



LM-6488 Thin Twinax Terminal

Installation and Setup Manual



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Thank you for choosing this LM-6488 Thin Twinax Terminal from Ringdale.

LM-6488 Personalities

The LM-6488 product has two very distinct personalities, as follows:

- 1. An IBM-compatible Twinax terminal capable of accessing any IBM server that supports Twinax cable connections. (S/3X, AS/36, AS/400, iSeries, etc)
- 2. A Thin Client / Ethernet Terminal capable of connecting to a multitude of data resources via both Twinax and Ethernet connections, including access to the Internet via Microsoft Internet Explorer.

This document focuses on the installation and configuration of the Twinax Terminal personality as described in (1) above.

Hardware Setup.



- 1. Connect a Ringdale 122-key keyboard or any PC-style keyboard to the appropriate PS/2 mini-DIN connector on the back of the LM-6488.
- 2. Connect the supplied black mouse to the appropriate PS/2 mini-DIN connector on the back of the LM-6488.
- 3. Connect the supplied Twinax T-Connector via the two thumbscrews to the DB15 Female connector on the back of the LM-6488.
- 4. To one of the Twinax connectors on the T-Connector, attach either a Twinax cable or an NLynx Gemini twinax balun and appropriate UTP cabling.
- 5. Attach a monitor to the SVGA connector on the back of the LM-6488.
- 6. Plug one end of the supplied power cord into the rear of the LM-6488 and the other end into a standard wall outlet. The LM-6488 has an auto-sensing and auto-adjusting power supply that will safely accept 110-250 VAC, 50-60Hz power.
- 7. Power-on the LM-6488 unit and wait for the terminal desktop to appear.

This completes the hardware installation process; now configure the software.



Quick Configuration: Twinax Display Session

When you power-on the LM-6488 for the very first time, the *WBT Setup Wizard* will appear. Follow and answer the prompts on this wizard and it will never appear again.

Connection Manager



Now click on the *Connection Manager* icon at the top left-hand corner of the desktop of the LM-6488 and this will bring-up the Connection Manager.

From the **Connection Manager** select the "Configure" tab and then click on "**Add**" at the bottom lefthand corner. From the "New Selections" panel scroll through the options and select "**NLynx** <u>**Twinax**</u> **Emulation**" and then click "**OK**'.

NOTE: DO NOT select "NLynx Telnet Emulation" as this is for connections via Ethernet.

The Twinax "**Configure Connection**" dialog box will now be displayed and it is from here that you can configure the connection (display or printer) to the IBM host, as well as the personality parameters for the twinax terminal.

To quickly test the LM-6488 and the attached twinax cabling for a connection to the IBM host, there are just four simple parameters that you need to initially configure.

- 1. **Connection Name:** A unique session-identification name that is used to identify the session in the Connection Manager. For this example we have typed in "**Test1**".
- 2. Display or Printer: Display is the default.
- 3. Display Model: Select from the available choices, or leave as the default of "3197-C".
- 4. *Host Address:* The unique 0 through 6 twinax cable identifier.

Your have now completed the main configuration parameters for the LM-6488. Click "**OK**" at the top right of the Connection Manager screen.

Staying with the "**Connection Manager**", select the "**Connections**" tab, highlight the name of the session that you have just configured (**Test1**) and click on "**Connect**".

The twinax session screen should momentarily display with a black background and the cursor in the upper-right corner of this session screen.

If the LM-6488 is physically connecting to the IBM host, the cursor will then move to the upper-left corner of the session screen. And if the configuration and cabling parameters are acceptable to the IBM host, the host SignOn screen should appear momentarily.

Congratulations, the LM-6488 configuration process is that simple!



Detailed Configuration: Twinax Display Session

The Connection Manager has two tabs, "**Connections**" and "**Configure**". You first need to "**Configure**" the display and / or printer sessions before selecting the "**Connections**" tab to activate or deactivate sessions.

