

EMERGENCY CSM/LV SEPARATION

IF POWERED FLT

TRANS CONTR - CCW (4 SEC)

MN BUS TIES - ON

TVC SERVO PWR 1 - AC1/MNA

TVC SERVO PWR 2 - AC2/MNB

BMAG MODE (3) - ATT 1/RATE 2

GMBL MTRS (4) - ON

ΔV THRUST A - NORMAL

DIR ULLAGE & THRUST ON PB - PUSH

SPS BURN (5 SEC) - THEN ΔV THRUST (2) - OFF

LV

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IF COASTING FLT

cb SECS ARM (2) (Pn1 8) - CLOSE

SECS LOGIC (2) - ON

SECS PYRO ARM (2) - ARM

ROT CONTR PWR DIR (2) - MNA/MNB

SC CONT - SCS

SEPARATE FROM LV AS APPLICABLE -

IF BEFORE DOCKING, THC CCW (4 SEC)

IF DOCKED, UMBIL NOT CONNECTED,
CSM/LM FINAL SEP (2) - ONIF DOCKED, UMBIL CONNECTED, *cb SCS/LM sep close (verify)* SIVB/LM SEP - ON

TRANSLATE AWAY FROM LV & MANEUVER TO BURN ATTITUDE

 Δ VCG - CSM OR LM/CSM AS APPLICABLE

MN BUS TIE (2) - ON

TVC SERVO PWR 1 - AC1/MNA

TVC SERVO PWR 2 - AC2/MNB

BMAG MODE (3) - ATT1/RATE 2

GMBL MTRS (4) - ON

 Δ V THRUST A - NORMAL

DIR ULLAGE & THRUST ON PB - PUSH

SPS BURN (5) SEC - THEN Δ V THRUST (2) - OFF

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SUIT COMPRESSOR LITE - CLOSED SUIT LOOP

SWITCH TO OTHER COMPRESSOR ON OTHER BUS
SEE ECS 9

O2 FLOW HI + RAPID LOSS OF SURGE TK PRESS
+ CABIN PRESS <4.6 PSI

CABIN PRESS RELF v1vs (2) - CLOSE
✓TUNNEL EQUALIZATION v1v - CLOSED
REPRESS PKG v1v - ON (WHEN SURGE TK PRESS <150 PSI)
✓EMERG CABIN PRESS REGS - BOTH
DON SUITS

CONTAMINATION IN CM

DON O2 MASKS

CONTAMINATION IN CLOSED SUIT LOOP

CHANGE TO OTHER SUIT COMPR
DIRECT O2 v1v - FULL OPEN THEN ADJUST FOR SUIT
TO CABIN ΔP OF 2 IN OF H2O

IF CONDITION PERSISTS

SUIT COMPR (2) - OFF
DOFF HELMETS
DIRECT O2 v1v - CLOSE
DON O2 MASKS

FIRE/SMOKE IN CM

MONITOR DC FOR HI CURRENT - REMOVE POWER
FROM ASSOCIATED INVERTER
IF CURRENT REMAINS HI - REMOVE POWER FROM
ASSOCIATED DC BUS
IF CLOSED SUIT LOOP, SWITCH SUIT COMPR TO GOOD AC BUS
IF HELMET OFF, SUIT COMPR (2) - OFF
RECONFIGURE INVERTER 3 ON LOST AC BUS
VERIFY RCS CONTROL POWER CONFIGURATION
IF HELMETS OFF { DON O2 MASKS
 { USE FIRE EXTINGUISHER OR H2O GUN (OPTIONAL)
IF CLOSED SUIT LOOP { USE FIRE EXTINGUISHER OR H2O GUN (OPTIONAL)
 { ✓ EMERG CABIN PRESS REGS - OFF
 { IF FIRE PERSISTS - DUMP CABIN

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ECS, CRITICAL
BURNS (OVER)

G&N CRITICAL BURNS

IF NO START OR ISS LITE + PROG LITE
 IF CMC LITE, PROG ALARM 1407 OR EARLY CUTOFF

SCS TVC (2) - AUTO

SC CONT - SCS

✓ ATTITUDE

SPS THRUST - DIRECT (MOMENTARY), IF REQ'd

IF ABNORMAL DYNAMICS

THC CW, control rates by MTVC

After SHUTDOWN, AUTO RCS (16) - OFF

SCS CRITICAL BURN

IF NO START OR EARLY CUTOFF

SPS THRUST - DIRECT (MOMENTARY)

