



## Installation and Maintenance Manual

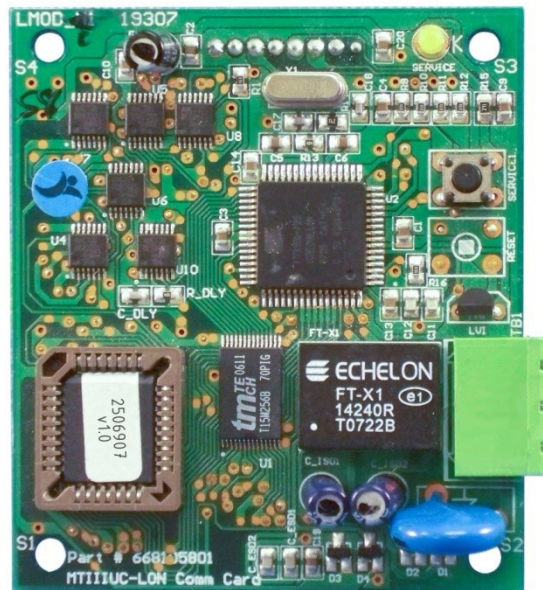
## IM 933-1

Group: **Controls**

Part Number: **IM 933**

Date: **April 2016**

### MicroTech® III WSHP and Fan Coil Unit Controller LONWORKS® Plug-in Software



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## Revision History

IM 933-1	April 2016	Daikin Applied branding updates. General formatting. Replaced Figures 14 and 15.
IM 933	September 2008	Initial release.

## Reference Documents

Number	Company	Title	Source
078-0014-01E	LonMark® Interoperability Association	LonMark Layers 1-6 Interoperability Guidelines	<a href="http://www.lonmark.org">www.lonmark.org</a>
078-0120-01E	LonMark Interoperability Association	LonMark Application Layer Interoperability Guidelines	<a href="http://www.lonmark.org">www.lonmark.org</a>
078-0156-01G	Echelon® Corporation	LONWORKS® FTT-10A Free Topology Transceiver Users Guide	<a href="http://www.echelon.com">www.echelon.com</a>
8503_	LonMark Interoperability Association	Space Comfort Control-WSHP Functional Profile	<a href="http://www.lonmark.org">www.lonmark.org</a>
OM 1092	Daikin Applied	MicroTech III WSHP Enfinity Large Two Compressor (SS2C) Unit Controller Operation and Maintenance Manual	<a href="http://www.DaikinApplied.com">www.DaikinApplied.com</a>
OM 1085	Daikin Applied	MicroTech III WSHP Unit Controller Downloading Procedure	<a href="http://www.DaikinApplied.com">www.DaikinApplied.com</a>
OM 1149	Daikin Applied	MicroTech III WSHP SmartSource (Series2) Unit Controller Operation and Maintenance Manual	<a href="http://www.DaikinApplied.com">www.DaikinApplied.com</a>
ED 15135	Daikin Applied	Protocol Information for MicroTech III Fan Coil Unit Controller, LonWorks and BACnet MS/TP	<a href="http://www.DaikinApplied.com">www.DaikinApplied.com</a>
OM 1111	Daikin Applied	MicroTech III Fan Coil Unit Controller Operation and Maintenance Manual	<a href="http://www.DaikinApplied.com">www.DaikinApplied.com</a>
OM 1095	Daikin Applied	MicroTech III Fan Coil Unit Controller Downloading Procedure	<a href="http://www.DaikinApplied.com">www.DaikinApplied.com</a>
ED 15103	Daikin Applied	Protocol Information for MicroTech® III WSHP Unit Controller	<a href="http://www.DaikinApplied.com">www.DaikinApplied.com</a>
IM 927	Daikin Applied	MicroTech III WSHP LONWORKS Communication Module Installation Manual	<a href="http://www.DaikinApplied.com">www.DaikinApplied.com</a>
OM 931	Daikin Applied	MicroTech III WSHP Operation and Maintenance Manual	<a href="http://www.DaikinApplied.com">www.DaikinApplied.com</a>

## General Information

This manual contains the information you need to install and commission the LONWORKS® Plug-In Software Tool (further referred to in this document as the Plug-In). The Plug-In is designed for use with a MicroTech III water source heat pump or fan coil unit controller communicating via the LONWORKS network protocol to a Building Automation System (BAS).

