CH 4B(2B) BATTERY CHARGING

1. <u>ENABLE BATTERY DISCHARGE CONTROL ALGORITHM</u>

PCS P6: EPS: ENERGY STORAGE 2B(4B)

ENERGY STORAGE 2B(4B)

‘BCDU 2B(4B)1,2’

sel Software
cmd Disch Cntl Inh Off - Arm
cmd Disch Cntl Inh - Off
√Disch Cntl Inh Stat - Off

2. <u>VERIFY FI CLOSED AND CONVERTER ON</u>

ENERGY STORAGE 2B(4B)

‘BCDU 2B(4B)1,2’

```
If in Eclipse
  | Verify FI - Op
  | Verify Converter - Off
  |
  | ***********************************************
  | *  If FI - Cl                                 *
  | *      sel FI                                 *
  | *     √FI Op Inh - Off                        *
  | *      cmd FI Op - Arm                        *
  | *      cmd FI - Op                            *
  | *                                             *
  | *  If Converter - On                          *
  | *      sel Converter                          *
  | *     √Cnvtr Pwr On Inh - Off                 *
  | *      cmd Cnvtr Pwr Off - Arm                *
  | *      cmd Cnvtr Pwr - Off                    *
  | *                                             *
  | *  Perform TBD Malfunction procedure.         *
  | ***********************************************
  |
  | Wait for transition to insolation.
  |
If in Insolation
  Verify FI - Cl
  Verify Converter - On
```

```
**********************************************
*  If FI - Op                                *
*      sel FI                                *
*    √FI Cl Inh - Off                        *
*      cmd FI Cl - Arm                       *
*      cmd FI - Cl                           *
*                                            *
*  If Converter - Off                        *
*      sel Converter                         *
*    √Cnvtr Pwr On Inh - Off                 *
*      cmd Cnvtr Pwr On - Arm                *
*      cmd Cnvtr Pwr - On                    *
*                                            *
*  Perform TBD Malfunction procedure.        *
**********************************************
```

√Converter - On
√FI - Cl
√FI Input Voltage ≥ 78.0 V
√FI Input Current ≥ 2.0 A
√Battery Voltage ≥ 78.0 V
√Battery Current ≥ 2.0 A

3. MONITOR FOR COMPLETION OF BATTERY CHARGING

NOTE
Battery charging may require four orbits. Charging is considered complete when SOC has reached or exceeded 100%.

PARAMETER	INSOLATION	ECLIPSE
'BCDU 2B(4B)1,2'		
SOC%	0% --- 100%	0% --- 100%
Converter	On	Off
FI	Cl	Op
Primary Current	2.0 --- 30.0 A	~0.0 A
FI Input Voltage	78.0 --- 130.0 V	~0.0 V
FI Input Current	2.0 --- 30.0 A	~0.0 A
Battery Voltage	78.0 --- 130.0 V	78.0 --- 130.0 V
Battery Current	2.0 --- 30.0 A	~0.0 A
'BATT 2B(4B)11,12'		
Avg Temp	0 --- 10° C	0 --- 10° C
Avg Press	5 --- 6890 kPa	5 --- 6890 kPa
Vbus	38.0 --- 60.0 V	38.0 --- 60.0 V