

## Digital Inflation Equipment



89XDA



89XDD



89XDB



89XDE

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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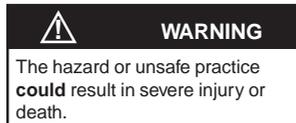
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## 1.0 Introduction

### 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.

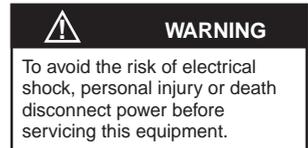
Throughout the manual the following symbols will be used, this information is for your safety and to prevent damage to this product.



### 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 than 3psi, 20 kPa or 0.2bar in the Tire when the hose is connected.



### 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  
100-120V 50/60Hz  
220-240V 50/60Hz

Current 1A Max

Fuse Auto Reset  
1.1A Nominal (single display)  
2.5A Nominal (dual display)

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 1 minute  
(DTSS) Reset Time  
(Retail Petroleum Equipment ONLY)

**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 manufacturer's 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.

## 2.0 89XDA Model

### Specifications

Construction	Diecast Aluminium Enclosure
Degree of Protection	IP66
Unit Dimensions (excluding packaging)	269 x 285 x 106mm
Shipping Weight	5.4kg

Refer to General Specifications for further information.



89XDA

### Installation

#### External Mounting

1. Unpack the unit.
2. Hold the unit up on the wall and mark where the four (4) holes are to be drilled.
3. Secure the unit using suitable fasteners.
4. Connect the air supply to the unit.
5. Connect the power supply, refer to the rating label for the correct power requirements.

 **WARNING**

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

#### Internal Mounting

1. Unpack the unit and remove the front panel
2. Drill the four (4) Mounting locations in the backbox 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 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 the correct power requirements.

 **CAUTION**

If this equipment is being installed on a retail petroleum site consideration must be given to the requirements of **German Standard DIN EN 837-1 (Druckmeßgeräte mit Rohrfedern), Ausgabe Februar 1997** or the relevant Hazardous Area standard for your region.

#### Important:

**Ensure air supply line is purged and free from any solids or contaminants prior to hose connection. Failure to do so can cause damage to machine components and may void warranties.**



## 89XDD



### 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 **German Standard DIN EN 837-1 (Druckmeßgeräte mit Rohrfedern), Ausgabe Februar 1997** or the relevant Hazardous Area standard for your region.

## 3.0 89XDD Model

### Specifications

Construction	Diecast Aluminium Enclosure
Degree of Protection	IP66
Unit Dimensions (excluding packaging)	269 x 285 x 106mm
Shipping Weight	5.4kg

Refer to General Specifications for further information.

### Installation

#### External Mounting

1. Unpack the unit.
2. Hold the unit up on the wall and mark where the four (4) holes are to be drilled.
3. Secure the unit using suitable fasteners.
4. Connect the air supply to the unit.
5. Connect the power supply, refer to the rating label for the correct power requirements.

#### Internal Mounting

1. Unpack the unit and remove the front panel
2. Drill the four (4) Mounting locations in the backbox 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 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 the correct power requirements.

## 4.0 89XDB Model

### Specifications

Construction	Diecast Aluminium Enclosure
Degree of Protection	IP66
Unit Dimensions (excluding packaging)	269 x 285 x 106mm
Shipping Weight	4.1kg



**89XDB**

Refer to General Specifications for further information.

### Installation

#### External Mounting

1. Unpack the unit.
2. Hold the unit up on the wall and mark where the four (4) holes are to be drilled.
3. Secure the unit using suitable fasteners.
4. Connect the air supply to the unit.
5. Connect the power supply, refer to the rating label for the correct power requirements.

**WARNING**

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

#### Internal Mounting

1. Unpack the unit and remove the front panel
2. Drill the four (4) Mounting locations in the backbox 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 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 the correct power requirements.

**CAUTION**

If this equipment is being installed on a retail petroleum site consideration must be given to the requirements of **German Standard DIN EN 837-1 (Druckmeßgeräte mit Rohrfedern), Ausgabe Februar 1997** or the relevant Hazardous Area standard for your region.

## 5.0 89XDE Model



**89XDE**

### Specifications

Construction	Diecast Aluminium Enclosure
Degree of Protection	IP66
Unit Dimensions (excluding packaging)	269 x 285 x 106mm
Shipping Weight	4.1kg

Refer to General Specifications for further information.