For installation technical support, contact the Daikin Applied Controls Support Group at (866) 462-7829.

## Trademark Notices

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The following are trademarks or registered trademarks of their respective companies. Windows from Microsoft Corporation; LONWORKS, LonMark, LonTalk, and Neuron from Echelon Corporation; MicroTech III, Enfinity and SmartSource from Daikin Applied. LonMark and the LonMark logo are managed, granted, and used by LonMark International under a license granted by Echelon Corporation.

## Hazardous Information Messages

### Recognize Safety Symbols, Words and Labels

The following symbols and labels are used throughout this manual to indicate immediate or potential hazards. It is the owner and installer's responsibility to read and comply with all safety information and instructions accompanying these symbols. Failure to heed safety information increases the risk of property damage and/or product damage, serious personal injury or death. Improper installation, operation or maintenance can void the warranty.

#### CAUTION

Static sensitive components. Can cause equipment damage. Discharge any static electrical charge by touching the bare metal inside the control panel before performing any work. Never unplug cables, circuit board terminal blocks, or power plugs while power is applied to the unit.

#### WARNING

Electric shock hazard. Can cause personal injury or equipment damage. This equipment must be properly grounded. Connections and service to the unit controller must be performed only by personnel knowledgeable in the operation of the equipment being controlled.

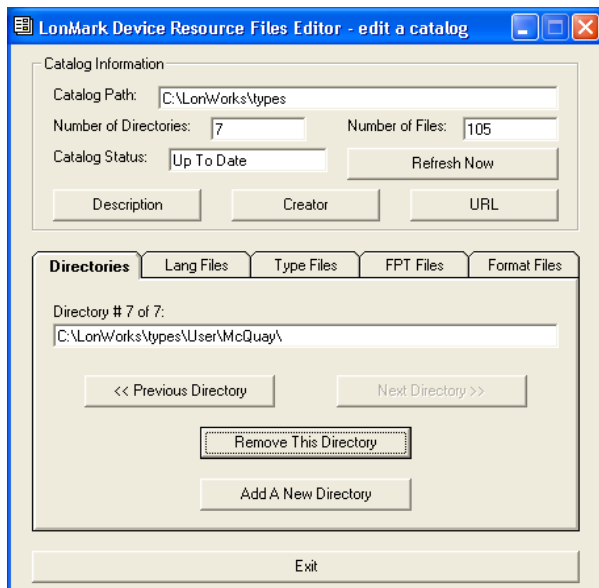
Follow these steps to confirm the device (MicroTech III unit controller) and the correct LonWorks files are available for configuration and commissioning.

1. Download the applicable version of the LonWorks Plug-in software from [www.DaikinApplied.com](http://www.DaikinApplied.com).

**NOTE:** Different versions of the Plug-in software are available for Enfinity™ and SmartSource™ WSHPs and Fan Coil unit models.

