



## Installation Guide

# Battery Replacement & Firmware Upgrade

5.2" Modero® ViewPoint® Touch Panels

MVP-5200i

MVP-5150

MVP-5100



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# Battery Replacement & Firmware Upgrade Guide

## Overview

This document describes the process of replacing the battery in 5.2" Modero® ViewPoint® Touch Panels.

This includes the following Touch Panels:

- MVP-5200i (FG5966-01/02)
- MVP-5150 (FG5966-07)
- MVP-5100 (FG5966-08)

As described in the following sections, the process of replacing the battery in these touch panels includes the following steps:

1. Retrieving the Touch Panel files (pages) - see the *Retrieving Panel Files* section on page 3.
2. Upgrading the Touch Panel Firmware files - see the *Upgrading Panel Firmware* section on page 9.
3. Discharging the currently installed battery - see the *Discharging the Battery* section on page 18.
4. Removing the discharged battery and installing the new replacement battery - see the *Battery Removal and Replacement* section on page 17.
5. Re-loading the Touch Panel files (pages) - see the *Reloading Panel Files* section on page 27.
6. Validating Proper Operation and Custom Settings - see the *Validation (Final Step)* section on page 31.

Refer to the *Upgrade Paths for 5.2" Modero ViewPoint Panel Firmware* section on page 9 for details on which firmware versions require these additional steps.

## Requirements

The following will be needed to complete this procedure:

- Sufficient knowledge of the network configuration to be able to connect a laptop to the LAN on which the NetLinx Master and Touch Panel(s) reside.



NOTE

*Establish network connectivity before you start.*

- The IP Address of the NetLinx Master.
- A laptop PC equipped with the latest version of the NetLinx Studio software application (available to download from the Tech Center at [www.amx.com](http://www.amx.com) (click [here](#) to download).  
NetLinx Studio is needed to retrieve/reload the Touch Panel files from the panel, as well as to upgrade the Firmware on the panel.



NOTE

*Alternatively, the TPDesign4 (Touch Panel Design/Programming) software application can be used to retrieve / reload the Touch Panel files from the panel. However, TPDesign4 cannot be used for Firmware file transfers. Click [here](#) to download the latest version of TPDesign4.*

- Firmware version **2.66.21** (or higher) for the Touch Panel. Touch Panel Firmware files are available to download from the product catalog pages for each Touch Panel type at [www.amx.com](http://www.amx.com). Firmware files are listed with other downloadable files, along the right-edge of the catalog pages.  
See the *Upgrading Panel Firmware* section on page 9 for details on downloading the latest Firmware files for touch panels.
- Battery Replacement Kit. See the *Battery Replacement Kit* section on page 2 for listing of Kits and included items.
- Phillips-head screwdriver.

## Battery Replacement Kit

The following table lists and describes the Battery Installation Kit:

Battery Replacement Kits - 5.2" Modero ViewPoint Touch Panels		
FG#	Description	Included Items
FG5966-01BAT	MVP-BP-5X, Battery Pack Kit for MVP-5200i (black)	<ul style="list-style-type: none"> <li>• Replacement MVP-5200i battery (<b>57-0016-SA</b>)</li> <li>• Upper rubber feet (screw covers, black, <b>60-5966-13BL</b>; and grey, <b>60-5966-13GR</b>)</li> <li>• Replacement label to cover lower screws: black (<b>91-5966-01BL</b>) and white (<b>91-5966-01WH</b>)</li> <li>• Bottom rubber feet (black, <b>60-5966-12BL</b>; and grey, <b>60-5966-12GR</b>)</li> </ul>



# Retrieving Panel Files

## Overview

It will be necessary to reload the TP4 Touch Panel files on the panel, once the Firmware upgrade and Battery Replacement process is complete. Therefore, the first step in this process is to retrieve the Touch Panel (TP4) files from the panel before upgrading the firmware and replacing the battery.



NOTE

*If you already have a backup of the TP4 files, then retrieving the files from the panel may not be necessary.*

Once the Firmware upgrade and Battery Replacement process is complete, the Touch Panel (TP4) files must be reloaded on the panel. These operations are accomplished using the File Transfer function of the NetLinx Studio application.

## File Transfers

All file transfer operations to touch panels are managed by the NetLinx Master, the files themselves are routed to the panels, where they will reside (panel files never reside on the Master). Therefore, the first step is to establish communication between the laptop PC running NetLinx Studio, and the NetLinx Master that controls the Touch Panel(s).



NOTE

*The instructions in this section assume that you are able to connect the laptop PC running NetLinx Studio to the LAN on which the target NetLinx Master and Touch Panels reside. Establish network connectivity with the NetLinx Master before you start.*

NetLinx Studio supports several methods of communication with NetLinx Masters (including TCP/IP, Serial, Modem and USB). This document focuses on TCP/IP, since it is generally the fastest and easiest method to transfer files in a NetLinx System.

## NetLinx Studio

Since the NetLinx Studio software application can handle all types of file transfers, including retrieving / reloading the Touch Panel files from the panel as well as upgrading the Firmware on the panel, AMX recommends using NetLinx Studio for all file transfers involved in this procedure.

## Connecting to a NetLinx Master Via TCP/IP

To connect to a NetLinx master, via TCP/IP, use the options in the *Master Communication Settings* and *Communication Settings* dialogs to specify the TCP/IP address. Again, these instructions assume that communication between the PC running NetLinx Studio and the target NetLinx master is established.

1. Select **Settings > Master Communication Settings** to open the *Master Communication Settings* dialog (FIG. 1).

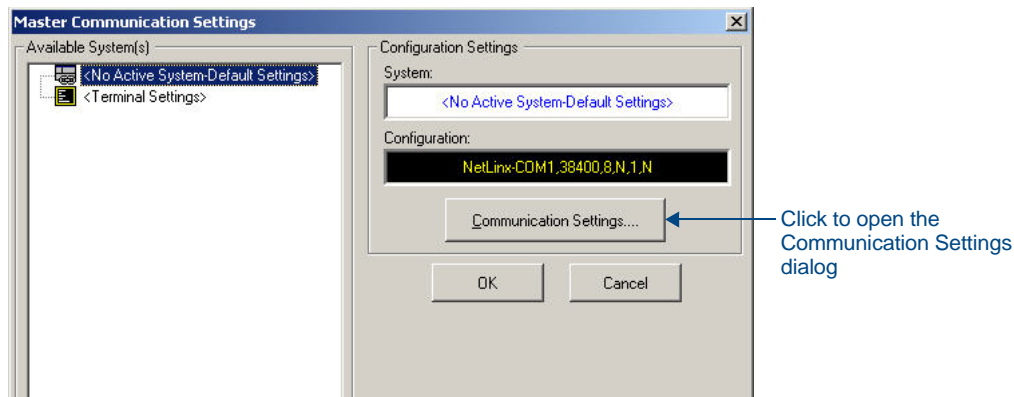


FIG. 1 NetLinx Studio - Master Communication Settings dialog

- Click **Communication Settings** to access the *Communication Settings* dialog (FIG. 2).

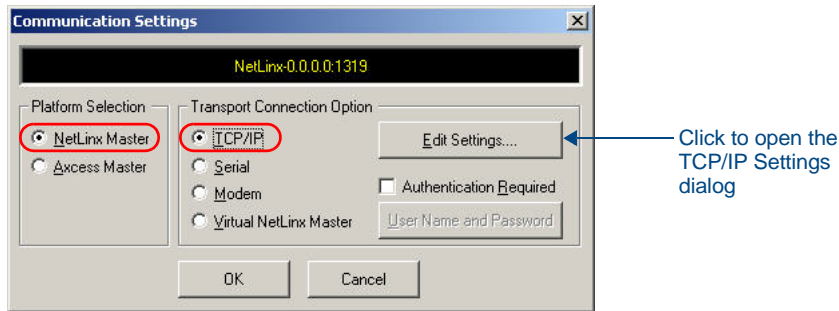


FIG. 2 NetLinX Studio - Communication Settings dialog

- Select **NetLinX Master** as the *Platform Selection*.
- Select **TCP/IP** as the *Transport Connection Option*.

- Click **Edit Settings** to open the *TCP/IP Settings* dialog (FIG. 3).

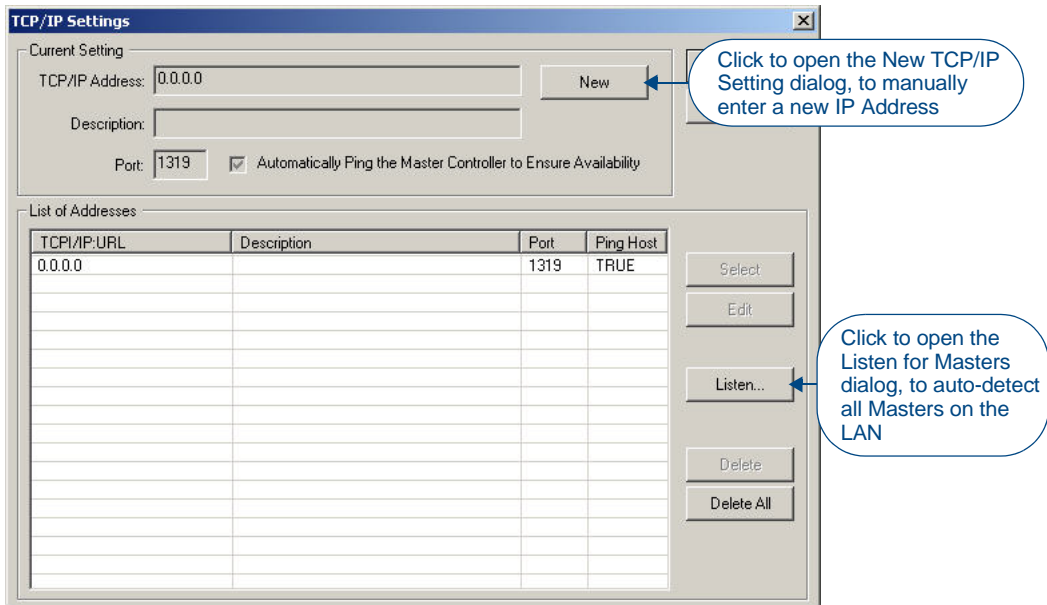


FIG. 3 NetLinX Studio - TCP/IP Settings dialog

If the desired IP Address has already been entered, then it will appear in the *List of Addresses*. In this case, select the IP Address and click **Select**.

