



Communications Test Design, Inc.

iMarc[®] 9123

Quick Reference

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Product Documentation

The complete product documentation is available at www.ctdi.com/ProductsPortfolio/tabid/2475/Default.aspx.

Select the following documents:

- Installation Instructions, document 9123-A2-GN10
- User's Guide, document 9123-A2-GB20

Getting Started

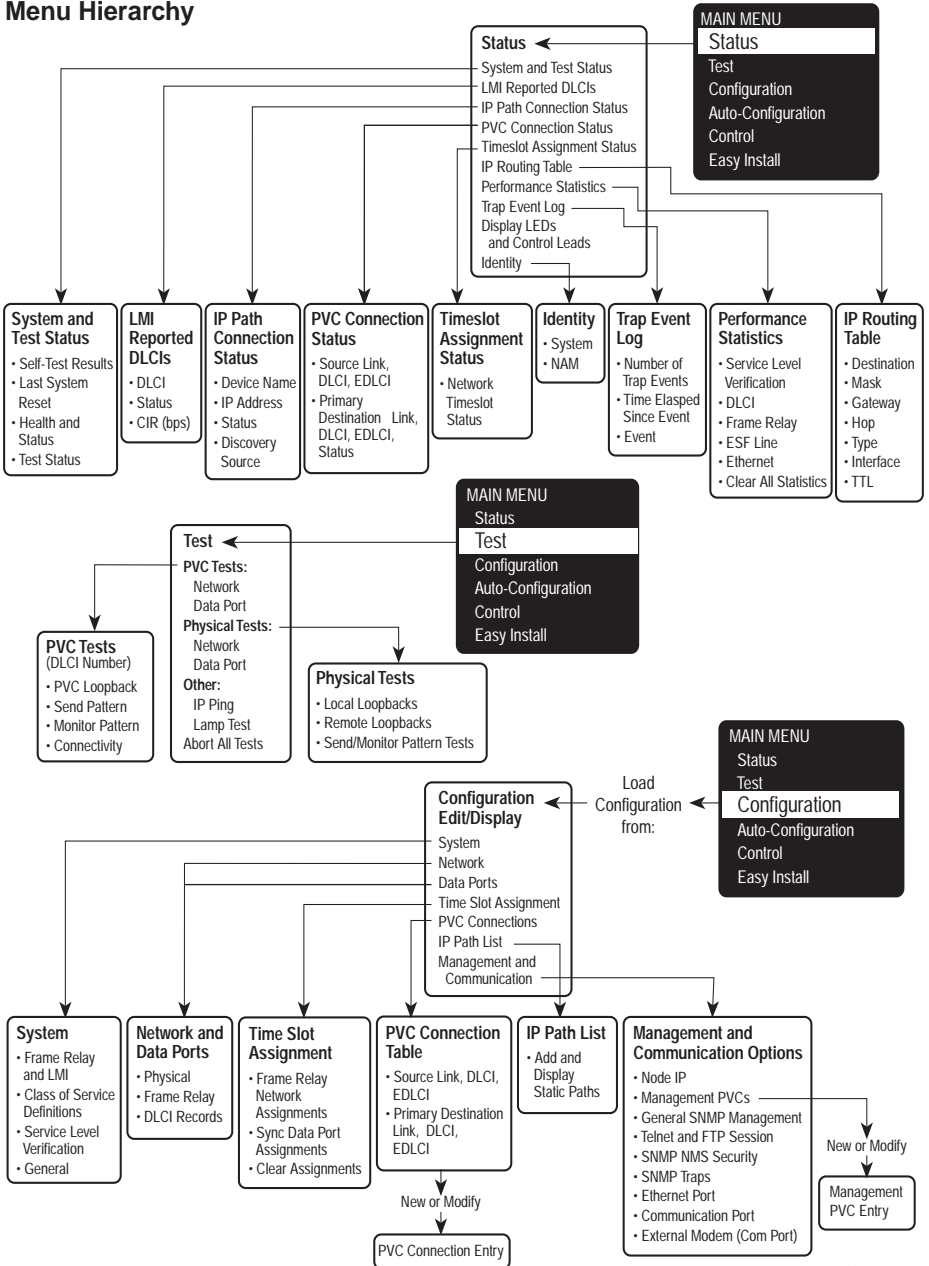
Refer to the iMarc 9123 Installation Instructions to install and set up, the iMarc 9123.

