



AdvantageDLX



User's Manual

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Chapter 1: Introduction

Welcome

Congratulations on the purchase of a CognitiveTPG Advantage DLX thermal label printer. With its 2-year warranty and durable design, the Advantage DLX provides professional quality label printing and performance.

CognitiveTPG is committed to providing a reliable product and user experience. This User's Manual provides information on how to install the printer and includes all necessary user support information.

Package Contents

The Advantage DLX box will contain the following parts:

- (1) Advantage DLX Printer
- (1) Start-Up Guide
- (1) Data Cable (Serial and Parallel models come with Serial or Parallel cables, USB and Ethernet models come with a USB cable)
- (1) 110-240V Switching Power Supply
- (1) Power Cord

Operating Environment

- 41°F to 104°F (5°C to 40°C)
- 20% to 85 % non-condensing R. H. (relative humidity)

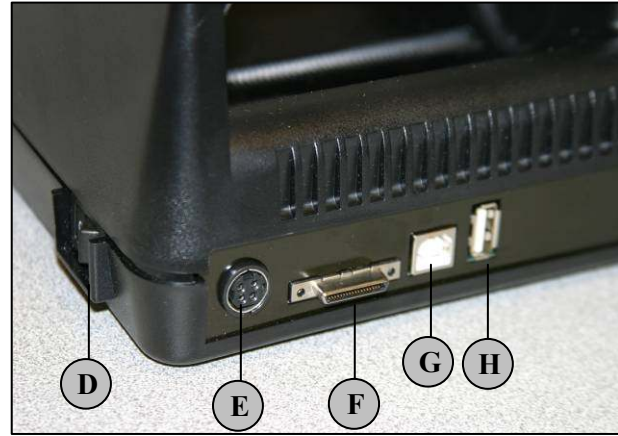
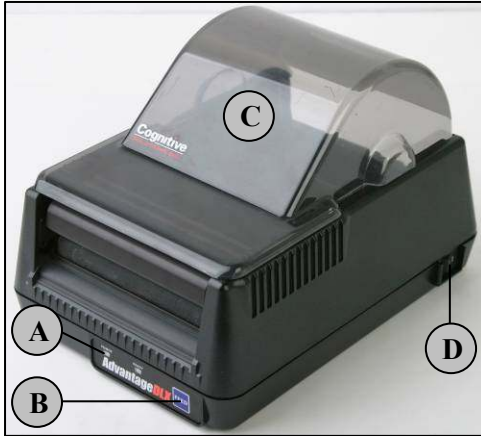
Storage and Transportation Environment

- -4.0°F to 122°F (-20°C to 50°C)
- 5% to 95% non-condensing R. H. (relative humidity)

Printer Feature Overview

Please take a moment and become familiar with the features and nomenclature of the Advantage DLX printer.

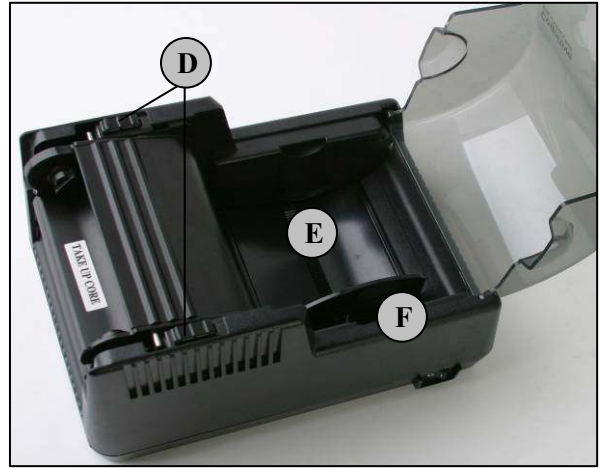
Front/ Rear View



Component	Function
A – Power and Ready Indicators	Indicate current printer status
B – Feed Button	Advances media
C – Dust Cover	Protects media from dust and debris
D – On/Off Switch	Turns printer power On/Off
E – Power Connector	Input for auto-ranging power supply
F – Serial/Parallel Port	Serial and Parallel communications port
G – USB B	USB Device port
H – USB A	USB Host Port

NOTE: ETHERNET MODEL NOT PICTURED.

