



DM&P Group



NCBox-189 User's Manual

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● OWNER'S RECORD

The serial number of this product is located at the rear panel of your NCBox series. Refer to the model and serial number when you contact your nearest dealer or DMP offices for services.

● SAFETY INFORMATION

WARNING

- ▶ Do not expose NCBOX-189 to rain or moisture, in order to prevent shock and fire hazard.
- ▶ Never install NCBox-189 in wet locations.
- ▶ Do not open the cabinet to avoid electrical shock. Refer to your nearest dealer for qualified personnel servicing.
- ▶ Never touch un-insulated terminals or wire unless your power adaptor and display monitor are disconnected.
- ▶ Locate NCBox-189 as close as possible to the socket outline for easy access and to avoid force caused by entangling of your arms with surrounding cables from the NCBox-189.
- ▶ When using NCBox-189, avoid using or installing the modem to the serial port during a storm or a lightning.
- ▶ Do not use the modem or a telephone to report a gas leak in the vicinity of the leak.
- ▶ USB connectors are not supplied with Limited Power Sources.

DO NOT ATTEMPT TO OPEN OR TO DISASSEMBLE THE CHASSIS (ENCASING) OF THIS PRODUCT. PLEASE CONTACT YOUR NEAREST DEALER FOR SERVICING FROM QUALIFIED TECHNICIAN.

● REGULATORY

ATTENTION

This product has been designed and certified to comply with certain regulatory requirements pertaining to Information Technology Equipment. This product has not been designed for use as a medical device. Without limitation of the foregoing, this product is not intended and has not been certified for use in a hospital or clinical environment to diagnose, treat, or monitor patients under medical supervision, and is not intended and has not been certified to make physical or electrical contact with patients, nor to transfer energy to or from patients and/or to detect such energy transfer to or from patients.

PURCHASE AGREEMENT

PURPOSE:

In accordance to the general commercial conduct of Trust and Fair Trade, herewith below is the agreement for the protection for both parties, DMP and Users in pursuant of trading.

PRODUCT DESCRIPTION:

With this product, herewith also known as NCBox-189, which is a simplified & an economical design of an embedded NCBox-189 for CNC machine. The basic specification of this product comprises of the x86 technology design, and with VGA display, USB, PS/2 Keyboard, Mouse, LAN, and Audio Interfaces.

DISTRIBUTION CONVENTION:

1. This Product includes a packing box, an inner case, a PC. Upon receiving this product, kindly please refer to the User' Manual to check for the contents and appearance of this product; contact immediately your nearest dealer or DMP office for any defective or missing parts. The supplier will not be responsible for any reported discrepancy thereafter the expiration period of 3-days from the date of purchase.
2. In consideration of transportation and the cost of storage, the supplier provides to the distributors a warranty of 12-months. This warranty covers the failure caused by hardware breakdown (excluding hard drives), but does not cover the act of misuse and mishandling.
3. The supplier will not accept unknown post, therefore if you wish to repair or to return your goods – kindly please contact your nearest dealer to make your declaration, and at the same time, apply for a RMA number (RMA stands for Return Merchandise Authorization – please see the RMA form and fill-up for authorization).
4. The freight for return goods for repair will follow the International customary practice and convention: Both parties is to pay for freight of one shipment each. The shipper is required to prepay the freight from the place of origin (This means that the returnee (user) covers the freight for return goods, while the Supplier covers the freight for goods after the repair).
5. Obsolete warranty is referred to as: (1) Expiration of warranty or (2) Damage due to misuse within warranty. The Supplier will be taken into consideration of the circumstances, to provide repair service with charges expense for obsolete warranty. This expense includes the cost of material and the cost of labor.

NOTE:

If there is other particular issue not listed in the above conditions, both parties agreed to follow the General Law of Commerce with fair and reasonable discussion in handling and resolving the argument.

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UNPACKING YOUR NCBox

Congratulation! You have just acquired NCBox-189, please check the following items:

PACKING LIST FOR NCBox-189 SERIES

Item	Description	Q'ty
①	NCBox-189	1

* Note: The accessories are subject to change without immediate notice.

