Recovery
For Xycom Automation
Windows® NT Workstation
Revision Record

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Chapter One - Setup

1. Setup

Introduction

This section is intended to take the user through the first system startup.

Note: Not all Xycom Automation units have a PS/2 mouse port available when a touchscreen is installed. Consult the manual located in the Xycom Automation Documentation CD included with your computer.

Note: A serial mouse can be attached to COM2.

Note: Not all Xycom Automation Industrial PCs include power cords because the unit is generally hardwired into the panel. Refer to your workstation hardware documentation to create a power cord if you wish to run the workstation outside of the panel.

Warning: To avoid injury from electrical shock, disconnect the power cord before making any adjustments to the inside or outside of the computer.

- You must perform the following steps before you can download a developed OpenHMI application to the workstation.

- Setup Procedure

See your hardware documentation for additional details on equipment setup.

1. Attach equipment:
   - Keyboard
   - Mouse (on units where a mouseport is available.)
   - External floppy drive (optional)
   - Ethernet network connection (optional)

2. Create a power cord, if necessary. Consult the manual located on the Xycom Documentation CD for details or you can view the manual at www.xycom.com.

3. Turn on power to the unit. The system should boot up in a few minutes.

4. If you have a unit with an STN display (3408 only), you may need to adjust the display contrast. On units with keypads, press and hold the F/A key, then press the left or right cursor keys to increase or decrease contrast. On units without keypads use the contrast keys located below the flat panel display. TFT displays don’t require adjustment; the unit automatically adjusts the contrast.

Contrast Keys or F/A Key + Left/Right Cursor Keys

[Contrast Key Symbols]
2. Xycom Automation Workstation Recovery Media

**Introduction to Software Installation for Microsoft Windows® NT Workstation 4.0**

This document is devoted to the reinstallation of your Windows NT Workstation 4.0 operating system and drivers utilizing the Recovery Media provided with your Xycom Automation industrial computer.

**Note:** This procedure assumes that the computer hard disk drive has been completely corrupted or replaced.

**Warning:** This procedure will destroy data that may exist on the hard disk drive.

**Hardware Requirements**

- Xycom Automation Industrial PC.
- **FLOPPY DRIVE:** For those systems that do not include a floppy drive - an external floppy drive is necessary in order to boot the system and load the CD-ROM drivers. You will require Xycom model number 9000-EXF external floppy drive.
- **CD-ROM DRIVE:** For those systems which do not include an internal CD-ROM drive - you must use an external CD-ROM drive that is compatible with the system parallel port.

**NOTE:** When reinstalling your operating system, you will be prompted to install Microsoft Windows NT CD or Floppy Disk. When prompted to do so, install the Xycom Automation Recovery Media CD labeled XA_WIN_NT_WKST CD Disk 1 of 1, or the setup floppy labeled XA_WIN_NT_WKST Setup Floppy Disk [X] of 3.

**Software Requirements**

- *Microsoft Windows NT Workstation 4.0 Certificate Of Authenticity* (COA, printed on label on rear of PC).
- *Xycom Automation Recovery Media, XA_WIN_NT_WKST*, set of 3 floppy disks (shipped with your PC).
- *Xycom Automation Recovery Media, XA_WIN_NT_WKST*, CD-ROM for your model PC, which includes the Microsoft Windows NT Workstation 4.0 operating system (shipped with your PC).
Installation Instructions

1. Insert XA_WIN_NT_WKST Setup Floppy Disk 1 of 3 into the floppy drive.

2. Power up the system. The system will boot to Windows NT Setup.

3. You will then be prompted to insert Windows NT Workstation Setup Disk #2 into drive [floppy drive letter]. At this point you should insert XA_WIN_NT_WKST CD Disk 1 of 1. Insert the disk and press Enter.

4. You will be presented with several options. Press Enter to proceed with installation.

5. You are now presented with the option to auto-detect mass storage devices (floppy/hard drive/CD-ROM, etc). Press Enter to continue (recommended) or press S to manually select devices.

6. You will then be prompted to insert XA_WIN_NT_WKST Setup Floppy Disk 3 of 3 into drive [floppy drive letter]. Insert the disk and press Enter.

7. Mass storage devices that were found are now listed at the top of the screen. Now you can manually select additional SCSI adapters or special disk controllers by pressing S. Accept the listed devices by pressing Enter.

8. If the hard drive has more than 1024 cylinders, you will be shown instructions that relate to hard drive size. Press Enter.

9. You are now prompted to insert the compact disk labeled Microsoft Windows NT Workstation CD-ROM into your CD-ROM drive. Insert the XA_WIN_NT_WKST CD Disk 1 of 1 in the CD-ROM drive. Wait for the CD-ROM drive LED to stop flashing. Press Enter.

10. You are now presented with the Microsoft Windows NT Workstation Licensing Agreement. You must read the agreement, pressing the Page Down key to scroll through the document. After you’ve read the entire agreement, press the F8 function key to agree to the terms of the License Agreement and proceed with installation.