Inside View



Component	Function
A – Printhead	Printing mechanism
B – TT Spindle	Ribbon take up spindle
C – Platen Roller	Friction feed printing surface
D – Printhead Latches	Latches for printhead mechanism
E – Media Tray	Place label rolls in media tray
F – Media Guide	Guides label roll

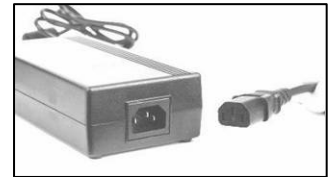
Chapter 2: Printer Installation

Setting up the Advantage DLX Printer

Connecting the Interface and Power Cables

IMPORTANT! PRIOR TO CONNECTING THE INTERFACE AND POWER CABLE TO THE PRINTER, MAKE SURE THAT THE PRINTER IS TURNED OFF.

1. Connect the power cable to the AC adapter.



2. Connect the AC adapter to the power connector on the printer.



3. Plug the power cable into an AC outlet.



4. Connect the interface cable to the rear of the printer. For Serial or Parallel cables, securely fasten the interface connector screws.



5. Test the Power by turning the power ON. The **POWER** LED on the printer will turn green.

NOTE: IF THE POWER LED DOES NOT TURN GREEN REPEAT STEPS 1-5 OR REFERENCE THE TROUBLESHOOTING CHART (CHAPTER 7).

Loading Thermal Transfer Ribbon

NOTE: THIS STEP IS FOR THERMAL TRANSFER MODEL ADVANTAGE DLX PRINTERS. USE ONLY COGNITIVE APPROVED THERMAL RIBBON. FOR MORE INFORMATION ON COGNITIVETPG APPROVED SUPPLIES CONTACT US AT 800-732-8950 EXT. 2.

1. Position ribbon in front of printer and raise the dust cover.



NOTE: RIBBON SHOULD BE POSITIONED WITH THE SUPPLY CORE CLOSEST TO THE PRINTER AND THE TEXT ON THE RIBBON LEADER FACING DOWN.

2. Unlatch the printhead and fully raise the printhead mechanism.



3. Place the left side of the ribbon supply core into the left supply core spindle.



4. Gently pull the right spindle tab and place the right side of the ribbon core on the spindle.



5. Lower the print head. Do not latch the printhead at this time.



6. Align the notches on the left side of the ribbon take up core with the left spindle.



7. Gently pull the right take up spindle and insert the right side of the ribbon take up core.



REMINDER: THE TEXT ON THE RIBBON LEADER FACES OUT.

8. Latch the printhead and turn the Power ON to take up the slack in the ribbon leader.



HELPFUL TIP: THE ADVANTAGE DLX WILL TAKE UP ANY EXCESS RIBBON UPON LATCHING THE PRINTHEAD.

Loading Media

NOTE: USE ONLY COGNITIVETPG APPROVED MEDIA. FOR MORE INFORMATION ON COGNITIVETPG APPROVED SUPPLIES CONTACT US AT 800-732-8950 EXT. 2.

1. Raise the dust cover.
2. Place the media roll in the media tray keeping the media guide to the right hand side.
3. Slide the media guide to the left until it is holding the roll firmly against the left wall of the media tray.
4. Unlatch and raise the printhead mechanism.
5. Guide the media through the opening under the printhead mechanism remembering to keep the media face up.
6. Securely latch the printhead.
7. Print a Self Test. Press and hold the feed button while turning the print ON to print a Self Test.



NOTE: AFTER PRINTING A SELF TEST THE PRINTER IS IN HEXIDECIMAL DUMP MODE. CYCLE THE PRINTER'S POWER TO RETURN TO NORMAL OPERATION.

HELPFUL TIP: ENABLE AUTOMATIC TOP OF FORM AND THE ADVANTAGE DLX WILL ADVANCE TO THE NEXT INDEX MARK WHEN THE PRINthead LATCHES OR THE PRINTER IS TURNED ON (CHAPTER 4).

Chapter 3

Chapter 3: Software Installation

Installing CognitiveTPG Administrator and Loading Print Drivers

1. Go to http://www.CognitiveTPG.com/Downloads_18.aspx using your Internet Browser.
2. Follow the applicable instructions under the **Utility** Section.

