



Homepin Taiwan Company Limited

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Replacement PCB for Bally rectifier board part numbers AS-2518-18/49, Stern A-430



The installation of this board into the pinball machine requires handling of some mains wire connections. Ensure you identify and fully understand the risks involved or seek advice from a suitably qualified person.

Remove the machines power cable from power outlet BEFORE commencing anything described in this instruction sheet.

Used in the following Bally games (E&OE):

Black Jack, Dolly Parton, Eight Ball, Evel Knievel (electronic), Freedom (electronic), Frontier, Future Spa, Harlem Globetrotters, Hot Doggin', KISS, Lost World, Mata Hari (electronic), Mystic, Night Rider (electronic), Nitro Ground Shaker, Paragon, Playboy, Power Play, Rolling Stones, Silverball Mania, Six Million Dollar Man, Skateball, Space Invaders, Star Trek, Strikes and Spares, Supersonic, Viking, Voltan, Wizard, Xenon

Used in the following Stern games (E&OE):

Ali, Big Game, Catacomb, Cheetah, Cosmic Princess, Dracula, Dragonfist, Flight 2000, Free Fall, Galaxy, Hot Hand, Iron Maiden, Lazer Lord, Lectronamo, Lightning, Magic, Memory Lane, Meteor, Nineball, Nugent, Orbitor 1, Pinball, Quicksilver, Seawitch, Split Second, Stargazer, Stars, Stingray, Trident, Viper, Wildfyre

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In addition to the parts supplied with this board you will need a temperature controlled soldering iron with some fine resin cored solder (0.6~1mm), a pair of small side cutters & a #2 phillips screwdriver. Nothing else should be required although a multimeter, and knowing how to use it, is always useful.



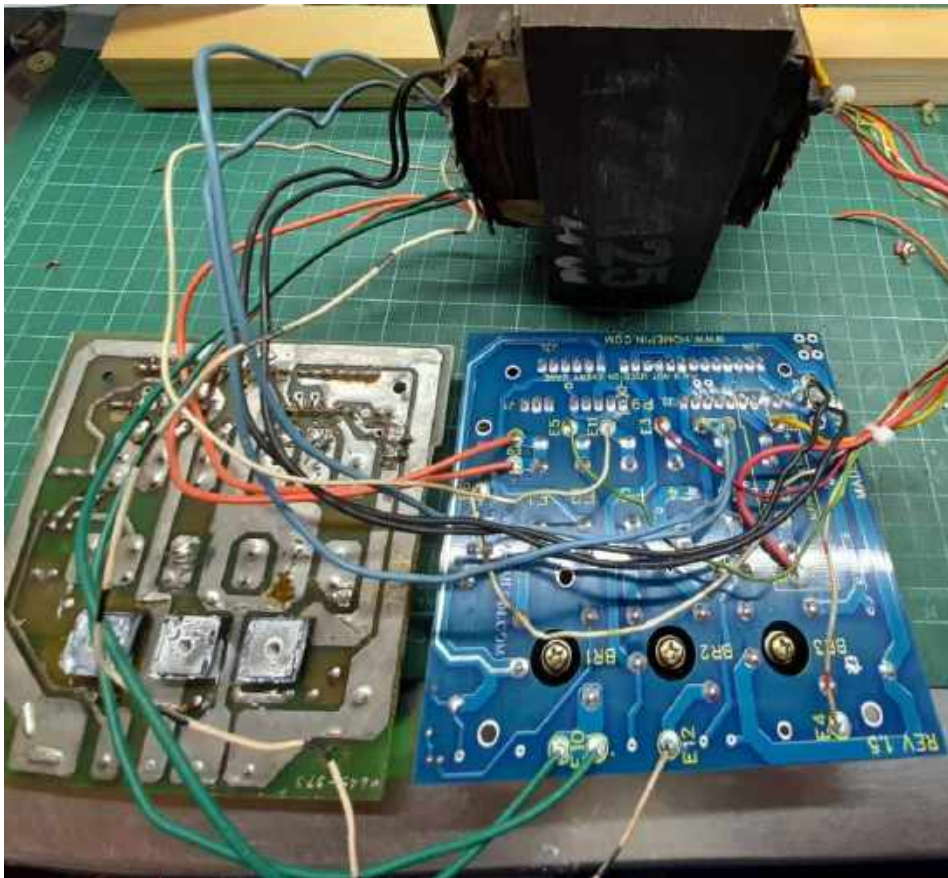
(1)

First ensure all parts have been included with your board. Then check the service manual for your game. We have populated the board with the ‘most common’ fuse values BUT your machine may use different values. Please check the table below and replace any fuses that differ.