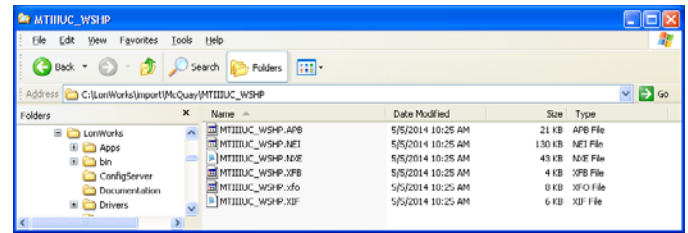
2. To install, download and save the zip file to the hard drive, then open and extract all files to a temporary folder.
3. Close the zip file.
4. Double-click on the setup.exe file from the temporary folder and follow the steps provided in the Install Shield. The Install Shield downloads the device, Resource, and Plug-in files.
5. Run the LNS Resource File Catalog utility program, then navigate to the c:\LonWorks\types directory.
6. Click the Next Directory button until the c:\LonWorks\types\user\McQuay path appears (Figure 1).
7. Once the file path appears, click the Exit button.
8. Otherwise, click "Add a new Directory" to select it.
9. Click the Refresh Now button, then the Exit button.

**Figure 1: Verify and Update Resource File Directory**



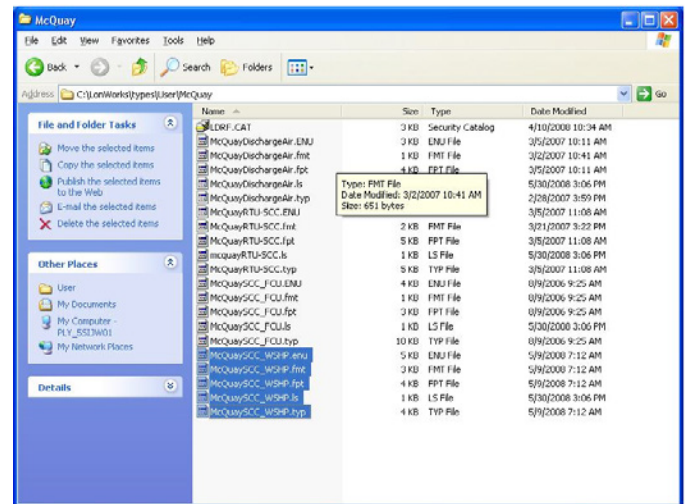
10. Navigate to the appropriate directory using Windows Explorer. A common location is c:\LonWorks\Import\McQuay\MTIIIUC\_WSHP.
11. Verify that the device files shown in Figure 2 are present.

**Figure 2: Device Interface and Application Image Files**



12. Navigate c:\LonWorks\types\User\McQuay and verify that the resource files shown in Figure 3 are present.

**Figure 3: Resource Files**



Once all of the files have been installed, the next steps are to create a network drawing and commission the MicroTech III LONWORKS device. The following section details the process of how to create a drawing.

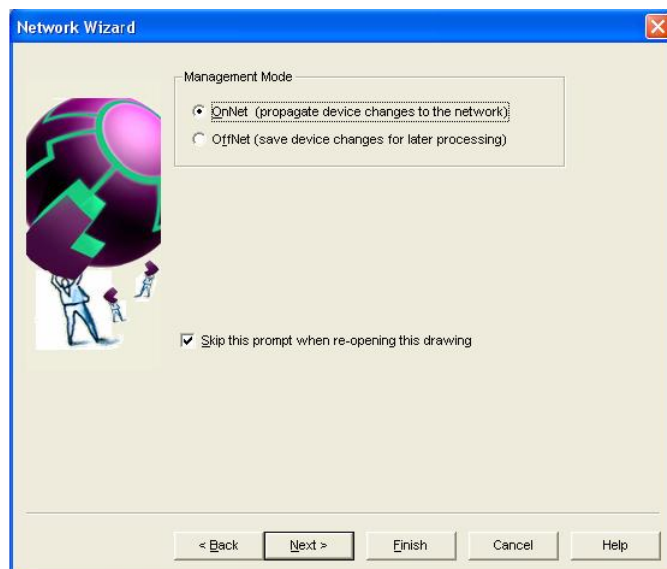
1. Open LONWORKS and create a new network (Figure 4).
2. Enter a network name in the Network Name field.
3. Check the Show all options box.
4. Click on Create Network.

