

# ENTRON™

## Controls for Resistance Welding

### WS2003 Cascade Constant Current Controls

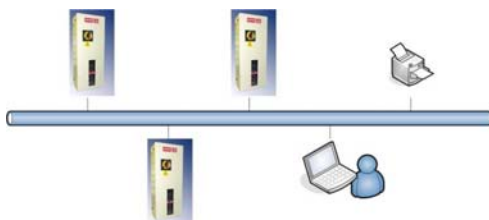
Up to 16 Cascade SCRs • Primary or Secondary Regulation



Control cabinet with door-mounted timer, up to 64 programs, constant current control and monitoring. Fitted into a sheet steel enclosure with circuit breaker, 24 VDC air valve power supply, appropriate line fusing, safety covers, and a direct water-cooled or air-cooled SCR power module. Optional hand-held pendant.

#### Ethernet Network – WS98-2003 PC Programming Software

Access any control from 1 PC / Graphical click access to station on floor plan



#### Features

- Configure to fire 2 SCRs up to 16 SCRs using one timer
- Individual calibration files for each SCR
- Welding modes: Single, Repeat & Half Cycle Spot, Single or Repeat, Seam, Dual Seam or Roll Spot
- 64 weld programs
- Constant Current – Program weld current in kA
- Current Monitoring: High/Low limits and Pre-limit
- Easy calibration to external monitor; Primary or Secondary sensors
- Programmable Force in lbf/kN (4–20 mA or 0–10 VDC)
- Easy calibration to external force gauge
- Force Monitoring: High/Low limits in lbf and kN
- Convenient Pop-up Current Meter on hand-held while in program current adjustment
- Select programs internally or binary selection
- Ethernet Network available for programming and monitoring
- Ethernet IP / Devicenet / Ethernet TCP/IP (Modbus)
- Large backlit 4-line, easy-to-use programming keypad
- Fault output with selectable Head-lock function
- Weld History Log (keeps the last 64 welds)
- Wait for pressure function before weld
- Upslope and Downslope
- 16 inputs (24 VDC) – Extended on Cascade/Multi-Valve
- 12 outputs + SCR pulse drive (24 VDC can drive 110 VAC loads) – Configure up to 16 SCRs (Cascade)
- End of Sequence output
- Retract (3 modes) + Air/Oil (OHMA gun compatible)
- Weld Counter
- Stepper function with pre-set curves and end-blocking for up to 16 electrodes
- Machine Logic Sequencer
- Programmable outputs
- RS232 port for Pendant or PC connection
- Optional PC Software for programming and calibration

*Exclusive ENTRON two year warranty*