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# 1. "ALGORITHM NOT RECOGNIZED. ABORTED."

"RESTART WELDER..."

Host is sending unrecognized algorithm. Wrong Firmware format for this welder.

If using wireless transmission, the infrared sensors might not be lined up properly. If the two units are not talking to each other, you need to look at the front panel main board.

It might be picking up noise between the units.

# 2. "ALGORITHM USED: ATMEL (or SST)"

Algorithm used to program FLASH chip. Informational only.

### 3. "ERASING OLD PROGRAM..."

Erasing Firmware from FLASH memory chip. Informational only.

## 4. "INITIALIZING...PLEASE WAIT."

Informational screen; should disappear quickly.

If flickering or rolling on screen:

- 1. Check to see if the ground to chassis is OK.
- 2. Switch Breaker Switch try again
- 3. Firmware problem
- 4. Controller board problem

### 5. "KEY FAILURE"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."
"IF PROBLEM CONTINUES, CONTACT FACTORY."

One of the keys (shown on LCD) is pressed/shorted during power up

Replace the front panel key pad or replace the key pad and sheet metal.

# 6. "POWER SUPPLY...CHECK: ARC SENSING CIRCUIT."

"FAULT."

"SERVICE REQUIRED"

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"CHECK: ARC SENSING CIRCUIT"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."

"IF PROBLEM CONTINUES, CONTACT FACTORY."

Arc sensing circuit is sensing arc voltage when power supply should be off.

- 1. Replace the Tig controller. (003-1936)
- 2. Replace the power supply controller. (003-1949)
- 3. Need to call tech support for P/N #

# 7. "POWER SUPPLY...CHECK: GAS FLOW SENSOR"

"FAULT."

"SERVICE REQUIRED"

"CHECK: GAS FLOW SENSOR"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."

"IF PROBLEM CONTINUES, CONTACT FACTORY."

Gas flow sensor is sensing gas flow when gas flow should be off.

- 1. Remove the J5 and see if that fixes the error code.
- 2. Check F1 & F2 on power supply board.
- 3. Check the thermal sensor. Should be close.

#### 8. "POWER SUPPLY...CHECK: OVER-CURRENT CIRCUIT."

"FAULT."

"SERVICE REQUIRED"

"CHECK: OVER-CURRENT CIRCUIT"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."

"IF PROBLEM CONTINUES, CONTACT FACTORY."

Over-current sensor is tripped.

- 1. Bad power supply
- 2. Power supply controller

#### 9. "POWER SUPPLY...CHECK: OVER-TEMPERATURE SENSOR."

"FAULT."

"SERVICE REQUIRED"

"CHECK: OVER-TEMPERATURE SENSOR"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."

"IF PROBLEM CONTINUES, CONTACT FACTORY."

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Over-temperature sensor is tripped. Power supply is too hot.

- 1. Cool power supply.
- 2. Power supply controller.

# 10. "POWER SUPPLY...CHECK: UNUSED INPUT."

"FAULT."

"SERVICE REQUIRED"

"CHECK: UNUSED INPUT"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."

"IF PROBLEM CONTINUES, CONTACT FACTORY."

One of the unused inputs is grounded during power up.

1. Very rare.

# 11. "PRINTER ERROR"

"SERVICE RECOMMENDED"

Printer reported an error.

- 1. Find printer fault
- 2. Printer controller

### 12. "PRINTER INIT. ERROR"

"SERVICE RECOMMENDED"

Printer does not initialize correctly.

- 1. Find printer fault (no power to printer, etc.).
- 2. Printer controller not working.

# 13. "PRINTER OUT OF PAPER"

"SERVICE RECOMMENDED"

Printer reported out of paper condition

1. Add paper to printer

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# 14. "PROGRAM TOO LARGE TO FIT. ABORTED."

"RESTART WELDER..."

Downloaded program was too large for memory size included with the welder.

- 1. Wrong Firmware was used for download, reload correct Firmware.
- Download error occurred.

If using wireless transmission, the infrared sensors might not be lined up properly. If the two units are not talking to each other, you need to look at the front panel main board.

It might be picking up noise between the units.

#### 15. "READY TO RECEIVE..."

The unit is waiting to download Firmware.

### 16. "RECEIVING BLOCK:"

Number of 128 byte blocks received successfully. Informational only.

## 17. "RECEIVING ON CHANNEL:"

Which type of connection is used (1 = infrared, 2 = wire). Informational only.

#### 18. "STARTING PROGRAM..."

Informational screen after power on to show that controller is active.

# 19. "PROGRAM FAILED."

Firmware execution failed and cannot continue. Bad Firmware or controller unit.

### 20. "SUCCESSFULLY PROGRAMMED. RESTART."

"RESTART WELDER..."

