

Programmable LED Driver Configuration Tool User Manual

Please send feedback or ask support questions by emailing software@erp-power.com



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INTRODUCTION

The CDB/PDB/PSB Series of LED drivers from ERP Power offer programmable outputs and dimming, allowing the drivers to perfectly serve specific, and varied, application requirements. This is achieved using an innovative set of user accessible configuration parameters, before, during or after, the time of deployment.

THE TOOL

ERP Driver Configuration	n Tool - Version DR_17_50_01			-		×
) R-					
LED DRIVER DETAILS Model Number: Operating Current: Voltage Range: Open Circuit Voltage: Bar Code: Factory: Date Code: Firmware Revision: NTC Function: NTC Rel:	PDB260W1050-345ABL8 1050 mA Low (137 to 180 V) 400 Vdc ERP150176 DR1NTC_B_17_47_10 Enabled No Flash 8000	LED DRIVER PARAMETERS US	ED FOR LOT CONFIGURATION Configuration Tool Mode: Operating Current: Operating Voltage: Range:	Non Engineering (Trim Only)		
NTC Top: NTC Bot:	7000	LOT CONFIGURATION PROCE	SS			
NTC Min:	10			Drivers Configured In Lo	t 0	0 of 0
LED DRIVER RUNTIME AND 5 Hours of Operation: AC Power Cycles: Temperature Events: Line Transient Events: OPERATIONS Mod	STATISTICS 0:0 (H:M) 69 1 31 Ify Driver Program					
Add Connecte	d Driver Config to Database					
	Select File					
Upgr	ade Unit Firmware					1
Port - COM5		Start Lot	Configuration	Abort Lot Configuration		
		Import	Config File	Export Config File		

ERP Power provides a versatile, and easy to use piece of software called the, "ERP LED Driver Configuration Tool", also referred to as, "The Customer GUI" (Graphical User Interface), along with a programming cable, "PROG-JACK-USB" assembly, to read from and configure ERP programmable LED drivers. The Customer GUI is available from ERP as a computer desktop application that runs on the Microsoft[®] Windows[®] 7 or greater operating system. The Customer GUI provides a Graphical User Interface, for connecting to, configuring and reading from, all ERP programmable LED drivers.





The PROG-JACK-USB cable, provided for configuring ERP Power programmable LED drivers, uses a USB port to connect to a computer, and a proprietary barrel jack connector, to interface with the programmable LED driver. Power is supplied by the PROG-JACK-USB cable, thus allowing the user to configure a driver, without the need to apply AC power to the driver and power it up. It is also safe to use the PROG-JACK-USB cable, on a driver currently powered by AC, and to power up a driver with AC, even if a cable is already plugged into the driver, prior to the application of power. Every PROG-JACK-USB cable includes inside of it, an EMI filtering choke and a self-resetting current fuse, to protect the user's computer in the event of a fault or transient event on the driver.



ERP LED DRIVER CONFIGURATION TOOL INSTALLATION

1.1. REQUIRED DRIVERS AND FILES

Before downloading and installing the latest version of the ERP LED Driver Configuration Tool, please ensure any previous versions have been uninstalled.

If this is the first time you are installing the ERP LED Driver Configuration Tool onto your computer, also download and install the driver software for the PROG-JACK-USB, either supplied with the Customer GUI software by ERP, or downloaded directly from the following website: <u>http://www.ftdichip.com/Drivers/VCP.htm</u>

To install the PROG-JACK-USB drivers, simply download, extract and install the driver setup file.



