

Returning the DeviceMaster RTS to Factory Defaults

References:

DeviceMaster RTS Installation and Configuration Guide: Document Number 2000340

DeviceMaster Memory:

The DeviceMaster RTS uses two types of memory, volatile and non-volatile. The volatile memory is in the form of DRAM and SRAM. They are used for program execution and buffers. Clearing the volatile memory, as its name suggests, requires powering off the DeviceMaster.

The non-volatile memory is in the form of flash and eeprom memories.

The flash memory is used for non-volatile program storage. Leaving the factory, there are two programs stored in the flash. They are the bootloader binary (Redboot.bin) and the default application binary (socketserver.bin). The bootloader binary is loaded into DRAM for execution, when the device is turned on. After a period of time, the bootloader loads the default application, socketserver.bin or, in some instances, a customer written custom application, into DRAM and it starts execution. It continues until the unit is powered off. The only access the user has to the binaries is if they decide to load a newer version. If this is done, the newer version overwrites that piece of flash. No user data is ever entered here.

The eeprom memory is programmed with a number of default values. The values that can be modified by the user are shown in the following list.

<u>Parameter Name</u>	<u>Default Value</u>	<u>User Configurable</u>	<u>Method of Access</u>		
			<u>Telnet</u>	<u>Web Server</u>	<u>Debug Port</u>
Authentication	None	Yes	No	No	Yes
IP Address	192.168.250.250	Yes	Yes	Yes	Yes
IP Mask	255.255.0.0	Yes	Yes	Yes	Yes
IP Gateway	192.168.250.1	Yes	Yes	Yes	Yes
Password	Blank	Yes	Yes	No	Yes
Telnet	Enable	Yes	Yes	Yes	Yes
Telnet Timeout	300 sec.	Yes	Yes	Yes	Yes
Bootloader Timeout	15 sec.	Yes	Yes	Yes	Yes
SNMP	Enable	Yes	Yes	Yes	Yes
SSL*	Disable	Yes	Yes	Yes	Yes

* SSL is a security feature available with Socketserver v7.00 and later.

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Clearing FLASH:

The flash only has program binaries. There is no user data stored here. If it is necessary to erase the binaries, the default application, socketserver.bin, can be erased using the '**fis init**' command from the DeviceMaster Debug Port.

The use of the Debug Port is described in the **DeviceMaster RTS Installation and Configuration Guide**, Initial Configuration Section, Establishing a Serial Connection.

The **fis** command is explained in the **DeviceMaster RTS Installation and Configuration Guide**, Redboot Procedures Section, Redboot Command Overview.

There is no easy way to remove the bootloader binary. Removal of the bootloader binary would leave the DeviceMaster inoperable and essentially a brick. It will need to be returned to the factory to be reprogrammed before it can be used.

Clearing EEPROM

The user configurable values in the eeprom, can be accessed and set in three different ways. All of the values can be set using the **Debug Port**. Most of the values can be accessed by using the **Web Server** or **Telnet**.

Telnet Access

To use the **Telnet** to access the DeviceMaster configuration, reference the **DeviceMaster RTS Installation and Configuration Guide**, Redboot Procedures Section, Establishing a Telnet Connection.

Once the connection is established, entering 'help' will provide a list of the available commands.

Note: The method of authentication cannot be reset using this method.

Use the following commands to reset the factory default values.

'ip 192.168.250.250 255.255.0.0 192.168.250.1'	(resets ip, mask, gateway)
'password'	(resets the password)
'telnet enable'	(telnet is enabled)
'timeout 300'	(resets telnet timeout value)
'timeout 15'	(resets the bootloader timeout)
'snmp enable'	(enables snmp)
'ssl disable'*	(disables ssl)

*SSL command is only available on DeviceMaster products running SocketServer 7.0 and later.

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Debug Port Access

To use the **Debug Port** to access the DeviceMaster configuration, reference the **DeviceMaster RTS Installation and Configuration Guide**, Redboot Procedures Section, Establishing a Serial Connection. Once the connection is established, entering 'help' will provide a list of the available commands. Use the following commands to reset the factory default values.

'auth none'	(resets authentication)
'ip 192.168.250.250 255.255.0.0 192.168.250.1'	(resets ip, mask, gateway)
'password'	(resets the password)
'telnet enable'	(telnet is enabled)
'timeout 300'	(resets telnet timeout value)
'timeout 15'	(resets the bootloader timeout)
'snmp enable'	(enables snmp)
'ssl disable'*	(disables ssl)

*SSL command is only available on DeviceMaster products running SocketServer 7.0 and later.

Web Server Access

To use the **Web Server** to access the DeviceMaster configuration, reference the **DeviceMaster RTS Installation and Configuration Guide**, Socket Port Configuration, Accessing Socket Configuration, Web Browser.

Once the connection is established, the web page **Help** system provides detailed configuration procedures and descriptions for all fields.

Note: The method of authentication and the password cannot be changed using this method.

Make sure you go to each of the following areas to reset the defaults values. Some of the values require resetting the box to take effect. Beware that changing the IP addresses, and resetting the box, it will not reconnect automatically. You will need to use the new IP address to reconnect.

Configure Network:

Check 'Use static configuration below.' box

Set IP Address to 192.168.250.250

Set Netmask to 255.255.0.0

Set Gateway to 192.168.250.1

Verify Bootloader Timeout is set to 15

Click Save

Click OK when reminded it is necessary to reboot to take effect.

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Configure Security:

Verify Telnet Enable is checked.
Verify SNMP Enable is checked.

On devices running SocketServer v7.00 or later:

Verify SSL Enable is NOT checked.

Click Save

Click OK when reminded it is necessary to reboot to take effect.

Configure Email Messages:

Verify SMTP Server IP Address is 0.0.0.0

Verify all remaining options are clear.

Click Save

Click OK

On the Main page:

Click on Reboot.

On the Reboot DeviceMaster page:

Click on 'Set configuration for all ports to factory default settings.'

Click on 'Yes: Reboot'

The DeviceMaster will reboot. When it starts running, everything will have been returned to factory default values. This can be verified by using Telnet, Debug Port or Web Server to read the values.

Remember, if you choose to verify the values, the IP address has been reset to 192.168.250.250.