Firmware was downloaded and the unit must be restarted.

After Firmware download, restart welder (power off/on) to reload new Firmware.

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### 21. "TESTING...PLEASE WAIT."

Informational screen.

If the screen locks up after power on, you need to reset the unit and the digital controller.

Need to replace chips 2, 6, and 7. Be sure to use a chip puller and antistatic dev.

### 22. "TIMING ERROR: 1A"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."
"IF PROBLEM CONTINUES, CONTACT FACTORY."

Main controller oscillator failure. Service is necessary.

Controller does not work correctly and was stopped.

- 1. Check the controller.
- 2. Noisy environment.
- 3. Reset the unit.

## 23. "TIMING ERROR: 1B"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."
"IF PROBLEM CONTINUES, CONTACT FACTORY."

Main controller timer error caused watchdog timeout and reset.

Controller does not work correctly and was stopped.

- 1. First you should check the controller.
- 2. Switching the Break should fix the problem about 80% of the time.

## 24. "TIMING ERROR: 1C"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."
"IF PROBLEM CONTINUES, CONTACT FACTORY."

PIC controller timer error caused watchdog timeout and reset.

Controller does not work correctly and was stopped.

- 1. Check the controller.
- 2. Noisy environment.
- 3. Reset the unit.

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# 25. "TIMING ERROR: 2A"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."
"IF PROBLEM CONTINUES, CONTACT FACTORY."

The main controller Timer is not working. Need to replace the controller chip?

Replace the digital controller.

You must recalibrate after you have replaced controller board.

#### 26. "TIMING ERROR: 2B"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."
"IF PROBLEM CONTINUES, CONTACT FACTORY."

PIC controller error caused watchdog timeout and reset.

PIC Firmware detected an error.

Replace the PIC controller chip or the digital controller unit.

You must recalibrate after you have replaced controller board.

# 27. "TIMING ERROR: 2C"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."
"IF PROBLEM CONTINUES, CONTACT FACTORY."

PIC controller failed during self test after power up

PIC Firmware detected an error.

Replace the PIC controller chip or the digital controller unit.

You must recalibrate after you have replaced controller board.

#### 28. "TIMING ERROR: 2D"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."
"IF PROBLEM CONTINUES, CONTACT FACTORY."

PIC controller returned unexpected response. Firmware or controller problem.

PIC Firmware detected an error.

Replace the PIC controller chip or the digital controller unit.

You must recalibrate after you have replaced controller board.

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# 29. "TIMING ERROR: 2E"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."
"IF PROBLEM CONTINUES, CONTACT FACTORY."

PIC controller error caused watchdog timeout and reset.

PIC Firmware detected an error.

Replace the PIC controller chip or the digital controller unit.

You must recalibrate after you have replaced controller board.

## 30. "UNRECOGNIZED MESSAGE. START OVER."

"RESTART WELDER..."

Communication problem with the host computer or other unit.

If using wireless transmission the infrared sensors might not be lined up properly. If the two units are not talking to each other, you need to look at the front panel main board.

It might be picking up noise between the units.

#### 31. "WELDHEAD...CHECK: START/STOP SWITCH."

"SWITCH FAULT."

"CHECK: START/STOP SWITCH"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."

"IF PROBLEM CONTINUES, CONTACT FACTORY."

Start switch (weldhead) is pressed/shorted during power up.

Check start switch on the weldhead to see if it works.

Look at the interface filter board.

If it is still bad, go to Tig Controller.

#### 32. "WELDHEAD...CHECK: WELDHEAD FINAL SLOPE SWITCH."

"SWITCH FAULT."

"CHECK: WELDHEAD FINAL SLOPE SWITCH"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."

"IF PROBLEM CONTINUES, CONTACT FACTORY."

Final slope switch is pressed/shorted during power up.

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Weld head switch.

Filter board.

Tig controller.

# 33. "WELDHEAD...CHECK: WELDHEAD JOG SWITCH."

"SWITCH FAULT."

"CHECK: WELDHEAD JOG SWITCH"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."

"IF PROBLEM CONTINUES, CONTACT FACTORY."

Jog switch is pressed/shorted during power up.

Weld head switch.

Filter Board.

Tig controller.

# 34. "WELDHEAD...CHECK: WELDHEAD NEXT LEVEL SWITCH."

"SWITCH FAULT."

"CHECK: WELDHEAD NEXT LEVEL SWITCH"

"TURN POWER OFF, WAIT 5 SEC, TURN POWER ON."

"IF PROBLEM CONTINUES, CONTACT FACTORY."

Next level switch is pressed/shorted during power up.

Weld head switch.

Filter board.

Tig controller.