IF RATE NEEDLE HARDOVER & FDAIs DIVERGE OPPOSITE

BMAG MODE (3) - RATE 1

THC - CW, use MTVC

IF ABNORMAL DYNAMICS IN AUTO MODE

THC - CW, use MTVC

BMAG MODE (3) - RATE 2

IF ABNORMAL DYNAMICS IN MTVC MODE

THC - CW

IF PROBLEM PERSISTS, SHUTDOWN

AUTO RCS (16) - OFF

CRITICAL BURNS

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SPS

IF NO CUTOFF AFTER ΔV THRUST (BOTH) - OFF

cb SPS PILOT VLVS - open

IF EMS & N40 (R3) STILL COUNTING AFTER SHUTDOWN

SC CONT - SCS

TRANS CONT PWR - OFF

cb DIR ULLAGE (2) - open

IF CONDITION PERSISTS, AUTO RCS SEL (16) - OFF

SM RCS PRPLNT (AFFECTED QUAD) - OFF

SPS PRESS LITE

CONTINUE CRITICAL BURN

IF FUEL & OX PRESS (BOTH) > 200 PSI

SPS HE v1vs (2) - OFF, THEN CONTROL MANUALLY
BETWEEN 170-200 PSI

IF FUEL/OX ΔP > 20 PSI

SPS HE v1vs (2) - ON

IF CONDITION PERSISTS, SPS HE v1vs(2)-OFF(Until Pc < 70)

G&C (COASTING, ENTRY)

CMC LITE

SC CONT - SCS

SEE G&N 5

ISS LITE + PROG ALARM LITE

SC CONT - SCS

SEE G&N 6

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EMERGENCY POWER DOWN

CAUTION: USE BATTS ONLY WHEN MAIN BUS VOLTS < 24.5

CONFIGURE FOR USE OF AUX BATTERY

FUEL CELL 2 MNA & MNB (2) - OFF
 cb CRYO O2 ISOL/AUX BAT - CLOSE (Pnl 226)
 SM PWR SOURCE - AUX BAT (mom) (Pnl 278)
 O2 TANK 3 ISOL - CLOSE (✓TB-bp) (Pnl 278)
 FUEL CELL 2 MN A(B) - as desired

	<u>DC AMPS</u>
INSURE DSE IS RECORDING	
IF UNSUITED, SUIT COMP (2) - OFF	4.0
FC PUMPS (3) - OFF (Until Tskin > 475°F)	8.7 TOTAL
cb G&N OPTICS MNA & MNB (2)- OPEN (Pnl 5)	3.1
G&N PWR (AC) - OFF (Pnl 5)	0.9
O2 HTRS (3) - OFF (CTR)	17.0
H2 HTRS (2) - OFF (CTR)	1.4 EA
H2 FANS (3) - OFF (CTR)	1.0
C/W NORMAL - ACK	
LM PWR - RESET - OFF	15.0 MAX
ECS RAD HTRS (2) - OFF	17.2 EA
POT H2O HTR - OFF	1.6 MAX
SM RCS HTRS (4) - OFF	3.3 MAX
HGA PWR - OFF	2.9
LIGHTS - Min Req'd	5.3 MAX
EXT LTS - OFF	4.6
NON ESS BUS - OFF (SPS Burn-Damage SIM CAM)	4 - 6
VHF RANGING - OFF	1.4
S BD AUX TV - OFF (CTR)	5.3
SPS LINE HTR - OFF (CTR)	6.2 (A/B)
RNDZ XPNDR PWR - OFF or HEATER (Pnl 100)	3.0
SIG CONDR/DRIVER BIAS PWR (2) - OFF	
SECURE ONE BMAG	2.6
SELECT SINGLE JET CONTROL	
EMS FUNC - OFF	
RHC PWR DIRECT (2) - OFF	
THC PWR - OFF	
CONFIGURE FOR SINGLE INVERTER OPERATION	
TURN OTHER INVERTER OFF	4.0 MAX
BAT CHGR - OFF	
NOTE MISSION TIME	
cb TIMERS (2) - OPEN (Pnl 229)	
AC INVERTER (9) - OFF	
CM RCS HTRS - OFF	
ISOLATE FAILED FC's from MAIN BUSES	

