

ASIX AX88178 and AX88772B/772A/760/772 Mac OS X Drivers Installation Guide

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Revision History

Revision	Date	Description
1.00	2010/08/12	Initial release.
1.10	2011/04/27	Modified the script files in Appendix.
1.20	2011/08/15	Added Mac OS X 10.7 support.
1.30	2011/09/14	Modified the description to exclude Mac OS X 10.4 support.
1.31	2011/10/13	Rearranged the document format and added more detailed driver installation/uninstallation procedures information.
1.32	2011/10/14	1. Moved some Section 1 descriptions to Appendix A.

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1 Introduction

This document contains the installation and uninstallation information of ASIX's AX88772B/772A/760/772 and AX88178 Mac OS X 10.7/10.6/10.5 drivers.

The Mac OS X 10.7/10.6/10.5/10.4 systems don't support AX88772B nature driver yet so users need to install ASIX's AX88772B/772A/760/772 Mac OSX driver manually.

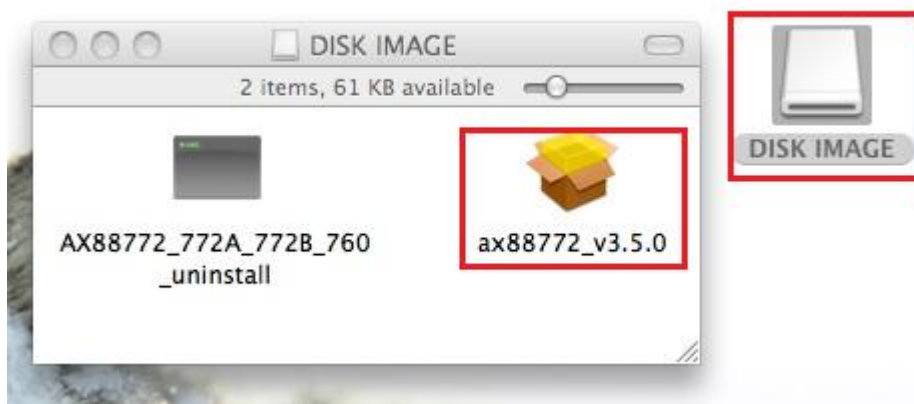
The AX88178 Mac OSX 10.7/10.6/10.5 "AppleUSBGigEthernet.kext" nature driver might not support all AX88178 USB dongle solutions (with different Gigabit PHY solutions) and the Mac OSX 10.4 system doesn't support AX88178 nature driver yet. In above cases, users need to install ASIX's AX88178 Mac OSX driver manually.

2 Driver Installation Procedures

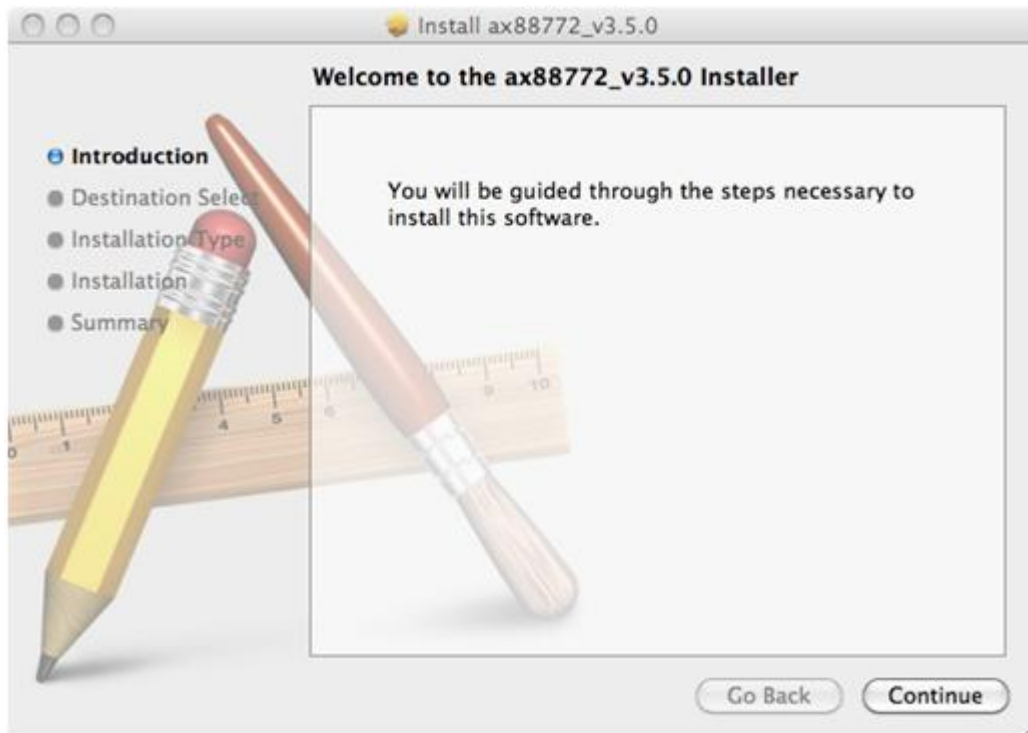
The AX88178 Mac OSX driver installation package is "AX88178.dmg" and the AX88772B/772A/760/772 Mac OSX driver installation package is "AX88772.dmg".