11. Setup will display the computer hardware and software components that have been found. You may use the up or down arrow keys to select one of the elements on the list. After selection, press Enter to display a list of alternate choices to choose from.

   To accept the list, press Enter.

12. You are now presented with hard drive partition information.
   a) If you are reinstalling Microsoft Windows NT Workstation on an existing drive, then the old (original) partitions will be listed here. At minimum, the partition that includes the operating system (NT) should be deleted at this time. You may also delete any other partitions that may be listed.

   Warning: Deleting the partition(s) will destroy existing data on that partition.

   Note: You may partition and format any additional partitions after the operating system installation is completed if you prefer not to do so at this point.
b) You will see a warning that any existing data will be lost. Press Enter to continue.

c) The warning will appear once again; press L to continue.

d) Now you will see the partition setup screen again. Repeat steps 12a, 12b, and 12c, above, to delete additional partitions if desired.

13. Create a new hard drive partition. Press C.

14. Choose a partition size (in MB). The maximum FAT (MSDOS compatible) partition size is 2000 MB. It is recommended that the primary (operating system) partition be limited to 2000 MB for NTFS file system also.

a) The default partition size is the entire drive free space. Enter the correct number in MB and press Enter.

b) At this point you will see the original partition setup screen (step 12). If additional hard drive space is available you may now highlight that space by pressing the up or down arrow keys and press C to create an additional partition. Repeat step a) above.

15. After you have finished creating partitions, highlight the partition to be loaded with the operating system (by pressing the up or down arrow keys) and press Enter.

16. Setup must now format the new partition. Move the highlight to the desired file system (FAT or NTFS) and press Enter. That hard disk partition is now formatted by setup.

17. Now you are prompted for a directory (folder) location in which to install Microsoft Windows NT Workstation 4.0. The default directory name is \WINNT. Press Enter to select the default.

18. Press Enter to allow setup to test your hard drive. You will then be prompted to install the Windows NT Workstation 4.0 CD-ROM Disc. Install the XA_WIN_NT_WKST CD Disk 1 of 1, wait for the CD-ROM drive LED to stop flashing and select OK. Setup will now begin to copy operating system files from the CD to your hard drive directory.

19. Now you will be prompted to remove any floppy or CD disk. Remove them and press Enter to restart your computer.

**Note:** If your computer is restarted without removing those disks then the installation will fail.

20. The system will now restart twice automatically.

21. After the second boot (restart), you will be prompted to insert the compact disk labeled Microsoft Windows NT CD into your CD-ROM drive. Insert the XA_WIN_NT_WKST CD Disk 1 of 1 into the CD-ROM drive, wait for the CD-ROM drive LED to stop flashing, and select OK.

You will see the message, Copy files from [CD-ROM DRIVE LETTER]:i386. Select OK.

22. You will now be working with the Windows NT Setup Wizard. Select Next to allow setup to gather information about your computer.

23. Under Setup Options, Typical setup is recommended. Select Next.
24. Enter your name and organization, then select Next.

25. Enter your Product ID (PID). This number is printed on your Microsoft Certificate of Authenticity (COA) sticker attached to the rear chassis of your Xycom Industrial Computer. Select Next.

26. Enter a name for your computer (15 characters or less). This name is very important if your computer is attached to a network such as Ethernet. Ask your network administrator if you are not sure. Select Next.

27. You will be asked for your Administrator Account Password. This password is optional. Select NEXT (enter no password) to bypass this option. Otherwise, enter an administrator password of 14 characters or less.

**Note:** It is critical that you do not forget that password.

28. Select Next to continue.

29. Select Create an emergency repair disk, then select Next.

30. Select Install most common components, then select Next.

31. You are now given the option to proceed with network installation, however, please read the following warning before continuing with this step:

**Warning:** Xycom Automation recommends that you do not proceed with the network installation until after the setup is completed. Selection of the wrong Network Interface Card (NIC) driver during the Windows NT installation will cause the system to crash and installation will have to be started over. The NIC diver can be installed later by opening Start Menu/Control Panel and selecting Add/Remove Hardware. Please note that if your network interface board/component was shipped with your Xycom system, the correct driver can be found on either your Xycom Documentation CD or on the Xycom web site at www.Xycom.com.

If you require network installation, you must understand the requirements of your network. If you do not understand those requirements, have your network administrator perform this function at a later time.

To bypass network installation at this time, select the top check box and then select Next.

32. You will now be presented with the **Date and Time dialog box**. Set as necessary and select OK.

33. The default VGA video driver is now loaded. Do not try to install the appropriate video driver at this point in setup, that must be done later. Select OK.

34. Now insert a blank floppy disk into the floppy drive and select Next. The emergency repair disk mentioned in step 29 (above) is now created. When completed, remove the floppy disk and label it **Windows NT Workstation 4.0 Repair Disk for Xycom Automation Model [Your Model Number]**.

