

# *CriticalConneX™*

## *V-Line™ System*

### *User Guide*



*VL1010/VL1015: Gigabit Multi-mode/Single Mode Fiber V-Line™ System*

## User Guide

This user guide shows you how to install the VL1010 / VL1015 into your Multi-mode Fiber or Single Mode Fiber Gigabit network.

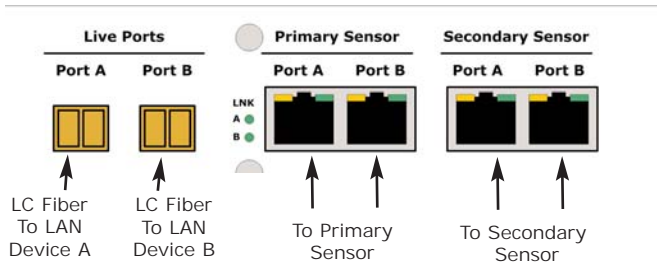
## Inspect Package

VL1010 (Gigabit Multi-Mode) / VL1015 (Gigabit Single Mode)

- 1 x V-Line System: VL1010 (Gigabit Multi-Mode) / VL1015 (Gigabit Single Mode)
- 2 x Power Cords
- 1 x Console Cable: DB9M to DB9F, 10' Straight Through Cable
- 1 x User Guide

**Note:** If any items are missing or damaged in shipping please inform Network Critical or your local reseller immediately.

## Front Panel



## Port Status Indicators



## Rear Panel



### *Get Started*

Before you start the installation you must perform the following steps:

1. Determine where the TAP will be installed into your network. This location must have access to an approved power outlet (100 to 240 VAC 50/60 Hz).
2. This product can be inserted into either a Gigabit Multi-mode Fiber Link (VL1010) or Gigabit Single Mode Fiber Link (VL1015).
3. Obtain cables of the appropriate types and lengths.
4. Fiber Ports are LC Connectors.
5. If your devices have ST or SC Connectors, then your multi-mode fiber patch cables need to be ordered with one connector LC and the other connector ST or LC.
6. All Monitoring Ports are Copper Gigabit with RJ-45 Connectors.

### *Configuring the V-Line™ System*

**IMPORTANT!** *The TAP must be configured before it is installed into the network.*

1. Plug the power cord into the power supply and into the power inlet on the rear of the unit. This product comes with dual power supplies. Only one power supply is required to support the unit.
2. Connect the console cable to the back of the unit and to your computer (COM1 or COM 2). (DB9 Male to DB9 Female cable)
3. The following configurations are available:
  - a. Live Ports: Choose Gigabit Multi-Mode Fiber or Copper Gigabit for your Network Ports
  - b. Each Copper Gigabit Monitoring Port can be configured to monitor traffic on Live Port A, Live Port B or Combi (Live Port A & B)
4. Launch HyperTerminal from your computer
  - a. In MS Windows click START, Run... then type hypertrm and click OK
  - b. This will bring up a HyperTerminal window
  - c. Type in a name for the Session and click OK
  - d. A new window will open. At the bottom of the window click on CONNECT USING and select the correct COM PORT and click OK
  - e. This will bring up a PORT SETTING window
  - f. Set the following values:
    - i. Bits per Second: 115200
    - ii. Data Bits: 8
    - iii. Parity: NONE
    - iv. Stop Bits: 1
    - v. Flow Control: NONE
  - g. Select OK
  - h. Hit ENTER
  - i. The login screen below will display:

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```
=====
Network Critical V-Line System (Version 1.22)
=====
System will come up..
```

Hit any key to login.

Welcome to Network Critical V-Line System

TINI login: admin  
TINI password: criticaltap

```
=====
V-Line System Configuration
=====
```

1. Device Configuration
2. System Configuration

0. Exit

Enter choice: 2

```
=====
System Configuration
=====
```

1. User MgMt

0. Return

Enter choice: 1

Enter the new password:  
Confirm the new password:

```
=====
System Configuration
=====
```

2. User MgMt

0. Return

Enter choice:

```
=====
----- Device Configuration -----
=====
----- Current Configuration ----
-----
Port                Media           Speed    Duplex
-----
Network Port A&B:   Copper         1000    Auto
-----
```

1. Set Media
2. Set Speed
3. Set Duplex
4. Set Heart Beat Parameter
5. Set Switching Mode

0. Return

Select Port:

```
=====
-- Media Setting--
=====
Current Media      : Copper
```

1. Copper
2. Fiber

0. Return

Enter choice: 0

```
=====
-- Speed Setting--
=====
Current Speed = 1000
```

1. 1000 Mode
2. 100 Mode (Auto) [**Note:** 100MB is only available in copper versions VL1000/VL1005]

0. Return

Enter choice:

