OB-01 OBC Matrix Switch Test

ENGINEER: _____

DATE:

COMMENTS:

supplanted by V05_OBCopen_node

MARS
Org: WHOI
Engr: Fritz Sonnichsen
Date: 03/5/05

OB-01 OBC Matrix Switch Test

Purpose of Test:
This test exercises the OBC matrix selection unit which allows mapping of an RS232 port from the A sail bus, the B sail bus or the internal Comms controller (Embedded Linux PC), to any of 8 ports which will ultimately connect to the DCS internal node devices such as EDFAs, and CISCO switches.

Required Equipment:
Node OBC unit
1 laptop configured with sail communications software

Description:
The devices mentioned above will be connected as in the setup diagram. Commands will be issued from the SAIL busses and controller PC to command the matrix switch and thence connect to the controlled DCS devices. Attempts will be made to foil the function of the matrix switch, via entering concurrent commands from 2 devices etc.

OB-01 OBC Matrix Switch Test - procedure

IN BAND BACKDOOR TEST

1) Connect the devices per the setup diagram. Remove any DCS devices and connect only one to port J5. Perform the following tests:

2) using the browser connect to the comms controller via: http://192.168.160.10/cgi-bin/obc_xbar

3) A screen allowing you to select the xbar port is presented. Click each of the 8 ports and listed for a click to insture that the relays are operating.

4) Select port 1 and press the “connect” button.

5) A VT100 screen is presented. Access the DCS device with it’s native commands an be sure that you can operate it.

6) Move the device cable along all 8 ports, checking from the VT100 screen to be sure that you cannot access it.

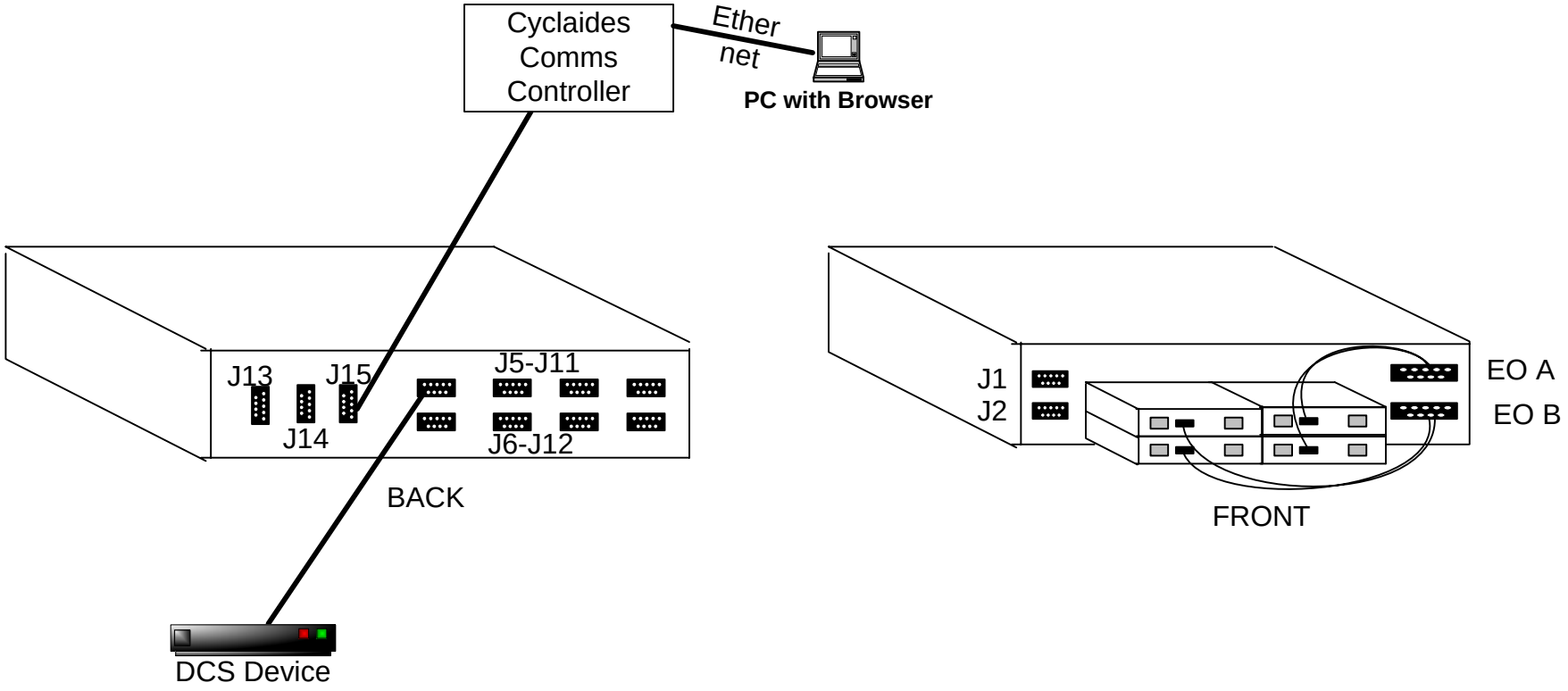
7) Move the device to port J6. Select port 2 and press the “connect button”

8) Be sure that you can access the device

9) Move the device to ports J5, and J7-J12. Make sure that it is NOT connected to this

10) Continue to test all 8 ports, making sure that the device connects only via the port which is active

