TELEX RADIO DISPATCH PRODUCTS

NEO-10 Technical Manual

up to and including version 4.100



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chapter 1 Introduction

Introduction

The NEO-10 device is a network based input/output device. Within its enclosure are 10 **DPDT** (Double Pole Double Throw) relays with all six (6) contacts of the relays available to the ports.

- Normally Open
- Normally Closed
- *Common* for each half of the relay

There are also 10 DC isolated inputs that can be used to monitor external events. The NEO-10 sends out multicast packet bursts any time a relay or input changes, allowing for all users of the device to see status updates in real time. Actual control of the NEO-10 is accomplished by a **TCP/IP** (Transmission Control Protocol/Internet Protocol) socket connection from the controlling console. C-Soft version 2.52 and later supports control and monitoring functions to support multiple NEO-10 devices on the network.

In addition to the I/O functions of the device, NEO-10 supports 10 channels of echo packet functionality. Echo packet is a method of copying voice/data content on the network from and to multicast addresses. This features allows the multicast scheme to operate on a network without having multicast enabled.

Browser Requirements

- Internet Explorer version 6.0 or later
- Firefox version 4.0 or later

Hardware Connections

IMPORTANT: As with all communication equipment, earth ground should be used. Earth ground is a low impedance path to the earth for the purpose of discharging lightening, static, and radiated energy.

CAUTION:

External cables should not exceed 3 meters in length.



Back

FIGURE 1. NEO-10 Reference View

RS-232 Port

The **RS-232 Port** is a standard RS-232 **DCE** (Distributed Computer Environment) pinout allowing a straight through DB-9 cable to connect to a computer or other terminal device for set up.

The default baud rate is 19200, N81.

Ethernet Port

The **Ethernet** port is used to set up the NEO-10 and operate from the consoles. The NEO-10 sends multicast packets whenever status of any relay or inputs changes. This allows all users to see changes in real-time. This port supports 10Mbps and 100Mbps operation of standard CAT-5 cable.

Relay/Inputs Ports

The 10 **Relay/Input** ports are used to control external devices. Each port is connected to a DPDT relay. Two (2) separate circuits may be controlled by a single relay. The relay contacts are rated for 1 Amp at 125VAC. The input pin is a diode blocked input that allows sensing of a logic signal. The input range is 0–18V. Pinouts are shown in Figure 17.

REFERENCE: For more information, see the product specific technical manual for connection, set up and configuration of the NEO-10.

1	2	3	4	5	6	7	8	1) Relay1 N/O
	T	T	_		T	T	T	2) Relay1 Common 3) Relay1 N/C 4) GND 5) INPUT 6) Relay2 N/C 7) Relay2 N/C 8) Relay2 N/O
			1	ſ				Connector View

FIGURE 2. RJ-45 Pinouts

Configure

The NEO-10 is set up using the web browser configuration pages. Before entering the setup information in the NEO-10, the IP Address and Subnet Mask must be assigned. For the NEO-10 to interface successfully with the LAN or WAN, the NEO-10 and your PC must be on the same subnet.

The default IP Address is 10.6.100.240. The default Subnet is 255.255.255.0.

Set Up the IP Address and Subnet Mask Using HyperTerminal

An alternative to setting the IP Address and Subnet Mask for the NEO-10 is to configure the settings using Microsoft^{*1} HyperTerminal.

NOTE: Go to www.hilgraeve.com for information about using HyperTerminal with Microsoft*¹ Vista.

DB-9 Cable

A **DB-9** Cable (not included) is required to HyperTerminal to the NEO-10. The cable connects to the computer's RS-232 port and the serial port located on the back panel of the unit.

CAUTION: Only certified technicians are authorized to complete these instructions.

To connect the NEO-10 to a computer with a DB-9 serial cable, do the following:

- 1. Disconnect power from the NEO-10.
- 2. Connect the **DB-9 cable** to the NEO-10's DB-9 connector.
- 3. Connect the other end of the cable to the computer's RS-232 port (COM port).
- 4. Restore **power** to the NEO-10.

To change the IP Address and Subnet Mask Address once the serial connection from the console to the computer is established, do the following:

- 1. From the Task Menu on your computer, click Start.
- 2. Click **Programs**.
- 3. Click Accessories.
- 4. Click Communications.

^{1.} See "Copyright Notice" on page 2.

5. Click HyperTerminal. *The Connection Description window appears.*





- 6. In the Name field, enter com.
- 7. Click OK.

The Connect To window appears.