**Figure 4: Create Network**



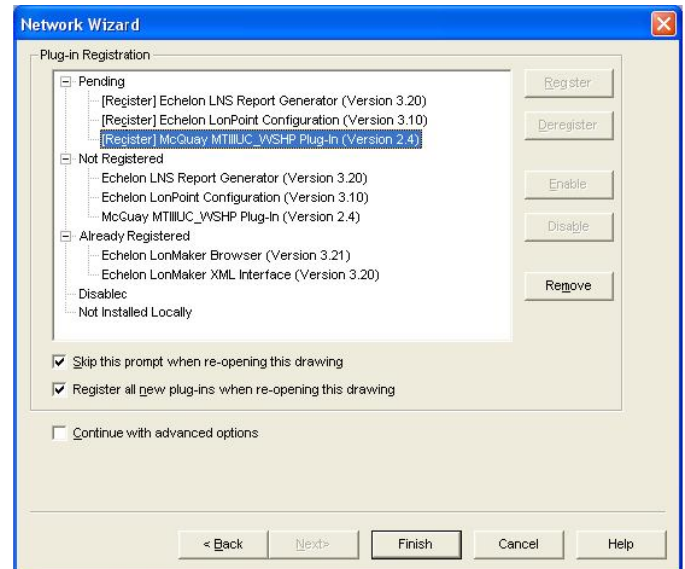
5. The Network Wizard launches, allowing configuration of several options. Click Next until the Management Mode screen shown in Figure 5 appears.
6. Verify that OnNet is selected and "skip this prompt when re-opening this drawing" is selected (Figure 5).

**Figure 5: Confirm LONWORKS is OnNet**



7. Click Next until the screen with Plug-in Registration appears. Verify that the Plug-In is visible under the Pending section on the registration page (Figure 6). For this example, it is defined as the Daikin Applied MTIIIUC\_WSHP Plug-in.
8. Click Finish.

**Figure 6: Verify Plug-In is Pending**



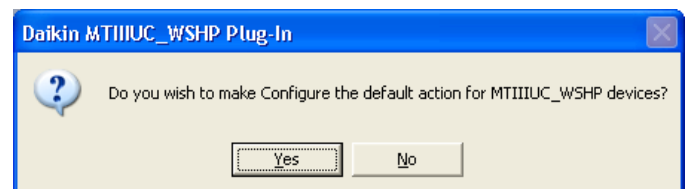
9. Verify that the pop-up message appears briefly (Figure 7).

**Figure 7: Registering Plug-In Message**



10. Click Yes to configure the default action for the device (Figure 8).

**Figure 8: Configure is Default Action**



The following section describes how to connect to the device using the Plug-In. It is assumed that a drawing has already been created

1. After completing the process of creating a new drawing as described in the previous section, or opening a previously created drawing, a screen similar to Figure 9 appears.
2. Click on the Device icon and drag it into the workspace near the channel line.

When the screen shown in Figure 10 appears:

3. Check the Commission Device box.
4. Under the Device Template drop down menu, select the appropriate template for the Plug-In that has been installed. For this example, it is defined as MTIIIUC\_WSHP.
5. Click Next three times and verify that Service Pin is selected on the third screen.

