Tools required

- Temperature-controlled soldering station
- Solder
- Desoldering braid
- EU-Kit

Knowledge

- Excellent soldering experience

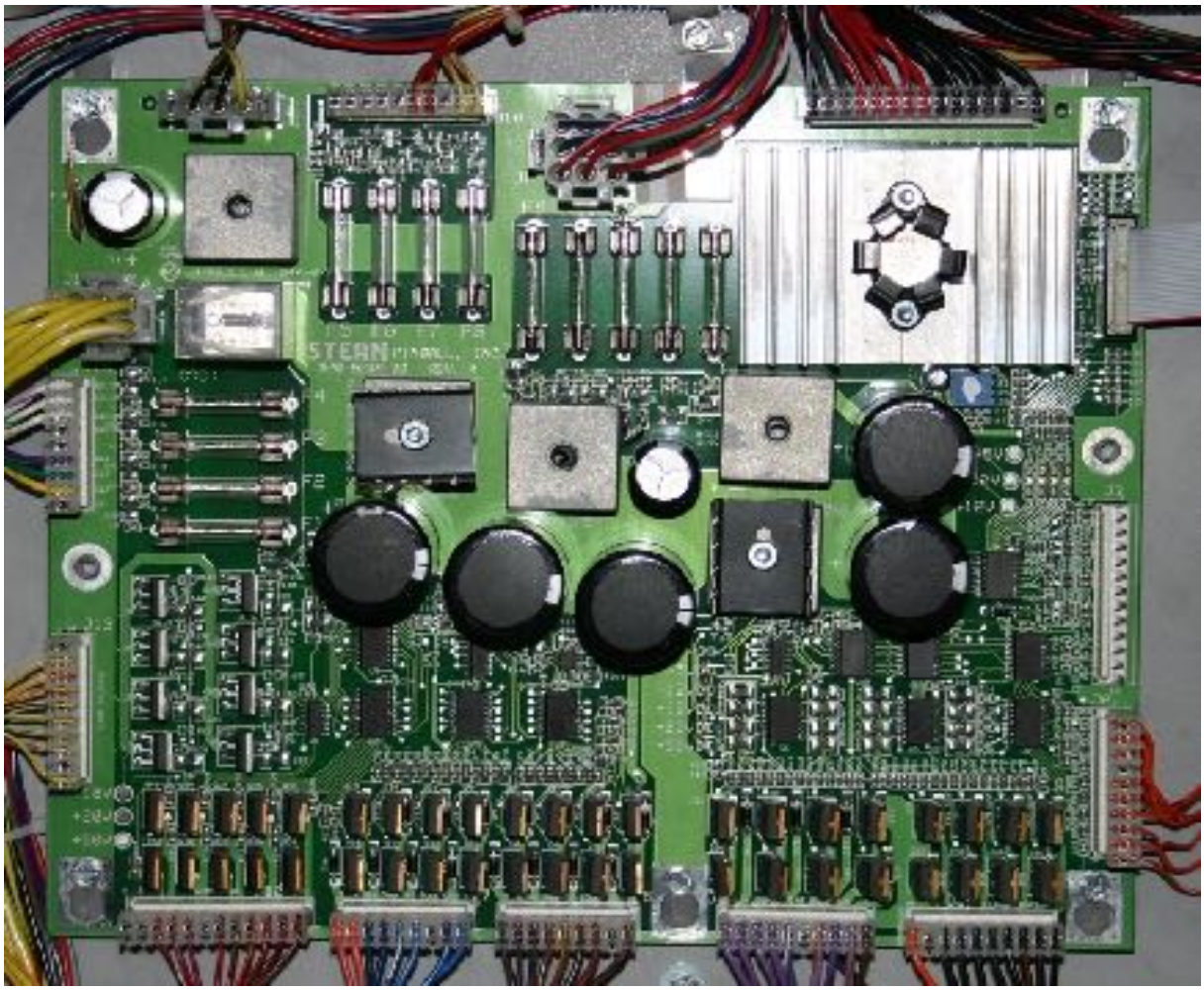
Caution

Please first read this guidance completely, before you begin with the modification. The following Procedure involves desoldering SMD (Surface Mount Devices). If you are not qualified to work on SMD Devices or do not have the proper equipment, do not attempt this modification! Seek professional technical assistance. The originator of the EU-Kit is not responsible for any damage on you pinball machine. Don't forget to switch the transformer power to your local line voltage.

