



(Draft copy of)

Citronix ci5000 Series Printer

Operation Guide

ci5200
ci5300
ci5500
ci5650

Revision 1.0
Part Number: 012-xxxx-xxx

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CITRONIX ci5000 Series PRINTER OPERATION GUIDE

This guide, Citronix Part No. 12-xxxx-xxx, is used in basic operation of ci5000 Series Continuous Ink printers.

Users of this printer are warned that it is essential to read, understand and act according to the information given in Part 1: Health and Safety. This part of the manual also specifies a set of symbols which are used elsewhere in the manual to convey special warnings or requirements. It is essential that users are familiar with these symbols and act accordingly.

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To the best of our knowledge, the information contained in this guide was correct at the time of printing. Continual enhancement of our products may result in some differences between instructions represented in this guide and your ci5000 Series Printer.

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This guide was written by:

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DECLARATION of CONFORMITY

Issuer's name: Citronix Inc.

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Declare under sole responsibility that the products identified herein, have been designed, manufactured and tested in accordance with the following documents:

EN55024:2010	Information Technology Equipment – Immunity Characteristics – Limits and Methods of Measurement.
EN55022:2010	Information Technology Equipment – Radio Disturbance Characteristics – Limits and Methods of Measurement.
EN61000-6-2:2005	Electromagnetic compatibility (EMC) - Part6-2: Generic standards – Immunity for Industrial Environments
EN60950-1:2006/A2:2013	Information Technology Equipment - Safety - Part 1: General Requirements.
2014/35/EU	Low Voltage Directive
2014/30/EU	EMC Directive

CE-Marked accordingly



certification date 2016

Each product marketed, is identical to the representative unit tested and found to meet the standards.

Trade Name: Citronix
Type of Product: Continuous Ink Jet Printer
Model: ci5200, ci5300, ci5500, ci5650

Signed for and on behalf of

Citronix Inc.
2241 S. Watson Road, Suite 111
Arlington, Texas 76010

Michael Embree
Engineering Director

FCC Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

FCC/Industry Canada Statement

This device complies with FCC Part 15 and Industry Canada license exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This device complies with Health Canada's Safety Code. The installer of this device should ensure that RF radiation is not emitted in excess of the Health Canada's requirement.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

French Version:

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement

Cet appareil est conforme avec Santé Canada Code de sécurité 6. Le programme d'installation de cet appareil doit s'assurer que les rayonnements RF n'est pas émis au-delà de l'exigence de Santé Canada.

Les changements ou modifications non expressément approuvés par la partie responsable de la conformité pourraient annuler l'autorité de l'utilisateur à utiliser cet équipement.

European EMC Statement

This product may cause interference if used in residential areas. Such use must be avoided unless the user takes special measures to reduce electromagnetic emissions to prevent interference to the reception of radio and television broadcasts.

CONTENT

PART 1 : GENERAL INFORMATION

PART 2 : DESCRIPTION

PART 3 : PRINTER OPERATION

PART 4 : DISPLAY MESSAGES AND FAULT FINDING

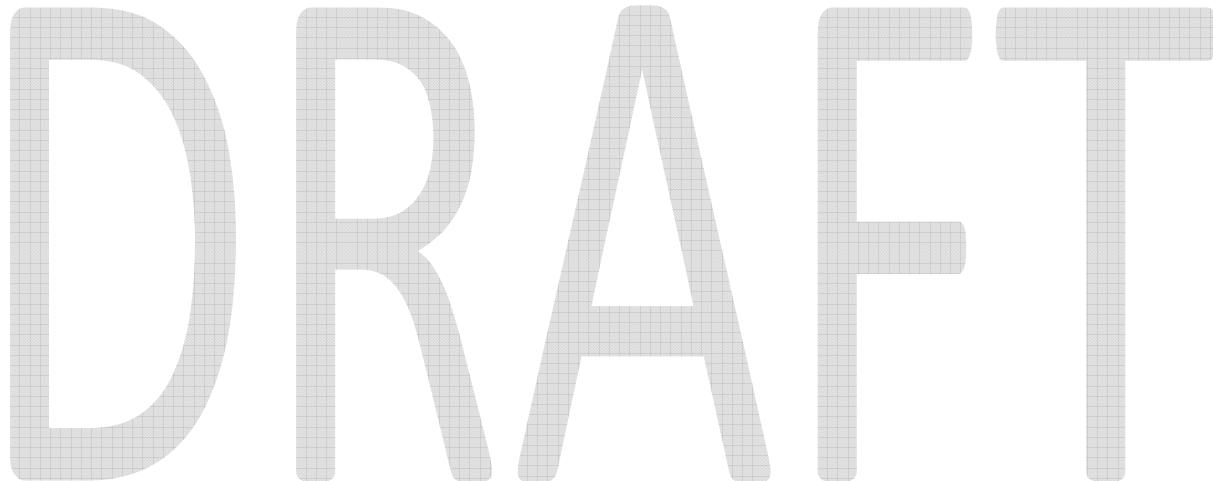
PART 5 : REFERENCE

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PART 1 : GENERAL INFORMATION

CONTENTS

	Page
INTRODUCTION.....	1-2
Where to find more information:.....	1-2
Before You Begin:.....	1-2
SAFETY INFORMATION	1-2
Specific WARNINGS.....	1-3



A large, semi-transparent watermark reading "DRAFT" in a bold, sans-serif font. The letters are filled with a light gray grid pattern, and the entire word is oriented vertically.

