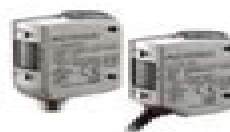


## Self-contained CMOS Laser Sensor LR-ZB□N/P Series





### Instruction Manual

Read this manual before using the product in order to achieve maximum performance. Keep this manual in a safe place after reading it so that it can be used at any time.


The following symbols alert you to important messages. Be sure to read these messages carefully.

	It indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	It indicates a situation which, if not avoided, could result in product damage as well as property damage.

### Safety Information for LR-ZB Series

	<ul style="list-style-type: none"> <li>This product is only intended to detect objects. Do not use this product for the purpose to protect a human body or part of a human body.</li> <li>This product is not intended for use as an explosion-proof product. Do not use this product in a hazardous location and/or potentially explosive atmosphere.</li> <li>This product uses DC power. The product may explode or burn if an AC voltage is applied.</li> </ul>
	<ul style="list-style-type: none"> <li>Do not wire the cable along with power lines or high-tension lines, as the sensor may malfunction or be damaged due to noise.</li> <li>When using a commercially available switching regulator, ground the frame ground terminal and ground terminal.</li> <li>Do not disassemble this product. Laser emission from this product is not automatically stopped when it is disassembled.</li> <li>Use with an over current protection device which is rated 30 V or more and not more than 1 A.</li> </ul>

### Safety Precautions on Laser Product

	<ul style="list-style-type: none"> <li>This product uses a semiconductor laser for the light source.</li> <li>Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.</li> <li>Follow the instructions mentioned in this manual. Otherwise, injury to the human body (eyes and skin) may result.</li> <li>Laser emission from this product is not automatically stopped when it is disassembled. Do not disassemble this product.</li> <li>Do not stare into the beam.</li> </ul>
---	---

Wavelength/Output	650 nm/140 μW
FOCAL/Display	Fixed/40.0 mm
IEC 60825-1	Class 1 laser product

\* The laser classification for FOMA (COPR) is implemented based on IEC60825-1 in accordance with the requirements of Laser Europe No.50.

### Certification and Identification Label

- When using this product in the U.S., affix the Certification and Identification Label included in the package of this product as shown on the right. (Affix this label in a location that is not splashed with oil or chemicals.)



### Precautions on Regulations and Standards

#### UL Certification

This product is an UL/UL Listed product.  
UL File No. E301374 Category NP04, NP00-01 Enclosure Type 1 (UL505)

Be sure to consider the following specifications when using this product as a UL/UL Listed Product.

- Use a power supply with Class II output defined in NFPA70 (NEC: National Electrical Code).
- Power supply/Control input/Control output shall be connected to a single Class II source only.
- Install the product at the ambient temperature 40°C or below when using with following optional cable: COP-73664, COP-73665, COP-67394, COP-65499, COP-65599, COP-65497, COP-67399, COP-65594, COP-65595.

#### CE Marking

KEYENCE Corporation has confirmed that this product complies with the essential requirements of the applicable EC Directive, based on the following specifications. Be sure to consider the following specifications when using this product in a member state of European Union.

- EMC Directive (2004/108/EC)
- Applicable Standard: EN 60947-5-2, Class A/EN 60947-5-2

These specifications do not give any guarantee that the end-product with this product incorporated complies with the requirements of EMC Directive. The manufacturer of the end-product is solely responsible for the compliance on the end-product itself according to EMC Directive.

