CH 4B(2B) ECU/BGA/SAW ACTIVATION

1. PROVIDE POWER INPUTS TO ECU

PCS P6: EPS: BGA 4B(2B)

BGA 4B(2B)

'RPCM 4B(2B) A'

sel RPC 01
cmd Close
√Position - Cl

2. PROVIDE REDUNDANT POWER INPUTS TO ECU

'RPCM 2B(4B) A'

sel RPC 02
cmd Close
√Position - Cl

3. SAW COMMAND CLEAR

'ECU 4B(2B)'

sel SAW FIRMWARE
cmd Clear

4. BGA COMMAND CLEAR

sel BGA FIRMWARE
cmd Clear

5. VERIFY ECU PWR SUPPLY TEMPS, VOLTAGE, AND INTEG COUNTER STATUS

√SAW PS Voltage: 110 --- 129 Vdc
√SAW PS Temp: -42 --- 71° C
√SAW Integ Counter - incrementing

√BGA PS Voltage: 110 --- 129 Vdc
√BGA PS Temp: -42 --- 71° C
√BGA Integ Counter - incrementing

6. VERIFY SAW MDA TEMPERATURES ARE WITHIN NOMINAL RANGES

P6: EPS: SAW 4B(2B) Deploy/Retract

SAW 4B(2B) Deploy/Retract

'LBB'

√MDA Temp, deg C: -42 --- 71° C

'RBB'

√MDA Temp, deg C: -42 --- 71° C

'Mast'

√MDA Temp, deg C: -42 --- 71° C

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**************************************************
*  If any value out of expected range            *
*       Determine new Beta Gimbal angle to       *
*         support out-of-temp range correction   *
*         prior to SAW Deploy.                   *
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7. VERIFY BLIND MODE SET TO NULL

P6: EPS: BGA 4B(2B)

BGA 4B(2B)

'BGA 4B (2B)'

sel Mode

√Selected Blind Mode = Null

8. POSITION AND LOCK BETA GIMBAL

> NOTE
>
> The BGA controller will automatically control the Drive Motor and the Anti-Rotation Latch at Targeted Mode. Upon completion of the Targeted Mode executed, wait approximate 10 minutes to verify the parameters. Upon completion of the Beta Gimbal anti-rotation latch operation, the ECU will automatically command the BGA motor drive off.

P6: EPS: ECU/BGA 4B(2B)

ECU/BGA 4B(2B)

'BGA 4B (2B)'

sel Mode
Mode Safe/Lock
set Commanded Angle, deg: 90 (270)
set Latch Select = Latch 1
cmd Safe Lock

PARAMETER	INITIAL→	TRANSITION→ Approx tbd min	LATCHED
√Motor Velocity, deg/min	0	± 4.05	0
√Motor Current, Amps	0	± 0.025 ± 5% TBD	0
√Cal PID Current, Amps	0	± 0.025 ± 5% TBD	0
√Resolver Position, deg	0	0 --- 90(270)	90(270)
√Latch Current, Amps	0	-0.6 --- 3.6	0
√Latch 1 Position	Latched	Unlatched	Latched
√Latch 1 Voltage	0	15	0
√Latch 2 Position	Unlatched	Unlatched	Unlatched
√Latch 2 Voltage	0	15	0