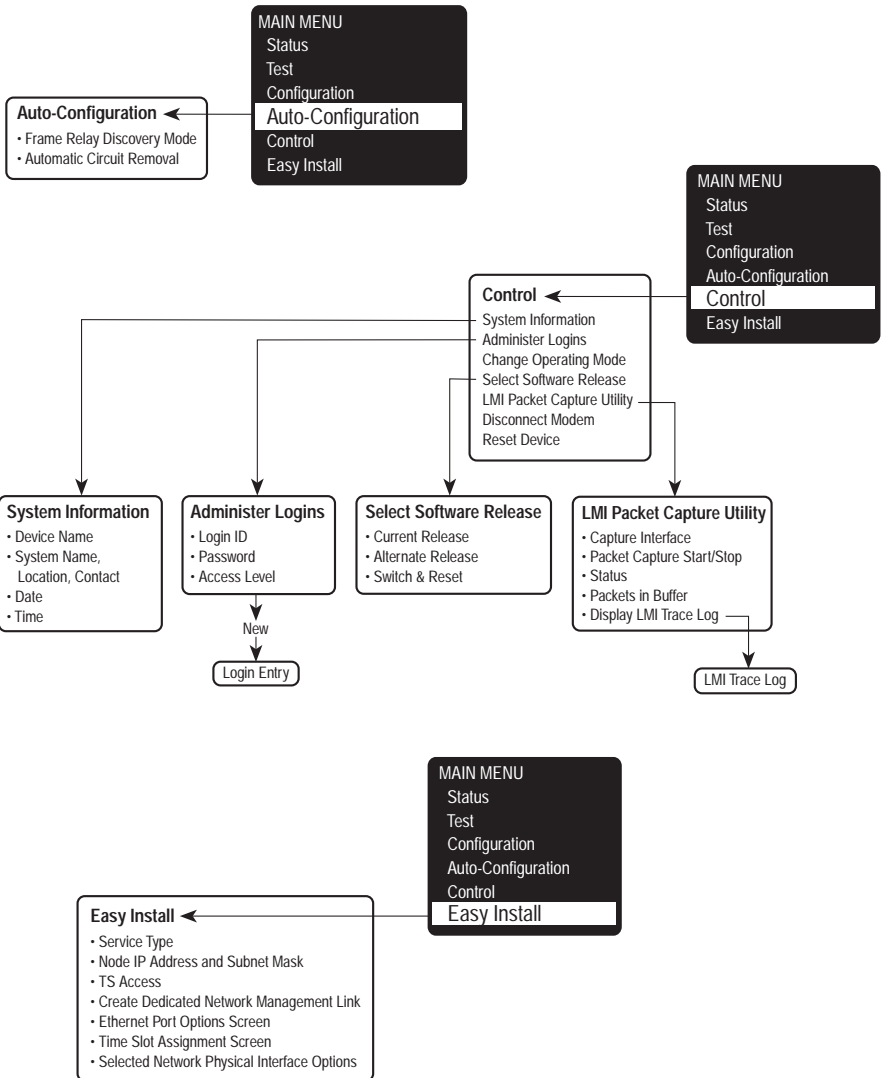
Refer to the User's Guide to get information about the unit

Menu Hierarchy

The Menu Hierarchy shows a pictorial view of the organization of the iMarc unit's screens, which can help you navigate the menus and access information.

Menu Hierarchy





00-16691b

Configuration Option Summaries

The following sections summarize the configuration options accessed when you select Configuration from the Main Menu.

- System
- Physical (Network and Data Port)
- Time Slot Assignment
 - If the Service Type is Frame Relay: Frame Relay Network Assignments
 - If the Service Type is Lease Line: Sync Data Port Assignments
- Frame Relay (Network and Data Port)
- DLCI Records (Network and Data Port)
- PVC Connections
- IP Path List
- Management and Communication

System

Select System Options to configure options applicable to the entire system.

- Frame Relay and LMI
- Class of Service Definitions
- Service Level Verification
- General

Frame Relay and LMI

Select Frame Relay and LMI to configure the general frame relay options for the system.

Frame Relay and LMI	
Configuration Option	Settings Default in [Bold]
LMI Behavior	[Independent] , Port-1_Follows_Net1-FR1, Net1-FR1_Follows_Port-1, Port-1_Codependent_with_Net1-FR1
Traffic Policing	Enable, [Disable]
LMI Error Event (N2)	1, 2, [3] , 4, 5, 6, 7, 8, 9, 10
LMI Clearing Event (N3)	[1] , 2, 3, 4, 5, 6, 7, 8, 9, 10
LMI Status Enquiry (N1)	1, 2, 3, 4, 5, [6] , . . . 255
LMI Heartbeat (T1)	5, [10] , 15, 20, 25, 30
LMI Inbound Heartbeat (T2)	5, 10, [15] , 20, 25, 30
LMI N4 Measurement Period (T3)	5, 10, 15, [20] , 25, 30

Class of Service Definitions

Select Class of Service Definitions to configure class of service and code point definitions.