### Specifications

Type		Distance setting	
Appearance		Rectangular	
Model	Input	2 m cable M8 connector 4-pin	LR-ZB150N LR-ZB150CN LR-ZB150P LR-ZB150CP
	Power	2 m cable M8 connector 4-pin M8 connector 3-pin	LR-ZB150P LR-ZB150CP LR-ZB250CP
Detectable distance		25 to 100 mm (250 to 1000 mm)	25 to 100 mm (250 to 1000 mm)
Standard detection deviation		25 to 100 mm : 1.5 mm 100 to 150 mm : 3 mm	25 to 100 mm : 1.5 mm 100 to 150 mm : 3 mm
Display resolution		0.1 mm (0.004 in)	0.1 mm (0.004 in)
Spot diameter		2.4 x 1 mm at 100 mm	2.4 x 1.2 mm at 200 mm
Response time		1.5 ms / 100 ms / 500 ms (auto/2-step)	1.5 ms / 100 ms / 500 ms (auto/2-step)
Light source	Type	Red laser (650 nm)	
	Laser class	Class 1 laser product (IEC60825-1, FOMA (COPR) Part 1/40.0 mm)	
Indicator	Indicator	3-stage 7-segment display (red), output indicator (yellow), L, DUTM indicator (orange), 1 spot indicator (green)	
	Timer	ON/OFF delay/OFF delay/On/Off delay	
Specifications	Power voltage	10 to 30 VDC, including 10% ripple (min). Class 2 or LPS 100 mA or less (1.8 mA or less at 24 V, 14 mA or less at 12V)	
	Power consumption	LR-ZB□N: 100 mA or less (1.8 mA or less at 24 V) LR-ZB□P: 100 mA or less (1.8 mA or less at 24 V)	
Control output	Control output	Applied voltage 30 VDC or less, Control current 100 mA or less, Residual voltage 1.0 V or less at 10 mA or less, 2 V or less at 10 to 100 mA	
	Protection circuit	Reverse polarity protection, output short-circuit protection, output surge, reverse output connection	
Output operation	Output operation	Light ON / Dark ON selection	
	External input <sup>1)</sup>	Input time constant: 10 ms or more (ON), 20 ms or more (OFF) Laser emission stop: 2 ms or more (ON), 20 ms or more (OFF) Short-circuit current (I <sub>sc</sub> ): 1 mA or less (P/N), 2 mA or less (C/P)	
Environmental resistance	Enclosure rating	IP68 (IEC60529/IEC60954/IEC60529-IP68, IP68, IP68)	
	Ambient light <sup>2)</sup>	Incandescent lamp: 4000 lx or less Sunlight: 8000 lx or less	
Ambient light <sup>2)</sup>	Ambient light <sup>2)</sup>	Incandescent lamp: 2000 lx or less Sunlight: 4000 lx or less	
	Ambient temperature	-10 to +50°C	
Ambient humidity	Ambient humidity	10 to 90% RH	
	Shock resistance	25 to 50 G (P/N)	
Vibration resistance	Vibration resistance	1000 m/s <sup>2</sup> on X, Y, Z axis directions respectively 8 times	
	Vibration resistance	10 to 50 Hz (IEC60068-2-15, 10 to 50 Hz, 1 V, 2 axis directions respectively, 2 hours)	
Withstand voltage	Withstand voltage	20 MS or more (500 VDC)	
	Material	Case: SUS316L, Display: PPS, Lens cover: PPSA with scratch-resistant coating, Packaging/Connector ring: POM	
Weight	Weight	2 m cable type: Approx. 110 g (including cable) M8 connector type: Approx. 55 g	

- Display reading used as a guide for the detecting distance. When the setting value is turned, the read-out shifts. When the value exceeds "100", "100" is displayed.
- The laser classification for FOMA (COPR) is implemented based on IEC60825-1 in accordance with the requirements of Laser Europe No.50.
- M8 connector (3-pin) type does not include the external input function.
- When the response time is 50 ms.

### I/O Circuit Diagram

#### M8 type (LR-ZB□N)



#### PinP type (LR-ZB□P)



\* Cable type: M8 4-pin connector type only

# 20mach Z Manual

**Zenith Data Systems Corporation**



## 20mach Z Manual:

**NASA Contractor Report** ,1983      Das wundärztliche Manual des Meisters Hans Seyff von Göppingen (ca. 1440-1518)  
Manfred Gröber,Hans Seyff,1998      *To Be a U.S. Naval Aviator* Jay A. Stout,2005-11-10 Om pilotuddannelsen i US Navy  
Bogen beretter om hvilke kvalifikationer som kræves den grundlæggende og videregående uddannelse samt den operative  
uddannelse og indstillingen i operativ tjeneste      Landshuter Zeitung ,1882      Form Z ,      Z-100 Series Computers Zenith  
Data Systems (Firm),1985      Z-100 PC Series Operations Manual ,1985      **Z-100 PC Series Service Manual** Zenith Data  
Systems (Firm),1984      **Z - 248 PC Series Computers** Zenith Data Systems (Firm),1986 This manual has been prepared  
for the new computer owner and user Welcome      Z-200 Series Zenith Data Systems Corporation,1986      Z-150 PC Series  
Computers Zenith Data Systems (Firm),1986      **Z-80 PIO Technical Manual** Inc Zilog,1978      Z 80-PIO, Z 80 A-PIO  
Zilog, Inc,1977      **Z-100 PC Series Computers** Zenith Data Systems (Firm),1984      Z loop/line tester MI 2122 Bogdan  
Seliger,2000      Nissan Model E23 Series Service Manual Z Engine ,1982      **U. S. Army M-1 Garand Technical Manual**  
Pentagon U.S. Military,2016-01-29

Recognizing the exaggeration ways to get this book **20mach Z Manual** is additionally useful. You have remained in right site to begin getting this info. acquire the 20mach Z Manual link that we present here and check out the link.

