

# TECHNICAL BULLETIN

## Solid State Relays(SSRs) 1.3751

T16.005

### IMPLEMENTATION DATE:

7/27/2016

### MACHINE SERIAL NUMBERS AFFECTED:

All machines after 307163292

REASON FOR CHANGE		RETROFIT STATUS		PRIORITY OF UPDATE	
RELIABILITY	X	NON-RETROFITABLE		HIGH	
SERVICEABILITY		GEN 1 ONLY		MEDIUM	
AESTHETICS/INTERFACE		GEN 2 ONLY	X	LOW	
MANUFACTURING		MVP SERIES ONLY	X	IF MACHINE AFFECTED	X
		UNIVERSAL		OPTIONAL	

### SUMMARY OF CHANGES:

Electrical noise created by some mechanical relays was causing some second generation and MVP style machines to reboot. This issue could cause the shot timers to either go blank, or fully illuminate. Replacing all mechanical relays (1.2133) with SSRs (1.3751) has prevented further reboots.

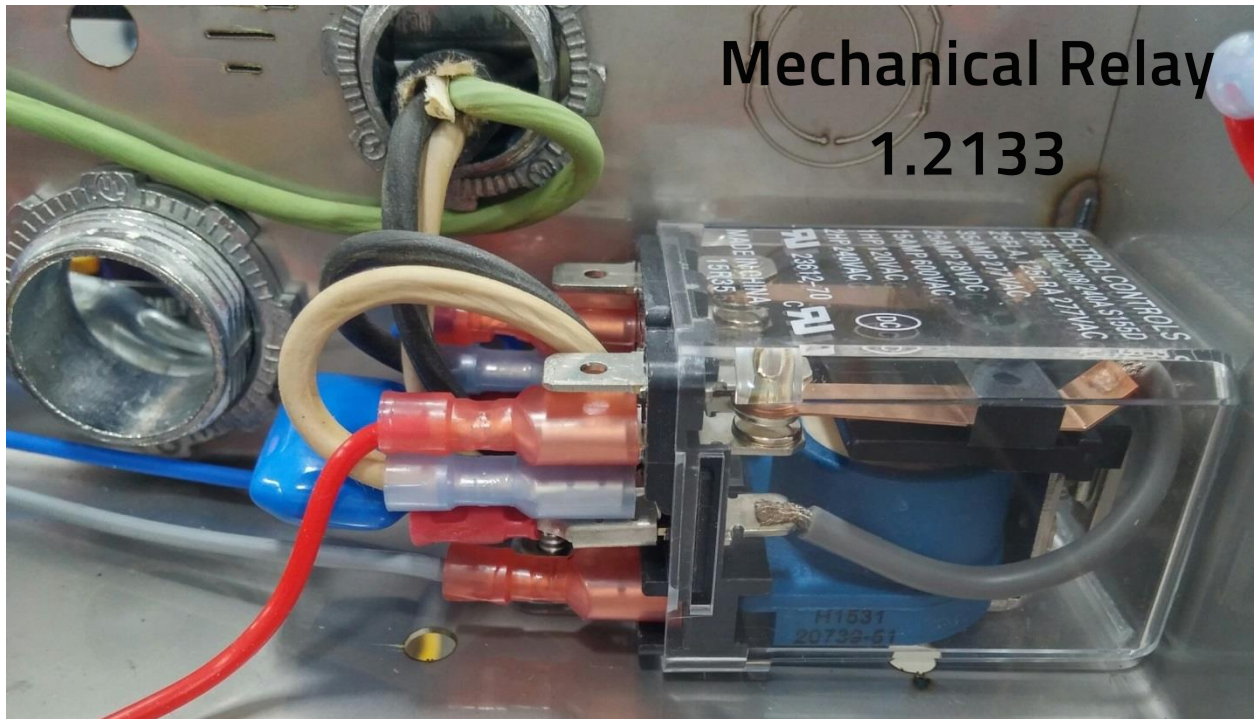
All new production machines will be built with SSRs standard. Any second generation or later machine having the shot timer issues described above should have the mechanical relay replaced. Many machines do not show any problems with the mechanical relays and therefore do not require service.