Description

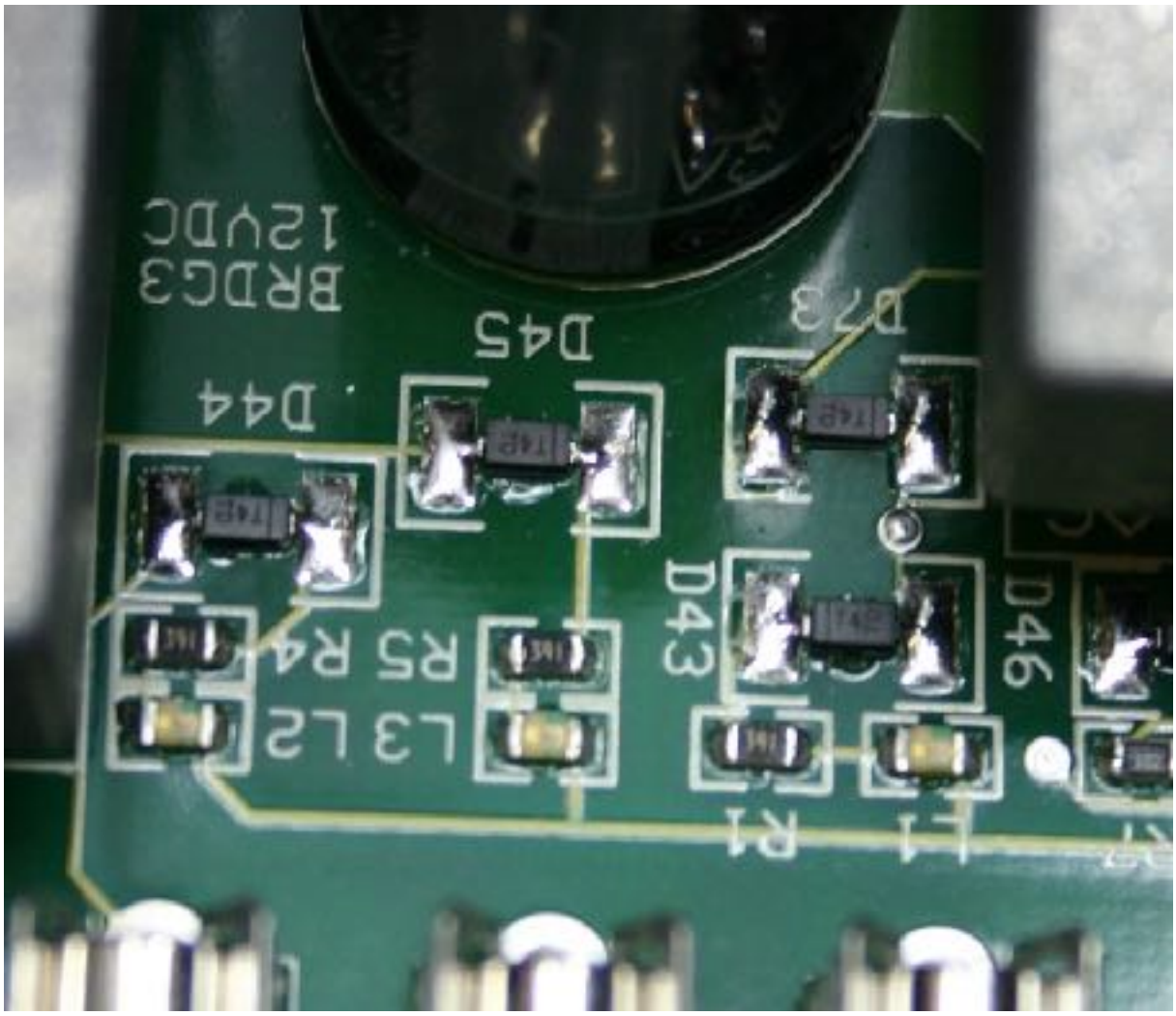
The four wires of the connection cable must be brazing to the I/O Power Driver PC Board. To avoid mistakes, each wire has another color (red, black, yellow and blue). Remove all plugs from the I/O Power Driver PC Board. Afterwards loosen the screws and take the I/O Power Driver PC Board out of the backbox.