INTRODUCTION

Welcome to the ci5000 Series Continuous Ink Jet Printer.

The Citronix ci5000 Series Continuous Ink Jet Printer applies identifying marks such as “best before” dates, traceability codes, logos and batch codes onto almost any kind of material or surface.

This guide can be used for all ci5000 Series Printers, namely ci5200, ci5300, ci5500 and ci5650 as well as specialty Printers (micro, HS50, Pigment and Heavy Pigment). Any differences between product variants are identified or highlighted.

Citronix CIJ printers are comprised of Hardware, Software, and the fluids for cleaning / printing.

Where to find more information:

Refer to the ci5000 Series Technical Service Manual for comprehensive detail on installation, configuration, service, troubleshooting and component replacement.

Before You Begin:

Before printing, make sure:

1. All warnings and notes have been read and understood.
2. The ci5000 Series Printer is correctly installed and integrated with your production line.
3. At least one message has been created, programmed and saved (refer to Section X) or select the default message.

SAFETY INFORMATION

The following symbols are used in this manual. Where they appear next to a procedure or instruction, they have the significance and importance of written warnings and cautions. **WARNINGS**, **CAUTIONS** and **NOTES** are provided to avoid hazards and to safely operate the Printer.



A **WARNING** symbol identifies an operating procedure that if not strictly followed could result in injury or death. Warnings will be identified by a general warning symbol or a specific warning symbol.



A **CAUTION** symbol identifies an operating procedure that if not strictly followed could result in equipment damage.



A **NOTE** symbol indicates an operating procedure that is essential but not known to cause hazards as indicated by a Warning or Caution symbol.

Specific WARNINGS

The following **WARNINGS** should be read and understood by all personnel involved in the operation and maintenance.



PERSONAL INJURY: The Printer uses extremely high voltages. Only trained and authorized personnel are allowed to perform maintenance work.



PERSONAL INJURY: Use safety goggles or a face mask when using Ink, Make-up or Cleaning Solvents to prevent fluids from entering the eyes.



FIRE HAZARD: The Ink, Make-up and Cleaning Solvents are flammable; do not smoke or use a flame in the vicinity of the Printer, servicing area or chemical storage.



PERSONAL INJURY: Wear protective gloves and clothing when handling Ink, Makeup or Cleaning Solvent.