NOTE: DOWNLOADING COGNITIVETPG ADMINISTRATOR WILL INSTALL THE UTILITY PRINT DRIVERS. THE COGNITIVETPG ADMINISTRATOR UTILITY IS REQUIRED FOR CONFIGURING, TROUBLESHOOTING AND UPDATING THE ADVANTAGE DLX PRINTER.

Windows® Driver Installation

Installing Printer via USB

IMPORTANT! COGNITIVETPG ADMINISTRATOR AND THE PRINTER DRIVERS MUST BE LOADED PRIOR TO INSTALLING THE PRINTER. PLEASE REFER TO THE SECTION TITLED **INSTALLING COGNITIVETPG ADMINISTRATOR AND PRINT DRIVERS.**

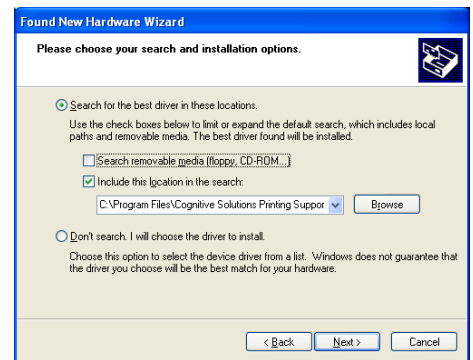
1. Connect the printer via the USB cable to the host system and the **Found New Hardware Wizard** will appear.
2. Select **No, not at this time** and click **Next**.



3. Select **Install from a list or specific location (Advanced)**, and click **Next**.



4. Select **Include this location in the search**, and then click the **Browse** button.
5. Select the location: **C:\Program Files\Cognitive Solutions Printing Support\Driver Files** and click **Next**.



6. Click **Continue Anyway**.



7. Click **Finish** to complete installation.



Installing Printer via Serial/Parallel

IMPORTANT! COGNITIVETPG ADMINISTRATOR AND THE PRINTER DRIVERS MUST BE LOADED PRIOR TO INSTALLING THE PRINTER. PLEASE REFER TO THE SECTION TITLED **INSTALLING COGNITIVETPG ADMINISTRATOR AND PRINT DRIVERS** (CHAPTER 3).

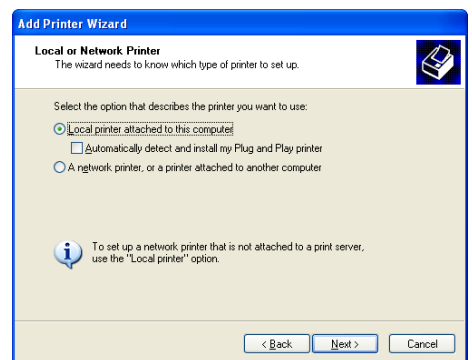
1. Connect printer to the host system using the included serial or parallel cable.
2. Select the **Start** menu in Windows®.
3. Select **Settings** and choose **Printers and Faxes**.

4. Select **Add a printer** and the **Add Printer Wizard** will appear.

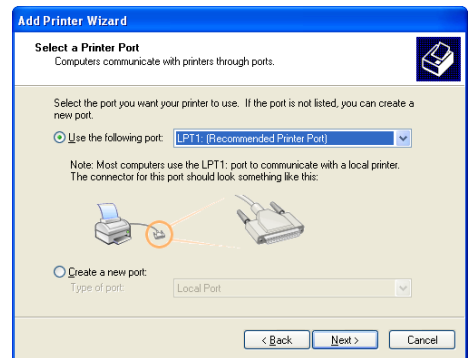
5. Click **Next**.



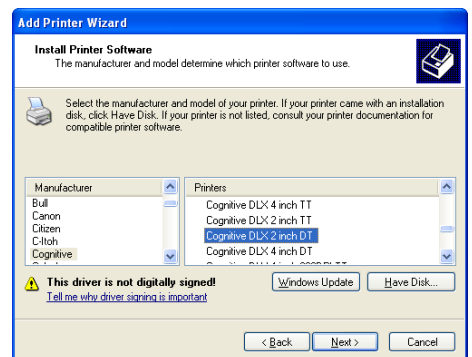
6. Select **Local printer attached to this computer** and click **Next**.



