

INDICATORS

COLLISION	GRN=NORMAL RED=COLLISION OCCURRED; NO ANTENNA DRIVE; PHYSICALLY CHECK ANTENNAS
COLLISION PROTECTION	GRN=CIRCUIT ON RED=CIRCUIT OFF
COMPUTER	GRN=ANTENNA DRIVE IN COMPUTER MODE RED=ANTENNA DRIVE IN MANUAL MODE
UL LIMIT/KEY	GRN=ALL SAFETY INTERLOCK CLOSED (NORMAL) RED=SAFETY INTERLOCK OPEN OR ON ULTIMATE LIMIT; NO ANTENNA DRIVE. IF ON ULTIMATE LIMITS, MUST BE DRIVEN OFF MANUALLY USING ANTENNA DRIVE CONTACTOR CONTROL BOX ULTIMATE LIMIT OVERRIDE
x SERVICE	GRN=NORMAL RED=IN SERVICE MODE. WATER PUMP CAN BE TURNED OFF FOR MAINTENANCE FOR 5 MINUTES WITHOUT LOSS OF POWER. WATER PRESSURE INDICATOR NORMAL WITH PUMP OFF.
x CAMERA	GRN=CAMERA FLAP IN SAFE CONDITION RED=UNSAFE; SUN DETECTED WITH FLAP OPEN. NO ANTENNA DRIVE.
AZIMUTH LIMIT	GRN=AZIMUTH PROXIMITY LIMIT OK RED=ON LIMIT; CAN BE OVERRIDDEN WITH MANUAL CONTROL BOX. CAN BE DRIVEN IN OPPOSITE DIRECTION WITHOUT OVERRIDE.
ELEVATION LIMIT	SAME AS AZIMUTH LIMIT
WATER PRESSURE	GRN=WATER PRESSURE NORMAL RED=FAULT, LOW PRESSURE, POWER SHUTDOWN IMMINENT TO HEATER, RECEIVER, CABIN ELECTRONICS.
CABIN POWER	GRN=NORMAL: CABIN POWER ON RED=CABIN POWER OFF
CABIN TEMP	GRN=TEMPERATURE NORMAL RED=OVER TEMPERATURE. STAYS RED UNTIL RESET EVEN IF NORMAL (FOR TROUBLE SHOOTING PURPOSE). TURNS OFF POWER TO HEATER, CABIN ELECTRONICS, AND RECEIVER.
RECEIVER TEMP	SAME AS CABIN TEMP

INDICATORS

SPARE TEMP

SAME AS CABIN TEMP

ELEVATION TEMP

GRN=NORMAL TEMPERATURE IN ELEVATION  
DRIVE BOX.

RED=HIGH TEMPERATURE, POWER SHUTDOWN TO  
BOTH DRIVES. CAN BE OVERRIDDEN WITH  
POWER OVERRIDE ON CONTROL BOX FRONT  
PANEL.

AZIMUTH TEMP

SAME AS ELEVATION TEMP

CONTROL BOX FRONT PANEL

MANUAL CONTROLS

WATERPUMP SERVICE	P.B.	ACTIVATES DELAY (5 MIN) OF POWER SHUTDOWN DUE TO LOSS OF WATER PRESSURE TO FACILITATE MAINTENANCE ON CHILLER WATER PUMP. PROTECTION CIRCUIT REACTIVATED AT END OF DELAY.
OVERTEMP RESET	P.B.	1. RESETS RED TEMPERATURE LEDS; FOR CABIN, RECEIVER, SPARE, ELEVATION AND AZIMUTH DRIVES. RED LEDS LATCHED TILL RESET EVEN IF TEMPERATURE RETURNS TO NORMAL, FOR TROUBLE SHOOTING PURPOSES 2. RESETS POWER ON IF ALL CONDITIONS ARE NORMAL 3. RESETS WATER PRESSURE DELAY FOR POWER UP (7 SEC).
POWER OVERRIDE	P.B.	OVERRIDE THERMAL SHUTDOWN OF ANTENNA DRIVE MOTOR DRIVERS
COLLISION TEST	P.B.	TEST ALL CONNECTED ANTENNA'S COLLISION CIRCUIT
COLLISION PROTECTION ON/OFF	SW	ON/OFF OF COLLISION PROTECTION CIRCUIT. UP=OFF ?
MOTOR CONTROL COMPUTER/MANUAL	SW	SELECT MANUAL OR COMPUTER CONTROL OF DRIVE MOTOR. UP=COMPUTER
MOTOR CONTROL KEY	KEY	OPENS OR CLOSE ANTENNA DRIVE SAFETY INTERLOCK SYSTEM. OFF AND KEY OUT TO INSURE SAFETY. NO ANTENNA DRIVE. NO BYPASS OR OVERRIDE!