Connect To	? 🛛
Scom	
Enter details for	the phone number that you want to dial:
Country/region:	United States (1)
Area code:	952
Phone number:	
Connect using:	СОМ1
	COM1 TCP/IP (Winsock) OK Cancel

8. From the Connect Using: drop down menu, select COM1.

9. Click **OK**. *The COM1 Properties window appears.*

	1 11
OM1 Properties	? 🔀
Port Settings	
Bits per second:	19200
Data bits:	8
Parity:	None
Stop bits:	1
Flow control:	Hardware
	Xon / Xoff Hardware None
	Restore Defaults
0	K Cancel Apply

- 10. From the Bits per second drop down menu, select 19200.
- **11.** From the Data bits drop down menu, select **8**.
- **12**. From the Parity drop down menu, select **None**.
- **13.** From the Stop bits drop down list, select **1**.
- **14.** From the Flow Control drop down menu, select **None**.
- **15.** Click **OK**.

The Main HyperTerminal window appears.

	🗞 com - HyperTerminal	\times
I	File Edit View Call Transfer Help	
	-	

16. In the Main HyperTerminal window, type an uppercase **S**. *Enter Password for Factory Setup appears in the window.*

NOTE: Scroll Lock must be off for HyperTerminal to function properly.

17. Enter **technobabble** for the factory password.

18. Press Enter.

The Hyperterminal window appears.

🗞 com - HyperTerminal	3
File Edit View Call Transfer Help	
	a 🖌
Enter Password for Factory Setup: ***********	-1
Restore Factory Defaults?[N]	-2
The target serial number is used to generate its Ethernet MAC add ress Each units board must have a unique serial number	3
Set the board's serial number[01010102]? This board's MAC Address is 00:0B:7C:0F:69: B6	4
Reset 'admin' PIN?[N] Should this target obtain IP settings from the network?[N] Static IP address [192.168.1.13]? Subnet Mask IP address [255.255.0.0]? Gateway address IP address [10.6.0.1]?	5
Saving the changes in NV memory Save checksum=56c8310c Done	
For all parameters to take effect, you must restart the C-6200 Do you wish to reset the unit now (Y/N):	-6
	-7
Connected 0:00:38 Auto detect 19200 8-N-1 SCROLL CAPS NUM Capture Print echo	

NOTE: The HyperTerminal serial number is fixed and should match the serial number label on the back of the console. For more information about the MAC Address (B), see Footnote 2 on page 17.

Factory Setup Options:

- *l* Allows the board parameters to be reset to factory default.
- 2 Allows the serial number to be updated.
- 3 Allows the PIN number to be reset.
- 4 Allows the unit to get an IP Address via DHCP or to manually set the IP Address.
- 5 Allows a Subnet Mask to be manually entered or changed.
- 6 Allows a Gateway Address to be manually entered or changed.
- 7 Provides the ability to reset the unit.

19. Reset the NEO-10.

A message indicating your computer is communicating with the NEO-10 appears.

Web Browser Configuration

Across the top of each setup window are links used to access the various NEO-10 configuration pages. Click the link to open the specified window.

Available links are: Basic Ethernet Setup, Multicast Address Setup, Debounce, Echo Packet, Clone From Other Console, PIN Change, and Save to EEPROM.

Links

Across the top of each setup window are links used to access the various NEO-10 configuration windows. On the left side of the link's header, the name assigned to the unit, the MAC address, serial number, and version number of the firmware appear.

Links	Description
Basic Ethernet Setup	Displays the "Basic Ethernet Setup Window" on page 17.
Debounce Setup	Displays the "Debounce Setup Window" on page 20.
Echo Packet Setup	Displays the "Echo Packet Setup Window" on page 21.
Multicast Setup	Displays the "Multicast Address Setup Window" on page 24.
Save to EEPROM	Displays the "Save to EEPROM Window" on page 26.
Account Setup	Displays the "Account Setup Window" on page 27.
Clone Console	Displays the "Clone System Parameters Window" on page 36.
Password Change	Displays the "Account Password Change Window" on page 37.

Welcome Window

The Welcome window appears when you first open the NEO-10 web browser.

n san san 8 8	RADIO DISPATCH PRODUCTS NEO-10 Name: Default MAC: 00-0B-7C-02-A0-B1 SN: 10172209 FW: 4.100
	Account Setup Clone Console Password Change
	Looking for a console that takes control of the world around you? The NEO-10 is a network-based Input/Output device that has 10 DPDT relays and 10 inputs for monitoring external events. Anytime a relay or input changes, the NEO-10 sends out multicast packet bursts, allowing all users to see status updates in real time. Actual control of the NEO is accomplished by a TCP/IP socket connection from the controlling console. C-Soft Version 2.52 and higher supports multiple NEO devices on the network. NEO-10 supports 10 channels of echo packet functionality, which copies voice/data content on the network from and to multicast addresses. This feature allows the Telex multicast scheme to operate on a network without having multicast enabled.
	Firmware Version: 4.100 Checksum: 0

FIGURE 3. NEO-10 Welcome Window

Console Name Field

The Console Name field is used to identify the NEO-10.