The following is an example of ASIX's AX88772B/772A/760/772 Mac OSX driver installation procedures. The AX88178 Mac OSX driver installation is similar to below procedures.

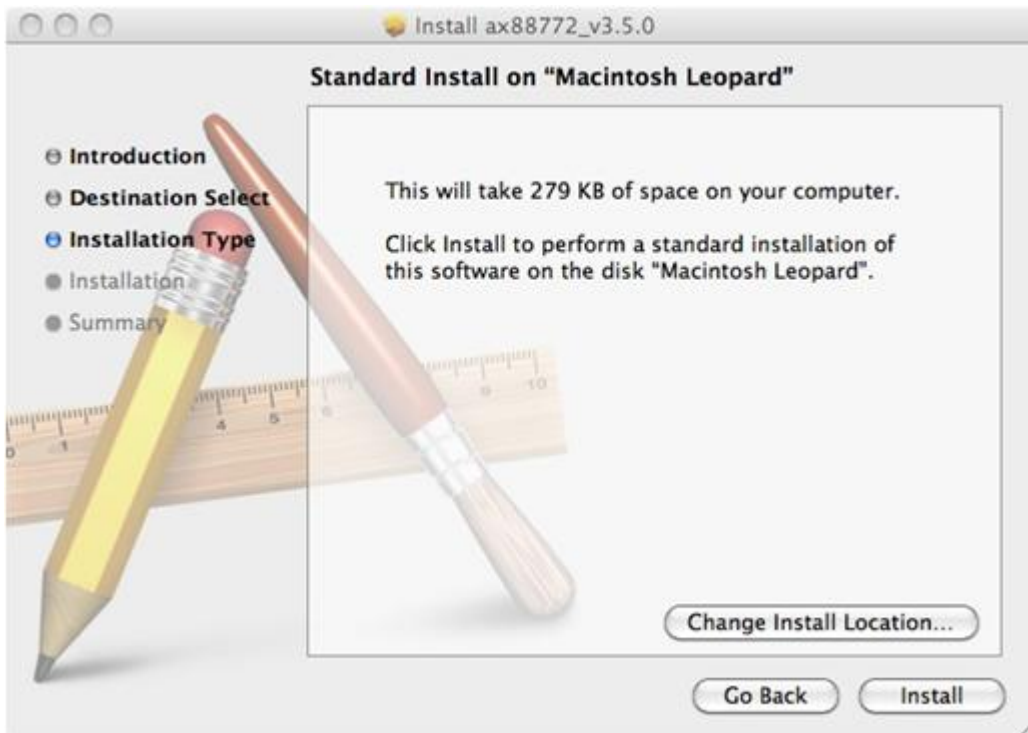
Step 1: Click the "AX88772.dmg", the following "DISK IMAGE" virtual disk will be appeared on the Desktop of your Mac OSX system. (This "DISK IMAGE" virtual disk will be auto-removed after rebooting Mac OSX system.)



