“The most practical and comprehensive guide to the Boeing 737 available today.”

This book takes you right from the original concept that lead Boeing to design the 737 through its 50 year evolution, in language that is easily understood. It looks at each system in turn, supported by over 500 high resolution photographs, diagrams and schematics, placing each system component in context. It collates information from many different sources and combines over 20 years of the authors own flying experiences to lead the reader through the 737 from radome to tail-cone. This book takes you beyond the flight deck on a grand tour of the worlds’ most prolific airliner in a way that is as relevant to the type rating candidate as it is to a company Fleet Technical Captain. To complete the picture, the book also contains Pilots notes, a detailed guide to airtesting and the accident history of the type, which serve to make this book the most practical and comprehensive technical guide to the 737 available today.

So, after ten years work, the website and all the supporting information that went into its' creation, is now available in print. If you have found the website useful but would like the bigger picture, go to www.b737.org.uk to order your copy.

The guide is updated annually so you know that when you buy a copy it is up to date.

Format Options

The standard printed version is a softback, 8” x 10” book containing 396 full colour pages.

All versions have identical content, far surpassing that found on the website.

The EPUB is available through iBooks.

The 737 Technical Guide is available in printed, electronic and in English and Chinese

The Boeing 737 Technical Guide

THE BOEING 737 TECHNICAL GUIDE

CHRIS BRADY

Containing:

- Detailed, plain English system explanations.
- Over 500 hi-res photos, of aircraft panels, components and points of interest
- Listings of all FMC, FCC & CDS software updates.
- System schematic diagrams.
- Electrical schematics and bus-bar listings.
- Summary of all 737 accidents to date.
History & Developments

To set the scene, the evolution of the 737 is described from its conception in 1958 right through to the MAX replacement, not due until at least 2025.

In between, every series and version thereof (43 in total) including many unique one-offs are described with their significant differences.

737-800/900SEPs
The Short Field Performance Improvement package was developed in 2005/6 to allow OGL airlines to operate their 737-800/900 into the 1,440m (4,700ft) Santo Domingo airport. The modifications enable weight increase of approx 4,000kg (10,000lbs) for the landing and 1,700kg (3,750lbs) for take-off from short runways. It includes the following changes:

- Flight spoilers are capable of 60 degrees deflection on touchdowns by addition of increased stroke actuators. This compares to the current 35 degrees and reduces stopping distances by improving braking capability.
- Slats are retracted for take-off to flap position 15 (compared to the current 10) to allow the wing to generate more lift at lower rotation angles. Auto flap function available from flap 1 to 25.
- Flap load relief function active from flap 10 or greater.
- Two-position lockout that extends an extra 137mm (5in) for landing protection. This allows greater angles of attack to be safely flown thereby reducing Vref and hence landing distance.
- Main gear cushion (splay) reduced by 1 degree to increase uniformity of braking across all MLG types.
- Reduction of engine safe-flush delay time from 5s to 2s to shorten landing roll.
- PMC & FCC software revisions.

The Boeing 737 Technical Guide

History and Development

Systems

The bulk of the book is devoted to system descriptions. These are short, easy to understand, plain English explanations, covering all aspects of the aircraft inside and out.

Rudder Pressure Limiter (Not NGs)
This is effectively the B system equivalent of the RPR, except that it is physically part of the main rudder PCU rather than independent of it. Hydraulic system B pressure is reduced within the main PCU from 2000 to 2200psi if it has the same activation criteria as the RPR.

Schematics are used where necessary to illustrate complex systems.

NGs
The NGs do not have an RPR or RPL, but two Load Limiters instead (shown as "CONTROL VALVE's in the FCOM schematics). At speeds above approximately 135kts, hydraulic system A pressure (Pre-RSEP), hydraulic system A and B pressure (Post-RSEP) to the rudder PCU is reduced to 1450psi (Pre-RSEP) / 2200psi (Post-RSEP).
They both reduce rudder output force by 25% at blowdown speed. The NGs also gained the FTM and separate input rods, control valves and actuators of the RSEP package.
Key to the books accessibility is its extensive use of photographs.

Most of the panels, flight instruments and DU display options that have ever been fitted to the 737 are depicted in this book.

**ND with Systems**
This display is reached by pressing SYS on the MFD selector. It shows Hydraulic qty. & pressure and Brake temp and tyre pressure (not shown in this photo). The Brake temps range from 0-9.9 and above 4.9 is considered hot. The individual tyre pressures will display amber (abnormal) with either a pressure below 100psi or a difference between two main gear tyres of 25% or a difference between two nose gear tyres of 12%. These conditions will also illuminate the associated BRAKE TEMP or TIRE PRESSURE caption. There is also an option to display the flight control surface position indicator with the other systems here.

**ND with INFO**
This display is reached by pressing INFO on the MFD selector. The F/O’s ND changes to half-size and the N1 / Speed Ref are displayed inboard of the ND. This performs exactly the same functions as the Speed Reference Selector on the NG. You cycle between the fields (shown as diamonds) and enter values in the blue boxes using the SELECTOR knob on the forward aisle stand.
This chapter is quite unique in aircraft guides. The author uses his considerable experience in the field of airworthiness flight testing to write authoritatively about this little documented and fascinating subject.

Again it is well illustrated and filled with lots of previously unpublished material. For those involved in airtesting the book is worth getting just for this chapter.

The book has had favourable reviews in most of the worlds English speaking aviation publications. It has even attracted accolades from Boeing test pilots.

Comments include:

“The benumbing effects of a technical manual are difficult for a writer to mitigate but Chris Brady has created an interesting reading experience with “The Boeing 737 Technical Guide.” Captain Brady, a Boeing 737 maintenance test pilot for Europe’s easyJet Airlines, not only beautifully describes the technical aspects of each model of the 737 but a chronicle of the aircraft as well.

At the conclusion of the manual the reader will not only have enjoyed their journey through a very interesting book but also have a good understanding of the technical operation of the 737, “large” aircraft systems design, and a thorough knowledge of the history of the world’s best selling airliner.”

Airways Magazine

"You are to be commended on the what is the finest book on any aircraft that I have seen. I am amazed by the depth of knowledge this book contains. I only wish I had it when I went to training on the 737 at US Airways!"

Capt H, JetBlue Airways