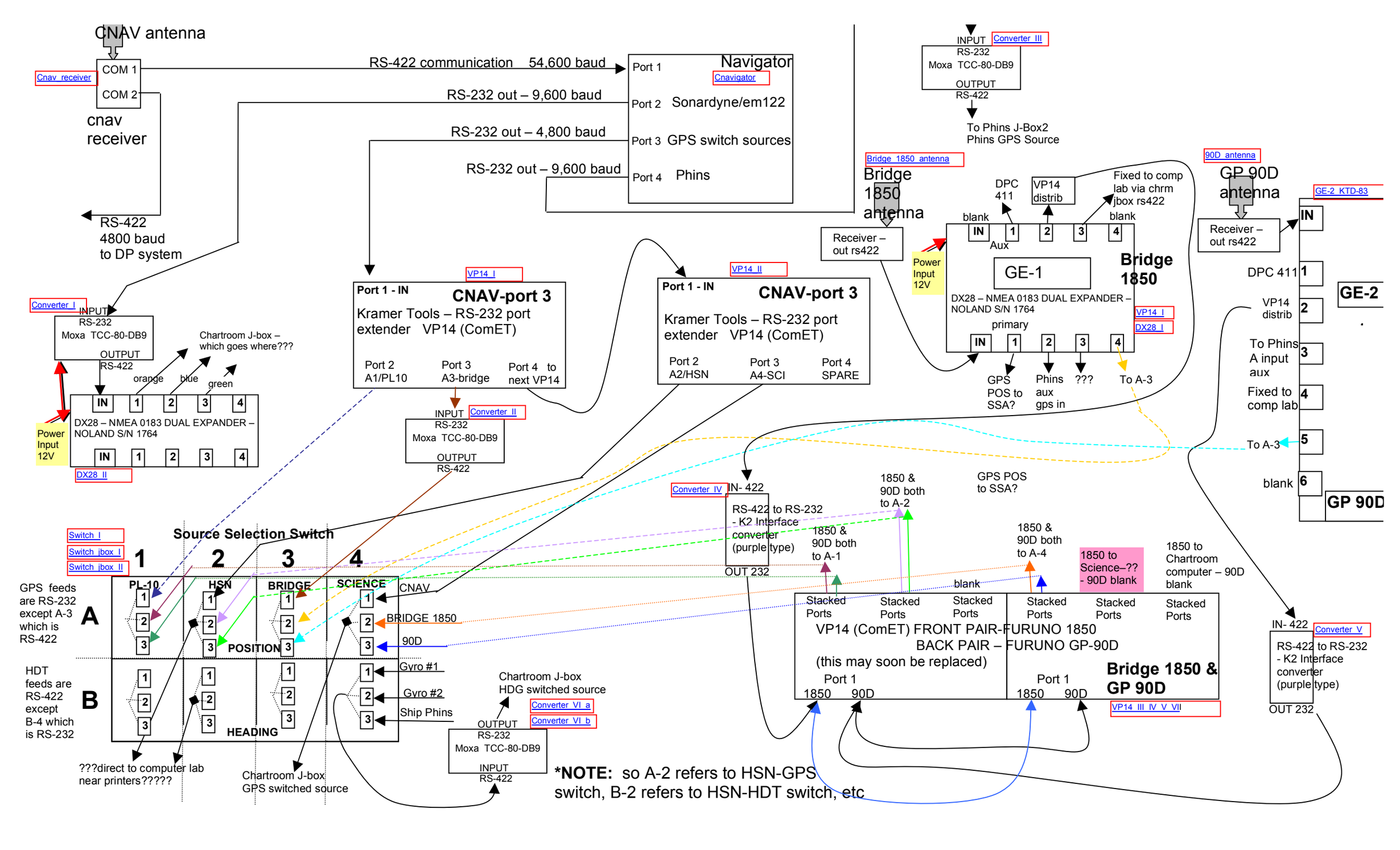
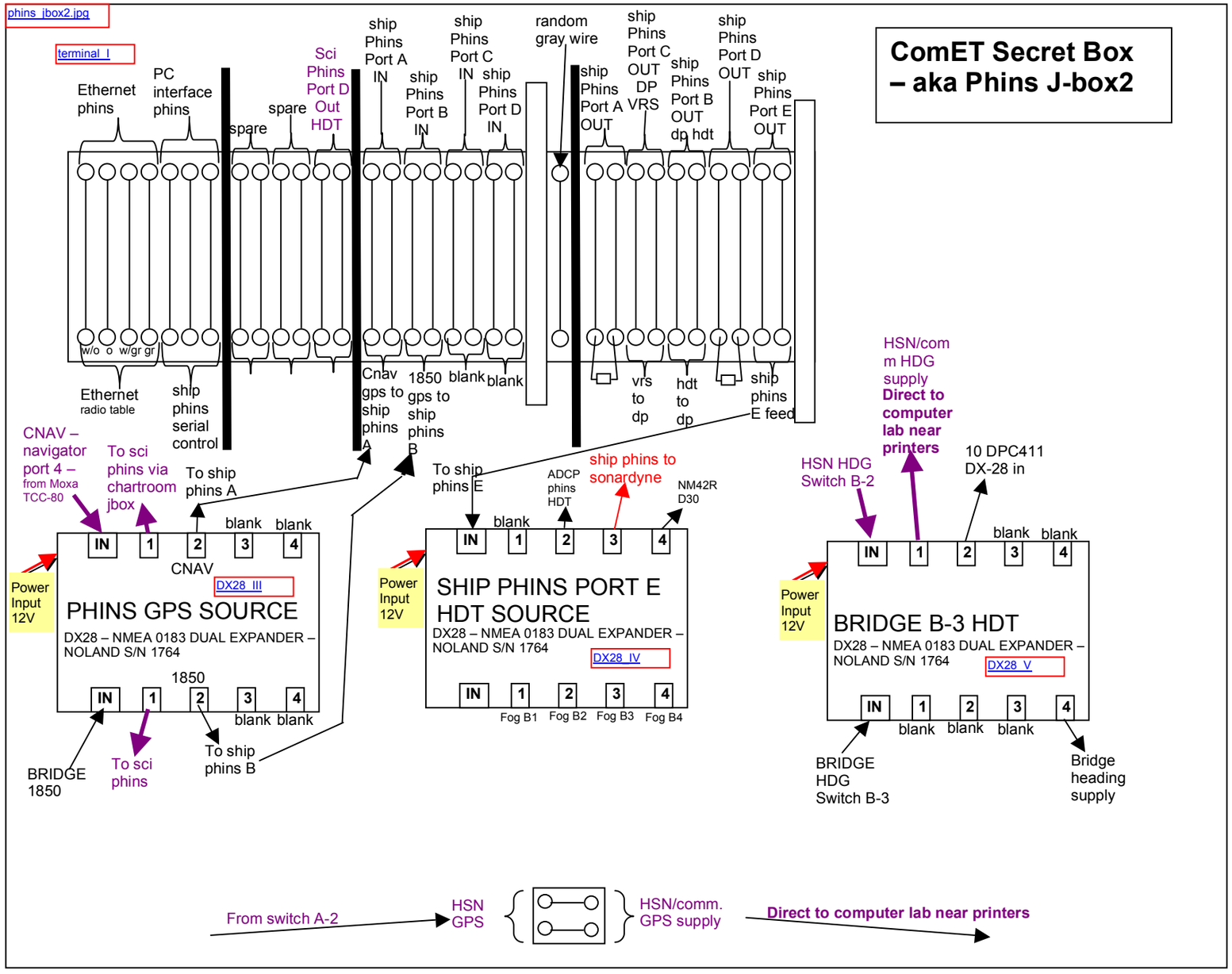
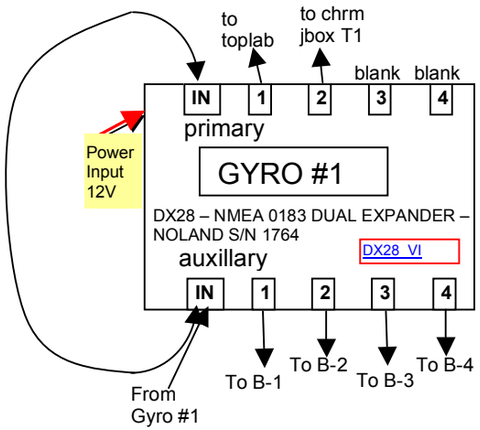