Connection Manager		×
Connections Configure	1	
Connection Name	Туре	Startup
New Connection		
Select the type of connection to create:		
NLynx Twinax Emulator	~	
NLynx Telnet Emulator NLynx Twinax Emulator	<u>^</u>	
PPPoE Tarantella Secure Global Desktop Enterprise Edition		
Terminal Emulator		
Virtual Private Network VNC Viewer	~	
Add Edit Delete Starte	up <u>E</u> ailOver	

winax	General	Display	Colour	Keyboard	Macros	Сору,	/Paste	Serial	Input	
	Cor	nection N	ame:	TEST 1						
		Device T	ype:	🔘 Display		ОР	rinter			
		М	odel:	3197-C		~				
		Host Add	ress:	0 🔽						
	к	eyboard T	уре:	World Trad	le	~				
	Host	Character	Set:	English U.S	i.A.	~				

Configu	re Connection : New co	nnection		🥐 ОК 🔀
Twinax	General Display Colour	Keyboard Macros	Copy/Paste	Serial Input
	Connection Name:	TEST1		
	Device Type:	💿 Display	O Printer	
	Model:	3197-⊂ 3196	~	
	Host Address:	3197-C 3197-D 3477-FC		
	Keyboard Type:	5251-11	~	
	Host Character Set:	English U.S.A.	~	

Select "Configure", then "Add" and the New Connection menu will appear. Scroll through the various options until you come to the selection "NLynx Twinax Emulation", highlight it and click on "OK" and the "Configure Connection" panel will be displayed. The Configure Connection panel has several tabs that are used to configure all of the features and options of the Twinax display and printer session. As described earlier, the first task is to configure the Twinax connection from the Twinax tab.

NOTE: at this time **DO NOT** select the "NLynx Telnet Emulator" as this selection is for configuring an Ethernet (Telnet) connection to an IBM host.

In this example we have used "TEST1" as the connection name. This unique name is used in the Connection Manager to differentiate one session from another. By default, Display and 3197-C are highlighted, although the are many other display emulations to chose from that best suit your IBM host, as listed in the next panel

As shown below, you can scroll through the Model options until you find the IBM terminal emulation that best suits your personal preferences or the IBM host application. And it is important to select a unique Host Address (0 through 6) for each of the display and printer sessions that you configure that is not used by any other device on the same Twinax port at the IBM host.

Twinax General Display Colour Keyboard Macros Copy/Paste Serial Input Connection Name: TEST1 Device Type: Image: Display Printer Model: 3197-C Image: Display Printer Host Address: Image: Display Image: Display Image: Display Keyboard Type: 2 Image: Display Image: Display Host Character Set: 5 S.A. Image: Display	Twinax		Directory	Colour				(D+ -	Constat.	Transat	
Device Type: Display Printer Model: S197-C Host Address:	I WII IAX	General	Display	Colour	Keyboard	I Macros	Copy/	Paste	Serial	Input	
Model: 3197-C		Con	nection N	ame:	TEST1						
Host Address:			Device T	ype:	💿 Displa	У	OP	rinter			
2			М	odel:	3197-C		~				
Keyboard Type: Host Character Set:			Host Add	ress:							
Host Character Set: 6 S.A.		K	eyboard T	ype:	2 ^ 3 4	de	~				
		Host	Character	Set:	5 6 🔽	S.A.	~				



Configure Connection :	rest1			ОК	×
Twinax General Display	Colour Keybo	ard Macros	Copy/Paste	Serial Input	
Language:	English		~		
Display warning m	essage before dis	connecting			
Full Screen Mode					
Show Command B	ar				
Show Status Bar					

The "**General**" tab is where you select the display language (English is the only selection at present). It is strongly recommended that the selection "**Display warning message**" is enabled, as this ensures that you are asked to confirm each time you select to disconnect a session. If you want the session to be displayed as a full screen (as opposed to tiled or windowed), enable "**Full Screen Mode**".

This selection will also activate the buttons so that you can select none; one or both **Status** bars to be displayed at the bottom of the twinax session screen.

Configure Connection	: TEST1		OK 🔀
Twinax General Display	Colour Keyboard	Macros Copy/Pa	ste Serial Input
Cursor Shape Block	O Underline	🔽 Blinkir	ıg
Field Separator Character –	O. <period></period>	○· <middle dot=""></middle>	<pre> </pre>
Hot Spots	🔽 Roll over	🔽 Enabl	e
Rule Cursor	O Horizontal	O Vertical	Cross Hair
Font			
Font: Lucida Console	Style: R	egular 🔽	



The "**Display**" tab includes all of the following options:

Cursor: Block, Underline, Blink.
Field Separator: Vertical Line, Period, Middle Dot, Space.
Hot Spots: Show, Roll Over, Enable/Disable
Rule Cursor: Enable/Disable; Horizontal, Vertical, Cross-Hair.
Font Options: Lucinda, Courier New, Host Connect Grafix.
Style: Regular, Bold, Italic, Bold Italic

You can select or deselect your preferences by clicking on the appropriate buttons.