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ECS POWER DOWN	3.7 TOTAL
ECS GLY PUMP se1 - OFF (ISS LIMIT 2.5 HRS)	2.6
ECS RAD FLOW CONT PWR - off (CTR)	0.7
GLY EVAP TEMP IN - MAN	
ECS RAD HTRS (2) - OFF	
GLYCOL EVAP H2O FLOW - OFF	~0.1
GLYCOL EVAP STEAM PRESS - MAN	~0.2

COMM POWER DOWN	13.0 TOTAL
IF VOICE DESIRED	
UP TLM CMD RESET - RESET then OFF	
S-BD AUX TAPE - DN VOICE BU	
S-BD MODE PCM - OFF	
PCM BIT RATE - HIGH	
S-BD PWR AMP - OFF (CTR)	4.0
TAPE RCDR - OFF (CTR)	1.6
SCE PWR - OFF (CTR)	0.7
cb INSTR ESS MNA & MNB (2) - OPEN (Pn1 5)	4.9
TELCOM GRP 1 & 2 (2) - OFF	1.6

CMC/IMU POWER DOWN	6.0 IMU
COMPLETE ALIGNMENT TRANSFER	
CMC MODE - FREE	PROVIDES CMC MIN IMP
cb G&N IMU MNA & MNB (2) - OPEN (Pn1 5)	
V37E06E	3.0 CMC
F V50 N25, 00062, CMC PWR DN	
PRO, HOLD (~5 SEC) UNTIL STBY LT - ON	

SCS POWER DOWN	6.0
ACCEPTABLE S/C ATTITUDE	
BMAG PWR (2) - OFF	
FDAI/GPI PWR - OFF	PROVIDES MIN IMP
SCS ELECTRONICS PWR - ECA	(REQUIRES ACT1 & MNB)
ORDEAL PWR & LIGHTING - OFF	
cb SCS LOGIC BUS (4) - OPEN (Pn1 8)	2.0
SCS ELECTRONICS PWR - OFF	
RHC PWR NORM (2) - OFF	

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LAUNCH BUS LOSS

MN BUS A LOST - LAUNCH

EDS AUTO/OFF - OFF
TVC GMBL DR (P,Y) - 2
SCS TVC (P,Y) - RATE CMD
BMAG MODE (3) - RATE 2
FDAI SEL - 2
cb SPS PITCH 2 & YAW 2 (Pn1 8) - OPEN
(AFTER GIMBAL MOTORS ON)

AC INV 3 - MNB
AC INV 3 AC 1 - ON
AC INV 1 AC 1 - OFF
A11 F/C MNA - OFF
ALL F/C MNB - MNB (BEFORE CM/SM SEP)
cb MNA BAT BUS A (Pn1 275) - OPEN
cb MNB BAT C (Pn1 275) - CLOSED

MN BUS B LOST - LAUNCH

EDS AUTO/OFF - OFF
TVC GMBL DR (P,Y) - 1
SPS TVC (P,Y) - RATE CMD
/BMAG MODE (3) - RATE 1
FDAI SEL - 1
cb SPS PITCH 1 & YAW 1 (Pn1 8) - OPEN
(AFTER GIMBAL MOTORS ON)

AC INV 3 - MNA
AC INV 3 AC 2 - ON
AC INV 2 AC 2 - OFF
A11 F/C MNB - OFF
A11 F/C MNA - MNA (BEFORE CM/SM SEP)
cb MNB BAT BUS B (Pn1 275) - OPEN
cb MNA BAT C (Pn1 275) - CLOSED

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AC BUS 1 LOST - LAUNCH

BMAG MODE (3) - RATE 2
FDAI SEL - 2
TVC SERVO PWR 1 - AC2/MNB
SCS TVC PITCH, YAW - RATE CMD

AC INV 1 MNA - OFF
SUIT COMPR - AC 2
ECS GLY PUMP - AC 2
S BD NORM XPNDR - SEC
S BD NORM PWR AMP - SEC

AC BUS 2 LOST - LAUNCH

✓BMAG MODE (3) - RATE 1
FDAI SEL - 1
TVC SERVO PWR 2 - AC1/MNA
MTVC WITH THUMBWHEELS (MODE III OR IV)