While the mechanical relays broke both sides of the 220v circuit which powers the pump motor, the SSRs break only the "red" side of the circuit. Please turn off the machine any time you must service the motor's electrical system, especially if you use split phase power (2x 110v hot legs as used in much of North America).

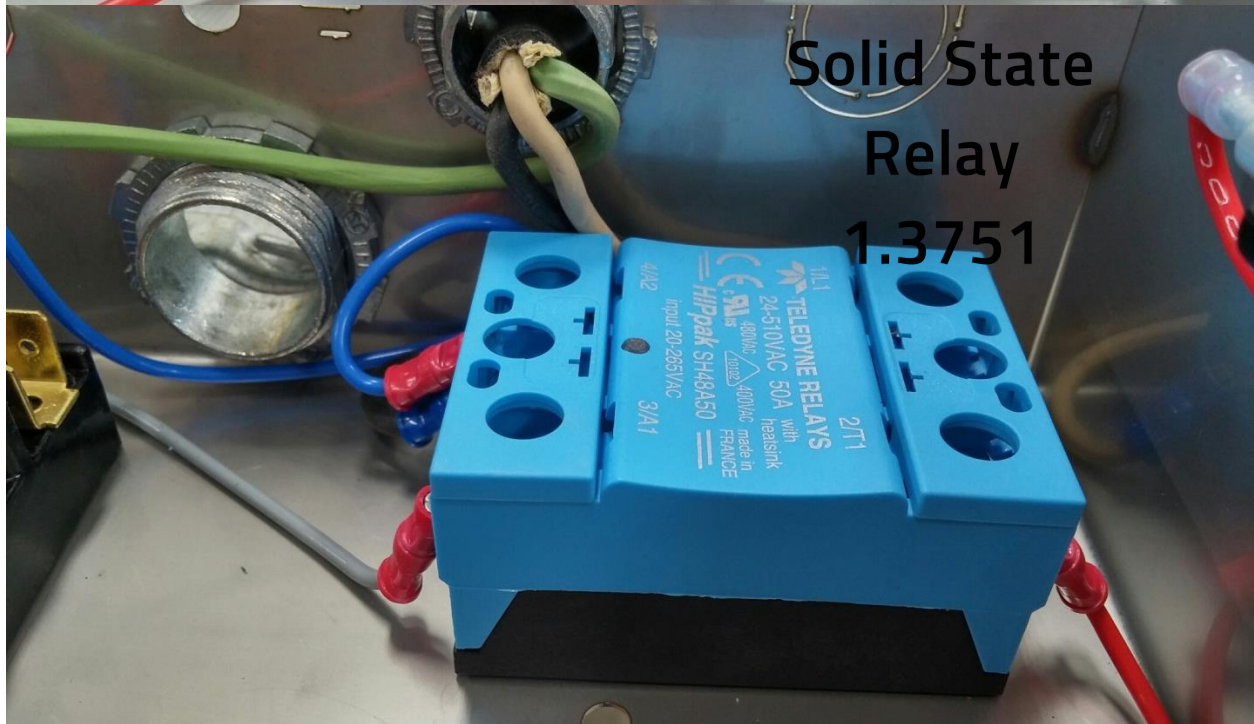
The SSRs use a screw terminal electrical interface as opposed to the 0.25" quick-connect terminals used on the mechanical relays. As such, when replacing a mechanical relay, have ring terminals or new wires available.

### DISCONTINUED PARTS:

We will no longer build machines using mechanical relays, but we will have them available for parts orders. First generation machines and others showing no problems requiring SSRs may continue to use mechanical relays as needed.



Mechanical Relay  
1.2133



Solid State  
Relay  
1.3751