

MX Series

INSTRUCTION MANUAL



Table of Contents

MX Series of Wireless Slide Projector Controllers	3	Laser Pointer (Optional)	10
Using the MX Series	4	MX12	11
Functional Overview	5	MX12 hand controls	11
Single-projector control models	5	Installation (MX12 receiver)	12
Dual-projector control model	5	Communications Settings	14
MX2(L), MX4(L)	6	The communications DIP switch	14
MX2/MX2L hand controls	6	Setting the communication DIP switches	14
MX4/MX4L hand controls	6	Battery Replacement	17
Installation (MX2, MX4 receivers)	7	Troubleshooting	18
MX3(L), MX4A(L)	8	Common Questions	19
MX3/MX3L hand controls	8		
MX4A/MX4AL hand controls	8		
Installation (MX3, MX4A receivers)	9		

MX Series of Wireless Slide Projector Controllers

The MX series of slide projector controllers offers total slide projector control combined with freedom of movement for convenient, professional audiovisual presentations. From simple forward and reverse of one projector to multi-function control of two projectors, the MX series includes nine models that are compatible with most standard projectors and a wide variety of applications. All systems feature a hand-held transmitter that modulates radio frequency (RF) signals that are omni-directional. The control range is 75 feet and is effective through walls, glass, or screens.

Each MX transmitter is housed in a durable, hand-held case with easy-to-use, ergonomically placed pushbuttons. The MX transmitters (except the MX12) are available with an optional laser pointer for use in presentations. MX receivers are enclosed in a compact, unobtrusive case. Installation is simple. Control cables simply plug into the remote control jack on the projector. User-definable codes allow multiple systems to be used in the same area.

Contact your local AMX dealer for a complete brochure on the AMX line of remote control systems for audiovisual and environmental equipment.

Using the MX Series

To operate the MX series transmitters:

- 1.** To ensure maximum operating range, place the MX receiver on a non-metallic surface, away from the projector.
- 2.** For the MX unit to operate, the controlled projector must have its power switch in an ON position. Select LOW or HIGH lamp (see switch D on the installation diagram of your MX receiver).
- 3.** With the MX transmitter, move away from the projector and press a pushbutton on the transmitter to test the MX receiver.

Single-projector control models

Figure 1 lists the functionality of the MX single-projector controllers.

Figure 1

Functionality of
MX single-projector
controllers

MODEL	FORWARD	REVERSE	FOCUS	AC POWER ON/OFF
MX2(L)	●	●		
MX3(L)	●	●		●
MX4(L)	●	●	●	
MX4A(L)	●	●	●	●

Dual-projector control model

Figure 2 lists the functionality of the MX12 dual-projector controller.

Figure 2

Functionality of
MX12 dual-projector
controller

MODEL	Simultaneous		Independent Projector Action			
	FWD	REV	FWD	REV	FOCUS	AC POWER ON/OFF
MX12	●	●	●	●	●	●

MX2(L), MX4(L) Transmitters

MX2/MX2L hand controls

- **FWD** — Press to advance the projector.
- **REV** — Press to reverse the projector.
- **TRIGGER (MX2)** — Push the trigger on the bottom of the MX2 transmitter to advance the projector.
- **TRIGGER (MX2L)** — Push the trigger on the bottom of the MX2L transmitter to activate the laser pointer.

MX4/MX4L hand controls

- **FWD** — Press to advance the projector.
- **REV** — Press to reverse the projector.
- **FOCUS (left)** — Press to move the lens out to focus the image.
- **FOCUS (right)** — Press to move the lens in to focus the image.
- **TRIGGER (MX4)** — Push the trigger on the bottom of the MX4 transmitter to advance the projector.
- **TRIGGER (MX4L)** — Push the trigger on the bottom of the MX4L transmitter to activate the laser pointer.

Figure 3

MX2/MX2L
transmitter

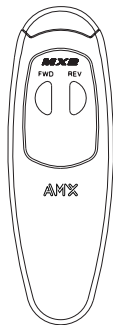
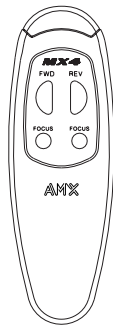


Figure 4

MX4/MX4L
transmitter



MX2(L), MX4(L) Receivers

Installation (MX2, MX4 receivers)

Figure 5 shows an illustration of the installation of MX2 and MX4 receivers. To install MX2 and MX4 receivers:

1. Plug the 5-pin receiver cord (A) into the remote receptacle on the projector (B).
2. When a Kodak® slide projector is used, the MX receiver will draw power from the projector. In other cases — such as another brand of projector or when dissolve control is used — a power supply must be connected (13.5 VAC, 520 MA).
3. If it is determined the power supply is needed, you will need to obtain an MX-PS 13.5 VAC power supply. Plug the power cord into any standard wall outlet (120 V) and connect the power mini-plug to the receiver power receptacle (C).
4. Extend the black antenna wire vertically.
5. Set the lamp switch on the projector (D) to either the HIGH or LOW position.