AC INV 2 MNB - OFF
✓SUIT COMPR - AC 1
✓ECS GLY PUMP - AC 1

BAT BUS A LOST - LAUNCH

EDS AUTO/OFF - OFF
AUTO RCS SEL (RING 1) - OFF
IF BUS LOST BEFORE GMBL MTRS ON
TVC GMBL DR (P,Y) - 2
cb SPS P2 & Y2 (Pn1 8) - OPEN
(AFTER SEC GIMBAL MOTORS ON)
cb MNA BAT C (Pn1 275) - CLOSED

BAT BUS B LOST - LAUNCH

EDS AUTO/OFF - OFF
AUTO RCS SEL (RING 2) - OFF
IF BUS LOST BEFORE GMBL MTRS ON
TVC GMBL DR (P,Y) - 1
cb SPS P1 & Y1 (Pn1 8) - OPEN
(AFTER PRI GIMBAL MOTORS ON)
cb MNB BAT C (Pn1 275) - CLOSED

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SPS BURN BUS LOSS

MN BUS A LOST - SPS BURN

TVC GMBL DR (P,Y) - 2
■ SCS TVC (P,Y) - RATE CMD
cb SPS P2 & Y2 (Pn1 8) - OPEN
(CRIT BURNS - AFTER GMBL MTRS ON)
FDAI SEL - 2
✓FDAI SOURCE - CMC
RHC PWR DIRECT 2 - MNB
BMAG MODE (3) - RATE 2
✓ΔV THRUST B - NORM
AUTO RCS SEL - MNB

AC INV 3 - MNB
AC INV 3 AC 1 - ON
AC INV 1 AC 1 - OFF
A11 F/C MNA - OFF
ALL F/C MNB - MNB
cb MNA BAT BUS A (Pn1 275) - OPEN

MN BUS B LOST - SPS BURNS

SCS TVC (P,Y) - RATE CMD
TVC GMBL DR (P,Y) - 1
cb SPS P1 & Y1 (Pn1 8) - OPEN
(CRIT BURNS - AFTER GMBL MTRS ON)
FDAI SEL - 1
✓FDAI SOURCE - CMC
RHC PWR DIRECT 1 - MNA
BMAG MODE (3) - RATE 1
■ ✓ΔV THRUST A - NORM
AUTO RCS SEL - MNA

AC INV 3 - MNA
AC INV 3 AC 2 - ON
AC INV 2 AC 2 - OFF
A11 F/C MNB - OFF
A11 F/C MNA - MNA
cb MNB BAT BUS B (Pn1 275) - OPEN

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AC BUS 1 LOST - SPS BURNS

TVC SERVO PWR 1 - AC2/MNB
SCS TVC (P&Y) - RATE CMD
BMAG MODE (3) - RATE 2
FDAI SEL - 2
✓FDAI SOURCE - CMC

AC INV 1 MNA - OFF
SUIT COMPR - AC 2
ECS GLY PUMP - AC 2
S BD NORM XPNDR - SEC
S BD NORM PWR AMP - SEC
SPS GAUGING - AC 2

AC BUS 2 LOST - SPS BURNS

TVC SERVO PWR 2 - AC1/MNA
BMAG MODE (3) - RATE 1
SCS TVC (P&Y) - AUTO
ΔVCG - LM/CSM
MTVC WITH TRIM THUMBWHEELS (SCS BURN ONLY)
FDAI SEL - 1
✓FDAI SOURCE - CMC

AC INV 2 MNB - OFF
✓SUIT COMPR - AC 1
✓ECS GLY PUMP - AC 1

BAT BUS A LOST - SPS BURNS

TVC GMBL DR (P,Y) - 2
(IF BUS LOST BEFORE GMBL MTRS ON)
cb SPS P2 & Y2 (Pn1 8) - OPEN
(CRIT BURNS - AFTER GMBL MTRS ON)
cb MNA BAT C (Pn1 275) - CLOSED

BAT BUS B LOST - SPS BURNS

TVC GMBL DR (P,Y) - 1
(IF BUS LOST BEFORE GMBL MTRS ON)
cb SPS P1 & Y1 (Pn1 8) - OPEN
(CRIT BURNS - AFTER GMBL MTRS ON)
cb MNB BAT C (Pn1 275) - CLOSED

