

BUSSOLE MAGNETICHE – ALTOPARLANTI AMAGNETICI MARINI –  
SISTEMI DI GOVERNO – ACCESSORI PER GOMMONI – ACCESSORI PER BENZINA

Ragione Sociale: RIVIERA S.R.L. GENOVA  
Sede Legale: Via Inf. Rio Maggiore 4 A - 16138 Genova  
Tel. 010.8355286 – Fax 010.8356309  
[www.rivieragenova.com](http://www.rivieragenova.com) – E-mail: [info@rivieragenova.it](mailto:info@rivieragenova.it)

# RIVIERA STEERING HELM MD45-100, MDA100-100M

## Installation instructions and owner's manual

### *Certificate of Warranty*

*Riviera Srl declares that its products are manufactured in a workmanlike manner and comply with current regulations. The warranty is valid 24 months from the purchase date.*

*Riviera grants an extended warranty for the helms model MD45,MD100 and MDA100 manufactureds from the year 2021 to 2024, which extends the validity to a total of 5 years.*

*If the Riviera products are installed and used for commercial purposes, the guarantee is limited to one year from the purchase date, without further warranty extensions.*

*The warranty does not cover any costs deriving from assembly or disassembly of products, transport of the same and expenses for technical personnel, even if attributable to manufacturing defects.*

*Upon receipt a defective product, it will be examined to determine the cause of defect. If the product is determined to have a defect in workmanship or material, it will be repaired or replaced at the Riviera discretion.*

*This guarantee does not cover products that have been misinstalled or misapplied, it does not cover claims for direct or indirect damage.*

*Riviera Srl Genova decline liability and guarantee if products are improperly installed, misapplied or misused.*

BUSSOLE MAGNETICHE – ALTOPARLANTI AMAGNETICI MARINI –  
SISTEMI DI GOVERNO – ACCESSORI PER GOMMONI – ACCESSORI PER BENZINA

Ragione Sociale: RIVIERA S.R.L. GENOVA  
Sede Legale: Via Inf. Rio Maggiore 4 A - 16138 Genova  
Tel. 010.8355286 – Fax 010.8356309  
[www.rivieragenova.com](http://www.rivieragenova.com) – E-mail: [info@rivieragenova.it](mailto:info@rivieragenova.it)

## Products Index

| Helm    |                  | Steering Helm Kit |                  |
|---------|------------------|-------------------|------------------|
| MD45    | art. 62.00874.00 | KMD45             | art. 62.00878.00 |
| MD100   | art. 62.00875.00 | KMD100            | art. 62.00879.00 |
| MDA100  | art. 62.00876.00 | KMDA100           | art. 62.00880.00 |
| MDA100M | art. 62.00877.00 | KMDA100M          | art. 62.00881.00 |



### **FOR THE INSTALLER:**

These instructions contain important safety information and must be handed to the boat owner.

These instructions show how to install MD45-100,MDA100-100M steering helm. Follow the instructions and figures below to assemble the steering box and cable.



*Before starting installation read these instructions and engine manufacturer instructions thoroughly. Failure to follow either of these instructions or incorrect assembly can result in loss of control and cause property damage, injury.*

**DO NOT substitute parts with those from other manufacturers, they may cause a safety hazard for which Riviera srl Genova cannot accept responsibility.**

*To avoid excessive steering loads and to get the best steering performance, the outboard motor or outdrive trim tabs and tilt position must be adjusted as instructed in the motor manufacturers operation manual. Failure to do so may affect the performance of the boat and its safe operation which may cause property damage, injury.*

**DO NOT attach any electrical ground wires to the helm and/or cable. This would result in an electrolytic influence to the steering system that may result in system failure or greatly reduced service life.**

*Helms and cable assemblies are supplied lubricated ready for installation. Do not add any lubricant to either assembly. Use of other lubricants can cause damage to the steering cable, resulting in the cable seizing or premature wear. Keep the cable and drive assembly clean during installation. Dirt will damage the system and cause premature wear.*

BUSSOLE MAGNETICHE – ALTOPARLANTI AMAGNETICI MARINI –  
SISTEMI DI GOVERNO – ACCESSORI PER GOMMONI – ACCESSORI PER BENZINA

