

## SINGLE DISPLAY

# Digital Inflation Equipment

## 89MXA



## S P E C I F I C A T I O N S

## I N S T A L L A T I O N

## O P E R A T I O N

## S E R V I C E

***Please read this manual  
before carrying out any  
installation or service  
procedures.***

***Upon Installation pass  
this manual to the  
equipment owner.***

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## 1.0 Introduction

### 1.1 This Manual

Congratulations on selecting a Haltec Digital Tire Inflator. This equipment has a number of unique features that are explained in this manual.

Throughout the manual the following symbols will be used, this information is for your safety and to prevent damage to this product.



#### CAUTION

The hazard or unsafe practice **could** result in minor injury.



#### WARNING

The hazard or unsafe practice **could** result in severe injury or death.

### 1.2 Digital Inflation Overview

Your Haltec Digital Tire Inflator has a dual pneumatic valve controlled by an Digital circuit that controls the inflation and deflation process.

The process will only commence when there is more that 3 psi, 20 kPa or 0.2 bar in the tire when the hose is connected.





#### WARNING


To avoid the risk of electrical shock, personal injury or death, disconnect power before servicing this equipment


### 1.3 General Specifications

Operating Temperature	0°C to +60°C (without heater) 32°F to 140°F -20°C to +60°C (with heater) -4°F to 140°F
Relative Humidity	100%
Supply Voltage	11-18Vdc, 8-16Vac 110-120V 50/60Hz 220-240V 50/60Hz
Current	1A Max
Fuse	Auto Reset 1.1A Nominal
Max Inlet Air Supply	150psi, 1035 kPa, 10.3 bar
Recommended Inlet Air Supply	10 psi, 70kPa or 0.7 bar above the maximum set pressure of the unit.
Operating Pressure Maximum	145 psi, 1000 kPa, 10.0 bar
Minimum	5 psi, 35 kPa, 0.3 bar
Accuracy	Up to 0.5% FS
Display Increments	1 psi, 5 kPa, 0.1 bar
Units of Measurement	psi, kPa, bar, kg/cm2
Default to Safe Setting (DTSS) Reset Time (Retail Petroleum Equipment ONLY)	1 minute

 **WARNING**  
To avoid the risk of personal injury, especially to the eyes, face or skin DO NOT direct the air stream at any person/s.

 **WARNING**  
This equipment is not intended for use by children without adult supervision.

 **CAUTION**  
To avoid equipment damage never exceed the manufacturers maximum inlet pressure of 150 psi, 1035 kPa or 103 bar.

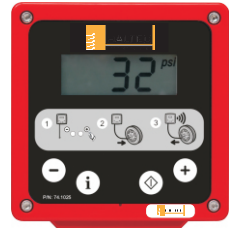
 **CAUTION**  
This equipment has NO user serviceable parts. ONLY trained, experienced repair personnel employed by an authorised service agent should perform service to this equipment.

## 2.0 89MXA Model

### Specifications

Construction	High Impact, Self Extinguishing Polycarbonate
Degree of Protection	IP66
Unit Dimensions (excluding packaging)	155 x 155 x 88mm
Shipping Weight	2.5kg


Refer to General Specifications for further information




89MXA

### Installation - Internal Fixing

1. Unpack the unit and remove the front panel.
2. Drill the four (4) mounting locations in the back box to suit up to M6 or 1.4" fasteners.
3. Hold the unit up on the wall and mark where the four (4) holes are to be drilled.
4. Secure the unit using suitable fasteners.
5. Seal these fasteners with the caps supplied to maintain the IP rating of the unit.
6. Connect the air supply to the unit.
7. Connect the power supply, refer to the rating label for correct power requirements.


**WARNING**  
 Ensure that the product is connected to the correct power and air supply, refer to rating label and general specifications.


**CAUTION**  
 If internal fixing screws are used, ensure these fasteners are sealed and caps are fitted to maintain the IP rating of the unit.

## 3.0 Operation

### 3.1 Switch Functions



Reduces the set pressure



Increases the set pressure



Displays an alternative unit of measurement \*

This switch can be programmed to operate in one (1) of the following modes :

#### Default Unit Mode

Pressing and holding the Switch will momentarily display an alternative unit of measurement. When you release the switch the display will immediately revert back to the default unit of measurement. The pressure can only be set in the default unit of measurement.

#### Selectable Unit Mode

Pressing and releasing the Switch will display an alternative unit of measurement. The pressure can be set in any of the units of measurement.

\* The units displayed on each machine will vary depending on the software that has been requested.