STERN LE GAMES - CONNECT TO 5V AC



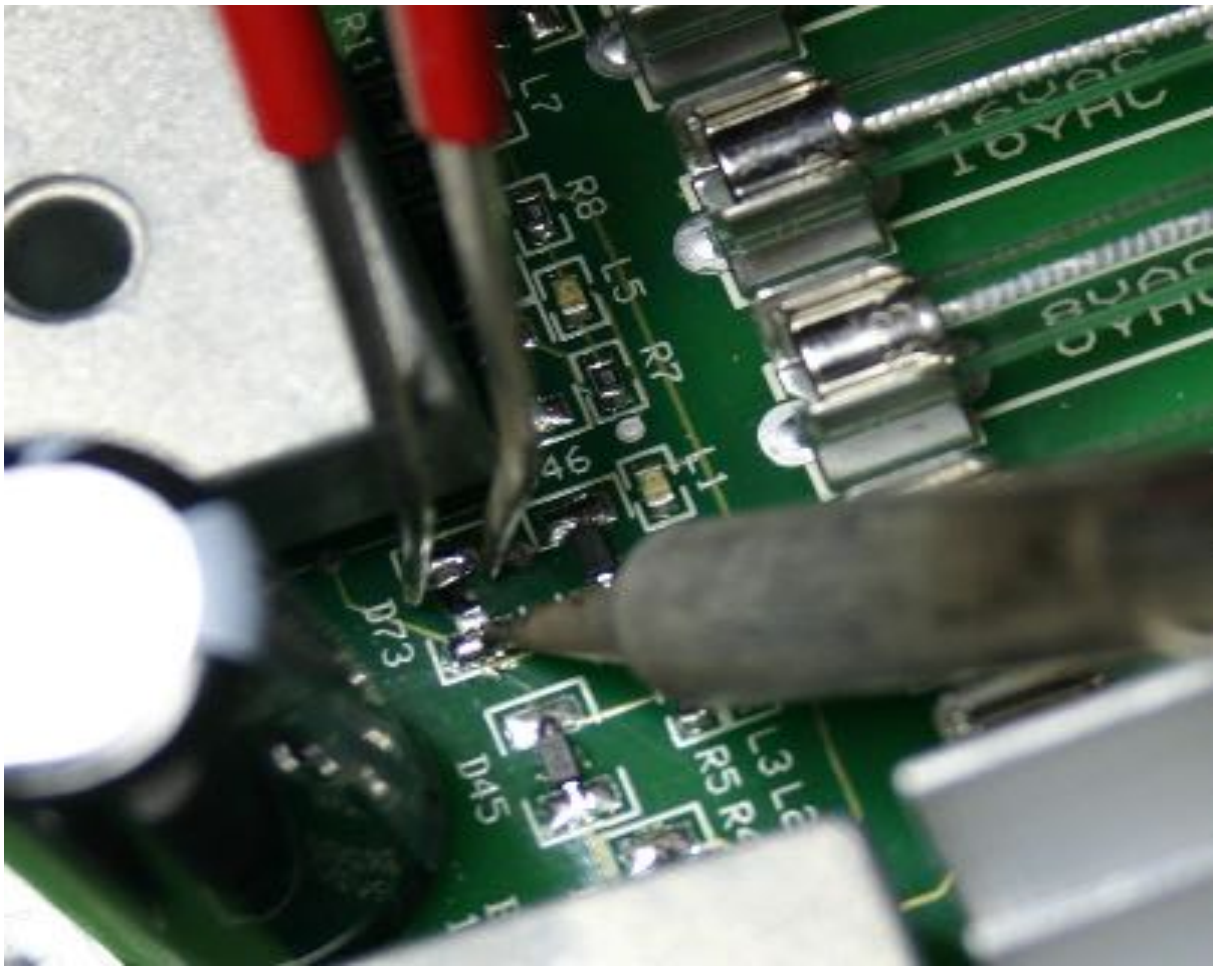
I/O Power Driver PC Board

Between the two rectifiers is a SMD diode D73. This diode must be removed. SMD parts are very small and therefore also very sensitive. With something exercise you can desolder the diode with a temperature-controlled soldering station. Be careful that you don't rip the solder pads when removing D73. Thereby the PCB would be destroyed irreparably.