If the IP address is not present in the *List of Addresses*, then it needs to be added:

- Click **New** to open the *New TCP/IP Setting* dialog (FIG. 4).

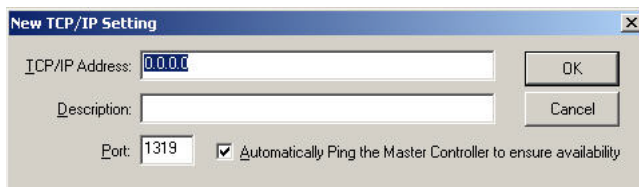


FIG. 4 NetLinX Studio - New TCP/IP Setting dialog

- Enter the IP Address of the target NetLinX Master in the **TCP/IP Address** field
- Enter a friendly name for this connection (i.e. "NetLinX Master") in the **Description** field.



NOTE

The Port should always be set to **1319** (default setting). Do not change the Port assignment.

- d. Click **OK** to return to the *Communication Settings* dialog.

## Retrieving Panel Files

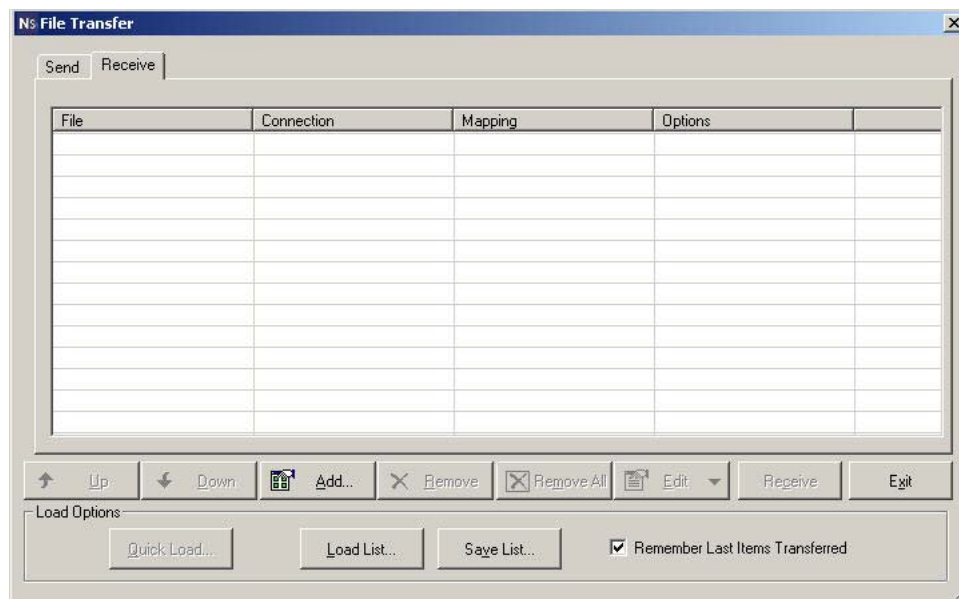
The following steps describe retrieving the Panel Files from the Touch Panel and saving them as a backup, in case they need to be restored after the Firmware upgrade / Battery replacement process.



NOTE

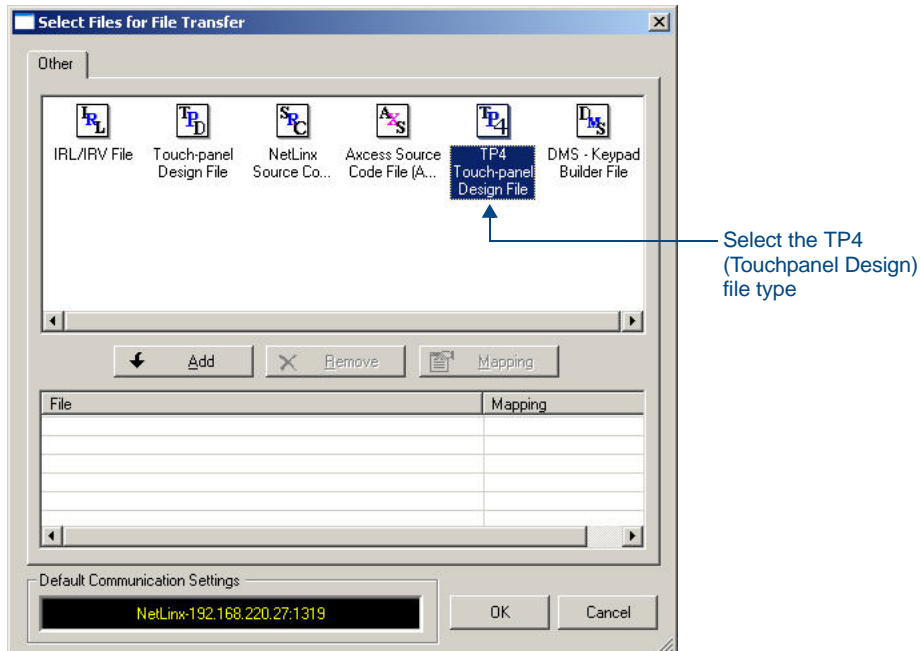
If you already have access to a copy of the current Touch Panel files, this step may not be necessary.

1. Select **Tools > File Transfers** to open the *File Transfer* dialog, and open the *Receive* tab (FIG. 5).



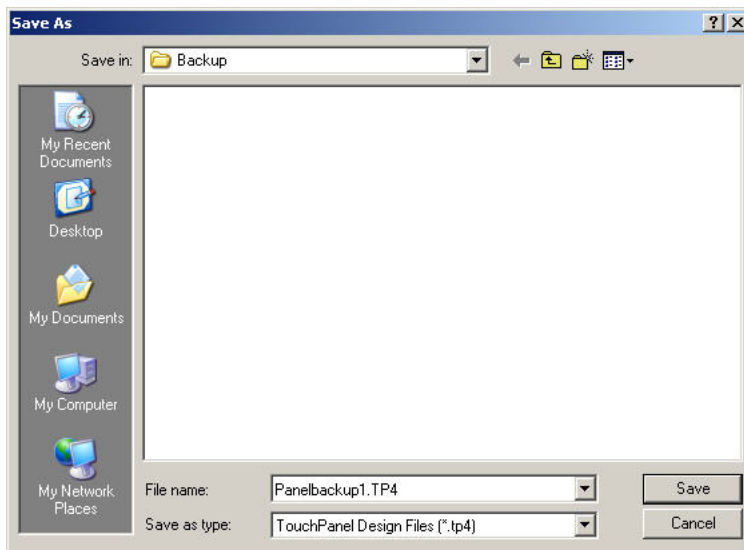
**FIG. 5** File Transfer dialog (Receive tab)

2. Click the **Add** command button to open the *Select Files For File Transfer* dialog (FIG. 6).



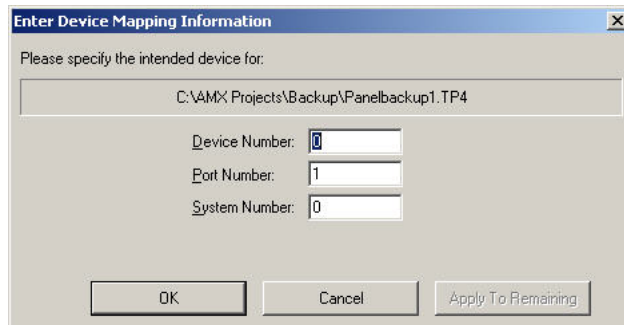
**FIG. 6** Select Files for Transfer dialog (Other tab)

3. Select TP4Touch panel Design File, and click **Add**.
4. In the *Save As* dialog, select a target directory and enter a filename for the retrieved file (FIG. 7).



**FIG. 7** Save As dialog

5. Click **Save** to close this dialog and open the *Enter Device Mapping Information* dialog.
6. In the *Enter Device Mapping Information* dialog, enter the **Device**, **Port** and **System** numbers for the source Touch Panel (FIG. 8).

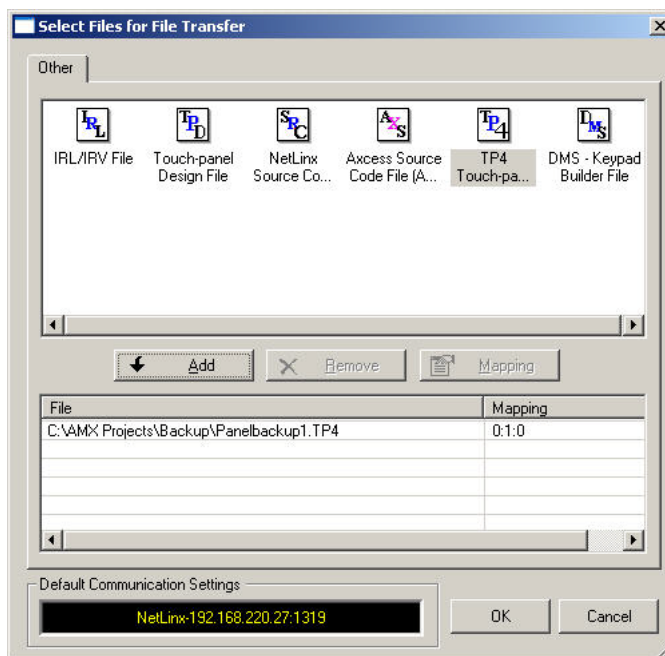


**FIG. 8** Enter Device Mapping Information dialog



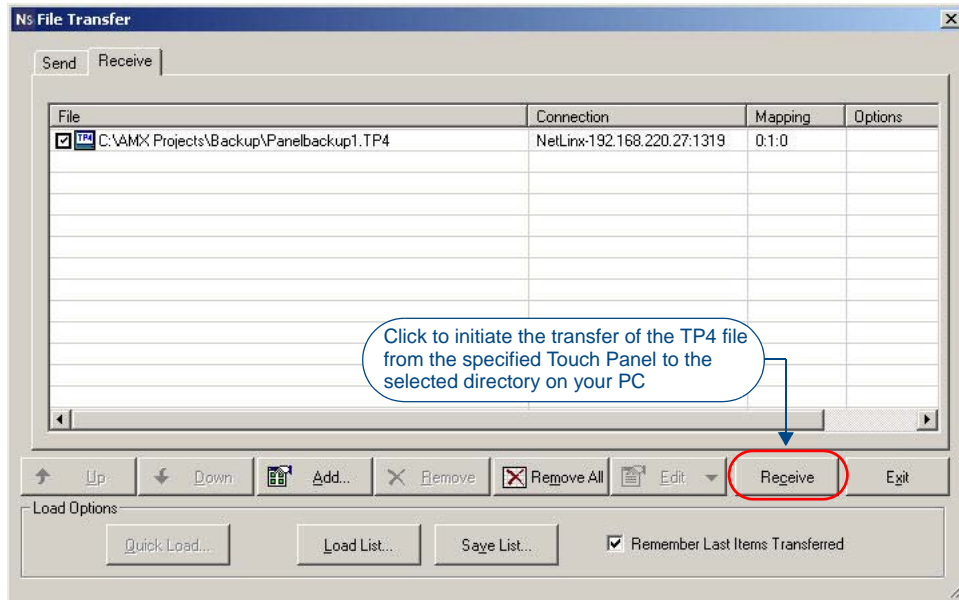
If you do not already know the Device Number assignment for the Touch Panel, you can get it from the panel's online Protected Setup page. See the Determining the Device Mapping Information for the Touch Panel section on page 8 for details.