CHECK BEFORE USE

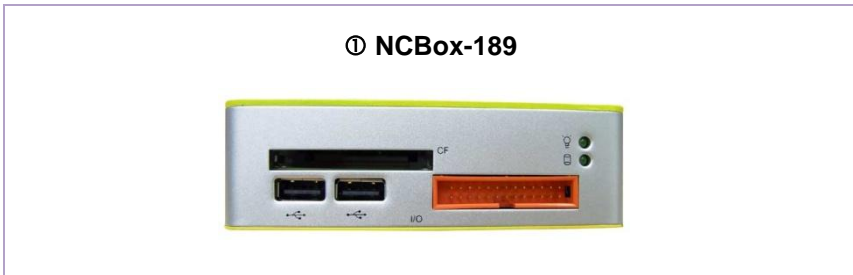


Figure 1

PREFACE

NCBox-189:



The NCBox-189 is a complete computer, which is especially designed for CNC machine controller come with 2 parallel ports easy connect to your stepper driver, NCBox-189 support Microsoft Windows with the Mach3 CNC software and Linux with the LinuxCNC software, makes your CNC machine easiest install and control.

NCBox-189 OVERVIEW

Front Panel



▶ Power LED

The power LED lights up when system is turn on.

▶ CF LED

The CF LED flashes when the system is working. Never turn off the power when CF LED is still flashing.

▶ CF Slot

The system is bootable from Compact Flash Card.

▶ 2nd Parallel Port

2nd Parallel Port (Port 378)

▶ USB port

For connection to devices with USB interface (HDD, CD/DVD-ROM, Memory Stick, etc.)

Back Panel



▶ Power switch

▶ DC Power In (8V-24V)

▶ PS/2 Keyboard or Mouse (6-pin)

▶ VGA

▶ 1st Parallel port (Port 278)

▶ LAN

▶ USB port

SYSTEM SPECIFICATION

CPU

Vortex86MX+

Main Memory

1GB DDR2

BIOS

AMI BIOS

VGA

D-Sub 15Pin

Integrated Graphics Chip

Power Input

DC 8V-24V

Keyboard and Mouse

PS/2 Keyboard and Mouse

Peripheral

1. USB V2.0 x 3
2. Type I/II CF Slot
3. Parallel port x 2
4. RJ-45 LAN

Dimension & Weight

115 x 115 x 35 mm / 505g

Operating System

Suitable for:

Windows XP

Windows Embedded Standard

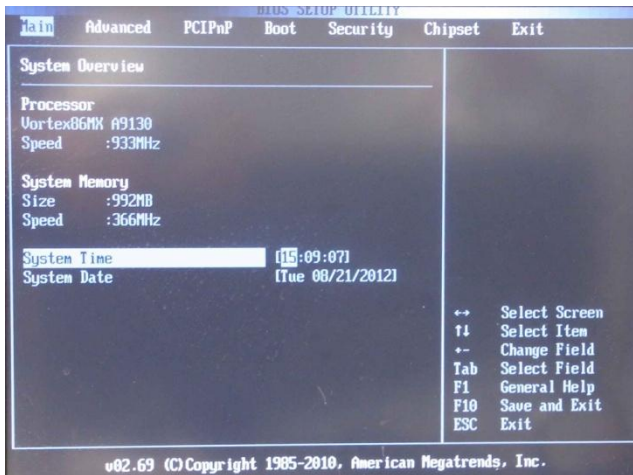
Windows Embedded Compact

Linux

BIOS

RECONFIGURING NCBox-189

1. Take note that AMI BIOS is used in the NCBox-189. To reconfigure the NCBox-189, depress or hit the key to enter your BIOS setup main menu.
2. Select from the menu, the desired setup for change.
3. Press <Esc> to go back to main menu.
4. Move "Exit" TAB and select "Save Settings and Exit", press "Y" to save the changes that you just made. NCBox-189 will restart accordingly to your new setup.