The '◇' Switch discharges up to five (5) bursts of air. Used when the pressure in the tire is less than 3psi, 20kPa or 0.2 bar.



#### WARNING

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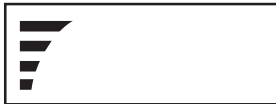


#### WARNING

This equipment is not intended For use by children without adult supervision.

## 3.2 Inflation & Deflation

- 3.2.1 Set the desired pressure, refer to Section 3.1 for the function of each Switch.
- 3.2.2 Connect the hose to the tire, ensure the hose is connected securely. Air leaks will cause a error message to be displayed, refer to Section 4.0.
- 3.2.3 The pressure in the tire will be displayed.
- 3.2.4 The unit will inflate or deflate the tire to the set pressure. Periodically the process will stop and display the pressure in the tire.
- 3.2.5 If the pressure in the tire is less than 3psi, 20 kPa or 0.2 bar the process will not commence until the '◊' Switch is pressed, refer Section 3.1.
- 3.2.6 The scroll bar will indicate that the unit is inflating or deflating, see below



- 3.2.7 When the set pressure is reached the display will flash and the unit will beep five (5) times. This will continue until the hose is disconnected, during this time the keypad will be disabled.



### WARNING

Ensure that the product is connected to the correct power and air supply, refer to rating label and general specifications.

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### 3.3 Volume Adjustment

- 3.3.1 Turn off the unit.
- 3.3.2 Press and hold the '-' and '◇' switches, refer to Section 3.1.
- 3.3.3 Turn the unit on, VOL will be displayed.
- 3.3.4 Adjust the volume using '+' and '-' switches, refer to Section 3.1.
- 3.3.5 To store the settings press the '◇' switch.  
Further changes can be made by repeating the above procedure.



## 4.0 Troubleshooting

The following chart has been prepared to assist with diagnosis of faults

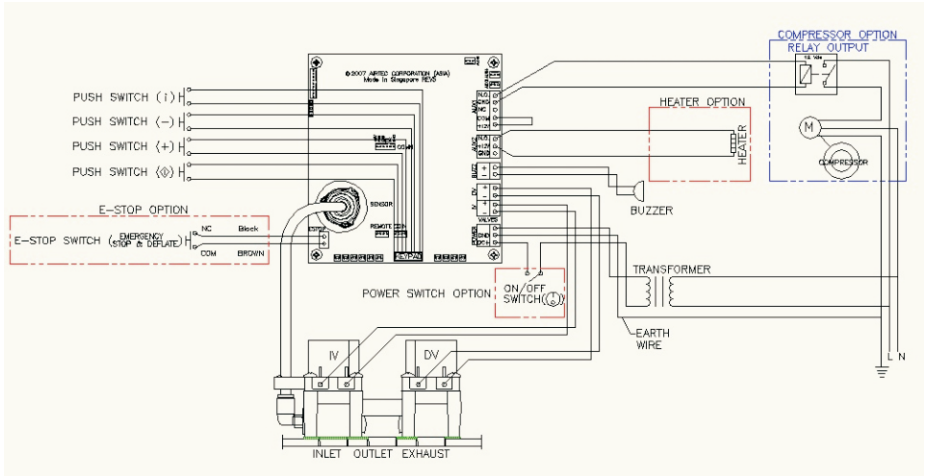
PROBLEM	POSSIBLE CAUSE	SOLUTION
No display.	No power supply	Check power supply
The inflation process does not commence, even when the pressure is set and the hose is connected to the tire.	The tire is deflated below 3 psi, 20 kPa or 0.2 bar. The hose connector is faulty.	Press   Replace the hose Connector.
The display will not move or is stuck on a particular value.	The faceplate/switch is damaged.	Replace the faceplate/ switch.
The unit deflates very slowly.	The silencer plug on the valve block is blocked.	Remove and clean the silencer plug.
The unit no longer beeps.	The beeper is damaged.	Replace the beeper.
The inflation process commences but does not complete.	Low or nil supply pressure.	Check the air compressor supply pressure.
ER1	Unstable pressure, faulty hose connector.	Replace the hose connector.
ER2	Unstable pressure, faulty hose connector. Incorrect supply pressure.	Replace the hose connector. Check the air compressor supply pressure.
ER3	Inflate & Deflate valve connections are reversed. Low or nil supply pressure.	Check the valve connections on the PCB. Check the air compressor supply pressure.
ER4	Initial or final pressure is too high, exceeding the maximum pressure by more than 20 psi, 140 kPa or 1.4 bar.	Disconnect hose connector, reset processor by switching off the power for a minimum of 5 sec. If error message reappears replace PCB.
ER5	Low voltage supply.	Check power supply. The message will clear when the correct voltage is restored.