Class of Service Definitions	
Configuration Option	Settings Default in [Bold]
Class of Svc Name	ASCII text (8 characters)
Measure Latency & Availability	N, Y
Code Points Assigned	N, Y
Code Point Definitions	
Code Pnt	000000–111111
ID	1–7
Name	ASCII text (8 characters)

Service Level Verification

Select Service Level Verification (SLV) to configure the SLV options for the system.

Service Level Verification	
Configuration Option	Settings Default in [Bold]
SLV Sample Interval (secs)	10–3600 [60]
SLV Synchronization Role	[Tributary] , Controller, None
SLV Type	Standard, COS 1–COS 7
SLV Delivery Ratio	Enable, [Disable]
DLCI Down on SLV Timeout	Enable, [Disable]
SLV Timeout Error Event Threshold	1, 2, [3] , . . . 20
SLV Timeout Clearing Event Threshold	[1] , 2, 3, . . . 20
SLV Round Trip Latency Error Threshold	50– [10000]
SLV Latency Clearing Event Threshold	1, [2] , 3, . . . 20
SLV Packet Size (bytes)	[64] –2048

General

Select General to configure a timeout period and duration for user-initiated loopbacks and pattern tests, and a primary clock source for the system.

General	
Configuration Option	Settings Default in [Bold]
Test Timeout	[Enable] , Disable
Test Duration (min)	1–120 [10]
Primary Clock Source	[Net1] , Internal

Physical

Select Physical to configure the physical characteristics of each interface.

- Network
- Data Ports

Network

Select Network, then Physical to configure physical characteristics for the T1 network interface.

Network	
Configuration Option	Settings Default in [Bold]
Line Framing Format	D4, [ESF]
Line Coding Format	AMI, [B8ZS]
Line Build Out (LBO)	[0.0] , -7.5, -15, -22.5
Bit Stuffing	[62411] , Disable
Network Initiated LLB	[Enable] , Disable
Network Initiated PLB	[Enable] , Disable
Network Initiated DCLB	Disable, [V.54_&_ANSI]
ANSI Performance Report Messages	Enable, [Disable]
Excessive Error Rate Threshold	[10E-4] , 10E-5, 10E-6, 10E-7, 10E-8, 10E-9
Circuit Identifier	<i>Text Field</i> , [Clear]

Data Ports

Select Data Ports, then Physical to configure physical characteristics for the user data port, which is connected to a DTE.

Data Ports	
Configuration Option	Settings Default in [Bold]
When Service Type is set to FrameRelay:	
Port Status	[Enable] , Disable
Invert Transmit Clock	[Auto] , Enable, Disable
Transmit Clock Source	[Internal] , External
Monitor DTR	[Enable] , Disable
Monitor RTS (Control)	[Enable] , Disable
Port (DTE) Initiated Loopback	[Disable] , Local, Both
When Service Type is set to Lease Line:	
Port Status	[Enable] , Disable
Port Base Rate (Kbps)	[Nx64] , Nx56
Invert Transmit Clock	[Auto] , Enable, Disable
Transmit Clock Source	[Internal] , External
Monitor DTR	[Enable] , Disable
Monitor RTS (Control)	[Enable] , Disable
Port (DTE) Initiated Loopback	[Disable] , Local, Both
Network Initiated Data Channel Loopback	[Disable] , V.54, ANSI_FT1, V.54_&_ANSI

Time Slot Assignment

If Service Type is set to Frame Relay, select Time Slot Assignment to assign DS0s on the T1 network interface(s) for frame relay links.

Frame Relay Network Time Slot Assignment	
Network Channel	Settings Default in [Bold]
Time Slot Discovery	[Enable] , Disable
N01–N24	[Available] , Assigned, FrameRly1

If Service Type is set to Lease Line, select Sync Data Port Assignments to assign or unassign the synchronous data port to the T1 network interface time slots.