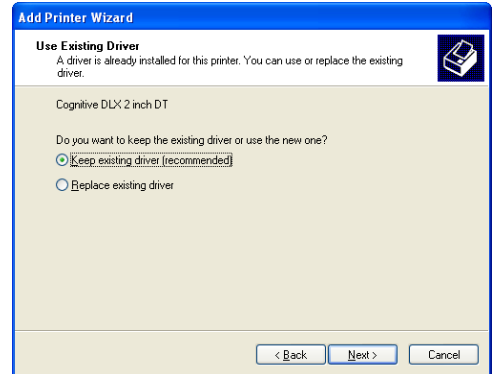
7. Select **Use the following port:** and choose the appropriate Serial or Parallel port, then click **Next**.



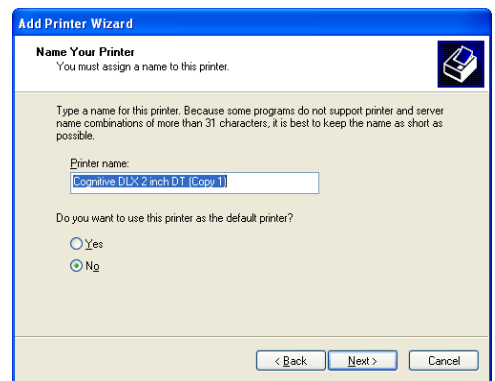
8. Select the appropriate printer model from the available list of printers and click **Next**.



9. Select **Keep existing driver (recommended)** and click **Next**.

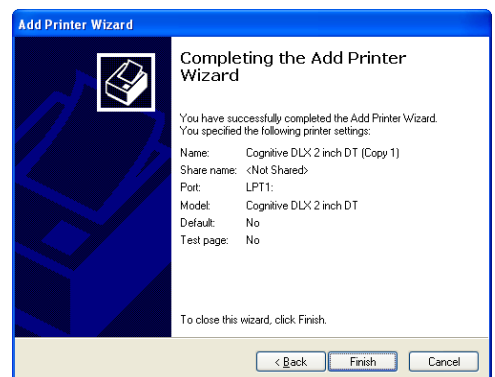


10. Provide a **Printer name:** and select if the Advantage DLX will be the default printer then click **Next**.
11. Select **Do not share this printer** then click **Next**.



12. Select **No** when asked **Do you want to print a test page?** then click **Next**.

13. Select **Finish** completing the installation of the Advantage DLX printer.



IMPORTANT! IF THE BAUD RATE BETWEEN THE HOST SYSTEM AND THE ADVANTAGE DLX PRINTER ARE NOT EQUAL THE PRINTER WILL NOT PRINT. THE DEFAULT BAUD RATE FOR THE ADVANTAGE DLX IS 9600.

Chapter 4

Chapter 4: CognitiveTPG Administrator

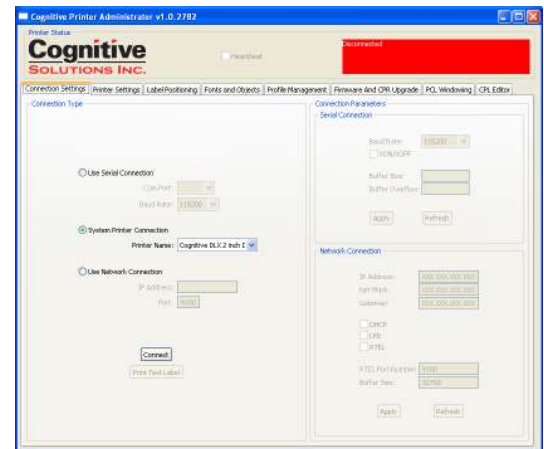
CognitiveTPG Administrator is a Java based utility designed for installation on various operating system platforms. Administrator allows complete control over the profiles and settings of the Advantage DLX printer.

Connection Settings

Connecting Via USB

1. Select the **System Printer Connection** radio dial.
2. Select the appropriate printer from the **Printer Name** drop down menu.
3. Click **Connect**.

NOTE: WHEN THE PRINTER IS PROPERLY CONNECTED COGNITIVE ADMINISTRATOR WILL DISPLAY CONNECTED IN A GREEN BOX IN THE UPPER RIGHT HAND CORNER.



Connecting Via Serial

1. Select the **Use Serial Connection** radio dial.
2. Select the Com port to which the printer is connected.
3. Select the printer's baud rate setting.

Note: THE ADVANTAGE DLX DEFAULT BAUD RATE IS 9600.