#### 4.0 Troubleshooting, cont.

The following chart has been prepared to assist with diagnosis of faults

PROBLEM	POSSIBLE CAUSE	SOLUTION
ER6	Programme or PCB Error	Reset machine by switching off power for 5 seconds. If error message reappears replace PCB.
ER8	Calibration Error	Unit requires calibration, contact your local distributor or service agent.
ER9	Automatic Calibration Check/ Calibration Error	Disconnect hose connector, reset machine by switching off power for 5 seconds. The ER9 message will clear automatically when the factory calibration is restored. If the ER9 message continues to reappear, replace the PCB.
ERP	Unstable supply pressure	Check the supply pressure.
ERU	Hose disconnection during inflate cycle	Check hose connection.
ERU	Short circuitry on valve connection	Check and dry up the valve connection.
ERB	Short circuitry on buzzer connection	Check and dry up the buzzer connection.

## 5.0 Wiring Diagram



### WARNING

Ensure that the product is connected to the correct power and air supply, refer to rating label and general specifications.

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## 6.0 Spare Parts & Accessories

Part Number	Description
91.0214	Clip on Heavy Duty Hose Chuck 1/4"
91.0211	Hold on Twin Chuck 1/4"
Hose Kit	
61.1018	2m Black Hose fitted with Standard JP Coupling and Heavy Duty Hose Chuck Other colours available on request
41.0702	Beeper, suits 89MXA

## 7.0 Component Replacement

### 7.1 Hose Connector (Clip On Hose Chuck)

The hose chuck has a screw on connector. Simply unscrew the existing hose and replace with the new hose chuck.

### 7.2 Beeper Replacement

#### 89MXA

7.2.1 Remove the four (4) cover screws.

7.2.2 Remove the beeper lockring on the outside of the enclosure.

7.2.3 Remove the beeper by lifting off the cable terminal from the PCB.

Installation is the reversal of this procedure.



#### WARNING

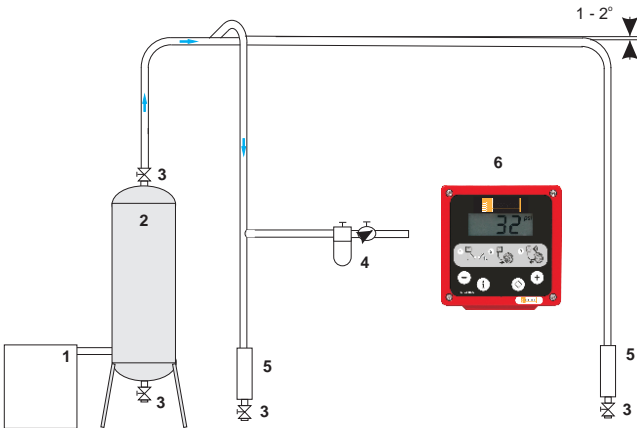
To avoid the risk of electrical shock, personal injury or death, disconnect power before servicing this equipment

## 8.0 Compressed Air Systems

The information in this section is designed to provide some basic information about compressed air systems and the use of Digital inflation equipment.

Compressed air systems contain oil and water, it is important to filter and drain these from the system. The water is generated by condensation and oil can be carried into the line from the compressor. A basic system is illustrated below. The components of this system are as follows:

1. Air Compressor
2. Air Receiver Tank
3. Valves
4. Filter & Regulator
5. Condensate Drain (Water Tap)
6. Digital Tire Inflator



### WARNING

To avoid the risk of personal injury, especially to the eyes, face or skin DO NOT direct the air stream at any person/s.



### WARNING

This equipment is not intended for use by children without adult supervision.



### CAUTION

To avoid equipment damage, never exceed the manufacturers maximum inlet pressure of 150 psi, 1035 kPa or 10.3 bar.



### CAUTION

This equipment has NO user serviceable parts. Only trained, experienced repair personnel employed by an authorised service agent should perform service to this equipment.

Each system and installation of Digital inflation equipment is different however it is imperative with any system that the drain valves (No.3) are opened routinely to remove water that has been collected.

Immediately prior to the tire inflator (No.6) a regulator (No.4) should be fitted. This should be set to 10 psi, 70 kPa or 0.7 bar above the maximum set pressure of the unit. This will prevent excessive pressure being supplied to the unit and the resulting error message ER4. Refer to Section 4.0 Troubleshooting.

