

Recovering a Stalled X30

Introduction

A stalled X30 can be identified by the Run LED not flashing at a 1Hz rate after a good few minutes after cycling power to the X30. For larger configurations it could take up to 5 minutes to load before the Run LED will start flashing.

Recovery procedure

Determining the stall problem

- Open a Windows command prompt window on your PC.
- Connect the X30 on both Net 1 and Net 2 to an Ethernet hub or switch connected to your PC. (Please use an auto-sensing capable hub or switch that supports 10Mb/s)
- Perform the following test to check if you get a ping reply from the X30:
 - Ping the X30 from your PC using a PC IP address 192.168.1.77 and then from a PC IP address of 192.168.2.77 or other unused IPs on the 192.168.1 and 192.168.2 networks. Change your PC's IP address each time before pinging the following IP addresses:

From the 192.168.1 network:	From the 192.168.2 network:
192.168.1.168	192.168.2.168; 192.168.2.178

- Also, if possible, ping on the last known good IP you connected to before the stall happened eg. this may have been on 192.168.3.44, so change your PC's IP to 192.168.3.77 before pinging.
- Advanced Tip: If you have access to a Linux machine or other utility that supports broadcast pings, you can ping 192.168.1.255 -b and 192.168.2.255 -b to get a reply from all devices on the network, although this commonly only works when network devices are connected to hubs.

Recovering stalled X30 application firmware (Ping reply received)

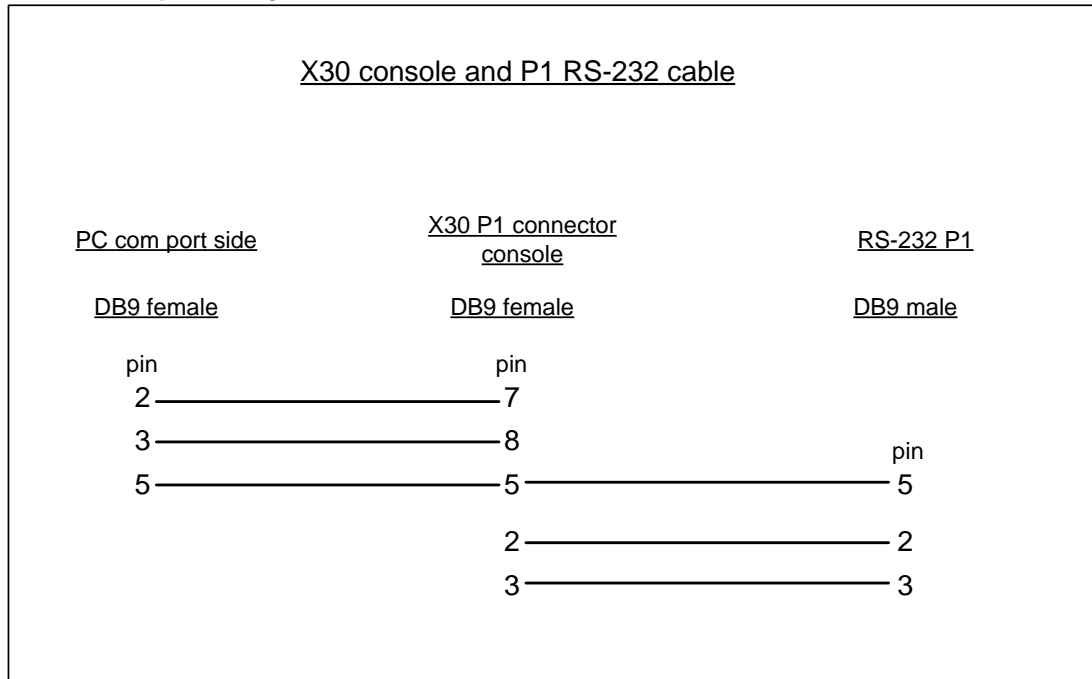
- Create a file called defaultx30 in the command prompt by typing:echo recover > defaultx30
- Run ftp IP_ADDRESS using the IP address used to ping the x30 (eg. [ftp 192.168.1.168](ftp://192.168.1.168))
- Log in as user: ftp
- Press Enter for the password:
- Type bin and press ENTER
- Type put defaultx30 and press ENTER
- Type quit and press ENTER
- Wait until the Run LED flashes
- Change your PC's IP address to either the 192.168.1 or 192.168.2 network and connect to the Net 1 or Net 2 port using Ruinet.
- Upload your last config.csv file by uploading config.old from the U screen on Ruinet.
- Download your latest firmware or DCC again from the Ruinet D screen.