1.2. INSTALLATION

Launch the ERP Driver Configuration Tool setup file, and click Next:





Specify the installation directory and click Next, the default location is: "%HOMEPATH%\ERP Driver Configuration Tool":



Click **Next** on the following screen, ensuring "ERP Driver Configuration Tool" is checked:

					×
←	ERP Driv	ver Configurati	on Tool Set	up	
Select Components					
Please s	elect the o	components you	want to insta	all.	
ERP	Driver C	onfiguration T	ool	ERP Driver Conf DR_17_50_01	iguration Tool,
				This component approximately 7 your hard disk d	will occupy 2.85 MiB on Irive.
Def	ault	Select All	Deselect A	II	
			(Next	Cancel

Read through, and accept the license terms, if you wish to continue with the installation:

	\times
← ERP Driver Configuration Tool Setup	
License Agreement	
Please read the following license agreement. You must accept the terms contained in this agreement before continuing with the installation.	
ERP Power, LLC End User License Agreement IF YOU DO NOT AGREE TO THE TERMS OF THIS LICENSE, DO NOT CLICK THE "ACCEPT" BUTTON OR DOWNLOAD OR USE THIS APPLICATION. Please read this end user license agreement ("License") carefully before clicking the "Accept" button or downloading or using the ERP Driver Configuration Tool ("Application"), including without limitation, any updates, modifications or enhancements to the Application. These terms	< >
I accept the license.	
○ I do not accept the license.	
Next Cance	I

ERP DRIVER CONFIGURATION TOOL USER MANUAL VTW CLEAN



Specify the Start Menu shortcut folder name, the default is "ERP Power", then click Next:

	×
ERP Driver Configuration Tool Setup	
Start Menu shortcuts	
Select the Start Menu in which you would like to create the program's shortcuts. You can also enter a name to create a new folder.	
ERP	
Accessibility	^
Accessories	
Administrative Tools	
ERP	
ERP testing	
FTDI	
Link Chall Francisco	~
Next Can	el

Finally, click Install:

	×
÷	ERP Driver Configuration Tool Setup
Read	ly to Install
Setup DR_17	is now ready to begin installing ERP Driver Configuration Tool 7_50_01 on your computer. Installation will use 72.85 MiB of disk space.
	Install Cancel



READING A PROGRAMMABLE LED DRIVER 2.1. CONNECTING THE PROGRAMMING CABLE

Ensure that the PROG-JACK-USB programming cable is connected to your computer. To verify that the cable is properly installed, launch the ERP Driver Configuration Tool.



In the lower left portion of the screen, the PROG-JACK-USB cable status is listed. A Grey circle indicates no PROG-JACK-USB cable was found; a Red circle indicates a cable was found, but no driver is connected; a Green circle indicates a cable was found and a driver is connected.

If a PROG-JACK-USB cable is not found, please ensure that the latest cable drivers are installed, and that no other additional instances of the ERP Driver Configuration Tool are concurrently running.



2.2. READING A DRIVER



Insert the PROG-JACK-USB cable into an ERP Power programmable LED Driver.

The ERP Driver Configuration Tool will automatically detect the connected driver, and read the stored configuration in the driver.

SR ERP Driver Configuration Tool - Version DR_17_50_01		- 🗆 ×
LED DRIVER DETAILS Model Number: PDB260W1050-345ABL8 Operating Current: 1050 mA Voltage Range: Low (137 to 180 V) Open Circuit Voltage: 400 Vdc Bar Code: PA8W1050B25017AS0001 Factory: ERP, Zhuhai Date Code: 5017 Firmware Revision: DR1NTC_B_17_47_10 NTC Function: Enabled No Flash NTC Rel: 8000 NTC Top: 7000	LED DRIVER PARAMETERS USED FOR LOT CONFIGURATION Configuration Tool Mode: I Operating Current: Operating Voltage: Range:	Non Engineering (Trim Only)
NTC Bot: 1000	LOT CONFIGURATION PROCESS	Drivers Configured In Lot 0 0 of 0
NTC Min: 10	LOT CONFIGURATION PROGRESS NOTIFICATION UPDATE	Drivers configured in Lot 0 0010
LED DRIVER RUNTIME AND STATISTICS Hours of Operation: 0:50 (H:M) AC Power Cycles: 69 Temperature Events: 1 Line Transient Events: 31 OPERATIONS Modify Driver Program Add Connected Driver Config to Database Select File	Driver Automatically I	Detected
Upgrade Unit Firmware		
Driver Connected		
FOR-COMB	Start Lot Configuration	Abort Lot Configuration
	Import Config File	Export Config File



