"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 40 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 15 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 eight 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.

Format Options

The standard version is a softback, 8.5" x 11" book containing 362 pages in a choice of either full colour or black & white pages.

By popular demand a smaller, lighter, 6" x 9" pocket version has been produced to fit easily into your flight case. Both the standard and pocket versions are coil-bound for ease of use.

There is also a full colour hardback version for those who really appreciate their aircraft.

All versions have identical content, far surpassing that found on the website, although the number of pages vary due to formatting differences.

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.
To set the scene, the evolution of the 737 is described from its conception in 1958 right through to the proposed replacement, not due until at least 2015.

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

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 its input. Hydraulic system B pressure is reduced within the main PCU from 2000 to 2200 psi; it has the same activation criteria as the RPR.

NGs
The NGs do not have an RPR or RPL, but two Load Limiters instead (shown as 'CONTROL VALVE' in the FCOM schematics). At speeds above approximately 153 knots, hydraulic system A pressure (Pre-RSEP), hydraulic system A and B pressure (Post-RSEP) to the rudder PCU is reduced to 1450 psi (Pre-RSEP) / 2200 psi (Post-RSEP). They both reduce rudder output force by 25% at transonic speed. The NGs also gained the FFM and separate input rods, control valves and actuators of the RSEP package.

737-800SEP
The Short Field Performance improvement package was developed in 2004 to allow Qantas Airlines to operate their 737-800s into the 1.95m (4,000ft) Santo Domingo airport. The modifications enable weight increments of approx. 4,700kg (10,000lbs) for landing and 1,700kg (4,000lbs) for take-off from short runways. It includes the following changes:

- Flight spoilers are capable of 60 degree deflection on touchdown by addition of increased stroke actuators. This compares to the current 33/36 degrees and reduces stopping distances by improving braking capability.
- Flaps are extended for flap-up to flap position 15 (compared to the current 10) to allow the wing to generate more lift at lower rotation angles. Autolift function available from flap 1 to 25.
- Flap load relief function active from flap 10 or greater.
- Two-position tab trim that extends an extra 127mm (5in) per load lever position is added. This allows greater angles of attack to be safely flown thereby reducing Vref and hence landing distance.
- Main gear caulkor (aply) reduced by 1 degree to increase suitability of braking across all MLG types.
- Reduction of engine idle-speed delay time from 5s to 2s to shorten landing roll.
- PMC & FCC software revisions.

The SEP package has now become an option on all 737-800s (known as 737-800SEPs) and standard on the 737-900ER. Some of the features may also be fitted to the 600/700 series. The first SEP was delivered 31st June 2006. To date over 250 aircraft have been ordered with this package as either factory build or retrofit.
Key to the book’s 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.

**Standby Flight Instruments**

The standby airspeed indicator & altimeter use auxiliary pitot & alternate static sources, not the ADC/ADIRUs. The altimeter is fitted with a vibrator, which can be heard when the flightdeck is quiet, to prevent errors from mechanical linkage friction.

The Integrated Standby Flight Display was introduced in 2003 to replace the mechanical standby artificial horizon and ASI altimeter. Personally, I find the new ASI & altimeter much easier to read but the ILS more difficult. The + - buttons are brightness controls.

The ISFD also sends inertial data to the FCCs which use the data during CAT IIIB approaches, landings and go-around.

Surprisingly, the ISFD cannot be switched off from the flightdeck - even by pulling the ISFD c/b on the P18 panel. It has its own dedicated battery and the ISFD c/b only removes power from the battery charger. Let us hope that one does not start to smoke in-flight! The battery will give 150 minutes of power.
Airtesting
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.

Reviews
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