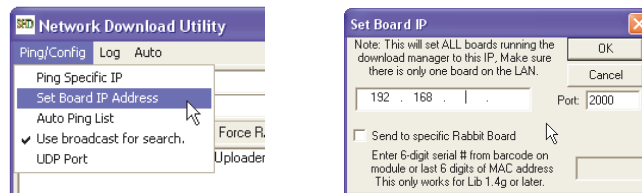
Updating the 12-12 controller's software using the Network Download Utility is a two step process:

1. With the controller and the 12-12 controller connected to your computer network, start the **Network Download Utility** by double-clicking the file *UDPDownload.exe*.

- Click Search. You should see:
Maguire Communication Gateway Uploader vX.X IP=x.x.x.x



- If your controller does not have an IP Address configured, you must configure an IP address prior to updating the software. Under Ping/Config in the menu, select **Set Board IP Address**. Enter the IP address you wish to assign to the controller. The IP address must be within your subnet and accessible from your computer. Do not change the port.



- Click the button to the right of the RAM Loader field.



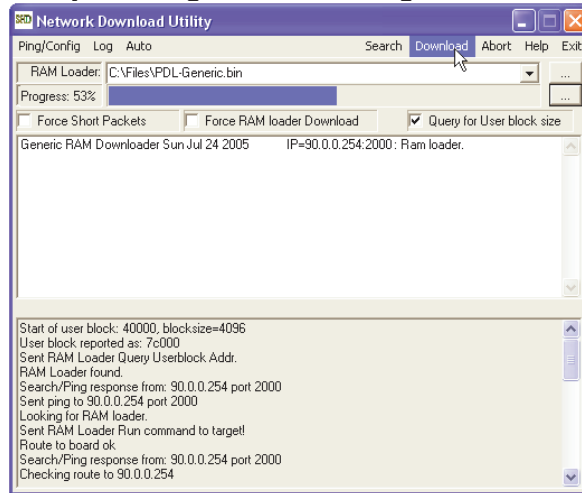
Browse to the location on your computer where you save the PDL-Generic.bin file and select it. This will fill in the RAM Loader field.



- Click the button to the right of the User Program field. Browse to the location on your computer where you save the Binary File and select it. This will fill in the User Program field.



- The Network Download Utility is ready to send the new binary file to the Controller's communication board. To send the new Binary to the controller, click **Download**. The Network Download Utility will begin downloading the new binary to the controller.



- The controller communication board will then reboot. When the Network Download Utility displays Search/Ping response from: x.x.x.x (your IP address) port 2000, then the update is complete. The controller should retain its original IP Address if it was previously set in the controller's web interface, otherwise you may need to set the IP address permanently using the following steps.

Using the Network Download Utility to set the IP Address



NOTE: When configuring the 12-12 controller's IP address using the Network Download Utility, only connect one controller at a time to your Ethernet network to avoid confusion between your controllers.

Setting the 12-12 controller's IP address using the Network Download Utility is a two step process:

Step 1

1. With the controller and the 12-12 controller connected to your computer network, start the **Network Download Utility** by double-clicking the file *UDPDownload.exe*.
2. Click Search. You should see:
Maguire Communication Gateway Uploader vX.X IP=192.168.0.1
3. Under Ping/Config in the menu, select **Set Board IP Address**. Enter the IP address you wish to assign to the controller. Do not change the port. Setting the IP with this tool is temporary. If the controller is powered off, the IP will revert back to factory default. Setting the IP permanently is done in Step 2. Note: The Port in this tool is for the configuration program only, not for actual TCP communications with the controller.
4. After Clicking OK, click Search. The tool should find the controller again by the new IP address.

Step 2

5. Open a web browser (Internet Explorer). Enter the IP address that you assigned in **Step 1** into the address field within your web browser.
6. You should see a web page prompting for a Username and Password. The default username is **root** and the password field is left blank (no password).
7. After you log in, the Setup screen will display. In this screen, set the IP Address will display the factory default 192.168.0.1. Select **Manual Setting – Static IP** from the dropdown menu and replace the existing IP with the same IP address as you used in Step 1. Subnet Mask and Default Gateway may be changed if necessary.
8. Click **Save Changes**. The IP address of the controller is now permanently set to your assigned IP address.

For more information about the Web Interface, see the next section.

Using The Web Interface

The Maguire 12-12 Controller has a built in web server, which allows access to certain communication configuration settings within the 12-12 controller. The web interface can be accessed from any web browser by entering the IP address of the controller. Configuration settings that can be set from the web interface are: IP address, subnet mask, default gateway, MLAN baud rate, Modbus baud rate, Modbus enabling/disabling and setting / changing the web interface password. The following is additional information about the web interface.



Login Screen

When you access the IP address of the 12-12 controllers, you will be prompted for a username and password. The username is **root** and there is no default password (the field is left blank). The password may be set once logged in. See below.



Communication Setup

The Setup Screen consists of the following fields:

Connection Type: *Manual Setting – Static IP* or *Automatic Setting – DHCP*. For communications to the controller, a Static IP is recommended. Configure the controller with a unique, IP Address and an applicable Subnet Mask, and Default Gateway if necessary.



NOTE

Note: When using Ethernet with the G2 Software, the software will communicate with this controller by its ID number assigned by the *66 function along with the IP address that you are assigning here, and port 9999.

Device Settings: These are baud rates for communications. MLAN Baud rate should be set to 1200. Modbus baud rate should be set to the Modbus card's baud rate if one is installed.

Protocol Settings: If you have a Modbus or Profibus card installed in your controller, enable the appropriate protocol. Call Maguire for more information about these protocols.

After modifying the settings have been on this screen, Click **Save Changes**.



Security Settings

Under the Admin tab, you may set a password. When setting a password, if one had not been set before (setting a password for the first time), then leave the **Old Password** field blank. Enter a password of your choice in both the **New Password** field and again in the **Confirm Password** field, then click **Save Changes**.

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