If a color monitor is attached to the LM-6488, you can use the features under the "**Color**" tab to customize the presentation of data, background and foreground colors. This utility is self-explanatory and the "**Default**" button is an ideal way to reset the colors back to the factory defaults after experimenting with the various combinations.



Configure Connection : Ne	w connection	? ок 🛛
Twinax General Display Co	blour Keyboard Macros Copy/Paste	Serial Input
Hwirlax General Display Co Host Key: Cmd 17 Cmd 17 Cmd 18 Cmd 19 Cmd 20 Cmd 21 Cmd 22 Cmd 23 Cmd 24 Copy-Jump-Paste Delete Destructive Backspace Down Dup Enter Erase All Input Erase Loft Even Diable	Currently set to: RIGHT CONTROL or ALT + NUMPADENTER	Set

Configure Cor	nnection : New co				? 0	< X
Twinax Gene	ral Display Colour	Keyboard [Macros	Copy/Paste	Serial Input	
Host Key: Cmd 21 Cmd 22 Cmd 22 Cmd 23 Cmd 24 Copy-Jump-Pa Delete Destructive Ba Down Dup Enter Errase All Input Erase All Input Erase All Input Erase All Input Erase All Input Fast Left Fast Left Fast Left Field Exit Field Minus Field Plus Holp	RIGH or	yped will be use Enter	ed as the l	PC key for Remove	Set	

Configure Connection : TES	571			ок 🔀
Twinax General Display Co	lour Keyboard	Macros Copy	/Paste Serial	Input
Paste to Connection: *NONE TEST1		Host Key al *NONE Attention Backspace Backtab Clear (327/ Cmd 1 Cmd 2		
Copy from Row: Copy from Column: Copy length:	1		Paste to Row: ste to column:	1

The "**Keyboard**" tab allows you to review and reconfigure the position of most **Host Key** functions on your keyboard. A comprehensive list of the various Host Keys is available and you can use the scroll buttons to review the complete list in alphabetical order.

When you place the cursor over a certain Host Key ("**Enter**" for example), the current settings for that function are displayed (RIGHT CONTROL, or ALT+NUM PAD ENTER, for example). If you want to modify either of the settings for any of the available Host Keys, click on "**Set**" alongside the ALT+NUMPADENTER field and a new pop-up screen will appear, see the example below.

This pop-up will advise you that the very next key you type will be used as the new alternate key for "**Enter**". You will be warned if your chosen key has already been assigned to a Host Key function, at which time you can either **Cancel** or **OK** your selection.

This utility will also advise you of any unused key or key combinations that you may want to consider using. The "**Default**" button is always a useful safety net when experimenting with this feature.

The **Macros** tab enables the recording of repetitive information (today's date, company address; virtually any repetitive key sequence) and replaying them upon demand. The **Copy/Paste** feature includes all the options to allow you to define the row/column position of data in one session for copying and pasting automatically into that same or a different session, including the number of characters to be copied. This can be used to copy the account number from one session (an IBM AS/400 for example) into another session (a Unix VT-220), without having to retype each time. You can even configure a Host Key to be executed after the paste (an Enter, or F12, for example).



Configure Connection : 1	TEST1 ? OK 🛛
Twinax General Display	Colour Keyboard Macros Copy/Paste Serial Input
Enable Serial Input	Serial Prompt:
Port Configuration Port: com1: v Baud rate: 9600 v	Data bits Stop bits Parity Flow Control 7 1 None None 8 2 Odd Software Even Hardware
Control Function Mapping 01 - Enter 02 - Cmd 11 03 - Cmd 12 04 - Cmd 13 05 - Cmd 14 06 - Cmd 15 07 - Newline	Enter V Default





The LM-6488 terminal includes both a parallel port and a serial port. The parallel port supports directly-attached printers via a parallel printer cable, see the Printer section for more details.

The **Serial Input** tab is where you enable and configure the parameters of the serial port to exactly match the attached serial input device, refer to the configuration options in this panel.

The Serial port can be used to support either output devices (printers, cash drawers, etc.) or input devices such as serial scanners, keyboards, weigh scales, etc.

