

THE NEXT GENERATION OF RESISTANCE WELDING CONTROLS IS HERE!



Available with remote
console or built in cabinet.
See page 6 for options.

Introducing the **SOLUTION**ⁱ POWERFULLY **INTUITIVE**

If you can push a (YES) and (NO) button, you can use every feature like a pro.

THE UNITROL

SOLUTION*i*

The “*i*” stands for “*i*ntuitive”

in·tui·tive (in tū'i tiv) *adj.*

1. Using or based on what one feels to be true even without conscious reasoning; instinctive.
2. Easy to use and understand.

POWERFULLY INTUITIVE

The **SOLUTION*i*** is a full featured highly accurate resistance welding control that is very easy to use. In fact you can set up and use this control without looking at a direction book!

It is that intuitive.

Here's how it works:

- It asks questions and you answer by pushing the YES or NO button.
- It asks you to enter numbers and then tells you what to do next.
- You tell it the type of metal you are welding and the thinnest sheet being joined. It will set up an **RWMA welding schedule** ready to use.
- It has a MASTER SETUP button. When pushed it walks you through all user-settings with clear English instructions. This is very useful when first installing a control.
- It tells you the required air pressure regulator setting for the part you are welding.
- It keeps the electrodes closed when any weld fault is detected and tells you how to reset it.
- It tells you when to dress electrodes.

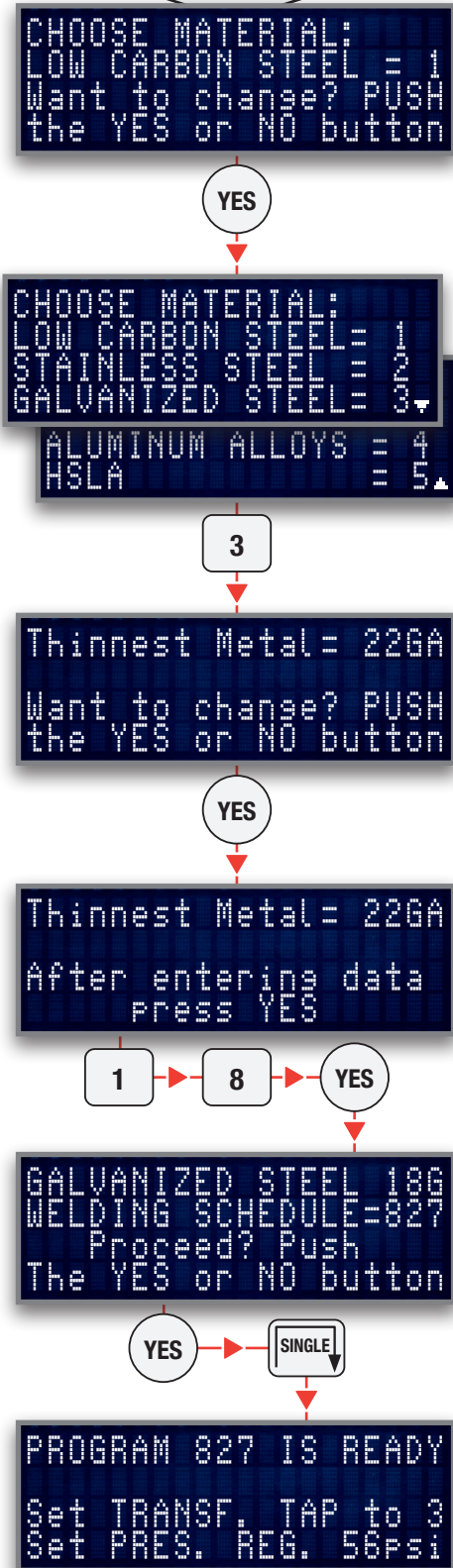
Plus, With the Optional SOLUTION*i*QC Model:

- It tells you the recommended welder transformer tap switch position for each part.
- It checks ELECTRODE FORCE again at the end of the weld to be sure that you have not made a brittle weld by having ELECTRODE FORCE that is too high.
- It waits until the proper ELECTRODE FORCE has been reached before starting each weld and eliminates the need for SQUEEZE TIME.

And it does all of the above in clear English, without any codes.

The **SOLUTIONi** can select an **RWMA welding schedule**. You just enter the type of metal and gauge. The **SOLUTIONi** does the rest.

For example, to weld 18 Gauge Galvanized Steel, follow the prompts:



The **SOLUTIONi** includes an SD card so you can:

- Copy welding programs for backup
- Enter welding programs from a PC
- Enter welding programs from another **SOLUTIONi**
- Install updates



PROGRAM 827 is factory loaded as a good starting welding program for this gauge and material. After welds are tried, the program can be adjusted as needed. The control will even recommend changing the TRANSFORMER TAP switch position if needed. The changed program will now be the default for this gauge and material.

The **SOLUTION*i*** asks questions in **full English** and prompts the user as to how to enter information.