Step 2: Click the “AX88772_v3.5.0.pkg”, the following driver setup dialog will appear. Click the [Continue] button to start the installation operation and follow the instructions to continue the installation.



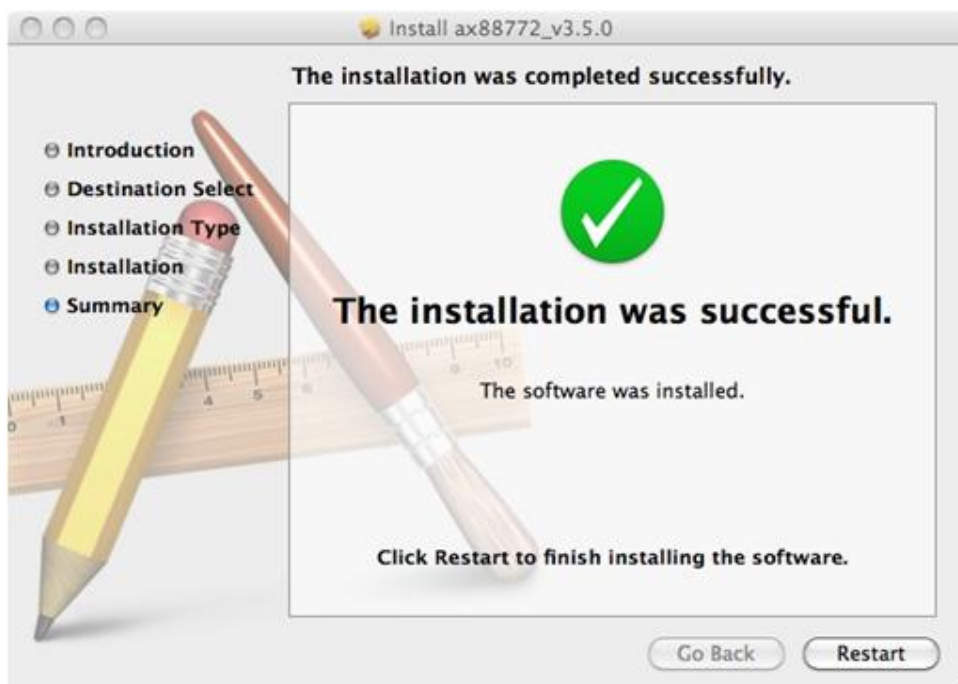
Step 3: Click the [Install] button to continue the installation operation.



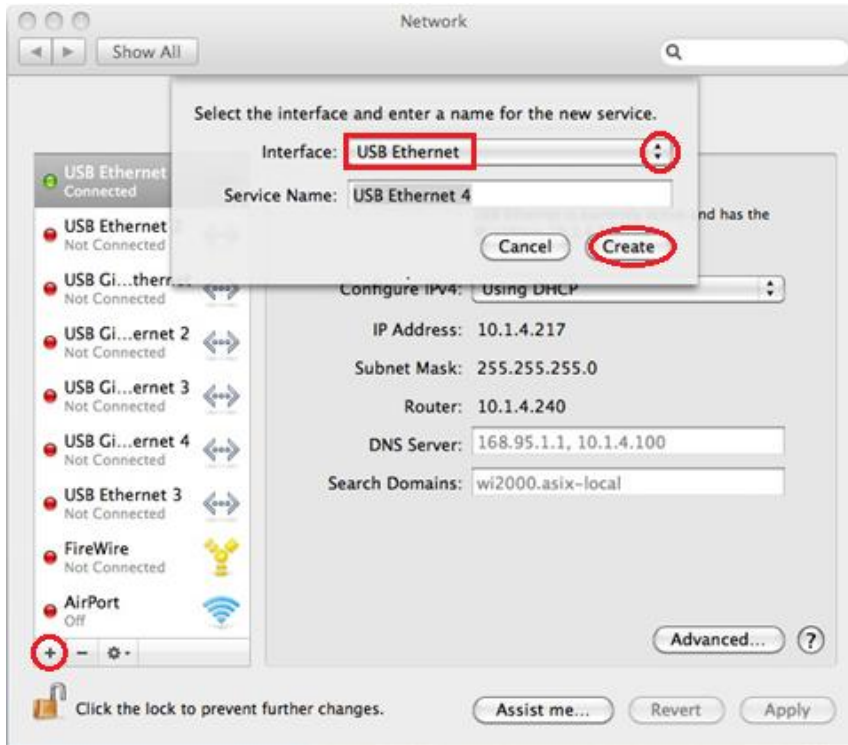
Step 4: Click the [Continue Installation] button to continue the installation operation.



