MC-802 Wireless WallPlate

MOTOROLA

FCC Part 15A

This device complies with part 15 of the FCC Rules. Operation is subject to two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT SAFETY INSTRUCTIONS

MC-802
CAUTION: Use only power supplies listed in the user manual

The maximum operating ambient temperature is 40 degrees Celsius.

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

1. Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.

2. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.

3. Do not use the telephone to report a gas leak in the vicinity of the leak.
SAVE THESE INSTRUCTIONS

Caring for the Environment by Recycling

When you see this symbol on a Motorola product, do not dispose of the product with residential or commercial waste.

Recycling your Motorola Equipment

Please do not dispose of this product with your residential or commercial waste. Some countries or regions, such as the European Union, have set up systems to collect and recycle electrical and electronic waste items. Contact your local authorities for information about practices established in your region. If collection systems are not available, contact Motorola Customer Service for assistance.

WEEE Directive

Motorola is committed to meeting the requirements of the European Union's Waste Electrical and Electronic Equipment (WEEE) Directive. This Directive requires producers of electrical and electronic equipment to finance the take-back for re-use or recycling, of their products placed on the EU market after 13 August 2005.

Motorola' products that are within the scope of the Directive are labeled with a crossed-out "wheelie-bin" symbol as required by the Directive. This indicates that the product was placed on the market after 13 August 2005 and that end-users should segregate the product from other wastes at end-of-life.

Legislation in conformance with the European Commission 2002/96/EC (WEEE) directive can vary from one member state to the next. Provisions in force in one state do not render another state's legislation invalid or convey further requirements than proscribed in the individual state's legislation.

Product Take-Back and Recycle

Legislative and environmental factors combined with the competitive drive to implement the latest technology present many companies with the challenge of managing technology surpluses. Motorola offers customers the Motorola WEEE RMA program to properly dispose of surplus products that have reached their end of useful life.

Equipment that is returned to Motorola through this program is disposed of in an environmentally safe manner using processes that comply with the WEEE (EU Directive on Waste Electrical and Electronic Equipment) regulations, all EPA guidelines, and U.S. environmental laws at all levels of government. Motorola' branded products covered by the WEEE RMA program are labeled with a cross-out "wheelie-bin" symbol as required by the Directive.

WEEE RMA Program

The MC-802 Wireless WallPlate is covered by the WEEE RMA program and subject to the requirements of the B2B (business to business) provisions of the WEEE legislation in each EC member state. A copy of the WEEE RMA form can be obtained by emailing support@sys.com.

RoHS Directive

The MC-802 Wireless WallPlate sold to the European Union after July 1, 2006 meet requirements of the European Union's Restriction of Hazardous Substances (RoHS) Directive. RoHS restricts the use of lead, mercury, cadmium, hexavalent chromium and two bromine-containing flame retardants: PBB (polybrominated biphenyls) and PBDE (polybrominated diphenyl ethers) in electrical and electronic

products placed on the European Market on and after July 1, 2006. Exemptions allow the continued use of lead in networking infrastructure equipment and a few select components.

Motorola is working closely with its supply chain to assure compliance of all product and materials provided by our suppliers and partners.

Commands and Syntax

The Motorola MC-802 is managed via the Command Line Interface, webUI, and SNMP from a connected Motorola mT2a EthernetXD Switch. All commands referenced are executed on the mT2a.

Command Hierarchy

The Command Line Interface (CLI) implements a hierarchical command structure. Commands are organized as a high-level command keyword related to a particular function of the device with sub-commands related to sub-functions.

You may move down in the command hierarchy by entering root keywords and sub-keywords followed by the enter key. Your current level in the command hierarchy is referred to as the "command context." The top-level context is referred to as the "root command context." You may move up to the previous command context by using the exit command. The command prompt displays the current command context.

Full commands may be entered at the root command context. For example:

> system> interface dsl enable port1

You may also move down levels in the command hierarchy, which allows you to execute commands with less repetitive typing.

