

Mission Control Flight Engineer Switch Checklist Classroom

Version 2.15

The actual switch name is in **blue** following the command

COM	TIME	PROCEDURE	Notes
1	Launch Hold	<p>Cryogenic Oxygen System Check</p> <ul style="list-style-type: none"> • REACTION VALVE 1 to OPEN(RVLV1) • REACTION VALVE 2 to OPEN(RVLV2) • REACTION VALVE 3 to OPEN(RVLV3) <p>Cryogenic Hydrogen System Check</p> <ul style="list-style-type: none"> • REACTION VALVE 1 to OPEN(RVLV1) • REACTION VALVE 2 to OPEN(RVLV2) • REACTION VALVE 3 to OPEN(RVLV3) 	Mission Control works with Flight Engineer to set switches in launch configuration.
2	Launch Hold	<p>General Purpose Computer System Check</p> <ul style="list-style-type: none"> • GPC 1 to ON(GPS1) • GPC 2 to ON(GPS2) • GPC 3 to ON(GPS3) • GPC 4 to ON(GPS4) • GPC 5 to ON(GPS5) 	
3	Launch Hold	<p>AC Power Distribution System Check</p> <ul style="list-style-type: none"> • <i>Confirm</i> AC/DC TRANSFER SWITCH to GPC(AC/DC TRANSFER) • AC/DC TRANSFER SWITCH to AC (AC/DC TRANSFER) • DISTRIBUTION ASSEMBLY 1 to OPEN(DA1) • DISTRIBUTION ASSEMBLY 2 to OPEN (DA2) • DISTRIBUTION ASSEMBLY 3 to CLOSE(DA3) • POWER CONTROL ASSEMBLY 1 to OPEN(PCA1) • POWER CONTROL ASSEMBLY 2 to OPEN(PCA2) • POWER CONTROL ASSEMBLY 3 to CLOSE(PCA3) • AC/DC TRANSFER SWITCH to GPC(AC/DC TRANSFER) <p>Electrical AC BUS Check</p> <ul style="list-style-type: none"> • AC BUS 1 to OPEN(AC1) • AC BUS 2 to OPEN(AC2) • AC BUS 3 to CLOSE(AC3) 	

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4	Launch Hold	<p>DC Power Distribution System Check</p> <ul style="list-style-type: none"> • <i>Confirm</i> AC/DC TRANSFER SWITCH to GPC(AC/DC TRANSFER) • AC/DC TRANSFER SWITCH to DC (AC/DC TRANSFER) • <i>Confirm</i> DISTRIBUTION ASSEMBLY 1 to OPEN (DA1) • <i>Confirm</i> DISTRIBUTION ASSEMBLY 2 to OPEN (DA2) • <i>Confirm</i> DISTRIBUTION ASSEMBLY 3 to CLOSE (DA3) • <i>Confirm</i> POWER CONTROL ASSEMBLY 1 to OPEN (PCA1) • <i>Confirm</i> POWER CONTROL ASSEMBLY 2 to OPEN (PCA2) • <i>Confirm</i> POWER CONTROL ASSEMBLY 3 to CLOSE (PCA3) • AC/DC TRANSFER SWITCH to GPC(AC/DC TRANSFER) <p>Electrical DC BUS Check</p> <ul style="list-style-type: none"> • DC BUS 1 to OPEN(DC1) • DC BUS 2 to OPEN (DC2) • DC BUS 3 to CLOSE (DC3) 	<p>Mission Control <u>confirms</u> with Flight Engineer that these switches are properly configured.</p>
5	Launch Hold	<p>Reaction Control System</p> <p>Reaction Control System Isolation Valves – Helium Tank</p> <ul style="list-style-type: none"> • PRIMARY REGULATOR A to OPEN(Primary A) • SECONDARY REGULATOR A to OPEN (Secondary A) • PRIMARY REGULATOR B to OPEN(Primary B) • SECONDARY REGULATOR B to OPEN(Secondary B) <p>Reaction Control System Isolation Valves – Oxygen Tank</p> <ul style="list-style-type: none"> • OXYGEN OUTPUT TERMINAL to OPEN(O₂ Out Term) • ISOLATION VALVE for LEGS 1 and 2 to OPEN (Leg 1/2) • ISOLATION VALVE for LEGS 3,4 and 5 to OPEN (Leg 3/4/5) 	

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5	Launch Hold	<ul style="list-style-type: none"> • ISOLATION VALVE for MANIFOLD 1 to OPEN (Manifold 1) • ISOLATION VALVE for MANIFOLD 2 to OPEN(Manifold 2) • ISOLATION VALVE for MANIFOLD 3 to OPEN(Manifold 3) • ISOLATION VALVE for MANIFOLD 4 to OPEN(Manifold 4) • ISOLATION VALVE for MANIFOLD 5 to OPEN(Manifold 5) 	
6	Launch Hold	<p>Orbital Maneuvering System</p> <p>Oxidizer System Check</p> <ul style="list-style-type: none"> • OXIDIZER VAPOR ISOLATION VALVE 1 to OPEN(OVIV 1) • OXIDIZER VAPOR ISOLATION VALVE 2 to OPEN(OVIV 2) • OXIDIZER TANK ISOLATION VALVE A to OPEN(OTIV A) • OXIDIZER TANK ISOLATION VALVE B to OPEN(OTIV B) • OXIDIZER CROSSFEED VALVE A to OPEN(OCVA) • OXIDIZER CROSSFEED VALVE B to OPEN(OCV B) <p>Fuel System Check</p> <ul style="list-style-type: none"> • FUEL TANK ISOLATION VALVE A to OPEN(FTIV A) • FUEL TANK ISOLATION VALVE B to OPEN(FTIV B) • FUEL CROSSFEED VALVE A to OPEN(FCV A) • FUEL CROSSFEED VALVE B to OPEN(FCV B) <p>Gaseous Nitrogen System Check</p> <ul style="list-style-type: none"> • CONTROL VALVE 1 to OPEN(CV 1) • CONTROL VALVE 2 to OPEN(CV 2) 	

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7	Launch Hold	<p>All flight engineer switch panel settings are confirmed.</p> <p>Enterprise, you are go to initiate the pre-launch checklist</p>	<p>Flight Engineer begins "Pre- Launch Checklist"</p>
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