
Installation Manual

PADDLE TRIM



CE

WFLEx



Dear Customer,

Thank you for choosing an **ULTRAFLEX** product.

ULTRAFLEX has been a reference in steering systems in the field of recreational and professional boating for years.

ULTRAFLEX production has always been synonymous with great reliability and safety.

All the **ULTRAFLEX** products are designed to guarantee the best performance in relation to the purpose for which they were designed.

To protect your safety and to maintain high quality standards **ULTRAFLEX** guarantees its products only when used with original parts.

The Quality Management Systems **ULTRAFLEX** and **UFLEX** are certified CISQ-IQNet by RINA Italian Naval Register, in accordance with the UNI EN ISO 9001:2000 standard. Certificate **ULTRAFLEX** no. 6669/02/S (formerly 420/96). Certificate **UFLEX** no. 8875/03/S.

The Quality system involves all the company resources and processes starting from the design to:

- guarantee product quality to the Customer;
- implement the actions necessary to maintain and improve the quality standards over time;
- pursue continuous improvement of process effectiveness and efficiency in order to always be in tune with the needs of the market and to increase Customer satisfaction.



“Established in 1989 **UFLEX USA** is a leader in steering and control systems for the marine industry. With full manufacturing capabilities in Sarasota, Florida, **UFLEX USA** can support all sectors of the marine industry regardless of volume and/or product requirements. And, as an affiliate of the **ULTRAFLEX** Group, **UFLEX USA** has tremendous resources to draw upon for new product development in hydraulics, electronics and many other technologies.

Innovative product design and unparalleled dedication to quality customer service and products continue to be cornerstone of **UFLEX USA**'s growth. Today our products can be found as originally installed equipment on many of the most widely known and respected boat brands in the world. Aftermarket parts can be sourced from trained and experienced distributor network throughout North and South America.

Our dedication to providing the highest quality products and service is only matched by our commitment to developing new products employing the latest materials and technology to enhance our customer's boating experience. From steering wheels to sophisticated electronic controls, **UFLEX USA** has everything you need to make sure that your boat looks and perform it's best for many, many years.”

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DOCUMENT REVISIONS

REV.	DATE	REVISION DESCRIPTION
0	08/06/2015	First release

USING THE MANUAL AND THE SYMBOLS USED

The **INSTALLATION MANUAL** is the document that accompanies the product from the time of its sale until its replacement and disposal. It is therefore to be considered an integral part of the product. It is a requirement to read the manual before undertaking **ANY ACTIVITIES** that involve the product. In order to protect the safety of the user and to ensure the proper functioning of the product, the symbols described below have been adopted in this manual.



DANGER

Indicates that there is a serious inherent danger that could lead to a high probability of death or serious injury if the appropriate precautions are not taken.



WARNING

It indicates that there is a hazard that can cause injury or death if appropriate precautions are not taken.



CAUTION

Indicates a reminder of safety practices or unsafe practices that could cause injury or damage to the product or environment.



NOTE

Important information to highlight for a proper installation and maintenance, but that will not cause damage.



The operations for the execution of which qualified or specialised personnel are required in order to avoid possible risks, are highlighted with the symbol shown to the side.

It is recommended to train personnel for the installation of the product and ensure that the provisions are both understood and implemented.



GENERAL INFORMATION

This installation manual is an integral part of the product and must be readily available to its users and maintenance personnel.

The user is required to know the contents of this manual.

UFLEX assumes no responsibility for any inaccuracies due to printing errors, contained in the manual.

Without prejudice to the essential characteristics of the product described, **UFLEX** reserves the right to make any changes, as thought fit, to descriptions, details and illustrations for the improvement of the product, or for manufacturing or commercial reasons, at any time and without undertaking to update this publication.

ALL RIGHTS RESERVED. The publishing rights, trademarks, initials and the **UFLEX** product photographs shown in this manual are the property of **UFLEX** and any reproduction, even partial, is prohibited.

Every care has been taken in collecting and checking the documentation to make this manual as complete and comprehensible as possible. Nothing contained in this publication may be construed as a guarantee or condition, express or implied, including, but not limited to, the guarantee of fitness for a particular purpose.

Furthermore, nothing contained in this publication can be interpreted as modifying or asserting the terms of any purchase contract.

WARNING

In order to ensure the proper functioning of the product and its components, it must be installed by expert personnel. In the event of component parts failure or malfunctions, please contact the specialised personnel or our Technical Service Department.