*red LED's latched on; ?*

<u>STATUS BIT</u>	<u>STATE</u>	<u>FUNCTION</u>
01	0=OK 1=FAULT	<u>ULTIMATE LIMIT (ELEVATION)</u> OFF LIMIT ON LIMIT. MANUALLY DRIVE ANTENNA WITH ANTENNA DRIVE CONTACTOR CONTROL ULTIMATE LIMIT OVERRIDE. CAN ONLY BE DRIVEN IN OPPOSITE DIRECTION
02	0=OK 1=FAULT	<u>AZIMUTH LIMIT</u> OFF LIMIT ON LIMIT; CAN DRIVE IN OPPOSITE DIRECTION
03	0=ON	<u>COLLISION PROTECTION</u> SWITCH ON
04	0=OK 1=FAULT	<u>WATER PRESSURE</u> NORMAL LOW WATER PRESSURE; POWER TURN OFF HEATER, RECEIVER, CABIN ELECTRONIC, WATER PUMP. VISUALLY CHECK WATER SYSTEM BEFORE ATTEMPTING POWER UP WITH RESET PB
05	0=OK 1=FAULT	<u>KEY</u> : ULTIMATE LIMITS NORMAL, KEY ON, ALL INTERLOCK SWITCHES IN OPERATING POSITION TO DRIVE ANTENNA NO ANTENNA DRIVE; ON ULTIMATE LIMIT OR KEY OFF OR SAFETY INTERLOCK OPEN, VISUALLY CHECK SYSTEM
06	0=OK 1=FAULT	<u>ULTIMATE LIMIT AZIMUTH</u> OFF LIMIT ON LIMIT. MANUALLY DRIVE ANTENNA WITH ANTENNA DRIVE CONTACTOR CONTROL ULTIMATE LIMIT OVERRIDE. CAN ONLY BE DRIVEN IN OPPOSITE DIRECTION
07	0=OK 1=IN SERVICE	<u>SERVICE</u> : NORMAL OPERATION MAINTENANCE PERSONNEL WORKING ON WATER PUMP OR CHILLER FOR 5 MINUTES
08	0=OK 1=FAULT	<u>ELEVATION LIMIT</u> OFF LIMIT ON LIMIT; CAN DRIVE IN OPPOSITE DIRECTION
09	0=OK 1=COLLISION OCCURRED	NORMAL: NO <u>COLLISION</u> PHYSICALLY CHECK ANTENNAS, ANTENNA DRIVE DISABLED, PUT IN MANUAL MODE, TURN OFF COLLISION PROTECTION CIRCUIT; MOVE ANTENNA WITH MANUAL CONTROL BOX.
10	0=MAN 1=COMP	<u>MANUAL</u> ANTENNA DRIVE CONTROL <u>COMPUTER</u> ANTENNA DRIVE CONTROL
11	1=OK 0=FAULT	<u>SPARE 1 TEMP</u> NORMAL HIGH TEMPERATURE, TURN OFF POWER TO HEATER, RECEIVER, CABIN ELECTRONICS

*azimuth too?**computer  
has more  
info than  
panel.*

- 12      1=OK      CABIN TEMPERATURE NORMAL  
          0=FAULT      HIGH TEMPERATURE, TURN OFF POWER TO HEATER,  
                               RECEIVER, CABIN ELECTRONICS
  
- 13      1=OK      RECEIVER TEMPERATURE NORMAL  
          0=FAULT      HIGH TEMPERATURE, TURN OFF POWER TO HEATER,  
                               RECEIVER, CABIN ELECTRONICS
  
- 14      1=OK      ELEVATION DRIVE BOX TEMPERATURE NORMAL  
          0=FAULT      HIGH TEMPERATURE, TURNS OFF POWER TO BOTH  
                               DRIVE. CAN TEMPORARY OVERRIDE USING CONTROL  
                               BOX FRONT PANEL POWER OVERRIDE TO MOVE  
                               ANTENNA
  
- 15      1=OK      CAMERA FLAP POSITION SAFE  
          0=FAULT      CAMERA FLAP POSITION NOT SAFE, ANTENNA  
                               CAN NOT BE DRIVEN
  
- 16      1=OK      AZIMUTH DRIVE BOX TEMPERATURE NORMAL  
          0=FAULT      HIGH TEMPERATURE, TURNS OFF POWER TO BOTH  
                               DRIVE. CAN TEMPORARY OVERRIDE USING CONTROL  
                               BOX FRONT PANEL POWER OVERRIDE TO MOVE  
                               ANTENNA
  
- 17      1=OK      CABIN POWER ON  
          0=FAULT      POWER TURN OFF IMMINENT TO HEATER, CABIN  
                               ELECTRONICS, RECEIVER
  
- 18                      CAMERA FLAP OPEN
  
- 19                      DATA 19 (SPARE)
  
- 20                      DATA 20 (SPARE)
  
- 21                      DATA 21 (SPARE)
  
- 22                      DATA 22 (SPARE)
  
- 23                      DATA 23 (SPARE)

*closed  
or  
open + dark*

*cannot tell if camera flap has closed  
until dark.*