FSW-0802/1201TX

8/12 Ports Nway Switch

User’ s Manual

53100000300C
DOC:FSWM801

FCC Warning

This device has been tested and found to comply with limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the user' s manual, may cause interference in which case user will be required to correct the interference at his own expense.

CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

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Chapter 1

Introduction

About Nway Switch FSW-0802/1201TX

The Nway Ethernet Switch FSW-0802/1201TX is a compact switch designed to meet the requirement for today' s growing network. It introduces the management function with very low cost while maintaining high performance in networking. Users can monitor the Utilization, Collision ratio, Statistic Counters, Port Status and configure the switch.

Figure 1.1 Nway Ethernet Switch FSW-1201TX

Figure 1.2 Nway Ethernet Switch FSW-0802TX

The Nway Ethernet Switch FSW-0802/1201TX provides 8/12 10/100 Mbps ports, one shared Uplink port and one shared MII port for flexible backbone integration.

The Nway Ethernet Switch FSW-0802/1201TX is a plug and play Network Switching Device. No settings need to be made to get the network up and running.

Key Features

Designed for high-performance, versatility, and cost-effectiveness, the *Nway Ethernet Switch FSW-0802/1201TX* provides the following key features:

- One Uplink port shared.
- 8/12 10/100 Mbps Ports (auto negotiate, full duplex, fragment free, fast store forward modes)
- One MII port (Medium Independent Interface) shared with port 5 for model FSW-0802TX and port 7 for model FSW-1201TX.
- Smart Mini-Console operation for easy configuration and monitoring status.
- Three modes of smart buffer allocation to optimize your network; Low, Medium, High. You can assign a larger buffer to the heavily used ports connected to a server and a smaller buffer to less important terminals.
- Broadcast Storm Protection

- Flow control to prevent packet loss
- Self diagnostic watch dog protection
- Affordable smart switch to replace dump switch.
- Loop Detection
- Multiple VLANs – any port can join any VLAN

Mini-Console Highlights

- Device and port configuration, management & statistics monitoring through an easy to use menu.
- Traffic utilization and collision ratio indication on all the ports.
- Status monitoring such as; speed, duplex mode, switching mode on all ports.
- Console keys to carry out all console command functions.
- Password locking of the Console to prevent unauthorized access.

Unit Overview

The Nway Ethernet Switch FSW-0802/1201TX was designed for small to medium size workgroups.

Front Panel Layout

The front panel supports the Mini-Console, Console keys and ports.

Nway Ethernet Switch FSW-1201TX Front Panel

Figure 1.3 Nway Ethernet Switch FSW-0802TX Front Panel

Mini-Console

The Mini-Console is a high definition display and Console keys that enable users to easily monitor and configure the system. The Mini-Console provides watch diagnostic functions, including port settings, status monitoring, traffic utilization, collision, and error rate.

Figure 1.4 Mini-Console

With the build-in Console Keys, users are able to monitor and configure all the ports simultaneously or individually.

Rear Panel Layout

The MII port, power socket and fan are located on the rear panel.

Note: The MII port is not hot-pluggable. FSW-0802/1201TX will detect an MII connection only during the system start.

Figure 1.5 Rear Panel

Chapter 2

Installation

Using Rack Mounting

Optional rack mounting brackets are available to mount hubs in standard EIA 19-inch racks.

Align the mounting brackets on the sides of the unit with the slit over the holes**.** Secure the screws tightly to fix the brackets to the device**.** Then, place the device into the 19" rack and fix it properly**.** Please ensure that the ventilation holes do not get blocked.

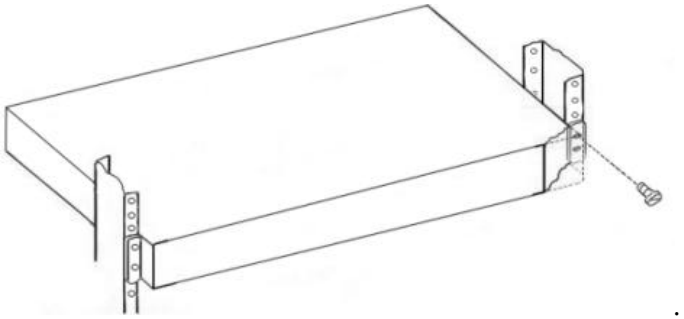


Figure 2.1 Rack Mounting

Connecting Other Network Devices

Connecting Workstations

Figure 2.3 shows the Nway Ethernet Switch FSW-0802/1201TX in a client server topology.

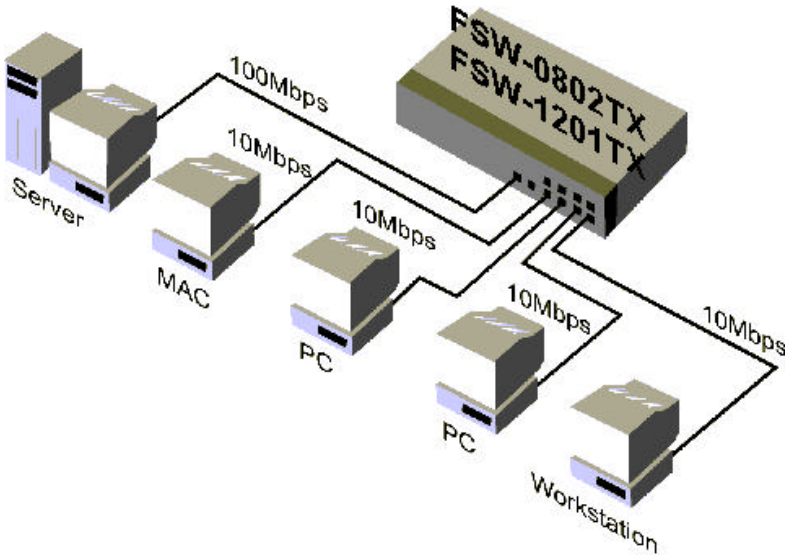


Figure 2.1 Connecting Workstations.