You could buy guide 20mach Z Manual or acquire it as soon as feasible. You could speedily download this 20mach Z Manual after getting deal. So, later than you require the book swiftly, you can straight acquire it. Its correspondingly extremely simple and as a result fats, isnt it? You have to favor to in this sky

[https://forums.acdsystems.com/book/browse/index.jsp/2007\\_nissan\\_sentra\\_owners\\_manual.pdf](https://forums.acdsystems.com/book/browse/index.jsp/2007_nissan_sentra_owners_manual.pdf)

## **Table of Contents 20mach Z Manual**

1. Understanding the eBook 20mach Z Manual
  - The Rise of Digital Reading 20mach Z Manual
  - Advantages of eBooks Over Traditional Books
2. Identifying 20mach Z Manual
  - Exploring Different Genres
  - Considering Fiction vs. Non-Fiction
  - Determining Your Reading Goals
3. Choosing the Right eBook Platform
  - Popular eBook Platforms
  - Features to Look for in an 20mach Z Manual
  - User-Friendly Interface
4. Exploring eBook Recommendations from 20mach Z Manual
  - Personalized Recommendations
  - 20mach Z Manual User Reviews and Ratings
  - 20mach Z Manual and Bestseller Lists
5. Accessing 20mach Z Manual Free and Paid eBooks
  - 20mach Z Manual Public Domain eBooks

- 20mach Z Manual eBook Subscription Services
- 20mach Z Manual Budget-Friendly Options
- 6. Navigating 20mach Z Manual eBook Formats
  - ePub, PDF, MOBI, and More
  - 20mach Z Manual Compatibility with Devices
  - 20mach Z Manual Enhanced eBook Features
- 7. Enhancing Your Reading Experience
  - Adjustable Fonts and Text Sizes of 20mach Z Manual
  - Highlighting and Note-Taking 20mach Z Manual
  - Interactive Elements 20mach Z Manual
- 8. Staying Engaged with 20mach Z Manual
  - Joining Online Reading Communities
  - Participating in Virtual Book Clubs
  - Following Authors and Publishers 20mach Z Manual
- 9. Balancing eBooks and Physical Books 20mach Z Manual
  - Benefits of a Digital Library
  - Creating a Diverse Reading Collection 20mach Z Manual
- 10. Overcoming Reading Challenges
  - Dealing with Digital Eye Strain
  - Minimizing Distractions
  - Managing Screen Time
- 11. Cultivating a Reading Routine 20mach Z Manual
  - Setting Reading Goals 20mach Z Manual
  - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of 20mach Z Manual
  - Fact-Checking eBook Content of 20mach Z Manual
  - Distinguishing Credible Sources
- 13. Promoting Lifelong Learning
  - Utilizing eBooks for Skill Development
  - Exploring Educational eBooks