Sync Data Port-to-Network Interface Time Slot Assignment	
Network Channel	Settings Default in [Bold]
Assign To	[Net1]
N01–N24	[Available] , Assigned

Frame Relay

Select Frame Relay to configure unique frame relay characteristics for the network interface and the user data port.

Frame Relay	
Configuration Option	Settings Default in [Bold]
LMI Protocol	Initialize_From_Net1FR1, Initialize_From_Interface, Auto_On_LMI_Fail, Standard, Annex-A, Annex-D [Initialize_From_Interface] for data port link. [Auto_On_LMI_Fail] for network link.
LMI Parameters	[System] , Custom
When LMI Parameters is set to System:	
Frame Relay DS0s Base Rate	[Nx64] , Nx56

Frame Relay (continued)

When LMI Parameters is set to Custom:

Frame Relay DS0s Base Rate	[Nx64], Nx56
LMI Error Event (N2)	1, 2, [3], 4, 5, 6, 7, 8, 9, 10
LMI Clearing Event (N3)	[1], 2, 3, 4, 5, 6, 7, 8, 9, 10
LMI Status Enquiry (N1)	1, 2, 3, 4, 5, [6], . . . 255
LMI Heartbeat (T1)	5, [10], 15, 20, 25, 30
LMI Inbound Heartbeat (T2)	5, 10, [15], 20, 25, 30
LMI N4 Measurement Period (T3)	5, 10, 15, [20], 25, 30

DLCI Records

Select DLCI Records to manually configure DLCI records for each interface. The Auto-Configuration feature provides automatic configuration of DLCI records.

DLCI Records for Each Interface

Configuration Option	Settings	Default in [Bold]
DLCI Number	16–1007	
DLCI Type	Standard, [Multiplexed], IP Enabled	
CIR (bps)	0–1536000 [64000]	
Tc	<i>This field displays the committed rate measurement interval to be used for the DLCI based upon the displayed option settings.</i>	
Committed Burst Size Bc (Bits)	[CIR], Other	
Bc	0–1536000 [64000]	
Excess Burst Size Be (Bits)	0–1536000 [1472000]	
Be		
DLCI Priority	Low, Medium, [High]	
Outbound Management Priority	Low, [Medium], High	

PVC Connections

Select PVC Connections to manually configure the logical connections between the selected interface and the data ports. The Auto-Configuration feature provides automatic configuration of PVC connections.

PVC Connections	
Configuration Option	Settings Default in [Bold]
Source Link	Port-1, Net1-FR1
Source DLCI	16–1007
Source EDLCI	0–62
Destination Link	Net1-FR1
Destination DLCI	16–1007
Destination EDLCI	0–62

IP Path List

Select IP Path List (Static) to configure the list of static path IP addresses.

IP Path List	
Configuration Option	Settings Default in [Bold]
IP Address	000.000.000.001–223.255.255.255
FWD	[No] , Yes

Management and Communication

Select Management and Communication to configure the iMarc unit so it can be managed by an NMS or Telnet terminal, and to select the appropriate protocols.

- Node IP
- Management PVCs
- General SNMP Management
- Telnet and FTP Sessions
- SNMP NMS Security
- SNMP Traps
- Ethernet Port
- Communication Port
- External Modem (Com Port)

Node IP

Select Node IP to configure support of the IP communication network.

Node IP	
Configuration Option	Settings Default in [Bold]
Node IP Address	000.000.000.001–223.255.255.255, [Clear]
Node Subnet Mask	[000.000.000.000] –255.255.255.255, Clear
Default IP Destination	[None] , COM, Ethernet, <i>PVCname</i>
When Service Type is set to Frame Relay:	
TS Access Management Link	[None] , <i>PVCname</i>
TS Management Link Access Level	[Level-1] , Level-2, Level-3
When Service Type is set to Lease Line:	
TS Access	[None] , DLCI DLCI Number: 16–1007

Management PVCs

Select Management PVCs to configure a Management PVC for in-band management. The Auto-Configuration feature provides automatic configuration of Management PVCs on the network interface.

Management PVCs	
Configuration Option	Settings Default in [Bold]
Name	<i>ASCII text entry</i> (8 characters)
Payload Managed	Enable, [Disable]
Intf IP Address	[Node-IP-Address] , Special (000.000.000.001 – 223.255.255.255)
Intf Subnet Mask	[Node-Subnet-Mask] , Calculate, Special (000.000.000.000 – 255.255.255.255)
Set DE	Enable, [Disable]
Primary Link	Net1-FR1, Port-1, Clear
Primary DLCI	16–1007
Primary EDLCI	0–62
Primary Link RIP	None, Proprietary, Standard_out
Encapsulation	[Routed]

General SNMP Management

Select General SNMP Management to configure the iMarc unit so it can be managed as an SNMP agent.

