

# A-50M+

## Omnidirectional Laser Scan Module



## Service Guide

### Revision History

Changes to the original manual are listed below:

| Version | Date              | Description of Version |
|---------|-------------------|------------------------|
| 1.0     | June. 10, 2014    | Initial release        |
| 1.1     | November 07, 2019 | Engine updated         |
| 1.2     | March 1, 2020     | Buzzer board updated   |

## Preface

### Laser Safety

The Omnidirectional Laser Scan Module Scanner complies with safety standard IEC 60825 for a Class II laser product. It also complies with CDRH as applicable to a Class IIa laser product. Avoid long term staring into direct laser light.

**Radiant Energy:** The Miniature Dual-Laser Omnidirectional Hands-free Scanner uses two low-power visible laser diodes operating at 650nm in an opto-mechanical scanner resulting in less than 3.9µW radiated power as observed through a 7mm aperture and averaged over 10 seconds.

Do not attempt to remove the protective housing of the scanner, as unscanned laser light with a peak output up to 0.8mW would be accessible inside.

**Laser Light Viewing:** The scan window is the only aperture through which laser light may be observed from this product. A failure of the scanner motor, while the laser diode continues to emit a laser beam, may cause emission levels to exceed those for safe operation. The scanner has safeguards to prevent this occurrence. If, however, a stationary laser beam is emitted, the failing scanner should be disconnected from its power source immediately.

**Adjustments:** Do not attempt any adjustments or alteration of this product. Do not remove the protective housing of the scanner. There are no user-serviceable parts inside.

**Caution:** Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure.

**Optical:** The use of optical instruments with this product will increase the eye hazard. Optical instruments include binoculars, magnifying glasses, and microscopes but do not include normal eye glasses worn by the user.

### For CE-Countries

This scanner is in conformity with CE standards. Please note that an approved, CE-marked power supply unit should be used in order to maintain CE conformance.

|                                                                                        |
|----------------------------------------------------------------------------------------|
| This manual is in A4 format. Please check your printer setting before printing it out. |
|----------------------------------------------------------------------------------------|

