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*                Iron Man                            *
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<http://www.sternpinball.com/contact.shtml>

or call 1-800-542-5377. You can also email software@sternpinball.com to report any software problems.

This text file and all other documents relating to this product, playfield components, features, rules, programming and operation are subject to change without notice (Service Bulletins, if applicable, available through our website).

V 01.83 - 19-August-2014
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System Changes:

- Games built with CPU Part #520-5352-00 need to use V1.83_VE code.
- Games built with CPU Part #520-5246-00 need to use V1.83 code.
- CPU Part #520-5352-00 is built with an FTDI USB chip
- CPU Part #520-5246-00 is built with an Atmel USB chip
- There are no game rule changes between V1.83 & V1.83_VE
- Ticket redemption has been added to Ironman game

V 01.82 - 17-July-2014
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System Changes:

- Games built with CPU Part #520-5352-00 need to use V1.81 code.
- Games built with CPU Part #520-5246-00 need to use V1.82 code.
- CPU Part #520-5352-00 is built with an FTDI USB chip
- CPU Part #520-5246-00 is built with an Atmel USB chip
- There are no game rule changes between V1.81 & V1.82
- Fixed small bug with stern logo in attract mode

V 01.81 - 5-July-2014
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System Changes:

- rebuild of game code and assests

V 01.8 - 1-July-2014
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System Changes:

- Set up an adjustment that lets you pick the new light shows or the old
- Copied all the needed classic light strings (STD) into the new ironman game.

- Copied all the needed lamp string strings from the STD edition to the new one
- Set up a lamp for the iron monger chest light in the coil table
- Copied over all LE code that is needed from STD edition
- Put in code so that if adjustment is set to new LE it shows the new stern logo, and if it is set to the old LE it shows the old stern logo, in attract mode
- Added an adjustment so users can select whether they are using LEDs or incandescent lamps in their game (regardless of hardware version)
- Reworked the flash lamp effects that go from dim to light or vice versa (for games with LED lights)
- Commented out the attract mode dim to bright effect if the game is using led lights, but it will still run the effect if incandescent lights are selected
- Added the iron monger chest light to the iron monger speech FS so that his chest light will blink with his speech
- Changed the LED LE for bogey ready to a flashing effect because the new LED lights don't work well on dim to bright LE. The LE is unchanged for those who still have incandescent lamps in their playfields
- Fixed a score display bug in mini wizard mode Jerico, where the score would go off screen if it was 100 million or higher
- Changed ironman mode ready effect so it doesn't use dim to bright LE when set to LED
- Changed ironman mode background (during mode) LE so that it builds up and then down, instead of just what it did originally which was blink.
- Changed the iron monger super jackpot LE effect it was repeating until the DE was done, now it only repeats twice before stopping
- Changed the monger multiball hit award LE flash lamps to fs invalid so the LE will still show through when iron monger talks
- fixed a bug that was keeping the iron monger start effect from running when it should, part of the fix was to write a new alternate LE for the last hit on the iron monger before multiball starts
- fixed do or die LE for background as they were doing a dim to bright effect
- Created a mask version of the function lss_sweep_off_down_mask and lamp_string_off_mask to help reveal mode shots sooner after certain LE
- Made special iron monger chest light shows for various LE in iron monger attack and iron monger multiball
- Added shooter lane LE, for when you plunge the ball

V 01.6 - 10-November-2011

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System Changes:

- Fixed a boot-up issue where the game would occasionally not power up properly
- Modified tilt to handle game images of larger size.
- Added a flash image verification at power-up when left flipper is held.
- Added a checksum to the end of the image file.
- Added an adjustment where you can disable the tilt mechanism when the coin door is opened.
- Fixed an issue where auxiliary coils were not being turned off properly.
- Fixed a flipper issue where the power coils would be reactivated incorrectly.
- Fixed an issue where the number of days remaining in a tournament during attract mode showed incorrectly.
- Fixed an issue in an image decompression algorithm.
- Added checksum generation for blocks read and programmed.
- Added some amount of error detection/recovery.
- Fixed the 5x5 font.
- Modified USB code to be more efficient.
- Compressed some artwork for memory management.
- Fixed a motor issue where it ran in the wrong direction.
- Fixed some minor font issues.
- Fixed deltronics S timings ticket redemption.
- Added premium i/o unlock code.
- Added serial port connection software and interface.
- Fixed an issue with test mode and flippers.
- Fixed a bug with the test menu system that resulted in flippers being switched off during test.
- Renamed 'standard' to 'classic'.
- Added Utility/installs menu (UTIL/INST) subitems now displays.
- Added a check to see if multiple sets of adjustment overrides are installed.

Game Changes:

- Added instant info.

V 01.5 - 9-September-2010

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- removed iron monger middle position switches/logic as they were not being used.
- The background lamp effect for wizard mode multiball was not toggling the 'on_phase'. This has been corrected.
- Wizard mode multiball background lamp effect was not setting mask bits for some shot lamp string to show up. This has been corrected.
- Fixed bogey ramp adjustment.
- Fixed capitalization issues.
- Changed DoD hurry-up scoring from 50M->25M to 35M->15M.
- Iron monger attack was not checking all of the right things before deciding it was OK to start the mode. This has been corrected.

V 01.4 - 28-April-2010

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- fixed a speech bug where OS talked too frequently during Iron Monger Multiball.

V 01.3 - 27-April-2010

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- Changed Bogey scoring.
- Changed Whiplash scoring.
- Changed Iron Monger scoring.
- Added speech for Iron Monger multiball.
- Removed spinner effects.
- Added Iron Monger Super Jackpot award dots, sounds, and shaker motor shaking.
- Fixed up text offsets for bonus.

V 01.2 - 26-April-2010

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- French text added.
- Added more Tony Stark, Jarvis speech.
- Cleaned up mini wizard mode background display effect.
- Added shaker motor code to Iron Monger, Whiplash and Do or Die.
- Added code to pause the Whiplash Multiball ball timer while the multiball is starting.

V 01.1 - 21-April-2010

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- Italian text added.
- Fixed a problem where War Machine jackpot arrows were turned off during a jackpot lightshow.
- Added shaker motor shaking to mini wizard mode (Jericho). Added dots for shot awards. Spinner and pop bumper lamps now on solid instead of blinking.
- Fixed a problem that caused the Iron Monger magnet to possibly fire multiple times at the start of Iron Monger Multiball.
- Added shaker code to FastScoring, Hurryup, IronMan targets, Bogey Chase, War Machine & War Machine Multiball.
- S.H.I.E.I.D add-a-ball was not restarting multiballs when awarded during the grace period. This has been corrected.
- Added monger magnet toss to Iron Monger Multiball and Jericho.
- Increased the volume on some speech.

V1.0 - April 19, 2010

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- initial release