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WARRANTY

- 1. Two Year Limited Warranty.** UFLEX USA, Inc. warrants that all products manufactured by UFLEX USA, Inc. or ULTRAFLEX S.p.A. and sold by UFLEX USA to the retail purchaser ("Purchaser") that for two (2) years after the date of manufacture to be free from defects due to material or workmanship, subject to the exclusions below. Improper installation AVOIDS this warranty. Installation should only be attempted by a trained and qualified technician.
- 2. Exclusions.** This limited warranty does not cover and does not extend to any of the following:
 - (a) Failure caused by normal wear and tear, climatic conditions, misuse, neglect, lack of proper maintenance, accident, fire or other casualty damage, racing, overloading, negligence, modification, beaching or grounding of vessel, collision, impact, towing, acts of war or hostilities;
 - (b) components not manufactured by UFLEX USA, Inc., or its affiliates;
 - (c) cost of removal or reinstallation of any component (including components manufactured by UFLEX USA, Inc.) or disassembly or reassembly of the unit containing the component;
 - (d) components not manufactured by UFLEX USA, Inc. or ULTRAFLEX S.p.A., whether or not warranted by the other manufacturer;
 - (e) any product which has not been properly installed.
- 3. Limitations.** THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS SHALL BE PURCHASER'S SOLE AND EXCLUSIVE REMEDY AND UFLEX USA, INC.'S SOLE AND EXCLUSIVE LIABILITY UNDER THIS WARRANTY. LABOR FOR REPLACEMENT IS NOT INCLUDED. UFLEX USA, Inc.'s obligation under this warranty is limited to the repair or replacement (at UFLEX USA, Inc.'s sole election) of any covered item found to be defective, when delivered by Purchaser pursuant to written authorization and instructions from UFLEX USA, Inc., shipping prepaid to UFLEX USA, Inc.'s plant or other designated repair facility. Repaired or replaced items are warranted as provided herein for the unexpired portion of the applicable warranty period. THIS WARRANTY, AND THE RIGHTS AND REMEDIES UNDER IT, IS EXCLUSIVE AND IS GIVEN IN PLACE OF ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE, WHETHER ARISING BY LAW, CUSTOM, CONDUCT OR USAGE OF TRADE. PURCHASER'S REMEDIES SHALL BE LIMITED AS STATED HEREIN AND UFLEX USA, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES OR LOSSES RESULTING FROM DEFECTS. THE RETAIL SELLER IS NOT A CO-WARRANTOR AND IS NOT AUTHORIZED BY UFLEX USA, INC. TO AMEND OR MODIFY THIS LIMITED WARRANTY IN ANY MANNER.
- 4. Transferability of Warranty.** This limited warranty may not be transferred to subsequent purchasers.
- 5. Miscellaneous.** UFLEX USA, Inc. is an affiliate of ULTRAFLEX S.p.A. UFLEX USA, Inc., reserves the right to make changes in the design and construction of its products at any time, without notice and without any obligation to incorporate such changes into products of prior manufacture. This limited warranty applies to new components sold by UFLEX USA, Inc.. This limited warranty contains the entire agreements between UFLEX USA, Inc. and Purchaser and supersedes all prior agreements, discussions, negotiations, commitments and representations, whether oral or written, between them regarding UFLEX USA, Inc.'s warranty. If any provision of this limited warranty, or the application of it, is determined to be invalid or unenforceable for any reason, the remainder of this limited warranty and the application of it shall not be affected.



- 6. Ultron 3000 and PowerC.** The Ultron 3000 and "PowerC – User and Installation Manual" describes activities, operations, technical specifications which must be followed during the installation and/or usage of the product, in order to keep a valid warranty. Descriptions and drawings in that manual are suitable to allow installation and use of the product to skilled persons. In case of doubt and/or for any information, please contact our Technical Service.

All communications and notices from Purchaser regarding this limited warranty should be sent to:
UFLEX USA, INC., 6442 Parkland Drive, Sarasota, FL 34243; (941) 351-2628.

Return policy

Any product that is presumed defective should be reported to **UFLEX USA** within 48 hours of receipt or discovery in the field. Upon notification **UFLEX USA** will attempt to troubleshoot the problem with our customer over the phone. If we are unable to resolve the problem **UFLEX** will issue a Return Goods Authorization number and we require that the product in question be returned to **UFLEX** with all its parts in its original packaging. The product should be returned freight prepaid to:

UFLEX USA

RGA Department – RGA #
6442 Parkland Drive
Sarasota, Florida 34243

Upon receipt **UFLEX** will examine the product to determine the cause of the defect. If the product is determined to have a defect in workmanship or material, it will be repaired at our discretion.

Our warranty does not cover labor, towing or other expenses. Further, it does not cover products that have been improperly installed, damaged in installation, misapplied, or misused.

Our products are not intended for use in racing applications.



1 - PRODUCT DESCRIPTION

1.1 Paddle Trim Description

The Paddle Trim is a control system operating at 12VDC/24VDC, inserted between the wheel and steering system.