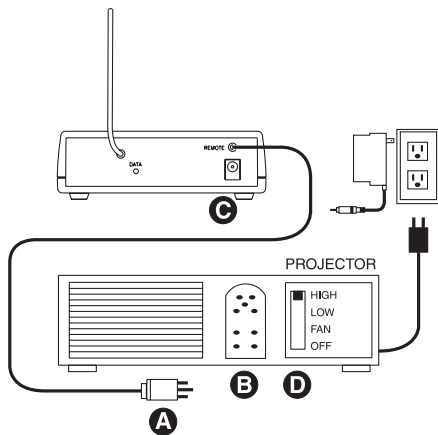


Figure 5

Installation of MX2
and MX4 receivers

MX3(L), MX4A(L) Transmitters

MX3/MX3L hand controls

- **FWD** — Press to advance the projector.
- **REV** — Press to reverse the projector.
- **POWER** — Press both POWER pushbuttons simultaneously to toggle AC power On/Off.
- **TRIGGER (MX3)** — Push the trigger on the bottom of the MX3 transmitter to advance the projector.
- **TRIGGER (MX3L)** — Push the trigger on the bottom of the MX3L transmitter to activate the laser pointer.

MX4A/MX4AL hand controls

- **FWD** — Press to advance the projector.
- **REV** — Press to reverse the projector.
- **FOCUS (left)** — Press to move the lens out to focus the image.
- **FOCUS (right)** — Press to move the lens in to focus the image.
- **POWER** — Press both POWER pushbuttons simultaneously to toggle AC power On/Off.
- **TRIGGER (MX4A)** — Push the trigger on the bottom of the MX4A transmitter to advance the projector.
- **TRIGGER (MX4AL)** — Push the trigger on the bottom of the MX4AL transmitter to activate the laser pointer.

Figure 6

MX3/MX3L
transmitter

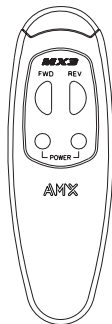
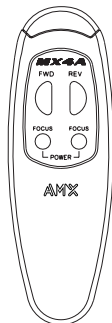


Figure 7

MX4A/MX4AL
transmitter



MX3(L), MX4A(L) Receivers

Installation (MX3, MX4A receivers)

Figure 8 shows an illustration of the installation of MX3 and MX4A receivers. To install MX3 and MX4A receivers:

1. Plug the 5-pin receiver cord (A) into the remote receptacle on the projector (B).
2. Plug the projector AC power cord (E) into the AC outlet on the rear of the MX receiver unit.
3. Plug the MX receiver power cord (C) into a standard wall outlet.
4. Extend the black antenna wire vertically.
5. Set the lamp switch on the projector (D) to either the HIGH or LOW position.

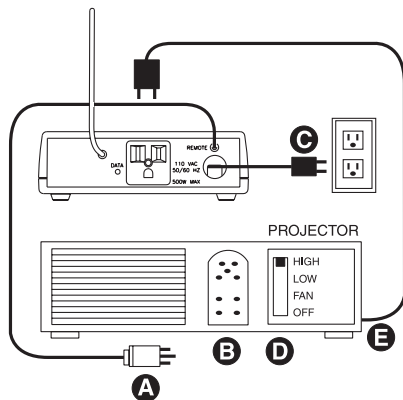


Figure 8

Installation of MX3
and MX4A receivers

Laser Pointer (Optional)

MX transmitters (except the MX12) are available with an optional laser pointer to use in presentations. MX transmitters equipped with the laser pointer are the MX2L, MX3L, MX4L, and MX4AL.

The laser source is located at the front of the transmitter, as shown in Figure 9. The laser is activated by pushing the trigger on the bottom of the casing.

Please read the laser device warning decal shown in Figure 10, on the bottom of MX transmitters equipped with the laser pointer.

