MPBB1 Uploader

user manual

Martin

INTRODUCTION

Thank you for selecting the Martin MPBB1 Uploader. The MPBB1 is a "multi-purpose black box" that works together with the Martin Software Uploader program to allow you to update software and adjust settings on selected Martin fixtures remotely via the serial link

Please familiarize yourself with this manual before using the MPBB1.

Safety precautions

- The MPBB1 is NOT for household use.
- Always unplug from AC power when replacing the fuse or removing any cover.
- For protection against fire and electrical shock, ensure that the fixture is properly grounded (earthed), and do not expose it to rain or moisture.
- Do not block air vents.
- Refer service to a qualified technician.

Supported Martin products

The MPBB1 currently supports the following Martin fixtures:
- Exterior 600
- MAC 250
- MAC 300
- MAC 500
- MAC 600
- RoboScan Pro 918

Features

- 4-digit LED control panel
- 3-pin and 5-pin locking XLR data output jacks
- Rear panel 115/230 V selection
- Compact design for easy portability
- Rugged steel construction
- Standard IEC power socket
- On/off switch

SETUP

The MPBB1 package includes
- MPBB1 Uploader
- Power cable
- 9-pin to 25-pin RS-232 cable
- User manual

Powering the MPBB1

W A R N I N G !

For safe operation, the MPBB1 must be grounded (earthed).

Check voltage setting

The MPBB1 may be switched between 115 and 230 V. *Make sure the switch, located on the back of the unit, is correctly set before applying electricity.*

Install plug

The fixture may be delivered without a plug on the power cord. Install an approved 3-prong grounding type plug per the manufacturer's instructions, connecting the wires to the pins as shown below. The table shows some possible pin identification schemes. *If the pins are not clearly identified, or if you have any doubts about proper installation, consult a qualified electrician.*

Wire	Pin	Marking	Screw (US)
brown	live	"L"	yellow or brass
blue	neutral	"N"	silver
yellow/green	ground (earth)	$\perp$	green

Apply power

Plug the power cord into the MAINS INPUT socket and the AC outlet. To turn on the fixture, flip the power switch to the "I" position. To turn it off, flip the power switch to the "O" position.

When powered on, the MPBB1 displays the version of its firmware and the type and version of fixture software loaded in memory.
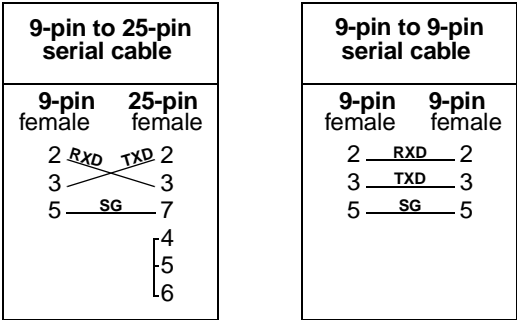
DOWNLOADING TO THE MPBB1

| UPLd | **PC** | FIXT | FACT |

Fixture software updates (MU2 files) are available from your Martin dealer or the Martin web site at http://www.martin.dk. The software must be transferred to the MPBB1 from your Windows PC via the COM port using the Martin Software Uploader program. The MPBB1's memory holds 1 fixture file at a time.

Connect the MPBB1 to a Windows PC

The MPBB1 connects to the computer with an RS-232 serial link cable wired straight through, i.e., RXD to RXD, TXD to TXD, and SG to SG. A 9-pin to 25-pin cable is provided. If your computer has a 9-pin serial (COM) output, construct or obtain a cable with 9-pin female DSUB connectors on both ends. The cable connections are shown below.

| 9-pin to 25-pin serial cable	9-pin to 9-pin serial cable
9-pin female **25-pin** female	**9-pin** female **9-pin** female
2 _RXD_ _TXD_ 2	2 __RXD__ 2
3 ⟍⟋ 3	3 __TXD__ 3
5 __SG__ 7	5 __SG__ 5
⌐4	
⊢5	
⌐6	

