

## FALCON 2000 AIRCRAFT MAINTENANCE MANUAL

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### TASK 28-41-00-720-801 FUNCTIONAL TEST OF THE FUEL QUANTITY INDICATING SYSTEM

#### 1. OVERVIEW OF THE JOB

Operation codes:

- 28-41-00-720-801-01            LH indicator
- 28-41-00-720-801-02            RH indicator

NOTE: The minimum quantity of fuel must be 1500 lb approx., and the maximum quantity of fuel must be 3000 lb approx. in each tank group.

If necessary, perform a suction defueling (Refer to [TASK 28-30-00-650-801](#)).

Draining of fuel tanks by gravity (Refer to [TASK 28-30-00-680-801](#)) may be performed if suction defueling is not possible.

#### 2. LOGISTICS

##### A. References

Reference	Designation
• <a href="#">24-00-00-860-801</a>	ENERGIZATION / DE-ENERGIZATION OF THE AIRCRAFT
• <a href="#">28-22-00-650-801</a>	QUICK TRANSFER OF THE FUEL FROM ONE TANK TO ANOTHER
• <a href="#">28-30-00-650-801</a>	SUCTION DEFUELING
• <a href="#">28-30-00-680-801</a>	GRAVITY DEFUELING

##### B. Energy

- ELECTRICAL

##### C. Access

Reference	Designation
• <a href="#">PAX</a>	PASSENGER DOOR
• <a href="#">186CR</a>	FUELING CONNECTOR ACCESS DOOR
• <a href="#">186DR</a>	FUELING CONTROL PANEL ACCESS DOOR

#### 3. PRELIMINARY STEPS

Refer to [fig. 1](#) and [fig. 3](#)

- Connect the electrical ground power unit (Refer to [TASK 24-00-00-860-801](#), paragraph "Connection of the Electrical Ground Power Unit").
- Energize the aircraft systems (Refer to [TASK 24-00-00-860-801](#), paragraph "Energization with the Electrical Ground Power Unit").
- On overhead panel ([180PC](#)), set LH "BOOSTER" switch ([L503QD](#)) and RH "BOOSTER" switch ([R503QD](#)) to ON position (switch raised).
- Let fuel booster pumps ([L30QD](#))/([R30QD](#)) run for 5 minutes to fully fill the feeder.

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- E. Set LH "BOOSTER" switch (**L503QD**) and RH "BOOSTER" switch (**R503QD**) to OFF position (switch lowered).
- F. Open door (**186DR**) to gain access to refueling control panel (**140QS**).
- G. Open pressure fueling door (**186CR**).
- H. Depressurize the fuel tanks as follows:
  - (1) Raise the venting valve control lever (1).
  - (2) Wait a few seconds for the tanks to depressurize (hissing noise).
  - (3) On refueling control panel (**140QS**), check that the red "STOP FUELING" light (**140QS3**) is illuminated, and then extinguished as soon as the vent valves are fully open.
- I. On refueling control panel (**140QS**), make sure that the "FULL/PARTIAL" refueling switch is set to "FULL".

#### 4. TEST OF LH INDICATOR

Refer to **fig. 1** and **fig. 3**

- A. On refueling control panel (**140QS**), set "ON/OFF" RH refueling control switch to "ON" position.  
NOTE: RH electrical refueling valve (**R70QS**) opens.
- B. In the cockpit, perform the following operations:
  - (1) Set "DEFUELING" switch (**510QS**) to ON position (guard and switch raised) on maintenance panel (**500JT**).  
NOTE: Suction defueling valve (**10QD1**) opens.
  - (2) Set LH "BOOSTER" switch (**L503QD**) to ON position (switch raised).
  - (3) When the quantity of fuel is 1210 lb in the LH tank, stop the fuel transfer by setting "DEFUELING" switch (**510QS**) to OFF position.
  - (4) Wait for 2 minutes.
  - (5) Make sure the LH amber "LEVEL" light (**504QJ**) is not illuminated on overhead panel (**180PC**).
  - (6) Check for illumination of LH amber "LEVEL" light (**504QJ**).
    - (a) Resume the fuel transfer by setting "DEFUELING" switch (**510QS**) to ON position.
    - (b) Stop the fuel transfer when 100 lb are transferred, by setting "DEFUELING" switch (**510QS**) to OFF position.
    - (c) Wait for 2 minutes.
    - (d) If the LH amber "LEVEL" light (**504QJ**) is not illuminated, repeat the steps in paragraphs 4.B.(6)(a) to 4.B.(6)(c) until the LH amber "LEVEL" light is illuminated.  
NOTE: On EIED 2 (**40EA**), the fuel level should be 1000 ± 200 lb.
  - (7) Resume the fuel transfer by setting "DEFUELING" switch (**510QS**) to ON position.

