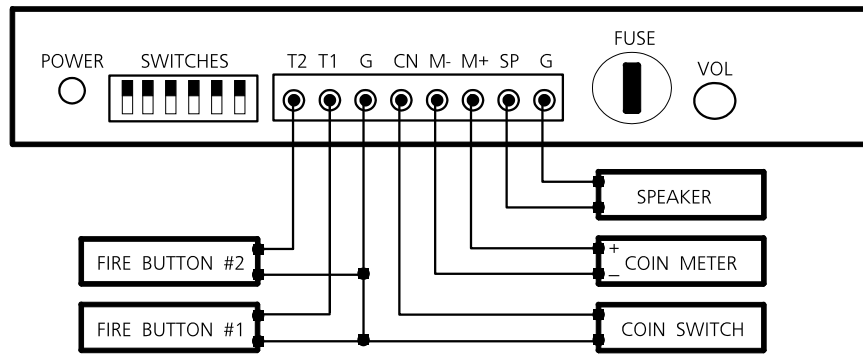


EM2021D/EM2021D-4/EM2021D-M User's Guide



EM2021D is a highly reliable controller box designed for use in coin operated kiddie rides with the following features:

- * Integrated timer function with coin meter output
- * Max. 10 amp output to the motor
- * Digital sound loop plus two fire button sound effects
- * Optionally plays a safety message before starting the motor
- * Optionally plays an attract sound periodically

Up to two fire buttons can be connected to the unit for activating short sound effects for ride participation. These fire buttons would make the ride more fun but are totally optional, which means the unit will work either with or without them.

The sounds are stored in a sound chip inside the unit. The sound chip is socketed and can be easily replaced in case the ride needs a new sound. In addition to the vast selection of sounds in our online sound library, we can also create custom sounds at extra costs.

Power Input

Connect power input to the short power cord.

Power Output

The two power outlets have identical output. Use one for motor, and the other for (optional) light flasher.

Power Light

The power light turns on when power is applied to the unit.

DIP Switch Settings

There are six DIP switches labeled 1 to 6. They are used to configure the system operation as described below:

Number of coins per play

- 1 coin = #1 ON, #2 OFF
- 2 coins = #1 OFF, #2 ON
- 3 coins = #1 ON, #2 ON
- 4 coins = #1 OFF, #2 OFF

Play time

- 45 seconds = #3 OFF, #4 OFF
- 60 seconds = #3 ON, #4 OFF
- 90 seconds = #3 OFF, #4 ON
- 120 seconds = #3 ON, #4 ON

Safety mode

- Plays a brief safety message before the ride starts.
- Enable = #5 ON, Disable = #5 OFF

Attract mode

- Plays a short sound effect once every 4 minutes.
- Enable = #6 ON, Disable = #6 OFF

Fire Buttons

Up to two fire buttons can be connected to the unit via the T1 and the T2 inputs. Each fire button activates a different sound effect for ride participation.

Coin Switch

All mechanical coin mechanisms are compatible. Some electronic coin mechanisms (ECM) that generate dry contact closures are also compatible. ECM usually generates only one pulse regardless of number of coins per play, therefore DIP switches #1 and #2 should be set for 1 coin per play.

Coin Meter

A mechanical coin meter can be connected to track revenue. If you are concerned about employee cheating by disconnecting the coin meter, consider using the EM2021D-M which has a software based coin meter that can never be tampered with.

Speaker

The unit comes with an internal speaker. You may add an external speaker via the speaker terminals. For maximum output to the external speaker, disconnect the internal one.

Fuse

Use a 5mm x 20mm, 10A~15A slow-blo (time delay) fuse. If the fuse keeps getting blown, lubricate the motor and/or adjust the belt. Do not replace the fuse with wires!

Volume Control (VOL)

Turn volume pot VR1 clockwise to increase the volume.

EM2021D-4

EM2021D-4 has four different songs instead of one. These songs are played in rotation, one per play.

EM2021D-M

EM2021D-M has an internal 6-digit non-resettable coin meter. The count is announced via the speaker upon power-up, or when either one of the fire buttons is pressed down for 10 seconds. Unlike mechanical coin meters that can be easily disconnected by a cheating employee, the internal meter cannot be tampered with.