Connecting Ethernet Hubs

This example shows how 10M hubs can be connected to the Nway Ethernet Switch FSW-0802/1201TX to form a larger network.

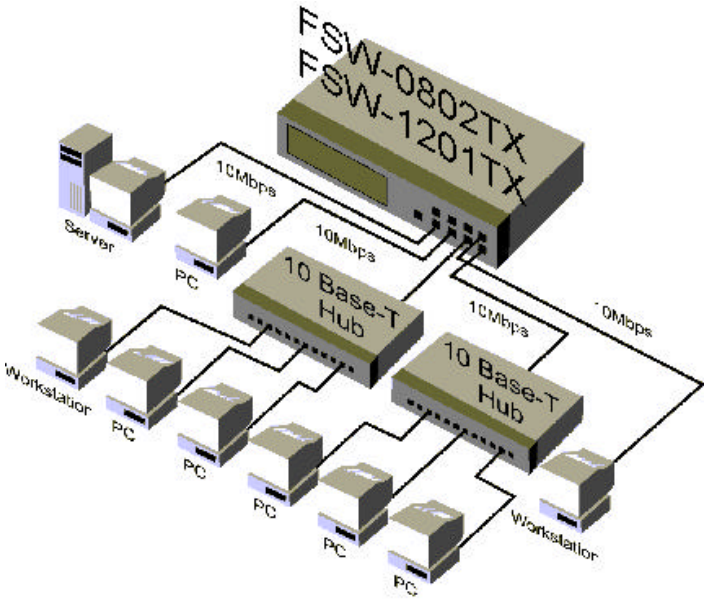


Figure 2.2 Connecting Ethernet Hubs.

Connecting Fast Ethernet Hubs

This example shows how 10/100 M hubs can be connected to the Nway Ethernet Switch FSW-0802/1201TX to form a larger network.

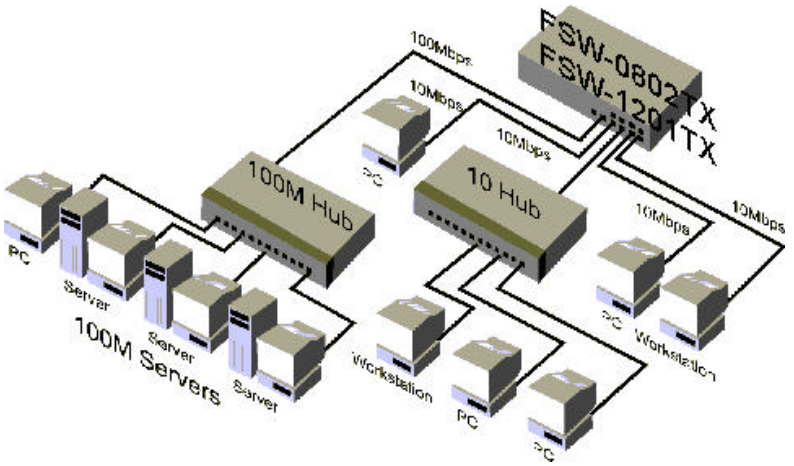


Figure 2.3 Connecting Fast Ethernet Hubs.

Chapter 3

Mini-Console

The Mini-Console is similar to the following illustration. Becoming familiar with and understanding the functions of the Mini-Console will easily enable the user to utilize the full power of the FSW-0802/1201TX and create an efficient network.

Figure 3.1 Mini-Console

Message Zone

The Message Zone displays the menu items in the menu tree. The large alphanumeric characters are easy to read and are an important navigational tool.

Figure 3.2 Message Zone

Observing Basic Port Information

The basic port information, such as link up, link down, transmit/receive activity, enabled/disabled as well as auto partition can be easily spotted through the **Port Indicators** located in the first row of the Mini-Console.

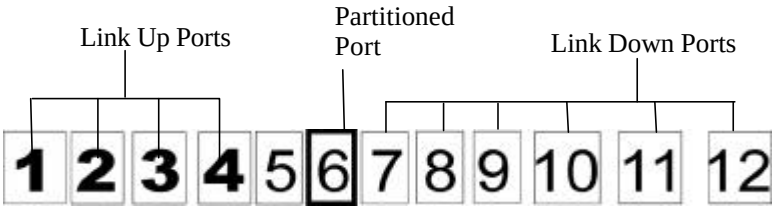


Figure 3.3 Port Indicators

Port Indicators: Showing the activity of ports such as link up, link down, Tx/Rx, enabled or disabled.

The **Port Indicator** shows the ports that are linked up by intensifying the light for the ports that are available. The example above, Fig 3.3 shows ports 1~4, are linked up (or available) and port 6 is partitioned.

While the ports are receiving or transmitting data, the port' s number will be flashing.

When a port is disabled by the administrator, an amber frame around the port number will be turned on.