Ragione Sociale: RIVIERA S.R.L. GENOVA  
Sede Legale: Via Inf. Rio Maggiore 4 A - 16138 Genova  
Tel. 010.8355286 – Fax 010.8356309  
[www.rivieragenova.com](http://www.rivieragenova.com) – E-mail: [info@rivieragenova.it](mailto:info@rivieragenova.it)

## PREPARING TO INSTALL

- Install the cable only after you have secured the box as shown in the figures of this manual.
- Install possibly the wheel house on the starboard side, in order to counter the imbalance caused by the propeller rotation.
- Avoid connecting and assembling the cable close to electrical wires.
- And it's necessary that the cable terminal side of the motor, in order to avoid friction and to a worsening of the riding comfort, is perfectly in line with the outboard motor. This to avoid misalignments and waves that would entail a deterioration of the performance of the cable, reducing its life and functionality.



### **ATTENTION :**

**Please read carefully the instructions before to proceed to installation.**

### **1. Fastening flanges assembly**

- Carry out the dashboard drilling, using the plastic flange N°2 and then use it for assembly.
- Assemble the fastening flanges 1 and 2 (see Fig. 2), by use of N° 4 M6x35 screws (3), N° 4 washers (5) and N° 4 M6 self-locking nuts (4).
- Particular care must be taken in order to ensure that the two small holes on the external flange are in horizontal position (see fig. 1).
- Tighten the screws.

### **2. Cable assembly T01 (for MD45) T02 (for MD100-MDA100-MDA100M)**

- For a correct assembly, the cable must be routed following the shortest possible path. Sharp and too frequent bends are to be avoided, as they reduce the cable smoothness, compromising its working conditions and durability. The minimum advisable bend radius is about 200 mm.
- Firmly secure the cable at regular gaps, this avoids the same ripple during movement of the inner spiral cable.

BUSSOLE MAGNETICHE – ALTOPARLANTI AMAGNETICI MARINI –  
SISTEMI DI GOVERNO – ACCESSORI PER GOMMONI – ACCESSORI PER BENZINA

Ragione Sociale: RIVIERA S.R.L. GENOVA  
Sede Legale: Via Inf. Rio Maggiore 4 A - 16138 Genova  
Tel. 010.8355286 – Fax 010.8356309  
[www.rivieragenova.com](http://www.rivieragenova.com) – E-mail: [info@rivieragenova.it](mailto:info@rivieragenova.it)

### 3. Fixing of cable to steering box

- Select the most suitable hole for cable insertion, according to the direction of the steering system assembly (control cable can be fit in either port or starboard of the steering helm).
- Unscrew the cable clamping screw from the box.
- Insert the spiral inner cable and turn the steering wheel.
- In order to mesh the cable with gear wheel (see Fig. 4).
- Keep turning the steering wheel until the joint has reached the limit stop.
- Reinsert the screw and tighten.
- To insert the fairlead joint in the opposite hole, repeat the same operations as above.
- Insert the protection gaiter on the exceeding length of cable.

### 4. Box mounting on the dashboard

- Insert the steering box ( 6 ) in the special flange seats (see Fig. 5 and 6 ), positioning it as allowed by the clearances (it is possible to mount the box in 8 different positions, at intervals of 45°).
- Fit the box in until the four threaded studs come out of the dashboard.
- Fasten the stud with n° 4 self-locking nuts (7), n° 4 washers (8), tightening them crosswise.

### 5. Clutch and hub-cap installation

- It the hub-cap (11) on the external flange, making sure that the hole for the clutch knob is positioned in the upper right side (see Fig. 7) and the clutch clamp is properly placed on the hub.
- Fasten by means of n° 2 self-tapping screws D. 3.5x38 (13), predrill if necessary.

### 6. Steering wheel mounting

- Insert the wheel on the hub (see Fig. 8) placing the key in the seat.
- Fix the steering wheel with n° 1 M8x55 screw (15) and n°1 washer (14).

