

Vehicle Close Out Check List

1. Motherboard

- a. Board serial number #2
- b. Vehicle Name on CPU board is “Tethys”
- c. Memory Card Installed? Yes
- d. Emergency Board (Daughter Board)
 - i. Jumper Settings

Jumper	Comment	Status
JP1	Singe Reset	Open
JP2	Reset Counter	5&6
JP3	Single Heartbeat	Open
JP4	Heartbeat Counter	17&18
JP5	Heartbeat Clear	1&2
JP6	Flatline	1&2
JP7	Timer Multiplier	3&4, 5&6
JP8	Heartbeat Timer	21&22
JP9	/Emergency Reset	1&2

ii. Notes for settings

- 1. JP1 open enables JP2 setting
- 2. JP2 Settings

Jmp	Installed?	Reset counter
1&2,		1
3&4,		2
5&6	x	4
7&8		8

- 3. JP3 open enables JP4 setting
- 4. JP4 Heartbeat Counter

Jmp	Installed	Counts
1-2		1
3-4		2
5-6		4
7-8		8
9-10		16
11-12		32
13-14		64
15-16		128
17-18	x	256
19-20		512
21-22		1024
23-24		2048

- 5. JP5 Heartbeat Clears when installed
- 6. JP6 Flatline when removed
- 7. JP7 Timer Multiplier Settings

Jmp	A	B	N
1&2, 5&6	0	0	13
1&2, 7&8	0	1	10
3&4, 5&6	1	0	8
3&4, 7&8	1	1	16

8. JP8 Timer Count Settings

Jmp	Installed	* 200 mSec for time
1-2		1
3-4		2
5-6		4
7-8		8
9-10		16
11-12		32
13-14		64
15-16		128
17-18		256
19-20		512
21-22		1024
23-24		2048

e. LED Jumpers

Jumper	Comment	Status (1 = On)	Removed
JP-26	24 vdc LC	1	
JP-32	5 vdc	1	
JP-33	3.3 vdc	1	
JP-31	3.15 vdc	1	
JP-36	12 vdc LC	1	
JP-35	5 vdc LC	1	
JP-34	3.3 vdc LC	1	
JP-41	Shore Power	0	
JP-43	1.8 vdc	1	
JP-30	Vehicle Power	1	
JP-42	Battery Power	1	

f. Other Jumpers

Jumper	Comment	Status	Correct
JP-1	VBAT to LPC	installed	
JP-2	/service	open	
JP-4	flash	open	
JP-5	/RS232_EN	Open	
JP-6	RS232_SD	1&2	
JP-7	Flash WP	Open	
JP-8	UART1 TTL Swap	3&4 7&8	
JP-9	UART1 232 Swap	1&2, 5&6	
JP-10	UART3 TTL Swap	3&4 7&8	
JP-11	UART3 232 Swap	Open	
JP-12	UART5 TTL Swap	3&4 7&8	
JP-13	UART6 485 Swap	3&4 7&8	
JP-14	UART2 232 Swap	3&4 7&8	
JP-15	UART2 SD	1&2	
JP-16	UART4 232 Swap	3&4 7&8	
JP-17	UART4 SD	1&2	
JP-18	UART7 232 Swap	1&2 5&6	
JP-19	UART7 SD	1&2	
JP-20	UART5 232 Swap	3&4 7&8	
JP-21	UART5 SD	1&2	
JP-22	UART3 SD	1&2	
JP-23	UART1 SD	1&2	
JP-24	Iridium_232	Open	
JP-25	Freewave_232	Open	
JP-27	Buoy CLA	open	
JP-28	EEPROM	3&4	
JP-37	ADC Reference	3&4	
JP-40	DBGEN	open	

g. Connectors

Connector	Description	
J-3	UART1 TTL	Empty
J-4	UART1 232, Batt comms, Bank A	Connected
J-5	UART6 485	Empty
J-6	UART2 232, DVL	Connected
J-7	UART4 232, Iridium	Connected
J-8	UART7 232, Batt comms, Bank B	Connected
J-9	H2O detect, low fwd	Connected
J-10	H2O detect, low aft	Connected
J-11	Humidity and Temp	Connected
J-12	H2O detect, high fwd	Empty