Connecting Via Ethernet

1. Select the **Use Network Connection** radio dial.
2. Input the printer's IP Address.
3. Input the printer's RTel port number.

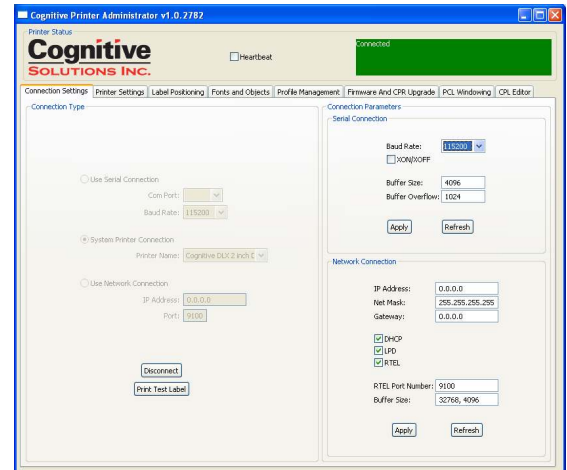
HELPFUL TIP: PRINT A SELF TEST TO DETERMINE THE PRINTER'S CURRENT SETTINGS. A SELF TEST CAN BE PERFORMED BY HOLDING THE FEED BUTTON WHILE TURNING THE PRINTER POWER ON. CONTINUE TO HOLD THE FEED BUTTON UNTIL THE SELF TEST PRINTS.

Serial Connection Parameters

- Baud Rate
- XON/XOFF
- Buffer Size
- Buffer Overflow

Ethernet Connection Parameters

- IP Address
- Net Mask
- Gateway
- DHCP
- LPD
- RTEL
- RTEL Port
- Ethernet Text Buffer



Printer Settings

Print Speed

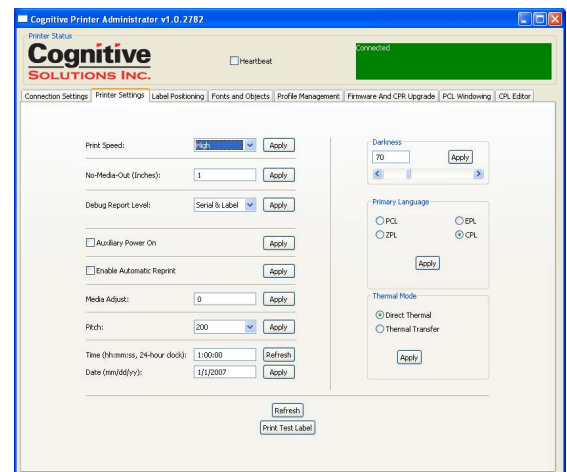
The **Print Speed** value sets the printing speed of the printer.

- **Low** = 2 inches per second
- **Normal** = 3 inches per second
- **High** = 5 inches per second

No-Media Timeout

The no media timeout value represents the number of inches of media fed through the printer without detecting an index mark prior to reporting an error.

EXAMPLE: IF NO MEDIA TIMEOUT IS SET TO 12, THE PRINTER WILL CONTINUE TO FEED 12 INCHES OF MEDIA WITHOUT DETECTING AN INDEX MARK BEFORE REPORTING AN ERROR.



Debug Report Level

Specifies the method by which the printer reports error.

Values:

- **None** = Turns error reporting Off.
- **Serial** = Printer sends error report to host device via serial port.
- **Serial & Label** = Printer sends error report via serial port and prints an error label.

Auxiliary Power ON

Check Auxiliary Power ON to enable the 5V serial port output.

Enable Automatic Reprint

Checking the Enable Automatic Reprint box prompts the printer to reprint a label in the event the printer detects an index mark prior to completing the requested label.

Media Adjust

Adjust the sharpness of the leading edge of printed text or rotated barcodes. Media Adjust range = 0 to 3.

Pitch

The pitch represents the dots per inch (dpi) setting for the printer.

Values:

- 100 or 200 for 200 dpi printers
- 150 or 300 for 300 dpi printers

Darkness

The **Darkness** value adjusts the print darkness.

Darkness range: -200 to 800

NOTE: THE FACTORY DEFAULT FOR DARKNESS IS 0.

Primary Language

Selects the primary command language the printer uses. The Advantage DLX uses Cognitive Printer Language (CPL) as the default command language. Select between CPL, EcPL, and ZcPL command languages.