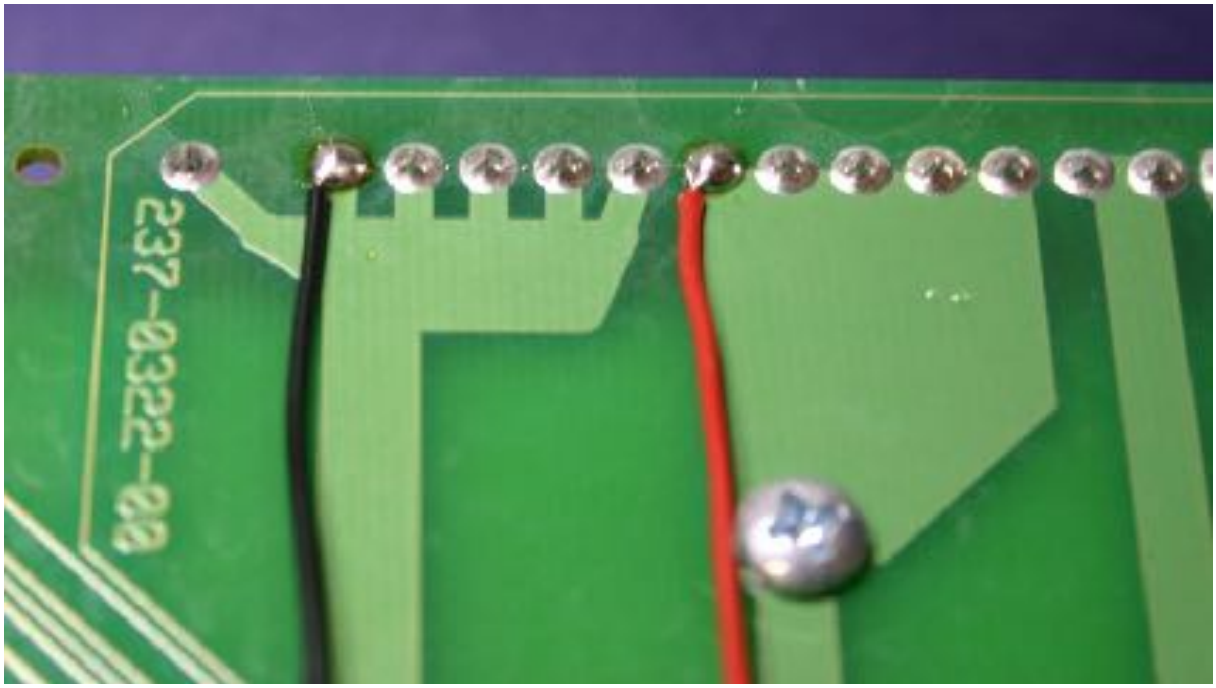
D73 on the PCB

To remove D73 simply heat one side until the solder is melted and then quickly move to the other side until the solder is melted. Keep alternating between sides. This will build up heat on each side and the part will slide off the pads in 5 - 10 seconds. With this method you should be able to remove the diode without damage something. Use desoldering braid to remove the old solder from the pads. Pull a little braid from the spool, and place it over the solder pads of D73. Then place the iron over the braid and after the solder starts to melt, it should get sucked up by the braid. Be careful when you lift it up - if you leave it too long, the solder will cool and you will rip the pads off the PCB. Lift the braid while the iron tip is still on it.