FUSE #	F1	F2	F3	F4	F5	F6 (MAINS)
VALUE INSTALLED	10A	0.75A	4A	5A	20A	T3A (S/B)
MY MACHINE REQUIRES?						

(2)

It is far easier to fit the new board if you remove the power transformer and board assembly from the machine and attend to it on the bench.



We strongly recommend changing ONE wire across to the new board at a time to reduce the possibility of transferring them to the wrong place.

Take the opportunity to refresh the wire ends by clipping a little off and re-tinning the end before reconnecting to the new board.

The positions are clearly printed on the new board, top and bottom and the terminals that have two wires coming from the transformer have two connection points on the new board (E7, 8, 9, 10).



CAUTION: E1 and E2 (F6) are the mains connection points. Pay particular attention to these and ensure there are no ‘floating’ wire strands on the ends of these connections. F6 has a protective rubber cover fitted to avoid accidental touching.

Once the wires are soldered onto the new board check the component side to ensure there is no excessive wire length poking through that might touch something.

Tidy up the wiring with the small cable ties provided and refit the board to the metal frame using the new PCB stand offs also included.

(3)

We highly recommend fitting the new plugs supplied to your wiring harness unless the originals are in particularly good condition.

Usually they are burnt and can create poor connections, mainly due to being 40 years or more old!

Again, we suggest cutting one wire at a time from the old plugs, crimping a new terminal to the wire and fitting it to the new shell to

avoid mixing them up. The shells supplied are all labelled and have a key installed in the correct position.

(4)

Before refitting the assembly to the machine confirm that the leads on the two large power resistors are not bent and the resistors are nicely positioned up on their brass spacers for improved air flow.

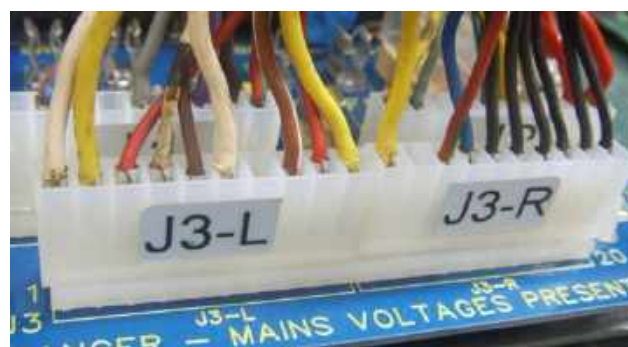


NOTE 1: J1 on the PCB has 9 pins. On some Bally/Stern machines this is an 8 pin connector. Simply ignore pin 9 if this is the case.

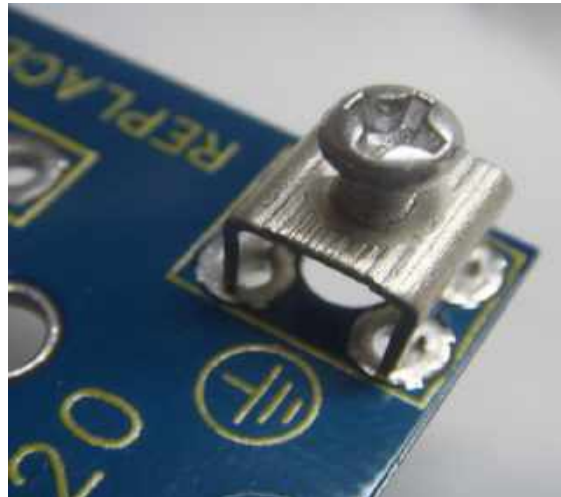


NOTE 2: This board is supplied with 2 x 10 pin plugs for J3. We find it is much easier working with these connectors rather than a 20 pin plug. You may substitute a 20 pin plug if you wish – the PCB will accept either.

NOTE 3: You will notice we have marked J3 on the PCB and additionally marked J3-L & J3-R to identify between the two J3 connectors should you choose to use the separate ones supplied.



We have made provision for a large, sturdy earthing terminal at the bottom right of the board. You could solder ground wires directly to these holes or install a terminal lug if you wish. You could also simply ignore this.



CONGRATULATIONS! You have now installed a brand new rectifier board ready to see another 40+ years of service.