This field can contain up to 12 characters.

To name the NEO-10, do the following:

- 1. In the Console Name field, enter the user-defined name.
- **2.** Click **Submit**. *The name appears at the top of the setup window.*
- **3.** Click **Save to EEPROM**. *The Save Setup Parameters window appears.*
- 4. Click Save Parameters. The changes made are saved to permanent memory.

Firmware Version Field

The Firmware Version field displays the version of the currently loaded firmware.

Checksum Field

The Checksum field is calculated from the firmware programmed in the unit.

This field cannot be modified.

Basic Ethernet Setup Window

The **Basic Ethernet Setup** window is used to configure IP Address, Subnet Mask, Gateway Address and **DNS** (Domain Name Server) numbers.

Account S	etup Clone Console I	Password Change
]	<u>Basic Ethernet S</u>	<u>etup</u>
Serial Number: 10172209	Submit	MAC Address: 00-0B-7C-02-A0-B1
Base IP Setup		
Jse DHCP: 🔲 (If using DHCP, some para	ımeters below will not be	required)
Unit IP Address: 192.168.1.10		DNS Number 1: 0.0.0.0
Gateway Address: 10.2.210.1		DNS Number 3: 0.0.0
Packets Setup		
QOS Precedence Bits: 0		QOS D, T, and R Bits: 0
	Submit	

FIGURE 4. Basic Ethernet Setup Window

Serial Number Field

The Serial Number field indicates the serial number of the NEO-10.

Submit Button

The Submit button is used to temporarily save changes to the NEO-10.

MAC Address Field

The MAC² (Media Access Control) Address field displays the MAC Address for the NEO-10.

^{2.} The MAC Address uniquely identifies each node of a network and interfaces directly with the network media.

Base IP Setup

Use DHCP Server Check Box

The Use DHCP Server check box, if selected, indicates DHCP (Dynamic Host Configuration Protocol) is used. If selected, DHCP allows the NEO-10 to acquire all of the information from the network, bypassing any manual entry.

CAUTION: Radio Dispatch does not recommend operating with DHCP enabled. Operating with DHCP enabled may cause the base IP Address to change unexpectedly making changes to the software setup more difficult. If employing 5/6-tone selective calling and messaging, DHCP must not be used.

Unit IP Address Field

The **Unit IP Address** field is used to enter a unique base IP Address for the NEO-10. The web browser configuration uses the IP Address to identify the NEO-10 for such operations as set up, software upgrades, and communications in some operating modes.

Subnet Mask Field

The **Subnet Mask** field is used to enter the Subnet Mask Address. It is used to distinguish local addresses from addresses requiring the user of a gateway to reach other networks. Contact your Network Administrator to obtain the proper value for this field.

Gateway Address Field

The **Gateway Address** field is used to enter the Gateway Address. It is the IP Address for the node used to reach other networks. Contact your Network Administrator to obtain the proper value for this field.

DNS 1–3 Fields

The DNS 1–3 fields are currently not supported on the NEO-10.

Packet Setup		
P		

QOS Precedence Bits Field

The QOS (Quality of Services) Precedence Bits field is used to set the priority level of network traffic.

The range for this field is 0 to 7. Typically this value is set to 0 for normal traffic and 5 for voice traffic.

QOS D, T, and R Bits Field

The **QOS: D, T, and R** (Delay, Throughput, and Reliability Bits field is used for advanced programming purposes. Contact your Network Administrator to obtain the appropriate value for this field.

- *Delay* (*D*) an active delay bit directs the router to choose a high speed to minimize delay.
- *Throughput (T)* an active throughput bit specifies high capacity links should be used.
- Routing (R) an active routing bit directs routing protocols and network management application to select fault-tolerant paths.

The range for this field is 0 to 7. Typically this value is set to 0.

For more information on the binary equivalent for delay, throughput, and reliability, see Table 1.

		Pr	eceder	ice Field					D, T, and R bits
	Bir	nary		Traffic Type		Bir	nary		
0	0	0	(0)	Best Effort	D	Т	R		
0	0	1	(1)	Background	0	0	0	(0)	Normal (Best Effort), minimal cost
0	1	0	(2)	Standard	0	0	1	(1)	Maximize Reliability
0	1	1	(3)	Excellent Load	0	1	0	(2)	Maximize Throughput
1	0	0	(4)	Controlled Load	1	0	0	(4)	Minimize Delay
1	0	1	(5)	Video					
1	1	0	(6)	Voice					
1	1	1	(7)	Network Control					

Submit Button

The **Submit** button is used to temporarily save changes to the NEO-10.

