



Model PS-12232-P16 Display System Installation

Thanks for purchasing this PINSCORE Model PS-12232-P16 Display System.

This model fits the following Williams & Data East pinball machines:

Back to the Future
Black Knight 2000
Earthshaker
Bad Cats
Jokerz

Monday Night Football
Whirlwind
Diner
Phantom of the Opera
Robocop

Rollergames
The Simpsons
Whirlwind
Diner
Rollergames

FEATURES: Plug & play installation, long life, low voltage, low power consumption, adjustable brightness, diagnostic pushbutton, attractive black matte finish, 5 year warranty, RoHS compliant, built in USA.

INSTALLATION TIME: About 20 minutes

TOOLS REQUIRED: 1/4" Nutdriver and/or phillips screwdriver

CONTENTS: This system contains:

- Quantity (1) PS-12232 Rev D PINSCORE Master Board
- Quantity (2) PS-DISP16 PINSCORE 16 digit LED Panel (pre-assembled)
- Quantity (2) PS-LS-16 Foam light shields (pre-assembled)
- Quantity (4) PS-8848 plastic standoffs (pre-assembled)

INSTALLATION:

- 1. Unplug** the AC power from your pinball machine. Remove game backglass. Unplug all display board connecting cables and remove original display boards. You may re-use your existing ribbon cables.
- 2. Set the switches.** Remove the PS-12232 board from its package and find your game listed on the chart on the BACK of the circuit board. The 3 bank DIPSWITCH is labeled SW2 and located near the center bottom on the FRONT of the board. Set the 3 switches using a paper clip or pen point to your game as indicated in the table. (ON is UP and OFF is DOWN). No damage will occur if the switches are not set correctly, but the display may show scrambled characters.
- 3. Mount** the new boards. Hand-tighten the screws so you may align the displays with the backglass windows before permanently securing the boards. If further alignment is necessary, you may adjust the insert panel door hinges and latch in the backbox.
- 4. Connect** the cables. Not all connectors are used on all games. The ribbon cable goes to the connector labeled MPU CABLE. The power connectors are keyed to prevent incorrect alignment. Ribbon cables are not keyed and it is possible to mis-align the connectors. Observe correct polarity on all ribbon cables - the red striped wires on all ribbon cables go to PIN #1 (also labeled as RED) on all boards.
- 5. Double-check** all connections, plug in the machine, and turn the game on. The LED's will light up. Pressing the diagnostic pushbutton labeled SW1/DISPLAY TEST on the PS-12232 board will illuminate all segments of all displays. This indicates that all components of the PINSCORE System are operating correctly. The thumbwheel BRIGHTNESS control labeled R10 on the right side of the board allows you to set your preferred illumination level.
- 6. PLAY PINBALL!** You'll enjoy your PINSCORE Displays for years to come!