General SNMP Management	
Configuration Option	Settings Default in [Bold]
SNMP Management	[Enable] , Disable
Community Name 1	<i>ASCII text entry</i> , [Public] , Clear
Name 1 Access	Read, [Read/Write]
Community Name 2	<i>ASCII text entry</i> , [Clear]
Name 2 Access	[Read] , Read/Write

Telnet and FTP Sessions

Select Telnet and FTP Sessions to configure access to the iMarc unit through Telnet or FTP, and to determine whether security will be required.

Telnet and FTP Sessions	
Configuration Option	Settings Default in [Bold]
Telnet Session	[Enable] , Disable
Telnet Login Required	Enable, [Disable]
Session Access Level	[Level-1] , Level-2, Level-3
Inactivity Timeout	[Enable] , Disable
Disconnect Time (Minutes)	1–60 [10]
FTP Session	[Enable] , Disable
FTP Login Required	Enable, [Disable]
FTP Max Transfer Rate (Kbps)	1– [1536]

SNMP NMS Security

Select SNMP NMS Security to configure access to the unit.

SNMP NMS Security	
Configuration Option	Settings Default in [Bold]
NMS IP Validation	Enable, [Disable]
Number of Managers	[1] –10
NMS <i>n</i> IP Address	000.000.000.001–223.255.255.255, [Clear]
Access Type	[Read] , Read/Write

SNMP Traps

Select SNMP Traps to configure desired SNMP traps and dialing out when SNMP traps occur.

SNMP Traps	
Configuration Option	Settings Default in [Bold]
SNMP Traps	Enable, [Disable]
Number of Trap Managers	[1] –6
NMS <i>n</i> IP Address	000.000.000.001–223.255.255.255, [Clear]
Initial Route Destination	[AutoRoute] , Ethernet, COM, <i>PVCname</i>
General Traps	Disable, Warm, AuthFail, [Both]
Enterprise Specific Traps	[Enable] , Disable
Link Traps	Disable, Up, Down, [Both]
Link Traps Interfaces	Network, T1s, Ports, [All]
DLCI Traps on Interfaces	Network, Ports, [All] , None
DLCI Traps on Interfaces – Filter	[Normal] , Filter
RMON Traps	[Enable] , Disable
Latency Traps	[Enable] , Disable
IP SLV AvailabilityTraps	[Enable] , Disable

Ethernet Port

Select Ethernet Port to configure the iMarc unit's Ethernet port.

Ethernet Port	
Configuration Option	Settings Default in [Bold]
Interface Status	Enable, [Disable]
IP Address	000.000.000.001–223.255.255.255, [Clear]
Subnet Mask	[000.000.000.000] – 255.255.255.255, Clear
Default Gateway Address	000.000.000.001–223.255.255.255, [Clear]
Proxy ARP	Enable, [Disable]

Communication Port

Select Communication Port to configure the iMarc unit's COM port.

Communication Port	
Configuration Option	Settings Default in [Bold]
Port Use	[Terminal] , Net Link
When Port Use is set to Terminal:	
Data Rate (Kbps)	9.6, 14.4, [19.2] , 28.8, 38.4, 57.6, 115.2
Character Length	7, [8]
Parity	[None] , Even, Odd
Stop Bits	[1] , 2
Ignore Control Leads	[Disable] , DTR
Login Required	Enable, [Disable]
Port Access Level	[Level-1] , Level-2, Level-3
Inactivity Timeout	[Enable] , Disable
Disconnect Time (Minutes)	1–60 [10]
When Port Use is set to Net Link:	
Data Rate (Kbps)	9.6, 14.4, [19.2] , 28.8, 38.4, 57.6, 115.2
Character Length	7, [8]
Parity	[None] , Even, Odd
Stop Bits	[1] , 2
Ignore Control Leads	[Disable] , DTR
IP Address	000.000.000.001–223.255.255.255, [Clear]
Subnet Mask	[000.000.000.000] –255.255.255.255, Clear
RIP	[None] , Standard_out

External Modem (Com Port)

Select External Modem (Com Port) to configure the communications port when it is connected to an external device like an external modem.

External Modem (Com Port)	
Configuration Option	Settings Default in [Bold]
External Modem Commands	[Disable] , AT
Dial-In Access	[Enable] , Disable

