Understanding & Attaining 3-Axis Binocular Collimation

"Another brilliant read from the guru of binocular repairs. I have been a binocular technician for over 30 years but still learn from Bill's vast knowledge and experience. My copy will be on order—I just hope Bill will sign it for me!"

Gary Hawkins

Owner, East Coast Binocular Repairs, UK

"Wow! Bill Cook's book on binocular collimation is truly outstanding! It is a must have book for anyone interested in binoculars. The contents of the book and its rendering are superb. Optical engineers will find this book refreshing and useful. It is a unique and excellent book in optical alignment. Bill Cook obviously is a foremost expert in binoculars and his deep passion for the subject becomes both, obvious and inspiring!"

— Dr. José Sasián

Professor of Optical Sciences, University of Arizona

"In his characteristic, entertaining and very informative way, Bill Cook presents in his new fascinating small book on '3-axis binocular collimation' the importance of this so frequently misunderstood process. To do so, Bill uses, apart from the explanatory process, many excellent illustrations. Every serious binocular user and or repair person should read this book to learn about all the misunderstandings and pitfalls around the matter and—just as important—how to perform it properly."

— Dr. Gijs van Ginkel

Professor Emeritus, Utrecht University

"More trustworthy information on the collimation of small binoculars is to be found here than anywhere else! Generally, well-illustrated, and with special emphasis on the Navy Mk 5 collimator system, Bill strongly suggests you consider making one for yourself. The book deals mainly with adjusting the inner workings of Porro prism binoculars but touches on roof prism instruments, as well."

- R.A.Buchroeder, PhD

Professional optical designer & binocular aficionado, Tucson, AZ

"Bill Cook's book cuts through urban legends and fake news found in some literature and web forums to describe the proper way to resurrect a cherished binocular that may have been damaged over the course of time. Using clear illustrations and written in an easy-to-follow manner, Cook walks the reader through the systematic repair and adjustment process. No, it's not a quick procedure, but by following the instructions outlined in this book, you and he, together, can breathe new life into an old binocular."

— Phil Harrington, Astronomy educator and author of *Touring the Universe Through Binoculars, Star Ware*, and others

"Most binocular users are unaware of the process required to execute a technically accurate binocular collimation. With this book Bill Cook describes places where errors in alignment can originate and the tools and procedures necessary to correct them. I found I couldn't put the book down and bedtime had to be postponed. Some of this information has not been in print before and all of it is offered in a clear, concise, and easy to understand way.

- Harrie Rutten

Co-author, Telescope Optics, Arcen, the Netherlands

"Observing with a binocular should not tire your eyes, and the key to attaining that is collimation. The binocular consists of two telescopes joined by a hinge. The hinge allows you to change the distance between the two telescopes, to match the distance between your eyes. When a binocular is collimated, the mechanical axis of the hinge and the optical axes of the two telescopes are parallel. When this condition is satisfied—all three axes parallel—your eyes look straight ahead as if the object you are looking at is located at infinity. That's it: so simple! But few binoculars are properly collimated. In this indispensable book, Bill Cook tells you how to achieve full collimation using a variety of standard collimation rigs or—for the do-it-yourselfer—how to construct a collimation set-up of your own."

— Richard Berry

Astronomy & optics writer

Former editor-in-chief ASTRONOMY and Telescope Making magazines

Understanding & Attaining 3-150 INTRODUCING: An Amateur-Friendly Binocular Collimator that Accommodates ALL IPDs at Oncelll



William J. Cook Chief Opticalman USN Ret.



William J. Cook

Understanding & Attaining

3-Axis BINOCULAR COLLIMATION