



# TUBEMASTER 514

**MAGNATECH**



# 514 TUBEMASTER

## PROGRAMMABLE POWER SOURCE FOR ORBITAL WELD HEADS

The model 514 brings the benefits of true digital technology to the orbital welding customer: unparalleled accuracy, repeatability, and reliability. Digital technology forever eliminates the need for periodic weld head calibration – rotation speed remains accurate regardless of head wear, and heads can be interchanged without time-consuming calibration. Software upgrades can be sent by e-mail attachments. The model 514 is “Internet ready” for future enhancements such as web-based diagnostic service.



## Features

### WELDING CONTROLLER

- 200 amp output
- Up to 100 levels per program
- Stores 100 weld programs internally
- Wire feed capability for wire feed Heads
- AutoProgram automatically generates procedures
- Programmable “override limits” provide supervisory control
- Weld parameter monitoring/reporting for QA/QC purpose
- Transfer programs and data to PCs using USB flash drive
- AutoTack automatically generates tack weld programs
- Large color LCD display
- Stainless steel case with sealed membrane switches/display
- Head mounted membrane switches eliminate remote pendant (certain models only)
- Autoranging: 115/230 V input
- Help files provide immediate information/assistance
- Password protection of key functions
- Built in printer allows program/QC report printout
- Enter data using a standard USB keyboard

## Options

- Cart with bottle rack
- Remote Pendant
- Extension cables
- Rugged Storage/Shipping Case
- Offline Programming Software
- Manual Tack Welding Torch Kit



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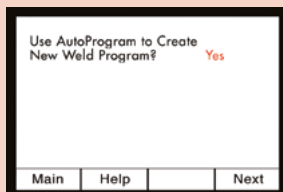
## AUTOPROGRAM

Programming is simple and intuitive by manual entry or new AutoProgram which self-generates procedures.

Startup display



Automatically create a new weld program



Simply fill in the blanks



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## COOLANT RECIRCULATOR

Detachable coolant recirculator mounts beneath power source with integral flow switch protection.

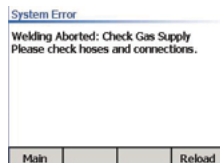


## USB PROGRAM AND DATA TRANSFER

A sealed USB port allows use of a standard USB flash drive for installation of software upgrades, as well as transfer of weld programs and QC reports.

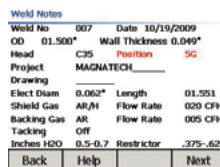


## ADVANCED HELP PROVIDES OPERATOR SUPPORT



## WELD PROGRAM DOCUMENTATION

Additional documentation and notes can be added to weld programs and QC records, providing traceability to individual drawings, projects, and customers.



## MODEL 514 NOW OPERATES ANALOG HEADS

The new model has the ability to operate both analog Heads (using tachometer motors), as well as Magnatech's current digital encoder motors. This allows the operation of many weld Heads from other manufacturers, with "drop-down" model selection and Autoprogramming for these other Heads. On-screen calibration of competitor's Heads eliminates trim potentiometer adjustments.

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## WELD MONITORING/QC

INTEGRAL WELD MONITORING SOFTWARE PROVIDES INSTANT INFORMATION ON WELD QUALITY

Acceptable limits are programmed for each critical weld parameter. At the completion of each weld, a printout records the weld ID number, date and time, the operator's name and whether the weld was performed within the defined limits for acceptable weld quality. If any critical parameter falls outside the defined limits, the operator is immediately notified as to:

- Out of limit parameter
- Maximum deviation from programmed value
- Maximum deviation time

QC reports are immediately printed following each weld using the built-in printer option. Or, they can be stored internally and downloaded periodically to a PC using a standard USB Flash Drive. Import weld programs and QC data directly into a Word® or Excel® spreadsheet document.



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For a perfect weld, every time

## COMPATIBILITY

THE TUBEMASTER POWER SUPPLY CAN BE USED WITH MANY WELD HEAD MODELS



800 SERIES



E-HEAD SERIES



REDHEAD SERIES



# TUBEMASTER 514

## Specifications

<b>Application</b>	For use with many Magnatech weld head models (GTAW process), welding lathes, and dedicated weld systems
<b>Functions controlled</b>	Welding current output/current pulsing, weld head rotation, Weld head wire feed speed
<b>Output power</b>	0 – 200 amps
<b>Input power requirements (rated load)</b>	115/230 VAC, 1 Ø, 4.0 KVA, 50/60 Hz autoranging (no modifications necessary)
<b>Internal memory capacity</b>	100 weld programs
<b>Units of measurement Metric and Inch (selectable)</b>	Metric and Inch (selectable)
<b>Program transfer</b>	Solid state digital media (USB flash drive/memory key)
<b>Language selection</b>	English, Spanish, German, French, others
<b>Settable override limits</b>	Individually scalable overrides on each function 0 – 100%
<b>Maximum open circuit voltage</b>	80 V
<b>Water and gas flow switches</b>	Standard. Prevent damage to equipment and workpiece
<b>Data recording/printout</b>	Operator ID, weld ID number, program number, material, od, wall thickness, date, time, weld head model, project, drawing, programmed parameters, etc.
<b>QC-parameter monitoring/ recording/printout</b>	Monitors and records any actual deviations from preprogrammed limits recording/printout
<b>Arc start type</b>	HF
<b>Operating/storage temperature</b>	Operating: -18 to 50°C (0 to 120° F) Storage: -25 to 60° C (-20 to 140° F)
<b>Humidity To 98% RH (non-condensing)</b>	To 98% RH (non-condensing)

## Dimensions/weights

	MODEL 514 POWER SOURCE	MODEL 904 CIRCULATOR
<b>Length</b>	48 cm (19")	48 cm (19")
<b>Width</b>	28 cm (11")	28 cm (11")
<b>Height</b>	32 cm (12.75")	20 cm (8")
<b>Weight</b>	24.5 kg (54 lbs)	12.2 kg (27 lbs)