NOTE: THE ADVANTAGE DLX CURRENTLY DOES NOT SUPPORT TPCL COMMAND LANGUAGE.

Thermal Mode

Select Direct Thermal or Thermal Transfer based on the model of Advantage DLX printer and the type of media being used.

IMPORTANT! THERMAL TRANSFER MODE REQUIRES THE USE OF A THERMAL TRANSFER PRINTER AND A PRINT RIBBON. DIRECT THERMAL MODE REQUIRES THE USE OF DIRECT THERMAL MEDIA.

Label Positioning

Print Width

The **Print Width** value adjusts the maximum printing width of the printer.

Range:

- 0.15 to 2.4 inches for 2 inch model printers
- 0.15 to 4.2 inches for 4 inch model printers



Auto Recalibration

Check and Apply **Enable Auto Recalibration** and the printer will automatically attempt to recalibrate in the event an index mark is not detected.

Auto Top Of Form

Check and Apply **Enable Automatic TOF** and the printer will feed a label when the printer is turned ON or the printhead is latched.

Indexing

Indexing indicates to the printer the index type of the media being used. The **Indexing On** check box must be checked when using Bar, Gap, or Notch style indexing. Uncheck the **Indexing On** box when using continuous media.

Label Presentation

Label presentation advances media out of the printer after printing a label and then retracts the media prior to printing the next label.

- **Advance** = Distance the media advances after printing a label.
- **Retract** = Distance the media retracts prior to printing a label.
- **Time** = Amount of time in seconds the label remains presented prior to retracting.

NOTE: WHEN TIME IS SET TO 0 THE LABEL WILL REMAIN ADVANCED UNTIL THE NEXT LABEL IS PRINTED.

Top of Form Adjust

The **Top of Form (TOF)** sets the top of the label with relation to the print head. Increasing the **TOF** value moves the printed text down the label. Decrease the **TOF** setting to move the printed test up the label.

Shift Left

Shift left moves the printed image left across the label.

Fonts and Objects

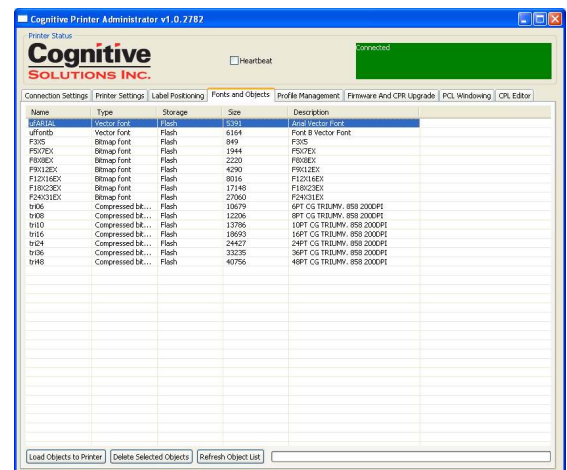
The Fonts and Objects tab lists the Fonts, Formats and Graphics currently stored in the printer.

Loading Fonts and Objects

1. Select the **Fonts and Objects** tab.
2. Click the **Load Objects to Printer** button.
3. Select the Font or Object to be stored and click **Ok**.

Deleting Fonts and Objects

1. Select the **Fonts and Objects** tab in CognitiveTPG Administrator.
2. Highlight the Font, Object or Graphic to be deleted.
3. Click the **Delete Selected Objects** button.

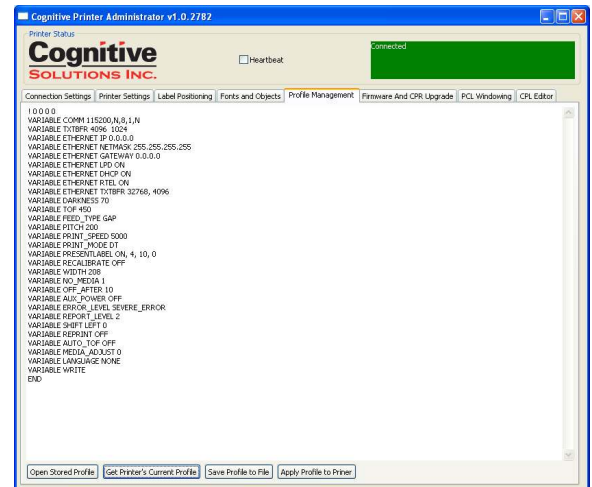


Profile Management

Manage the settings of the Advantage DLX using the Profile Management section of CognitiveTPG Administrator. Profile Management displays a list of the printer's current variable settings.