The LM-6488 has a feature that provides some very useful productivity tools. When you are in a twinax session, you can right-click your mouse button, or use the key sequence "**Alt+V**" from your keyboard, and a pop-up menu as shown to the left will appear. You can then navigate and select accordingly any one of the available options via the mouse or cursor keys. Any of the following host keys can be selected in this way:

Enter	Reset
Field Exit	Help
Roll Down	Function Keys
Roll Up	Fxx Keys
Cursor Rule	Full Screen presentation
Command Bar	Tiled presentation
F Keypad	Status Bar

When you are in a Twinax session, it is also possible to check the configuration options, or change certain options of the session by clicking on the "**File**" button at the top left corner of the session screen. A drop-down panel will appear and when you select "**Configure**" the "**Configure Connection**" master panel appears for that session.

You can then browse the session's settings or change those that do not affect the host connection. The crucial on-line settings are grayed-out to prevent you from inadvertently losing your IBM host session.



Twinax Printer Session Configuration

Configu	re Connection : New co	innection	? OK 🔀
Twinax	General Printer Options	s Printer Control Strings	
	Connection Name:	PRINT1	
	Device Type:	O Display O Printer	
	Model:	3812-1	
	Host Address:	4210-1 5219-D 5224-1 5224-2	
	Host Character Set:	English U.S.A.	
	Select printing method:	Direct to Port	

To configure a twinax printer session, follow the initial configuration steps as discussed earlier in this document (**Connection Manager**, -**Configure**, - **Add**, - **NLynx Twinax Emulator**) and then at the "**Twinax**" tab type in a Connection Name for the printer (PRINT1 for example), click on the "**Printer**" button and then select the appropriate printer emulation from the available supported printer emulations, as follows:

3812-01	5224-1, -2
4210-01	5225-1, -2, -3, -4
5219-D	5226-1, -2, -3

Select a unique **IBM Host Address**, remembering that the IBM Twinax line supports seven station addresses (from 0 to 6) and if you duplicate an address that another device is already using, you will not be able to connect to the IBM host and you may even bring the whole Twinax line down. Select the appropriate "**Host Character Set**" and "**Printing Method**" (Direct to Printer Port is default).

The "General" and "Printer" tabs are self-explanatory so we will move on to the "Options" tab:

Twinax General Printer Options Printer Control Strings Image: Scale to Page Scale to Page Scale to Page Image: Automatically Fit to Page Use Custom CPI Image Image: Use Custom LPI 6 Image EBCDIC Transparent Mode EBCDIC -> ASCII Translation Pairs (Hex) Image	Configure Connection : New connection ? Ok						
	Twinax	General	Printer	Options	Pri	nter Control Strings	
Lead In Code (Hex): () End Code (Hex): ()		Use AS/40	0 Defaults	5		Scale to Page	
			le (Hex):	[(,)

From the "**Options**" tab you can elect to use the AS/400 printer setup defaults, or deselect "**Defaults**" and custom configure the CPI, LPI and Page Scaling options.

From this tab you can also configure "EBCDIC Transparent Mode" and "EBCDIC to ASCII Translation Pairs".

Since these two options are dependant upon how the printer application is configured at the IBM Twinax host, you will need to refer to your appropriate IBM administrator for advice and guidance on the relevance of these options to your terminal.



Configure Connection : New connection 🛛 😯 🔀						
Twinax General Printe	er Options Printer Control Strings					
Select Base Printer Type then modify individual control strings.						
Ba	se Printer Type: HP LaserJet 💉					
Function	Printer control string (hex)	~				
Initialize printer	1B45					
Portrait orientation	1B266C304F					
Landscape orientation	1B266C314F					
Set page length in lines						
3 LPI	1B266C3344					
4 LPI	1B266C3444					
6 LPI	1B266C3644					
8 LPI	1B266C3844					
5 CPI						
10 CPI	1B266B3073313248					
12 CPI	1B266B3073313048					
15 CPI	1B266B3253					
17 CPI	1B266B3253					
Drawer 1	1B266C3148					
Drawer 2	1B266C3448					
Envelope drawer	1B266C3348	×				

The last printer configuration tab is "**Printer Control Strings**" where you can select from one of four printer types:

- 1. HP LaserJet
- 2. Generic Text
- 3. IBM ProPrinter
- 4. Epson

Please refer to Ringdale Technical Support for more details on Printer Control Strings, or visit <u>www.ringdale.com/support</u>, and then select "Knowledge Base".