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PART 2 : DESCRIPTION

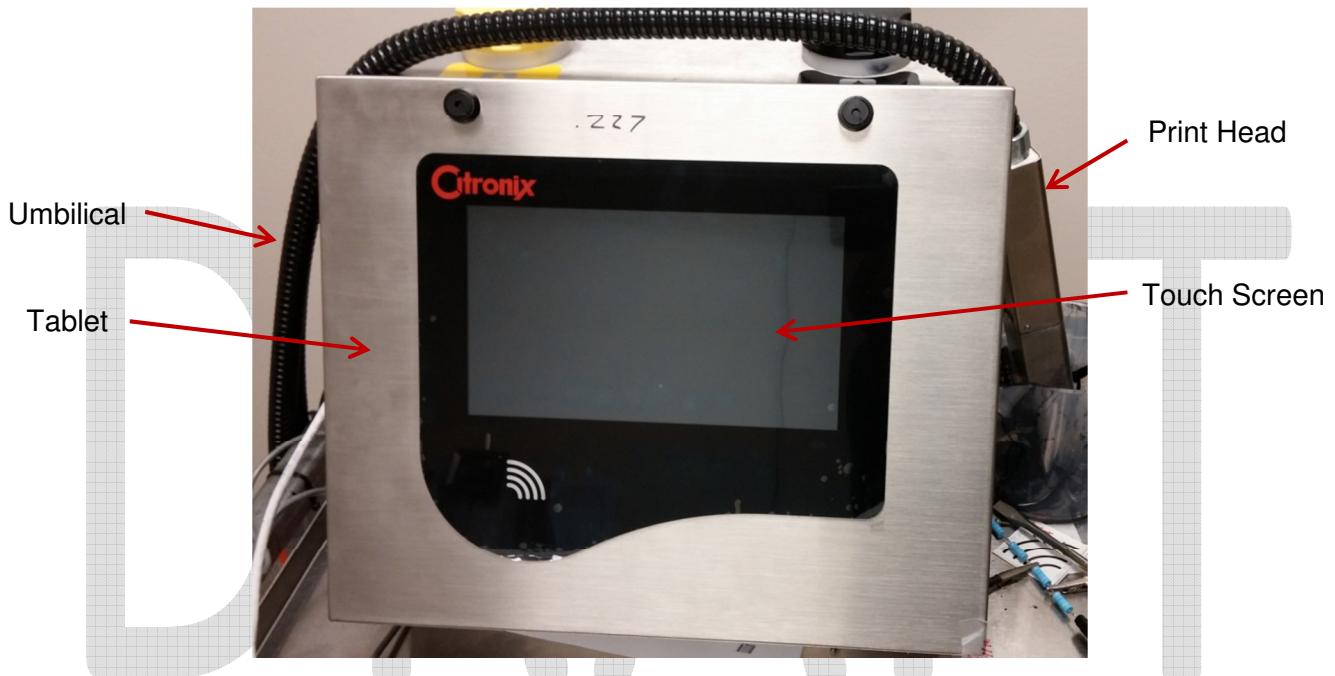
CONTENTS

	Page
OVERVIEW	2-2
CONTROLLER CABINET	2-2
PRINT HEAD.....	2-3
Graphical User Interface.....	2-4
Software Controls:	2-4
Menus Tab.....	2-4
(1) Home:	2-5
(2) Messages:.....	2-5
(3) Status:.....	2-6
(4) Service:.....	2-6
(5) Properties:.....	2-7
(6) Security:.....	2-7
Navigation Tool Bar:.....	2-8
Function Tool Bar:.....	2-8
Edit:	2-8
Help:	2-9

OVERVIEW

The Printer consists of a Controller and a Print head that are connected by an Umbilical. The touch screen is the display and is used to operate the Printer. Ink and Makeup are added from the top of the Printer through the Ink fill port and the Makeup fill port.

