



## MEDIUM FREQUENCY WELD CONTROLLERS NASH MF 420 / MF 630 / MF 1200 / MF 1800

- 64 Programs • Password Setting • Triple Heat Sequence • Slopes
- Constant Current • Seam Welding Mode • Proportional Valve output
  - Steppers • Inputs for Automation Purpose and Robotic Welding
- Chain Sequencing • Networking - Ethernet/Profibus/Profinet Connectivity

### Key Features

- Easy to use
- Constant current for excellent Quality of weld.
- Inbuilt Programmer or Detachable Programmer
- 50/ 60 Hz operation Auto Detection
- 64 programs for store settings for different materials and thicknesses
- Hilift / Retract facility suitable for all types of gun operation Standard / Hilift + / Hilift –
- Counter functions (spot count , Job count, Tip Dress count, Tip Change Count, Total Weld Counts), Batch Count
- Weld current monitoring Display
- Proportionate Valve output to control welding force. Pressure monitoring Display
- Sequence - Spot, Roll spot, seam
- Password for Function, Tip Dress Count and Parameter Setting

### Optional

- MCCB ELR (Earth Leakage Relay)
- Reset Box

### Specifications MFDC

Constant Current Primary or Secondary Feedback

Power: 415V AC + 10% - 15%

Data Storage: FRAM memory, 45 years of Data Retention

### Function parameter

- Input / Output monitor
- Spot History (for latest 10 spot in control card)
- Schedule duplicate
- Data copy (Teaching box to Timer & Timer to Teaching box)

### General

- Test Pressure
- High lift pressure
- High lift delay
- Spot count monitor
- Batch monitor
- Repeat function
- High lift toggle
- Sch set through Ext Switch
- Reweld
- Fault reset by pilot
- Start by Ext SCH SEL



Option of  
**Built-in Programming Module  
or Remote Programming**



**Reset Box with LCD  
display & without LCD  
display**

Reset Box is provided with every controller to reset the errors and to monitor the data. It is available in two type Electronic reset box & Mechanical reset box

### Features: Electronic Reset Box

- 2 line 16 character Blue display
- 5 keys, Mode key : change weld / no weld and force test mode with LED indication, separate key for stepper reset
- INC / DEC Key : For 64 program selection
- Reset key : Reset the error and change the main screen
- Toggle s/w for coated and non coated program Selection
- Control ON / OFF Switch for control power On / Off

### Fault detection function (All errors are displayed in description form)

\* No Air, No Water \* No current. \* Job count reached. \* Spot count reached. \* Solenoid cable short detection \* Weld transformer over-heat. \* Extremely low current \* Low current limit. \* High current limit. \* Communication fault. \* Tip Dress, Tip Change \* Air Pressure Limits \* No ZCD \* Initiation Switch Short \* IGBT Overheat \* High Lift Solenoid Valve Short

**Operation :**

**64 Programs weld parameters**

- 1. Presqueeze 0 - 99
- 2. Squeeze 1 - 99
- 3. Upslope 0 - 600 ms
- 4. Weld 1 0 - 600 ms
- 5. Cool 1 0- 99 cycles
- 6. Weld 2 0 - 600 ms
- 7. Cool 2 0-99 cycles
- 8. Weld 3 0 - 600 ms
- 9. Cool 3 0-99 cycles
- 10. Down slope 0 -600 ms
- 11. Pulses 1-9
- 12. Hold 0-99
- 13. Off 1-99
- 14. Pressure 0-10 bar
- 15. Set gun force 50-3999 Kg
- 16. Set gun force 0.5 - 39.99 KN
- 17. Set Batch count 0-999
- 18. Set Job count 0-9999
- 19. Set Steeper No. 1 – 16
- 20. Heat 1/2/3 0-99%
- 21. Current 1/2/3 2-60 kA

**Monitoring parameter**

- Current monitor ON/OFF
- Weld 1, Weld 2, Weld 3 High limit 0-50%
- Weld 1 Weld 2, Weld 3 Low limit 0-50%
- Pressure/ Force Monitor ON/OFF
- Pressure / Force - High/Low limit ± 50%
- Conduction Angle Monitor ON/OFF
- Conduction High/Low limit 0-180 Deg.