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- (8) When the quantity of fuel is 360 lb in the LH tank, stop the fuel transfer by setting "DEFUELING" switch (**510QS**) to OFF position.
- (9) Wait for 2 minutes.
- (10) Make sure "LO FUEL 1" indicator light (**30WW46**) is not illuminated on warning panel (**30WW**), perform the following operations:
- (11) Check for illumination of "LO FUEL 1" indicator light (**30WW46**).
  - (a) Resume the fuel transfer by setting "DEFUELING" switch (**510QS**) to ON position.
  - (b) Stop the fuel transfer when 100 lb are transferred, by setting "DEFUELING" switch (**510QS**) to OFF position.
  - (c) Wait for 2 minutes.
  - (d) If the amber "LO FUEL 1" indicator light (**30WW46**) is not illuminated on warning panel (**30WW**), repeat the steps in paragraphs 4.B.(11)(a) to 4.B.(11)(c) until the amber "LO FUEL 1" indicator light is illuminated.
- (12) Set LH "BOOSTER" switch (**L503QD**) to OFF position (switch lowered).
- (13) Set "DEFUELING" switch (**510QS**) to OFF position (guard and switch lowered) on maintenance panel (**500JT**).

NOTE 1: On EIED 2 (**40EA**), the fuel level should be 250 ± 100 lb.

NOTE 2: Make sure that the remaining quantity of fuel is not less than 150 lb to avoid unpriming the engine and APU supplies.

- NOTE: Suction defueling valve (**10QD1**) closes.
- C. On fueling panel (**140QS**), set "ON/OFF" RH refueling control switch to "OFF".

NOTE: RH electrical refueling valve (**R70QS**) closes.

### **5. TEST OF RH INDICATOR**

Refer to **fig. 2** and **fig. 3**

- A. On refueling control panel (**140QS**), set "ON/OFF" LH refueling control switch to "ON".

NOTE: LH electrical refueling valve (**L70QS**) opens.
- B. In the cockpit, perform the following operations:
  - (1) Set RH "BOOSTER" switch (**R503QD**) to ON position (switch raised) on overhead panel (**180PC**).
  - (2) Check that the amber "FUEL 2" light (**30WW45**) is extinguished on warning panel (**30WW**).

NOTE: The amber "FUEL 2" light (**30WW45**) should not be illuminated during the procedure. If the amber "FUEL 2" light is illuminated, this means that the valve opening logic is reversed.
  - (3) Set "DEFUELING" switch (**510QS**) to ON position (guard and switch raised) on maintenance panel (**500JT**).

NOTE: Suction defueling valve (**10QD1**) opens.

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- (4) Set "X-BP" rotactor (**504QS**) to ON position (line in horizontal position) on overhead panel (**180PC**).
- (5) Check that "X-BP" indicator light is illuminated.
- (6) When the quantity of fuel is 1210 lb in the RH tank, stop the fuel transfer by setting "X-BP" rotactor (**504QS**) to OFF position (line in vertical position).
- (7) Wait for 2 minutes.
- (8) Make sure the RH amber "LEVEL" light (**505QJ**) is not illuminated on warning panel (**30WW**).
- (9) Check the illumination of the RH amber "LEVEL" light (**505QJ**) as follows:
  - (a) Resume the fuel transfer by setting "X-BP" rotactor (**504QS**) to ON position (line in horizontal position).
  - (b) Stop the fuel transfer when 100 lb are transferred, by setting "X-BP" rotactor (**504QS**) to OFF position (line in vertical position).
  - (c) Wait for 2 minutes.
  - (d) If the RH amber "LEVEL" light (**505QJ**) is not illuminated on warning panel (**30WW**), repeat the steps in paragraphs 3. 2. I. (1) to 3. 2. I. (3) until the RH amber "LEVEL" light is illuminated.