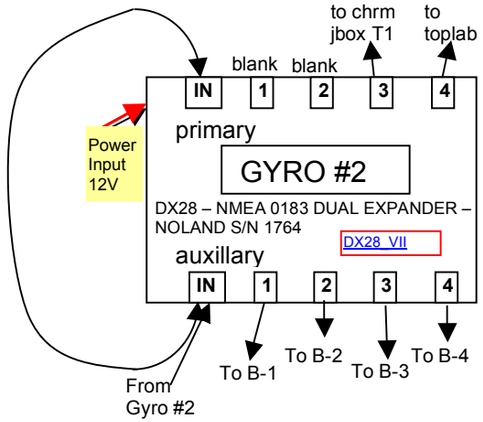
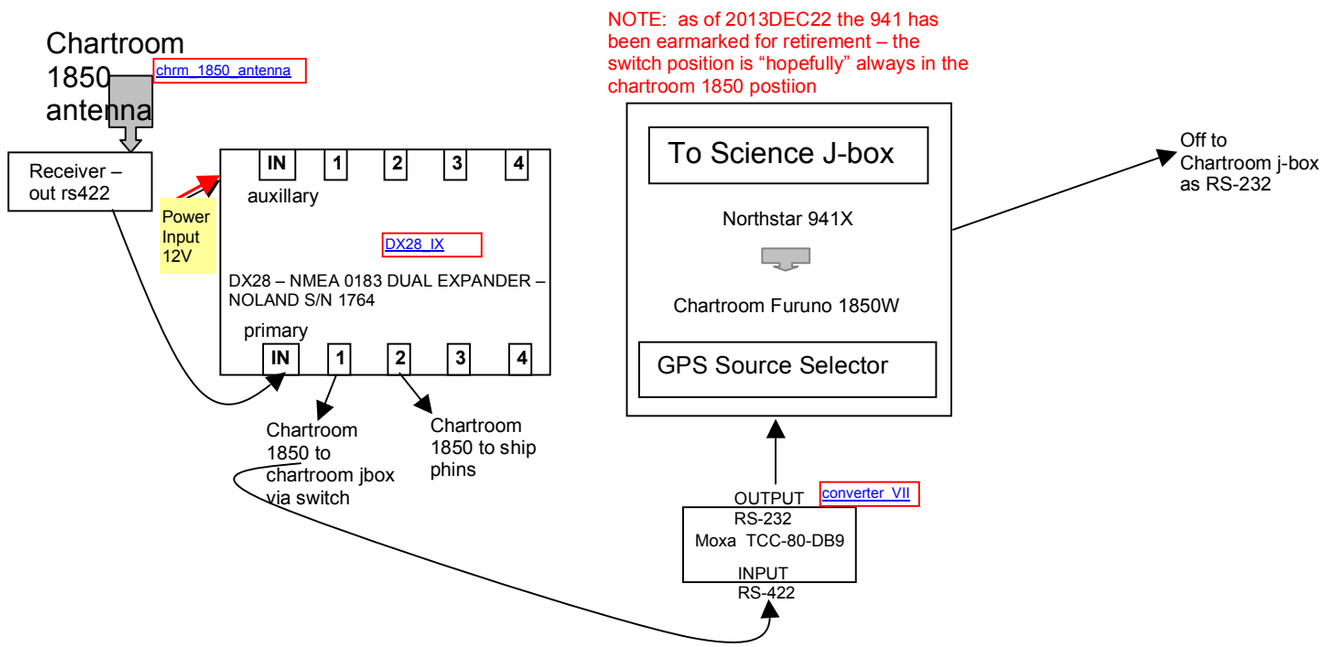