### Installation

#### External Mounting

1. Unpack the unit.
2. Hold the unit up on the wall and mark where the four (4) holes are to be drilled.
3. Secure the unit using suitable fasteners.
4. Connect the air supply to the unit.
5. Connect the power supply, refer to the rating label for the correct power requirements.

#### Internal Mounting

1. Unpack the unit and remove the front panel
2. Drill the four (4) Mounting locations in the backbox 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 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 the 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 this equipment is being installed on a retail petroleum site consideration must be given to the requirements of **German Standard DIN EN 837-1 (Druckmeßgeräte mit Rohrfedern), Ausgabe Februar 1997** or the relevant Hazardous Area standard for your region.

## 6.0 Operation

### 6.1 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 key 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 'Flat Tire only' switch discharges up to five (5) bursts of air. Used to start the inflation process when the pressure in the Tire is less than 3 psi, 20 kPa or 0.2 bar.



#### 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.

## 6.2 Inflation & Deflation (Single Display Unit)

- 6.2.1 Set the desired pressure, refer to Section 6.1 for the function of each switch.
- 6.2.2 Connect the hose to the Tire, ensure the hose is connected securely. Air leaks will cause an error message to be displayed, refer to Section 7.0.
- 6.2.3 The pressure in the Tire will be displayed.
- 6.2.4 The unit will inflate or deflate the Tire to the set pressure. Periodically the process will stop and display the pressure in the Tire.
- 6.2.5 If the pressure in the Tire is less than 3 psi, 20 kPa or 0.2 bar the process will not commence until the 'Flat Tire only' switch is pressed, refer Section 6.1.
- 6.2.6 The scroll bar will indicate that the unit is inflating or deflating, see below.



- 6.2.7 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.

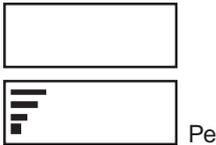


### CAUTION

If this equipment is being installed on a retail petroleum site consideration must be given to the requirements of **German Standard DIN EN 837-1 (Druckmeßgeräte mit Rohrfedern), Ausgabe Februar 1997** or the relevant Hazardous Area standard for your region.

## 6.4 Inflation & Deflation (Dual Display Unit)

- 6.4.1 Set the desired pressure, refer to Section 6.1 for the function of each switch.
- 6.4.2 Connect the hose to the Tire, ensure the hose is connected securely. Air leaks will cause an error message to be displayed, refer to Section 7.0.
- 6.4.3 The pressure in the Tire will be displayed on the bottom LCD (Pe).



- 6.4.4 The unit will inflate or deflate the Tire to the set pressure (Top LCD). Periodically the process will check the Tire pressure and display the pressure on the bottom LCD.
- 6.4.5 If the pressure in the Tire is less than 3 psi, 20 kPa or 0.2 bar the process will not commence until the 'Flat Tire only' switch is pressed, refer Section 6.1.
- 6.4.6 The scroll bar will indicate that the unit is inflating or deflating, bottom LCD only.
- 6.4.7 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.



### CAUTION

If this equipment is being installed on a retail petroleum site consideration must be given to the requirements of **German Standard DIN EN 837-1 (Druckmeßgeräte mit Rohrfedern), Ausgabe Februar 1997** or the relevant Hazardous Area standard for your region.

## 6.5 Volume Adjustment

- 6.5.1 Turn the unit off.
- 6.5.2 Press and hold the decrease and 'Flat Tire Only' switches, refer to Section 6.1.
- 6.5.3 Turn the unit on, VOL will be displayed.
- 6.5.4 Adjust the volume using the increase and decrease switches, refer to Section 6.1.
- 6.5.5 To store the setting press the 'Flat Tire Only' switches. Further changes can be made by repeating the above procedure.

## 7.0 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 switch is damaged.	Replace the 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.