USE WHEELS OF DIAMETER AND HEIGHT NOT EXCEEDING THE INDICATIONS MARKED ON THE HUB-CAP

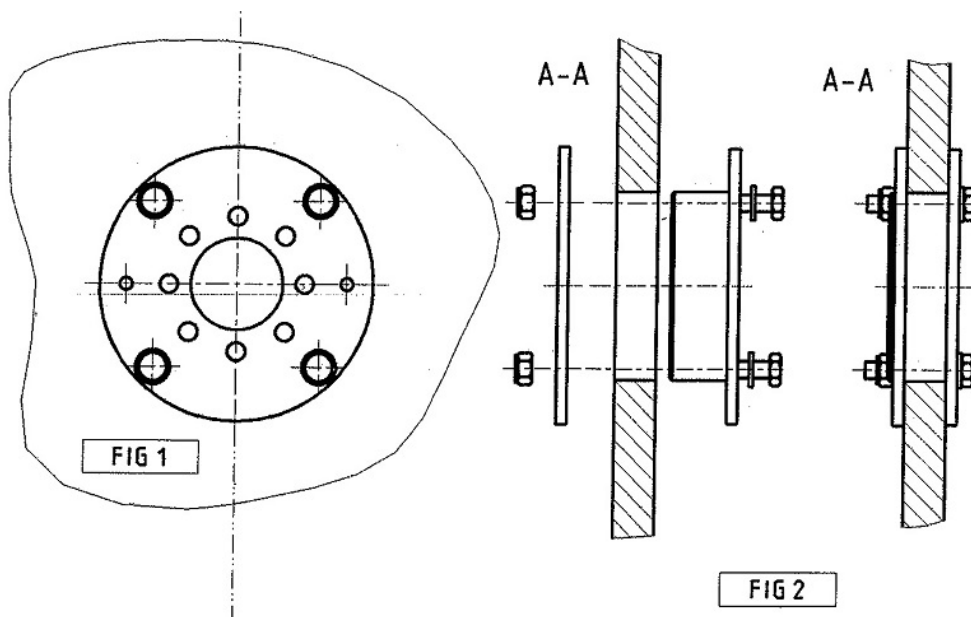
BUSSOLE MAGNETICHE – ALTOPARLANTI AMAGNETICI MARINI –  
SISTEMI DI GOVERNO – ACCESSORI PER GOMMONI – ACCESSORI PER BENZINA

Ragione Sociale: RIVIERA S.R.L. GENOVA  
Sede Legale: Via Inf. Rio Maggiore 4 A - 16138 Genova  
Tel. 010.8355286 – Fax 010.8356309  
[www.rivieragenova.com](http://www.rivieragenova.com) – E-mail: [info@rivieragenova.it](mailto:info@rivieragenova.it)

## PERIODIC MAINTENANCE

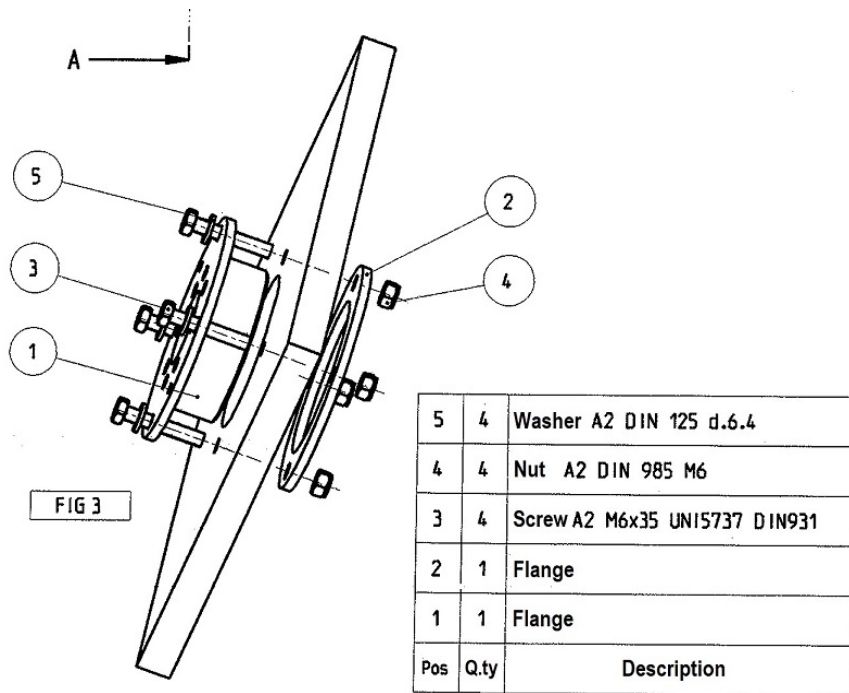
**Since the mechanical products is important to control at least once a year that the assembly is always efficient in particular:**