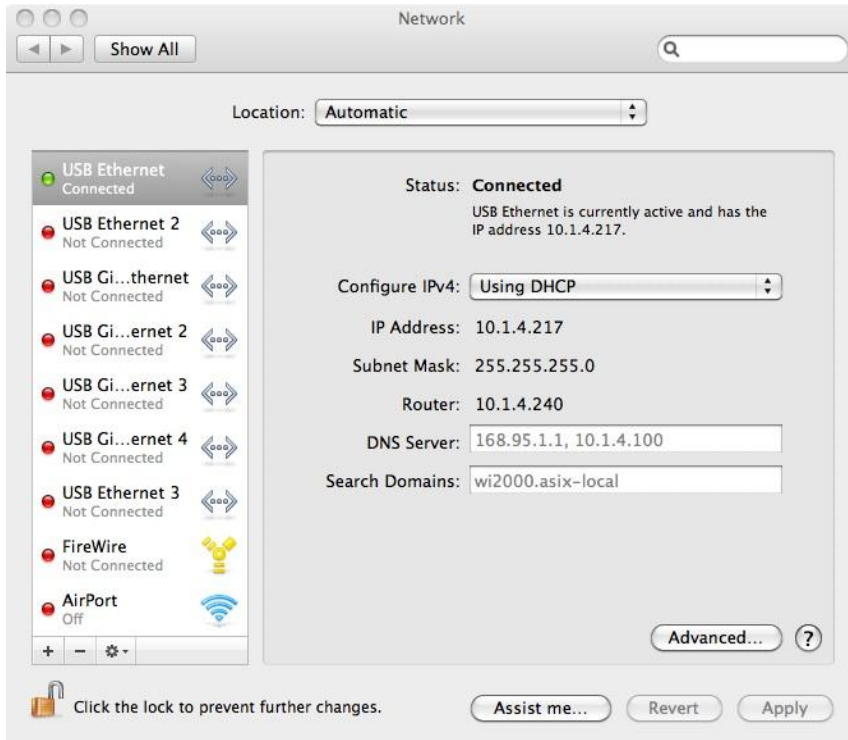
Step 5: Click the [Restart] button to restart Mac OSX system to take effect the revised driver installation.



Step 6: After booting up your Mac OSX system, plug your AX88772B/772A/760/772 USB dongle onto the USB port of your Mac OSX system and refer to below figure to add a new “USB Ethernet” network interface and then press the [Apply] button to take effect the new network interface.



Step 7: The new “USB Ethernet” driver should be ready now. (For AX88178, it should be “USB Gigabit Ethernet” driver.)

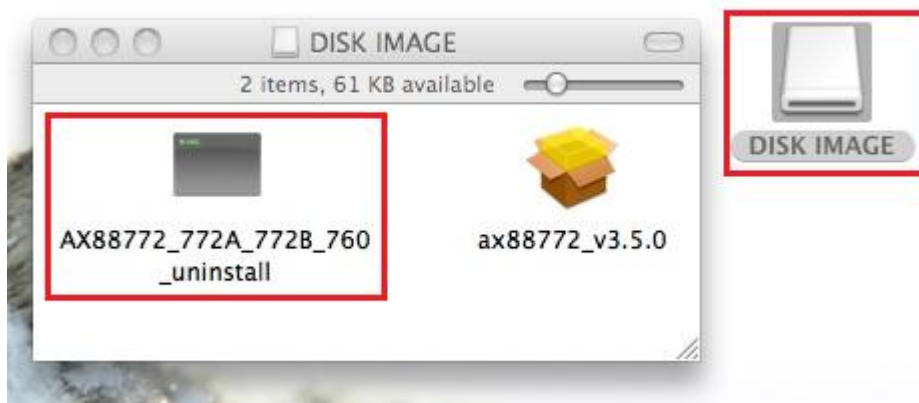


3 Driver Uninstallation Procedures

The AX88178 Mac OSX driver uninstallation script file is “**AX88178_uninstall**” and the AX88772B/772A/760/772 Mac OSX driver uninstallation script file is “**AX88772_772A_772B_760_uninstall**”.