## 14. Embracing eBook Trends

- Integration of Multimedia Elements
- Interactive and Gamified eBooks

## 20mach Z Manual Introduction

In this digital age, the convenience of accessing information at our fingertips has become a necessity. Whether its research papers, eBooks, or user manuals, PDF files have become the preferred format for sharing and reading documents. However, the cost associated with purchasing PDF files can sometimes be a barrier for many individuals and organizations. Thankfully, there are numerous websites and platforms that allow users to download free PDF files legally. In this article, we will explore some of the best platforms to download free PDFs. One of the most popular platforms to download free PDF files is Project Gutenberg. This online library offers over 60,000 free eBooks that are in the public domain. From classic literature to historical documents, Project Gutenberg provides a wide range of PDF files that can be downloaded and enjoyed on various devices. The website is user-friendly and allows users to search for specific titles or browse through different categories. Another reliable platform for downloading 20mach Z Manual free PDF files is Open Library. With its vast collection of over 1 million eBooks, Open Library has something for every reader. The website offers a seamless experience by providing options to borrow or download PDF files. Users simply need to create a free account to access this treasure trove of knowledge. Open Library also allows users to contribute by uploading and sharing their own PDF files, making it a collaborative platform for book enthusiasts. For those interested in academic resources, there are websites dedicated to providing free PDFs of research papers and scientific articles. One such website is Academia.edu, which allows researchers and scholars to share their work with a global audience. Users can download PDF files of research papers, theses, and dissertations covering a wide range of subjects. Academia.edu also provides a platform for discussions and networking within the academic community. When it comes to downloading 20mach Z Manual free PDF files of magazines, brochures, and catalogs, Issuu is a popular choice. This digital publishing platform hosts a vast collection of publications from around the world. Users can search for specific titles or explore various categories and genres. Issuu offers a seamless reading experience with its user-friendly interface and allows users to download PDF files for offline reading. Apart from dedicated platforms, search engines also play a crucial role in finding free PDF files. Google, for instance, has an advanced search feature that allows users to filter results by file type. By specifying the file type as "PDF," users can find websites that offer free PDF downloads on a specific topic. While downloading 20mach Z Manual free PDF files is convenient, its important to note that copyright laws must be respected. Always ensure that the PDF files you download are legally available for free. Many authors and publishers voluntarily provide free PDF versions of their work, but its essential to be cautious and verify the authenticity of the source

before downloading 20mach Z Manual. In conclusion, the internet offers numerous platforms and websites that allow users to download free PDF files legally. Whether its classic literature, research papers, or magazines, there is something for everyone. The platforms mentioned in this article, such as Project Gutenberg, Open Library, Academia.edu, and Issuu, provide access to a vast collection of PDF files. However, users should always be cautious and verify the legality of the source before downloading 20mach Z Manual any PDF files. With these platforms, the world of PDF downloads is just a click away.

### **FAQs About 20mach Z Manual Books**

How do I know which eBook platform is the best for me? Finding the best eBook platform depends on your reading preferences and device compatibility. Research different platforms, read user reviews, and explore their features before making a choice. Are free eBooks of good quality? Yes, many reputable platforms offer high-quality free eBooks, including classics and public domain works. However, make sure to verify the source to ensure the eBook credibility. Can I read eBooks without an eReader? Absolutely! Most eBook platforms offer web-based readers or mobile apps that allow you to read eBooks on your computer, tablet, or smartphone. How do I avoid digital eye strain while reading eBooks? To prevent digital eye strain, take regular breaks, adjust the font size and background color, and ensure proper lighting while reading eBooks. What the advantage of interactive eBooks? Interactive eBooks incorporate multimedia elements, quizzes, and activities, enhancing the reader engagement and providing a more immersive learning experience. 20mach Z Manual is one of the best book in our library for free trial. We provide copy of 20mach Z Manual in digital format, so the resources that you find are reliable. There are also many Ebooks of related with 20mach Z Manual. Where to download 20mach Z Manual online for free? Are you looking for 20mach Z Manual PDF? This is definitely going to save you time and cash in something you should think about.

### **Find 20mach Z Manual :**

[2007 nissan sentra owners manual](#)

[2007 kia rio service manual](#)

[2007 honda pilot maintenance minder reset](#)

[2007 ford f150 parts diagram](#)

[2007 gmc envoy shop manual](#)

