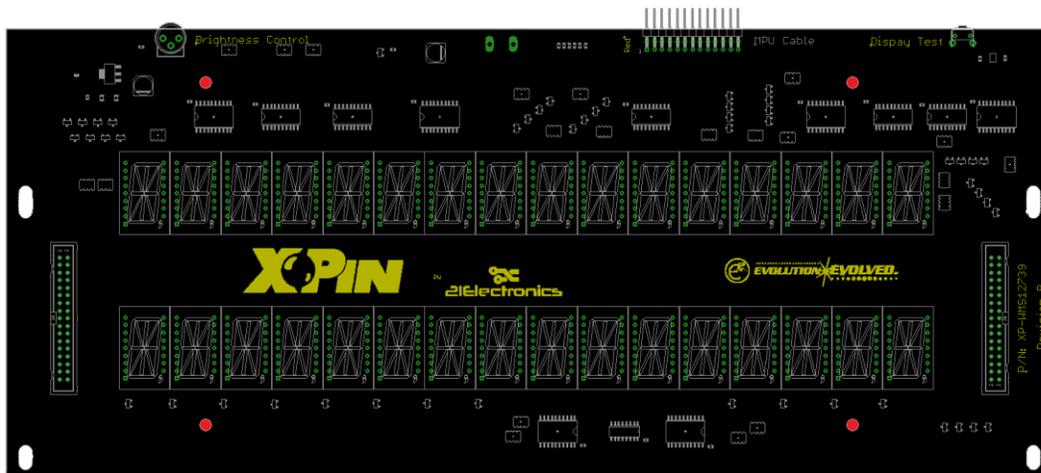


Installation

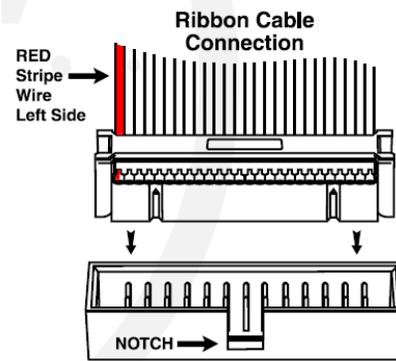
XP-HARLEY

- **Installation Time:** About 20 minutes
- **Tools Required:** Pliers

1. Unplug the AC power from your pinball machine. Remove game backglass. Unplug all display board connecting cables and remove the original display boards.
NOTE: The original OEM display systems consists of three boards, a driver board located on the back of the backboard, and the two display boards located on the front of the backboard.
2. Using the pliers, remove all of the standoffs that the original boards were using. XPin is providing new standoffs for your use. Install the new standoffs.
3. The XPin driver board replacement is different than the original driver board. Do not be concerned with this. Mount the XPin driver board on the new standoffs. The **RED** spots on the image below are the locations for these standoff positions.



4. Attach ribbon cables to connectors on either end of the driver board portion. Observe cable polarity as indicated by image to the right. The RED stripe is considered Pin 1.
5. Feed cables through back board.
6. Attach cables to the individual display boards, also observing polarity of the cable to the connector.
7. Place boards on the standoffs, moving all excess cable back through the back board.
8. Attach ribbon cable from the MPU to the display driver board, observe ribbon cable polarity.
9. Attach the 5v supply cable (2 wire, 3 pin) to the display driver.
10. The 2 wire, 4 pin cable is not used. FYI: this was the High Voltage source.



You are now ready to Play! These displays utilize white LED display blocks. XPin has provided Red, Green, Blue and Grey adhesive vinyls to color your displays per your preference. Other colors are available. Peel back the backing and apply the vinyl to the displays. There will be some overlap with the foam gasket.

The brightness control will adjust the brightness to your preference. The test button will cause all segments to come on. If there are missing segments during game play, confirm that all segments come on with the display test. If all segments do come on, then the issue is further upstream. One possible solution could be the ribbon cable to the MPU be replaced.

Enjoy!