Figure 9: Select the Device

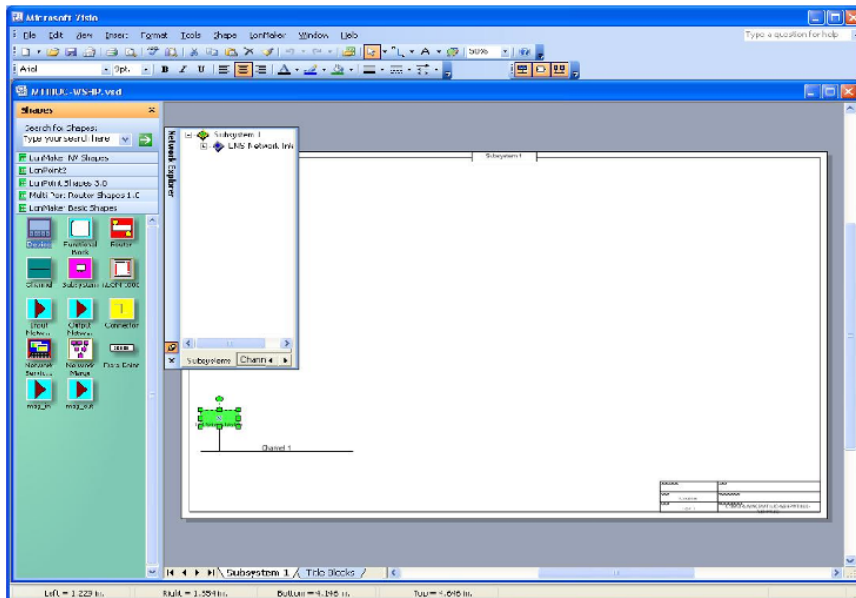
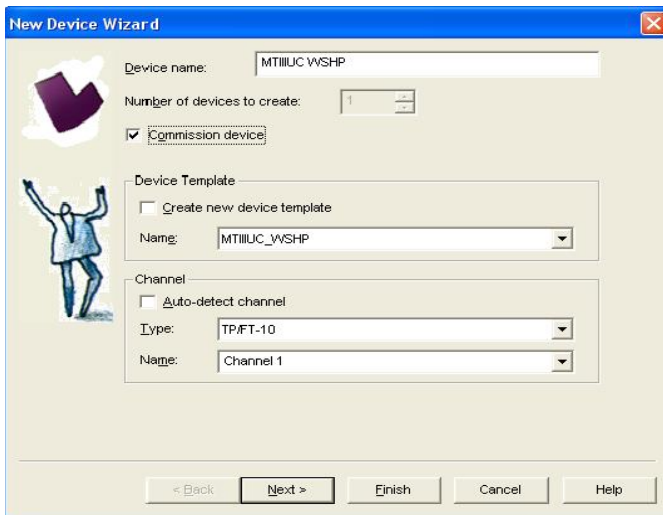


Figure 10: Commission Device





6. If the application or point mapping file needs to be loaded into the unit controller, follow Steps a-c below. This is necessary if the application in the device requires upgrading or re-loading because of installation issues (Figure 11). If this procedure is not necessary, click Next.
  - a. Check load application image box.
  - b. Verify proper Image Name file. This is an .NXE or .APB file provided by Daikin Applied.
  - c. Verify proper 'XIF name' file.

**Figure 11: Select Image and XIF Name**

7. Verify that the state is set to Online (Figure 12).
8. Set the Source of CP Values to one of the following options:
  - a. Select Current Device Values if the values in the device are acceptable.
  - b. Select Defaults if the default values are desired.
9. Set the Device Specific CPs field to the appropriate selection (Figure 12).