- Click **OK** to close the dialog and add the File to the list at the bottom of the *Select Files To Transfer* dialog (FIG. 9).



**FIG. 9** Select Files for File Transfer dialog

- Click **OK** to close the *Select Files For File Transfer* dialog and return to the *File Transfer* dialog. The file that you added should now appear in the Files To Receive queue of the **Receive** tab.
- In the File Transfer dialog, click the **Receive** command button (FIG. 10).



**FIG. 10** File Transfer dialog (Receive tab)

This initiates the transfer of every file listed in the File list, in the order in which they are listed (top to bottom). The progress and status of each file transfer is indicated in the Transfer Status Window.

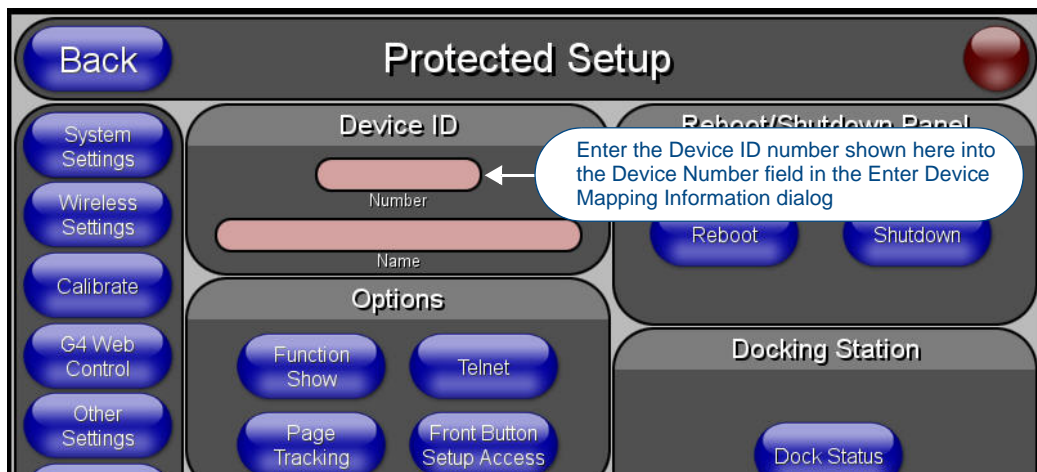
### Determining the Device Mapping Information for the Touch Panel

The Enter Device Mapping Information dialog (FIG. 8) contains three fields: *Device Number*, *Port Number* and *System Number*. Since you are already communicating with the NetLinx Master, the only value that is required here is the **Device Number**.

If you do not already know the Device Number assignment for the Touch Panel, you can get it from the panel's online *Protected Setup* page.

To access the *Protected Setup* page:

1. Press the center button of the navigation wheel and hold for 3 to 5 seconds to access the main Setup page.
2. Select the **Protected Setup** button on the left side of the screen.
3. Using the on-screen keypad, enter the correct password to access the page (the default password is **1988**).
4. Click **OK** to open the main *Protected Setup* page (FIG. 11):



**FIG. 11** Protected Setup page

The device number currently assigned to the panel is indicated in the **Device ID** field. Enter this number into the Device Number field of the Enter Device Mapping Information dialog.

# Upgrading Panel Firmware

## Overview

Before the new Battery is installed, the Touch Panel must be upgraded to Firmware version **2.66.21** (or higher).

Touch Panel Firmware (\*.ZIP) files are available to download from the product catalog pages for each Touch Panel type at [www.amx.com](http://www.amx.com) (see the *Downloading Firmware (ZIP) Files From www.amx.com* section on page 12 for details).

The process of upgrading the panel firmware depends on which version of firmware is currently loaded in the panel. In the case of older firmware versions, one or more intermediate "Prep" files must be downloaded to allow the panel to accept Firmware version 2.66.21. See the following sections for details.

Note that some but not all of the upgrade paths will result in the loss of the Touch Panel pages currently loaded on the panel. In these cases, the Touch Panel page files must be retrieved and backed up before the firmware upgrade, and reloaded to the panel after the upgrade. Refer to the *Retrieving Panel Files* section on page 3, and the *Reloading Panel Files* section on page 27 for instructions.

## Upgrade Paths for 5.2" Modero ViewPoint Panel Firmware

The following tables describe the various upgrade paths for 5.2" Modero ViewPoint Panel Firmware, based on the current Touch Panel Firmware loaded on each Touch Panel type:



*Panel Firmware Files are provided for download in the AMX online product catalog, at [www.amx.com](http://www.amx.com). Refer to the *Downloading Firmware (ZIP) Files From www.amx.com* section on page 12 for details.*

### MVP-5100 & MVP-5150 Firmware Versions

MVP-5100 & MVP-5150		
Released Firmware Version	Upgrade Path From This Version	Comments
V2.22.24	1	LR Release – requires a "prep" kit file to upgrade firmware
V2.60.32	2	Upgraded to 2.6.22 Linux Kernel
V2.61.9	2	Added battery fault detection
V2.65.21	2	External power detection & charger enable/disable
V2.66.17	2	Support for new battery pack
V2.66.21	N/A	Added Battery Type field. This is current release.
<b><i>User settings (System Settings, Wireless Settings, etc.) are not affected by these firmware upgrades.</i></b>		

### MVP-5100 Firmware Upgrade Paths

Upgrade Path #1 – No Loss of User Touch Panel Pages	
Step 1	Install "SW5966-08_MVP_5100_v2.60.30prep.kit"
Step 2	Install "SW5966-08_MVP5100_v2.60.32.kit"
Step 3	Install "SW5966-08_MVP5100_v2_66_21.kit"
<i>Estimated Time Required for Firmware Upgrade: 1 hour</i>	
Upgrade Path #2 – No Loss of User Touch Panel Pages	
Step 1	Install "SW5966-08_MVP5100_v2_66_21.kit"
<i>Estimated Time Required for Firmware Upgrade: 18 Minutes</i>	

### MVP-5150 Firmware Upgrade Paths

Upgrade Path #1 – No Loss of User Touch Panel Pages	
Step 1	Install “SW5966-07_MVP_5150_v2.60.30prep.kit”
Step 2	Install “SW5966-07_MVP5150_v2.60.32.kit”
Step 3	Install “SW5966-07_MVP5150_v2_66_21.kit”
<i>Estimated Time Required for Firmware Upgrade: 1 hour</i>	

Upgrade Path #2 – No Loss of User Touch Panel Pages	
Step 1	Install “SW5966-07_MVP5150_v2_66_21.kit”
<i>Estimated Time Required for Firmware Upgrade: 15 minutes</i>	

### MVP-5200i Firmware Versions

MVP-5200i		
Released Firmware Version	Upgrade Path From This Version	Comments
V2.60.38	1	LR Release – requires a “prep” kit file to upgrade firmware
V2.60.64	2	LR+ Release
V2.65.13	2	Added battery fault detection
V2.65.21	2	External power detection & charger enable/disable
V2.66.17	3	Support for new battery pack
V2.66.21	N/A	Added Battery Type field. This is current release.
<i>User settings (System Settings, Wireless Settings, etc.) are not affected by these firmware upgrades.</i>		

### MVP-5200i Firmware Upgrade Paths

Upgrade Path #1 – User Touch Panel Pages Must Be Reloaded	
Step 1	Install “SW5966-01-A-MVP5200i_PrepFor_v2.60.64.kit”
Step 2	Install “SW5966-01-A-MVP5200i_v2.60.64.kit”
Step 3	Install “SW5966-01_MVP5200i_v2_66_21-prep.kit” See <b>NOTE</b> below.
<i>Estimated Time Required for Firmware Upgrade: 1 hour</i>	

Upgrade Path #2 – User Touch Panel Pages Must Be Reloaded	
Step 1	Install “SW5966-01_MVP5200i_v2_66_21-prep.kit” See <b>NOTE</b> below.
<i>Estimated Time Required for Firmware Upgrade: 15 minutes</i>	

Upgrade Path #3 – No Loss of User Touch Panel Pages	
Step 1	Install “SW5966-01_MVP5200i_v2_66_21.kit” See <b>NOTE</b> below.
<i>Estimated Time Required for Firmware Upgrade: 15 minutes</i>	



NOTE

**Important note regarding “SW5966-01\_MVP5200i\_v2\_66\_21-prep.kit”:**

This kit file does an automated double upgrade that reboots the panel in the middle of the sequence.

The Installer needs to be patient and wait 15 – 20 minutes to complete after the download.

If the Installer gets impatient and pulls power or initiates a hard reset, the upgrade process will likely fail, requiring the unit to be returned to the factory for reprogramming.



## Determining the Current Panel Firmware Version

You can determine the current version of Firmware loaded on your Touch Panel either by checking the Panel Information page on the panel itself, or by checking the Online Tree in NetLinx Studio, as described in the following sections.

### Determining the Current Panel Firmware Version (on the Panel)

The current version of Firmware loaded on your Touch Panel is indicated on the *Panel Information* page.

To access the Panel Information page:

1. Press the center button of the navigation wheel and hold for 3 to 5 seconds to access the main Setup page.
2. Press and hold the **Information** navigation button until the **Project Information** button and the **Panel Information** button slide from the left.
3. Press **Panel Information** to access the *Panel Information* page. The current version of panel firmware is indicated under *Firmware Version* in the left column (FIG. 1).