J-13	H2O detect, high aft	Empty
J-14	DVL	Connected
J-20	Drop weight / burn wire / SW gnd	Connected
J-21	Iridium power out	Connected
J-22	USB	Empty
J-23	Ethernet	Connected
J-31	UART3 TTL	Empty
J-32	UART3 232	Empty
J-33	UART5 TTL, Free Wave	Connected
J-34	UART5 232, Tether serial	Connected
J-35	Secondary Batteries	Connected
J-36	Shore Power	Empty
J-37	Emerg Batteries	Connected
J-38	LC pwr to Iridium	Connected
J-39	LC pwr to Freewave	Connected
J-40	Freewave power out	Connected
J-46	LCB #2 Res 13-15, Burnwire Gnd	Connected
J-47	LCB #2 power	Open
J-48	LCB #1 power	Connected
J-49	LCB #0 power	Connected
J-50	LCB #1 SPI	Connected
J-51	LCB #0 SPI	Connected

2. EZ Servos

Name	Address	J-1	J-2	J-3	J-4	J-5	J-6	Checked?
Elevator	1	-	Y	-	-	Y	Y	
Rudder	2	-	Y	-	-	Y	Y	
Prop	3	-	Y	Y	Y	-	Y	
VB	6	Y	Y	Y	Y	Y	Y	
Mass Shifter	4	-	Y	-	Y	Y	Y	

3. Load Control Boards

Slot	Ser #	Device served	Jumper for reduced pwr
A0	18-0-0-A/D	Keller depth sensor	None
A1	13-232-5	Iridium power (no comms)	1+3
A2	17-Offboard-5	Freewave (no comms)	1+3
A3	27-485-BATT	Mass Shifter	1+3
A4	26-485-BATT	Variable Buoyancy	1+3
A5	24-485-BATT	Rudder	1+3
A6	25-485-BATT	Elevator	1+3
A7	15-485-BATT	Thruster	1+3
B0	Empty	-	-
B1	14-232-Batt-Discrete	ISUS	1+3
B2	23-232-12	Dissolved O2	1+3
B3	16-232-12	Puck	1+3
B4	22-232-5	CTD	1+3
B5	29-232-24	DVL (power only)	1+3
B6	21-TTL-3.3	Microstrain	1+3
B7	20-TTL-3.3	Sparton	1+3

4. Variable Buoyancy Valve Board

Connector	Connected
Shutoff Valve	
Pressure Switch	
VB EZSV23	
Batt Pwr	

- a. Pressure switch set at 100 psig

5. Shore Power DEMUX-MUX boards

a. DEMUX

- i. Two supply connections on positive board
- ii. One load connection on positive board
- iii. Two supply connections on negative board
- iv. One load connection on negative board
- v. Sense lines connected to positive and negative posts

b. MUX

- i. One positive connection
- ii. One negative connection
- iii. Six load connections to Ocean Servers

6. Battery Boards

- a. All connectors are verified installed and tight

7. Emergency Battery
 - a. Voltage: 12.756
 - b. New on 2010 / 08 / 29
8. NAL/GPS battery
 - a. Voltage _____
 - b. New on 2011/02/16
9. Mass Shifter stops
 - a. Aft at 9 5/8 inches
 - b. Fwd at 37 inches.
10. Iridium
 - a. col
 - b. tNe
11. Weights Installed Internally
 - a. Forward
 - i. None
 - b. Aft
 - i. None
12. Clean and inspect aft dome o-rings
13. Clean and inspect fwd dome o-rings
14. Clean and inspect bolt o-rings
15. Install new desiccant bags
16. Install PV tube
 - a. Verify water detect sensors touching inside surface of tube
 - b. Verify all internal wires are clear
 - c. Verify o-rings seat
17. Install Forward Dome
 - a. Make Amphenol connection
 - b. Torque bolts to 75 inch pounds
18. Draw vacuum
 - a. 8 inches Hg / _____ psi at 2010/12/10 1500
19. Batteries installed in external xpdrs
 - a. Pinger RJE
 - i. Model ULB-350/37

- ii. Serial DT16485
 - iii. Freq 37KHZ 1pps
 - iv. New Batteries on __2011/02/04__
- b. Transponder - Benthos
 - i. Model UAT-376(006199)
 - ii. Serial 498
 - iii. Rcv 26 KHz
 - iv. TX 29 KHz
 - v. Pressure tested to 1000 psi
 - vi. New Batteries on __2011/02/08__