OB-01 OBC Matrix Switch Test



TEST Using IN-BAND BACKDOOR

A PC is connected to the comms controller via an ethernet cable and a browser is brought up to connect to the controller

Note: Cyclaides is at address 192.168.160.10
Root/tslinux obc/neptune
MAC 00:60:2E:01:2A:43

OB-01 OBC Matrix Switch Test - procedure

IN BAND BACKDOOR TEST

1) Connect the devices per the setup diagram. A Linux PC with the sail.exe test program is attached to the SAIL A bus monitor port (J13) . Remove any DCS devices and connect only one to port J5. Perform the following tests:

2) Start sail.exe on the PC mapping port 1 on the xbar: sail.exe -s#S01A – x1

3) Access the DCS device with it's native commands an be sure that you can operate it.

4) Move the device cable along all 8 ports, checking from the VT100 screen to be sure that you cannot access it.

5) Move the device to port J6. Select port 2 and press the "connect button"

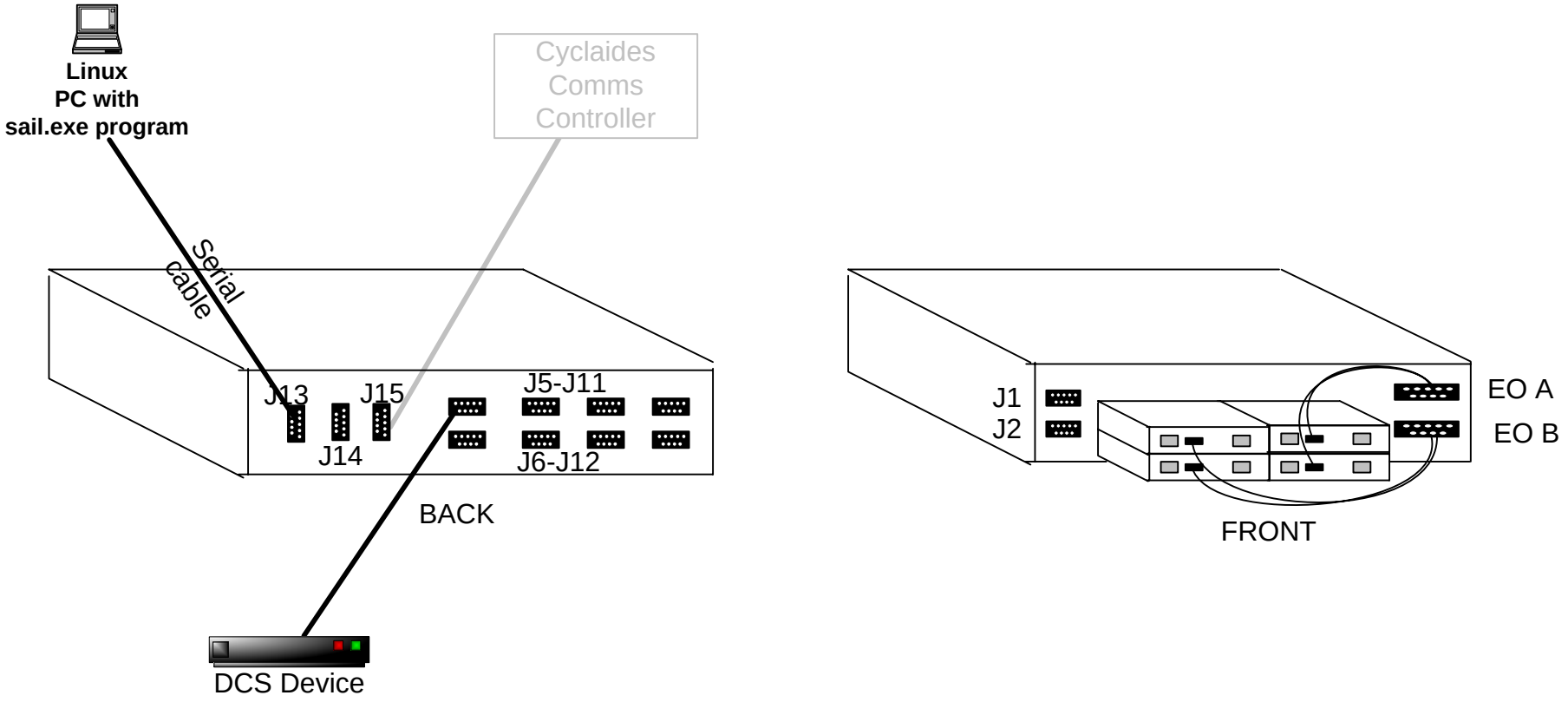
6) Be sure that you can access the device

7) Move the device to ports J5, and J7-J12. Make sure that it is NOT connected to this

8) Continue to test all 8 ports, making sure that the device connects only via the port which is active

9) Repeat the whole process starting with step 1, this time connecting the serial cable of the PC to port (J14) the SAIL B bus.

OB-01 OBC Matrix Switch Test



<u>TEST Using IN-BAND BACKDOOR</u>

A PC is connected to the comms controller via an ethernet cable and a browser is brought up to connect to the controller

OB-01 OBC Matrix Switch Test

This test is a pass/fail test with no conclusion. Should the test fail, the software and hardware must be corrected until the matix switch functions properly.

Test Passed (your initials)_____