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A Sierra Monitor Company

## ENOTE 0090

### Recovering ProtoCessor/ProtoNode

### FPC-FD2/FPC-ED2/FPC-N32/FPC-N34

Ver	5.22
Rev	2

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## 1 INTRODUCTION

This document describes how to recover the ProtoCessor FPC-FD2 and FPC-ED2 and the ProtoNode FPC-N32 and FPC-N34. Please note that the configuration and all previous settings will be erased. Please request the following from FieldServer Technical Support:

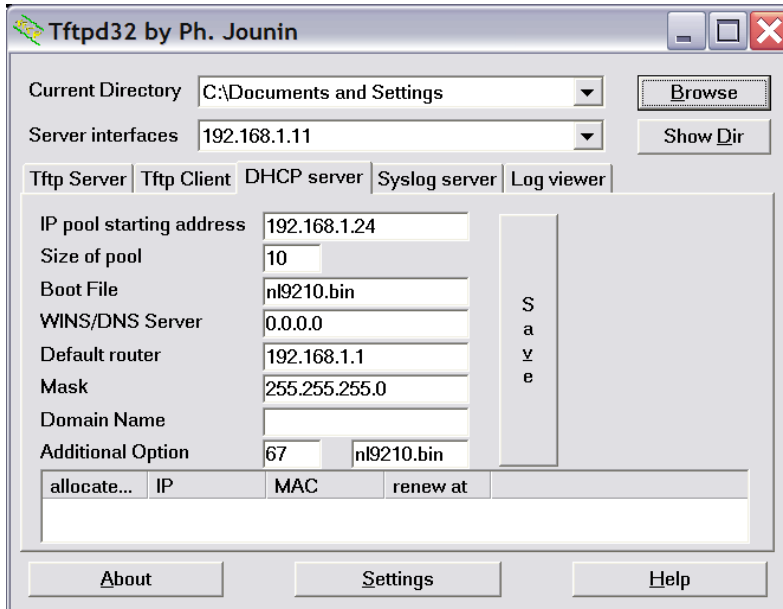
- PCC Firmware
- TFTP32 Software
- Recovery Firmware
- Original or Default Configuration File

## 2 RECOVERY PROCEDURES

### 2.1 Software Installation Procedure

- Ensure that there are no other DHCP servers on the network with the unit and the user's PC. If necessary, build a small network with either a direct connection to the unit or with a switch.
- Set your PC to a static IP address of 192.168.1.11.
- Double click on the TFTP32 executable to start the program.
- Go to the DHCP tab.
  - Set the "IP pool starting address" to 192.168.1.24.
  - Set the "Size of pool" to 10.
  - Set the "Boot File".
    - For the FPC-FD2 and the FPC-N32, set the "Boot File" to nl9210.bin.
    - For the FPC-ED2 and the FPC-N34, set the "Boot File" to nl9210\_4.bin.
  - Leave the "WINS/DNS server" and the "Default router" at their default values.
  - Set the "Mask" to 255.255.255.0.
  - Set the "Additional Option".
    - For the FPC-FD2 and the FPC-N32, set the "Additional Option" to 67 and nl9210.bin.
    - For the FPC-ED2 and the FPC-N34, set the "Additional Option" to 67 and nl9210\_4.bin.

### 2.1.1 FPC-FD2 and FPC-N32 Settings

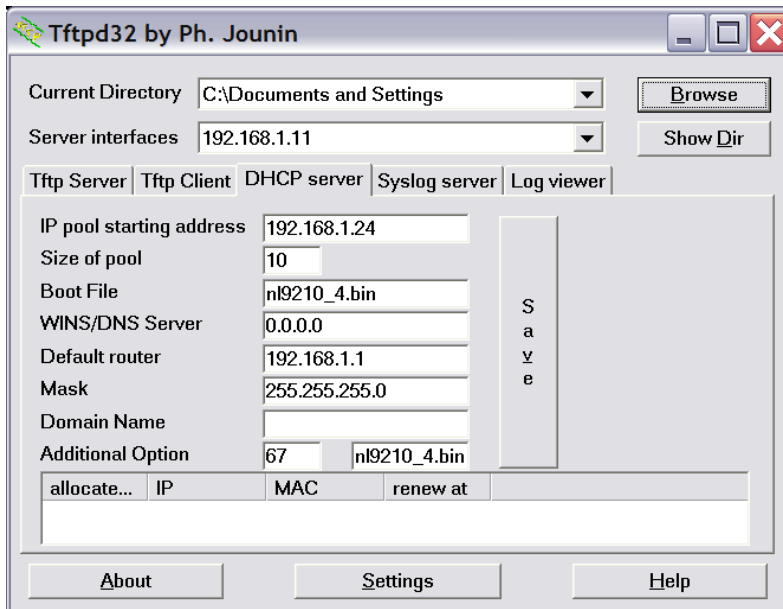


The screenshot shows the Tftpd32 software interface. The 'Current Directory' is set to 'C:\Documents and Settings'. The 'Server interfaces' are set to '192.168.1.11'. The 'Tftp Server' tab is selected. The settings are as follows:

IP pool starting address	192.168.1.24	S a v e
Size of pool	10	
Boot File	n9210.bin	
WINS/DNS Server	0.0.0.0	
Default router	192.168.1.1	
Mask	255.255.255.0	
Domain Name		
Additional Option	67 n9210.bin	

At the bottom, there is a table with columns: allocate..., IP, MAC, and renew at.