If the outline is blinking, it means it has been partitioned automatically due to some error condition such as a loop or broadcast storm that has been detected.

Port Indicator Definitions

The following table summarizes the definition of the port indicators.

Port Number	Frame	Indicates
Slightly on	Off	Port is available but link is down.
On	Off	Port is available and link is up.
Flashing	Off	Link is up and transmitting/receiving data.
On	On	The port is link up and disabled by the administrator.
On	Blinking	The port is link up and partitioned by machine itself due to errors.

Table 3.1 Port Indicators

Console Keys

Use the **Console Keys** to navigate the Menu Tree and to make selections. The **Previous Key** and the **Next Key** are used to cycle through the menus and the **Enter Key** is used to select the displayed menu item or set the default.

Power On Self-Test

When the systems power is turned on the system runs an EEPROM TEST and a PCI TEST, **Self-Test**. When the **Self-Test** is complete, the Mode Indicator will display the current mode, the first to be displayed is UTILIZATION. To display other main menu items press the **Next/Prev** key.

Menu Tree

There are up to four levels in the Menu Tree; main menu, sub menu and up to two configuration levels. To move from a main menu item to its sub menus, press the **Enter** console key while the main menu item is displayed in the Mini-Console. Press the **Next or Prev** key to cycle through all the items in each menu level and press **Enter** to move to the next menu level or make a selection. Utilization and Collision have no sub menus. Configuration items with an "*" prefix are the system defaults.

UTILIZATION	*Utilization across all ports is displayed.*

COLLISION	*Collision across all ports is displayed.*

STATISTICS	PORT 1~12	Rx FRAMES
		Rx OCTETS
		Rx-ALIGN ERR
		Rx-PKT ERR
		OVERSIZE Rx
		Tx FRAMES
		Tx OCTETS
		PKT LOSS
		BACK
		MAIN MENU
	MAIN MENU	
PORT STATUS	PORT 1~12	*Auto scrolls through the port's running status*
	ALL PORTS	10M PORTS
		100M PORTS
		HALF DUPLEX
		FULL DUPLEX
		ENABLED
		DISABLED
		CUT-THROUGH
		STORE-FWD
		VLAN GROUP
		BUFF MODE H
		BUFF MODE M
		BUFF MODE L
		BACK
		MAIN MENU
	MAIN MENU	

PORT SETTING	****_ _ _ _PSW	*Enter a four digit password*	
	PORT 1~12	10BASE-T	
		100BASE--X	
		*AUTO-NEGO	
		HALF DUPLEX	
		FULL DUPLEX	
		*ENABLE	
		DISABLE	
		CUT THROUGH	
		*STORE FWD	
		VLAN	VLAN 1~8
			BACK
			MAIN MENU
		GROUP	
		BUFF MODE H	
		*BUFF MODE M	
		BUFF MODE L	
		BACK	
		MAIN MENU	
	MAIN MENU		

UNIT CONFIG	**** _ _ _ _ PSW	*when system locked*	
	STORM DET	ENABLE	
		*DISABLE	
		BACK	
	LOOP ISOLATE	ENABLE	
		*DISABLE	
		BACK	
	FLOW CONTROL	ENABLE	
		*DISABLE	
		BACK	
	CONSOLE LOCK	ENABLE	
		BACK	
	SET PASSWORD	**** PSW	
	SYS RESTART		
	SYS DEFAULT		
	MAIN MENU		

SYSTEM INFO	SSRAM 12M HW VER 2_1 SW VER 1_00 KEY CODE DB

Table 3.2 Menu Tree

Exiting the Menu Tree

To Exit a Sub-Menu cycle through each menu item until a "MAIN MENU" or "BACK" is displayed in the Message Zone. Press <**Enter**> to return to the Main Menu or previous menu level.

Observing Network Traffic

The network manager may want to see the traffic load for every segment and try to balance the load. It is easy to do so with FSW-0802/1201TX by selecting the UTILIZATION menu. While utilization is displayed in the message zone the level of Utilization for the enabled ports is indicated by the gauge bars moving up and down as the traffic load varies.

The reference for the level of utilization is based on the speed of the port that is running. For example, a port that is running in 10M half duplex, the 100% stands for the bandwidth of 10M. Following table show the relation for each speed:

SPEED	**100% Stands for:**
10M half duplex	**10M**
10M full duplex	**20M**
100M half duplex	**100M**
100M full duplex	**200M**

Observing Collision Level

When Collision is the menu item in the Message Zone, the Port Number will be illuminated for each port that is connected and the Bar Gauge will continuously move up or down indicating the percentage of Collision for these ports. Collision occurs when two or more ports send data to the same port at approximately the same time. The Collision percent can be calculated with the following formula.

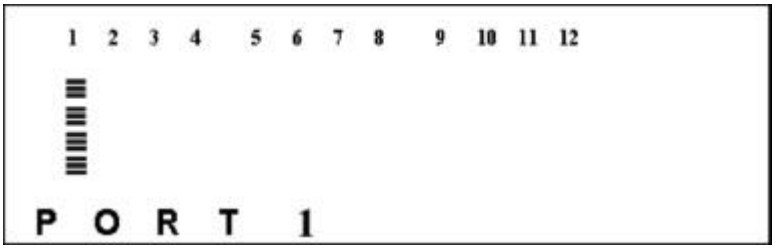
> Collision Ratio = (number of packets collided / number of packets transmitted) * 100.