DRIVER CONFIGURATION WINDOW 3.1. CONFIGURATION TOOL LAYOUT

The main window on the ERP Driver Configuration Tool is divided into two portions: the left half displays the connected ERP Power programmable driver configuration attributes currently stored in that connected driver, while the right half shows the configuration settings which will be sent to the programmable driver, and also contains the Lot Configuration (Mass Production) settings.

If there is no ERP Power programmable LED driver currently connected, the left-hand information panel will be blank.

ERP Driver Configuration Tool - Version DR_17_50_01	- 🗆 X
The DRIVER DEFAILS Model Number: Operating Current: 0 mA Voltage Range: Single Open Circuit Voltage: NaN Vdc Bar Code: Factory: Date Code: Firmusse Revision: Firmusse Revision: Connected Driver Attributes and Options Let Prover Control of Proversion: LED DRIVER ROWTIME AND STATISTICS Hours of Operation: Hours of Operation: (H : M) AC Power Cycles: 0 Temperature Events: 0 Line Transient Events: 0	LOT CONFIGURATION PROGRESS NOTIFICATION UPDATE
OPERATIONS Modify Driver Program Add Connected Driver Config to Database Select File Upgrade Unit Firmware	
Driver Not Connected Port - COM5	Start Lot Configuration Abort Lot Configuration Import Config File Export Config File



3.1 INFORMATION PANEL LAYOUT

Here is a brief a description of each of the status fields that show up when an ERP Power programmable driver is plugged in. Note that some options may or may not be present, depending on the available parameters for the particular programmable driver connected to the computer...

LED DRIVER DETAILS	
Model Number:	PDB260W1050-345ABL8
Operating Current:	750 mA
Voltage Range:	High (263 to 345 V)
Open Circuit Voltage:	400 Vdc
Bar Code:	PA8W1050B25017AS0001
Factory:	ERP, Zhuhai
Date Code:	5017
Firmware Revision:	DR1NTC_B_17_47_10
NTC Function:	Enabled No Flash
NTC Rel:	8000 ohms
NTC Top:	7000 ohms
NTC Bot:	1000 ohms
NTC Min:	<i>10 %</i>

LED DRIVER RUNTIME AND S	TATISTICS
Hours of Operation:	1:50 (H:M)
AC Power Cycles:	80
Temperature Events:	11
Line Transient Events:	36

- **Model Number:** ERP part number (or customer SKU) programmed into the unit
- **Operating Current:** This is the configured output current
- **Operating Voltage:** This is the maximum operating voltage
- Open Circuit Voltage: This is the maximum voltage output if the driver is not connected to an LED load
- Bar Code: Unit serial number
- Factory: Origin manufacturing factory
- Date Code: The date of manufacture (WWYY week# and year#)
- **Firmware Revision:** The version of firmware inside the driver
- NTC Function (optional): The configured functionality of the external NTC protection
- NTC Rel (optional): The release threshold in ohms, for the external NTC functionality.
- NTC Top (optional): The top trigger threshold in ohms, for the external NTC functionality.
- NTC Bot (optional): The bottom trigger threshold in ohms, for the external NTC functionality.
- NTC Min (optional): The minimum output level, in percentage, that the external NTC functionality will throttle down to.
- Hours of Operation: Total time the supply has been powered (HH:MM), 10minute intervals
- AC Power Cycles: Total number of times the supply has been powered up
- Temperature Events: Number of times the supply temperature has exceeded a threshold.
 Note: Temperature thresholds vary by product (~90°C typ.)
- Line Transient Events: Cumulative number of line transients or output short circuit events, seen during operation



