

# ST02765CH

## FAA Supplemental Type Certificate



Installation of Electronic Flight Bag (EFB) Mounting and Wiring Provisions on Boeing 747 Series Aircraft (FAA STC ST02765CH)

### OVERVIEW

» FAA STC ST02765CH.

### INTRODUCTION

STC ST02765CH governs the installation of Electronic Flight Bag (EFB) mounting and wiring provisions in accordance with Electronic Cable Specialists (ECS) Master Data List ECS-207549.

### YOUR NEEDS

Provides wiring provisions to support a separate installation and approval of flight deck EFBs.

### YOUR BENEFITS

Incorporation of STC STC2765CH is required to support separate installation and operational approval of an EFB system in the cockpit. Once installed, the complete EFB system will provide flight crews the ability to interact with electronic maps, charts, and manuals in lieu of accessing standard paper documentation. System installation will reduce materials costs and aircraft weight without compromising ergonomic concerns.

### STC AIRCRAFT EFFECTIVITY

» Boeing 747-400/-400D/-400F series aircraft.

### STC LIMITATIONS

The equipment for which these provisions are intended has not been certified. Additional FAA approval is required for the installation of this equipment and must be evaluated to ensure satisfactory compliance with applicable airworthiness standards.

### STC CONFIGURATIONS

- » Configuration 1: Dual EFB provisions installations with wiring provisions for the display units mounted in the side consoles.
- » Configuration 2: Dual EFB provisions installations with disconnect wiring provisions for the display units mounted in the side consoles.

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### PRODUCT DESCRIPTION

The installed EFB wiring provisions will support Type A and Type B software applications for two EFBs in the cockpit. The EFBs are not installed or approved under this project. Mechanical mounting provisions for the display units will be installed and approved under separate projects.

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### MECHANICAL CHANGES

The following mechanical changes are made for Configurations 1 and 2:

- » Mounting provisions for two EFB Electronics Units (EUs) will be installed under the existing flight bag stowage area outboard of the captain's and first officer's seats.
- » EFB power switch panels will be installed in the aft pedestal (P8).
- » Relay mounting brackets will be installed in the left and right cockpit consoles near the EU mounting locations.
- » A data loading panel with USB ports and provisions for Ethernet ports will be installed in the P11 panel.
- » USB ports will be installed in the left and right consoles near the EU mounting locations.
- » The following additional mechanical changes are made for Configuration 2 only.
- » Connector brackets for each display unit will be installed in the left and right side consoles.

### ELECTRICAL CHANGES

The following electrical changes are made for Configurations 1 and 2. See block diagram Figure 3.

- » 28 VDC power and ground wiring will be installed between the aircraft and each of the two EU provisions. Power wires will be capped and stowed at each circuit breaker.
- » EFB on/off switches will be installed on a panel in the aft pedestal (P8). The on/off switches will control EFB power relays installed in the side consoles.
- » 5 VAC lighting power and ground wire will be installed between the aircraft and each of the two EU's. Lighting wires will be capped and stowed in each side console.
- » DU wiring provisions will be routed from each EU provision to the respective side consoles.
- » Ethernet wiring will be routed and connected between the left and right EU provisions. Ethernet wiring provisions will be routed from each EU provision and capped and stowed at the existing printer in the aft pedestal (P8), the new data loader panel in the P11 panel and the aft left flight deck closet and will be capped and stowed for future applications.

- » USB wiring will be routed from each EU provision to the new data loader panel in the P11 panel and new USB ports installed in the left and right consoles near each EU mounting.
- » ARINC 429 input wiring provisions will be routed from the left EU provision and capped and stowed at Wire Interface Units (WIU) in the electronics equipment compartment. The capped and stowed wiring provisions will provide future interface with the left FMC, left MMR, ACARS, printer and left IRU. Additional ARINC 429 output wiring will also be routed to the printer and stowed at the aft center pedestal.
- » ARINC 429 input wiring provisions will be routed from the right EU provision and capped and stowed at the WIU in the electronics equipment compartment. The capped and stowed wiring provisions will provide future interface with the right FMC, right MMR, ACARS, printer and right IRU. Additional ARINC 429 output wiring will also be routed to the printer and stowed at the aft center pedestal.
- » Discrete weight on wheels wiring will be routed from each EU provision to the electronics equipment compartment to a WIU for future interface with weight on wheels relays. The discrete wires will capped and stowed at a WIU located in the electronics equipment compartment.
- » Discrete configuration wiring provisions will be routed from each EU provision to ground blocks located in the left and right side consoles.

The following additional changes are made for Configuration 2 only.

- » DU wiring provisions will be routed from each EU provision to disconnect brackets installed in the respective side consoles. Wiring provisions will then be provided from each disconnect bracket to the DU mounting locations, where they will be stowed.
- » Wiring provisions for an external standby battery will be routed from the electrical electronics compartment to the flight deck and capped and stowed at both locations.