Monitoring Ports Status

Users can view the status of all 12 ports simultaneously or individually with the PORT STATUS menu.

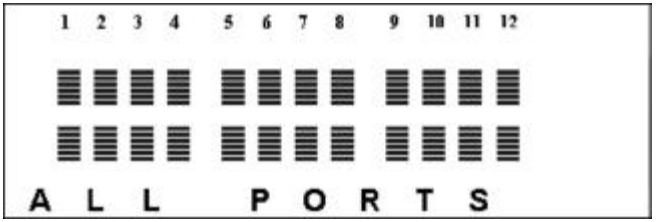
Figure 3.4 Port Status

When monitoring individual ports, the status is auto cycled through each setting, the configuration is displayed in the Message Zone and the bar scales under the port number are illuminated.



When monitoring *All Ports,* the status is not auto cycled, press <**Next**> to view each configuration. The configuration is displayed in the Message Zone and the bar scales under the port numbers that are configured to this setting are illuminated. No bar scales are visible for ports that are not set to the configuration displayed in the Message Zone.

Table 3.3



All 8/12 ports can be running at the same or different settings. It is useful to check the port setting to see if it has been running in the desired mode.

PORT STATUS	PORT 1~8/12	*Auto scrolls through the selected port's current settings.*
	ALL PORTS	10M PORTS 100M PORTS HALF DUPLEX FULL DUPLEX ENABLED DISABLED CUT-THROUGH STORE-FWD VLAN GROUP BUFF MODE H BUFF MODE M BUFF MODE L BACK MAIN MENU
	MAIN MENU	

Table 3.4 Port Status

Monitoring Port Detail Information

The STATISTICS menu displays the statistic counters of ports. It may be helpful to look at the counters to isolate network problems. All the counters display the accumulated value from the time the switch was powered on.

The table below lists the counters displayed in the Statistics menu.

PORT 1~8/12	To assign a port which counters are going to be displayed.1~8/12
Rx FRAME	Displaying the total number of good packets received including: Unicast packets Broadcast packets Multicast packets
Rx OCTETS	To display the count of data and padding octets in frames that were successfully received.
Rx--PKT ERR	Packets received with any of the following errors: The packet contains a CRC error The packet is oversize
Rx--ALIGN ERR	To display the number of alignment errors.
OVERSIZE Rx	To display the number of packets received that were longer than 1532 octets and were otherwise well formed.
Tx FRAME	To display the number of packets transmitted successfully.
Tx OCTETS	To display the count of data and padding octets of frames that were successfully transmitted for the selected port.
PKT LOSS	To display the number of error free packets received by this port that were dropped due to transmit buffer full.
BACK	Go back to upper level.
MAIN MENU	Return to the main menu.

Table 3.5 Port Statistics Counters

Optimizing Network Performance

When the network traffic is heavy, overloaded ports can be identified by watching the Utilization or Collision Ratio. It may be the time to tune the system to match the environment.

Since the system resources are shared by all ports, the system allocates a limited budget to every port to prevent one failed port from using up all the resources. However, since the loading varies from port to port, the resources allocated for each port should be changed based on the traffic via the Mini-Console to get the best network performance.

Three resource modes are available, **Low, Medium** and **High**.

The following table shows the resource distribution between modes.

MODE	Using Condition
Low	**The port assigned the lowest amount of resources.**
Medium	**The port assigned a medium amount of resources.**
High	**The port assigned the highest amount of resources.**

Table 3.6 Resource Mode

Configuring Ports

All the ports of FSW-0802/1201TX support Auto-Negotiation and the default for all ports are configured in this mode. In the Auto-Negotiation mode, the switch learns the setting of the opposite site and configures itself to meet its counter part.

However, in rare conditions you should configure manually, such as when the opposite site does not support Auto Negotiate.

To configure a port, first select the port and then select the desired setting.

PORT SETTING>PORT (1~8/12)><*setting*>

When a setting is selected, an asterisk symbol (' *') will be added to the first character of the string. Making it convenient to check what the settings for these ports are, by just going through the sub menu of PORT SETTING, without making any confirmation. When you see an item that begins with an '*', the port is set in that mode.

While AUTO-NEGO is set, the speed and duplex selection are no longer available. **The speed and duplex will be decided by the result of the negotiation.** By contrast, if either the speed or duplex is selected, the AUTO-NEGO function will not work. It forces the port to run in the mode just set.

All settings will be saved in the EEPROM.

Setting the port speed forces the port to use the selected speed only, if the device being contacted is set at a different speed, the data will not be sent. When the setting is Auto Negotiate, the port will negotiate to the fastest speed available to both ports.

If the port being contacted doesn't have Auto Negotiate, then this port must be configured to match the port being contacted.

PORT SETTING	PORT 1~8/12	10BASE-T	
		100BASE-T	
		AUTO-NEGO	
		FULL DUPLEX	
		HALF DUPLEX	
		ENABLE	
		DISABLE	
		CUT THROUGH	
		STORE FWD	
		VLAN GROUP	VLAN 1~8 BACK MAIN MENU
		BUFFER MODE H	
		BUFFER MODE M	
		BUFFER MODE L	
		BACK	
		MAIN MENU	
	MAIN MENU		

Table 3.7 Port Settings

VLANs

Hub FSW-0802/1201TX supports up to 8 virtual LANs (VLANs). VLANs effectively divide the ports into separate domains through software. Ports in one VLAN cannot communicate with ports in another VLAN. To allow ports from different VLANs to communicate, assign them to a common VLAN. You can configure each port to join one VLAN or more than one of the 8 VLANs through the Port Setting menu. The default assigns all ports to all VLANs simultaneously.