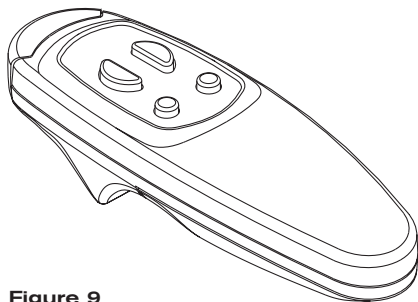


Figure 9

MX transmitter with optional laser pointer

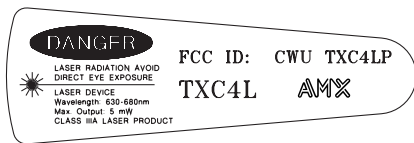


Figure 10

Laser device warning

MX12 hand controls

- **FWD** — Press to advance the projector.
- **REV** — Press to reverse the projector.
- **FOCUS (upper)** — Press to move the lens out to focus the image.
- **FOCUS (lower)** — Press to move the lens in to focus the image.
- **ON/OFF** — Push to toggle AC power On/Off.
- **BOTH FWD** — Press to advance the left and right projectors forward simultaneously.
- **BOTH REV** — Press to move the left and right projectors back simultaneously.

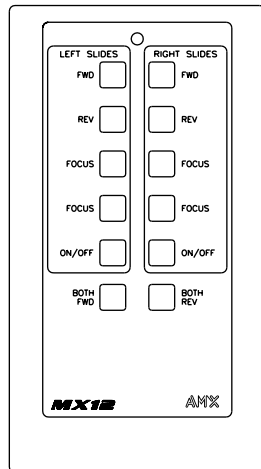


Figure 11

MX12
transmitter

MX12 Receiver

Installation (MX12 receiver)

By following these instructions, the left-hand row of pushbuttons on the MX12 transmitter will control Projector 1, and the right-hand row of pushbuttons will control Projector 2.

1. Plug the MX receiver remote control cable (A) marked Remote 1 into the remote receptacle (B) on Projector 1.
2. Plug the AC power cord (G) for Projector 1 into the left AC outlet on the rear of the MX receiver.
3. Plug the MX receiver remote control cable (F) marked Remote 2 into the remote receptacle (B) on Projector 2.
4. Plug the AC power cord (E) for Projector 2 into the right AC outlet on the rear of the MX receiver.
5. Plug the MX receiver power cord (C) into a standard wall outlet.
6. Extend the black antenna wire vertically.
7. Set the lamp switch on the projector (D) to either the HIGH or LOW position.

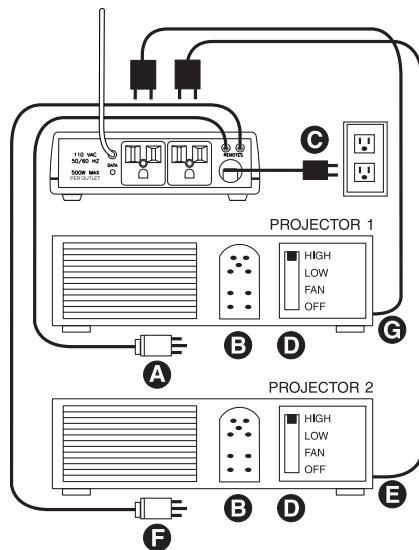


Figure 12

Installation of
MX12 receivers

Communications Settings

The Communications DIP switch

All MX series slide projector controllers feature a modulated RF signal for omni-directional operation at 75 feet range, and are effective through walls, glass, or screens.

Since all MX units operate at the same frequency, DIP switch coding is used to dedicate one transmitter (or more) to a particular receiver(s). This coding is done by matching parts of the 10-position DIP switch in the transmitter and the 8-position DIP switch in the MX receiver.

The DIP switch for MX2(L), MX3(L), MX4(L), and MX4A(L) transmitters is shown in Figure 13.

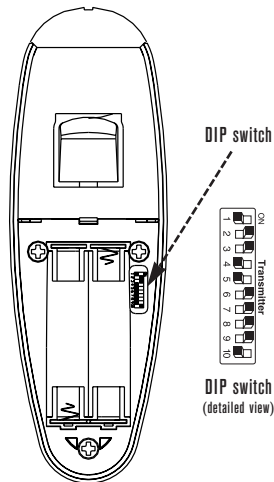


Figure 13

Bottom view of MX transmitter (MX2(L), MX3(L), MX4(L), MX4A(L)) with the battery cover removed

Communications Settings

The DIP switch for the MX12 transmitter is shown in Figure 14.

AMX presets the MX transmitter and receiver with a recommended DIP switch setting at the factory. Resetting the DIP switches may be required to control two or more receivers from a single transmitter or a single receiver from two or more transmitters. If resetting the DIP switches is required, the steps are simple.