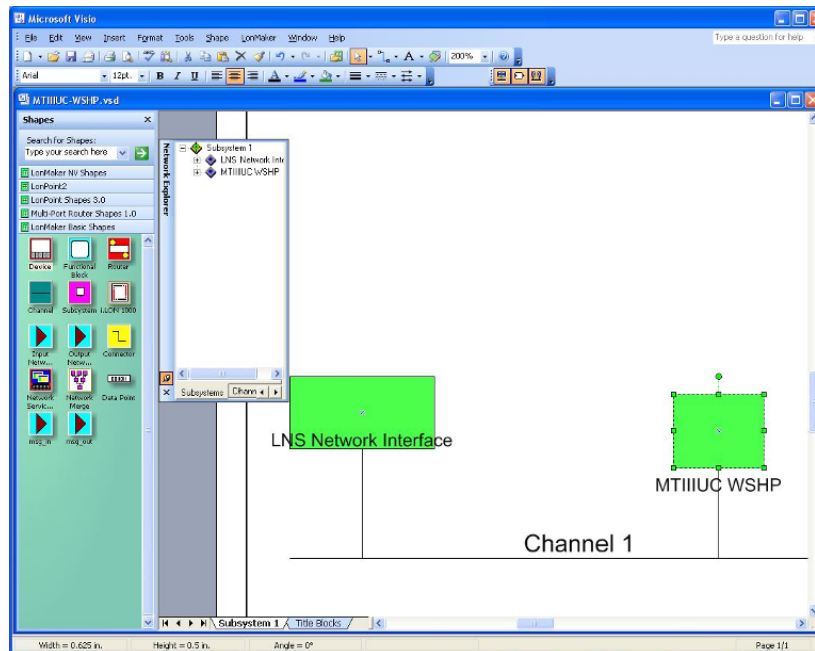
**Figure 12: Set Device CPs**

10. Press the service pin button on the communication module when the screen shown in Figure 13 appears. See Installation Manual IM 927 (WSHP) or IM 1012 (Fan Coil), available at [www.DaikinApplied.com](http://www.DaikinApplied.com), for location of the service pin.

**Figure 13: Commission Device with Service Pin**

11. After commissioning the device, verify that the image appears as a solid green block in LONWORKS (Figure 14). Right click on the device and select Configure. The Plug-In should load.
12. If the device does not appear as a solid green block:
  - a. Double-click on the device and select Manage.
  - b. Click Enable and then Online.
  - c. Close the Manage window.

Figure 14: Manage the Device



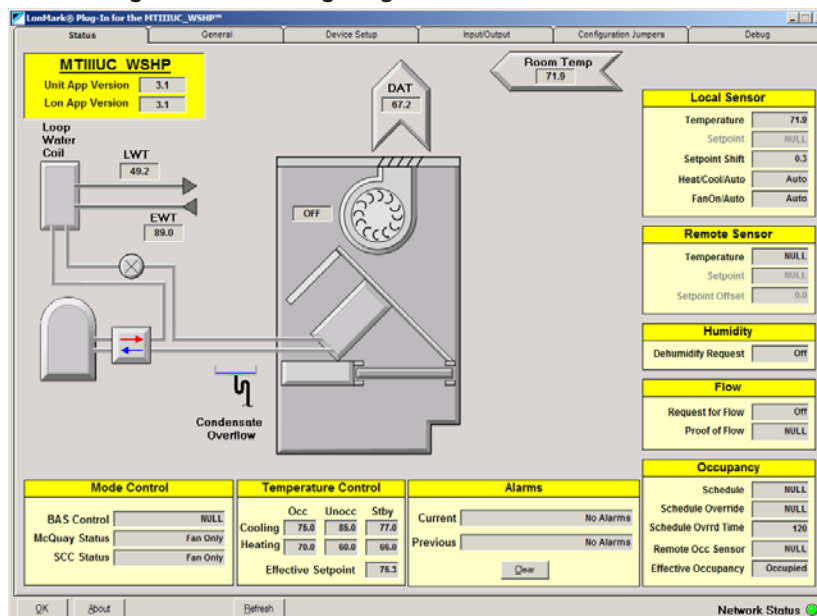
13. Open the Plug-in once the device has been commissioned and appears as a green box. Right click on the device and then left click on Configure (Figure 15).
14. Either close LONWORKS directly or decommission the device and then close LONWORKS. To decommission, right click on the device, navigate to Commission and then select Decommission.

**NOTE:** If the device has been decommissioned, it is necessary to follow the commissioning process (as described in the previous section) prior to re-connecting to the unit controller.

A drawing previously created in LONWORKS can be used as a template for commissioning additional devices via the Plug-In. To do so, follow Steps 15 and 16.