To Configure VLANs:

PORT SETTING><*select port*>VLAN GROUP><VLAN 1~8><press and hold **Enter**>

An "*" appears before the VLAN # that the port is configured in. To change to a different VLAN, press and hold **Enter** at the desired VLAN, an "*" appears before the VLAN # and the "*" is removed from the previously configured VLAN.

Selecting a Buffer Mode

Ports on the FSW-0802/1201TX can be individually set to one of three buffer modes, L (low), M (medium) or H (high). However it is important to note that certain ports share the same memory resources and are grouped together. When selecting buffer modes for ports you should consider a group of ports and distribute resources between the ports within that group. If you set the buffer mode the same (for example High) for all the ports in a group, it is the same as setting them all to medium or low and there will be no gain in performance.

FSW-1201TX Buffer Groups

Table 3.8 shows the ports that are grouped together and share the same resources for model FSW-1201TX. There are 3 groups and the resources between groups, is independent.

1,2,7 and 8	These ports share buffer resources and constitute a group. For a gain in performance you may want to set one port in this group to High, 2 ports to Medium and one port to Low.
3,4,9 and 10	These ports share buffer resources and constitute a group. For a gain in performance you may want to set one port in this group to High, 2 ports to Medium and one port to Low.
5,6,11 and 12	These ports share buffer resources and constitute a group. For a gain in performance you may want to set one port in this group to High, 2 ports to Medium and one port to Low.

Table 3.8 FSW-1201TX Buffer Groups

FSW-0802TX Buffer Groups

Table 3.9 shows the ports that are grouped together and share the same resources for model FSW-0802TX. There are 2 groups and the resources between groups, is independent.

1,2,5 and 6	These ports share buffer resources and constitute a group. For a gain in performance you may want to set one port in this group to High, 2 ports to Medium and one port to Low.
3,4,7 and 8	These ports share buffer resources and constitute a group. For a gain in performance you may want to set one port in this group to High, 2 ports to Medium and one port to Low.

Table 3.9 FSW-0802TX Buffer Groups

Changing the system setting to Low Mode:

PORT SETTING>PORT *x*><**BUFF MODE L**>Press and Hold Enter

Changing the system setting to Medium Mode:

PORT SETTING>PORT *x*>< **BUFF MODE M**>Press and Hold Enter

Changing the system setting to High Mode:

PORT SETTING>PORT *x*>< **BUFF MODE H**>Press and Hold Enter

Unit Configuration

Broadcast Storm Protection

Some devices in the network may generate broadcast storms, thereby jamming the network with broadcast packets. It may take about 6-7 seconds to detect a broadcast storm.

When the Broadcast Storm Protection is Enabled, the system will monitor the incoming packets to see if that port is enduring a broadcast storm. While Broadcast Storm is detected, the port will be disabled temporarily and the frame around the port number will blink. The message zone will show the message "BRDCST STORM" altering normal display. Every 2 minutes, the port will be released to see if it is still enduring the broadcast storm.

The Broadcast Storm Protection function is disabled when shipped from manufacturer. This function can be enabled through the Mini Console. The command sequence is:

UNIT CONFIG > STORM DET > ENABLE><Enter and hold>

After the command is entered, it will be saved in the EEPROM.

Loop Isolation

Loop Isolation is an important feature of the FSW-0802/1201TX. This condition could exist if two ports are inadvertently connected to each other causing a loop.

The switching device can not sustain a loop because it produces Broadcast Storm thereby jamming the system with looping packets. FSW-0802/1201TX supports isolating the looped ports. If the function is enabled, the device will monitor all ports to see if there are any loops.

Once a loop is detected (which takes about one second), it will disable that port. The port number frame will blink indicating it has been temporarily isolated. Every 8 minutes, the port will be released to see if it is still looping.

The function of LOOP ISOLATE is disabled at the time it shipped from manufacturer. You have to enable the function through Mini-Console. The command sequence is:

UNIT CONFIG > LOOP ISOLATE > ENABLE><Enter and hold>

After the command is entered, it will be saved in the EEPROM.

Sub-Menu	Command	To Set Press:
Loop Isolation	Enable	Enter and hold
	Disable	Enter and hold
	Back	Enter

Table 3.10 Loop Isolation

Lock the Console

Setting this option to **Enable** locks the system settings. If there is no password set, a prompt will request one be entered.

UNIT CONFIG > CONSOLE LOCK> ENABLE><Enter and hold>

If a User's Password has been set and enabled, the unit does not allow changing system settings, such as port settings and unit configuration, unless the correct password is keyed in thereby unlocking the Mini-Console.

Unlock the Console

Once the console is locked, a password will be asked when the menu item UNIT CONFIG is selected.

In the password session, a message "* * * *_ _ _ _ PSW" will be shown. You have to key in the correct password to enter the submenu. The regular Password assigned by you and the Back door Password are accepted. The first four asterisks are used for normal password while the others are used for Back door Password. The regular password is assigned by the user and the Back door Password depends on the Key Code. See "Back Door Password" on page 3-20 for more information.

After the password session is passed, you can go to the sub menu of UNIT CONFIG. The lock sign on the Mini-Console is OFF and you are free to configure any settings.