CONTROLLER CABINET





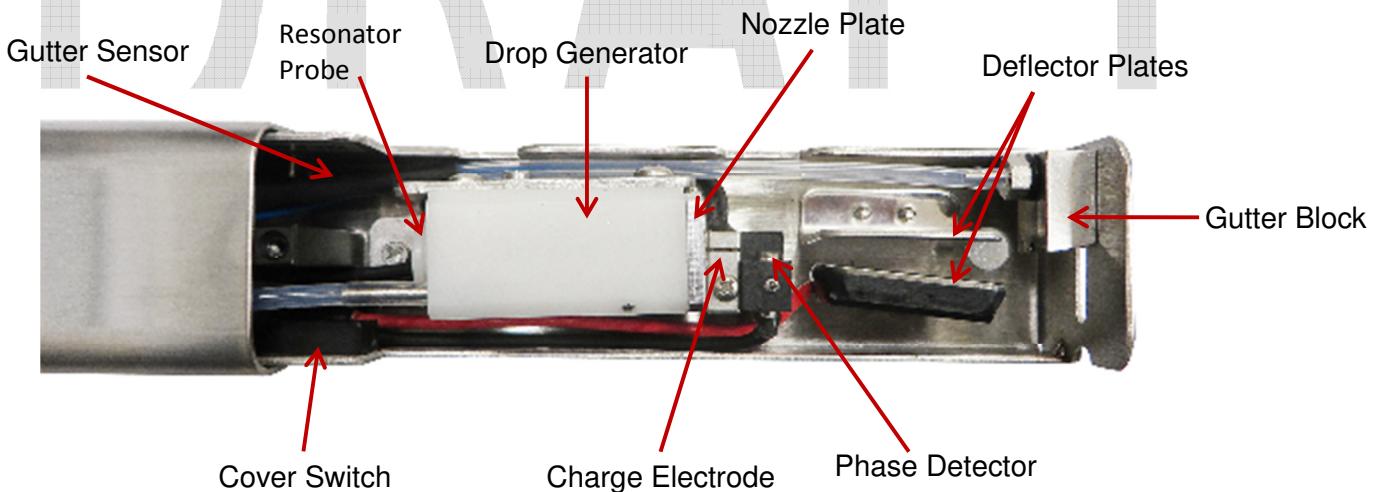
Ink Fill Port
Makeup Fill Port



Air Filter

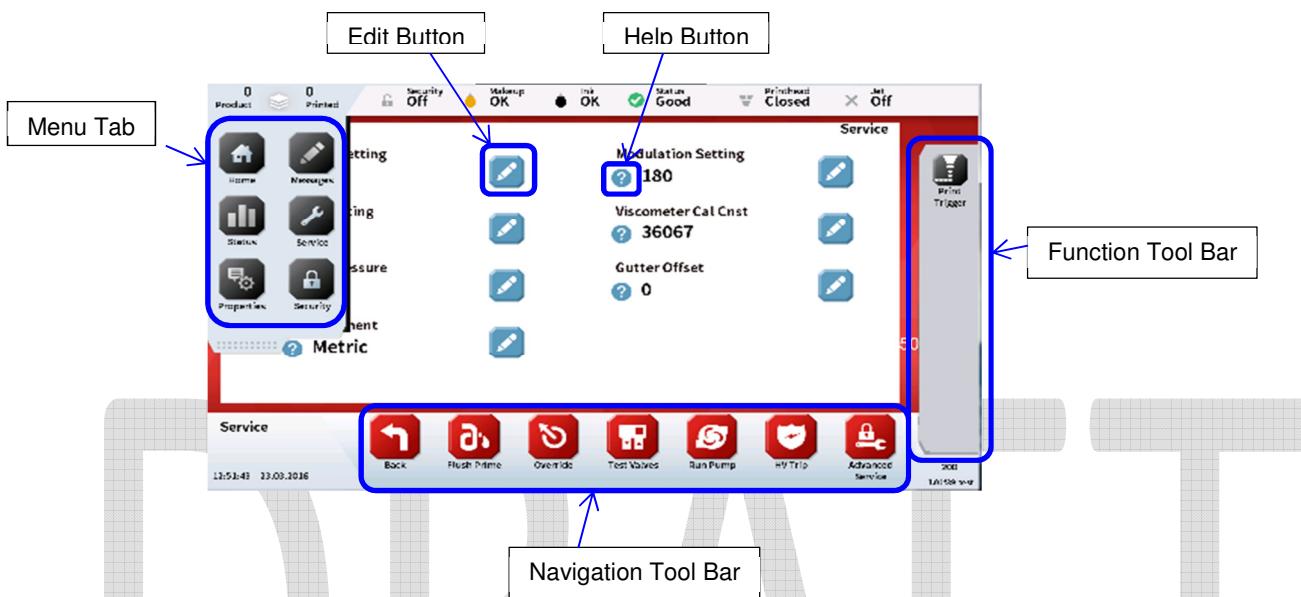
PRINT HEAD

The print head components ...



Graphical User Interface

Software Controls:



Menus Tab

The ci5000 Series Printer has 6 different Menus broken down for quick accessing to specific operational options.

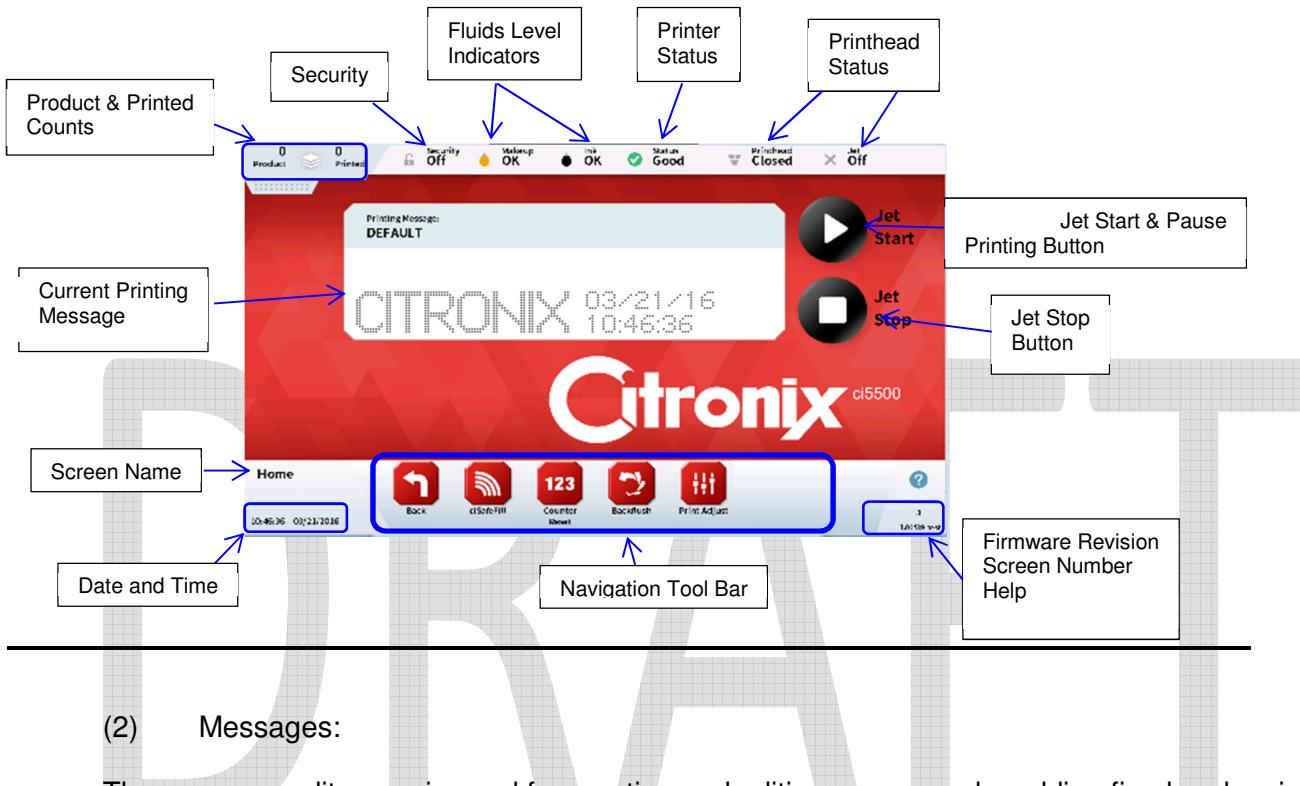
These Menus are:

