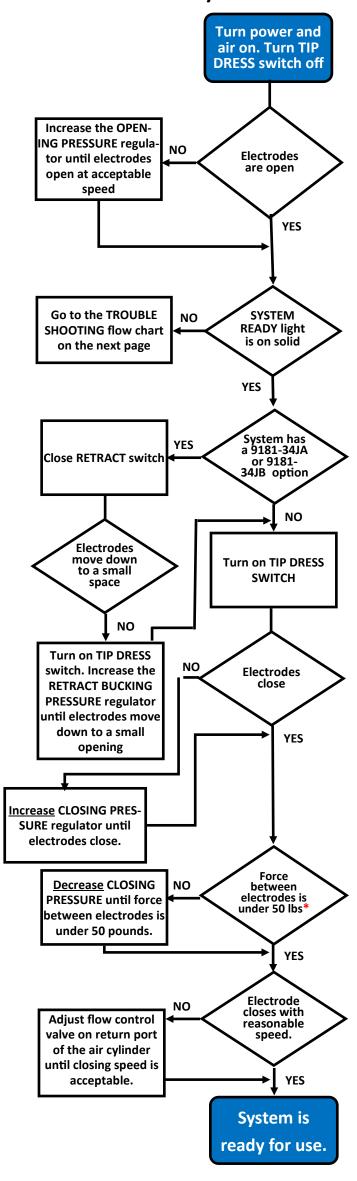
## STAND-ALONE SOFT TOUCH INITIAL STARTUP FLOW CHART LIGHT WEIGHT WELDING MACHINES WITH 1Ø AC CONTROLS MODELS 9181-34YB/24DC and 9181-34YB/115



<sup>\*</sup> If you don't have a tip force measuring instrument, place a wooden office pencil between the electrodes and turn on the TIP DRESS switch. Set the force so that the electrode indents 1/16" or less.

## STAND-ALONE SOFT TOUCH TROUBLE SHOOTING FLOW CHART LIGHT WEIGHT WELDING MACHINES WITH 1Ø AC CONTROLS Be sure that the two MODELS 9181-34YB/24DC and 9181-34YB/115 blue wires from the bottom of the SOFT **TOUCH** enclosure are FOR EN1000 controls, Be sure that one or solidly connected to Turn power and two blue snubbers Be sure that two blue clean areas on the air on. Turn TIP snubbers were inwere installed in welding transformer **DRESS** switch off parallel across the stalled in series across secondary pads. the SCR contactor. SCR contactor. If crimp terminals were used, be sure that the crimp is tight. Increase the OPEN-Replace terminals if in **ING PRESSURE** NO doubt **Electrodes** regulator until elecare open trodes open at acceptable speed AC voltage between TP2—TP3 Is higher than .050V NO YES YES **SYSTEM** YES **READY light SYSTEM** is on solid **READY light** is on solid Follow black and AC voltage **SYSTEM** NO NO between terminals 1-2 = nominal 115 white wires to weld-**READY light** ing control. Connect comes on NO Be sure slide switches to 115VAC source. are set as shown below YES Replace or repair YES If welding machine has a TS7 sensor board transformer TAP switch, **SYSTEM** NO rotate it 4-5 times from Repair or replace TS7 **READY light** lowest to highest numsensor board. is on solid ber. Put it back to the original position. YES AC voltage between TP2—TP3 SYSTEM READY light **YES** YES System has YES 9181-34JA is on solid Is higher than .050V Close RETRACT switch or 9181-34JB option NO NO For rocker arm welders, this problem is usually caused by a conductive path be-**Electrodes** Replace or repair TS7 tween the rocker arm and the welder YES move down **Turn on TIP DRESS** frame. Check all insulation typically besensor board. to a small tween the pillow blocks where the upper **SWITCH** space arm rotates and the welder frame. For press/projection welders, check insulation between upper moving electrode NO holder and mount plate from air cylinder. Repair any location where the insulation is Disconnect shunts or cables that con-Increase the RETRACT not present. **Electrodes BUCKING PRESSURE** nect the upper welding transformer pad to the rocker arm. regulator until electrodes move Measure resistance ( $\Omega$ ) between the AC voltage down to a small YES YES upper electrode and the lower elecopening Is higher than .050V trode. If resistance lower than 5,000 $\Omega$ is measured, there is still a conductive path between the frame of the welder and the upper electrode holder. Increase CLOSING NO **PRESSURE** regulator Locate insulation problem and repair until electrodes close. Add one or two model 9182-57 snubbers paral Force Reconnect the laminated shunts or **Decrease CLOSING** NO between electrodes is lel to the SCR contactor cables. PRESSURE until force under 50 lbs between electrodes is under 50 pounds. YES AC voltage between TP2—TP3 Is higher than .050V NO Electrode closes with NO Adjust flow control reasonable YES valve on return port speed. of the air cylinder until closing speed is acceptable. YES AC voltage **SYSTEM** YES between TP2—TP3 Is higher than .050V YES READY light is on solid System is ready for use NO NO **Contact Unitrol with** AC voltage read at Replace or repair If you don't have a tip force measuring instrument, place a wooden office TP2—TP3, and DC TS7 sensor board. voltages read at TP4 pencil between the electrodes and turn on the TIP DRESS switch. Set the (+) and TP1. force so that the electrode indents 1/16" or less. Call from the welding machine with a UNITROL ELECTRONICS, INC. voltmeter available. techsupport@unitrol-electronics.com