1. The cable sheath must not have cracks or openings in the body or in the vicinity of the joints. If it recommends ist replacement.
2. Make sure the engine side terminal and the mechanical parts connected to it are kept clean and lubricated, even during downtimes. Use proper protective fat.
3. Make sure that the screws and / or the housing bolts are pulled and possibly proceed with their tightening.
4. Wash with soap internal coiled cable to the box and arrange for their lubrication with proper protective fat. The oxide formation may impair the flexibility of the same as well as the comfort and safety of navigation; in this case it is recommended to replace the cable.
5. If you ever notice a hardening of the steering wheel, disassemble the side of the motor cable terminal and verify the improvement of its sliding; Again check the rotation of the outboard and proceed with its maintenance following the engine manufacturer's manual. If not disconnect the cable from the wheelhouse side and carry out the check again. If the problem persists, replace the box; otherwise it is simply the only place of the complete cable.



BUSSOLE MAGNETICHE – ALTOPARLANTI AMAGNETICI MARINI –  
SISTEMI DI GOVERNO – ACCESSORI PER GOMMONI – ACCESSORI PER BENZINA

Ragione Sociale: RIVIERA S.R.L. GENOVA  
Sede Legale: Via Inf. Rio Maggiore 4 A - 16138 Genova  
Tel. 010.8355286 – Fax 010.8356309  
[www.rivieragenova.com](http://www.rivieragenova.com) – E-mail: [info@rivieragenova.it](mailto:info@rivieragenova.it)



BUSSOLE MAGNETICHE – ALTOPARLANTI AMAGNETICI MARINI –  
SISTEMI DI GOVERNO – ACCESSORI PER GOMMONI – ACCESSORI PER BENZINA

Ragione Sociale: RIVIERA S.R.L. GENOVA  
Sede Legale: Via Inf. Rio Maggiore 4 A - 16138 Genova  
Tel. 010.8355286 – Fax 010.8356309  
[www.rivieragenova.com](http://www.rivieragenova.com) – E-mail: [info@rivieragenova.it](mailto:info@rivieragenova.it)

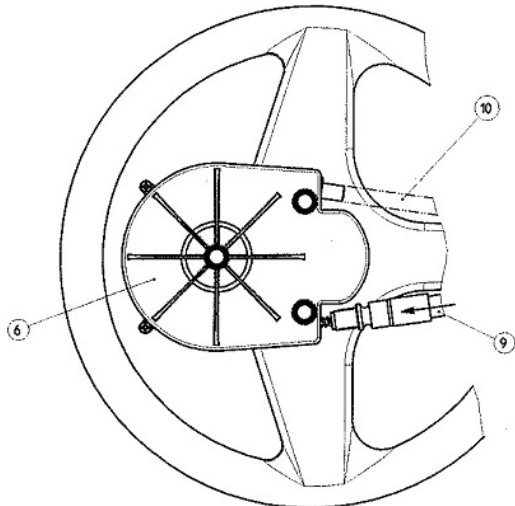


FIG 4

|      |                   |      |
|------|-------------------|------|
| 10   | Protection gaiter | 1    |
| 9    | Cable T01         | 1    |
| 6    | Steering box      | 1    |
| Pos. | Description       | Q.ty |

|      |                         |      |
|------|-------------------------|------|
| 8    | Washer A2 DIN 125 d.6.4 | 4    |
| 7    | Nut A2 DIN 985 M6       | 4    |
| 6    | Steering box            | 1    |
| Pos. | Description             | Q.ty |