**2007 f150 harley davidson edition**

**2007 mitsubishi raider problems**

~~2007 gmc yukon parts manual~~

**2007 citroen c5 owners manual****2007 honda accord 90000 mile service**

2007 dodge ram 2500 fuse box diagram

*2007 ford fusion owner manual*

**2007 infiniti g35 manual**

*2007 dodge charger fuse manual*

**2007 kia rio user manual****20mach Z Manual :**

Mercedes Benz Atego Wiring Diagram Pdf Mercedes Benz Atego Wiring Diagram Pdf. INTRODUCTION Mercedes Benz Atego Wiring Diagram Pdf .pdf. Mercedes Truck Actros Axor Atego Wiring Reading part1 MERCEDES ATEGO Wiring Diagrams MERCEDES ATEGO Wiring Diagrams ; ATEGO AGN Power Supply. AGN Power Supply ; ATEGO Coolant Temperature Sensor 'Retarder. Coolant Temperature Sensor 'Retarder. Merc ATEGO 815 day cab 1999 - Wiring Diagrams Aug 21, 2019 — Hi My friend has a ATEGO 815 day cab 1999 wagon with a faulty cluster (displays) etc which decide to work when it feels like it. I was wondering if somebody ... Mercedes Atego Wiring Diagrams Mar 3, 2017 — Looking for wiring diagrams for Mercedes atego 815 2005. Truck is a non starter and has lost communication with engine ecu. Coming up MR and FR ... Mercedes Truck Actros Axor Atego Wiring Reading part2 atego complete wiring diagrams.zip (5.11 MB) - Repair manuals Mercedes Benz Atego from 2004. 5.1 MB. Download slowly 40 seconds @ 1 Mbit/s Downloading ... Download fast + without registration 1 seconds @ 40 Mbit/s. Mercedes Benz 950 Wiring Diagram For Alternator | PDF Mercedes Benz 950 Wiring diagram for alternator - Read online for free. Wiring diagram for 950 series Mercedes-Benz alternator. Mercedes Atego PDF Service Manual This brochure is intended for the use of technical personnel. familiar with the service and maintenance of Mercedes-Benz trucks. It is assumed here that the ... I Can Save the Ocean!: The Little Green... by Inches, Alison It is a story of a green monster who finds trash on the beach and looks at the consequences of it while he goes into the water. Although my son has a very short ... I Can Save the Ocean! | Book by Alison Inches, Viviana ... I Can Save the Ocean! by Alison Inches - Max the Little Green Monster is a cute, furry green monster that loves the outdoors, especially the beach! I Can Save the Ocean!: The Little Green Monster Cleans ... I Can Save the Ocean is a children's picture book by Alison Inches the follows Little Green Monsters that love the beach. Max and his friends don't like ... 10 Ways You Can Help Save the Oceans 1. Demand plastic-free alternatives · 2. Reduce your carbon footprint · 3. Avoid ocean-harming products · 4. Eat sustainable seafood · 5. Vote on

ocean issues · 6. "I Can Save the Ocean" - Free stories online. Create books ... Hello my name is Sara and I can't wait to go surfing and snorkeling. This summer we are going to Australia to visit my best friend Ruby. She moved awa... 5 reasons you should care about our ocean Our ocean is in serious trouble. Heating, pollution, acidification, and oxygen loss pose serious threats to the health of the ocean and to all living beings ... How can you help our ocean? - National Ocean Service 10 Ways to Help Our Ocean ; 1. Conserve Water. Use less water so excess runoff and wastewater will not flow into the ocean. 2. Reduce Pollutants ; 4. Shop Wisely. 10 Amazing Organizations Fighting to Save Our Oceans One of the best ways you can contribute to marine conservation is by joining one of these groups and donating to the cause. Here is a list of what we think are ... Photosynthesis PowerPoint Question Guide Flashcards Study with Quizlet and memorize flashcards containing terms like Anabolic, IS photosynthesis an endergonic or exergonic reaction, What is the carbon source ... Photosynthesis pptQ 1 .docx - Photosynthesis PowerPoint... Photosynthesis PowerPoint Question Guide Overview 1. Photosynthesis is a(n) \_\_\_\_\_ reaction because it combines simple molecules into more complex molecules. Photosynthesis powerpoint Flashcards Study with Quizlet and memorize flashcards containing terms like Light- dependent Reactions occur when?, Photosynthesis, G3P and more. Photosynthesis Guided Notes PowerPoint and Practice ... These Photosynthesis Guided Notes use a highly animated PowerPoint and Practice to illustrate the Light Dependent Reactions and Light Independent Reactions ( ... ENGLISH100 - Chapter 9 2 Photosynthesis Note Guide.pdf 2. Is photosynthesis an endergonic or exergonic reaction? Explain why. 3. What serves as the carbon source for photosynthesis? 4. Sunlight is ... Photosynthesis powerpoint A 12 slide PowerPoint presentation about Photosynthesis. It's a very colorful and cautivating way to introduce your students to this ... Introduction to Photosynthesis: PowerPoint and Worksheet The Introduction to Photosynthesis Lesson includes a PowerPoint with embedded video clip links, illustrated Student Guided Scaffolded Notes, Teacher Notes, ... Photosynthesis-Worksheets-1 Questions and Answers Photosynthesis-Worksheets-1 Questions and Answers ; KIDSKONNECT.COM. Photosynthesis Facts ; □In common terms, photosynthesis in plants uses light energy to. Photosynthesis.PPT Oct 16, 2018 — Begin Photosynthesis reading. Complete "Identify Details" Highlight/underline the events of each stage of photosynthesis. Answer questions 1-8.