To permanently save changes, do the following:

- 1. Click Submit. *The changes are sent to the NEO-10 in temporary storage.*
- 2. Click Save to EEPROM. The Save to EEPROM window opens.
- **3.** Click **Save Parameters**. *Changes are now permanently saved to the NEO-10.*

Debounce Setup Window

The **Debounce Setup** window is used to configure the debounce time allowed.

	<u>Debounc</u>	<u>ce Setup</u>		
Debounce Time Setup				
Enter debounce time in: 💿 n	ns ⊙sec ⊙min ⊙hr			
Input:	Debounce:	Input:	Debounce:	
1	60 ms	2	60 ms	
3	60 ms	4	60 ms	
5	60 ms	6	60 ms	
7	60 ms	8	60 ms	
9	60 ms	10	60 ms	
	NOTE: Input Must B	e Multiples of 20 ms		

FIGURE 5. Debounce Setup Window

Debounce Time Setup	

Enter debounce time in Radio Buttons

The **Enter debounce time in** radio buttons indicate the units used to calculate the debounce time in ms. Debounce is the amount of time the input is allowed to stabilize from first change detection to final sampling.

Available selections are:

- ms
- sec
- min
- hr
- **EXAMPLE:** If you select the **hr** radio button, enter 1 in the **Debounce** field, and click **Submit**, the application converts the value to 36000000ms.

Input Field

The Input field indicates the NEO-10's port number for the debounce input value.

This field cannot be modified.

Debounce Field

The **Debounce** field is used to enter the debounce duration for the specified input. Enter the value using the units specified by the selected radio button. The units are converted to ms after clicking Submit.

The range for this field is 20 to 7200000, in increments of 20ms. Enter whole numbers only.

Echo Packet Setup Window

The **Echo Packet** window is used to operate the system on networks that do not support Multicast. A typical application might be a number of radios spread though a network. Since Multicast is not supported, an IP-223 or IP-224 Adapter Panel or NEO-10 are programmed to send packets to a specific static IP Address, the IP Address of the NEO-10 with Echo Packets enabled.

Echo Pacl	cet Addres	s Setup						
Channel:	Enable:	RX IP:>>>	RX MCast:	RX Port:	TX IP: <<>>	TX MCast:	TX Port:	TTL:
1		0.0.0.0	225.8.11.81	1054	0.0.0.0	225.8.11.81	1072	6
2		0.0.0.0	225.8.11.81	1055	0.0.0.0	225.8.11.81	1073	6
3		0.0.0.0	225.8.11.81	1056	0.0.0.0	225.8.11.81	1074	6
4		0.0.0.0	225.8.11.81	1057	0.0.0.0	225.8.11.81	1075	6
5		0.0.0.0	225.8.11.81	1058	0.0.0.0	225.8.11.81	1076	6
6		0.0.0.0	225.8.11.81	1059	0.0.0.0	225.8.11.81	1077	6
7		0.0.0.0	225.8.11.81	1060	0.0.0.0	225.8.11.81	1078	6
8		0.0.0.0	225.8.11.81	1061	0.0.0.0	225.8.11.81	1079	6
9		0.0.0.0	225.8.11.81	1062	0.0.0.0	225.8.11.81	1080	6
10		0.0.0.0	225.8.11.81	1063	0.0.0.0	225.8.11.81	1081	6

FIGURE 6. Echo Packets Setup Window

Channel Field

The **Channel** field indicates the channel number for the row being configured.

This field is not editable.

Enable Check Box

The Enable check box is used to enable the NEO-10 to read the field rows. If not selected the row is ignored by the NEO-10.

NOTE: Unused ports should not be enabled.

RX IP: ->>> Field

The RX IP: ->>> field is used to enter an IP Address to receive audio. This audio travels in only one (1) direction.

The range for this field is 224.0.0.0 to 239.255.255.255.

RX MCast Field

The RX MCast field is used to enter an IP Address to receive multicast audio.

The range for this field is 224.0.0.0 to 239.255.255.255.

RX Port Field

The **RX Port** field is used to enter a port number to receive audio on.

The range for this field is 1054 to 65535.

TX IP: <<-->> Field

The **TX IP: <<-->>** field is used to enter an IP Address to transmit on.

The range for this field is 224.0.0.0 to 239.255.255.255.

TX MCast Field

The **TX MCast** field is used to enter a Multicast Address to transmit on.

The range for this field is 224.0.0.0 to 239.255.255.255.

TX Port Field

The **TX Port** field is used to enter a port number to transmit on.

The range for this field is 1054 to 65535.

TTL Field

The **TTL** (Time-To-Live) field identifies the number of routers the Multicast audio packets go through before being discarded Network design dictates this value.

NOTE: If audio is not reaching a particular node on the network, increasing this value may correct the problem.

The range for this field is 1 to 128. The default is 6.