THE UNITROL SOLUTION*i*

```
CHOOSE MATERIAL:
LOW CARBON STEEL = 1
Want to change? PUSH
the YES or NO button
```

Tell the control what type of metal you are welding plus the gauge, and it loads an RWMA schedule.

It tells you how to set the transformer tap switch and air pressure regulator.

```
PROGRAM 437 IS READY
Set TRANSF. TAP to 2
Set PRES. REG. 56Psi
```

```
TIP FORCE = 0653LB
To open ELECTRODES
Push the YES button
```

It reads the electrode force and makes sure it is not too low or too high.

A PARTS COUNTER keeps track of finished weldments.

```
PROGRAM 27 IN USE
00,170 LEFT IN BATCH
01,340 PARTS MADE
```

```
BATCH is completed.
Press the YES button
to start a new batch
```

The BATCH COUNTER tells you when a job is finished and stops the welder

The HEAT STEPPER lets you know when it is time to dress electrodes.

```
HEAT STEPPER EXPIRED
Dress ELECTRODES
Then Press YES
to Reset Stepper
```

```
WELDS per PART = 016
After entering data
Press YES
```

After entering the number of welds made on each part you can count finished weldments.

It walks you through the simple steps to setting up CONSTANT CURRENT.

```
SET TRANSF. TAP TO 1
Place Metal Between
Electrodes and
close FOOT SWITCH
```

```
Can't Start
Without Selecting
SINGLE, NOWELD, REPEAT
00,012 Parts Made
```

It reminds you to push a WELD, NO WELD, or REPEAT button.

Self tunes AVC line voltage compensation with a few keystrokes.

```
LINE VOLTAGE CALIB.
Line Voltage is
Enter and press YES
```

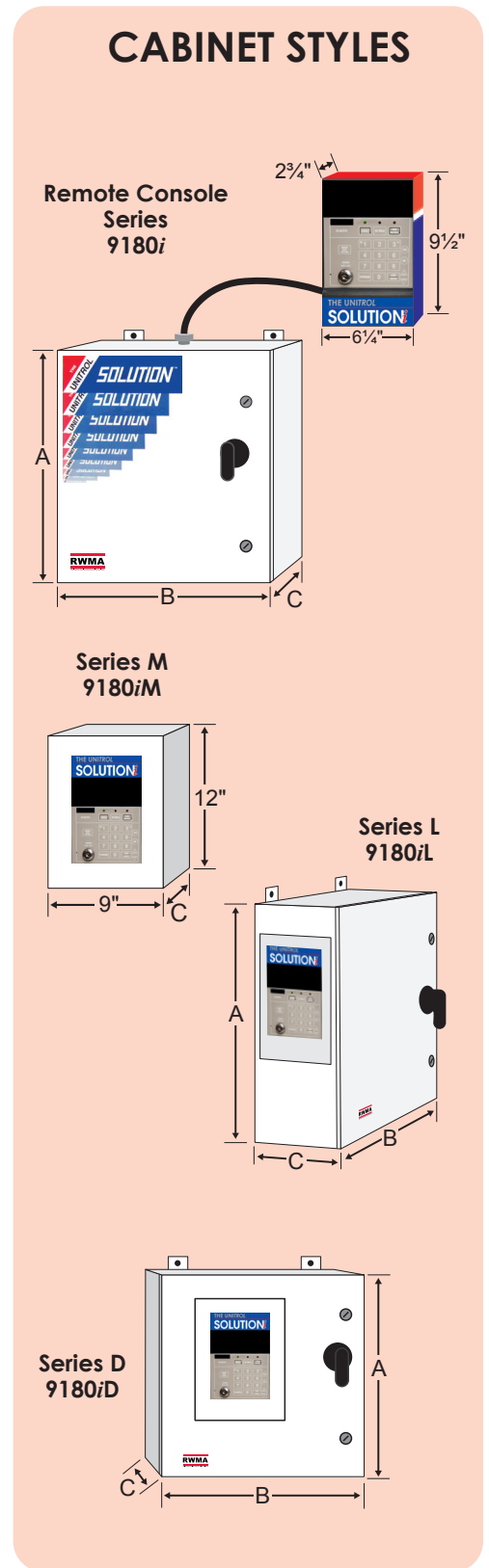
Specifying and ordering the UNITROL SOLUTIONⁱ Welding Control is as easy as using it.

Just follow these easy steps to select a SOLUTIONⁱ that matches your welder:

1. Find the **primary voltage** of your welder in the **red** area of the chart below.
2. Move **downward** from this **primary voltage** to the **blue** box that includes the KVA as shown on the nameplate of your welder.
3. From this point, move to the **right** for the SOLUTIONⁱ Model Number in the column that lists the desired **circuit protection** and **cabinet style** (see photos at right). Note that circuit breakers are recommended for most production welding systems.
EXAMPLE: The correct SOLUTIONⁱ controls with circuit breaker protection for a **50 KVA** spot welder working at **460 volts** are: **#9180-810, 9180L-810, or 9180D-810** (depending on desired cabinet style).
4. Order this model number from your authorized UNITROL representative or distributor who will recommend control options.