1. Home
2. Message
3. Status
4. Service
5. Properties
6. Security



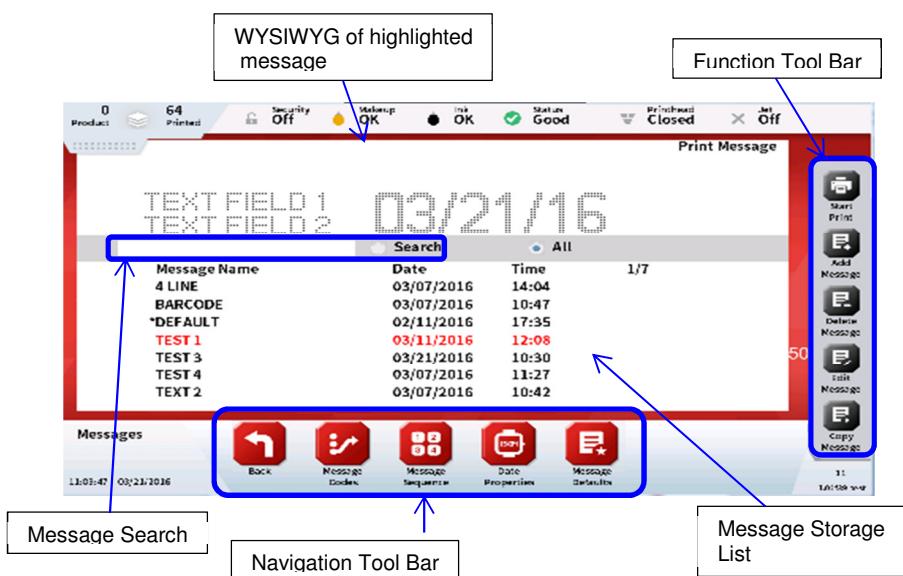
(1) Home:

The home screen provides quick and easy access to the most commonly used statuses and printer functions. It is used to start, and stop printing, adjust the print properties for the application, refill fluids and provide quick access to the other menu items.



(2) Messages:

The message edit menu is used for creating and editing messages by adding fixed and variable fields and formatting to a WYSIWYG message window



(3) Status:

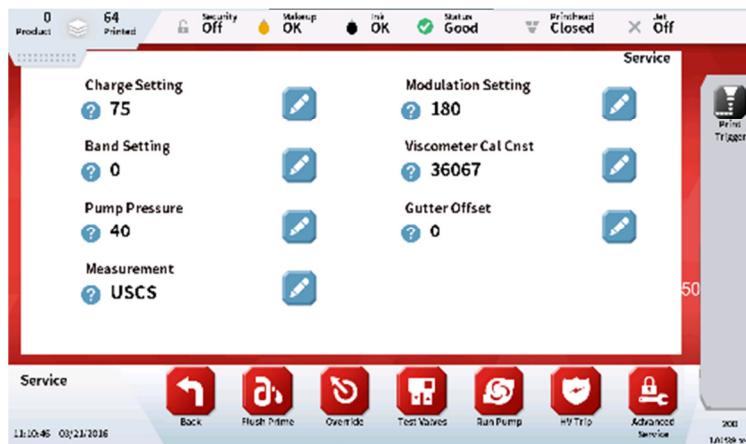
The status page is typically used by the service engineer and contains key status information for each of the printers sub-systems.



Used to easily view the status of multiple area of operation of the printer.

(4) Service:

The service is typically used by service engineers and provides quick access to



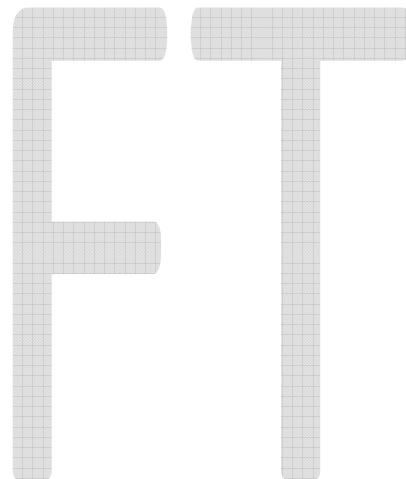
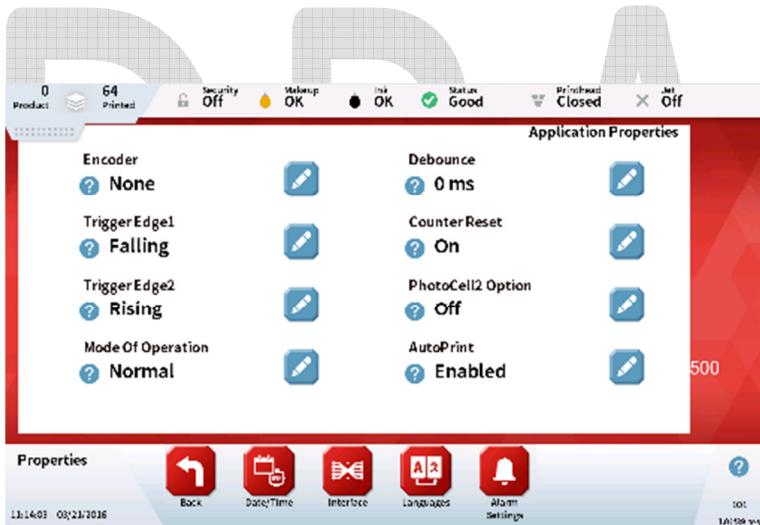
Used to access the system configuration screens.