Echo Packets Example

The example in Figure 22, shows a typical NEO-10 echo packet configuration. It shows three (3) radios, two (2) of which are on other subnets. Since Multicast is assumed to be blocked, only unicast **UDP** (User Datagram Protocol) is available to get audio to and from Radio Towers 2 and 3. The two (2) C-Soft consoles on the 10.6 subnet are able to monitor and control Radio Tower 1 using multicast; however, to reach Radios 2 and 3 the C-Soft consoles send their traffic to the Multicast Address that is on the NEO-10 then translates and sends as unicast to Radio 2 or 3. Receive traffic from Radios 2 and 3 are sent directly to the NEO-10 which then translates the packets back to multicast so each of the C-Soft consoles can monitor the RX audio. This enables the NEO-10 to function as a gateway for other consoles on the same local network segment. The local consoles transmit and receive the Multicast Address only. The NEO-10, in turn, translates and sends the packets directly to the radio.



FIGURE 7. Echo Packet Setup Example

In the example, the NEO-10 parameters are delineated by a dash between each value. The values correspond to the NEO-10 per line entry fields, shown in Figure 21. RX traffic travels in only one (1) direction. Received packets are copied only to the RX MCast Address. Note that traffic received to the RX Multicast Address are recopied back out. Since there should only be one (1) receive resource on the network for a given channel, this should not present a problem. This is depicted by the arrow at the top of the TX column. TX traffic is bi-directional. Traffic received as multicast is sent to the Unicast Address and traffic received as Unicast is copied to the Multicast Address. The ports are still used to delineate channels.

Multicast Address Setup Window

The **Multicast Address Setup** window is used to set up how the NEO-10 communicates the updated relay and input information to connected consoles.

		<u>Multic</u>	ast Address Se	<u>etup</u>	
nit IP: 192.168	8.1.10		Submit	Unit Su	bnet: 255.255.255.0
O Broadcast M	lulticast Set	ир			
	Enable:	Name:	Multicast Address:	Outgoing TTL: Port:	
/O Broadcasts	\checkmark	I/O Broadcasts	225.8.11.81	2025 6	
ystem Manager	Setup				
	Enable:	Name:	Multicast Address:	Incoming Outgoing Port: Port:	TTL:
ystem Manager	▼	System Manager	233.15.18.22	7635 7636	6
			Submit		

FIGURE 8. Multicast Address Setup Window

Unit IP Field

The Unit IP field displays the current IP Address of the NEO-10.

Unit Subnet

The Unit Subnet field displays the subnet configured on the NEO-10.

I/O Broadcast Multicast Setup

The **I/O Broadcast Multicast Setup** section is used to set up how the NEO-10 communicates to connected devices. The NEO-10 sends a single packet each time either a relay is changed by a console or when an input changes due to an external event. A specific unicast address can also be used if only a single console is to be used.

Enable Check Box

The **Enable** check box is used to enable input/output broadcasting. If enabled, all devices configured with the same Multicast Address and port numbers provide feedback to the operator when a relay is changed.

Name Field

The Name field displays the default name *I/O Broadcast*.

This field cannot be modified.

Multicast Address Field

The **Multicast Address** field indicates the address used to communicate with connected devices. The connected device must be configured with the same Multicast Address.

The range for this field is 224.0.0.0 to 239.255.255.255.

NOTE: In C-Soft, this field must match the Multicast field configured on the Peripherals page of the Global Parameters window.

Outgoing Port Field

The **Outgoing Port** field indicates the port number used to communicate with connected devices. The connected devices must be configured with the same port number.

The range for this field is 1054 to 65535.

NOTE: In C-Soft, this field must match the Update Port field configured on the Peripherals page of the Global Parameters window.

TTL Field

The **TTL** field identifies the number of routers the multicast audio packets go through before being discarded. Network design dictates this value.

The range for this field is *1* to *128*. The default is *6*.

System Manager Setup

Enable Check Box

The **Enable** check box is used to enable communication with **TSM** (Telex System Manager). If cleared, TSM cannot detect the NEO-10.

By default, the check box is selected.

Name Field

The Name field displays the default name System Manager.

This field cannot be modified.

Multicast Address Field

The Multicast Address field displays the default Multicast Address used by TSM to detect connected VoIP hardware.

This field cannot be modified.

Incoming Port Field

The **Incoming Port** field identifies the port used to communicate with TSM. The NEO-10 requests data through this port. This field automatically populates.

This field cannot be modified.

Outgoing Port Field

The **Outgoing Port** field identifies the port used to communicate with TSM. The NEO-10 sends data through this port.

This field cannot be modified.

TTL Field

The **TTL** field identifies the number of routers the multicast audio packets pass through before being discarded. The value in this field is entered by default and used by TSM to communicate with VoIP hardware.