## 7.0 Troubleshooting, cont.

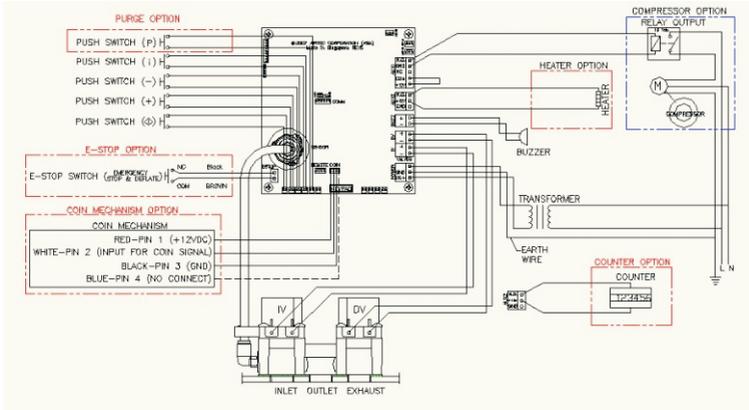
PROBLEM	POSSIBLE CAUSE	SOLUTION
ER1	Unstable pressure, faulty hose connector.	Replace the hose connector.
ER2	Unstable pressure, faulty hose connector. Incorrect supply pressure.	Replace the hose connector. Check the air compressor supply pressure.
ER3	Inflate & Deflate valve connections are reversed. 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 seconds. If error message reappears replace PCB, refer Section 10.0.
ER5	Low supply voltage.	Check power supply. The message will clear when the correct voltage is restored.
ER6	Programme or PCB error.	Reset machine by switching off the power for a minimum of 5 seconds. If error message reappears replace PCB, refer Section 10.0.
ER7	Insufficient supply pressure Loose hose connection	Check the air compressor supply pressure Check hose connection.
ER8	Calibration error.	Unit requires calibration, contact your local distributor or service agent.
ER9	Calibration error.	Reset machine by switching off the power for a minimum of 5 seconds. If error message reappears replace PCB, refer Section 10.0.
ERP	Unstable supply pressure Hose disconnection during inflate cycle	Check the air compressor supply pressure. 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.

## 8.0 Spare Parts & Accessories

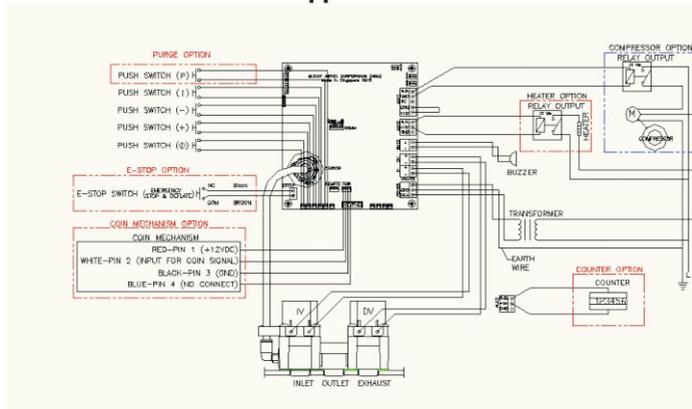
Part Number	Description
Hose Chuck - Open Type 91.0214	Clip on Heavy Duty Hose Chuck 1/4"
22.0000	Hose Coupling Cover
Hose Kit 61.0001	10m Grey Hose fitted with Standard JP Coupling and Heavy Duty Hose Chuck Other colours available on request
Accessory Pack 61.0101	Includes 1 x 10m Hose Kit, 2 x Heavy Duty Hose Chucks and 1 x Hose Coupling Cover
94.3001	Transfer Valve - 3 way 1/4"
93.0800	Manifold Kit - 4 way 1/2" x 1/4"
94.5049	Vented Slide Valve 1/2"
94.0951	Non Return Valve, 1/4" BSP M/F
41.0702	Beeper, suits 89XD Models
45.1042	Piezo Switch
45.1050	Switch, S/S c/w Molex Connector, Dia 19mm
Valves	
96.1020	Valve Assembly 1/4" Less Fittings
96.1035	Valve Assembly 1/2" Less Fittings
95.1026	Valve Diaphragm to suit 1/4" and 1/2" Valves
95.1004	Filter Washers 1/4"
95.1514	Filter Washers 1/2"
97.5081	Tool, CRT, Haltec

