

SAFEDOCK USER GUIDE FOR PILOTS ROYAL TERMINAL AT GATE-2 (ROYAL EAST) & GATE-3 (ROYAL WEST) ONLY

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STAND ENTRY GUIDANCE SYSTEM

A. DESCRIPTION OF THE SYSTEM

- General - Pilot interpreted docking guidance system (DGS) is aligned for use from either left hand or right hand pilot seat with guidance for maneuvering the aircraft into the gate to the correct centerline and stop-position. Display units are on a free standing support in front of the terminal to the right of the passenger loading bridges. The display unit has two main parts - the top part is used as an alphanumeric display capable of displaying one or two lines of text; the lower part of the display is used to indicate the aircraft's position relative to the centerline and the stop position during a docking procedure.

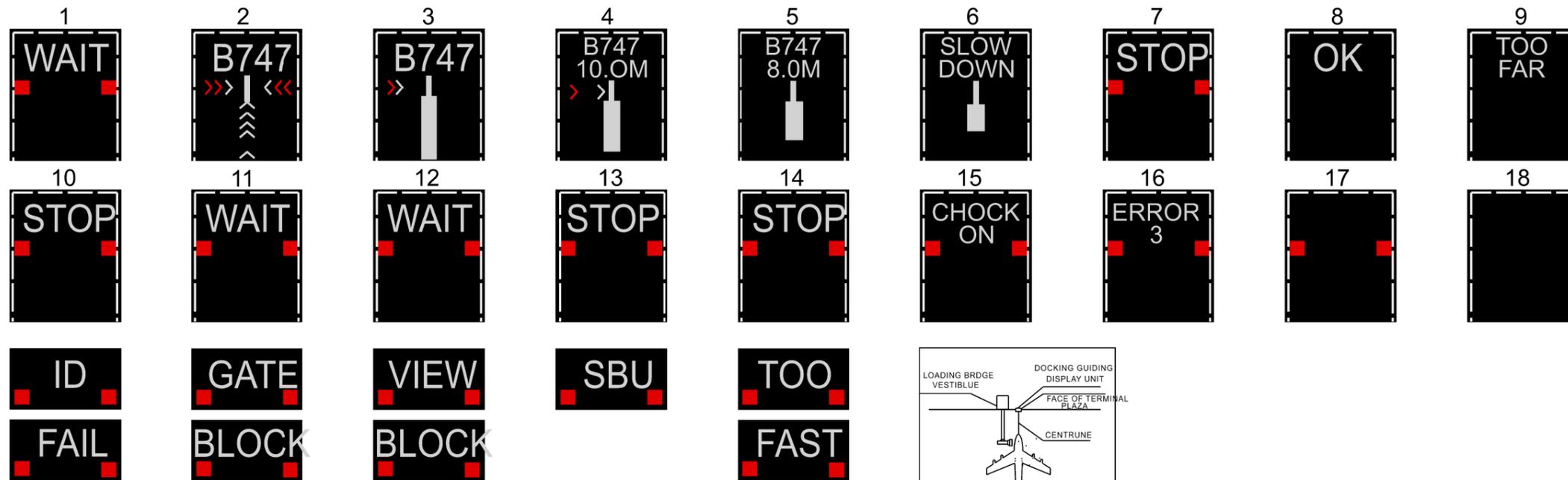
B. SAFETY INSTRUCTIONS

- General Warning: If the Pilot is unsure of the information being shown on the display unit, he must immediately stop the aircraft and obtain further information for clearance.
- items to be check before entering the stand area.
Warning: the Pilot shall not enter the stand area, unless the docking system first is showing the vertical running arrows. The Pilot must not proceed beyond the bridge, unless these arrows have been superceded by the closing rate bar.
Warning: the Pilot not enter the stand area, unless the aircraft type displayed is equal to his aircraft. The correctness of other information such as "DOOR 2" , shall also be checked.
- The SBU Message
The message STOP SBU means that docking has been interrupted and has to be resumed only by manual guidance. **DO NOT TRY TO RESUME DOCKING WITHOUT MANUAL GUIDANCE.**