Secure the Switch

Two passwords are provided to protect the device from being accessed anyone other than administrator. Further information regarding Password and Back door Password, please refer to "Unlock the Console" section.

Set Password

You can configure a password by enter a 4 digit password using the numbers from 0~9. The default is "0000".

To set the password:

<UNIT CONFIG><SET PASSWORD>*enter 4 digits*.

After SET PASSWORD is selected, four "*' s" are displayed and the first "*" is blinking indicating it is the current digit. Enter a new number using the <Prev> key. Use the<Next> key to move from one digit of the password to the next one. When the 4 password digits have been entered, press <Enter> to complete the password setting. Ensure that you do not loose your password.

Cancel Password

Enter the command UNIT CONFIG > SET PASSWORD. Entering four blanks will clear the password when the console is unlocked.

In Case You Forget the Password

In case the password is forgotten the back door password can be used.

Back Door Password

The Back Door Password is useful in case you are locked out of the system because you've lost the password. The back door password is always enabled and is derived from "Key Code XX" under the main menu item "System Info". The "XX" is a random number selected by the device every time the system is powered on and the number is incremented by 1 every 2.5 days.

Please call technical support from your supplier to find out your current "XX" mapping to an 8-digit password!

Restart the Switch

In case you want to reset the FSW-0802/1201TX, simply enter the command:

UNIT CONFIG > SYS RESTART ><Enter and hold>

The command will reset the switch. The data in EEPROM memory will not be lost, only new configuration settings will be updated.

Restart the Switch in the event that it does not behave normally.

Restore System Setting

In case you want to set the system setting to the default value, simply enter the command:

UNIT CONFIG > SYS DEFAULT > <Enter and hold>

The command will reset the switch and the data in EEPROM will be set to the default values.

About The Switch

System Info

The Mini-Console will **auto cycle** through systems settings. Press any key to disable. When you enter the following command:

SYSTEM INFO ><Press Enter>

The following is displayed:

SSRAM 12M (packet buffer)
HW VER 2-1
SW VER 1.0
KEY CODE DB

Fan Failure

If there is a fan failure the message "FAN LOOP BCS" appears in the System Info menu.

Appendix A

Technical Specifications

Standards Compliance

IEEE 802.3 10BASE-T & 10BASE5 Ethernet

IEEE 802.3u 100BASE-TX Fast Ethernet

Number of Ports

FSW-0802TX

8 10/100BASE-TX Nway Ethernet (RJ-45) ports

1 MII * port shared with port 5

FSW-1201TX

12-10/100BASE-TX Nway Ethernet (RJ-45) ports

1 MII * port shared with port 7

Smart Console Operation

Capable of device configuration, device/port management, and network monitor

Console management through menu operation

Displaying traffic utilization and collision status per port

Monitoring each port' s status and statistics by users' intention

Setting up selected ports

Three console keys for above management features

Graphic and alpha numeric VFD display panel

Smart Port Setting

* Warning: The MII is not hot-pluggable.

Port enable/disable

Speed selection: 10 Mbps, 100 Mbps, or auto-negotiation

Full/half duplex

Fragment free/ Fast Store-and-forward switching mode selection

VLAN setting

Smart Network Monitoring

Overall port status display

Monitoring utilization, collision.

Smart Switching Functions

Broadcast Storm Protection

Loop detection

Flow control to prevent packet loss

Self-diagnostic and watch-dog protection

Switching Performance

RAM: 1MB per device FSW-0802TX

1.5MB per device-FSW-1201TX

Port memory: buffer memory: 3 User-defined. modes

Packet filtering/forwarding rate: 148,800 pps per 100BASE-TX port; 14,880 pps per 10BASE-T port

MAC address learning cap. : 8k per device

Power Requirements

100 - 240 VAC, 50/60 Hz

Internal universal power supply

Environment

Operating Temperature: 0° C to 50° C

Storage Temperature: -30° C to 60° C

Operating Humidity: 5% to 95% non-condensing

Safety Regulations

CUL (UL & CSA), LVD

EMI Certifications

CE Mark, FCC Class A, VCCI Class 1

Dimensions

W x D x H: 298 x 192 x 55 mm (1.25 U height)