Configuration Security

In environments where there is a need to restrict access to some or all of the configuration parameters and features of the LM-6488, there is an optional password feature that can be used to protect these settings. The password can be enabled for accessing and changing all of the setup parameters of the terminal and you can also disable Internet Explorer, essentially locking-down all setup parameters and preventing access to the Internet. The security capabilities are set-up from the Control Panel.

Click on the "**Start**" button at the bottom-left corner of the screen. Select "**Settings**" and "**Control Panel**". From the Control Panel, double-click on the "**Security**" icon (two keys) and the "**Security**" panel will be displayed.

TEST1				DC05BBDD(20	5.242.238.48)						_ _ _×
Eile Edit Yiew Macros Help 🗃 🖨 🖨 🖷 🗉 🔍 🛡 🗉 11 🕨 🗉 11	8		File Tools									
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 F13 F14 F15 F16 F17 F18 F19 F20 F21 F22 F23 I	F24		Eile <u>V</u> ie		_	_	0				-	№ ? ×
OFCTSK Office Tasks				(î)	i n n n n n n n n n n n n n n n n n n n	P	P	0	<u>s</u>	Ø	-	(jca
Select one of the following:	System:	MACMIDRG	Certificates	Cisco Aironet Client Utility	Cisco WLM	Corn Port Settings	Date / Time	Desktop Style	Display	Edgeport	FTPUpdate	ICA Options Settings
			ica	ک ک	9		- 🤣 -		- 23	\$	- 😨	R
1. OfficeVision for OS/400 2. Client Access tasks			ICA Setting	s Input & Volume	Internet Options	LPD Settings	Network	Options	RDP Settings	RDP/ICA Printers	Screen Keyboard	Security
3. Decision support 4. Office security			A 1	W		2				VN		
5. Work with directory entries 6. Documents 7. Folders			Smart Card Reader	SNMP	System	Terminal Server Clie	~	TouchSetu	p USB Storage Management		VNCViewer Settings	
Selection or command												
F3=Exit F4=Prompt F9=Retrieve F12=Cancel F13=Infor	rmation Ass	istant										
Network settings	MW	C CAP NUM SCR										
Start CTESTI TESTI		🔟 🕹 7:54 AM [🕑 🏴	Start C	onnection Mana	anar	Con Con	trol Panel		-		m	🕹 9:31 AM 🔞 🔽



CAUTION: Please be advised that it is important that any changes made to the default password of "**guest**" be noted somewhere safe. Once the password has been enabled or changed, the only way to get back into either the Control Panel or Connection Manager to add, modify or delete sessions and connections is via this password.

iecurity			OK
Security			
Enable Multiuser <u>C</u> o	ntrol		
Account Name	Group	Reserve	Add User
Administrator	Administrato	rs	Modify User
			Delete User
			User Permissions
Enable Auto Login	Administrator	~	Group Permissions
Control Panel Passw	ord Enable		
The factory default pas	sword is "guest"		 ▲ ▲
Pass <u>w</u> ord: *****	Confirm	n: **** *	Modify
Disable <u>T</u> erminal Con Disable Update Defau		ſab	

 Options
 Image: Control State of Control State

Connections Configure Connection Name Туре Startun TEST1 NLynx Twinax Default E TEST Connection Startup E TEST: Choose one of the following startup options for the connection you have selected: Startup Options Make the selected connection your Default connection <u>Automatically start the selected connection at startup.</u> Create shortcut on desktop. second Global connection auto-start delay time : 6 OK Cancel EailOver Delete Startup... Add... Edit...

To password-protect the settings of the LM-6488, from this **Security** panel enable "**Control Panel Password Enable**" which will make all access to the Control Panel via a password.

Also enable the "**Disable Terminal Connection Configure Tab**", which will remove the "**Configure**" tab from the Connection Manager, preventing both the modifying of existing sessions and the adding of new sessions and connections.

At this time, you can also "**Modify**" the default password simply by following the on-screen prompts, remembering to make a careful note of the new password. And while you are still in the Control Panel, you may want to also consider disabling Internet Explorer and the Connection Manager icon, as follows:

From the Control Panel, click on "**Options**" (the icon that looks like a gear) and this panel and its default settings will be displayed. If you want to prevent the user from accessing the Internet, you can disable IE (Internet Explorer) and you can even remove the "**Connection Manager**" icon from the desktop.

IMPORTANT: If you are going to remove the Connection Manager from the desktop, you must first ensure that you have configured each and every session to automatically start when the LM-6488 is powered-on, as follows:

> From the "**Configure**" tab of the Connection Manager, highlight a session name (by the mouse, or the cursor keys) and then click on "**Startup...**" at the bottom of the screen and the panel to the left will appear.