CNAV antenna
Cnav_receiver
COM 1
COM 2
cnav receiver
RS-422 communication 54,600 baud
RS-232 out – 9,600 baud
RS-232 out – 4,800 baud
RS-232 out – 9,600 baud
Port 1 Navigator
Cnavigator
Port 2 Sonardyne/em122
Port 3 GPS switch sources
Port 4 Phins
RS-422 4800 baud to DP system
Converter_III
INPUT RS-232 Moxa TCC-80-DB9 OUTPUT RS-422
To Phins J-Box2 Phins GPS Source
Bridge_1850_antenna
Bridge 1850 antenna
Receiver – out rs422
Power Input 12V
DPC 411
VP14 distrib
Fixed to comp lab via chrm jbox rs422
blank
IN 1 2 3 4
Aux
GE-1
Bridge 1850
DX28 – NMEA 0183 DUAL EXPANDER – NOLAND S/N 1764
VP14_I
DX28_I
primary
GPS POS to SSA?
Phins aux gps in
???
To A-3
90D_antenna
GP 90D antenna
Receiver – out rs422
GE-2_KTD-83
GE-2
DPC 411
VP14 distrib
To Phins A input aux
Fixed to comp lab
To A-3
blank
GP 90D
Converter_I
INPUT RS-232 Moxa TCC-80-DB9 OUTPUT RS-422
Chartroom J-box – which goes where???
orange
blue
green
DX28 – NMEA 0183 DUAL EXPANDER – NOLAND S/N 1764
DX28_II
VP14_I
Port 1 - IN CNAV-port 3
Kramer Tools – RS-232 port extender VP14 (ComET)
Port 2 A1/PL10
Port 3 A3-bridge
Port 4 to next VP14
VP14_II
Port 1 - IN CNAV-port 3
Kramer Tools – RS-232 port extender VP14 (ComET)
Port 2 A2/HSN
Port 3 A4-SCI
Port 4 SPARE
Converter_II
INPUT RS-232 Moxa TCC-80-DB9 OUTPUT RS-422
Converter_IV
IN- 422
RS-422 to RS-232 - K2 Interface converter (purple type)
OUT 232
1850 & 90D both to A-2
GPS POS to SSA?
1850 & 90D both to A-1
1850 & 90D both to A-4
1850 to Science–?? - 90D blank
1850 to Chartroom computer – 90D blank
Switch_I
Switch_jbox_I
Switch_jbox_II
Source Selection Switch
1 2 3 4
PL-10
HSN
BRIDGE
SCIENCE
CNAV
BRIDGE 1850
90D
POSITION
A
B
GPS feeds are RS-232 except A-3 which is RS-422
HDT feeds are RS-422 except B-4 which is RS-232
Gyro #1
Gyro #2
Ship Phins
HEADING
???direct to computer lab near printers?????
Chartroom J-box GPS switched source
Chartroom J-box HDG switched source
Converter_VI_a
Converter_VI_b
OUTPUT RS-232 Moxa TCC-80-DB9 INPUT RS-422
Stacked Ports
VP14 (ComET) FRONT PAIR-FURUNO 1850
BACK PAIR – FURUNO GP-90D
(this may soon be replaced)
Port 1
1850 90D
Bridge 1850 & GP 90D
VP14_III_IV_V_VII
IN- 422
Converter_V
RS-422 to RS-232 - K2 Interface converter (purple type)
OUT 232
*NOTE: so A-2 refers to HSN-GPS switch, B-2 refers to HSN-HDT switch, etc