Obtaining Printers Current Profile

1. Select the **Profile Management** tab in Cognitive Administrator.
2. Click the **Get Printer's Current Profile** button.



Saving the Current Printer's Profile

1. Select the **Profile Management** tab in CognitiveTPG Administrator.
2. Click the **Get Printer's Current Profile** button.
3. Click the **Save Profile to File** button.

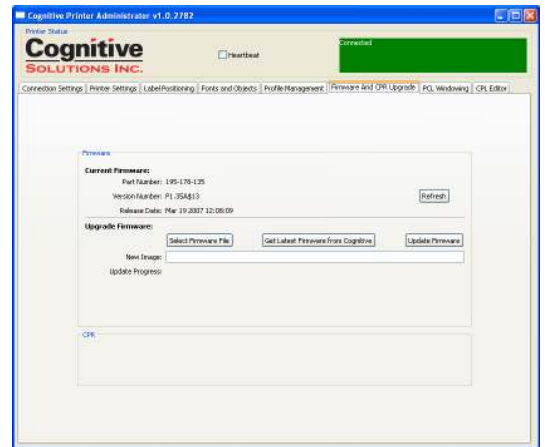
Applying a Saved Profile to the Printer

1. Select the **Profile Management** tab in CognitiveTPG Administrator.
2. Click the **Open Stored Profile** button.
3. Select the desired **Stored Profile** and click **Ok**.
4. Click the **Apply Profile to Printer** button.

Updating Firmware

1. Select the **Firmware and CPR Upgrade** tab.
2. Click the Select **Firmware File** button.
3. Select the appropriate Firmware file and click **Ok**.
4. Click the **Update Firmware** button.

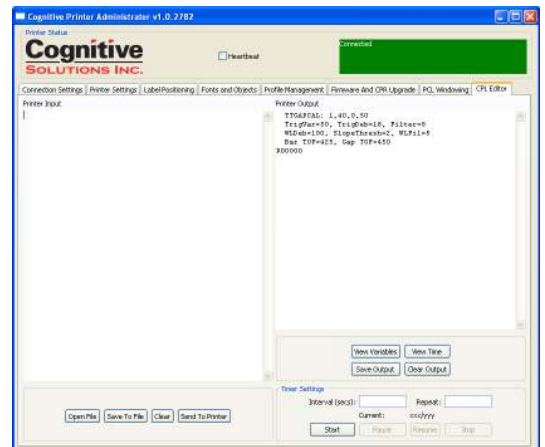
CAUTION! TURNING THE PRINTER OFF DURING FIRMWARE INSTALLATION COULD DAMAGE THE PRINTER.



CPL Editor

Use the CPL (Cognitive Printer Language) Editor in CognitiveTPG Administrator to send CPL to the printer. For more information on programming CPL please refer to the CPL Programmers guide located on the website at

http://www.cognitivetpg.com/Downloads_18.aspx.



Chapter 5: Advanced DLX Features

USB A Port

Loading Firmware Using a USB Flash Drive

1. Create a folder on the USB flash drive at the root level named **Cognitive**.
2. Inside the **Cognitive** folder create a folder named **Firmware**.
3. Place the desired firmware revision into the **Firmware** folder.

IMPORTANT! WHEN USING THE USB FLASH DRIVE THE PRINTER WILL ONLY UPGRADE TO A NEWER FIRMWARE REVISION.

4. Turn the printer ON and verify the POWER and READY lights are green.
5. Insert the USB flash drive into the USB A port on the back of the printer. The READY light will flash red during firmware installation.
6. When READY light remains solid green, turn the printer off and remove the USB Flash Drive.

CAUTION! REMOVING THE USB FLASH DRIVE WHILE FIRMWARE IS LOADING COULD DAMAGE THE PRINTER.

Changing Printer Settings Using a USB Flash Drive

NOTE: CHANGING VARIABLE PRINTER SETTINGS WITH THE USB FLASH DRIVE REQUIRES THE USE OF THE COGNITIVE PROGRAMMING LANGUAGE. FOR MORE INFORMATION ON PROGRAMMING WITH CPL PLEASE REFERENCE THE CPL PROGRAMMERS GUIDE.