The following is an example of ASIX’s AX88772B/772A/760/772 Mac OSX driver uninstallation procedures. The AX88178 Mac OSX driver uninstallation is similar to below procedures.

Step 1: Click the “AX88772.dmg”, the following “DISK IMAGE” virtual disk will be appeared on the Desktop of your Mac OSX system. (This “DISK IMAGE” virtual disk will be auto-removed after rebooting Mac OSX system.)



Step 2: Click the “**AX88772_772A_772B_760_uninstall**” script file to uninstall ASIX’s AX88772B/772A/760/772 Mac OSX driver.

Situation 1: If the AX88772B/772A/760/772 USB dongle was installed, you will see below messages.

```
Terminal — 80x24
Last login: Thu Oct 13 14:04:02 on console
/Volumes/DISK\ IMAGE/AX88772_772A_772B_760_uninstall ; exit;
asix-testde-macbook:~ test$ /Volumes/DISK\ IMAGE/AX88772_772A_772B_760_uninstall
; exit;
Password:
logout

[Process completed]
```

Situation 2: If the AX88772B/772A/760/772 USB dongle was not installed, you will see below messages but the driver uninstallation can still be completed successfully.

```
Terminal — 80x24
Last login: Thu Oct 13 13:35:16 on ttys000
asix-testde-macbook:~ test$ /Volumes/DISK\ IMAGE\ 1/AX88772_772A_772B_760_uninst
all ; exit;
Password:
(kernel) Kext com.apple.driver.AppleUSBEthernet not found for unload request.
Failed to unload com.apple.driver.AppleUSBEthernet - (libkern/kext) not found.
logout

[Process completed]
```


Appendix A Script Files Descriptions

When installing ASIX's AX88772B/772A/760/772 or AX88178 Mac OSX driver, the driver setup program will execute the **preflight** and **postflight** scripts to remove the corresponding Apple's default AX88772B/772A/760/772 USB-to-LAN driver "**AppleUSBEthernet.kext**" or AX88178 USB-to-LAN driver "**AppleUSBGigEthernet.kext**" before installing ASIX's driver.

The script files will do the following operations in order.

- (1) Create a "/asix_temp" folder.
- (2) Backup Apple's default driver ("AppleUSBEthernet.kext" or "AppleUSBGigEthernet.kext") from "/System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/" folder to "asix_temp" folder.
- (3) Unload and remove Apple's default driver from "/System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/" folder.
- (4) Set the permission access mode of Apple's default driver.
- (5) Update the access and modification times of ASIX's AX88772B/772A/760/772 or AX88178 driver.

While uninstalling ASIX's AX88772B/772A/760/772 or AX88178 driver, the driver uninstallation script will remove ASIX's driver and then re-install the corresponding Apple's default AX88772B/772A/760/772 or AX88178 USB-to-LAN driver back to the system.

The uninstallation script will do the following operations in order:

- (1) Copy Apple's default driver from "/asix_temp" folder to "/System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/" folder.
- (2) Remove "asix_temp" folder.
- (3) Unload and remove ASIX's AX88772B/772A/760/772 or AX88178 driver.
- (4) Set the permission access mode of Apple's default driver.
- (5) Set Apple's default driver files to be owned by root/wheel.
- (6) Update the access and modification times of Apple's default driver.