Recovering stalled X30 Operating System (No Ping reply received)

- Connect a serial terminal cable to the X30's P1 connector. (refer to next section)
- Run Hyperterminal and use the following settings: 115200, 8-N-1
- Power up the X30 and make sure not to press any key until getting to a # prompt.
- Press ENTER and make sure you get the # prompt repeated again. If you don't get a # prompt, continue on to Step D)
- Change your PC's IP address to an IP on the 192.168.1 or 192.168.2 network.
- In Hyperterminal: type `ifconfig -a eth0 192.168.1.168` and press ENTER
- In Hyperterminal: type `ifconfig -a eth1 192.168.2.178` and press ENTER
- Go to Step A) now to ping the X30 and then Step B) to default the firmware.

X30 Serial Terminal cable Connection**Construction of cable**

If not already existing, construct a console cable as shown below:



Connecting Console Cable to X30

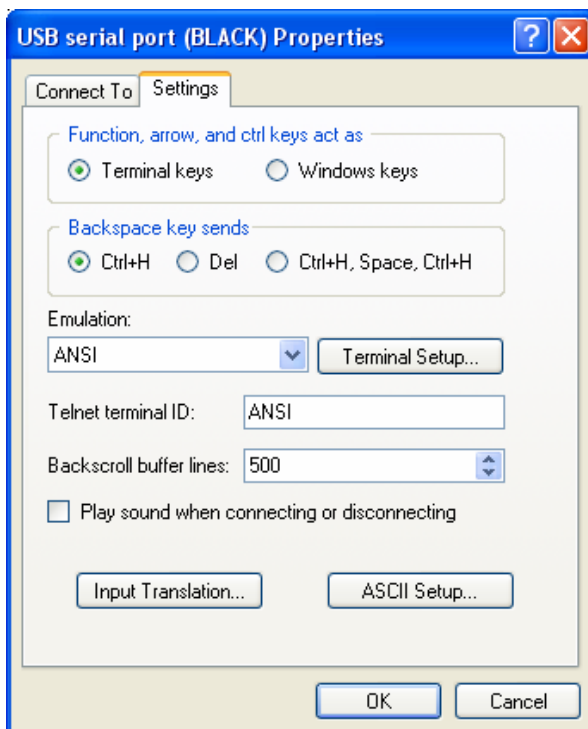
The X30 connector goes to P1 on the X30. The P1 side connector is an extension of the P1 serial RS232 port.

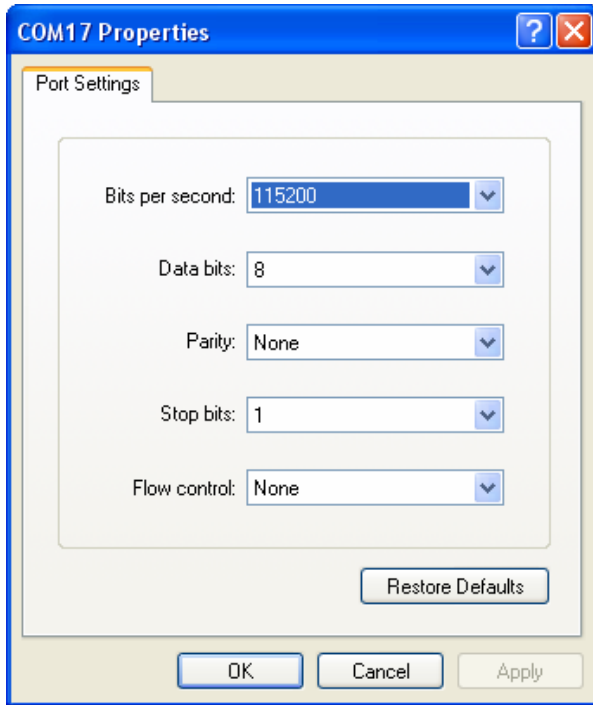


Hyperterminal Settings on PC

Start Hyperterminal on a PC connected to the console cable.

Use the following settings:





Click the Call icon on Hyperterminal to make the connection active.

Recovering stalled X30 using CompactFlash Card (Last Resort)

If none of the above steps proved successful, the only way to recover the X30 is to completely restore it to its default condition. Please note that the config.csv on the X30 is not recoverable when following this procedure.

- Request the kernel.x30 and jffs2.x30 files from FieldServer.
- Copy these files to a CompactFlash card.
- Insert the card in the X30 slot, pushing it in firmly.
- Cycle power to the X30 and wait until the Run LED flashes; this could take up to 5 minutes.
- Remove the CompactFlash card to prevent it from restoring again on a power cycle.
- Continue to connect with Ruinet on one of the Net 1 or Net 2 ports from a PC on network 192.168.1 or 192.168.2
- You can now re-download your original firmware and configuration file using Ruinet.

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