### 2.1.2 FPC-ED2 and FPC-N34 Settings



The screenshot shows the Tftpd32 software interface. The 'Current Directory' is set to 'C:\Documents and Settings'. The 'Server interfaces' are set to '192.168.1.11'. The 'Tftp Server' tab is selected. The settings are as follows:

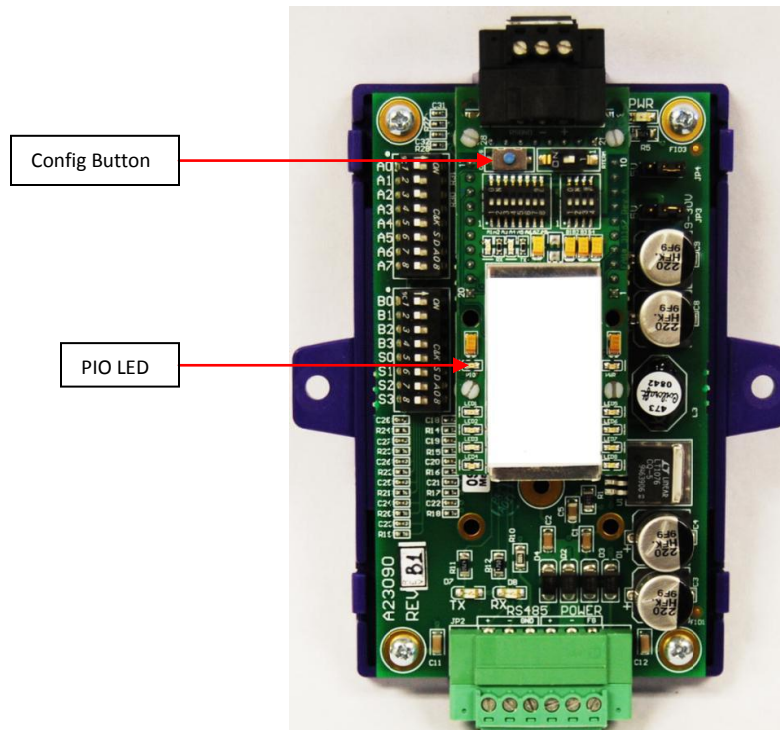
IP pool starting address	192.168.1.24	S a v e
Size of pool	10	
Boot File	n9210_4.bin	
WINS/DNS Server	0.0.0.0	
Default router	192.168.1.1	
Mask	255.255.255.0	
Domain Name		
Additional Option	67 n9210_4.bin	

At the bottom, there is a table with columns: allocate..., IP, MAC, and renew at.

- Press the Save button.

## 2.2 Downloading Procedure

- Install and run tftpd32 (see Section 2.1).
- For the FPC-N32 or FPC-N34, pull the top off of the ProtoNode enclosure.
- While pressing and holding the blue CONFIG button on the unit, power up the unit. The PIO LED should be on solid green.



- Hold the button for 5 seconds after power up.
- Go to the “Log viewer” tab in tftpd32.
- The following messages should appear:

```
Rcvd DHCP Discover Msg for IP 0.0.0.0, Mac 00:40:9D:43:35:97 [20/04 11:37:36.421]
DHCP: proposed address 192.168.2.100 [20/04 11:37:38.827]
2140 Request 2 not processed [20/04 11:37:38.890]
Rcvd DHCP Rqst Msg for IP 0.0.0.0, Mac 00:40:9D:43:35:97 [20/04 11:37:38.952]
Previously allocated address 192.168.2.100 acked [20/04 11:37:40.452]
Connection received from 192.168.2.100 on port 18000 [20/04 11:37:40.452]
Read request for file <n19210.bin>. Mode octet [20/04 11:37:40.452]
Using local port 1156 [20/04 11:37:40.452]
2140 Request 2 not processed [20/04 11:37:40.515]
<n19210.bin>: sent 1884 blks, 964237 bytes in 1 s. 0 blk resent [20/04 11:37:41.546]
```

- The last line is very important because it means the recovery firmware has been resent to the unit.
- Close TFTP32 immediately.

- The RUN LED will flash once per second indicating that the unit is running.
- The unit will have an IP of 192.168.1.24. The configuration and all previous settings will be erased.
- **Before rebooting the unit again make sure to load the final PCC firmware and config that will be required on the unit.** If the PCC firmware is not loaded, any changes to the unit will be reset to factory default on the next restart.