C. DOCKING INSTRUCTION FOR PILOTS

- WAIT is display from the DGS display unit when the DGS is started .
Do not enter parking area if ground airline maintenance personnel are not in attendance .
- Display unit shows floating arrows indicating that the DGS is activated searching and capturing for an approaching aircraft . Check that the correct aircraft type is displayed. The Pilot has to taxi the aircraft on the lead-in line. **PILOT MUST NOT PROCEED BEYOND THE BRIDGE, UNLESS THE ARROWS HAVE BEEN SUPERCEDED BY THE CLOSING RATE BAR.**
- As the aircraft taxi on the lead - in line and approaching the stop position , the aircraft is captured by the tracking signal of the DGS , the floating arrows is replaced by vertical Yellow bar. Flashing Red & Yellow arrows indicate the direction to turn. The vertical Yellow bar (or closing rate bar) indicator shows the position of aircraft in relation to the centerline. This indicator gives correct position and azimuth guidance.
- Display of digital countdown will start when the aircraft is 20 meters from stop position. When the aircraft is less than 12 meters from the stop position, the closing rate bar is indicated by turning off one row of the centerline symbol per 0.5-meter, covered by the aircraft. Thus when the last row is turned off 0.5 meter remains to stop.
- The absence of any left or right direction arrow indicates that the aircraft is the centerline . As the aircraft approaches towards the assigned stop-position , the remaining distance in meters is displayed.
- If the aircraft is approaching faster than the accepted speed (i . e . 2.0 meters per second) , the DGS will show SLOW DOWN as a warning to the pilot.

- When the correct stop-position is reached, the display will show STOP and red lights will be lit.
- When the aircraft has parked, OK will be displayed.
- If the aircraft has overshoot the stop-position, TOO FAR will be displayed.
- During entry of the into the Gate Stand the DGS checks the aircraft geometry . If for any reason, aircraft verification is not made 12 meters before the stop-position, the display will first show WAIT (Aircraft should stop) and the DGS will make a second verification check. If the DGS confirmed it is correct aircraft type, then the WAIT message is replaced with a vertical Yellow bar and the Pilot should proceed.
If this fails, STOP and ID FAIL will be displayed. The text will be altering on the upper two rows of the display. **THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE WITHOUT MANUAL GUIDANCE**
- If an object is found blocking the view from the DGS to the aircraft stop-position, the docking procedure will be halted with a WAIT (Aircraft should stop) and GATE BLOCK message. the docking procedure will resume as soon as the blocking object has been removed.
THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE WITHOUT MANUAL GUIDANCE, UNLESS THE WAIT MESSAGE HAS BEEN SUPERCEDED BY THE CLOSING RATE BAR.
- if the view towards the approaching aircraft is hindered, for instance by dirt on the window, the DGS will display a VIEW BLOCK message. Once the system is able to see the aircraft through the dirt, the message will be replaced with a closing rate **THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE WITHOUT MANUAL GUIDANCE, UNLESS THE WAIT MESSAGE HAS BEEN SUPERCEDED BY THE CLOSING RATE BAR.**
- Any unrecoverable error during the docking procedure will generate an SBU (Safety Back-Up) condition. The display will show red stop bar and the text STOP SBU.
A MANUAL BACKUP PROCEDURE MUST BE USED FOR DOCKING GUIDANCE.
- If the aircraft approaches with a speed higher than the DGS can handle, the message STOP (with red squares) and TOO FAST will be displayed.
THE DOCKING SYSTEM MUST BE RE-STARTED OR THE DOCKING PROCEDURE COMPLETED BY MANUAL GUIDANCE.
- CHOCK ON will be displayed, when the ground staff has put the chocks in front of the nose wheel and pressed the "Chocks On" button from the DGS Operator Panel.
- If a system error occurs, the message ERROR is displayed with an error code. The code is used for maintenance purposes and explained elsewhere.
- SYSTEM BREAKDOWN
In case of a severe system failure, the display will go black, except for a red stop indicator.
A MANUAL DOCKING GUIDANCE PROCEDURE MUST BE USED.
- POWER FAILURE
In case of a power failure, the display will be completely black.
A MANUAL DOCKING GUIDANCE PROCEDURE MUST BE USED.



CHANGES: New Edition