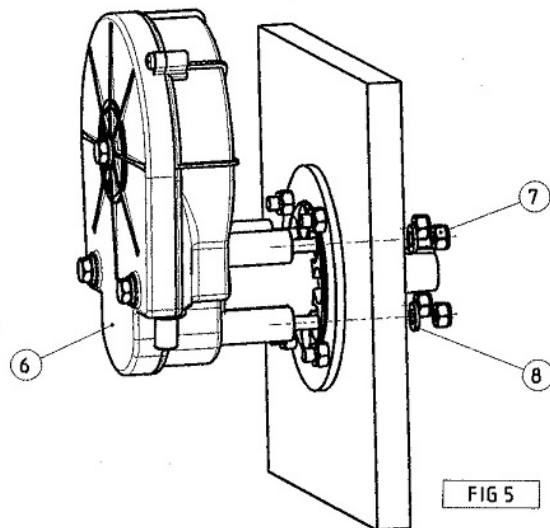


FIG 5

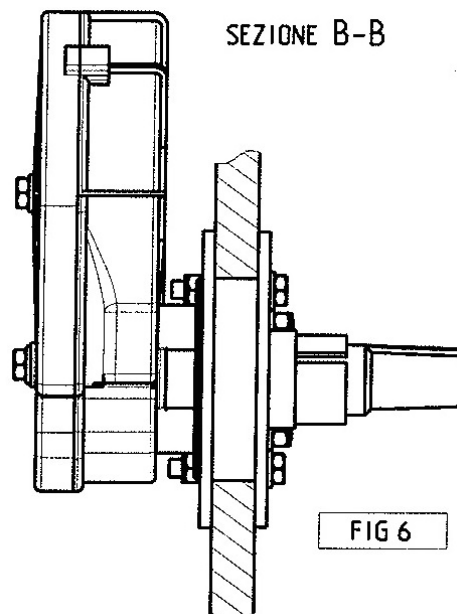
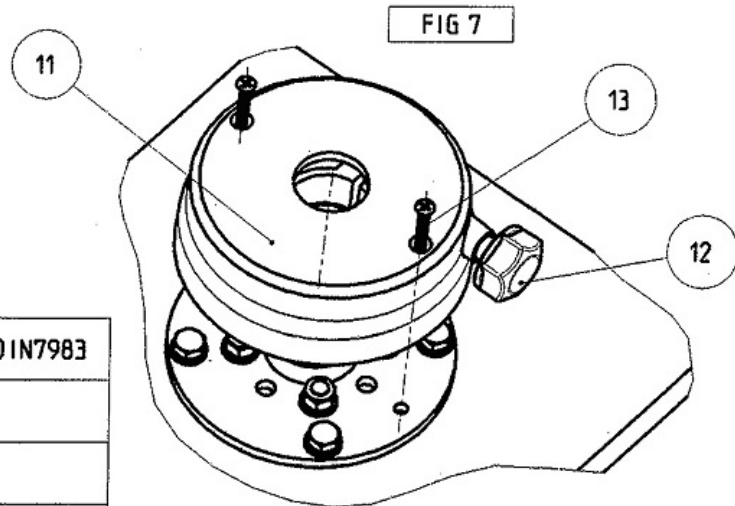


FIG 6

BUSSOLE MAGNETICHE – ALTOPARLANTI AMAGNETICI MARINI –  
 SISTEMI DI GOVERNO – ACCESSORI PER GOMMONI – ACCESSORI PER BENZINA

Ragione Sociale: RIVIERA S.R.L. GENOVA  
 Sede Legale: Via Inf. Rio Maggiore 4 A - 16138 Genova  
 Tel. 010.8355286 – Fax 010.8356309  
[www.rivieragenova.com](http://www.rivieragenova.com) – E-mail: [info@rivieragenova.it](mailto:info@rivieragenova.it)



|     |      |                                 |
|-----|------|---------------------------------|
| 13  | 2    | Screw A2 3.5x38 UNI6956 DIN7983 |
| 12  | 1    | Clutch knob                     |
| 11  | 1    | Hubcup box                      |
| Pos | Q.ty | Description                     |