For example:

> system> interface
> system:interface> dsl
> system:interface.dsl> enable port1
> system:interface.dsl> enable port2
> system:interface.dsl> enable port3
> system:interface.dsl> exit
> system:interface> exit
> system>

Administrative Commands

Most commands discussed in this guide are administrative commands, which change the configuration of the system or affect the operation of the system. These commands can only be executed from the **admin** account. Configuration changes take affect immediately and are recorded in non-volatile memory (NVRAM) in the default mode. Alternatively, you may choose not to record changes in NVRAM. In this case, changes will need to be committed before rebooting the system; otherwise the configuration will revert to the last saved configuration. If automatic commit is enabled, or the configuration is manually committed, the running configuration will automatically be restored if the system power cycles or is rebooted.

Show Commands

The **show** commands are used to view configurations, status and/or statistics. These commands can be issued from either the **user** or **admin** account.

Global Commands

Commands that are available from any command context are called *global* commands. For example, the **help** command can be used whether you are at the root command context or down a few levels in the command hierarchy. Global commands can also be used from either the **user** or **admin** account.

> **Note:** The default prompt is "system>". If you set the system name using the "**system name**" command, the prompt changes to the new system name.

Command	Description
clear	Clears the screen
exit	Use this command to switch to the previous context. Note that using the **exit** command at the root command contgext performs the same function as logout.
help	Displays the help files
history	Shows the history of the commands used in the current session.
logout	Can be used with either the login (admin, user, RADIUS network authenticated) and at any command level to terminate the current session
tree	Shows the structure of the command tree

Command Completion

The OS allows you to shorten commands as long as the characters are not ambiguous. While typing a command, press the tab key to have the system complete the current command word or type (**?)** to have the system display a list of available options. The options displayed vary according to the context:

• If you type a **?** at a prompt, the system displays a list of all available commands.
• If you type an unambiguous command word, pressing **?** displays all available subcommands or arguments. For example, **show ?** (note the space before the question mark) displays a list of all show subcommands.

Style Conventions

The style conventions used in this manual distinguish various elements of the commands and facilitate the proper interpretation of command syntax, parameters, and their use.

This document refers to actual command syntax as little as possible. For a complete command syntax document, please refer to the *Command Reference* guide for a complete list of all available commands, the proper syntax, and usage examples. In no way does this User Guide attempt to replace or obsolete the *Command Reference*.

Interface Range

Multiple interfaces can be specified for a single command using port ranges. Use of hyphens (-) and commas (,) to delineate ports. Port numbers must be contained in parenthesis. Hyphens and commas can be combined in the same expression to specify multiple, non-sequential interfaces. For example;

To enable all 25 DSL ports, type: *interface dsl enable port(1-25)*

To enable only selected DSL ports, type: *interface dsl enable port(1,3,5,20-25)*

Hyphens and commas can also be used to enable remote Ethernet ports along with DSL ports. For example;

To enable Eth1 and Eth2 on every WallPlate, type: *interface remote enable port(1-25)-(1,2)*

VLAN commands can also be completed using interface ranges.

To add VLAN 100 to Eth1 on every WallPlate, type: *vlan membership add 100 interface port(1-25)-1*

Hardware

Model Numbers and Description for MC-802

Model Number	Description
45010	MC-802 Wireless WallPlate. 1 x 802.11 b/g radio, 2 x Fast Ethernet, 1 x high speed DSL port, 1 x analog POTS RJ11 port. Designed for installation over existing RJ11 wall jack. RoHS compliant.