Table of Contents

Preface.....2

    Laser Safety.....2

    Scanner Parts.....4

Take Apart .....5

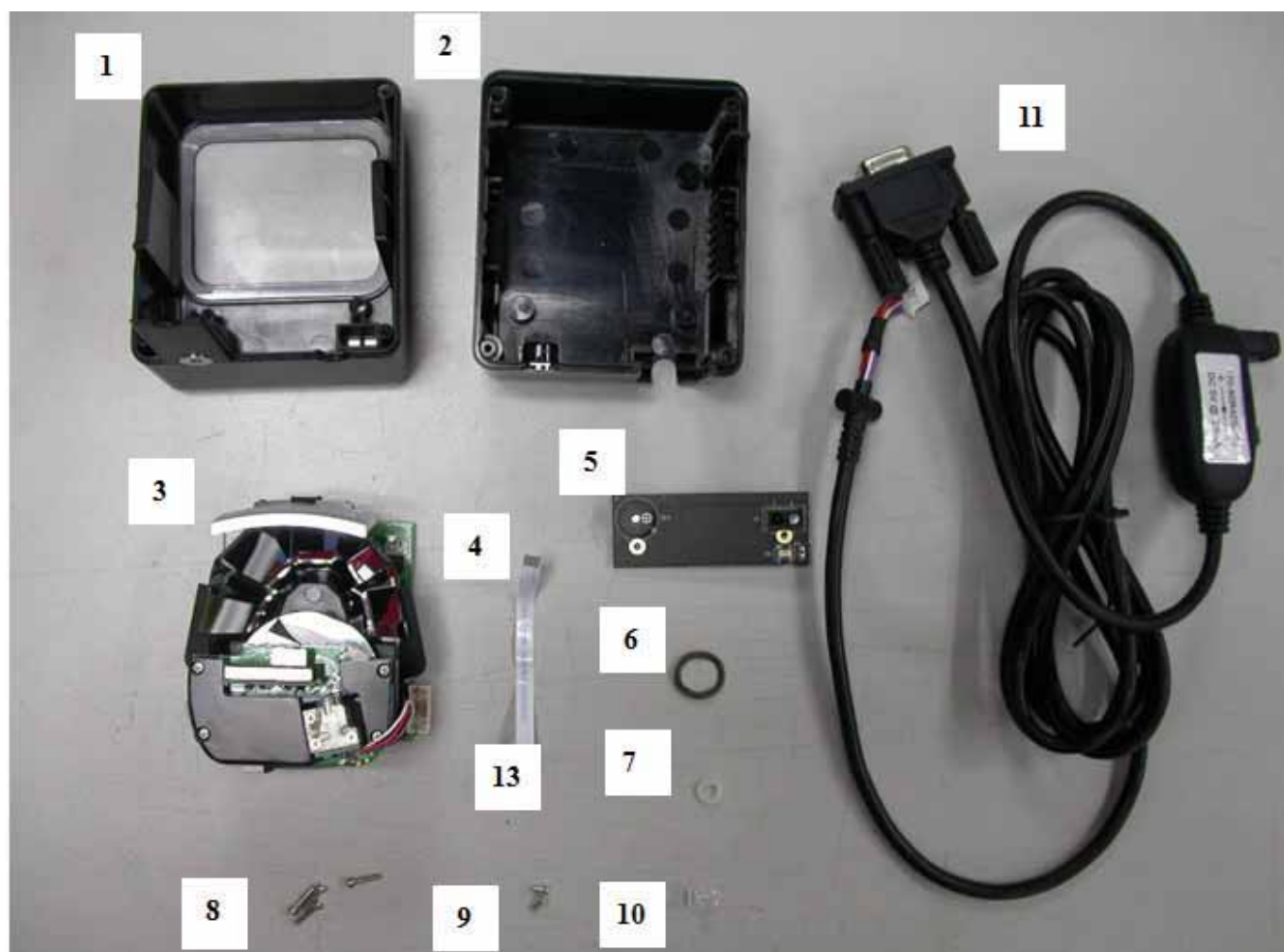
    Before You Start.....5

 Important Instructions .....5

    Tools to Prepare .....5

## Scanner Parts

The scanner includes the following parts:



| NO. | P/N                              | Name                          | Quantity |
|-----|----------------------------------|-------------------------------|----------|
| 1   | 864-A50MP0-307                   | Top case assembly             | 1        |
| 2   | 864-A50MBC-000                   | Bottom case assembly          | 1        |
| 3   | 864-A50MP2-710                   | Center mirror base assembly   | 1        |
| 4   | 031-006508-000                   | FFC cable                     | 1        |
| 5   | 864-A50MP1-711                   | Buzzer+LED board assembly     | 1        |
| 6   | 603-2A50M0-201                   | Buzzer sealing rubber         | 1        |
| 7   | 563-A30600-091                   | PC board spacer               | 1        |
| 8   | 521-002000-8R0                   | Self tapping screw,M1.6-8.0mm | 4        |
| 9   | 521-202000-4R0                   | Self tapping screw M1.6-4.0mm | 2        |
| 10  | 689-100000-201                   | LED light guide panel         | 1        |
| 11  | 170-50R425-200<br>170-50U303-200 | RS-232 cable<br>USB cable     | 1        |

## Take Apart Before You Start

### Important Instructions

- Read these instructions completely before you begin.
- Follow all instructions.
- Heed all warnings.

### Tools to Prepare

- Philips screwdriver.

Please follow these steps to take apart A-50M+.

1. Unscrews the screws and remove the cover.



2. Separate the front and back cover then remove the FFC cable.



3. Remove the screws pointed by the red arrows.



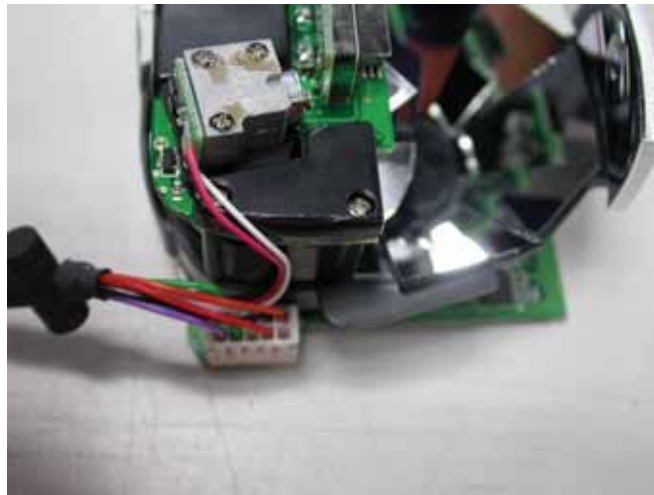
4. Take out the sealing rubber.



5. Remove the center mirror base.



6. Remove the cables in circle.



7. Remove the FFC cable.