Weight

1.5 kg

Stacking

Using EIA 19" Racks

Appendix B

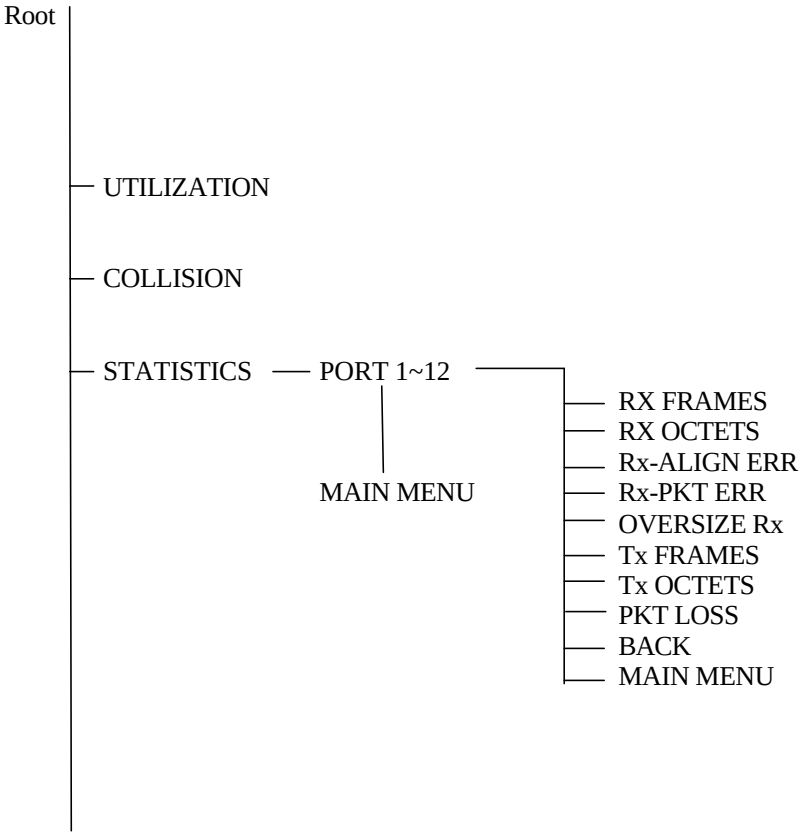
Error Messages

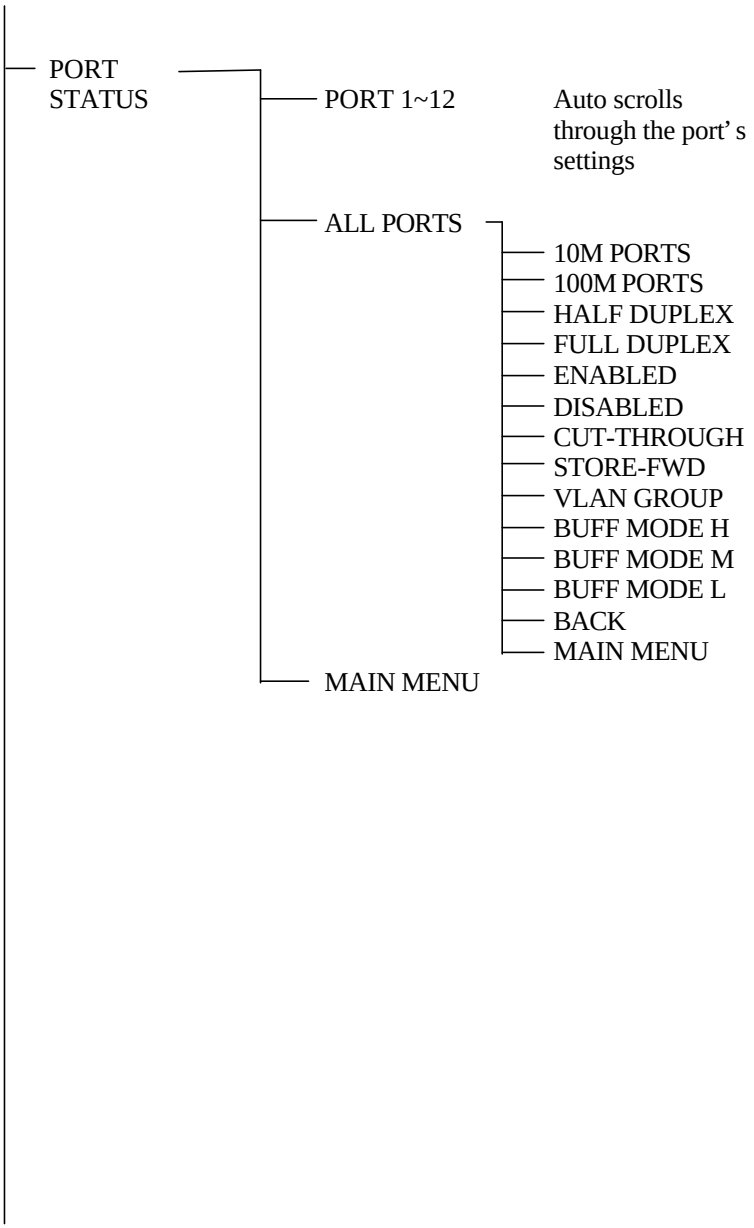
In several cases when the system detects abnormal conditions, it will generate an error message and the system may halt. The following table shows how many error messages may occur and what the system will do.