The following controls are used to calibrate, test and set Printer specific settings and configurations. These controls should only be changed by a Citronix trained service engineer.

1. Service
2. Flush Prime
3. Override
4. Test Valves
5. Run Pump
6. HV Trip
7. Advance Service

(5) Properties:

The properties page is used during installation to set up the printer for a particular application. It is used for setting up the accessories such as photocells, encoders and beacons.



(6) Security:

The security page allows certain features of the printer to be disabled until a user with the correct privileges logs in. By default Security is disabled. To enable security you must have at least one user with security privileges.



Navigation Tool Bar:

Each icon on the Navigation Tool Bar opens a set of specific screen options for a specific menu screen. They are all contained within a bar at the bottom of each screen.



Function Tool Bar:

Each icon on the Function Tool Bar ...

Edit:

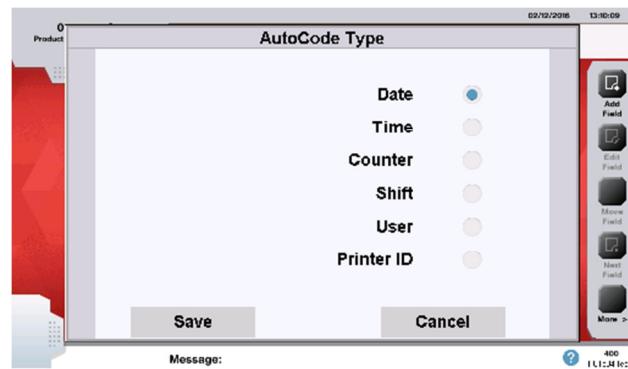


Edit buttons provide easy access to change setting or enable options.

When pressed, a keyboard will appear to allow the information to be entered or, a list screen will appear to select from a list of options.



Keyboard



List

Help:



Help button provides access to help information concerned with the current menu screen or option.

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PART 3 : PRINTER OPERATION

CONTENTS

	Page
Startup.....	3-2
START THE JET	3-3
SHUT DOWN	3-4
INITIAL SETUP	3-5
Display Settings	3-6
Setting the Master Clock.....	3-6
Select Calendar Scheme	3-6
Security Quick Reference	3-6
CREATE MESSAGE	3-6
Message Fields	3-11
Text Fields	3-11
Autocode	3-12
Bar Code	3-16
Graphic	3-18
EDIT MESSAGE	3-19
MESSAGE STORE AND SEARCH.....	3-20
REPEAT PRINTING.....	3-21
BACK-UP PRINTER.....	3-22
ADD INK & MAKEUP USING RFID.....	3-22

Startup

Press and hold the On/Off button located on the left-hand side of the printer to turn the printer on.