1. With the power off, connect the 9-pin RS-232 connector to the MPBB1.

2. With the power off, connect the 25-pin RS-232 connector to the computer's serial COM port.

3. Turn on the MPBB1 and the computer.
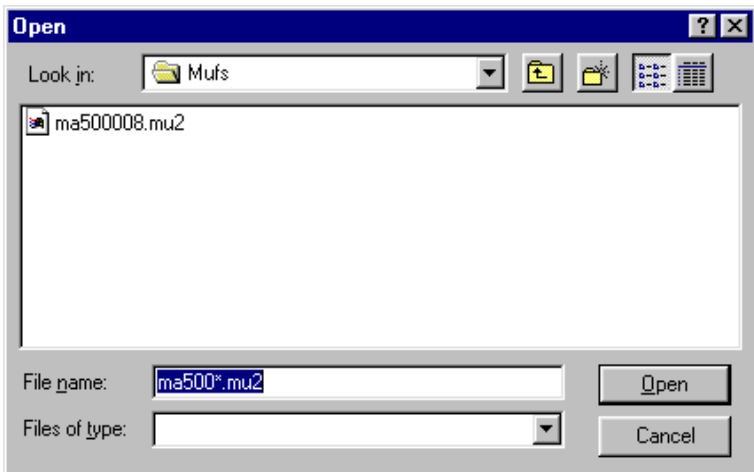
Download MU2 file

1. Start the *Martin Software Uploader*.

2. Click on **Setup**. Click on **Hardware**.

3. Select the COM port. Make sure that no other devices such as a mouse or modem are using the selected port. *The verify function confirms the presence of the COM port and checks that no other drivers are using the same port, but it does not check the actual connection to the MPBB1.*
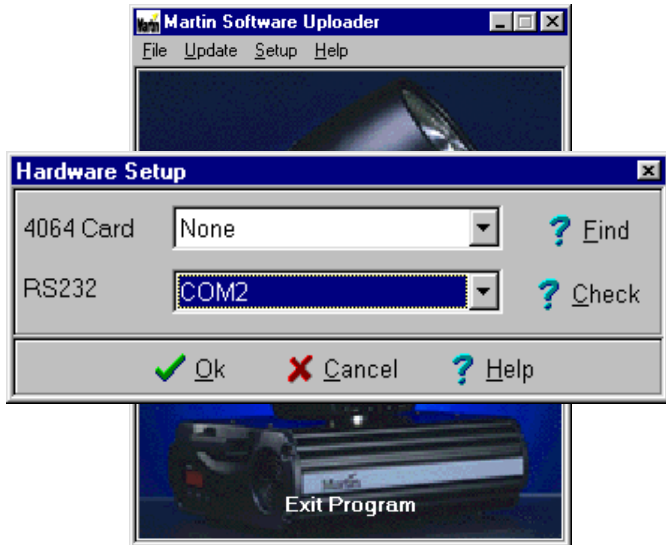
4. Click on **OK**.

5. Click on **Download Software to the MPBB1**.
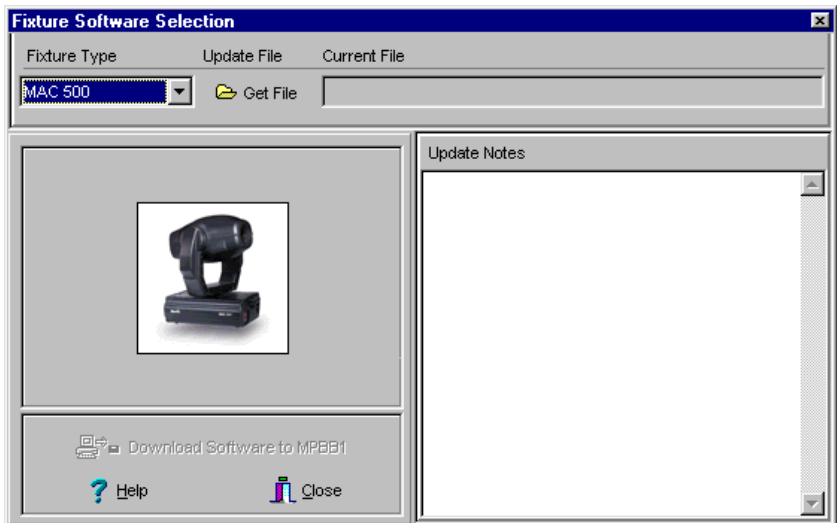
6. Select fixture type.

7. Click on **Get File**, select the MU2 file to download, and click on **Open**.

Open

Look in:	📁 Mufs	▾	🔼 🗂️ 📇 📋

📄 ma500008.mu2

File name:	ma500*.mu2	Open
Files of type:	▾	Cancel

8. Click on **Download Software**.

Download [ma600016.mu2]   _ □ ×

Select 'PC' from the uploaders top menu. Press [Enter]
When connected press the GO button

Status

🟩 RS232 connect ok

🟥 Create Download data

🟥 Erase Flash

🟥 Download Data

🟥 Verify memory

✔ Go   ✖ Cancel   ❓ Help   🚪 Close

9. Press [Menu] on the MPBB1.
10. Select **PC** from the MPBB1 menu. Press [Enter] to continue.
11. Click on **Go**.
12. Wait for the software to download to the MPBB1.
13. Exit the Martin Software Uploader.