Setting the communication DIP switches

1. Remove the access cover on the back of the transmitter to expose the coding DIP switch.
2. Remove the AC power cord from the electrical outlet, unscrew the two base screws on the MX receiver, and gently lift the top lid off the unit. Locate the DIP switch located at the front of the receiver. See figures 16 and 17.
3. To set the DIP switch, match switch positions 4, 5, 6, 7, and 8 on the MX receiver to switch positions 6, 7, 8, 9, and 10 on the transmitter, as shown in the following table (Figure 15).

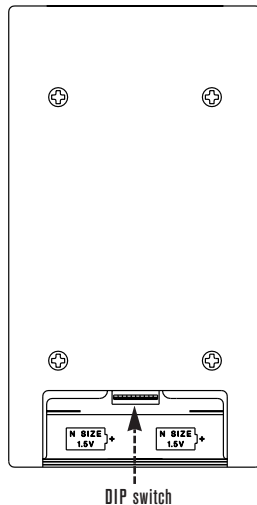


Figure 14

Rear view of MX12 transmitter, with the battery cover removed

Communications Settings

Figure 15

Transmitter/receiver DIP switch settings

If you have multiple controllers in a single environment, make sure to set each transmitter/receiver combination to a unique DIP switch setting to avoid erroneous operation.

Transmitter/receiver DIP switch settings			
Transmitter switch position	Setting	Receiver switch position	Setting
1	Battery status LED: On/Off		
2	On		
3	On	1	Not used
4	Off	2	Not used
5	Off	3	Not used
6	MX2, MX3, MX4, MX4A: Match receiver switch 4 MX12: Off	4	MX2, MX3, MX4, MX4A: Match transmitter switch 6 MX12: Not used
7	Match receiver switch 5	5	Match transmitter switch 7
8	Match receiver switch 6	6	Match transmitter switch 8
9	Match receiver switch 7	7	Match transmitter switch 9
10	MX2, MX3, MX4, MX4A: Off MX12: On	8	MX2, MX3, MX4, MX4A: Off MX12: On



Communications Settings

Figure 16

Location of DIP switch in MX2, MX3, MX4, and MX4A receivers

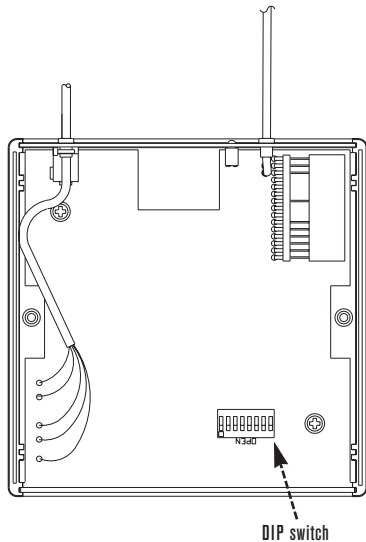
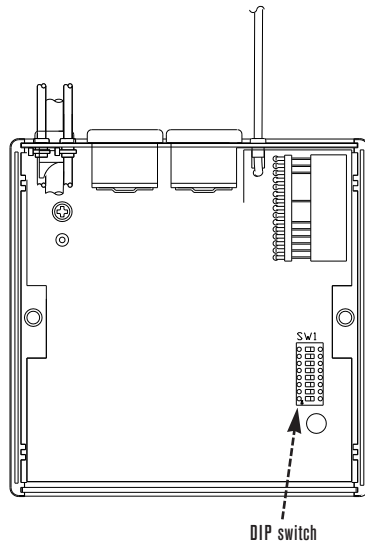


Figure 17

Location of DIP switch in MX12 receiver



Battery Replacement

MX transmitters without the laser pointer (MX2, MX3, MX4, MX4A, MX12) have a red LED indicator to monitor battery status. When a transmitter push-button is pressed, the LED flashes to indicate a good battery. If the LED light is dim, a new battery is required. Remove the access cover on the back of

the transmitter and replace the two AAA batteries. For the MX12 transmitter, replace the two 1.5-volt, “N” size batteries. Under normal conditions, battery life will exceed 1 year. Use alkaline batteries for long battery life and optimum performance.