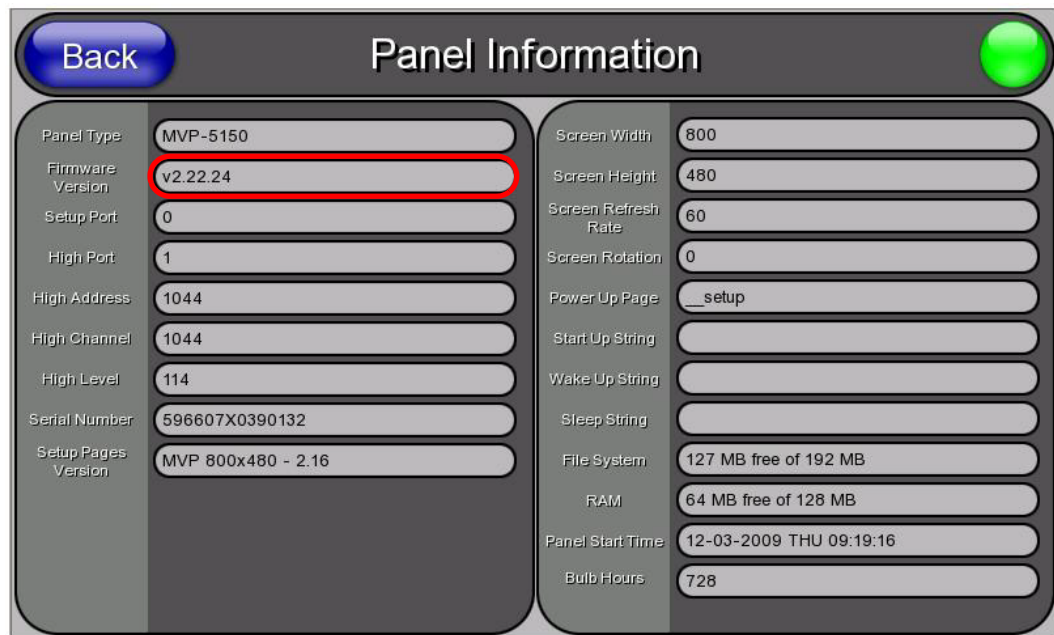


FIG. 1 Panel Information page

### Determining the Current Panel Firmware Version (in NetLinx Studio)

Another way to determine the current version of Firmware loaded on your Touch Panel is to view the panel in NetLinx Studio's Online Tree:



NOTE

*These steps assume that you are running NetLinx Studio, and are connected to the LAN. Refer to the Connecting to a NetLinx Master Via TCP/IP section on page 3 for instructions on connecting to the LAN if necessary.*

1. In NetLinx Studio, open the **Online Tree** tab of the Workspace Bar. The Online Tree displays an online device tree for the NetLinx Master Controller. This tab displays a list of devices detected to be currently online by the Master Controller (and the firmware version for each).

2. Check that The panel is listed as a connected device under the NetLinx Master (FIG. 2).

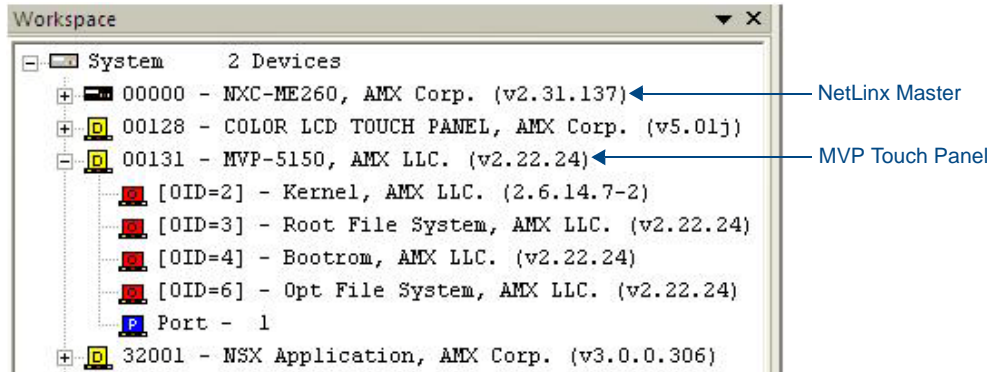


FIG. 2 NetLinx Studio - Online Tree tab of the Workspace Bar

3. The firmware version loaded on the panel is indicated in parenthesis, immediately after the panel name (FIG. 3).

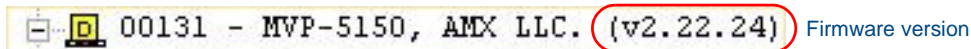


FIG. 3 NetLinx Studio Online Tree - Panel and Firmware information

## Downloading Firmware (ZIP) Files From [www.amx.com](http://www.amx.com)

Touch Panel Firmware files use the file extension ".KIT". Depending on the Firmware version currently loaded on the panel one or more KIT files may be required to fully update the panel Firmware to v2.66.21 - see the *Upgrade Paths for 5.2" Modero ViewPoint Panel Firmware* section on page 9 for details. Therefore, these Firmware upgrades are distributed in the form of ZIP files that contain not only the v2.66.21 Firmware (KIT) file, but every previous Firmware version that might be required to accomplish a full upgrade, again depending on the Firmware currently present on the panel. The Firmware ZIP files also include basic upgrade instructions.

### MVP-5100 Firmware File (to upgrade Firmware to v2.66.21)

SW5966-08\_MVP5100\_v2\_66\_21.zip

### MVP-5150 Firmware File (to upgrade Firmware to v2.66.21)

SW5966-07\_MVP5150\_v2\_66\_21.zip

### MVP-5200i Firmware Files (to upgrade Firmware to v2.66.21)

SW5966-01\_MVP5200i\_v2\_66\_21.zip

Panel Firmware Files are provided for download in the AMX online product catalog, at [www.amx.com](http://www.amx.com).

To access the 5.2" Modero ViewPoint Touch Panels catalog pages:

1. In your web browser, go to [www.amx.com](http://www.amx.com), and select **Products** from the menu at the top of the main page (FIG. 4):



FIG. 4 Select "Products" from the top of the main page ([www.amx.com](http://www.amx.com))

This link takes you to the AMX online product catalog.

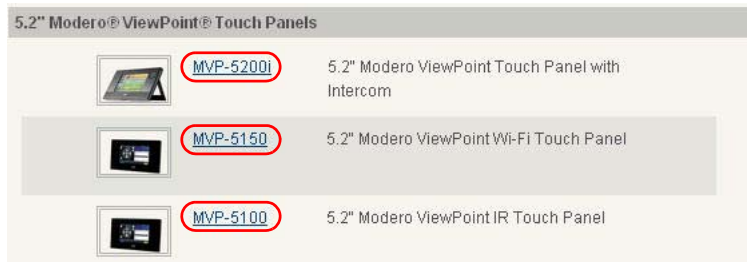
2. Scroll down to the *User Interfaces* category, and select **Touch Panels** (FIG. 5):



FIG. 5 [www.amx.com](http://www.amx.com) - Products > User Interfaces (select Touch Panels)

This link takes you to the main Touch Panels catalog page.

3. Scroll down to the **5.2" Modero® ViewPoint® Touch Panels** category (FIG. 6):



**FIG. 6** www.amx.com - Products > User Interfaces > Touch Panels (5.2" Modero® ViewPoint® Touch Panels)

4. Click on the links to any of the 5.2" Modero® ViewPoint® Touch Panels to access the relevant Product page. The Panel Firmware Files are listed with other downloadable files, along the right-edge of the catalog pages (FIG. 7).



**FIG. 7** Firmware download link on MVP-5200i Catalog Page (www.amx.com)

Download the Panel Firmware Files that you will need, according to the specific Touch Panel types:

1. Click on the link under **Firmware Files** on the appropriate Touch Panel catalog page.
  - Click [here](#) to download the latest MVP-5200i Firmware
  - Click [here](#) to download the latest MVP-5150 Firmware
  - Click [here](#) to download the latest MVP-5100 Firmware
2. This takes you to the *AMX License Agreement*. Read the License Agreement and click **I Accept** to proceed. This initiates the download.
3. Save the Firmware files to a known and accessible location.

## Upgrading the Firmware on the Panels (NetLinx Studio)

Use the **Firmware Transfers** function in NetLinx Studio to send the new Firmware files to the panels:

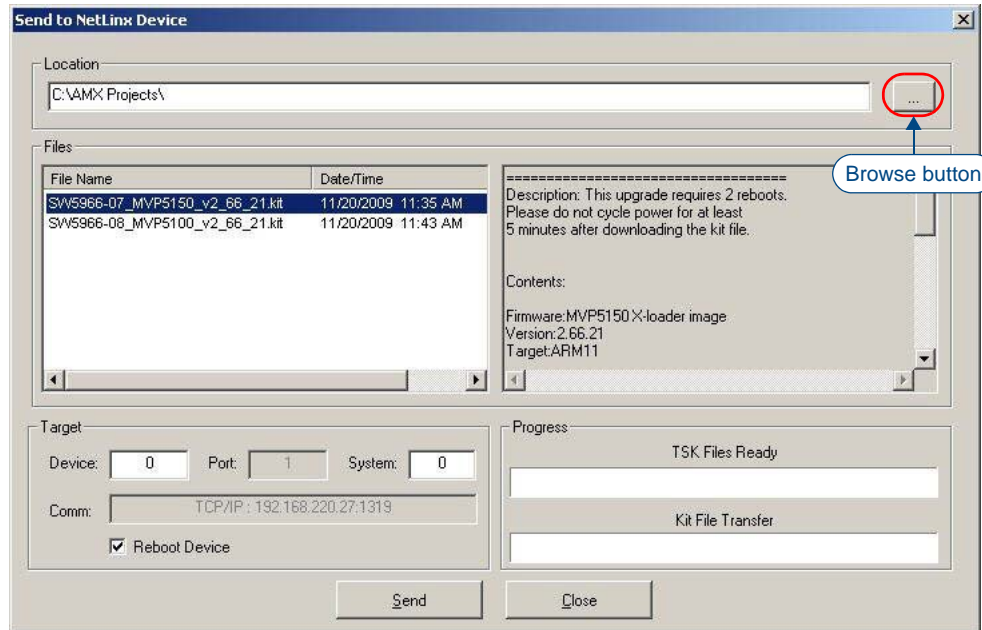


NOTE

**Ensure the Touch Panel is on wall power during the Firmware Upgrade process.**

### MVP-5100 and MVP-5150

1. In NetLinx Studio, select **Tools > Firmware Transfers > Send to NetLinx Device** to open the *Send To NetLinx Device* dialog (FIG. 8):



**FIG. 8** Send To NetLinx Device dialog

2. Click the Browse (...) button in the upper-right corner of this dialog to locate and select the directory that contains the KIT file that you will send to the Touch Panel (in the *Browse For Folder* dialog).  
When you select **OK** in the *Browse For Folders* dialog, all KIT files that are present in the selected directory are listed in the *Files* list, as shown in FIG. 8.
3. Select the appropriate KIT file from the File list, and set the *Target* information:



NOTE

*If you do not already know the Device Number assignment for the Touch Panel, you can get it from the panel's online Protected Setup page. See the Determining the Current Panel Firmware Version section on page 11 for details.*

- a. Enter the Device, Port and System numbers for the target Touch Panel in the text fields.
- b. Review the communications settings indicated in the **Comm** (read-only) field. If these are not correct, set the **Master Communication Settings** (see the *Connecting to a NetLinx Master Via TCP/IP* section on page 3).
- c. Leave the **Reboot Device** checkbox selected (enabled).