3.2. TRIM PANEL LAYOUT

Configuring (or trimming) and updating firmware for an individual driver is handled in the "Operations" area of the Customer GUI. Once a driver is connected to the computer, its configuration parameters can also be added to the internal database stored within the ERP Driver Configuration Tool. From top to bottom, here is a brief description of each of the buttons and fields available:

OPERATIONS
Modify Driver Program
Add Connected Driver Config to Database
Select File
Upgrade Unit Firmware
Driver Connected Port - COM5
Driver Config Added to Database

- **Modify Driver Program:** Allows the user to adjust the output current, voltage range and NTC functions of the connected driver
- Add Connected Driver Config to Database: Adds the configuration attributes, of the connected driver, into the local database, stored within the ERP Driver Configuration Tool, for later use
- Select File: Used for selecting the firmware file, to be used to update the connected driver
- **Upgrade Unit Firmware:** Begins the firmware updating process, using the firmware file selected
- Cable Connection Status: Gives the status of the PROG-JACK-USB cable, and whether or not a programmable driver is connected. Grey signifies no cable was found, Red means a cable was found, and Green means a driver was found and read from
- Information Panel: Informs the user of actions performed by the Customer GUI, such as adding a driver configuration to the internal Database



3.2 LOT CONFIGURATION PANEL

LED DRIVER PARAMETERS USED FOR LOT CONFIGURATION				
Configuration Tool Mode: Non Engineering (Trim Only)				
	Operating Current	: 750 mA		
	Operating Voltage	: 345 Vdc		
	Range:	High (263 to 345 \	V) (375 to 750 mA)	
	NTC Function:	Enabled No Flash		
	NTC Rel:	8000 ohms		
	NTCTop:	7000 ohms		
	NTCBot:	1000 ohms		
	NTCMin:	10 %		
LOT CONFIGURATION PRO	I ot ()	Drivers Configured In Let	0 0 0 0 0
			Drivers Configured In Loc	0 0010
LOT CONFIGURATION PR	CORESS NOTIFICATION	OFDATE		
			· · · · · ·	
D				1
) Start Lo	ot Configuration		 Abort Lot Configuration	1
D Start Lo Impo	ot Configuration ort Config File		Abort Lot Configuration	

The Lot (Group) Configuration Panel displays relevant information and buttons, used for mass configuring multiple programmable drivers in a sequence, with a chosen configuration.

- LED Driver Parameters Used for Lot Configuration panel: Displays the relevant settings that will be used to configure an individual or a large lot (group) of drivers
- Lot Configuration Process: Displays the ongoing status of an in-progress lot of drivers being configured
- Lot Configuration Progress Notification Update: Shows the user the required next step during the driver lot configuration
- **Start Lot Configuration**: Brings up the lot configuration window, allowing the user to configure and begin the lot configuration process
- Abort Lot Configuration: Allows the user to abort, or cancel, an in-progress lot configuration
- **Import Config File**: Will prompt the user with an add file dialogue, allowing the user to import a database config file, for different driver configurations
- **Export Config File**: Opens a save file dialogue box, allowing the user to share the driver configurations, stored within their ERP Driver Configuration Tool's internal database



CONFIGURING PROGRAMMABLE DRIVERS 4.1. TRIMMING A DRIVER

Trimming, or modifying the programmed settings of an individual driver is a simple and straight forward process. To begin, ensure an ERP Power programmable driver is connected to your computer, then press the **Modify Driver Program** button.

<u>Please Note:</u> Output current <u>can</u> be modified on a driver currently powered with AC, however, <u>do</u> <u>not</u> attempt to alter the output voltage range on a driver currently powered with AC.