## 9.0 Wiring Diagram

### Applicable for XDA



### Applicable for XDB



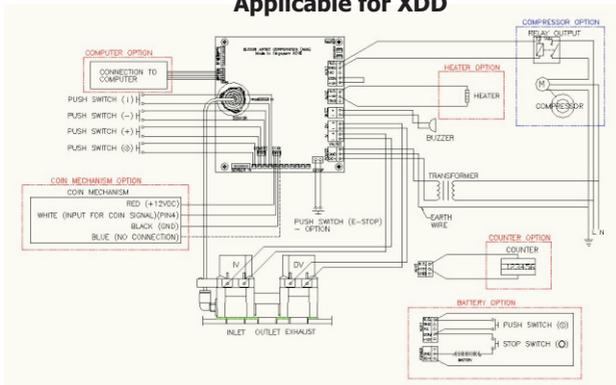
**WARNING**

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

**CAUTION**

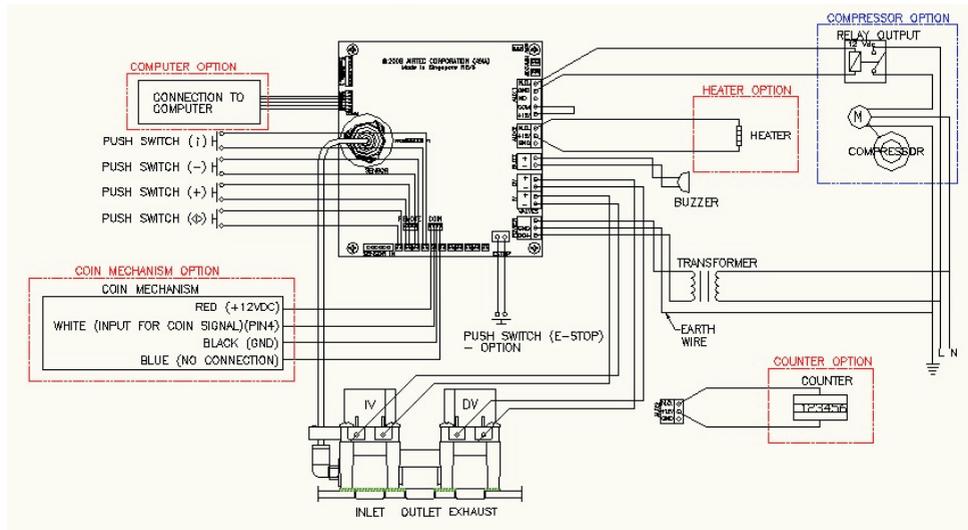
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### Applicable for XDD



## 9.0 Wiring Diagram (cont'd)

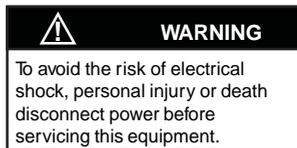
### Applicable for XDE



## 10.0 Component Replacement

### 10.1 PCB

- 10.1.1 To remove the existing PCB, open the unit.
- 10.1.2 Disconnect the switches from the connector.
- 10.1.3 Unplug all other connections on the PCB.
- 10.1.4 Remove the sample tube from the valve block
- 10.1.5 Remove the 4 screws that retain the PCB.
- 10.1.6 To install the replacement PCB, remove the clear protective film over the LCD.
- 10.1.7 Connect the sample tube to the valve block.
- 10.1.8 Replace the 4 screws that retain the PCB in position.
- 10.1.9 Reconnect the switch connector and all other connections.



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## 11.0 Policy / Warranty

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

- 11.1 Products  
Subject to change without notice. Haltec Corporation is not responsible for inadvertent typographical errors or omissions.
- 11.2 Returned Goods  
No return goods will be accepted unless authorized in writing by Haltec Corporation. All return goods must be shipped prepaid to the factory, and are subject to a restocking charge. Special items are not returnable.
- 11.3 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.

## 12.0 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:

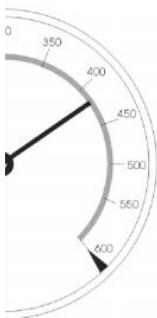
**Emission:**

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**

Airtec Corporation (Asia) Pte Ltd  
 67 Ubi Crescent #01-02  
 Singapore 408560

**Model**

- 89XDA
- 89XDD
- 89XDB
- 89XDE

Product Serial No.....

PCB Serial No.....

Date.....

Signature.....



**Haltec Corporation**

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<http://www.haltec.com>

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.

R2 (16 Jan 2014) C4-1