1. Create a folder on the USB flash drive at the root level named **Cognitive**.
2. Inside the **Cognitive** folder create a folder named **Settings**.
3. Place the desired CPL text files into the **Settings** folder.
4. Turn the printer ON and verify the **POWER** and **READY** lights are green.
5. Insert the USB flash drive into the USB A port on the back of the printer. The **READY** light will flash quickly while the file loads.
6. When the **READY** light remains solid green remove the USB Flash Drive.

Loading Formats Using a USB Flash Drive

1. Create a folder on the USB flash drive at the root level named **Cognitive**.
2. Inside the **Cognitive** folder create a folder named **Objects**.
3. Place the desired Stored Label Formats or Menuing Program into the **Objects** folder.
4. Turn the printer on and verify the **POWER** and **READY** lights are green.
5. Insert the USB flash drive into the USB A port on the back of the printer. The **READY** light will flash red during firmware installation.
6. When **READY** light remains solid green, turn the printer off and remove the USB Flash Drive.

HELPFUL TIP: THE PRINTER WILL LOAD THE OBJECTS FILES IN ALPHABETICAL ORDER. FOR MORE INFORMATION ON CREATING STORED LABEL FORMATS OR MENUING PROGRAMS PLEASE REFERENCE THE COGNITIVETPG CPL PROGRAMMERS GUIDE.

Chapter 6: Cleaning and Maintenance

For optimal printhead performance CognitiveTPG recommends cleaning the thermal printhead every 5,000 inches. Proper maintenance reduces replacement costs by extending the life of the printhead and improves the performance of the printer.

IMPORTANT! DISCONNECT THE POWER PRIOR TO CLEANING THE ADVANTAGE DLX .

Cleaning the Printer

Clean the exterior of the printer and the media tray using a lint-free cloth, and if necessary, a mild detergent solution.

Cleaning the Thermal Printhead and Platen

1. Open the print mechanism.
- 2) Gently clean the printhead (A) and platen (B) using a CognitiveTPG approved cleaning pen, card or a soft, lint-free cloth saturated with 99% isopropyl alcohol.



WARNING! INCORRECTLY CLEANING THE PRINTER WILL CAUSE PERMANENT DAMAGE AND VOID THE PRINTER'S WARRANTY. COGNITIVE RECOMMENDS USING A CERTIFIED CLEANING PEN FOR CLEANING THE THERMAL PRINthead.

Cleaning Supplies

Advantage DLX Cleaning Supplies			
Part #	Size (inches)	Items per box	Description
14-00-0000	2.5" x 6"	25	Cleaning card
14-00-0001	4.5" x 6"	25	Cleaning card
14-00-0002	none	12	Cleaning pen

Chapter 7: Troubleshooting

Use the chart below for troubleshooting your Advantage DLX printer prior to contacting Technical Support. If you are unable to resolve the problem using the chart below, please contact our Technical Support staff at 1-800-732-8950 ext. 4.

Symptom	Possible Cause	Recommended Solution
Red Ready Light	Print Head Unlatched	Securely latch printhead
	Out of Media/Ribbon	Replace media/ribbon
	Printer Paused	Press Feed Button to continue printing
Red Power Light	Incorrect Power Supply	Verify use of correct power supply
Printing Too Light	Printer Darkness Setting	Increase printer Darkness using CognitiveTPG Administrator
	Driver Darkness Setting	Increase the Darkness value within the printer driver
	Printhead Dirty	Clean printhead
Printing Blank Labels	Missing Ribbon	Use print ribbon when printing to thermal transfer media
Continuously Feeding Labels	Printer out of Calibration	Calibrate printer using CognitiveTPG Administrator
Feed Button Not Working	Printer is running a stored program	With print head unlatched, turn printer off and back on then re-latch printhead
Print Not Positioned Properly	Top of Form requires adjustment	Adjust Top of Form using CognitiveTPG Administrator
Media Drifting During Printing	Media Guide improperly adjusted	Verify Media Guide is positioned properly
Skipping Labels During Printing	Label Design	Decrease height of label
	Printer out of Calibration	Recalibrate printer using CognitiveTPG Administrator