NOTE

*The text window in the right-side of the dialog provides details specific to the selected KIT file. Review this information carefully before initiating the Firmware File transfer.*

4. Click **Send** to begin the file transfer. Transfer progress is indicated in the *Kit File Transfer* progress bar.

## MVP-5200i

The process for upgrading MVP-5200i Touch Panels is similar to that described for the MVP-5100 and MVP-5150 (see above), but with an important difference:

**Firmware v2.60.64, 2.65.13, 2.65.21 or later must be installed prior to loading the latest Firmware.**

Depending on the current Firmware version loaded on the MVP-5200i, an intermediate upgrade may be required to upgrade the Firmware to the most current version. This intermediate upgrade is accomplished by uploading the "prep" KIT file to the panel first, then installing the current firmware KIT file.

Both the "prep" KIT file and the current Firmware file are included in the ZIP file.

Extract the ZIP file to produce the following two KIT files:

- **SW5966-01\_MVP5200i\_v2\_66\_21-prep.kit** - this file is required to update older Firmware versions to the point that the latest (v2.66.21) can be loaded.
- **SW5966-01\_MVP5200i\_v2\_66\_21.kit** - this file is the actual Firmware that will ultimately be loaded on the Panel.

### **For panels currently running Firmware versions 2.60.64, 2.65.13 or 2.65.21:**

1. Transfer the "SW5966-01\_MVP5200i\_v2\_66\_21-prep.kit" file, via NetLinx Studio's Firmware Transfers function (see the *Upgrading the Firmware on the Panels (NetLinx Studio)* section on page 14).



NOTE

*This upgrade will take double the time of a normal upgrade (approximately 15 minutes AFTER the download has completed).*

*It will automatically perform multiple reboots.*

*Your network configuration will be saved; however, your user pages must be reloaded after the upgrade.*

2. After the upgrade, the unit should report Firmware version **2.66.21**.

### **For panels currently running v2.66.x or later:**

1. Transfer the "SW5966-01\_MVP5200i\_v2\_66\_21.kit" via NetLinx Studio (see the *Upgrading the Firmware on the Panels (NetLinx Studio)* section on page 14).
2. After about 5 minutes (*after* the download completes) and 2 reboots, the unit should report Firmware version **2.66.21**.



# Battery Removal and Replacement

## Overview

After the device's panel files have been retrieved and saved, the next step is to remove the existing battery from the device and replace it. This installation requires the following MVP-BP-5X battery kit for the three devices:

- FG5966-01BAT

## ATTENTION - READ THIS FIRST!

*Lithium-Polymer batteries are small, compact, and ideal for providing long lasting power. However, they must be used and charged properly. Improper use can result in serious injury, fire, or explosion.*

*Please read and understand the following warnings. If you have any questions or concerns with this product, please contact AMX.*



***This installation requires opening the case of the MVP-5200i, MVP-5100, or MVP-5150 and working within its internal components. If you are unwilling or unable to replace the battery, please return the device to AMX for battery replacement.***



***Misuse of a Lithium-Polymer battery may result in overheating, fire, or explosion!***

***To Avoid Injury, Never:***

- *Use near open flame or other heat source*
- *Puncture or disassemble battery*
- *Damage external contacts*
- *Dispose of battery in fire, water, or container with temperature above 100°C (212°F).*

***Always:***

- *Use only with AMX approved battery charger*
- *Store in dry place with temperature between 0° C (32° F) and 40° C (104° F)*



***Care must be taken during installation to ensure that the battery is not damaged.***

## IMPORTANT NOTES!



*Lithium-Polymer battery technology degrades in capacity over time, unless the battery is periodically charged and discharged. AMX recommends installing all Lithium-Polymer batteries in functional AMX products within 6 months of receipt.*

## Discharging the Battery

Before the existing battery can be removed, it should be **completely discharged**. Methods of discharge include turning on the device and allowing it to run until the battery is completely depleted.



**Do NOT** discharge the battery before installing the latest firmware for the device. This firmware is available at [www.amx.com](http://www.amx.com). Firmware cannot be installed on a device once the battery is completely discharged. Refer to the *Upgrading Panel Firmware* section on page 9 for details.



Discharging the battery by running the device may take 6 to 8 hours, depending upon the charge on the battery.

## MVP-5200i Battery Removal and Installation

After the latest firmware has been installed and the battery fully discharged, the battery may now be removed from within the device. A Phillips-head screwdriver is necessary to complete the removal and the new battery installation.

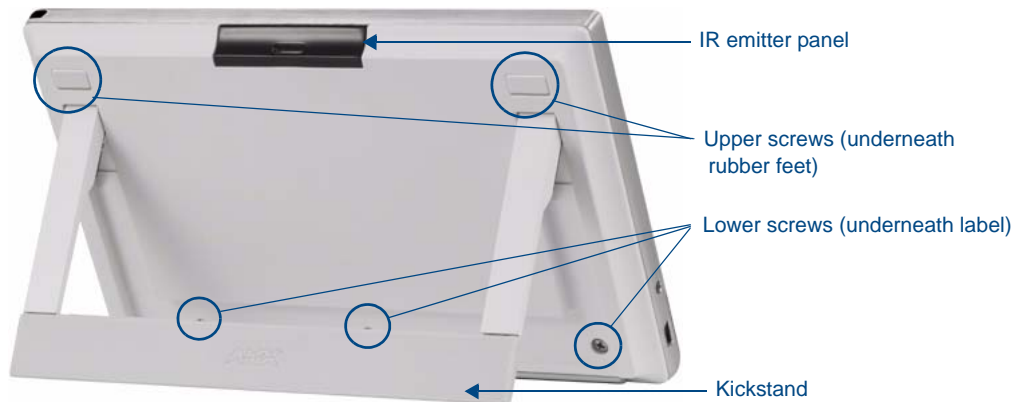
### Removing the Old Battery From the MVP-5200i

1. Before starting, remove the battery and back cover from their packaging, and inspect the assembly for any damage or distortion.



If the battery and back cover shows evidence of damage, contact AMX for replacement and proper disposal information.

2. Place the device face-down on a surface that will not scratch the unit and remove the five screws from the back cover (FIG. 1).



**FIG. 1** Screw placement on the back cover of the MVP-5200i-GW

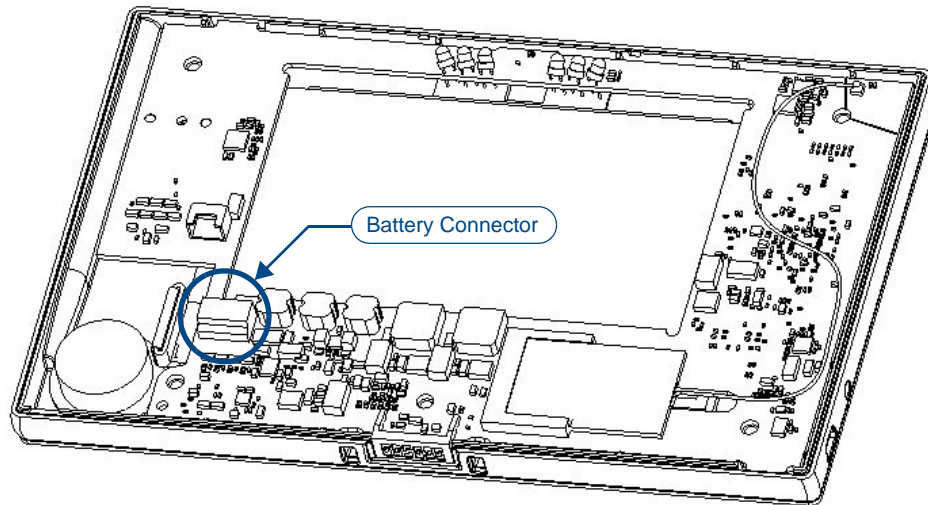
- Two of the screws are at the upper corners of the device, underneath rubber feet that also act as screw covers. Remove the rubber feet to access the screws.
- Lift up the kickstand and remove the label to reach the remaining three screws.



Discharge all static electricity that may have built up on your body, either by using a static discharge strap or by touching a nearby piece of metal.

3. Carefully remove the back cover of the device and detach the battery lead at the female battery connector (FIG. 2). This will allow the back cover to be detached from the device.