(AMI BIOS Setup menu)

TECHNICAL SPECIFICATION

Model	NCBox-189
Processor	Vortex86MX+
Memory	Onboard 1GB DDR2
VGA	Integrated Graphics Chip / D-Sub15-pin
Ethernet	10/100 Mbps LAN (RJ-45 connector) Built-in PXE diskless boot function
MIO	CF Slot
USB	3 ports (2 in the front)
PS/2	1 port (for KB/Mice)
Parallel	2 Ports, 1 in rear (Port 278), 1 in front (Port 378)
Power	DC 8V ~ 24V
Dimensions	115x115x55 mm
Weight	500g
Operation Temp.	5 – 50 Deg. C

TAKING CARE NCBox-189

This section gives you guidelines on using NCBox-189 – Safe using, Storing and Handling.

STORING

- ▶ Do not place NCBox-189 in a location that is subject to:
 - Heating sources, such as stove, oven, heater, radiator or air duct
 - Direct contact from sunlight
 - Rain or moisture area
 - Excessive dust accumulation area
 - High humidity place
 - Constant or occasional mechanical movement, vibration or shock
 - Strong magnets or magnetic fields or magnetically unshielded speakers
 - Ambient temperature of more than 95°F (35°C) or less than 32°F (0°C)
- ▶ Do not place other electronic device or electrical equipment near NCBox-189. The electromagnetic field of the NCBox-189 may cause interference subjecting to malfunction.
- ▶ Provide adequate air ventilation (circulation) to prevent internal buildup of heat. Do not place NCBox-189 near the wall, behind the curtains or draperies, in between two books that block its ventilation slots. Leave a space of at least 8 inches (20cm) behind the sides and back panel of the NCBox-189.
- ▶ Change of environmental temperature: Problems may occur when there is a sudden change of environmental temperature, or if the NCBox-189 is brought directly from a cold location to a warm one, moisture may condense inside NCBox-189. Turn off NCBox-189, and contact your nearest dealer.
- ▶ Do not drop the NCBox-189 from the working table nor place heavy objects on top of the NCBox-189.

USING CABLES FOR CONNECTION

- ▶ To avoid problem, use only the specified interface cables in your accessory bag. The supplier will not be responsible for the connection arising from the other unspecified peripheral equipment.
- ▶ Do not use cut or damaged cables for connection.

CLEANING YOUR NCBOX

- ▶ Clean the NCBox-189 with a soft, dry cloth or a soft cloth lightly moistened with a mild detergent solution.
- ▶ Do not use any type of abrasive pad, scouring powder, or solvent such as alcohol or benzene, as these may damage the finish of NCBox-189.
- ▶ When a solid object falls or a liquid spills onto the NCBox-189, turn off the NCBox-189 immediately and unplug the LAN and power cables. Contact a qualified person or your dealer to check the NCBox-189 before you use it again.
- ▶ Always disconnect the power cord from the power source before cleaning the NCBox-189.

TROUBLESHOOTING

This section describes the techniques of resolving some basic problems that you encounter when using NCBox-189. For more troubleshooting guidelines, please contact your nearest dealer for technical support.

TROUBLESHOOTING YOUR NCBox

A. NCBox does not start

- ▶ Make sure the NCBox-189 is properly secured and plugged into a power source before it is turned on. Make sure the power indicator shows the power is on. See section 2 for more information about “NCBox-189 Overview”.
- ▶ When the NCBox-189 is plugged into a power strip or the UPS (Uninterruptible Power Supply), make sure the power strip or UPS is turned on and working normally.
- ▶ Check if your VGA or LCD monitor is properly plugged into a power source and turned on. Make sure the brightness and contrast controls are adjusted correctly. See the manual that came with your display (monitor) for details.
- ▶ Check if your power control button does not function, by removing the AC adaptor. Wait for one minute, and then reattach all power connection before pressing the power button.
- ▶ Condensation may cause the NCBox-189 to malfunction for a while. If this happens, do not use the NCBox-189 for at least one hour.
- ▶ When you have checked all the above guidelines and the NCBox-189 does not work. Remove the power adaptor from the NCBox-189, unplug the power cord, and plug it in again. Then turn on the power.