NOTE: On EIED 2 (**40EA**), the fuel level should be 1000 ± 200 lb.
- (10) Resume the fuel transfer by setting "X-BP" rotactor (**504QS**) to ON position (line in horizontal position).
- (11) When the quantity of fuel is 360 lb in the RH tank, stop the fuel transfer by setting "X-BP" rotactor (**504QS**) to OFF position (line in vertical position).
- (12) Wait for 2 minutes.
- (13) Make sure "LO FUEL 2" indicator light (**30WW50**) is not illuminated on warning panel (**30WW**).
- (14) Check the illumination of "LO FUEL 2" indicator light (**30WW50**) as follows:
  - (a) Resume the fuel transfer by setting "X-BP" rotactor (**504QS**) to ON position (line in horizontal position).
  - (b) Stop the fuel transfer when 100 lb are transferred, by setting "X-BP" rotactor (**504QS**) to OFF position (line in vertical position).
  - (c) Wait for 2 minutes.
  - (d) If "LO FUEL 2" indicator light (**30WW50**) is not illuminated on warning panel (**30WW**), repeat the steps in paragraphs 5.B.(14)(a) to 5.B.(14)(c) until the amber "LO FUEL 2" indicator light is illuminated.

NOTE 1: On EIED 2 (**40EA**), the fuel level should be 250 ± 100 lb.

NOTE 2: Make sure that the remaining quantity of fuel is not less than 150 lb to avoid unpriming the engine and APU supplies.
- (15) Set "X-BP" rotactor (**504QS**) to OFF position (line in vertical position).
- (16) Check that "X-BP" indicator light is extinguished.
- (17) Set RH "BOOSTER" switch (**R503QD**) to OFF position (switch lowered).

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(18) Set "DEFUELING" switch (**510QS**) to OFF position (guard and switch lowered) on maintenance panel (**500JT**).

NOTE: Suction defueling valve (**10QD1**) closes.

C. On refueling control panel (**140QS**), set "ON/OFF" RH refueling control switch to "OFF".

NOTE: LH electrical refueling valve (**L70QS**) closes.

#### **6. FINAL STEPS**

Refer to **fig. 3**

A. Set the aircraft to the initial configuration (fuel level balancing) (Refer to **TASK 28-22-00-650-801**).

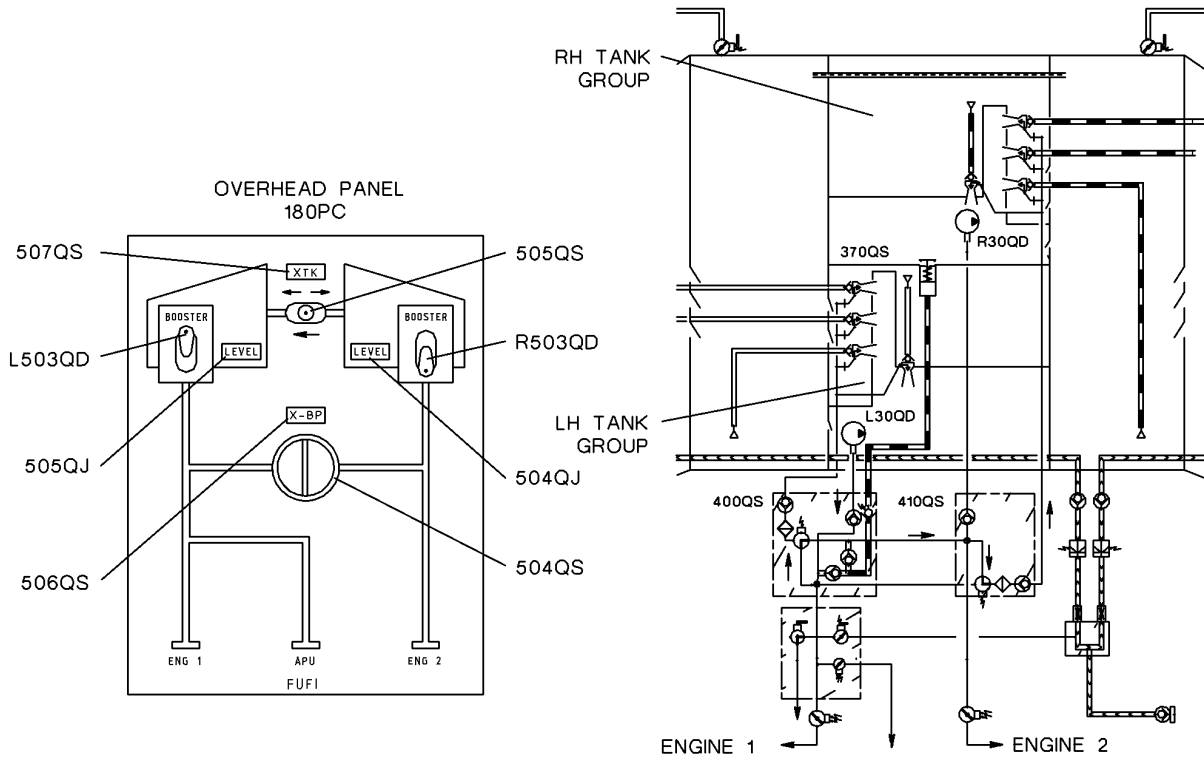
B. De-energize the aircraft systems (Refer to **TASK 24-00-00-860-801**, paragraph "Energization with the Electrical Ground Power Unit").