UPLOADING TO FIXTURES
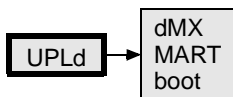
Connecting the MPBB1 to the serial link

1. Connect the MPBB1 to the fixture or serial link as if connecting a controller. Both the 5-pin and 3-pin XLR outputs are wired to the DMX-512 standard, but may be configured to the Martin standard if desired. See section 6 for details.

2. Power up the fixtures and allow them to reset. Turn on the MPBB1.

DMX/Martin mode upload

1. Use the arrow keys to select **UPLd** from the MPBB1 menu. Press [Enter] to continue or [Menu] to escape.

2. Select DMX or Martin protocol. If the fixtures are set for auto protocol detection, either protocol may be used. *If not, the protocol must match the fixture PSET setting.* If neither DMX or Martin upload is possible, boot mode can be used. See below.

3. Press [Enter]. The MPBB1 tells the fixtures they are about to receive software; the fixtures respond by displaying **boot.** When the upload finishes, the MPBB1 displays **dONE** and the fixtures reset.

Boot mode upload

If an upload is interrupted, the fixtures must be powered off for at least 10 seconds before a new upload can be attempted. When powered on, they automatically go into boot mode, ready for a second upload attempt; skip step 1 below. If necessary, a fixture can be set to boot mode from its control panel, or if the software is corrupted, by setting jumpers on the circuit board - see the fixture manual.

1. Set the fixture to boot mode per the fixture manual.

2. Select **UPLd** from the MPBB1 menu. Press [Enter] to continue.

3. Select **boot** mode on the MPBB1. Press [Enter] to continue.

4. The MPBB1 tells the fixture it is about to receive software; the fixture responds by displaying **boot.** When the upload is finished the MPBB1 displays **dONE** and the fixture resets with the new software. If jumpers were moved, remember to return the jumpers to their original position.

SETTING FIXTURE PERSONALITIES

After uploading - the fixture and the MPBB1 must have identical software in memory - a subset of fixture settings are remotely adjustable just as if setting the fixture from its control panel. Refer to the fixture manual for personality setting information.

Settings can be changed on all fixtures of the type on the link, or just 1. It is not possible though to distinguish between fixtures with the same address.

Some changes, such as protocol settings, do not take effect until the fixture is powered up again. This is to avoid communication failure due to a change of protocols.

To help find an unknown fixture address when using DMX protocol, the MPBB1 causes the fixture to light when an address is within the fixture's address space. To find the start address, scroll through the addresses until you find the lowest address at which the fixture responds by opening the light. (The lamps must warm up before you can see them.)

To indicate the current mode, 2 decimals flash in the display to indicate DMX or Martin protocol, and whether a single fixture or all fixtures are selected.
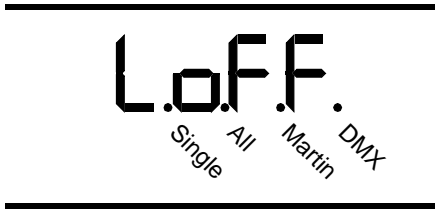
The uploader does not receive data from the fixtures; readouts such as lamp hours and settings requiring feedback are therefore not supported. Settings cannot be read remotely so you may want to restore some or all of the settings to their factory defaults before making adjustments. The MPBB1 offers a convenient way to do this.

Restore factory defaults
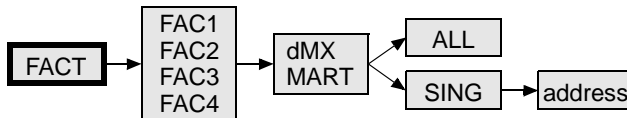
1. Select **FACT** from the MPBB1 menu. Press [Enter] to continue or [Menu] to escape.