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ENTRY BUS LOSS

MN BUS A LOST - ENTRY

BMAG MODE (3) - RATE 2
FDAI SEL - 2
✓FDAI SOURCE - CMC
AUTO RCS SEL (12) - MNB (ONLY IF BUS LOST AFTER SM SEP)

AC INV 3 - MNB
AC INV 3 AC 1 - ON
AC INV 1 AC 1 - OFF
A11 F/C MNA - OFF
ALL F/C MNB - MNB (BEFORE CM/SM SEP)
cb MNA BAT BUS A (Pn1 275) - OPEN
cb MNB BAT C (Pn1 275) - CLOSED

MN BUS B LOST - ENTRY

BMAG MODE (3) - RATE 1
FDAI SEL - 1
✓FDAI SOURCE - CMC
AUTO RCS SEL (12) - MNA (ONLY IF BUS LOST AFTER SM SEP)

AC INV 3 - MNA
AC INV 3 AC 2 - ON
AC INV 2 AC 2 - OFF
A11 F/C MNB - OFF
A11 F/C MNA - MNA (BEFORE CM/SM SEP)
cb MNB BAT BUS B (Pn1 275) - OPEN
cb MNA BAT C (Pn1 275) - CLOSED

AC BUS 1 LOST - ENTRY

BMAG MODE (3) - RATE 2
FDAI SEL - 2
✓FDAI SOURCE - CMC

AC INV 1 MNA - OFF
SUIT COMPR - AC 2
ECS GLY PUMP - AC 2
S BD NORM XPNDR - SEC
S BD NORM PWR AMP - SEC

AC BUS 2 LOST - ENTRY

BMAG MODE (3) - RATE 1
FDAI SEL - 1
✓FDAI SOURCE - CMC

AC INV 2 MNB - OFF
✓SUIT COMPR - AC 1
✓ECS GLY PUMP - AC 1

BAT BUS A LOST - ENTRY

cb SCS B/D ROLL, P&Y (MNA) (3) (Pn1 8)
Before CM/SM SEP - OPEN
After RCS transfer to CM - CLOSE
cb SCS CONTR/AUTO (2) (Pn1 8) - OPEN
(AFTER APEX COVER JET)
cb MNA BAT C (Pn1 275) - CLOSED

BAT BUS B LOST - ENTRY

cb SCS B/D ROLL, P&Y (MNB) (3) (Pn1 8)
Before CM/SM SEP - OPEN
After RCS transfer to CM - CLOSE
cb SCS CONTR/AUTO (2) (Pn1 8) - OPEN
(AFTER APEX COVER JET)
cb MNB BAT C (Pn1 275) - CLOSED

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ALL FC'S DISCONNECTED - POWERED FLT
ATTEMPT FC RECONNECT (ONE BUS AT A TIME)

IF RECONNECT NOT SUCCESSFUL

FC 1 - MN B
FC 2 - MN B
FC 3 - MN A

IF STILL NO SUCCESS

SCE PWR - AUX
EDS AUTO/OFF - OFF
cb MNA BAT C (Pn1 275) - CLOSED
cb MNB BAT C (Pn1 275) - CLOSED

AC BUS OVERLD + AC BUS + MN BUS UNDER V LITES
AFFECTED AC BUS - OFF (REASON - AC BUS SHORT)

FC 1 (2,3) LITE
VERIFY FC 1 (2,3) REAC tb - gray

IF tb BP

FC 1 (2,3) REAC v1v - OPEN (up)

IF tb STILL BP & REAC FLOW ~0

OPEN CIRCUIT FC 1 (2,3)

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SM RCS THRUSTER FAILED ON

BMAG MODE (3) - RATE 2
CHG TO OTHER SC CONT MODE
ROT CONT PWR DIR (2) - MNA/MNB
STOP SPACECRAFT RATES WITH DIRECT RCS
AUTO RCS SEL (16) - OFF

IF CONDITION PERSISTS

AUTO RCS SEL (16) - ON (AS REQ'D)
MAN ATT (3) - ACCEL CMD
STOP SPACECRAFT RATES
cb SCS DIR ULL (2)(Pn1 8) - open
ROT CONT PWR DIR (2) - OFF