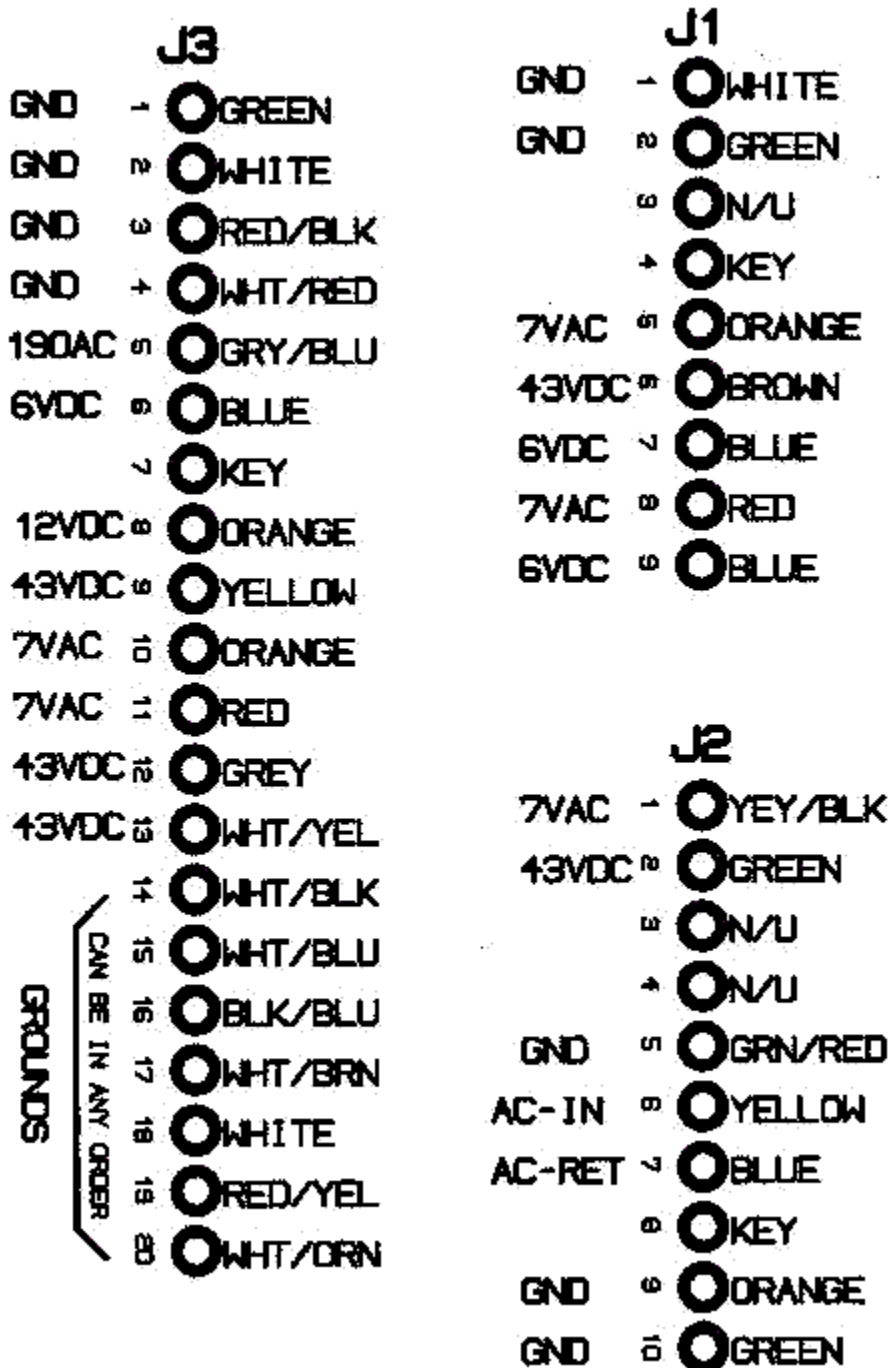


WARNING....Make 100% certain you know that the mains wires are connected correctly BEFORE plugging the machine into a power point. If in doubt consult a suitably qualified person.

We strongly advise that you ask a friend to look over your work before powering up the game.

Make sure all 'E' point wires are correctly connected (confirm this with the manual for your game). Ensure all fuses are the correct value and type and have a careful look over the board for shorts, solder splashes or hairs from wires that may have not been soldered into the 'E' point holes fully.

NOTE: The diagrams and information below are for reference only. Use the diagrams from your game to be certain all connections and wire colours are correct.



GROUNDS

CAN BE IN ANY ORDER

EARLY BALLY POWER SUPPLY