Submit Button

The Submit Button, located at the bottom of each configuration window, is used to temporarily save changes to the NEO-10.

To permanently save changes, do the following:

- 1. Click the **Submit** button. *Changes are temporarily saved.*
- 2. Click Save to EEPROM. The Save to EEPROM window appears.
- **3.** Click the **Save Current Parameters** button. *Changes are permanently saved.*

Save to EEPROM Window

The **Save to EEPROM** window is used to save the current configuration to the NEO-10 or to reset the parameters to the factory default.

Save Parameters Reset NEO-10
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FIGURE 9. Save to EEPROM Window

Save Parameters Button

The **Save Parameters** button is used to permanently save changes made to the NEO-10 after the Submit button has been clicked.

Reset NEO-10 Button

The **Reset NEO-10** button is used to reset the NEO-10 to the factory default settings.

Account Setup Window

The Account Setup window is used to change the admin password. The admin password is used to enter the NEO-10's setup mode.

ystem Accounts Enable: Vsername: Password: New Password admin admin admin admin user ********* Edit Save Submit Created Accounts Delete Add New User ystem Parameters			Account Set	up Clone Console Pas	ssword Change		
ystem Accounts Enable: Username: Password: New Password Confirm Password: admin user save User Edit Save Submit Created Accounts Delete Add New User ystem Parameters				Account Setup			
Submit Enable: Username: Password: New Password Confirm Password: Save User Submit Created Accounts Delete Add New User ystem Parameters	Grand and A						
Submit Created Accounts Delete Add New User ystem Parameters	Enable:	Username: admin user	Password:	New Password	Confirm Password:	Edit	Save
Created Accounts Delete Add New User ystem Parameters	Submit						
Delete Add New User ystem Parameters	Created A	Accounts					
ystem Parameters	Delete	Add New U	lser				
	System P	arameters					
Reset System Parameters				Reset System Parameters	5		

FIGURE 10. Account Setup Window

System Accounts

By default, the NEO-10 comes with two (2) system accounts created, admin and user. Upon first use, there are no passwords set for either account. You can change the password for both of the accounts, if desired. These are the only system accounts allowed.

Admin System Account

The Admin System Account has privileges to change, modify or delete anything within the NEO configuration windows. The account rights are not configurable, except for the password.

User System Account

The User System Account is used to manage the system user account password. The user system account is in edit mode when the username field is highlighted yellow.

Created Accounts

The **Created Accounts** are user-defined accounts that have permissions to selected areas of the NEO-10 configuration windows.

Up to five (5) accounts can be created.

System Accounts

Enable Check Box

The Enable check box indicates whether the username is active. When selected, the username is active.

NOTE: The admin system account is always enabled.

To activate the user account, do the following:

- 1. Select the user account's Enable check box.
- **2.** Click **Submit**. *The user account's New Password and Confirm password fields become active.*

Username Column

The Username column displays the username of the system account. This field is not configurable.

Password Field

The **Password** field displays the password for the system account. The user password is shown in asterisks (*****) for security purposes where as the admin password field is always blank, whether or not an admin password is assigned.

The range for this field is a 4–16 character alpha-numeric password.

New Password Field

The New Password field is used to enter a new password for the account.

Confirm Password Field

The Confirm Password field is used to confirm the password you entered in the New Password field.

The password much match the password entered in the New Password field.

To set a new password, do the following:

1. In the admin password field, enter the **current password**. *Asterisks representing the characters appear in the field*.

NOTE:

- The user account does not require you to enter the password.
- If no password is required, leave this field blank.
- 2. In the New Password field, enter the **new password**. *Asterisks, representing the characters appear in the field.*
- 3. In the Confirm Password field, re-enter the **new password**.
- 4. Click Save.

The success message appears.



- 5. Click Submit. The changes are sent to the NEO-10.
- 6. Click Save to EEPROM. The Save to EEPROM window opens.
- **7.** Click **Save Parameters.** *Changes are now permanently save to the NEO-10.*

Edit Button

The **Edit** button is used to make changes to the User system account password. The edit button is inactive until the user account is enabled. For more information, see "Edit User Account Window" on page 31.

The admin account name or permissions can not be modified.

To enable the user account, do the following:

- 1. Select the **Enable** check box next to the account.
- **2.** Click **Submit**. *The Edit button becomes active.*
 - **NOTE:** The only configurable fields are the New Password field and he Confirm Password field. Also, when the Edit window is open, the Set No Password check box appears.

Save Button

The Save button is used to temporarily save changes to the system account.

NOTE: Click **Submit** to save the changes to the console.

Submit Button

The Submit Button, located at the bottom of each configuration window, is used to upload the changes to the NEO-10.