```
=====
-- Current Duplex (A&B) --
=====
Current Duplex (A&B) : AUTO
```

- 1. Auto
- 2. Full Duplex
  
- 0. Return

Enter choice:

```
=====
-- HeartBeat Configuration --
=====
Current HeartBeats per sec: 15
Current No. of HB to miss : 15
```

- 1. Number of HeartBeats per Second [16 - 500] : 16  
    Number of HeartBeats to miss
- 0. Return

Enter choice: 1

Number of HeartBeats per second [16-500] : \_\_\_\_

Number of HeartBeats to miss [9-79] : \_\_\_\_

```
=====
-- Switching Mode Configuration --
=====
```

Current Mode : AUTO

- 1. Auto
- 2. Auto\_Sticky Mode
- 3. Bypass
- 4. Primary only
- 5. Secondary only

- 0. Return

Enter choice: 1

### *Switching Mode Definitions:*

The Primary and Secondary Port control from the console port is provided to help test and maintain the Sensors in redundant installations. Through the simple menu (outlined above), the V-line Devices can be forced into bypass only mode, Primary mode or Secondary mode only. Another mode "Auto\_Sticky", keeps the Secondary selected after a Primary to Secondary switch-over even if the Primary resumes proper operation.

1. Auto:
  - a. Models: VL1005/VL1010/LV1015
  - b. In a redundant configuration, V-Line Device will switch between the Primary and Secondary sensors in case of the sensor failing. The V-Line Device will always return to the primary sensor when back on-line.
2. Auto\_Sticky mode
  - a. Models: VL1005/VL1010/LV1015
  - b. In a redundant configuration, V-Line Device will switch between the Primary and Secondary sensors in case of the sensor failing. In Auto\_Sticky Mode in a sensor fails, then the V-Line device will switch over to the operating sensor and remain in this position.
3. Bypass
  - a. Models: VL/1000/VL1005/VL1010/LV1015
  - b. In Bypass mode the traffic is sent straight-thru on the network.
  - c. In Bypass mode the sensors will see the traffic on the network. This mode may be used for maintain/updates/testing on the sensors connecting to the monitoring ports.
4. Primary only
  - a. Models: VL/1000/VL1005/VL1010/LV1015
  - b. Selects the Primary Sensor.
5. Secondary only
  - a. Models: VL1005/VL1010/LV1015
  - b. Selects the Secondary Sensor

Complete configuring the V-Line System for your requirements.

### *Installing the V-Line System*

1. Configure the TAP (see above)
2. **Important!** Do not power up the TAP now.
3. Connect the proper cables for your configuration to the Live Network Ports A & B.
  - a. Multi-Mode or Single Mode Fiber Patch Cables
4. Check the Link/Activity indicators on your network device ports to verify whether data is flowing through the LIVE PORTS on the TAP with the POWER DISCONNECTED.

**Note:** If the network devices do not show Link/Activity, then verify the all devices are Gigabit and cables are connected properly.

5. Plug the two power cords into the power supply and into the power outlet on the rear of the unit.
6. V-Line System will power up. The TAP speed indicator on the front of the unit will light, Link/Activity Indicators on the LIVE PORTS show activity, and the Monitor Port Light will show selected Monitor Ports.
7. Set-up sensor(s) and connect Ethernet cables from your sensor's monitoring port to PRIMARY SENSOR and SECONDARY SENSOR PORTS.
8. Check the Link/Activity indicators on your sensors' network ports to see whether data is flowing from the TAP to the sensor ports.

**Note:** If the TAP fails to power up or fails to show link/activity on all connected ports make sure that the power source is turned on and all connections & cables are known good.

### Front Panel Status Indicator Information (Table 1)

LED	Description
INLINE	<b>GREEN</b> - traffic is flowing through the sensor
BYPASS	<b>GREEN</b> - traffic is flowing only through the LIVE ports
AUTO	<b>GREEN</b> - LIVE PORT A and B are set to autonegotiate
FULL	<b>GREEN</b> - LIVE PORT A and B are set to fixed full duplex
PRI	Primary Heartbeats: <b>GREEN</b> - OK, <b>RED</b> - FAIL
SEC	Secondary Heartbeats: <b>GREEN</b> - OK, <b>RED</b> - FAIL
DUAL	<b>GREEN</b> - Dual sensor configuration
SINGLE	<b>GREEN</b> - Single sensor configuration
RDY1	<b>GREEN</b> - V-Line™ TAP is booted and ready for use
RDY2	Future Use
1000/100	<b>GREEN</b> - the network speed at which the V-Line™ TAP is running
POWER	<b>GREEN</b> - Power is applied

### Further Information & Support

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