Model Numbers and Description for related Products

Each MC-802 requires a 45125 to provide connectivity and power. Filters are required for proper in-room installation. Any installation of the MC-802 may also use one or more of the following additional products.

| Model Number	Description
45125	25 port mT2a Ethernet^{XD} Switch. 2 x GigE uplink Ethernet ports and 25 x high speed DSL ports for connection to UTP wiring. Provides broadband data and Adaptive Line Power for remote WallPlate. RoHS compliant.
45101	2 port m2a WallPlate. 2 x Fast Ethernet ports, 1 x high speed DSL port, 1 x analog POTs RJ11 port. Two powering options; Adaptive Line Power from the 45125 switch, or local power adapter. Designed for installation over existing RJ11 wall jack. RoHS compliant.
45003	4 port m4a WallPlate. 4 x Fast Ethernet ports, 1 x high speed DSL port, 1 x analog POTs RJ11 port. Two powering options; Adaptive Line Power from the 45025 switch, or local power adapter. Designed for installation over existing RJ11 wall jack. RoHS compliant.
45002	4 port m4 Service Unit. 4 x Fast Ethernet ports and 1 x high speed DSL port. Two powering options; Adaptive Line Power from the 45025 switch, or local power adapter. Analog POTS filter and port is not included. Solid backplate, not designed for installation over existing RJ11 wall jack. RoHS compliant.
65601	In-line RJ11 filter, mT2a. RoHS compliant
65602	In-line unterminated filter, mT2a. RoHS compliant
65002	12VDC regulated power supply, US. RoHS compliant
65102	12VDC regulated power supply, Euro. ROHS compliant
61299	RJ11 telephone cable, 2m. RoHS compliant

Wireless WallPlate

MC-802 Wireless WallPlate
Optional adapter plate allows the installer to adapt installation over a standard RJ11 wall plate, reusing the existing mounting screws.
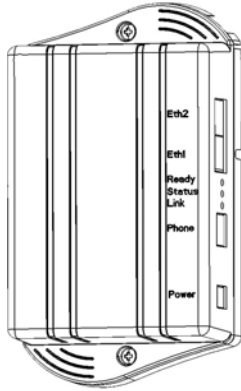
Eth1 – 10/100 auto-sensing Ethernet

Eth2 – 10/100 auto-sensing Ethernet

RJ11 filtered phone port

DC power connector (used during installation)

System Administration

This User Guide covers the commands relevant to the MC-802. For a complete set of commands and information; consult the mT2 Command Reference and mT2 User Guide.

Management Access

mT2 can be managed via serial console, telnet, HTTP web UI, or SNMP. With the 1.3 firmware, Eth1 is enabled by default. Telnet and HTTP are accessible at the default IP address.

Access Methods

Default IP address	192.168.1.3
Serial console	Terminal settings: 9600-8-N-1 no flow control
Telnet	Requires Eth1 or Eth2 enabled and a valid IP address
HTTP	Requires Eth1 or Eth2 enabled and a valid IP address Browser support: IE6 or greater, Mozilla Management URL: http://<IP address>

Default login and password

Default user name for administrative access: admin
Default password: <blank>

Default user name for monitoring only: user

Default password: <blank>

WallPlate Installation

Tools Required:

Number 2 Philips head screwdriver

Note: if using a power drill, set the torque clutch to 5 in-lbs.

Components provided with the MC-802 WallPlate:

1 – MC-802 WallPlate
1 – RJ11 wall jack mounting adapter
1 – 150mm (6") RJ11 pigtail cable
1 – RJ11 blanking plug
2 – 6-32 thread forming Philips head screws, 0.375"

Components required to purchase:

Regulated 12V power supply. Use of the wrong power supply could result in damage to your WallPlate unit. Please order a small quantity of regulated 12V power supplies from Motorola PBN to use during installation.

If you do not have the correct regulated 12V power supply – **STOP**. Order a regulated 12V power supply from your Motorola PBN sales representative.