Remove the CD-ROM disk and select Restart Computer. The computer will now restart.
35. Allow the computer to boot, wait until you are prompted to press **Ctrl + Alt + Delete** to log on. These keys must be pressed at the same time in order to proceed.

36. If you entered a password in step 27, then you must enter it now and select **OK**. Otherwise, select **OK**.

The initial installation is now complete. You will be presented with a **Welcome To Windows NT** dialog box. Select **Close** in order to proceed with Video Driver Installation.

### Installing Video Driver

1. To get to the video display settings, select **Start**, then **Settings**, then **Control Panel**.
2. After the **Control Panel** opens, double click the **Display** icon.
3. Select the **Settings** tab at the top.
4. Select **Display Type**.
5. In the **Adapter Type** box, select **Change**.
6. Select **Have Disk**. The correct video driver is shipped with your Xycom Automation computer on either floppy or CD-ROM disk. It can also be downloaded from the Xycom Automation web site at [www.xycom.com](http://www.xycom.com).
7. Insert the disk into the drive and then select the proper disk drive letter on the dialog box.
8. Select the proper driver INF file and then select **Open**.
9. Select **OK**.
10. Choose the video adapter and select **OK**.
11. Select **Yes** to install a third party driver.
12. After installation, select **OK**.
13. Select **Close** on the **Display Type** dialog box.
14. Select **Apply**. Other settings must be changed later after the computer is restarted.
15. You are now prompted to restart the computer. Remove any floppy or CD-ROM disk(s) and select **Enter**.

**NOTE:** The correct video driver is shipped with your Xycom Automation computer on either floppy or CD-ROM disk. It can also be downloaded from Xycom Automation at [www.xycom.com](http://www.xycom.com).

16. Repeat steps 35 and 36 in the Installation Instructions section to log on to the computer.
17. Go to the **Display Properties** dialog box again.
18. Now you may choose an alternate color palette, font size, pixel ratio, and refresh rate. To insure proper settings, check the Xycom Automation documentation CD that shipped with your computer. The manual is also available on the Web in PDF format at [www.xycom.com](http://www.xycom.com).
19. Choose Test to check your video settings.
20. Select Apply.
21. Follow the dialog box instructions.
22. Restart the computer.

**Device Driver Installation**

Device drivers for items such as a mouse, touch screen, keypad, Ethernet, and/or CD-ROM need to be installed.

**NOTE:** The correct device drivers are shipped with your Xycom Automation computer on either floppy or CD-ROM disk. It can also be downloaded from Xycom Automation at [www.xycom.com](http://www.xycom.com).

**Installing Service Pack (optional)**

Your Xycom Automation Recovery Media CD, XA_WIN_NT_WKST CD Disk 1 of 1, for Microsoft Windows NT Workstation 4.0 includes three service packs:

- Service Pack 3 (in SP3 folder);
- Service Pack 5 (in SP5 folder);
- Service Pack 6.0a (in SP6 folder).

If you require a service pack to be installed (and you probably do), then perform the following steps to install the service pack of your choice.

1. Start Windows NT Explorer.
2. Double click on the CD-ROM drive to display the contents of the Xycom Automation Recovery Media CD-ROM, XA_WIN_NT_WKST CD Disk 1 of 1.
3. Copy the desired folder from the CD-ROM disk to the hard disk drive (e.g. C:\).
4. Double click the new SP folder on the hard disk drive to display the contents.
5. The SP folder will include one executable file. That file is the compressed, self-extracting Microsoft Service Pack. To extract and install the Service Pack, simply select the executable file and follow the instructions on the dialog box.
**Running Disk Administrator**

1. The Disk Administrator is used to assign/change drive letters, create partitions, format partitions, etc. Because you have formatted your hard disk drive as part of the installation above, you should run the Disk Administrator at this time in order to write a signature to physical Disk 0. You may also create partitions to provide access to any free drive space that has not yet been partitioned.

2. Select **Start**, then **Programs**, then **Administrative Tools**, and then **Disk Administrator**.

3. The Disk Administrator dialog box will appear. Select **OK**.

4. Select **Yes** to write the signature to Disk 0.

5. You may now create an additional partition to use any free (unpartitioned) disk space left on the drive.

6. Select **Free Space**.

7. On the toolbar, select **Partition** to drop down the partition menu.

8. Click **Create**.

9. Type in the partition size you prefer, or simply select **OK** to detect default size (all remaining free space).

10. Select **Yes** on the **Confirm** dialog box.

11. On the toolbar, select **Partition**, then **Commit Changes Now** from the menu - follow the instructions.

12. On the toolbar, select **Tools**, then **Format** from the menu.

13. For **File System** select **FAT** (MSDOS compatible, 2 GB maximum size), or **NTFS**. Enter the **Volume Label** if desired (optional) and select format options (the default settings are recommended).

14. Select **Start**, then **OK**, to continue. The partition format will take several minutes depending upon the size. When complete, close the dialog box.

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