> By selecting "**Automatically start the selected connection at startup**", the highlighted session(s) will indeed start automatically each time you power-on the LM-6488.



Management

The ability to remotely manage, configure and reconfigure a network of IBM-compatible Twinax Terminals is a very powerful concept and is unique to the LM-6488 Twinax Terminal.

Management Overview

LM-6488 terminals can be remotely managed across an Ethernet network by eProManager, a copy of which is included with the enclosed CD. eProManager can manage and control an infinite number of LM-6488 terminals (and other NLynx Thin Clients) from a single centralized computer. It can be implemented in your system in a matter of minutes through a quick and easy installation process. With the help of eProManager, Administrators have a multitude of possibilities when it comes to managing a network of LM-6488 terminals: organizing devices by name, department, or even by room number. Additional tools such as code updates and scheduling allow Administrators to update device software and settings at any time of the day.

The only requirement is that each LM-6488 needs to be attached to an Ethernet network.

Installing eProManager

- 1. Insert the eProManager software CD into the CD ROM drive.
- 2. Click on **My Computer** and select the CD ROM drive.
- 3. Locate the install program (eProManagerV1.xx.exe) in the root directory of the CD and double click to run it.
- 4. Follow the installation instructions provided in each window.
- 5. Choose **Typical** when asked which type of installation method to choose.
- 6. Click finish when the last window appears to complete the installation process.

After you have completed installing eProManager, the link to run the manager program can be found from the **Start** menu under **Programs > eProManager**.

eProManager Main Window

ProManager							_0 ×
File View Device Tools Option Help			a 1 a 1				
S2 🔎 🙆	E Sa		۷ 😓				
		Connection RemoteCtri	Hide Ahout		r		
		tName MAC	Model ID TR2541	Status	SoftwareVersion CSVersion	Agent/ersio RAMSize FOMS ze 10010025 128MB 32MB	Product D 1111111111
🖻 🔮 Unassigned	2115 242 238 48 1013	няних вее лирнян живен.	0 032240	Arme	2-5119163 (6016 203: 00050000	01011002F 12464B 3244B	
236.242.238.48							
J	1	1					Þ
Systemisneacy	I Devices	🔲 1 Adive Devices			🚇 0 Inactive Devices		1

Using eProManager

Please reference the file "ManagingyourWBTs.htm" on the eProManager CD for detailed information on how to use eProManager.



Ethernet Configuration Options

If you need assistance on configuring the Ethernet capability and functionality of the LM-6488, please contact Ringdale Technical Support.



Basic Trouble-Shooting:

Symptom	Possible Solution
Cursor remains in the upper-right corner of the session and then just stays there, no sign-on screen.	This normally means that there is no physical connection to the IBM host. Check that all wiring connections are secure and snug. Check for bad connections or broken wires in the Twinax or UTP cabling.
	If UTP cabling is used, check that the two baluns are a matching pair relative polarity and twisted pairs used.
Cursor moves to the upper left corner of the session and then just stays there, no sign-on screen.	This usually means that the LM-6488 is talking to the IBM host at a base level, but there is something wrong in the configuration parameters. Check that the Host Address you used (0 through 6) is unique and that it is not a duplicate used on another device attached to the IBM Host. Check with your AS/400 administrator to determine the status of this session at the IBM host.
Please reference the Ringdale Knowledge Base for additional help topics	www.ringdale.com/support, and then select "Knowledge Base".

NOTE:

Please do not reset the LM-6488 back to factory defaults or you will lose the Twinax configurator. If for whatever reason, somebody resets the unit to factory defaults, please note the following recovery procedure:

- Start-up Internet Explorer.
- At the address line, type in **\hard disk** (this is two words) and hit enter.
- Several file names will now appear, just double-click on "NLConfig".
- This should then display a dialog box "Error No command line", just click OK and this action will set-up the twinax configurator again.
- Now reboot the LM-6488, go to the Connection Manager, select the "Configure" tab and then click on "Add" at the bottom left-hand corner. From the "New Selections" panel scroll through the options and the selection "NLynx <u>Twinax</u> Emulation" should be there. You are now good to go again.

Technical Support

If you need to contact Ringdale Technical Support, please contact us at <u>www.Ringdale.com/support</u> or call 1-888-288-9080.



LM6488 User Manual

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