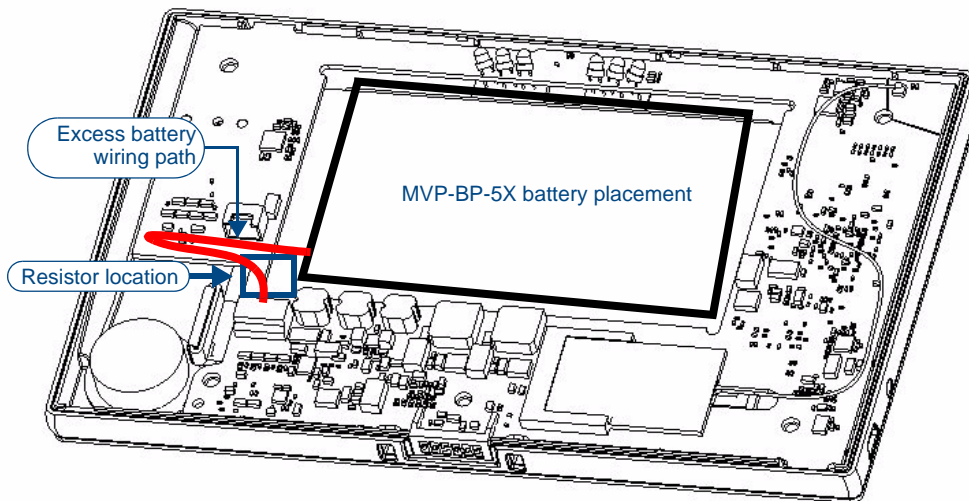
**FIG. 2** Interior of MVP-5200i, including female battery connector



*Do not place the old battery in the plastic bag (for return shipment), until it has cooled.*

### Reconnecting the Battery to the MVP-5200i

1. On the back cover, make sure that the battery connector wiring runs to the right.
  - Make sure that the excess battery wiring fits in the space to the bottom left of the battery placement (FIG. 3).



**FIG. 3** Path of excess battery wiring

2. Make sure to seat fully the battery plug to the connector in the device (FIG. 2). If fingers cannot be used, use a clean, nonconductive stick or probe to seat the connectors.



*Special care must be taken to seat the battery plug so that it does not damage or rub against the two resistors near the battery connector. When connecting the battery, do not allow the battery plug to rub against the circuit board.*

3. Reattach the back cover, engaging the hook on the lower left of the case (near the speaker) and using it to swing the back cover down into place.



When reassembling the device, take care not to pinch or squeeze the connector wiring or the battery. Do not force the back cover onto the device, as this can damage the device.

4. Insert the five screws and replace the rubber feet atop the two upper screws, using the replacement rubber feet included in the Battery Pack Kit (FIG. 4).



The three bottom screws are shorter than the top two screws. The screws must be re-assembled in their original location or the device can be damaged during reassembly.

5. Replace the bottom label over the three bottom screws, using the replacement label included in the Battery Pack Kit.

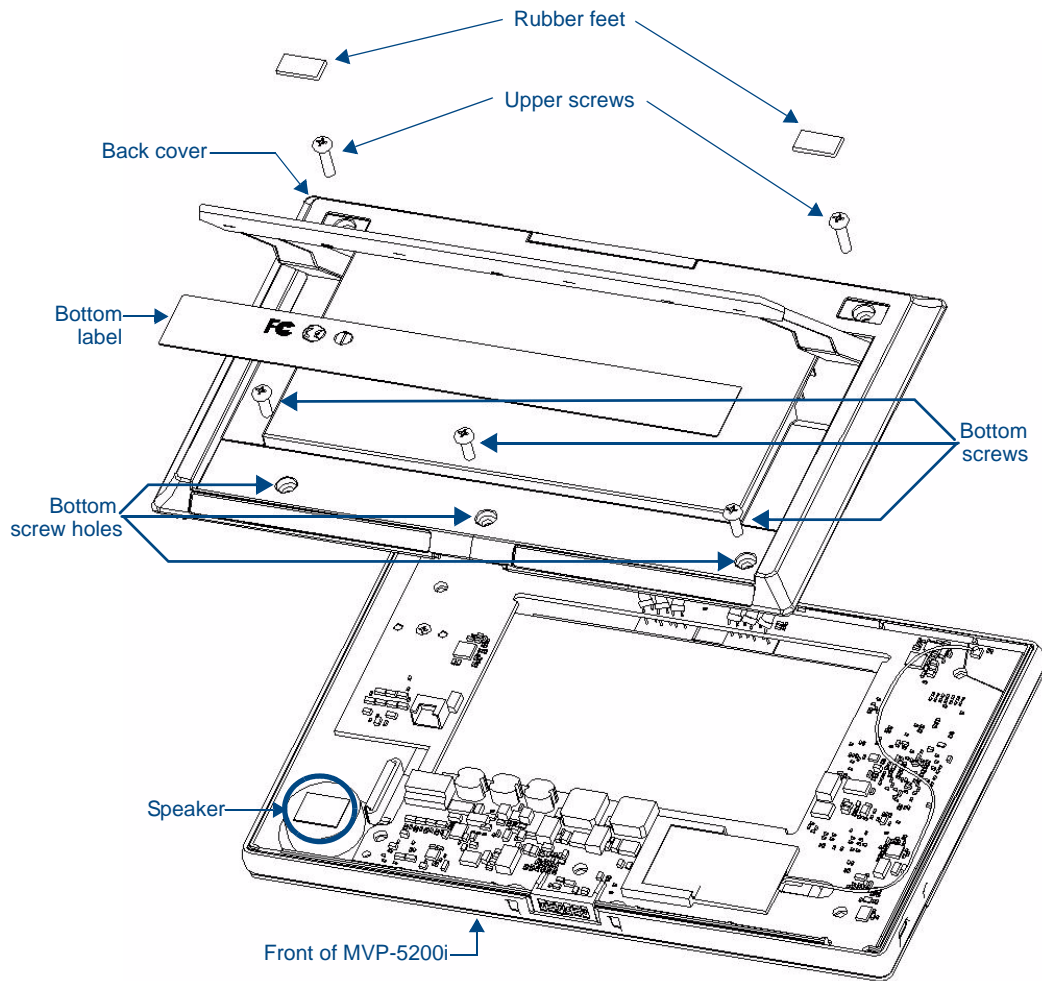


FIG. 4 MVP-5200i back cover installation

6. Restart the device to confirm that the new battery is functioning correctly.

## MVP-5100/MVP-5150 Battery Removal and Installation

After the latest firmware has been installed and the battery fully discharged, the battery may now be removed from within the device. A Phillips-head screwdriver is necessary to complete the removal and the new battery installation.

### Removing the Old Battery From the MVP-5100 or MVP-5150



NOTE

*Do NOT discharge the battery before installing the latest MVP-5100/5150 firmware (v2.66.21 or later), available at [www.amx.com](http://www.amx.com). Prior to battery removal, run the device until the battery is completely discharged.*

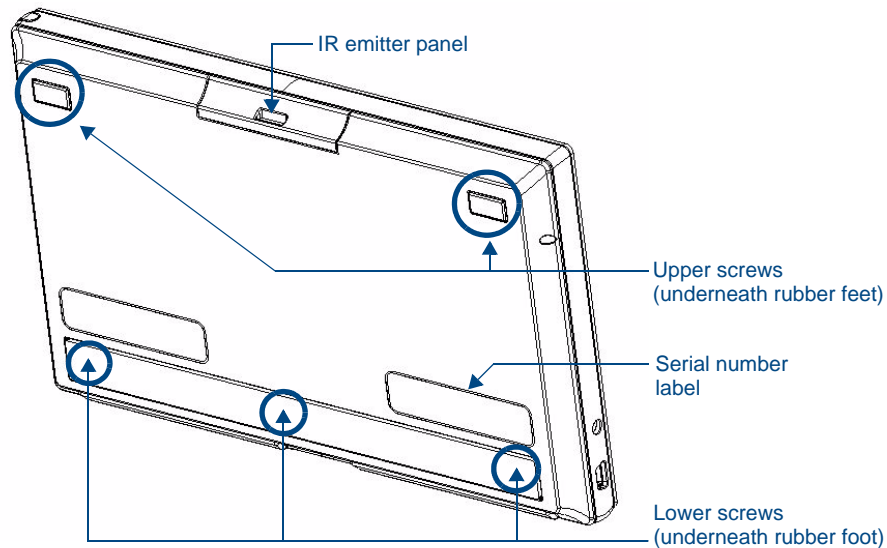
1. Before starting, remove the battery and back cover from their packaging, and inspect the assembly for any damage or distortion.



NOTE

*If the battery and back cover shows evidence of damage, contact AMX for replacement and proper disposal information.*

2. Place the device face-down on a surface that will not scratch the unit and remove the five screws from the back cover (FIG. 5).



**FIG. 5** Screw placement at the back cover of the MVP-5100

- Two of the screws are at the upper corners of the device, underneath rubber feet that also act as screw covers. Remove the rubber feet to access the screws.
  - Remove the lower rubber foot to reach the remaining three screws.
3. Discharge all static electricity that may have built up on your body, either by using a static discharge strap or by touching a nearby piece of metal.

- Carefully remove the back cover and detach the battery lead at the battery connector (FIG. 6). This will allow the back cover to be detached from the device.

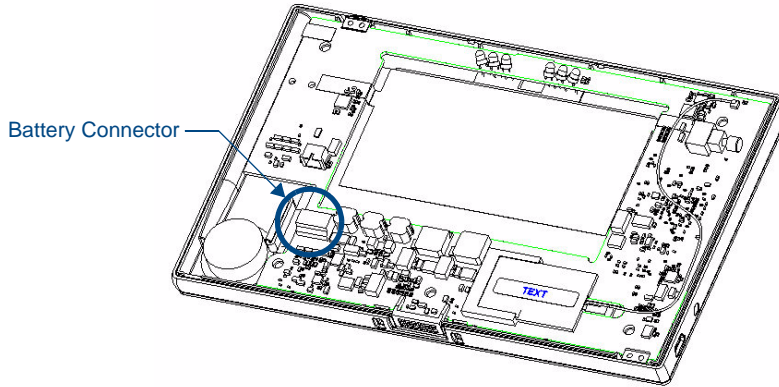


FIG. 6 Interior of MVP-5100, including female battery connector

### Installing the New Battery

- On the back cover, make sure that the battery connector wiring runs to the right. Make sure that the excess battery wiring fits in the space to the bottom left of the battery placement (FIG. 7).