C. Disconnect the electrical ground power unit (Refer to **TASK 24-00-00-860-801**, paragraph "Disconnection of the Electrical Ground Power Unit").

D. Lower venting valve control lever (1).

E. Close doors (**186CR**) and (**186DR**).

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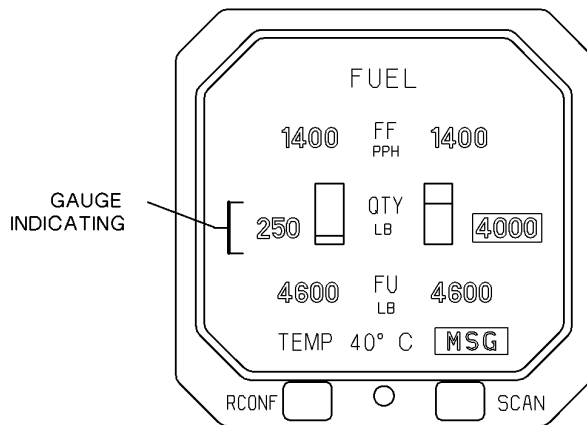


**CONTROL POSITION**

"BOOSTER" SWITCH L503QD TO ON  
 "BOOSTER" SWITCH R503QD TO OFF

**LIGHTS**

EIED 2  
40EA



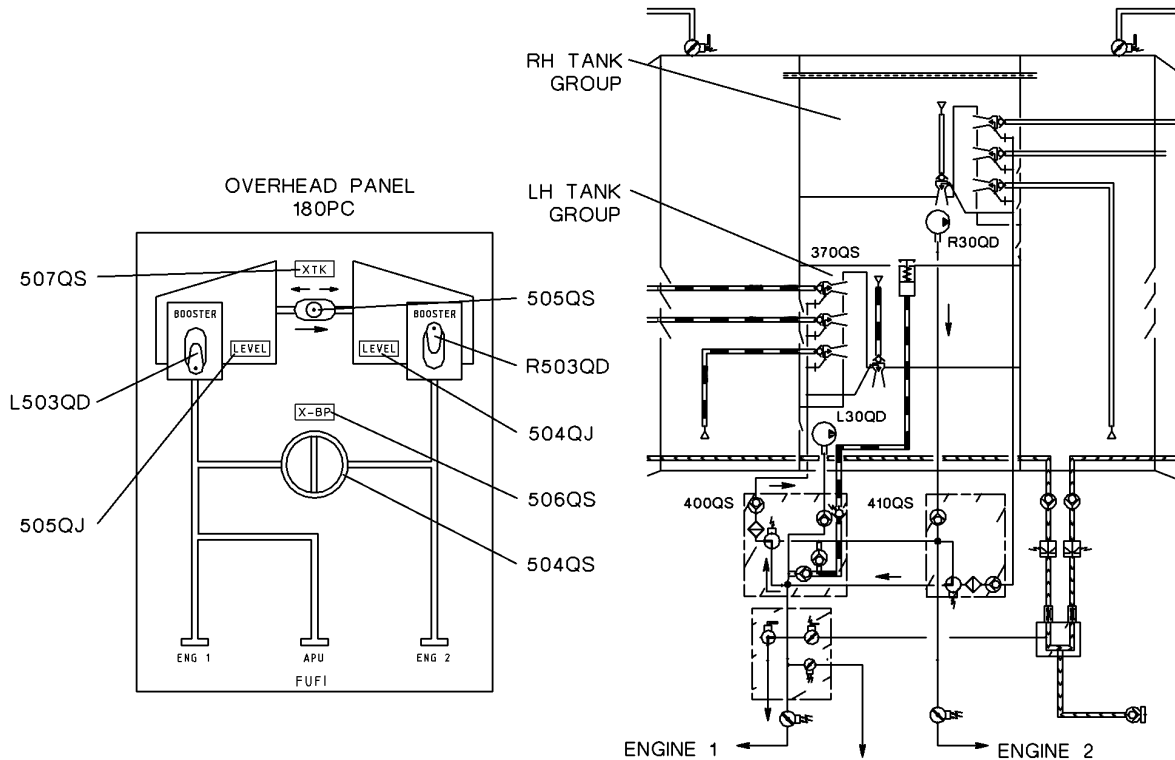
WARNING PANEL  
30WW

FUEL 1	LH BUS ISOL	HOT BAT	RH BUS TIED	FUEL 2
LO FUEL 1	NOSE CONE OVHT	ECU OVHT	AFT COMP OVHT	LO FUEL 2
PUMP 1 HYDR#1	HYDR#1K PRESS	HYDR#2 ISOL	PUMP 2 HYDR#1	PUMP HYDR#2
FUELING DOORS	BRAKE ACCU	ANTI-ICE	RECIR ISOL	ST BY PUMP CABIN

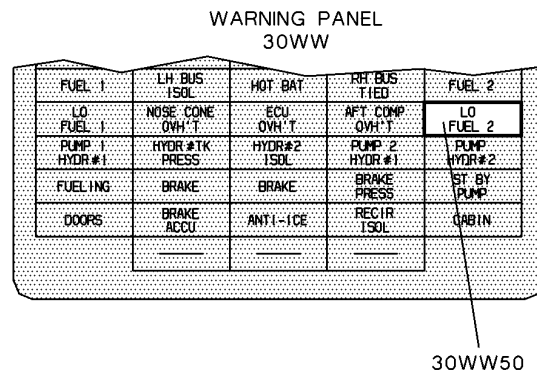
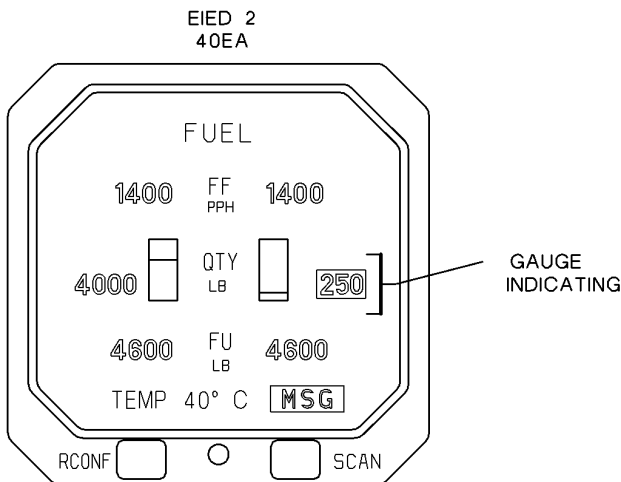
30WW46