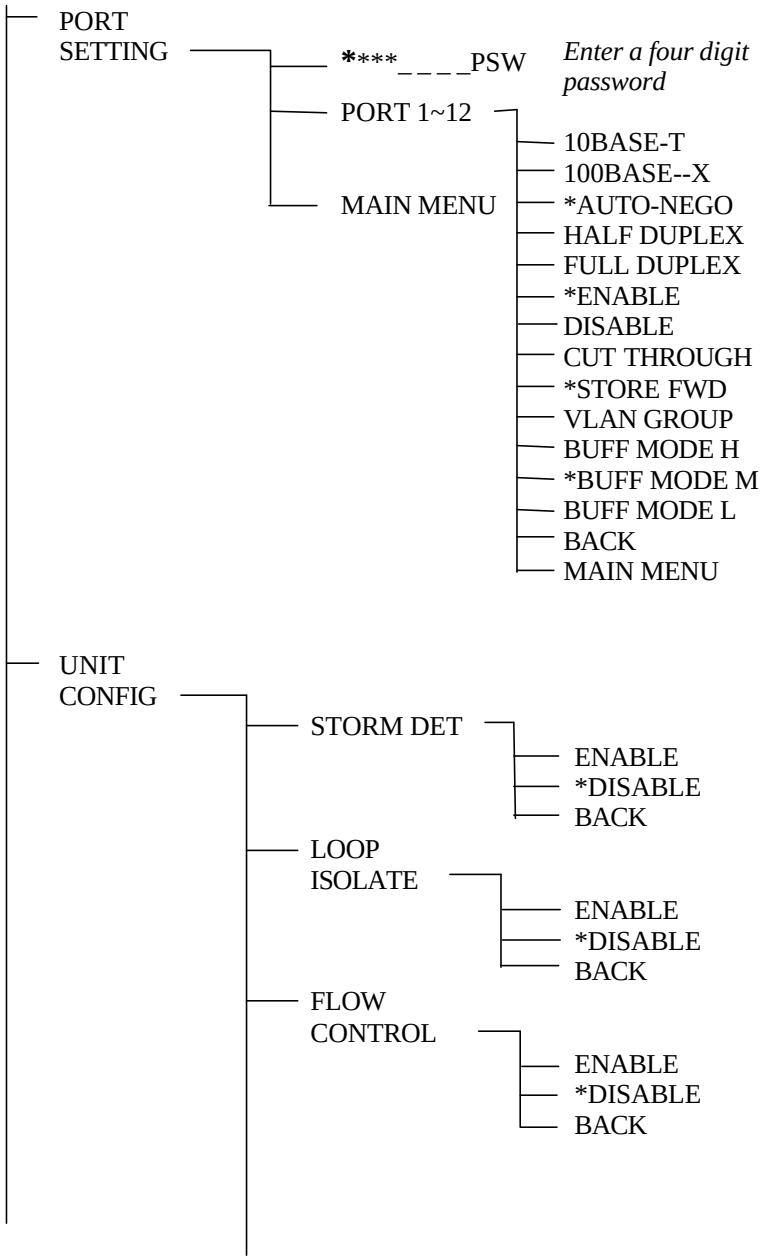
ERROR MESSAGE	CAUSE	SYSTEM REACTION
EEPROM ERROR	The EEPROM did not pass the read/write test.	Halt
FAN FAILED	The device detected that the fan is not working.	Halt, to protect the device
EPM NO MEM	EEPROM is out of memory	System restart
EPM WR ERROR	Error when the device is writing EEPROM memory	No action until next power up
EPM RD ERROR	Error when the device is reading the EEPROM memory	No action is taken until next power up
CHECKSUM ERR	The checksum in the EEPROM is corrupted	System restart and the data will be brought to default value
PCI BUS ERR		Halt
VENDOR ID ERR	Chip vendor ID read error	Halt

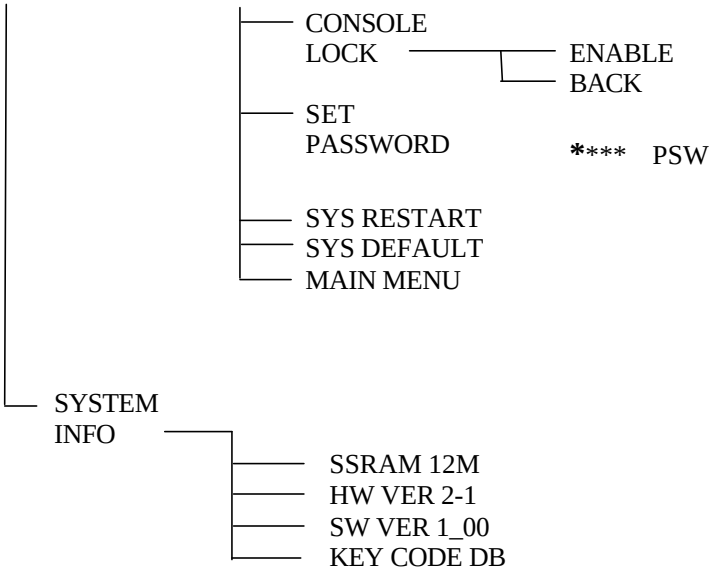
Chapter 4

Menu Tree




PORT STATUS
PORT 1~12
Auto scrolls through the port' s settings
ALL PORTS
10M PORTS
100M PORTS
HALF DUPLEX
FULL DUPLEX
ENABLED
DISABLED
CUT-THROUGH
STORE-FWD
VLAN GROUP
BUFF MODE H
BUFF MODE M
BUFF MODE L
BACK
MAIN MENU
MAIN MENU


PORT SETTING
****____PSW
Enter a four digit password
PORT 1~12
10BASE-T
100BASE--X
*AUTO-NEGO
HALF DUPLEX
FULL DUPLEX
*ENABLE
DISABLE
CUT THROUGH
*STORE FWD
VLAN GROUP
BUFF MODE H
*BUFF MODE M
BUFF MODE L
BACK
MAIN MENU
MAIN MENU
UNIT CONFIG
STORM DET
ENABLE
*DISABLE
BACK
LOOP ISOLATE
ENABLE
*DISABLE
BACK
FLOW CONTROL
ENABLE
*DISABLE
BACK


CONSOLE
LOCK
ENABLE
BACK
SET
PASSWORD
**** PSW
SYS RESTART
SYS DEFAULT
MAIN MENU
SYSTEM
INFO
SSRAM 12M
HW VER 2-1
SW VER 1_00
KEY CODE DB

53100000300A