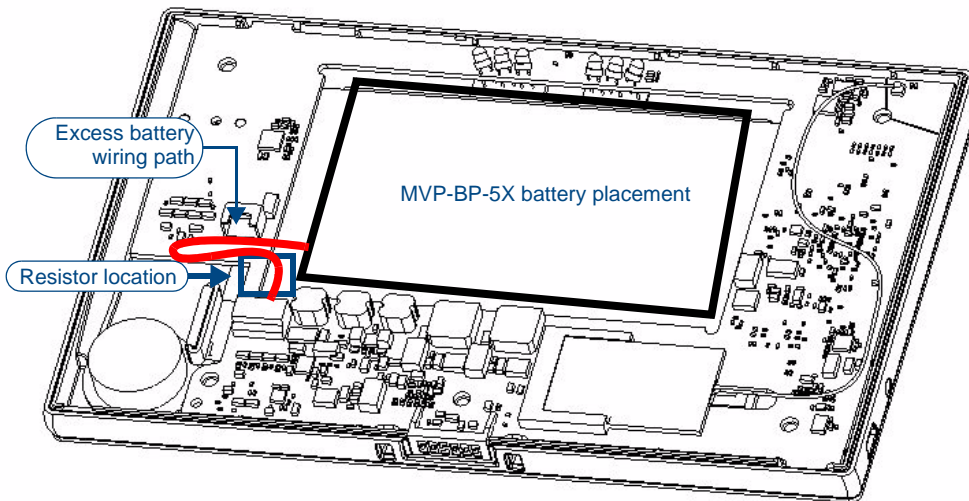


FIG. 7 Path of excess battery wiring

- Make sure to seat fully the battery plug to the connector in the device (FIG. 6). If fingers cannot be used, use a clean, nonconductive stick or probe to seat the plug in the connector.



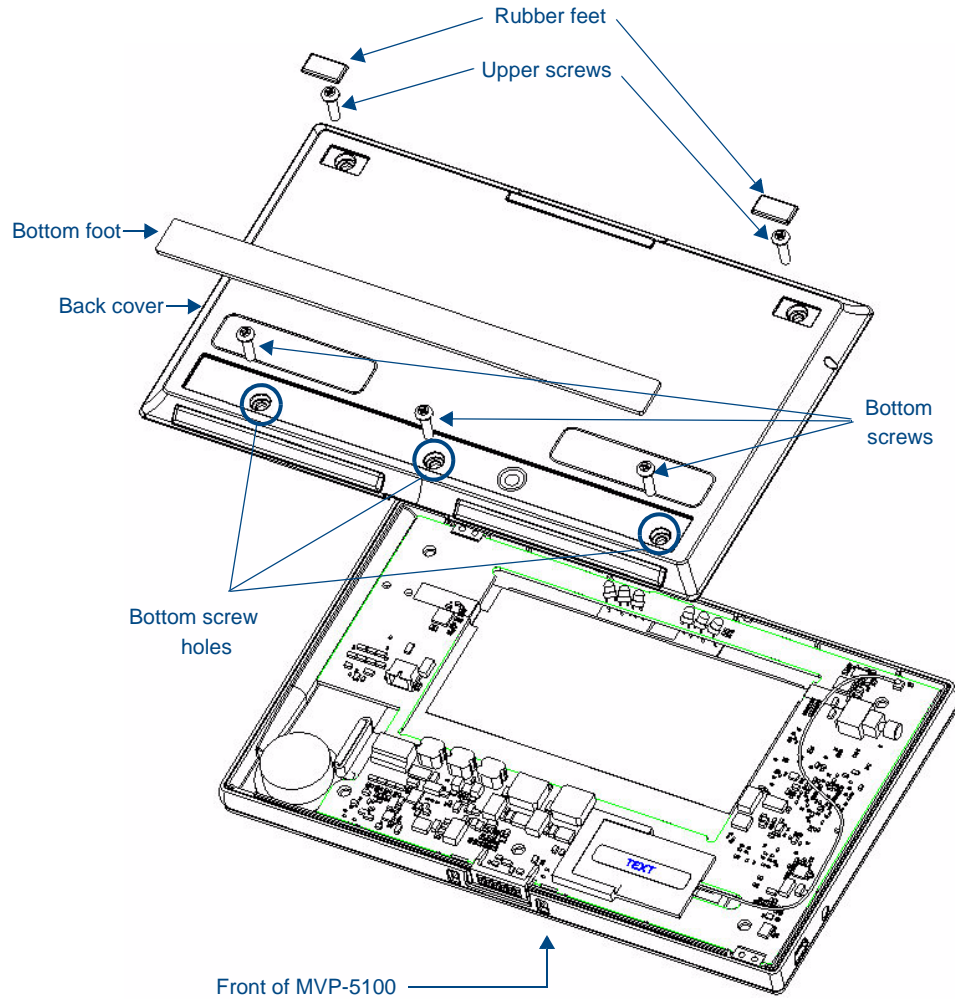
*Special care must be taken to seat the battery plug so that it does not damage or rub against the two resistors near the battery connector. When connecting the battery, do not allow the battery plug to rub against the circuit board.*

- Reattach the back cover, engaging the hook on the lower left of the case (near the speaker) and using it to swing the back down into place.



*When reassembling the device, take care not to pinch or squeeze the connector wiring or the battery. Do not force the back cover onto the device, as this can damage the device.*

- Insert the five screws and replace the rubber feet atop the two upper screws, using the replacement rubber feet included in the Battery Pack Kit (FIG. 8).



**FIG. 8** MVP-5100 back cover installation

5. Replace the bottom rubber foot over the three lower screws, using the replacement large rubber foot included in the Battery Pack Kit.
6. Restart the device to confirm that the new battery is functioning correctly.



## Verifying Battery Type and Functionality

After restarting the device, you may check the *Power Management* page within the device's Setup Pages to confirm the battery type.



For more information on your particular device's Setup and Protected Setup pages, please refer to the Operation Reference Guide for your device, available at [www.amx.com](http://www.amx.com).

To verify the battery type:

1. From the device's *Setup* page, select **Battery** to open the *Power Management* page.
2. On the right side of the *Power Management* page, read the number in the *Battery Type* field (FIG. 9). If the correct battery type is installed in the device, this number must always be "3".

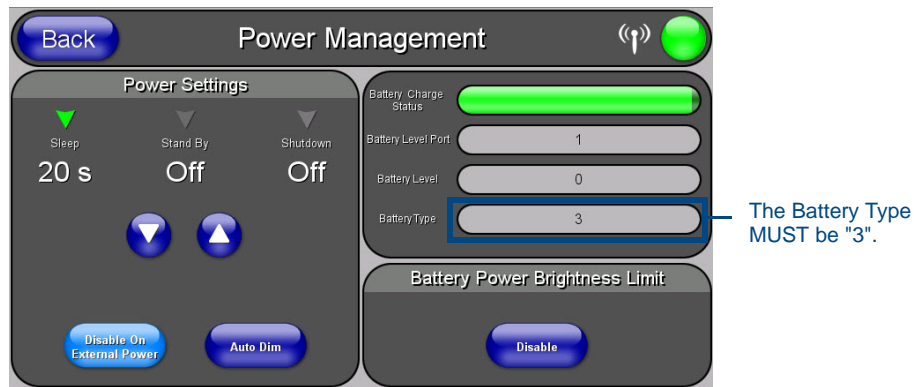


FIG. 9 Power Management Page

## Battery Return Process



CAUTION

*The old battery must be returned to AMX, **but only after it has been fully discharged.***

To return the old battery and receive your credit, please perform the following steps:

- Write the serial number of your unit in the space provided on the *BATTERY RETURN PROCESS* form that came with the Battery Replacement Kit.
- Affix the supplied preprinted bar-coded serial number label in the space provided on the *BATTERY RETURN PROCESS* form.
- Place the old rear housing with attached battery into the original packing bag and then seal.
- Place the sealed bag into the packaging sleeve from the original packing and insert back into the original shipping box.
- Send old rear housing and battery back to AMX per the RMA instructions.





# Reloading Panel Files

## Overview

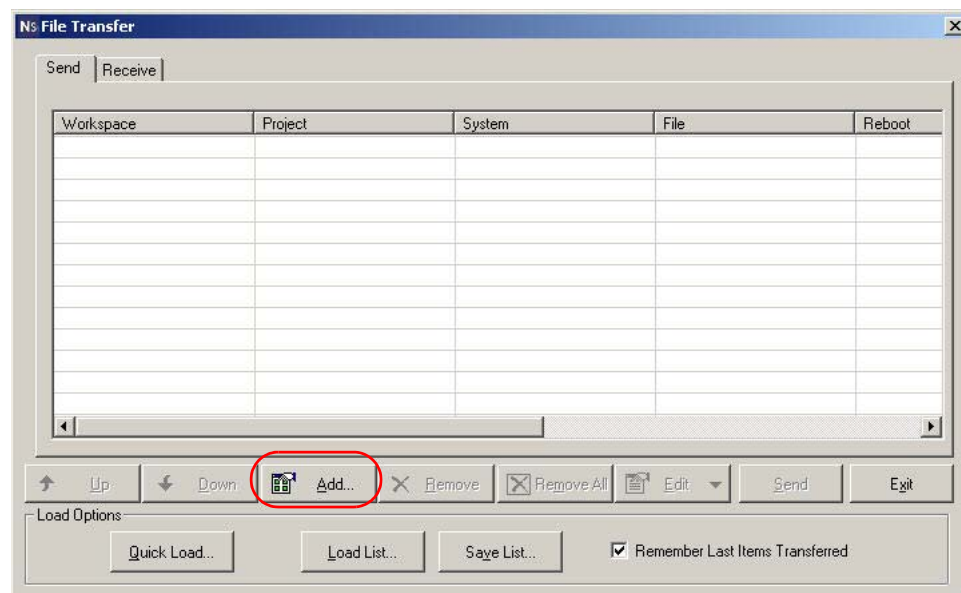
Once the Firmware has been upgraded and the battery has been replaced, the Touch Panel files that were retrieved and backed up can be replaced on the panel. Generally, this process is simply a reversal of the process described in the *Retrieving Panel Files* section on page 3.

At this point, it is assumed that NetLinx Studio is already in communication with the NetLinx Master (see the *Connecting to a NetLinx Master Via TCP/IP* section on page 3).