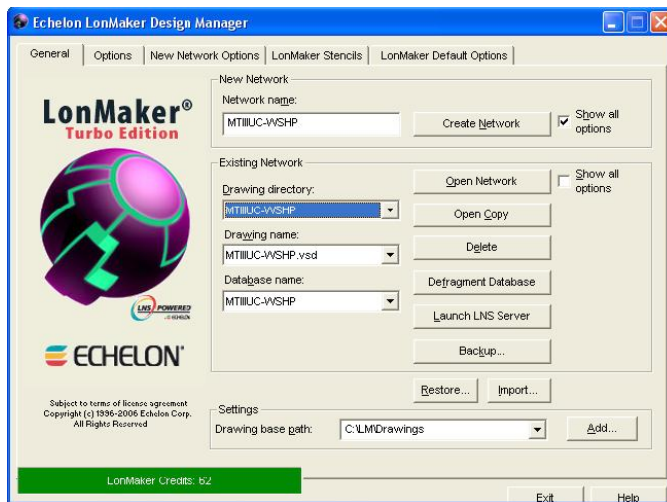
15. When the first screen appears in the existing network box, select the drawing previously created and click the Open Network button (Figure 16).
16. If the screen shown in Figure 16 appears, click Finish. Any devices previously added to the drawing (and not deleted) re-appear in the drawing. Any new devices need to be commissioned as described previously.
17. If the screen shown in Figure 17 appears, click Finish.

Figure 15: Configure Device using Plug-in

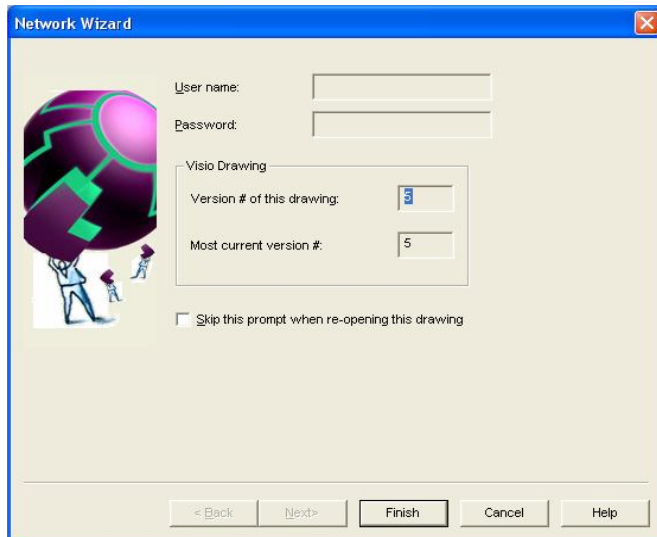




**Figure 16: Select Previous Drawing**



**Figure 17: Save New Drawing**



If you have questions regarding the use of the LONWORKS Plug-In for MicroTech III unit controllers, contact the Controls Customer Support Group at 866-462-7829.



### ***Daikin Applied Training and Development***

Now that you have made an investment in modern, efficient Daikin equipment, its care should be a high priority. For training information on all Daikin HVAC products, please visit us at [www.DaikinApplied.com](http://www.DaikinApplied.com) and click on Training, or call 540-248-9646 and ask for the Training Department.

### ***Warranty***

All Daikin equipment is sold pursuant to its standard terms and conditions of sale, including Limited Product Warranty. Consult your local Daikin Applied representative for warranty details. To find your local Daikin Applied representative, go to [www.DaikinApplied.com](http://www.DaikinApplied.com).

### ***Aftermarket Services***

To find your local parts office, visit [www.DaikinApplied.com](http://www.DaikinApplied.com) or call 800-37PARTS (800-377-2787). To find your local service office, visit [www.DaikinApplied.com](http://www.DaikinApplied.com) or call 800-432-1342.

This document contains the most current product information as of this printing. For the most up-to-date product information, please go to [www.DaikinApplied.com](http://www.DaikinApplied.com).

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