IF CONDITION PERSISTS

NEUTRALIZE RHC
SM RCS PRPLNT (AFFECTED QUAD) - OFF

SM RCS LITE

SM RCS HE (2) - CLOSE
SEE RCS 1

SM RCS QUAD SECURE

SM RCS He 1 & 2 (AFFECTED QUAD) (2) - CLOSE
SM RCS PRIM PRPLNT (AFFECTED QUAD) - CLOSE
Fire one jet in affected quad - 2 sec continuously
AUTO RCS SELECT (AFFECTED QUAD) (4) - OFF (except BOOST)

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CM RCS FAILS TO PRESSURIZE OR FEED PRPLNT

CM RCS

IF NO PRESSURIZATION

✓cb EPS BAT BUS (2) (Pn1 229) - CLOSE
✓cb PYRO A/B SEQ A/B (2) (Pn1 250) - CLOSE
✓cb SECS ARM (2) (Pn1 8) - CLOSE
✓SECS PYRO ARM (2) - ARM
✓SECS LOGIC (2) - ON
CM RCS - PRESS

IF NO RCS PRPLNT FEED

✓cb EPS GRP 1 & 3 (Pn1 229) - CLOSE
✓cb SM RCS HTR A&B (Pn1 8) - CLOSE
✓cb RCS PRPLNT ISOL (2) (Pn1 8) - CLOSE
CM RCS PRPLNT - ON

IF STILL NO FEED

cb EPS GRP 5 (Pn1 229) - CLOSE
cb RCS LOGIC (2) (Pn1 8) - CLOSE
CM RCS LOGIC - ON
CM PRPLNT - DUMP MOMENTARILY, THEN OFF

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V05 N09 ALARM CODES

- 00110 Mark reject has been entered but ignored
Continue
- 00113 No inbits (chan 16)
Continue: if alarm recurs use MDC DSKY.
- 00114 More marks made than desired
Continue
- 00115 V41 N91 keyed with OPTICS MODE not in CMC
OPTICS MODE - CMC and OPTICS ZERO - OFF
- 00116 Optics switch altered before 15 sec zero time elapsed
OPTICS ZERO - ZERO (15 sec).
- 00117 V41 N91 keyed but CMC has reserved OCDU (from start of gimbal test in P40 until termination of TVC functional allocation of the "optics" CDU Driving Output)
V41 N91 not yet available
- 00120 Optics torque has been requested but optics have not been zeroed since last FRESH START or RESTART
OPTICS ZERO - OFF then ZERO (15 sec).
- 00121 In 0.05 sec following mark, an ICDU changed by more than 0.033°
Repeat MK.
- (m)00205 PIPA saturated
Use SCS control (G&N 12).
- 00206 The IMU zero routine has been entered with both the GMBL LOCK 1t and NO ATT 1t on
Coarse align to 0,0,0 Reselect V40E.
- (m)00207 ISS turn-on request not present for 90 sec
Redo IMU turn on (G&N 12).
- (m)00210 The IMU is not operating
Redo IMU turn on. If alarm recurs perform fresh start (V36E).
Consult MSFN. (G&N 12).

- (m)00211 Coarse align error
If P51(3)/52(4) in progress record gyro
torquing angles and perform fine align
check in P52(4)
Otherwise, see G/1-24. (G&N 12).
- (m)00212 PIPA fail, but PIPA is not being used
PIPA BIAS check (G&N 6/8).
- (m)00213 IMU not operating with turn-on request
See 00210
- 00214 Program using IMU when turned OFF
See 00210 or exit program.
- (m)00217 IMU coarse align or pulse torque
difficulty has occurred
If code 211 also, perform 211 cure only
Reinitiate current program.
If alarm recurs, terminate use of
ISS (G&N 12).
- 00220 IMU orientation unknown
Align or if aligned set REFSMMAT flag
- 00401 Desired middle gimbal angle is excessive
Call N22 - maneuver if MGA < 85° or
realign IMU.
- 00402 Second MINKEY pulse torque must be done.
- 00404 Target out of view (90 deg test)
(G/3-7,3-11,6-3,7-16)
- 00405 Acceptable star pair is not available
(G/6-3,6-6)
- 00406 Rend navigation not operating
Select P20 Opt. 0 or 4 or continue.
- 00421 W-matrix overflow
Notify MSFN but continue.
W-matrix automatically reinitialized at
next mark.
- 00600 No solution on first iteration in P31 or
P32/72
(G/4-6,4-8)
- 00601 Post CSI Perigee/lune alt <85nm/ 5.8nm
(G/4-6, 4-8)
- 00602 Post CDH Perigee/lune alt <85nm/ 5.8nm
(G/4-6, 4-8)
- 00603 Time from TIG (CSI) to TIG (CDH)
<10 min
(G/4-6, 4-8)