SOLUTIONⁱ CONTROL SIZING CHART

WELDER PRIMARY VOLTAGE					MODEL NUMBERS		CABINET SIZE		
208 Volts	230 Volts	380 Volts	460 Volts	575 Volts	With Circuit Breaker	Without Protection	A	B	C
1-15 KVA	1-15 KVA	1-25 KVA	1-30 KVA	1-40 KVA	9180i-990	9180i-900	20	20	9
					-	9180iM-900	-	-	8
					9180iL-990	9180iL-900	20	20	9
16-30 KVA	16-35 KVA	26-50 KVA	31-65 KVA	41-80 KVA	9180iD-990	9180iD-900	20	20	9
					9180i-810	9180i-800	20	20	9
					-	9180iM-800	-	-	8
31-75 KVA	36-80 KVA	51-130 KVA	66-170 KVA	81-200 KVA	9180iL-810	9180iL-800	20	20	9
					9180iD-810	9180iD-800	20	20	9
					9180i-620	9180i-600	20	20	9
76-120 KVA	81-130 KVA	131-200 KVA	171-250 KVA	201-325 KVA	-	9180iM-600	-	-	14
					9180iL-620	9180iL-600	20	20	9
					9180iD-620	9180iD-600	20	20	9
121-200 KVA	131-250 KVA	201-450 KVA	251-500 KVA	326-600 KVA	9180i-630	same as above	24	24	9
					9180iL-630		24	24	9
					9180iD-630		24	24	9
121-200 KVA	131-250 KVA	201-450 KVA	251-500 KVA	326-600 KVA	9180i-440	-	30	30	13
					9180iL-440	-	30	30	13
					9180iD-440	-	30	30	13
					-	9180i-400	20	20	9
					-	9180iL-400	20	20	9
-	9180iD-400	20	20	9					



COMPLETE RETROFIT SYSTEMS WITHOUT POWER CABINETS

For use with existing SCR Contactors..... 9180i-SCO, 9180iM-S00, 9180i-S00

5 Year Warranty

Your investment is protected by the exclusive UNITROL 5 Year Limited Warranty. Factory labor and parts (excluding fuses) are fully covered for the first year. This warranty is extended for an additional 4 years on a Pro Rata basis (exclusive of fuses, SCR, circuit breaker and transducers).

Parts and labor are FOB our factory. Warranty included with each system gives full details of this limited warranty along with all other conditions of coverage.

SOLUTIONⁱ Specification Chart

FUNCTION	DESCRIPTION	RANGE
Weld Programs	Each program is a complete RWMA Schedule including Forge Delay, Pulsation, and Special Sequences for welding galvanized steel and other coated metals.	800 Customer Set 100 RWMA Preset
Display	Bright blue vacuum fluorescent, full alpha/numeric.	80 Characters
Welds Counter	Keeps track of welds made.	1-65,500
Parts Counter	Keeps track of finished parts made.	1-65,500
Batch Counter	Stops welder when batch is completed.	1-999
Master Setup Program	Quick setup of system programs using Wizard Tutorial .	-
AVC	Automatic line voltage compensation. Maintains welder output with variations of incoming line voltage.	1% Max. Variation with +/-10% Line Voltage Change
Keyboard Lock	Prevents unauthorized changes in welding schedules or setup values.	3 Security Levels
Heat Stepper	Computerized curve for welding galvanized steel. Just enter total welds and last heat % increase.	999 Welds
Tip Force Calculator	Displays required pressure regulator setting needed to produce requested electrode force.	0-99 psi
Line Service	Single selector wire to match line voltage. Keypad entry for line frequency.	115V - 575V 50/60Hz
Dual Program	Assigns any weld schedule to one of two initiation inputs.	-
Initiation Modes	Single level, dual level, anti-tiedown; holding or momentary.	-
Low Water Flow	Input from external water flow switch.	-
Light Curtain	Input for light curtain, factory programmed.	-
Soft Touch Function	Exclusive UNITROL operator pinch point protection safety system. Requires Soft Touch hardware kit.	-
SD Slot	Copy programs, install programs, modify operating system.	-
Anti-tiedown Initiation	Requires closing of two hand switches within 1 second to start weld.	-
Pressure Transducer*	Starts weld when selected electrode force has been reached. Locks electrodes on part at end of weld if force exceeds customer-set limit to prevent cold welds.	0-99 psi
Current Monitor*	Compares RMS current to program high/low range. Locks electrodes closed if out of range.	10KA - 200KA
Constant Current*	Accurately provides program-selected secondary current. Current values are directly entered in amps.	0-200KA +/-1% Range F.S.
Communication Port*	Export of weld results; upload / download schedules.	RS-232 or RS-485
Electronic Pressure Regulator**	Automatically sets pressure regulator to provide program-selected electrode force.	0-99 psi

* included with SOLUTIONⁱQC controls

** optional feature

Distributed by:



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