Appendix B AX88772/772A/772B/760 Script Files

Below are **preflight** and **postflight** script files:

```
#!/bin/sh
#filename:autopack.sh

if [ -d /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AppleUSBEthernet.kext ]
then
sudo mkdir /asix_temp
sudo cp -R /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AppleUSBEthernet.kext
/asix_temp/AppleUSBEthernet.kext
sudo kextunload
/System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AppleUSBEthernet.kext
sudo rm -rf /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AppleUSBEthernet.kext
sudo chmod -R 755 /asix_temp/AppleUSBEthernet.kext
sudo chown -R root:wheel /asix_temp/AppleUSBEthernet.kext
fi

if [ -d /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AX88772.kext ]
then
sudo kextunload /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AX88772.kext
sudo rm -rf /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AX88772.kext
fi

if [ -d /System/Library/Extensions/AppleUSBEthernet.kext ]
then
sudo kextunload /System/Library/Extensions/AppleUSBEthernet.kext
sudo rm -rf /System/Library/Extensions/AppleUSBEthernet.kext
fi

if [ -d /System/Library/Extensions/AX88772.kext ]
then
sudo kextunload /System/Library/Extensions/AX88772.kext
sudo rm -rf /System/Library/Extensions/AX88772.kext
fi
```

```
#!/bin/sh
#filename:autopack.sh

sudo touch /System/Library/Extensions
```

Below is **AX88772_772A_772B_760_uninstall** script file

```
#!/bin/sh
#filename:autopack.sh

sudo cp -R /asix_temp/AppleUSBEthernet.kext
/System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns
sudo rm -rf /asix_temp/AppleUSBEthernet.kext

if [ -d /System/Library/Extensions/AX88772.kext ]
then
sudo kextunload /System/Library/Extensions/AX88772.kext
sudo rm -rf /System/Library/Extensions/AX88772.kext
fi

if [ -d /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AX88772.kext ]
then
sudo kextunload /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AX88772.kext
sudo rm -rf /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AX88772.kext
fi

sudo chmod -R 755
/System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AppleUSBEthernet.kext
sudo chown -R root:wheel
/System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AppleUSBEthernet.kext
sudo touch /System/Library/Extensions
```

Appendix C AX88178 Script Files

Below are **preflight** and **postflight** script files:

```
#!/bin/sh
#filename:autopack.sh

if [ -d /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AppleUSBGigEthernet.kext ]
then
sudo mkdir /asix_temp
sudo cp -R
/System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AppleUSBGigEthernet.kext
/asix_temp/AppleUSBGigEthernet.kext
sudo kextunload
/System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AppleUSBGigEthernet.kext
sudo rm -rf
/System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AppleUSBGigEthernet.kext
sudo chmod -R 755 /asix_temp/AppleUSBGigEthernet.kext
sudo chown -R root:wheel /asix_temp/AppleUSBGigEthernet.kext
fi

if [ -d /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AX88178.kext ]
then
sudo kextunload /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AX88178.kext
sudo rm -rf /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AX88178.kext
fi

if [ -d /System/Library/Extensions/AppleUSBGigEthernet.kext ]
then
sudo kextunload /System/Library/Extensions/AppleUSBGigEthernet.kext
sudo rm -rf /System/Library/Extensions/AppleUSBGigEthernet.kext
fi

if [ -d /System/Library/Extensions/AX88178.kext ]
then
sudo kextunload /System/Library/Extensions/AX88178.kext
sudo rm -rf /System/Library/Extensions/AX88178.kext
fi
```

```
#!/bin/sh
#filename:autopack.sh

sudo touch /System/Library/Extensions
```

Below is **AX88178_uninstall** script file

```
#!/bin/sh
#filename:autopack.sh

sudo cp -R /asix_temp/AppleUSBGigEthernet.kext
/System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns
sudo rm -rf /asix_temp/AppleUSBGigEthernet.kext

if [ -d /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AX88178.kext ]
then
sudo kextunload /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AX88178.kext
sudo rm -rf /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AX88178.kext
fi

if [ -d /System/Library/Extensions/AX88178.kext ]
then
sudo kextunload /System/Library/Extensions/AX88178.kext
sudo rm -rf /System/Library/Extensions/AX88178.kext
fi

sudo chmod -R 755
/System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AppleUSBGigEthernet.kext
sudo chown -R root:wheel
/System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns/AppleUSBGigEthernet.kext
sudo touch /System/Library/Extensions
```



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