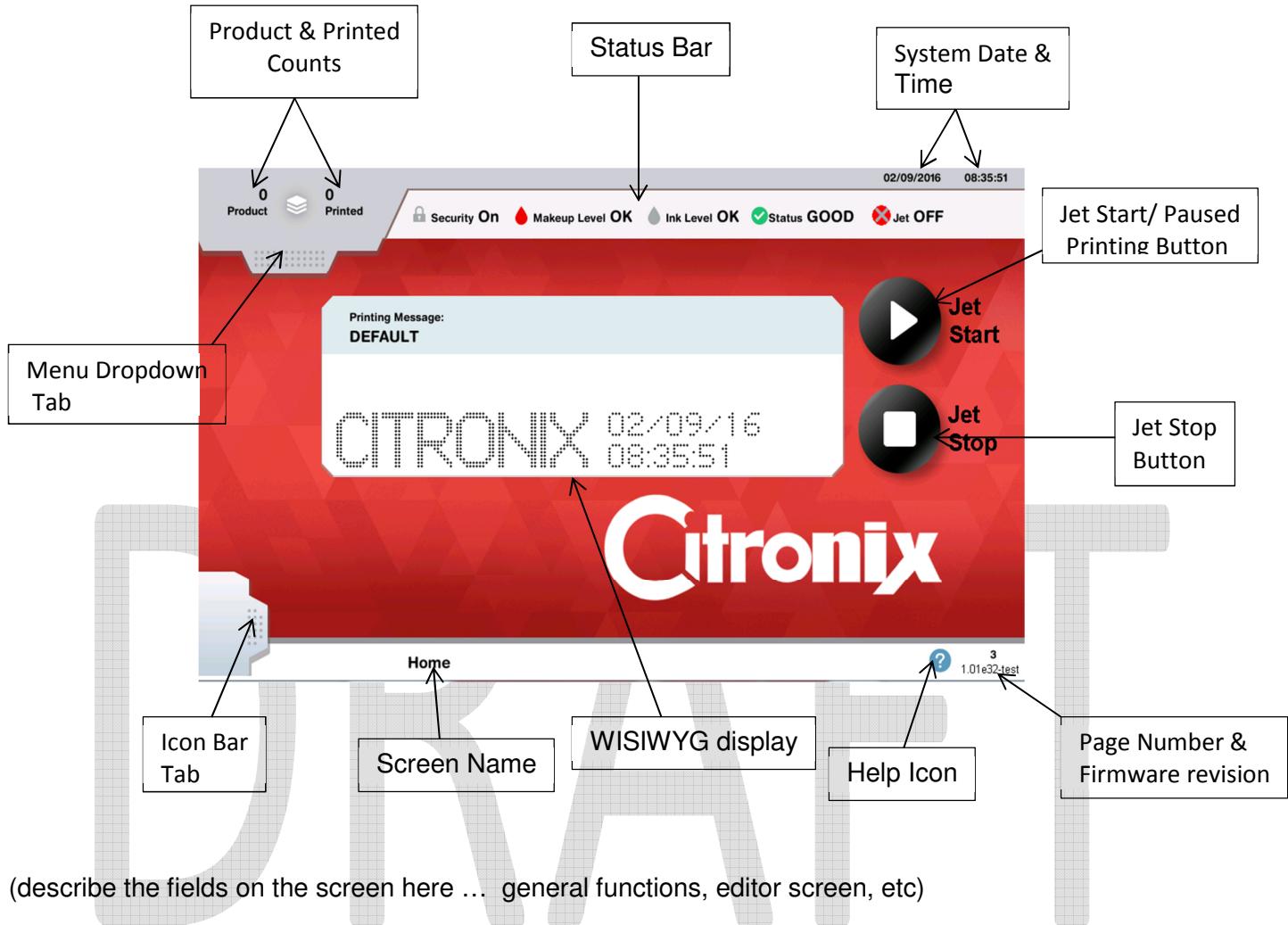


When turning the printer on, the initialization screen with Citronix logo will appear first.

(** insert picture)

The main screen will appear after initialization is complete. (** add flow diagram of jet start, jet stop, jet pause, etc.)

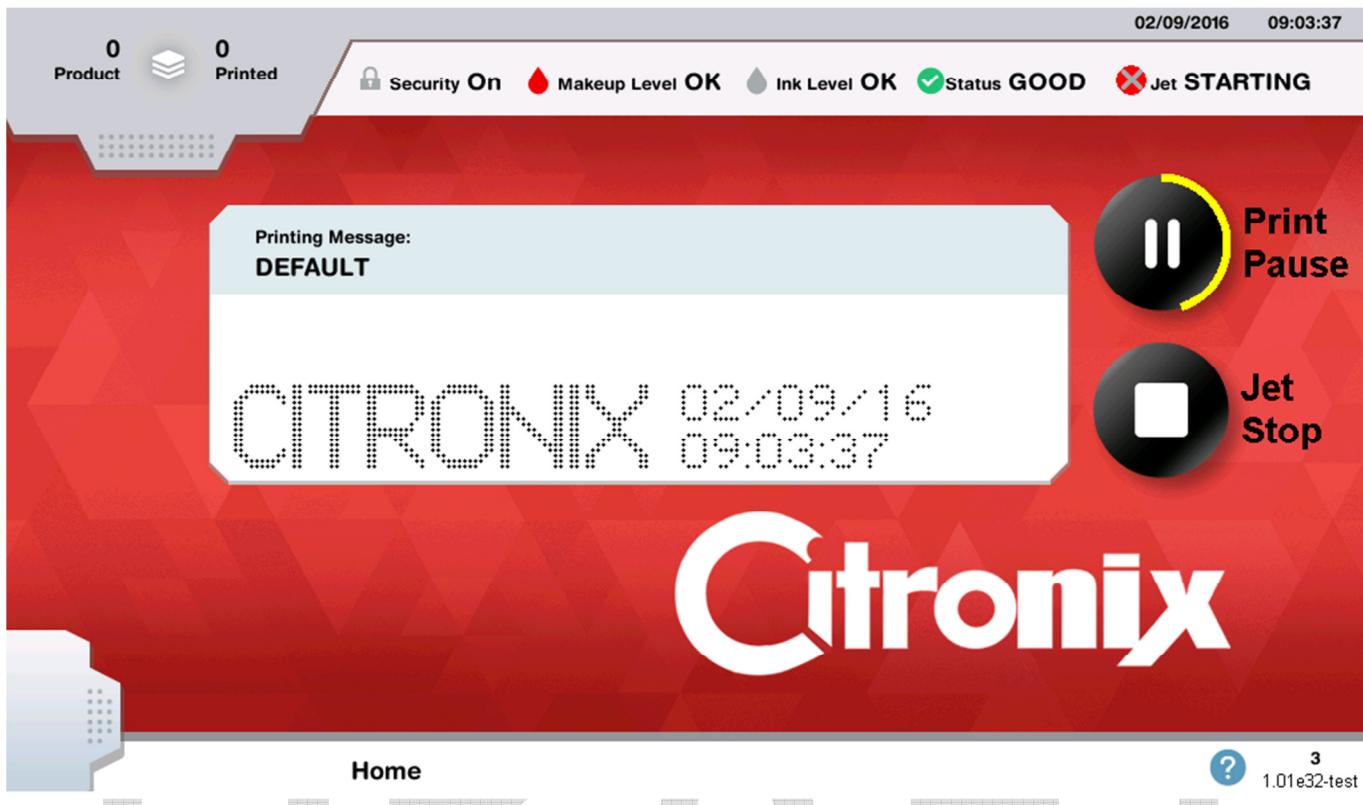
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START THE JET