phins_jbox2.jpg
terminal_I
ComET Secret Box
– aka Phins J-box2
Ethernet phins
PC interface phins
spare
spare
Sci Phins Port D Out HDT
ship Phins Port A IN
ship Phins Port B IN
ship Phins Port C IN
ship Phins Port D IN
random gray wire
ship Phins Port A OUT
ship Phins Port C OUT DP VRS
ship Phins Port B OUT dp hdt
ship Phins Port D OUT
ship Phins Port E OUT
w/o o w/gr gr
Ethernet radio table
ship phins serial control
Cnav gps to ship phins A
1850 gps to ship phins B
blank
blank
vrs to dp
hdt to dp
ship phins E feed
CNAV – navigator port 4 – from Moxa TCC-80
To sci phins via chartroom jbox
To ship phins A
To ship phins E
ADCP phins HDT
ship phins to sonardyne
NM42R D30
HSN/comm HDG supply
Direct to computer lab near printers
HSN HDG Switch B-2
10 DPC411 DX-28 in
Power Input 12V
IN 1 2 3 4
blank blank
CNAV
DX28_III
PHINS GPS SOURCE
DX28 – NMEA 0183 DUAL EXPANDER – NOLAND S/N 1764
1850
blank blank
BRIDGE 1850
To sci phins
To ship phins B
Power Input 12V
blank
SHIP PHINS PORT E HDT SOURCE
DX28 – NMEA 0183 DUAL EXPANDER – NOLAND S/N 1764
DX28_IV
Fog B1 Fog B2 Fog B3 Fog B4
Power Input 12V
BRIDGE B-3 HDT
DX28 – NMEA 0183 DUAL EXPANDER – NOLAND S/N 1764
DX28_V
blank blank blank
BRIDGE HDG Switch B-3
Bridge heading supply
From switch A-2
HSN GPS
HSN/comm. GPS supply
Direct to computer lab near printers