To permanently save changes, do the following:

- 1. Click the **Submit** button. *Changes are temporarily saved.*
- 2. Click Save to EEPROM. The Save to EEPROM window appears.
- **3.** Click the **Save Current Parameters** button. *Changes are permanently saved.*

Created Accounts

Delete Button

The **Delete** button is used to delete the selected user account(s)/created account(s). Created accounts are marked for deletion by selecting the Delete check box on a created account.

To **delete an account**, do the following:

- 1. Select the **Delete** check box for the account you want to delete.
- 2. Click Delete.
- 3. Click Submit.
- 4. Click Save to EEFROM. The Save to EEPROM window opens.
- 5. Click Save Parameters. Changes are now permanently save to the NEO-10.

Add New User Button

The **Add New User** button opens the Create New User window. From this window, you can create a user profile with selectable permission. For more information, see "Click Save Parameters. Changes are now permanently saved to the NEO-10." on page 33.

System Parameters

Reset System Parameters Button

The **Reset System Parameters** button resets all parameters, except multicast and port numbers, in the IP-223 to the factory defaults.

To reset the system parameters, do the following:

- 1. Select the Reset System Parameters radio button.
- 2. In the reset confirmation code number field, enter the reset confirmation code number.
- 3. Click Reset.
- 4. Click Save to EEPROM.
- 5. Click Save Parameters.

System settings on both the console and browser configuration windows are reset. OR

Click **Reset NEO-10**, to undo and restore system parameters to the last saved configuration. *System settings on both the console and the browser configuration windows are set to the previously saved version.*

Edit User Account Window

The Edit User Account window, shown in Figure 26, is used to edit the user system account. You can only change the password or set no password from this window.

By default, the System User Account only has access to the Save to EEPROM window.

NAVIGATION: From the Account Setup window, click the user account's Edit button.

ystem A	ccounts				
Enable: 🗹	Username: admin	Password:	New Password	Confirm Password:	Sav
	user				Save Cano
			🔲 Set no Password		
Submit					
Created A	Accounts				
Delete	Add New Us	er			
	arameters				

FIGURE 11. Edit User Accounts Window

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Once you have made changes to the user system account password, the following message appears at the top of the Account Setup window.

			<u>Account Setup</u>			
Your Pass	word has succes	ssfully been changed. P	arameters must be saved for	Password to take effect.		
system A	ccounts					
Enable:	Username:	Password:	New Password	Confirm Password:		
	admin					Save
\checkmark						
	user				Save	Cancel
	user		Set no Password		Save	Cancel

FIGURE 12. Success Message

NOTE: The information is not stored in permanent memory until it is saved, as explained, in "Save Parameters Button" on page 26.

To change the admin System Account Password, do the following:

 In the Current Password field, enter the current password. OR

Leave **blank** if no password is required.

- 2. In the New Password field, enter a new **password**. *Asterisks appear for each character*.
- **3.** In the Confirm Password field, enter the **password** again. *Asterisks appear for each character*.
- 4. Click Save.
- 5. Click Save to EEPROM. *The Save EEPROM window appears.*
- 6. Click Save Parameters to save the changes to the NEO-10.

To change the system account password from an actual password to no password, do the following:

- 1. Leave the New Password and Confirm Password fields blank.
- 2. Click Save.
- **3.** Click Save to **EEPROM**. *The Save to EEPROM window appears.*
- 4. Click **Save Parameters** to save the changes to the NEO-10.

To change the user system account password or edit the account, do the following:

- 1. Select the **Enable** check box next to the *user*'s user name.
- **2.** Click **Submit**. Once enabled, the New password, Confirm Password fields, Edit and Save buttons become active.
- 3. In the New Password field, enter a new password.
- 4. In the Confirm Password field, enter the **password** again.
- 5. Click Save.
- 6. Click Save to EEPROM. The Save to EEPRPOM window appears.
- 7. Click **Save Parameters** to save the changes to the NEO-10.

Set No Password Check Box

The Set No Password check box is used to indicate the account does not require a password.

To set no password for the system user account, do the following:

- 1. Under the New Password column, select the Set No password check box.
- 2. Click Save to save changes and return to the Account Setup window. OR

Click Cancel to discard changes and return to the Account Setup window.

Once you have made the changes to the system user account and your changes have been accepted a message appears at the top of the Account Setup window.



Save Button

The Save button is used to temporarily save changes.

Cancel Button

The **Cancel** button discards the user account settings you have made and reopens the Account Setup window.

To permanently save the new password, do the following:

- 1. Click Submit. The changes are sent to the NEO-10 in temporary storage.
- 2. Click Save to EEPROM. The Save to EEPROM window opens.
- **3.** Click **Save Parameters**. *Changes are now permanently saved to the NEO-10.*

Add New User Window

The Add New User window, shown in Figure 28, is used to create a new user account. From this window, you can assign permissions to certain users.