RP Driver Configuration	n Tool - Version DR_17_50_01					-		×
)							
LED DRIVER DETAILS		LED DRIVER P	ARAMETERS USED FOR L	OT CONFIGURATION				
Model Number:	PDB260W1050-345ABL8							
Operating Current:	750 mA							
Voltage Range:	High (263 to 345 V)		Configu	untion Tool Mode	Non Engineering (Trim Only)			
Open Circuit Voltage:	400 Vdc		Configu	Iration Tool Mode:	Non Engineering (Trim Only)			
Bar Code:	PA8W1050B25017AS0001		Onersti	na Currente				
Factory:	ERP, Zhuhai		Operati	ng Current:				
Date Code:	5017		Panger	ng voltage:				
Firmware Revision:	DR1NTC_B_17_47_10		Kange.					
NTC Function:	Enabled No Flash							
NTC Rel:	8000 ohms							
NTC Top:	7000 ohms	LOT CONFIGU	RATION PROCESS					
NTC Bot:	1000 ohms	Lot 1	D	Lot Quantity	Drivers Configu	red In Lo	0	0 of 0
NTC Min:	10 %	LOT CONFIG	URATION PROGRESS NO	TIFICATION UPDATE				
LED DRIVER RUNTIME AND S Hours of Operation: AC Power Cycles: Temperature Events: Line Transient Events:	STATISTICS 1:50 (H:M) 80 11 36	ſ	Click to	modif	y or trim a			
					مرجع بالعراج ال			
OPERATIONS	Ar Driver Pregnam		con	nected	a driver			
Modi	ty Driver Program	r c)		
Add Connecter	d Driver Config to Database							
	Select File							
Upgr	ade Unit Firmware							
		0						1
Driver Connected								
Port - COM5			Start Lot Configur	ation	Abort Lot Config	uration		
			Import Config F	ile	Export Confid	ı File		\equiv



After pressing the **Modify Driver Program** button, a new window will popup, the **Program Driver** dialogue box. Several attributes are available for configuration from this dialogue. Some options may or not be present, depending on the particular ERP Power programmable LED driver model currently being modified:

Program Driver X	
RANGE High (263 to 345 V) (375 to 750 mA) Low (137 to 180 V) (525 to 1050 mA) Change Range NTC FUNCTIONALITY SETTINGS External NTC Enabled no Flash Recovery (ohms) 9123 9123 Bot Trigger (ohms) 1234 1234	 Range: Alters the output voltage range on dual range drivers NTC Functionality Settings: Allows the external NTC (negative temperature coefficient) function to be enabled or disabled, and modify the transfer function points for drivers with optional external NTC capabilities. See <u>Section</u> <u>5.1</u> for more details on configuring the external NTC functionality Program Current: Displays the available output current minimum and maximum values available for a particular voltage range, and allows the user to specify an operating current within those limits
PROGRAM CURRENT	
Operating Current : 567 Program Cancel	Press to Send Entered Attributes to Connected Driver.

After entering in the new attributes to be sent to the driver, press the **Program** button. A confirmation window will appear, confirming that the new settings have been sent, and stored in the driver.





After dismissing the confirmation box (press **OK)**, the Customer GUI will read back from the driver, further confirming, that the new settings have been saved and stored inside the driver.

Driver Attributes Match Settings from Program Driver Screen

If desired the new programmed attributes can be added into the internal database for later use, by pressing the **Add Connected Driver Config to Database** button.