B. BIOS Error Message –

BIOS error message appear when my NCBox starts

If the BIOS error message appears, press any key to resume or, hit to enter BIOS setup main menu, follow these steps:

1. Press , and the BIOS Setup main menu appears, check if CF Card is detected at “Pri Master”. If it is not detected, use Direction keys <↑↓> to choose “AUTO” and then go back to the main menu by pressing <ESC>. Move your cursor down with Direction keys <↓>, and choose “Save Settings and Exit”, a message dialog appears as seen below, hit <Enter>.

“Save current settings and exit (Y/N)? Y”

2. Go to “Exit” menu using the Direction keys <↑↓> and choose the option “Load Optimal Defaults”, then press <Enter>. A message dialog appears as seen below, hit “Y” key and press <Enter> to save and recover to the factory setting.

“Load Optimal Defaults (Y/N)? Y”

```
Main   Advanced  PCIPnP  Boot   Security  Chipset  Exit
*****
* Exit Options *
* Save Changes and Exit *
* Discard Changes and Exit *
* Discard Changes *
* Load Optimal Defaults *
* Load Failsafe Defaults *
* Load Optimal Defaults? *
* [Ok] [Cancel] *
*****
* Select Screen *
* Select Item *
* Enter Go to Sub Screen *
* F1 General Help *
* F10 Save and Exit *
* ESC Exit *
*****
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```

(BIOS Setup menu “Exit”)

C. “Operating System Not Found” –

A message indicating that “Operating system not found” appear when my NCBox starts

- ▶ Enter your BIOS setup main menu by pressing key, be sure that the C: drive is enable.
- ▶ If OS still does not start, follow these steps to initialize the BIOS:
 1. Turn off the NCBox-189.
 2. Remove any peripheral devices connected to the NCBox-189.
 3. Restart the NCBox-189..
 4. Press to enter **BIOS Setup main menu** window.
 5. Follow the steps as written in item **B. BIOS error message**.

WARRANTY : TERMS AND CONDITIONS

1. Warranty

The warranty terms for NCBox-189 are twelve (12) months from the beginning on the date of invoice. During the warranty period, DMP Electronics Will repair replace the product covered under this limited warranty.

2. Service and Support

DMP Electronics Inc. provides the technical support for hardware problems with your system throughout the warranty period. The technical support service is limited to configuration and operation of NCBox-189 sold by DMP Electronics Inc. The technical support service does not offer software tutoring or training.

3. Return Merchandise Authorization (RMA) policy

If the DMP staff or dealer determines that a part is defective. Purchaser must call our technical support service to obtain an RMA number before attempting to return any part. Please refer to your nearest dealer for

To obtain an RMA number, Purchaser must follow procedures as below :

- A. Complete the DMP Electronics Inc. standard RMA Form and fax back to the RMA Department.
- B. The RMA Number must be used within 7 DAYS
- C. The RMA Number must be shown clearly on your shipping label.
- D. DMP Electronics Inc. must receive all Returns before a replacement will be sent.
- E. The repair cost is depends on the parts, the damage reasons, and whether under warranty period...etc. The Seller will charge the Purchaser in a reasonable price.
- F. A copy of the invoice for the RMA product(s) will also be shipped to Purchaser.
- G. The freight of return to DMP Electronics Inc. is charges to Purchaser account and accompanied by an RMA number. Any Returns with freight collect will be refused and returned to you. After Repairing, the cost of freight will be paid by Seller.
- H. DMP Electronics Inc. must receive all returned goods within the warranty period.

4. Shipping Policy

The Purchaser must pre-pay shipping for any defective system or parts returned under the warranty. DMP Electronics Inc. shall not be liable for risk of loss or damage during shipment of your returned system or parts if you fail to insure the shipment.

All products must be shipped back to DMP Electronics Inc. in original or equivalent packaging. DMP Electronics Inc. will ship the repaired or replacement product(s) to Purchaser by freight prepaid. Purchaser assumes the risk of loss. DMP Electronics Inc. shall not be responsible for failure of the delivery service to make on-time delivery.

MEMO