Step 1

1. Loosen screws on wall plate approximately 6mm (1/4")
2. Attach the bracket using the keyhole slots
3. Tighten screws until the bracket is firmly attached, do not over tighten
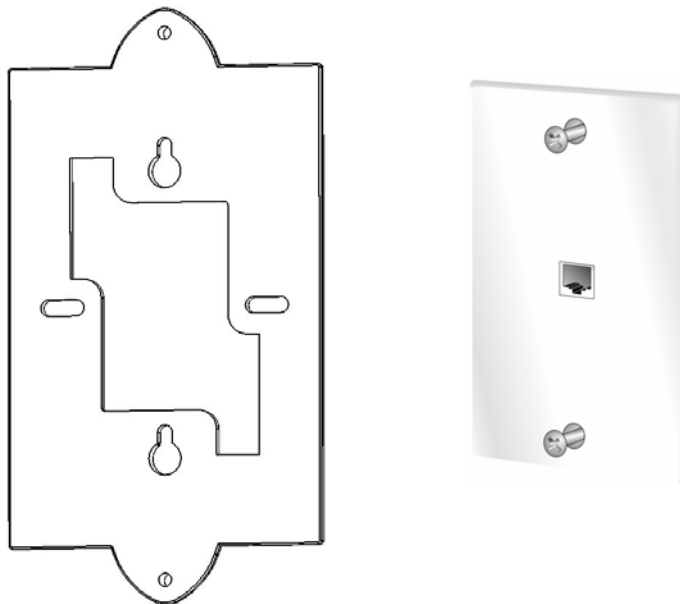
Step 2

Connect 150mm (6") cable (supplied) between bottom mounted RJ11 port on the MC-802 and the existing RJ11 jack.

Step 3

Attach the MC-802 to the Mounting Adapter using the supplied 6/32 thread forming screws

6/32 thread forming screws

Eth2

Eth1

Ready
Status
Link

Phone

Power

6/32 thread forming screws
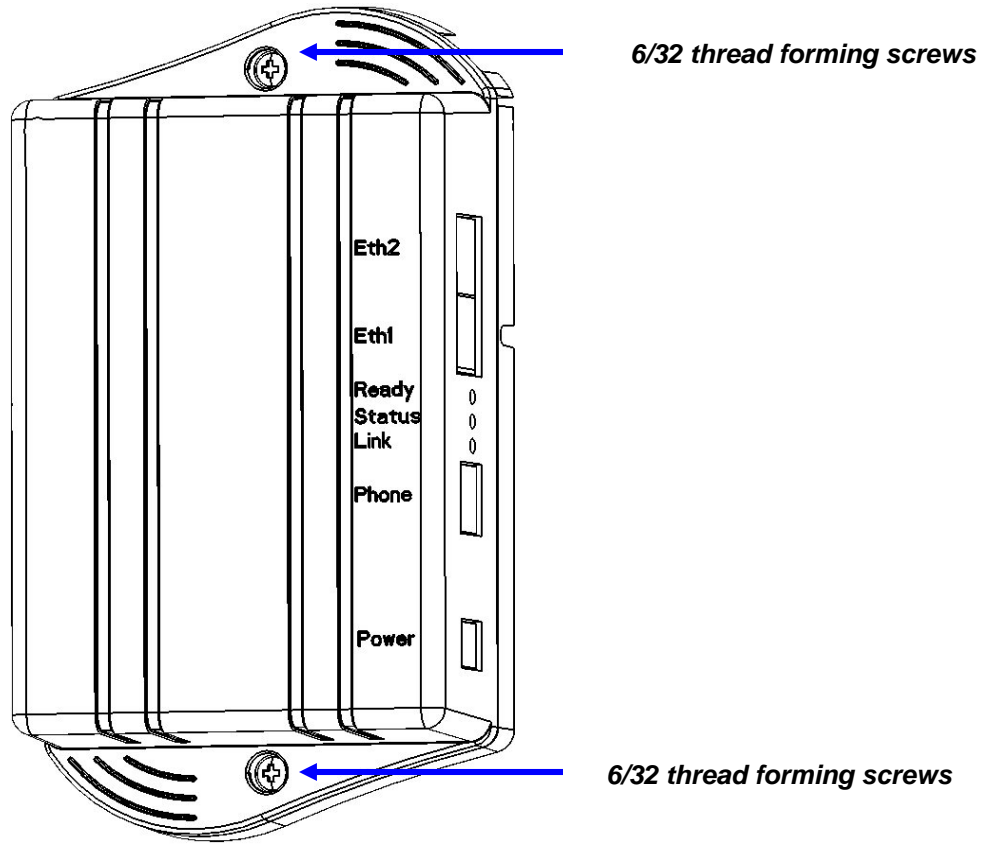
Step 4

1. Connect the local AC power adapter to the WallPlate
2. Connect the analog phone to the RJ11 phone jack
3. Connect an Ethernet cable (not supplied) to a laptop