After powering on, the Printer will show the main screen and a “Jet Calibrating” (** add screen shot) message on the upper right-hand corner of the screen. This is shown for a few seconds before it changes to “Jet Off”

Press “Jet Start” to start the Jet.



The Printer will start the Jet and display “Jet Start” in the upper right-hand corner of the screen. A yellow ring will appear around the Jet Start button to show the count down.

Once the countdown is complete, the “Jet On” message will appear on the upper right-hand corner of the screen. ([Not available yet.](#))

SHUT DOWN

To shut down the printer in a controlled manner, press the Power button for approximately 2 seconds or press the Jet Stop button. A yellow ring will appear around the Stop Button. This is indicating the shutdown time. The ring will disappear as the shutdown sequence completes.



If the printer is to be shut down for up to 7 days, flush the gutter with the correct cleaning solvent during the auto-flush cycle to ensure the gutter is completely clean. Clean the rest of the print head.

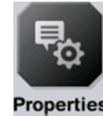
If the printer is to be switched off for longer than 7 days, or transported, the ink and make up should be replaced with cleaning solvent to prevent valve and nozzle blocking. This can be done by using the following process.

1. Use the Ink and Makeup Change procedure (see Section x.x) to remove the Ink and Makeup from the Printer. The Makeup can be used as a cleaning solution for the flush process.
2. Pour roughly 500ml of Cleaning Solvent or Makeup in the Ink tank; reinstall the Ink tank, leaving the Manifold loose.
3. Turn ON the power.
4. Turn all "Override" conditions to "Yes." This will ensure no errors will inhibit this process.
5. Start the Jet by pressing the "START" button on the main screen. This will flush the Printer of Ink.
6. Press the "STOP" button on the main screen to stop the Printer after 2 minutes.
7. Repeat steps 1 through 6 three times for long term storage.
8. Replace an empty tank, leaving the tank adapter loose. Ensure the pickup and return lines are above fluid levels during the process. The intent is to flush the system of all fluids.
9. Follow steps 3 through 7.

INITIAL SETUP

Display Settings

From the Home screen, press the Menu Bar Tab to open the Menu bar then select the the Menu Bar. Open the Icon bar to set the printer's:



1. Date & Time
2. Interface properties
3. Languages
4. Alarm & Relay Settings

Setting the Master Clock

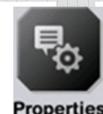
From the Home screen, press the Menu Bar Tab to open the Menu bar then select the the Menu Bar. Open the Icon bar to set the printer's:



1. Date & Time

Select Calendar Scheme

From the Home screen, press the Menu Bar Tab to open the Menu bar then select the the Menu Bar. Open the Icon bar to set the printer's:



1. Date & Time

Security Quick Reference

Add/Change User

From the Home screen, press the Menu Bar Tab to open the Menu bar then select the This will take you to the Security Properties.



Delete User / Change Password

(any other ones?)

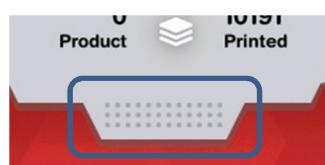
If logged on as an Admin, you will be able to Add or Remove a User from the can also Enable or Disable the Security feature.



User List. Admin's

CREATE MESSAGE

Select the Menu Bar tab.



Select the [Message] option.



Select the Icon Bar Tab and press the "Message Defaults" button.



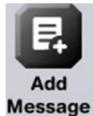
Set the default message settings from the lists (please note there are 3 pages for additional setting not shown below)



Then using the Icon set all of the Shift, Expiration Clocks, and Counter defaults

When all of the default settings are adjusted, press the  button located on the Icon Bar.

Select the [Add Message] option.



Using the keyboard, type in the name for the message, then press Save.