NAVIGATION: From the Account Setup window, click the Add New User button.

Change a Hearnama		
choose a Oserhame.		
Username:	Password:	Confirm Password:
Set Permissions:		
Account Setup	🔲 Basic Ethernet Setup	Clone Console Debounce Setup
📃 Echo Setup	Multicast Setup	Password Change
NOTE: All users will have	Subi e access to the 'Save to EEPRON	nit Cancel I page regardless of permission.

FIGURE 13. Add New User Window

Choose A Username

Username Field

The Username field identifies the username of the account you are creating.

This field can contain up to 16 alphanumeric characters.

Password Field

The **Password** field identifies the password required to log on to this user account.

The range for this field is a 4–16 character alphanumeric password.

Confirm Password Field

The **Confirm Password** field is used to confirm the password you entered into the Password field. This password must match exactly with the Password entry field.

Set Permissions

Account Setup Check Box

The Account Setup check box indicates access is granted to make changes to the Account Setup window.

Echo Setup Check Box

The Echo Setup check box indicates access is granted to make changes to the Echo Setup window.

Basic Ethernet Setup Check Box

The Basic Ethernet Setup check box indicates access is granted to make changes to the Basic Ethernet Setup window.

Multicast Setup Check Box

The Multicast Setup check box indicates access is granted to make changes to the Multicast Setup window.

Clone Console Check Box

The Clone Console check box indicates access is granted to make changes to the Clone Console window.

Password Change Check Box

The Password Change check box indicates access is granted to make changes to the Password Change window.

Debounce Setup Check Box

The Debounce Setup check box indicates access is granted to make changes to the Debounce Setup window.

To create a New Account, do the following:

- 1. Click the Account Setup link. *The Account Setup window appears.*
- 2. Click the Add New User button. The Add New User window appears.
- 3. In the Username field, enter a **name** for the account.
- 4. In the Password field enter the **password** for the new account.
- 5. In the Confirm Password field, re-enter the **password**.
- 6. In the Set Permission section, select check boxes you want the account to have access to.

NOTE: By default, the account always has access to the Save to EEPROM window.

- 7. Click Submit.
 - The Success message shown.
- 8. Click the Back to Account Setup. The Account Setup window appears. OR Click Create Another User. The Create a User Account appears

Submit Button

The Submit Button, located at the bottom of each configuration window, is used to upload the changes to the NEO-10.

NOTE: Once the Submit button on the Add New User window is clicked, the account setup is saved.

Cancel Button

The Cancel button discards the changes made to the window.

Clone System Parameters Window

The Clone System Parameters window is used to copy parameters of one (1) NEO-10 to another over the network.

	<u></u>	<u>e system i u</u>	<u>umeters</u>	
Get System Configurat	on From Other NEO	D-10		
Enter IP Address:				
Username:				
Password:	Submit			

FIGURE 14. Clone System Parameters Window

Enter IP Address Field

The Enter IP Address field is used to enter the IP Address of the NEO-10 you want to clone parameters from.

Username Field

The Username field is used to enter the username for account permissions.

Password Field

The **Password** field is used to enter the password for the user account entered in the Username field.

NOTE: The user account must have permission to clone the console.

Submit Button

The Submit Button, located at the bottom of each configuration window, is used to upload the changes to the NEO-10.

To permanently save changes, do the following:

- 1. Click Submit. The changes are sent to the NEO-10 in temporary storage.
- 2. Click Save to EEPROM. The Save to EEPROM window opens.
- **3.** Click **Save Parameters**. *Changes are now permanently saved to the NEO-10.*

Account Password Change Window

The Account Password Change window is used to change an account password.

	Account Setup Clone Console Password Change
	Account Password Change
Enter Userner	as and Current Decoverd
Transana	Decryption in and current rassword
	T ASSWOLD.
Enter New Pa	ssword
NOTE: Passwor	d must be 4 to 16 characters.
New Password	: Confirm Password:
	Submit
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Enter Username and Current Password

Username Field

The Username field is used to enter the name of the account you want to change the password on.

Password Field

The **Password** field is used to enter the current password for the account.

New Password Field

The New Password field is used to enter the new password for the account.

Confirm Password Field

The Confirm Password field is used to re-enter the new password for the account.

Submit Button

The Submit button, located at the bottom of the window is used to temporarily save password changes to the NEO-10.

To permanently save changes, do the following:

- 1. Click **Submit**. *The changes are sent to the NEO-10 in temporary storage.*
- 2. Click Save to EEPROM. The Save to EEPROM window opens.
- **3.** Click **Save Parameters**. *Changes are now permanently saved to the NEO-10.*

Notes

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