The Green READY LED will be ON when power is supplied
The Green STATUS LED will be ON to indicate boot cycle completed successfully
The Green LINK LED will flask during link training

Step 5

After WallPlate Link LED is solid, verify the device is connected using the command, "show int dsl status"

Enable line power

Login to the mT2 switch using the web UI and HTTP or telnet.

Determine which port is being installed

From the telnet CLI, enter this command:

> *show bridge address*
>
> The MAC address of your PC will appear along with the connected line.

Enable line power

From the telnet CLI, enter this command:

> *interface dsl power enable portx* (enable only the port being installing)

Finish the installation

Remove the 12V regulated power supply. If the correct port is enabled for line power, the WallPlate will reset and operate from in-line power.

After the wired network is installed, enable the WLAN on each unit. Example commands below:

> *interface wireless enable radio(1-25)*
> *interface wlan config wlan(1-25) ssid Motohotel security none*
> *interface wlan enable wlan(1-25)-1*

Test the system by connecting to the Internet service provider or other test equipment.

Command Reference

interface wireless config <radio<1-25>(interface-id)> [channel auto|1|2|3|4|5|6|7|8|9|10|11|12|13|14]

interface wireless enable <radio<1-25>(interface-id)>

interface wireless disable <radio<1-25>(interface-id)>

wlan config <wlan<1-25>-1(interface-id)> [ssid string] [security none|wep|wpa-personal] [pre-shared-key string] [wep-key-type 64bit|128bit] length (64 or 128 bits) [wep-key string]

wlan enable <wlan<1-25>-1(interface-id)>

wlan disable <wlan<1-25>-1(interface-id)>
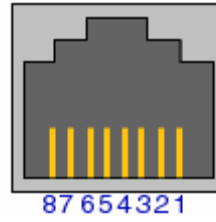
show interface wireless config <radio<1-25>(interface-id)>

show interface wireless statistics <radio<1-25>(interface-id)>

show wlan config <wlan<1-25>-1(interface-id)>

show wlan statistics <wlan<1-25>-1(interface-id)>

Appendix A: Pin-out Assignments

Fast Ethernet WallPlate ports

1	TX+
2	TX-
3	RX+
4	Unused
5	Unused
6	RX-
7	Unused
8	Unused

Appendix B: Hardware Specifications

MC-802 Wireless WallPlate

Interfaces	2 x RJ45, 10/100/Mbps auto-sensing – 328ft (100m) 1 x RJ11, line-in port 1 x RJ11, filtered phone port
Input Voltage	Local power supply, 12VDC (not shipped)
Power Consumption	6 watts
Dimensions	3.75" x 6.75" x 1.75"
Weight	11 oz
Environmental	Operating Temperature: 0 – 40 degrees Celsius
Relative Humidity	5% to 90% NC
Compliance	FCC Part 15A, CISPR 22 FCC Part 15C 15.247 ETSI ETS 300 328 2.4Ghz EN 55022 : 1994/A1 : 1995/A2 : Class A EN 55024 : 1998 : Class A CE, TUV EN60950 RoHS 2002/95/EC
Telephone splitter	Integrated analog POTS splitter
Management	In Band Management Telnet, Web UI, SNMP v2 standard and enterprise MIB
Front Panel LEDs	1 x Ready, power status 1 x Status, software booted, errors 1 x Link, xDSL link training 10/100 link status, activity
Mounting Options	RJ11 wall plate mounting adapter provided