2. Select the restore level (see below). *Restoring all fixtures to the factory default address (FAC3 and FAC4) sets the address on all fixtures to 1.*

Level	Restore			
	Address	**Protocol**	**Offsets**	**All Others**
FAC1	no	no	no	yes
FAC2	no	no	yes	yes
FAC3	yes	yes	no	yes
FAC4	yes	yes	yes	yes

3. Press [Enter] to continue.
4. Select DMX or Martin protocol. Press [Enter] to continue.
5. Select **ALL** to restore all fixtures (of the type) on the link, or **SING** to set a particular fixture. Press [Enter] to continue.
6. If restoring a single fixture, select the address with the up and down keys. Press [Enter] to restore.
7. Confirm by pressing [Enter], or press [Menu] to escape.

Set personalities
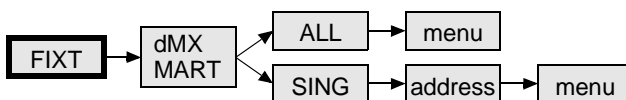
1. Select **FIXT** from the MPBB1 menu. Press [Enter] to continue or [Menu] to escape.
2. Select DMX or Martin protocol. Press [Enter] to continue.
3. Select **ALL** to set all fixtures (of the type) on the link, or **SING** to set a particular fixture. Press [Enter] to continue.
4. If you selected SING, select the fixture start address. Use the up and down keys to scroll through the addresses. Press [Enter] to continue.
5. Set the fixture(s) as you would from the control panel. Scroll through menus with the arrow keys, select items by pressing [Enter], or escape by pressing [Menu]. A few settings, such as fixture address, require an extra confirmation - press [Enter] when **SURE** is displayed to set the value.

BASIC SERVICE

W A R N I N G !

Ensure the MPBB1 is unplugged before performing these procedures.

Changing the fuse

1. Unplug the MPBB1.
2. Remove the 2 screws from the top near the air vent and the 4 screws from the front.
3. Lift off the cover.
4. Locate and replace the fuse with one of the same rating. The rating is shown on the serial number label.
5. Replace the cover.

Changing the XLR pin-out
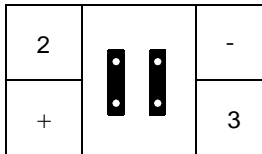
Martin pin-out   DMX pin-out
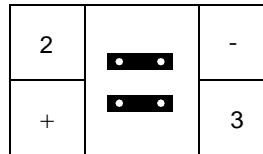
1. Unplug the MPBB1.
2. Remove the 2 screws from the top near the air vent and the 4 screws from the front.
3. Lift off the cover.
4. Locate the 2 jumpers labelled "PL07" and "PL08" behind the 3-pin XLR output.
5. Position the jumpers as shown above and push them all the way down.
6. Replace the cover.

TROUBLESHOOTING

problem	probable cause(s)	suggested remedy
The unit appears dead.	Power off.	Apply power.
	Blown fuse.	Replace fuse.
	Incorrect voltage setting.	Set voltage switch to match AC supply.
Fixture(s) do not to respond to the MPBB1.	Link polarity reversed.	Swap pins 2 and 3 between the fixture and the MPBB1. (See fixture manual or section 6.)
	The MPBB1 is set to DMX and the fixture (PSET) is set to Martin, or vice versa.	Select the same protocol as the fixture.
	No or wrong software loaded in MPBB1.	Power up the MPBB1 to check fixture type. Download the correct software.
	Defective data link.	Check the data link by connecting it to a controller; correct if necessary.
Software Uploader cannot download to MPBB1.	Bad RS-232 connection.	Check connection.
	Wrong COM port selected.	Select correct COM port.
	COM port conflict.	Select another COM port.

If the suggested remedies do not solve the problem, contact your Martin dealer for service.

SPECIFICATIONS

Dimensions

- Length .... 130 mm (5.1 in)
- Width ....181 mm (7.1 in)
- Height... 72 mm (2.8 in)
- Weight .... 1.1 kg (2.4 lb)

Electrical

- Power supply settings ....115/230 V, switch selectable
- Power consumption..5 W
- Current .... 30 mA at 230 V
- AC frequency ....50 - 60 Hz
- Fuse ....0.315 A, time delay, 250 V

Construction

- Housing .... steel
- Finish ....electrostatic powder coating

Connections

- Power .... IEC 3-prong
- RS-485 .... 3 and 5-pin XLR, pins 2 and 3 switchable
- RS-232 ....9-pin DSUB