Notification Field, Confirms Driver Config Has Been



4.2. MASS PRODUCTION MODE

ERP Driver Configuration	n Tool - Version DR_17_50_01			-		×
) R.					
LED DRIVER DETAILS Model Number: Operating Current: Voltage Range: Open Circuit Voltage: Bar Code: Factory: Date Code: Firmware Revision: NTC Function:	P08260W1050-345ABL8 587 mA High (363 to 345 V) 400 Vic PA8W1050825017A50001 ERP, Zhuhai 5017 DRLNTC, 8, 17, 47, 10 Enabled No Fissh 9123 ohms	LED DRIVER PARAMETERS USED FOR LOT CONFIGUR Configuration Tool I Operating Current: Operating Voltage: Range NTC Function: NTC Function:	Mode: Non Engine 567 mA 345 Vdc High (263 to 345 Enabled No Flash 9123 ohms	ering (Trim Only) V) (375 to 750 mA)		
NTC Top: NTC Bot: NTC Min:	5678 ohms 1234 ohms 12 %	NTCTop: NTCBot: NTCMin:	5678 ohms 1234 ohms 12 %			
LED DRIVER RUNTIME AND S Hours of Operation: AC Power Cycles: Temperature Events: Line Transient Events:	TATISTICS 5:20 (H:M) 80 11 36	LOT CONFIGURATION PROCESS Lot ID Lot Qu LOT CONFIGURATION PROGRESS NOTIFICATION U	i antity IPDATE	Drivers Configured In Lot	0 0 0	of O
OPERATIONS Add Connecte Uppr	fy Driver Program d Driver Config to Database Select File ade Unit Firmware					
Driver Connected Port - COM5		Start Lot Configuration Import Config File		Abort Lot Configuration Export Config File		

The ERP Driver Configuration Tool also allows a large lot (group) of drivers to be configured for a production environment. This mode of configuration makes use of the internal database within the Configuration Tool. To program and configure a large quantity of drivers based upon predefined configurations, either previously imported into the Configuration Tool or added using the Add Connected Driver Config to Database button. To launch the production mode, press the Start Lot Configuration button. Below is a breakdown of the options available in production mode.

	Configuration Selection				×	
	MODEL NUMBER					
Configurations	Select Model To Configure :	PDB260W1050-345-ABL			-	
Model	AVAILABLE CONFIGURATIONS	PDB260W1050-345ABL8				
	Operating Driver Outp Current (mA) Range Level Rang	put Voltage Open Ckt ge (Vdc) Voltage (Vdc)	Engineering Params by Voltage (Vdc)	NTC Functionality	NTC Rele	
	750 High 263 750 High 263	to 345 250 to 345 250	Factory 345 Factory 345	2	8000	List of Available Configurations Stored in the Internal
		_		_		Database
Entries Can be deleted and an Individual Driver Can	Delete Select	tion	Program Sel	ection		
Be Programmed	LOT INFORMATION				(A Custom Lot ID Can Be
Will Begin the Lot Configuration Process	Lot ID/Nam	ne: L	ot Quantity:	Cancel		Specified, for Information Tracking, Any Size Lot Quantity Can Be Entered
with the Selected Configuration				Used to S	Send the Se	elected
				Configui Satall Pr	ration to the lite Hand-He rogrammer	eld
ERP DRIVER CONFIGURATION TO	OOL USER MANUAL VTW	CLEAN	17	F	ORM: Custo	merGUIManual Doc Control #####



After selecting from the list, the relevant model and desired configuration, the desired Lot ID/Name and Lot Quantity can be entered. Lot ID is used for information tracking; after completing a lot, a .csv file is generated with the Lot ID, recording the number of drivers programmed, their serial numbers and configuration used. Lot Quantities can be specified in any number between 1 to 64,000. Press the Start Config button to begin the Lot Configuration Process.

	LED DRIVER PARAMETERS USED FOR LOT CONFIGURATION	
	Configuration Tool Mode: Non Engineering (Trim Only) Operating Current: 750 mA Operating Voltage: 345 Vdc Range: High (263 to 345 V) (375 to 750 mA) NTC Function: Enabled No Flash NTC Rei: 9123 ohms NTCTop: 5678 ohms NTCTOP: 1234 ohms NTCTOP: 1234 ohms NTCTOP: 25678 ohms NTCTOP: 2678 ohms NTOP: 2678 ohms NTOP: 2678 ohms	Lot Configuration Process Instructions and Info Panel
Lot Configuration Progress		
	Start Lot Configuration Abort Lot Configuration Import Config File Export Config File	Lot Configuration Process Can be Aborted

The Lot Configuration Process keeps track of the number of drivers programmed and how many drivers are left to be programmed, using a progress bar. A visual and audio prompt indicates when a driver has been successfully programmed and when it is time to connect the next driver. A notification is also given when the process is complete, notifying the user where the .csv file was saved, recording the Lot Configuration Process.