Figure 18

MX2, MX4, MX3, MX4A transmitters (bottom view with battery cover removed)

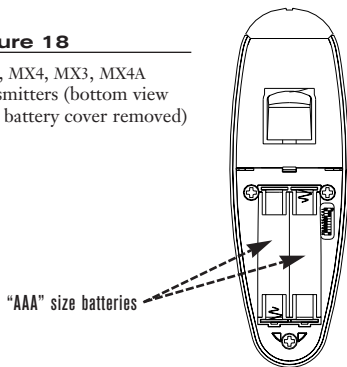
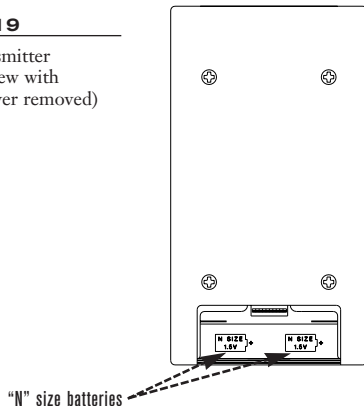


Figure 19

MX12 transmitter (bottom view with battery cover removed)



Troubleshooting

Problem: Slide projector will not turn on when command pushbuttons are pressed.

Solution:

- Verify that the slide projector power switch is in the ON position.
- Check automatic DARK shutter causing projector to appear that it has not turned on.
- Check that the projector is plugged into the MX receiver outlet and that the MX receiver is plugged into a standard wall outlet.

Problem: Operating range is not sufficient.

Solution:

- Remove any foil-type ID labels from MX transmitters or receivers.
- Check if the MX receiver is resting on a metal table or cabinet. If so, move the MX receiver to a wood or laminate surface. If relocation is not practical, place non-interfering material (wood, paper, cardboard, etc.) between the metal and the receiver.
- Check that the black antenna wire is vertical.
- Check the batteries in the transmitter.
- Move the MX unit away from the projector.

Problem: No operation

Solution:

- Check DIP switch settings — the transmitter and receiver must match.
- Ensure that the projector power switch is in ON position.
- If a non-Kodak® projector is used, check that the power supply is properly connected to the MX receiver (MX2 and MX4 only).

Problem: No remote focus

Solution:

- Check with the projector manufacturer to ensure that the projector has a remote focus capability.

Problem: Forward pushbutton control does not work.

Solution:

- DO NOT use switch positions 7 through 10 in the OFF position. Using this code will result in the loss of the Forward pushbutton control.

Common Questions

This section gives answers to common questions about MX series transmitters and receivers.

- Q.** Do I need to point the transmitter in the direction of the slide projector?
- A.** No. The transmitter emits a radio frequency that is omni-directional. The transmitter will work in any position.
- Q.** I use a rear projection screen. Will the MX receiver work in the projection booth?
- A.** Yes. The radio frequency (RF) modulation of the MX transmitter allows the signal to pass through walls, screens, and glass.
- Q.** Will the RF signal be stronger or more effective by pressing the pushbuttons harder?
- A.** No. Only a normal touch is needed to operate the transmitter effectively.
- Q.** I dropped my transmitter or lost it. Can I order a replacement transmitter only?
- A.** Yes. AMX sells all models of MX transmitters by themselves and can generally ship the same day in an emergency. Ask your audiovisual or photography dealer for pricing and details.
- Q.** We need to operate two MX units in adjacent rooms. Will they interfere with each other?
- A.** No. As long as the DIP switch settings are different for each room, the MX units will not interfere. The only exception to this rule is that if the pushbuttons on two transmitters are pressed at exactly the same time, the transmitters may “jam” each other’s signals, resulting in no action by either transmitter.

Limited Warranty and Disclaimer

AMX Corporation warrants its MX series products to be free from defects in material and workmanship under normal use for a period of one year from date of purchase from AMX.

This warranty extends to products purchased directly from AMX or an authorized AMX dealer. Consumers should inquire from selling dealer as to the nature and extent of the dealer's warranty, if any.

AMX is not liable for any damages caused by its products or for the failure of its products to perform, including any lost profits, lost savings, incidental damages, or consequential damages. AMX is not liable for any claim made by a third party or made by you for a third party.

This limitation of liability applies whether damages are sought, or a claim is made, under this warranty or as a tort claim (including negligence and strict product liability), a contract claim, or any other claim. This limitation of liability cannot be waived or amended by any person. This limitation of liability will be effective even if AMX or an authorized representative of AMX has been advised of the possibility of any such damages. This limitation of liability, however, will not apply to claims for personal injury.

Some states do not allow a limitation of how long an implied warranty lasts. Some states do not allow the limitation or exclusion of incidental or consequential damages for consumer products. In such states, the limitation or exclusion of the Limited Warranty may not apply to you. This Limited Warranty gives you specific legal rights. You may also have other rights that may vary from state to state. You are advised to consult applicable state laws for full determination of your rights.

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