to toplab
to chrm jbox T1
blank
blank
IN
1
2
3
4
primary
Power Input 12V
GYRO #1
DX28 – NMEA 0183 DUAL EXPANDER – NOLAND S/N 1764
auxillary
DX28_VI
IN
1
2
3
4
To B-1
To B-2
To B-3
To B-4
From Gyro #1


to chrm jbox T1
to toplab
blank
blank
IN
1
2
3
4
primary
Power Input 12V
GYRO #2
DX28 – NMEA 0183 DUAL EXPANDER – NOLAND S/N 1764
auxillary
DX28_VII
IN
1
2
3
4
To B-1
To B-2
To B-3
To B-4
From Gyro #2


Chartroom 1850 antenna
chrm_1850_antenna
Receiver – out rs422
Power Input 12V
IN
1
2
3
4
auxillary
DX28_IX
DX28 – NMEA 0183 DUAL EXPANDER – NOLAND S/N 1764
primary
IN
1
2
3
4
Chartroom 1850 to chartroom jbox via switch
Chartroom 1850 to ship phins
NOTE: as of 2013DEC22 the 941 has been earmarked for retirement – the switch position is “hopefully” always in the chartroom 1850 postiion
To Science J-box
Northstar 941X
Chartroom Furuno 1850W
GPS Source Selector
Off to Chartroom j-box as RS-232
OUTPUT
converter_VII
RS-232
Moxa TCC-80-DB9
INPUT
RS-422

LIST OF DEVICES (picture names):

GPS Antennae

- 90D_antenna.jpg
- bridge_1850_antenna.jpg
- chrm_1850_antenna.jpg
- cnav_3050_antenna – need picture

GPS receiver

- cnav_receiver.jpg
- cnavigator.jpg – ports/set-up/comms with cnav receiver
- bridge_1850_receiver – need picture
- chrm_1850_receiver – need picture
- 90D_receiver – need picture

Moxa TCC-80-DB9 – converts signal format from RS-422 to RS-232 and vice versa

- converter_I.jpg - cnav port 2 RS-232 to RS-422 9600 baud
- converter_II.jpg - cnav port 3 to A-3 switch (bridge) – RS-232 to RS-422
- converter_III.jpg - cnav port 4 to phins – RS-232 to RS422
- converter_IV_V.jpg - IV = 1850, V = 90D – both converting RS-422 to RS-232
- converter_VI_a.jpg and converter_VI_b.jpg – Heading to science switched source
- converter_VII - chartroom 1850 RS422 to RS-232

DX28 – NMEA 0183 Dual Expander – Noland - a 2-channel signal splitter/amplifier for NMEA 0183 data signals – input is RS422

- DX28_I.jpg - Bridge 1850
- DX28_II.jpg - CNav to Sonardyne feed
- DX28_III.jpg - GPS sources to Phins – 1850 & cnav
- DX28_IV_V.jpg - IV=ship phins port E heading source; V=switch B-2 & B-3 sources
- DX28_VI_VII_VII.jpg - VI = gyro#1; VII = gyro#2; VIII = spare (not sure why stored on wall)
- GE-2_KTD-83.jpg - GP 90D GPS
- DX28_IX.jpg - Chartroom 1850

VP14 – Kramer Tools – RS-232 port extender – distributes an incoming RS-232 command/signal to 3 other ports

- VP14_I.jpg - Cnav from port3 (connected to II)
- VP14_II.jpg - Cnav from port3 (connected to I)
- VP14_III_IV_V_VI.jpg – bridge 1850 (front rail) and 90D (back rail)