The system can be adapted to **UFLEX** front mount hydraulic steering and to **UFLEX** hydraulic and mechanical steering systems for mounting with tilt.

The Paddle Trim has been ergonomically designed to allow the driver to adjust the following functions, without taking his hands off the steering wheel:

- engine trim
- jack plate
- trim tabs
- horn.

 **CAUTION**

Any other application apart from those shown in this manual ARE NOT ALLOWED.



1.2 Configurations

The Paddle Trim can be adapted to **UFLEX FRONT MOUNTING** hydraulic steering systems (UP20F, UP25F, UP28F, UP33F, UP39F, UP45F) or steering systems with **TILT** (mechanical or hydraulic). Both versions can be configured with single or dual control.

SINGLE CONTROL DEVICE WITH FRONT MOUNTING HYDRAULIC PUMP CONFIGURATION



DUAL CONTROL DEVICE WITH FRONT MOUNTING HYDRAULIC PUMP CONFIGURATION



SINGLE CONTROL DEVICE WITH TILT CONFIGURATION



DUAL CONTROL DEVICE WITH TILT CONFIGURATION



1.3 Package contents

Before installation of the equipment check that it has not suffered any damage due to transport or storage conditions.

Verify also that all the supplied components are effectively contained in the package (see list).

In case of damage or an incomplete delivery, notify the complaint to the courier and advise your supplier.

For a complete installation of the SINGLE control device, the user should have 2 packages:

- SINGLE CONTROL DEVICE
- MOUNTING BRACKET FOR HYDRAULIC FRONT MOUNTING STEERING SYSTEM OR STEERING SYSTEM WITH TILT

For a complete installation of the DUAL control device, the user should have 3 packages:

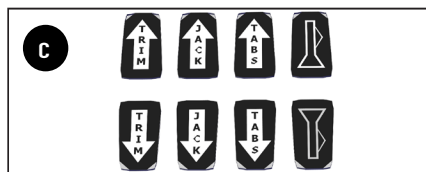
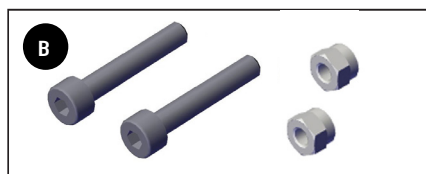
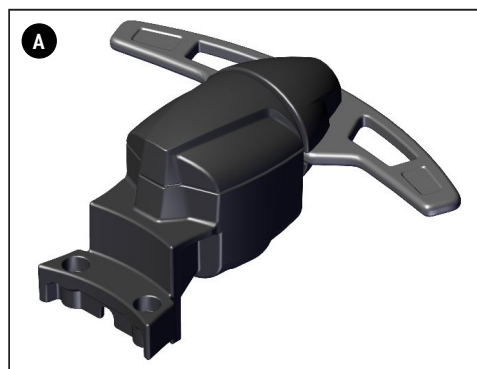
- SINGLE CONTROL DEVICE (x2)
- MOUNTING BRACKET FOR HYDRAULIC FRONT MOUNTING STEERING SYSTEM OR STEERING SYSTEM WITH TILT



The packing must be disposed of according to applicable directives.

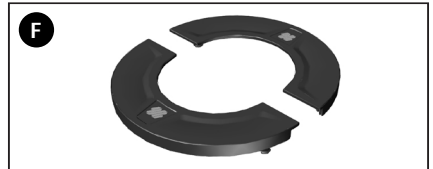
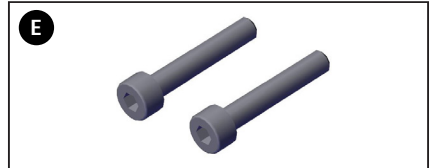
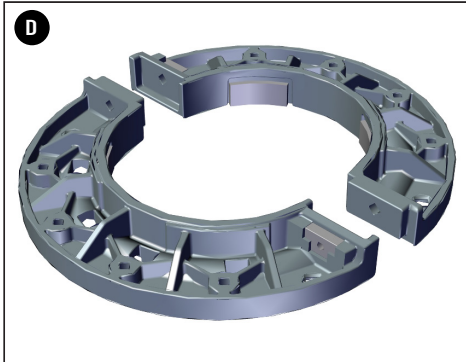
CONTENTS OF THE SINGLE CONTROL DEVICE PACKAGE

- A** qty.1 control device
- B** qty.2 M4 screws + qty.2 nuts
- C** labels



CONTENTS OF THE MOUNTING BRACKET FOR STEERING SYSTEMS WITH TILT PACKAGE (mechanical or hydraulic)