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- 00604 Time from TIG (CDH) to TIG (TPI)
<10 min
(G/4-6,4-8)
- 00605 Number of iterations exceeds loop
maximum
(G/4-6,4-8,4-15,4-16)
- 00606 ΔV (CSI) has been >1000 fps for last
two iterations
(G/4-6,4-8)
- 00611 No TIG for given ELEV angle
(G/4-10,4-12)
- 00612 State vector in wrong sphere of influence
at TIG
(G/4-15)
- 00613 Reentry angle out of limits
(G/4-16)
- (m)00777 ISS warning caused by PIPA fail
(G&N 6).
- 01102 CMC self test error
(G/2-3)
- (m)01105 Downlink too fast
Rset. If alarm recurs DOWNLINK FAILURE.
(G&N 12).
- (m)01106 Uplink too fast
Rset. If alarm recurs UPLINK FAILURE.
(G&N 12).
- (m)01107 Phase table failure-assume erasable
memory is destroyed
If Comm: 1. V74 CMC DOWNLINK
2. P27 As Necessary.
3. V48 As Necessary (V46).
4. Reestablish REFSMMAT via
P51 As Necessary.
If FRESH START recurs,
CMC FAILURE (SSR-3).
If no Comm, pg G/9-1
- 01301 Arcsin or arccos input is greater than
one
Notify MSFN, continue.
- (m)01407 VG increasing
(G&N 12).
- 01426 IMU unsatisfactory
Realign or use SCS.

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- 01427 IMU reversed
Note FDAI operation is inverted.
- 01520 V37 request not permitted at this time
Wait till COMP ACTY lt.
not on continuously - reselect V37 or if
P62-67, select P00 and then desired
program.
- 01600 Overflow in drift test
This is gnd test alarm only.
- 01601 Bad IMU torque abort
See 01600
- 01703 Insufficient time for integration.
TIG slipped
(G/5-3,5-16)
- (m)03777 ISS warning caused by ICDU fail
(G&N 6)
- (m)04777 ISS warning caused by ICDU & PIPA fail
(G&N 6)
- (m)07777 ISS warning caused by IMU fail
(G&N 6)
- (m)10777 ISS warning caused by IMU & PIPA
fail (G&N 6)
- (m)13777 ISS warning caused by IMU & ICDU fail
(G&N 6)
- (m)14777 ISS warning caused by IMU,ICDU & PIPA
fail
(G&N 6)
- **20430 Orbital integration has been
terminated to avoid possible
infinite loop.
Notify MSFN.
Probable S.V. uplink required
- **20607 No solution to conic subroutine
Reselect program.
- **20610 Alt at specified TIG in P37 < 400K ft
Reselect P37 and decrease TIG.
- **21204 Negative or zero time waitlist call.
If ave-g or ext. vb. on, continue.
Otherwise reselect program.
- **21206 Second job attempts to go to sleep via
keyboard and display program
See 21204.

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- **21210 Second attempt is made to stall
Reselect program
Do not attempt use of IMU while CMC is
using it.
- **21302 SQRT called with negative argument
See 21204
- **21501 Keyboard and display alarm during
internal use
See 21204
- **21502 Illegal flashing display
See 21204
- **21521 P01 selected and P11 has already been
performed
Select correct program
- *31104 Delay routine busy
Reselect extended verb or continue with
program.
Notify MSFN.
- *31201 Executive overflow - no vac area
Reselect Extended Verb and/or Continue
Program.
- *31202 Executive overflow - no core sets
See 31201
- *31203 Waitlist overflow - too many tasks
See 31201
- *31211 Illegal interrupt of extended verb
Reselect extended verb after optics
marking is completed.
(m) - Malf procedure indicated
**(2xxxx) - Generates restart (no lt), F37 (P00D00)
*(3xxxx) - Restart (no lt) and program
continues (i.e. attempted
recovery)(BAILOUT)
- NOTE - All **alarms act as *type if
they occur when Ave-g is on or
display type extended verb
is active.

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