Also prior to the tire inflator a filter (No.4) should be fitted. This filter should remove all solid materials such as scale caused by corrosion inside the pipe and reservoir. Contaminants may have an adverse effect on the internal components of the system due to blockage and corrosion.



#### WARNING

Ensure that the product is connected to the correct power and air supply, refer to rating label and general specifications



#### CAUTION

If this equipment is being installed on a retail petroleum site consideration must be given to the requirements of **Australian Standard AS/NZS2430.3** or the relevant Hazardous Area standard for your region.

## 9.0 Policy / Warranty

Your Haltec Digital Inflation Equipment is covered under warranty for 12 months from the date of invoice, subject to the following conditions:

- 9.1 Products  
Subject to change without notice. Haltec is not responsible for inadvertent typographical errors or omissions.
- 9.2 Returned Goods  
No return goods will be accepted unless authorized in writing by Haltec. All return goods must be shipped prepaid to the factory, and are subject to a restocking charge. Special items are not returnable.
- 9.3 Warranty  
Except where the product has been damaged by misuse, faulty installation, unauthorised repairs, incorrect maintenance or accidental damage, Haltec will at its own discretion repair or replace the defective product (or pay for the cost of repair or replacement).

Warranty **does not** include air hoses, hose connectors (hose chucks) or membrane keypads.

Haltec Corporation expressly excludes all other warranties expressed or implied, including without limitation the implied warranties of merchantability and fitness for any other purpose. Haltec Corporation further excludes liability for consequential and incidental losses including but not limited to the loss of profits which may arise out of the breakdown or failure of any product.



## 10.0 Initial Verification Certificate

### Compliance Statement

This equipment before its release is checked and tested, and is calibrated on test equipment that has a traceable accuracy that exceeds EC-Directive 86/217/EEC and managed under ISO9001 requirements.

This equipment also complies to the relevant sections of EC-directive 86/217/EEC (tire pressure gauges for motor vehicles and BS EN 12645:1999 (pressure gauges: Apparatus for inspection of pressure and/or inflation of tires for motor vehicles) applicable to digital equipment.

In addition this equipment complies where relevant to the following EC-directives:

2004/108/EC (EMC Directive)

2006/95/EC (Low Voltage Directive)

This compliance has been verified and tested by accredited laboratories to the following standards:

Emission:

AS/NZ CISPR 14.1:2003

AS/NZ 61000.3.3:1998

CISPR14.1:2000 Inc A1:2001

CISPR14.1:2005 inc A1:2008 & C1:2009

CISPR 14.2:2006

EN 55014.1:2000 Inc A1:2001

EN 55014.1:2006

EN 55014.1:2007

EN 61000-3-2:1995 inc A13:1999

EN 61000-3-2:2006

IEC 61000-3-3:1994

EN 61000-3-3:1995 inc A1:1998, A1:2001, A2:2002, & A3:2006,

Immunity:

CISPR 14.2:1997 Inc A1:2001,

CISPR 14.2:1997 Inc A1:2006 & A1:2008

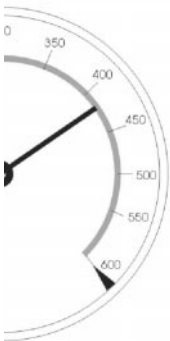
CISPR 14.2:2003

EN 55014.2:1997 Inc A1:2001

EN 55014.2:1997 Inc A1:1998, A2:2002 & A3:2007

EN 61000-3-3:1995 Inc A1:2001

Further testing and approval information is available upon request



**Manufactured for Haltec Corporation by**

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Singapore 408560

Model

O 89MXA

Product Serial No.....

PCB Serial No.....

Date.....

Signature.....

## 11.0 Glossary & Conversions

### Units of Measurement

<b>psi</b>	Pounds per square inch
<b>kPa</b>	Kilopascals
<b>bar</b>	Barometric
<b>atm</b>	Atmospheres
<b>Kg/cm2</b>	Kilograms per square centimetre
<b>IP</b>	International Protection Rating
<b>CFM</b>	Cubic Feet per Minute
<b>LPM</b>	Litres per Minute
<b>PCB</b>	Printed Circuit Board
<b>Sample Tube</b>	Connects the valve block & PCB
<b>LCD</b>	Liquid Crystal Display

### Conversions

**1 psi =** 6.8947 kPa  
0.0689479 bar  
0.06890459 atm  
0.0703069 kg/cm2



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Haltec Corporation reserves the right to change specifications, modify designs and discontinue items without incurring obligation and whilst every effort is made to ensure descriptions, specifications and other information in this manual is correct, no warranty is given in respect thereof and the company shall not be liable for any error therein.

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