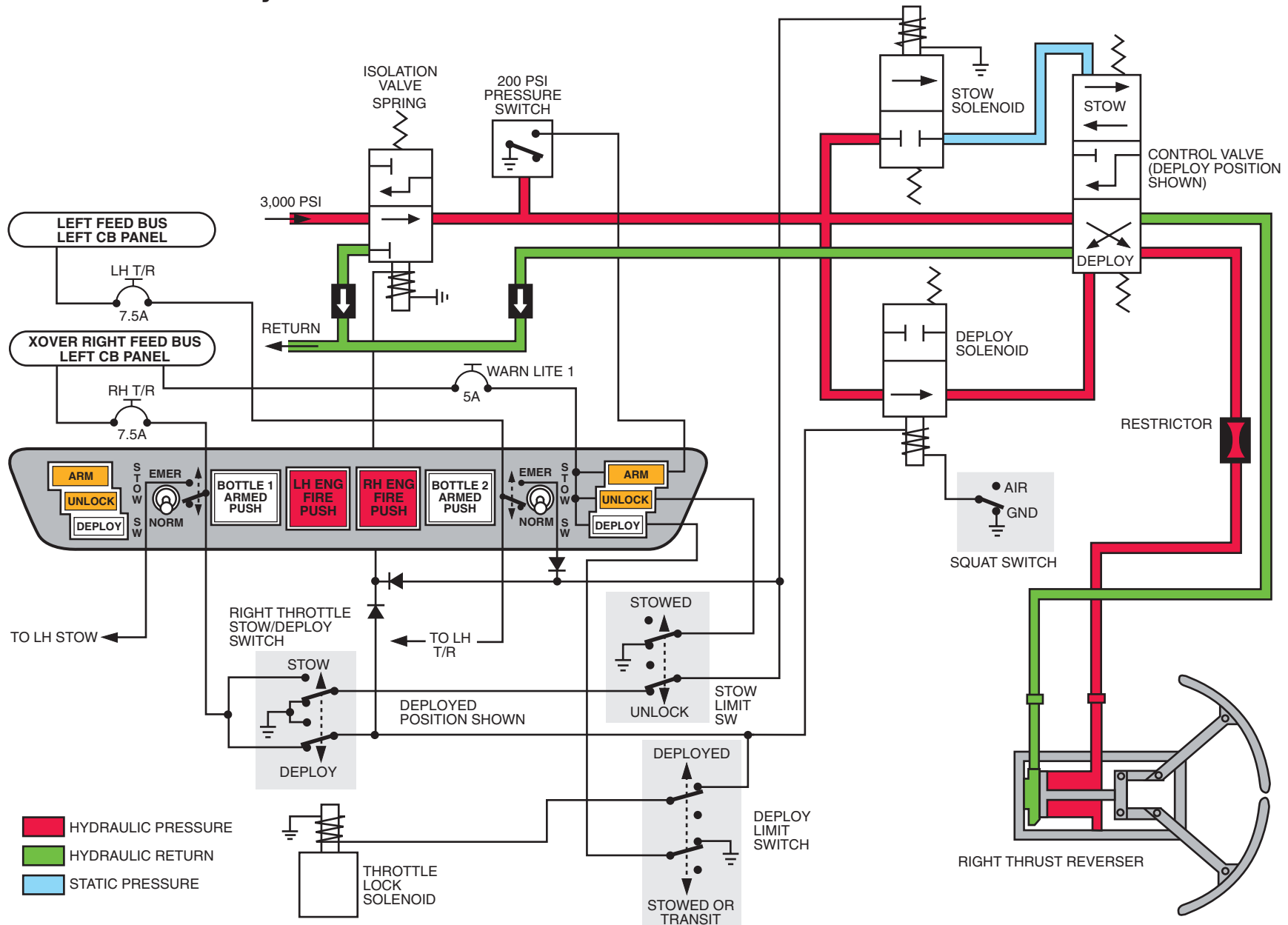


# Thrust Reverser System





When deployed, the hydraulically operated and electrically controlled thrust reversers deflect engine thrust forward to decrease landing roll and brake wear.

### Deploy

Before thrust reverser deployment can begin, the throttle levers must be in the idle position and the squat switches must be in the ground-on-ground mode (main landing gear struts compressed). Pulling the thrust reverse levers up begins the deploy sequence by moving the throttle stow/deploy switches to the deploy position.

DC power from the Left Feed bus and Crossover Right Feed bus energizes the left and right isolation and control valves. The isolation valves shift to the open position and the control valves shift to the deploy position. Hydraulic fluid at 3,000 PSI flowing through the isolation valves close pressure switches that illuminate the ARM lights. Hydraulic fluid then continues through the control valves to the deploy side of the four thrust reverser actuators (two per side).

The actuators retract to pull the thrust reverser carriage forward along the support assembly guide rods. Carriage movement unlocks the overcenter links that, in turn, exert force on the driver links that extend the thrust reverser doors into the engine exhaust path. Movement of carriage also actuates stow limit switches that illuminate the UNLOCKED lights. When the thrust reverser doors reach the fully deployed position, deploy limit switches actuate to illuminate the DEPLOY lights and release the thrust reverser interlock solenoid.

Pulling back on the thrust reverser levers after the DEPLOY lights illuminate, increases reverse thrust.

## **Stow**

Moving the thrust reverser levers forward and down begins the stow sequence by moving the throttle stow/deploy switches to the stow position. DC power flows to the control valves' stow solenoid; the control valves shift to the stow position. Hydraulic fluid under pressure then flows to the stow side of the actuators, and the thrust reversers begin stowing.

As they begin stowing, the deploy limit switch de-actuates to extinguish the DEPLOY lights. When the reverser mechanism stows and locks, the stow limit switch de-actuates and the UNLOCKED lights extinguish. The ARM lights remain illuminated until the isolation valve shifts to cut hydraulic pressure to the thrust reverser system.

## **Emergency Stow**

If a thrust reverser unlocks or begins deploying in flight, a feedback mechanism between the thrust reverser operating mechanism and the throttle levers forces the affected throttle lever to the idle thrust position.

Placing the STOW SW in the EMER position supplies 28V DC to energize the isolation valve and the control valve's stow solenoid. Hydraulic pressure then flows through the isolation valve and control valve to the stow side of the thrust reverser actuator. the thrust reverser stows and locks. The ARM light remains illuminated as long as the isolation valve is open and hydraulic pressure exists in the thrust reverser system.

## Thrust Reverser System

<b>Power Source</b>	Left Feed bus Crossover Right Feed bus Hydraulic system
<b>Control</b>	Thrust reverser levers STOW SW (NORM/EMER)
<b>Monitor</b>	ARM/UNLOCK/DEPLOY annunciators MASTER WARNING lights
<b>Protection</b>	LH/RH TR circuit breakers Squat switches