## Reloading Panel Files

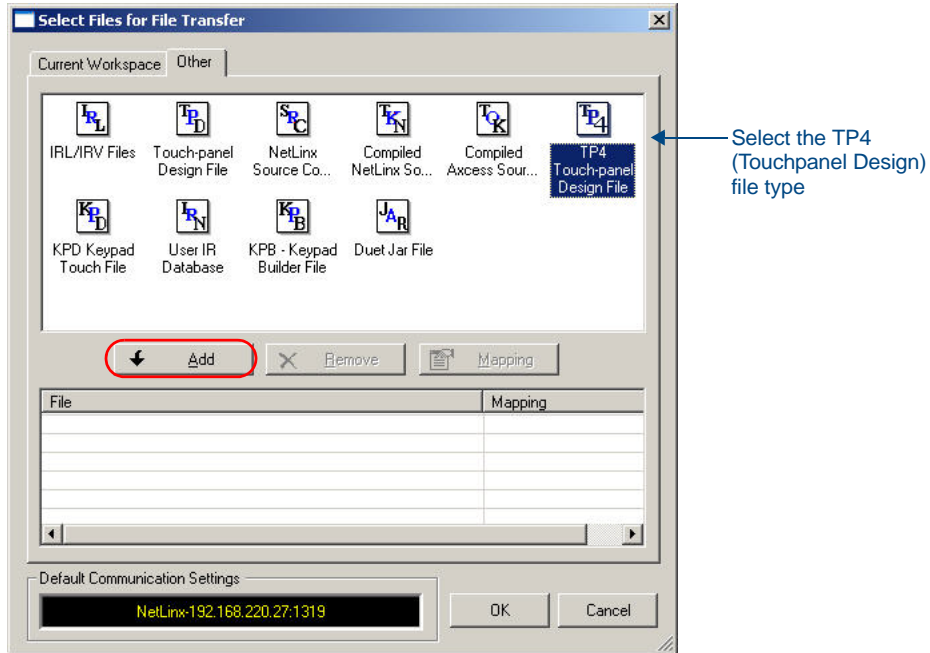
The following steps describe reloading the Panel Files to the Touch Panel after the Firmware upgrade / Battery replacement process is complete.

1. Select **Tools > File Transfers** to open the *File Transfer* dialog, and open the *Send* tab (FIG. 1).



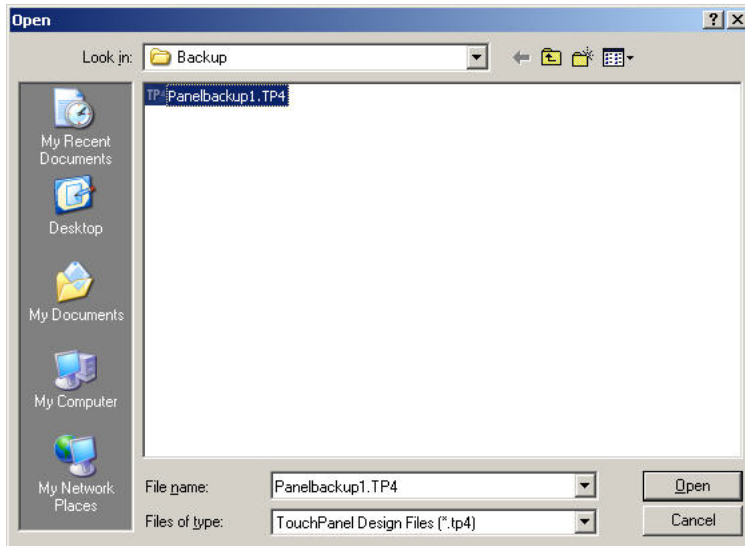
**FIG. 1** File Transfer dialog (Send tab)

2. Click the **Add** command button to open the *Select Files For File Transfer* dialog, and click on the *Other* tab (FIG. 2).



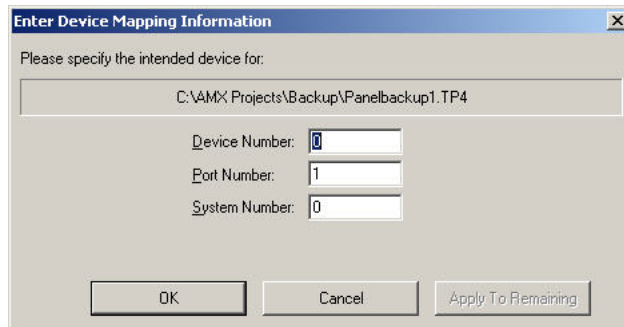
**FIG. 2** Select Files for Transfer dialog (Other tab)

3. Select TP4 Touch panel Design File, and click **Add**.
4. In the *Open* dialog, locate and select the retrieved TP4 file (FIG. 3).



**FIG. 3** Open dialog

5. Click **Open** to close this dialog and open the *Enter Device Mapping Information* dialog (FIG. 4).

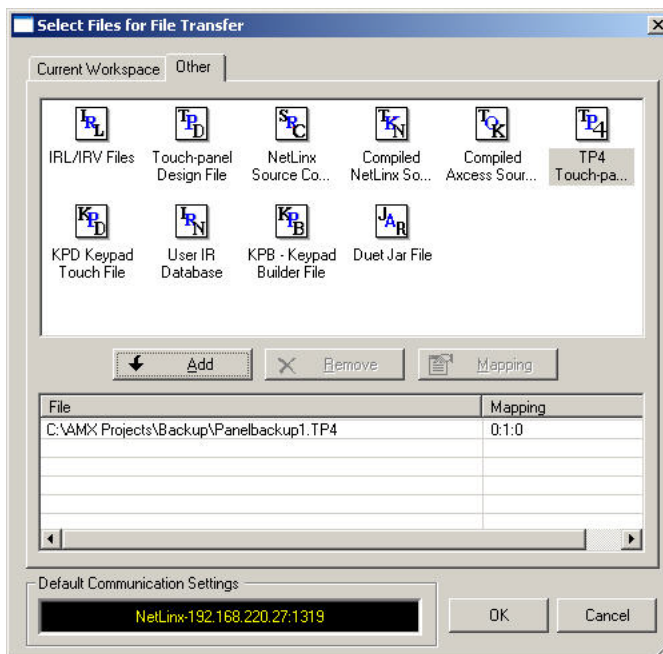


**FIG. 4** Enter Device Mapping Information dialog



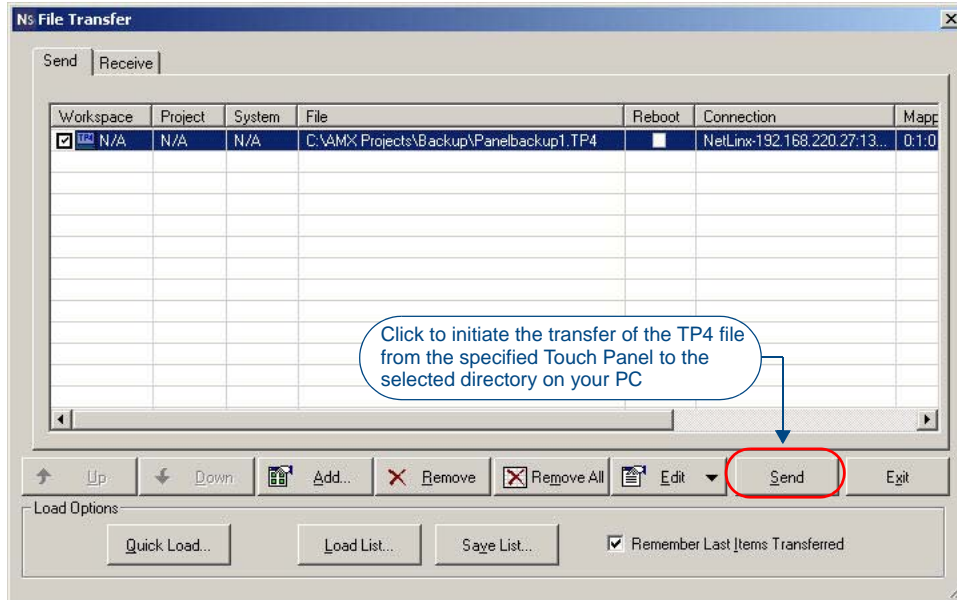
*If you do not already know the Device Number assignment for the Touch Panel, you can get it from the panel's online Protected Setup page. See the Determining the Device Mapping Information for the Touch Panel section on page 8 for details.*

6. Enter the Device, Port and System numbers for the target Touch Panel, and click **OK** to close the dialog and add the File to the list at the bottom of the *Select Files To Transfer* dialog (FIG. 5).



**FIG. 5** Select Files To Transfer dialog

7. Click **OK** to close the *Select Files For File Transfer* dialog and return to the *File Transfer* dialog. The file that you added should now appear in the Files To Send queue, in the **Receive** tab.
8. In the *File Transfer* dialog, click the **Send** command button (FIG. 6).



**FIG. 6** File Transfer dialog (Send tab)

This initiates the transfer of every file listed in the Files list, in the order in which they are listed (top to bottom). The progress and status of each file transfer is indicated in the Transfer Status Window.

# Validation (Final Step)

## Overview

Now that the panel firmware has been upgraded and the panel pages reloaded, you can use NetLinX Studio to verify that the latest firmware is in fact loaded on the panel:

These steps assume that you are still running NetLinX Studio, and are still connected to the LAN. Refer to the *Connecting to a NetLinX Master Via TCP/IP* section on page 3 for instructions on connecting to the LAN if necessary.

1. In NetLinX Studio, open the **Online Tree** tab of the Workspace Bar (FIG. 1).

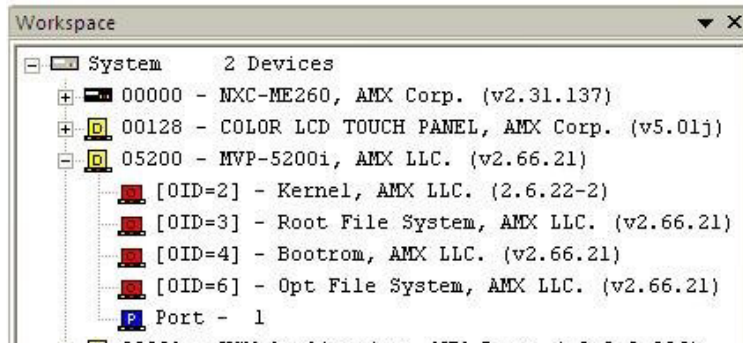


FIG. 1 NetLinX Studio - Online Tree tab of the Workspace Bar

The Online Tree tab of the Workspace Bar displays an Online Device tree for the NetLinX Master Controller. This tab displays a list of devices detected to be currently online by the Master Controller (and the firmware version for each).



NOTE

*The Online Tree is only a snap shot and is not updated in real time as devices come on/off line.*

2. Click the **Refresh** button, and select *Refresh System Online Tree*.
3. Check that the panel is listed as a connected device under the NetLinX Master.
4. Verify that the firmware version number listed for the panel is **2.66.21**.

## Operation Complete

Once you have verified that the firmware has been successfully upgraded on the panel, you are finished!







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