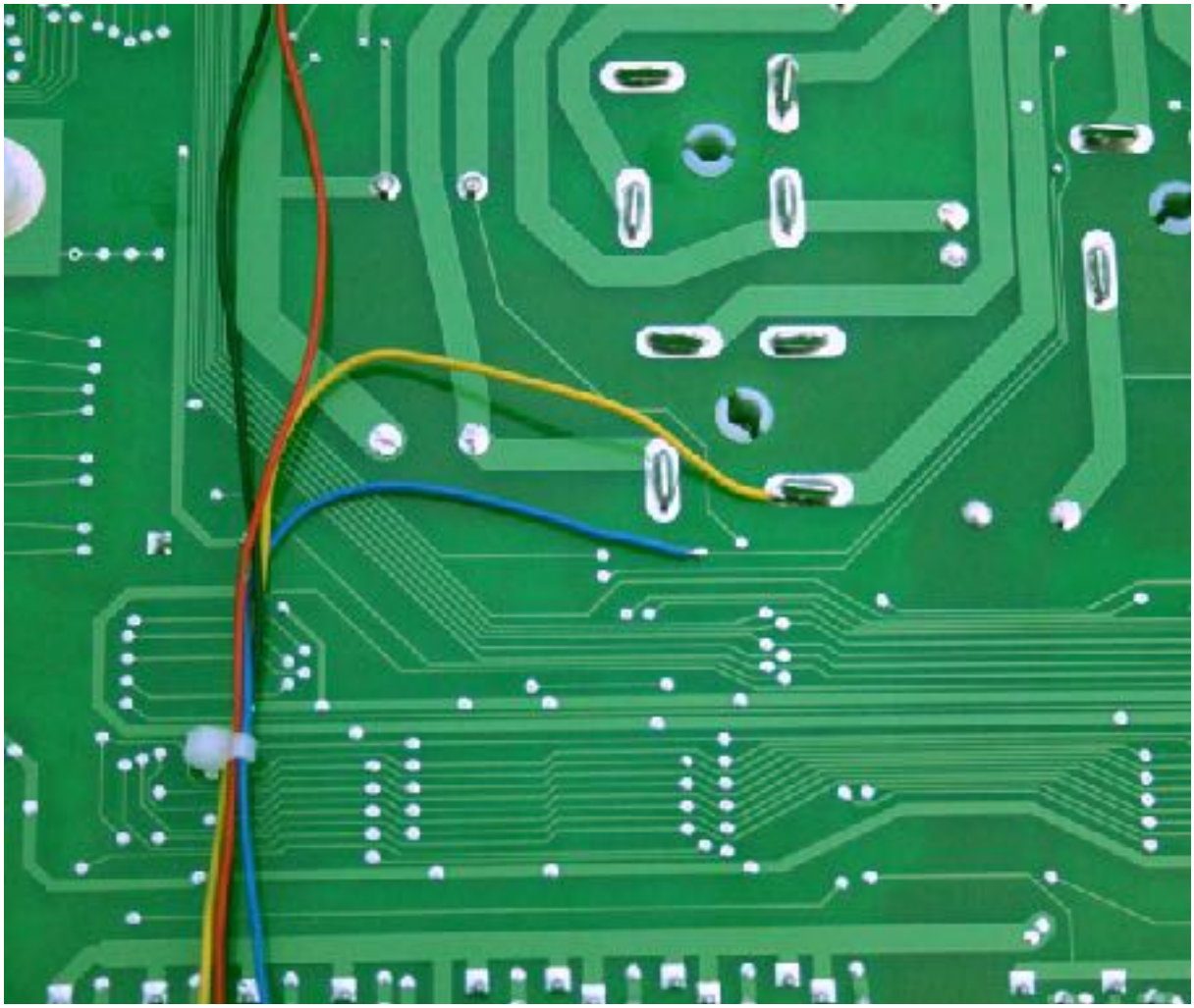
Desolder D73

After that the diode is removed turn the PCB and brazes the red and black wire as shown in the following picture.