**Figure 1: LH TO RH FUEL TANK GROUP TRANSFER**

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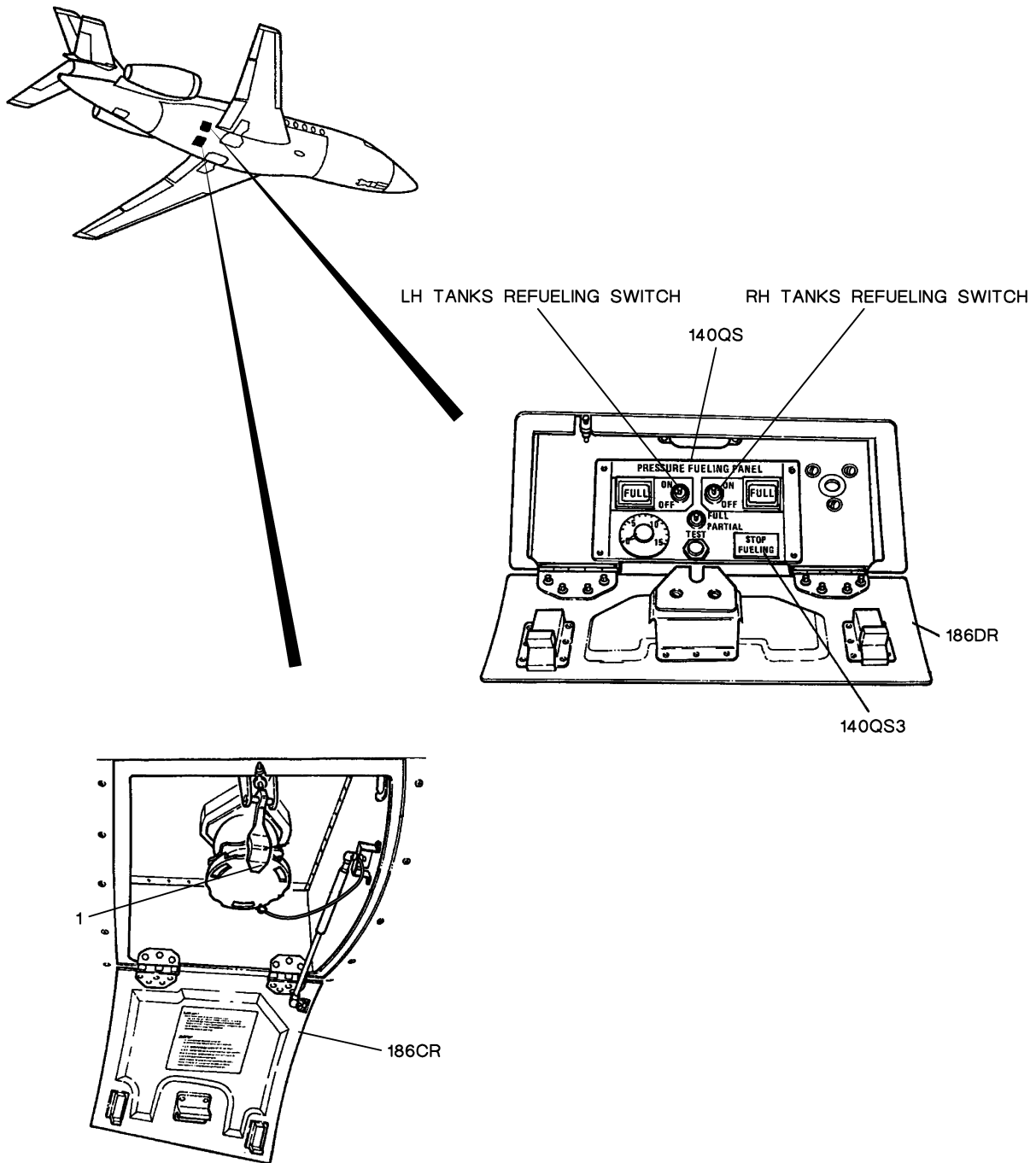


CONTROL POSITION	LIGHTS
"BOOSTER" SWITCH L503QD TO OFF	
"BOOSTER" SWITCH R503QD TO ON	



**Figure 2: RH TO LH FUEL TANK GROUP TRANSFER**

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**Figure 3: DEPRESSURIZATION OF FUEL TANKS**