(OPTIONAL) EXTERNAL NTC PROTECTION 5.1. OVERVIEW

Select ERP Power programmable LED driver models have the capability of accepting inputs, from an externally located negative temperature coefficient (NTC) thermistor, to use as an extra level of protection for the LED fixture. The NTC inputs, are used to signal to the driver, that the location being monitored, is too hot, and thus the output current must be throttled down. The transfer function for output current vs. NTC resistance is entirely user configurable. See below graph, showing the linear shape of the transfer function, and the circled points, which are the user configurable attributes, defining the transfer function.



From the graph, the configurable parameters are:

- NTC Recovery Threshold: In ohms, this specifies the point at which normal operation will be restored.
- NTC Top Trigger Threshold: In ohms, this specifies when output current throttling will begin.
- **NTC Bottom Trigger Threshold**: In ohms, this specifies the resistance when the minimum specified output current is reached. Used to define the slope of the transfer function curve.
- **Minimum NTC Throttle**: In percentage of output current, specifies the lowest level, the NTC function will throttle down to.

Note, the direction of the arrows in the graph. Once the **NTC Top Trigger Threshold** has been crossed, output current will only go down in value, until the **NTC Recovery Threshold** has been crossed. This hysteresis ensures, that normal operation will only be restored, after the NTC has had adequate time to cool off.



5.2. CONFIGURING THE EXTERNAL NTC FUNCTIONALITY

To configure the External NTC Functionality, repeat the same steps as in the **Trimming a Driver** section. Simply open the ERP Driver Configuration Tool, connect an ERP Power programmable driver which supports the External NTC function, and click the **Modify Driver Program** button.

The following NTC settings, based on the transfer function graph in **Section 5.1**, can be configured from the **Program Driver** window:

Program Driver X
RANGE
O High (263 to 345 V) (375 to 750 mA)
O Low (137 to 180 V) (525 to 1050 mA)
Change Range
NTC FUNCTIONALITY SETTINGS
External NTC
Enabled no Flash
Recovery (ohms) Top Trigger (ohms)
9123 🗘 5678 🗘
Bot Trigger (ohms) Minimum NTC Throttle (%)
1234 🗘 12 🗘
PROGRAM CURRENT
Range: High (263 to 345 V) (375 to 750 mA)
Operating Current : 567 🗘
Program Cancel

- External NTC: Can be set to:
 - **Disabled:** Disables all NTC related functions.
 - Enabled no Flash: Enables the NTC Functionality as defined by the transfer function.
 - Enabled with Flash: Enables the NTC functionality, and will blink the fixture LEDs up and down every few minutes if the NTC Top Trigger Threshold has been crossed, in addition to following the NTC Transfer Function.
- Recovery: Specifies the NTC Recovery Threshold in ohms. Acceptable values range from 200-15,000 ohms. <u>Recovery must be greater in</u> value than Top Trigger or Bot Trigger.
- Top Trigger: Specifies the NTC Top Trigger Threshold in ohms. Acceptable values range from 200-15,000 ohms. <u>Top Trigger must be greater</u> than or equal to in value as Bot Trigger.
- Bot Trigger: Specifies the NTC Bottom Trigger Threshold in ohms. Acceptable values range from 200-15,000 ohms.
- **Minimum NTC Throttle**: Specifies the bottom floor the NTC Function will dim down to. Acceptable values range from 1-100 %.

Once the desired values have been entered, simply press the **Program** button to configure the connected driver. Afterwards, the selected values can be added into the ERP Driver Configuration Tool's internal database, using the **Add Connected Driver Config to Database** button.

Technical Support and Feedback:

Please send feedback or ask support questions by emailing software@erp-power.com