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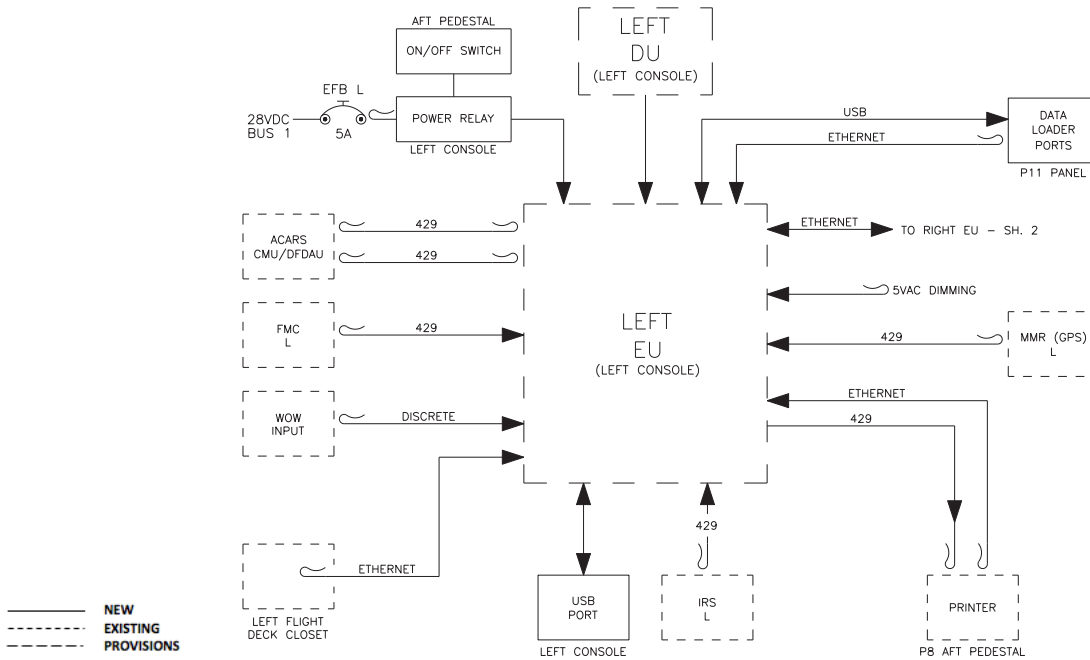