Braze the black and the red wire

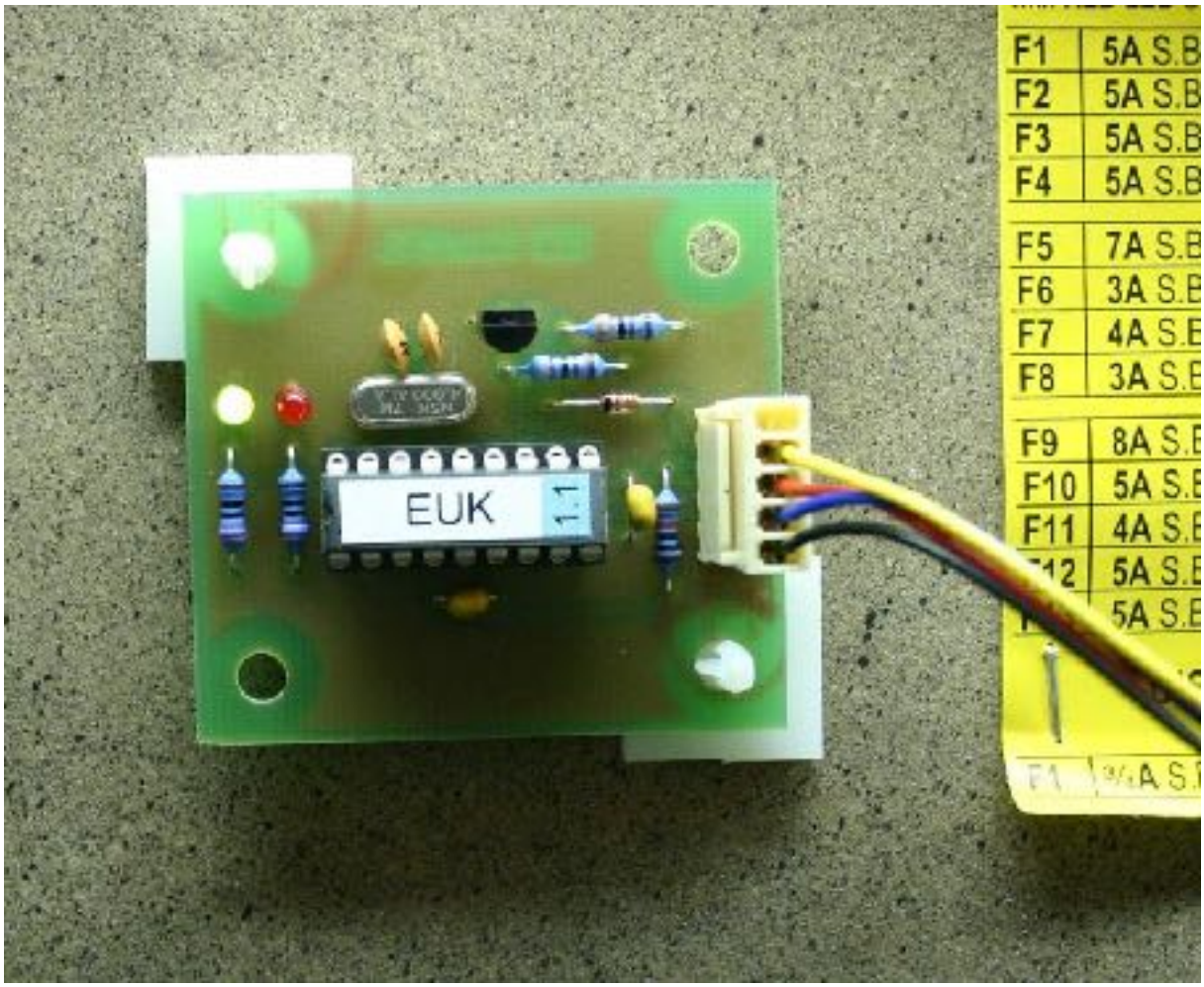
Brazes the yellow and the blue wire as shown in the picture.



Brazes the yellow and the red wire

Now plug in the cable with the four wires into the connector of the EU-Kit. Stick the EU-Kit on a free place in the backbox. Before you turn on the pinball machine, check the whole installation again.

Now you can turn on the pinball machine. The red LED should flash five times. After 10 seconds, the green LED begins to flash. Now the pinball machine is ready to play.



Install the EU-Kit

If you want to revoke the conversion, put the SMD diode in a small bag and take good care of it.

Troubleshooting

Error	Reason
Both LEDs keep dark.	Check the red and the black wire.
The red LED flashes five times and the green LED stays on.	Check the yellow wire.
The red LED flashes five times then the green LED begins to flash. In the displays appears the message „This Machine will not operate in this Country“.	Check the blue wire.
After a short disconnect from power, the Pinball machine displays the message „This Machine will not operate in this Country“.	Wait 10 seconds before you turn on the machine again.