**Input signal specification**

- Program selection 6 Numbers
- Fault Reset 1 Number
- Steeper reset 1 Number
- Thermostat 1 Number
- Weld / No Weld 1 Number
- Foot Switch 1 Number
- Retract Switch 1 Number
- Air Switch 1 Number
- Water 1 Number
- Initiation 2 1 Number
- Tip Dress/Tip change Reset 1 Number
- Spot/Job count Reset 1 Number
- Open Circuit Voltage 24V DC
- Short Circuit current 10mAmp

**Output signal specification**

Transistorized output 24 VDC (Total output current should not exceed 500mA)  
 Initiation Solenoid, Retract Solenoid, Weld complete, Fault, Stepper Complete, Ready, Tip Dress/Tip change, Spot/Job Count complete for Seam mode drive run output

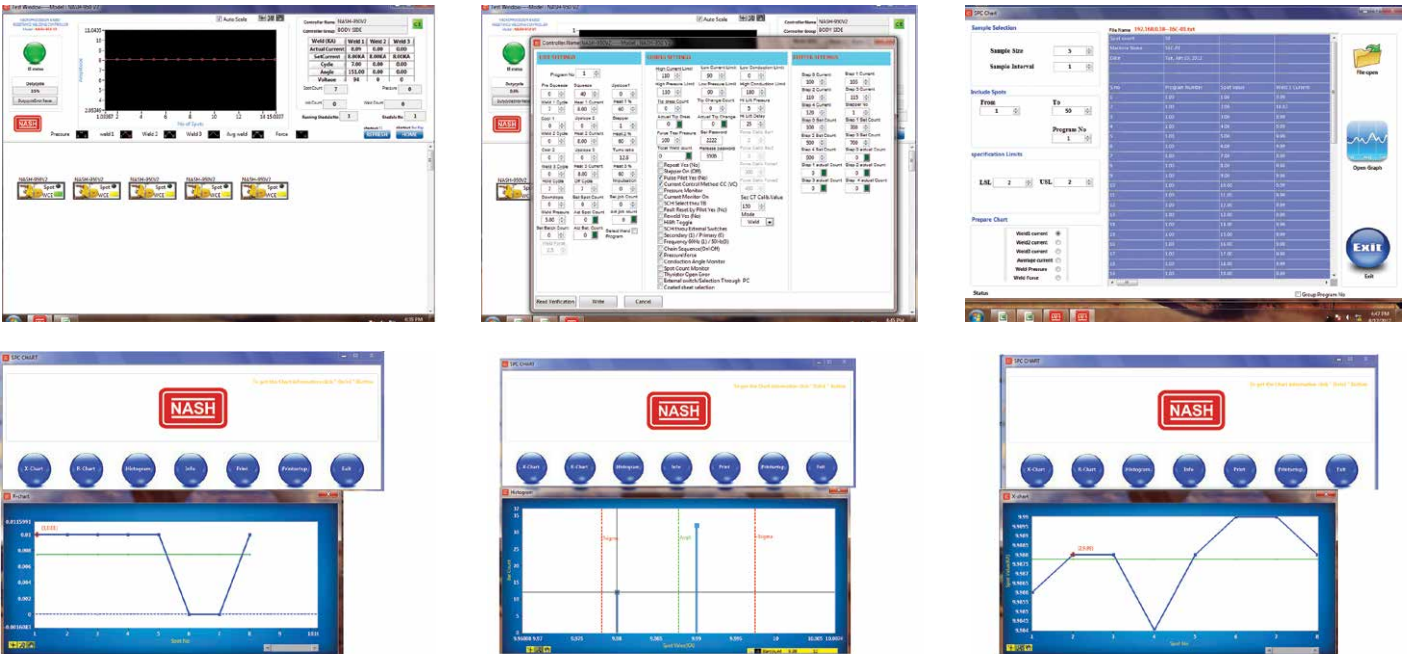
**Configuration Common parameters**

- Torrid selection – Primary or Secondary
- Current setting Range – 2 KA to 60KA

**Calibration parameters**

- Torrid sensitivity 100..2000 mV/kA
- CT Secondary Ratio 1.0
- CT Primary Ratio 1.1 - 200
- Pressure / Force Bar / Kg / Kn

**PC software for Programming and monitoring.**  
 (pl. ask for a separate catalogue for networking details)



NASH reserves the right to change specifications and appearance without prior notice.

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