FIGURE 2  
EFB LEFT SYSTEM BLOCK DIAGRAM  
CONFIGURATION 1

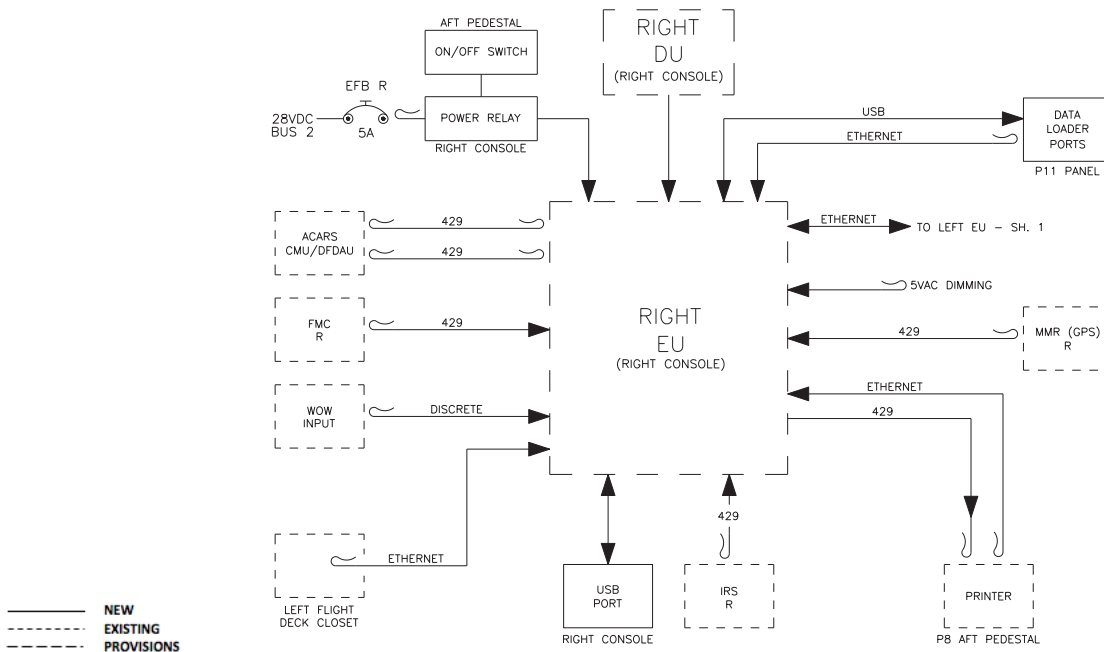


FIGURE 3  
EFB RIGHT SYSTEM BLOCK DIAGRAM  
CONFIGURATION 1

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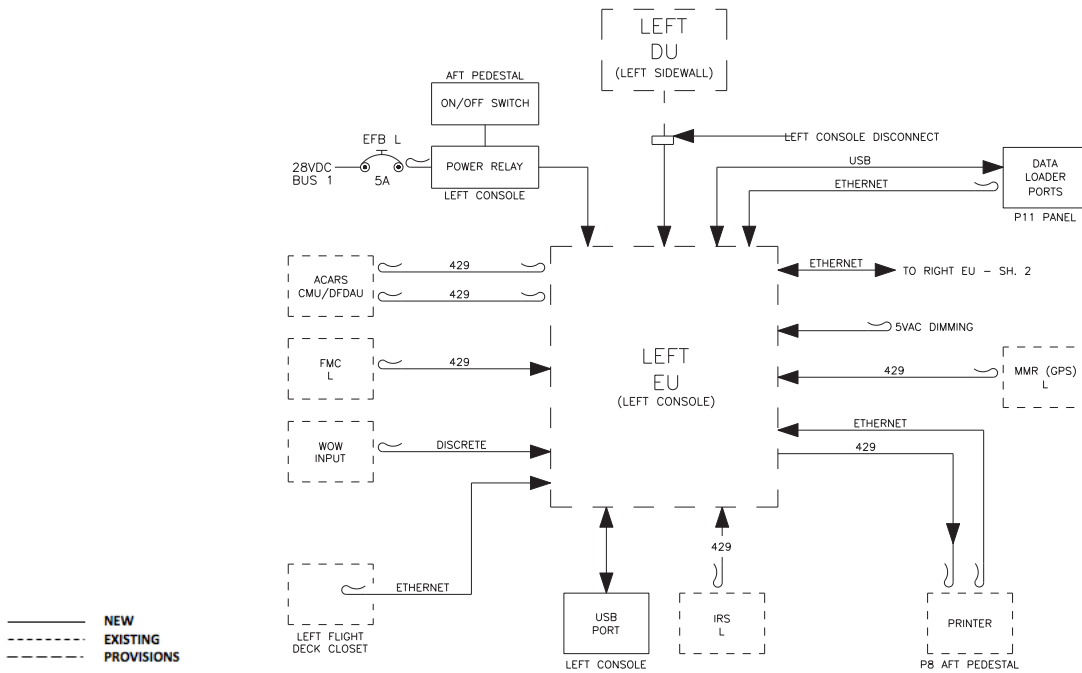


FIGURE 4  
EFB LEFT SYSTEM BLOCK DIAGRAM  
CONFIGURATION 2

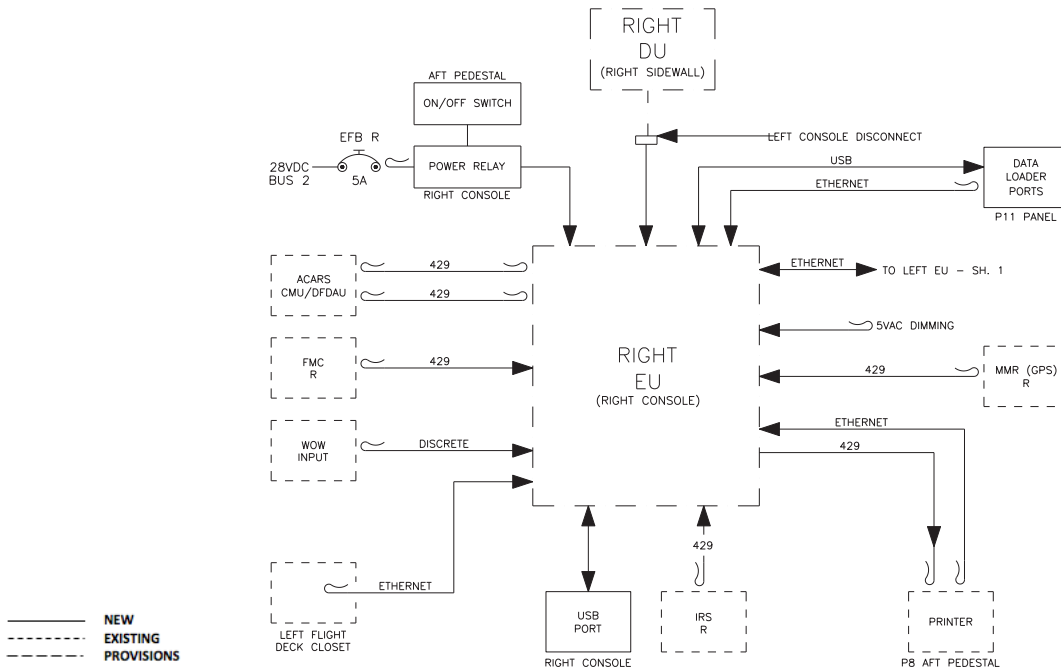


FIGURE 5  
EFB RIGHT SYSTEM BLOCK DIAGRAM  
CONFIGURATION 2

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