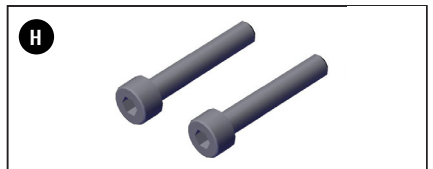
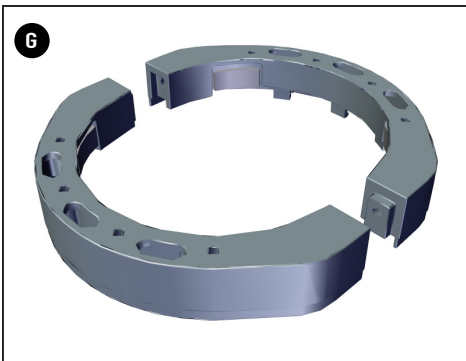
- D** qty.2 mounting half-brackets for steering system with tilt
- E** qty.2 M4 screws
- F** qty.2 half-covers



CONTENTS OF THE MOUNTING BRACKET FOR HYDRAULIC FRONT MOUNTING STEERING SYSTEMS

(compatible with **UFLEX** hydraulic front mounting steering systems UP20F, UP25F, UP28F, UP33F, UP39F, UP45F)

- G** qty.2 mounting half-brackets for hydraulic front mounting steering systems
- H** qty.2 M4 screws



2 - INSTALLATION

2.1 Tools required for the installation



3 mm male
hexagonal key



7 mm
spanner

2.2 Installing the Paddle Trim



The control device can be attached on both types of half-bracket in three different positions, at the most comfortable angle according to taste.

1



2

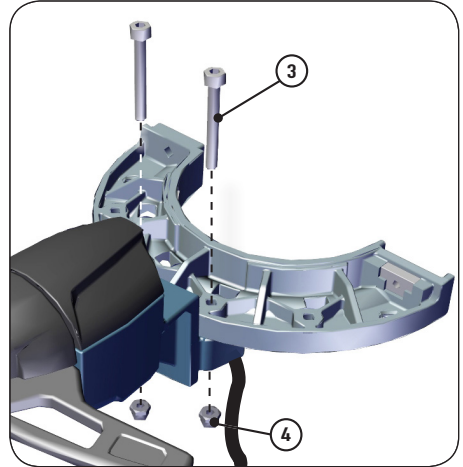
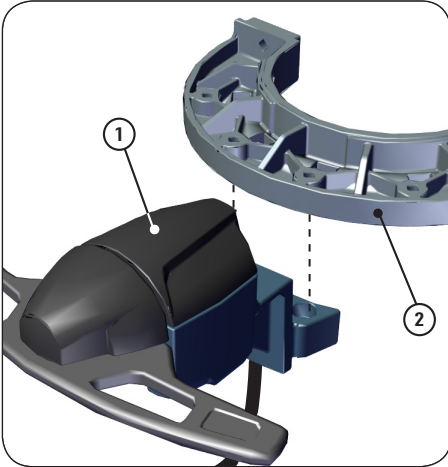


3

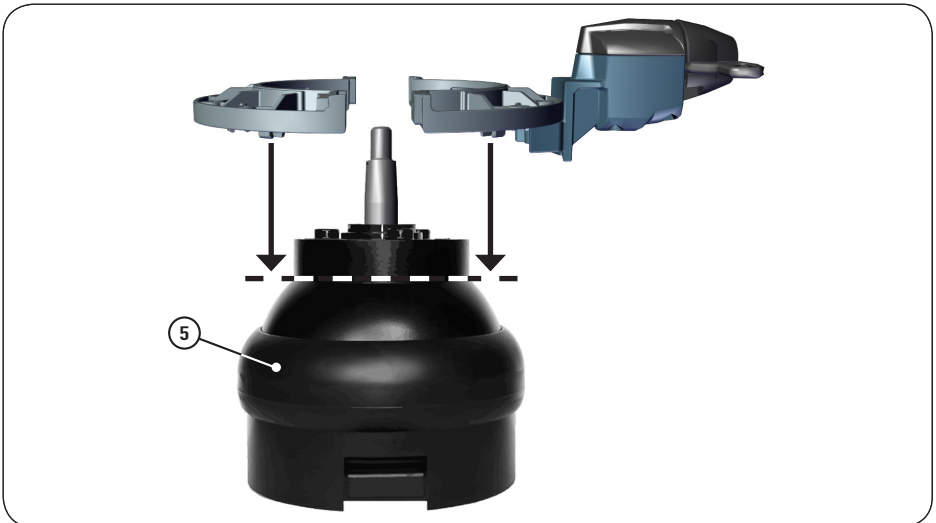


Installation on tilt

- 1 Attach the control device (1) under the mounting half-bracket (2) with the M4 screws (3) and nuts (4) using a torque of 3 Nm (2.21 lbft).
For applications with dual command, repeat the procedure on the second device.

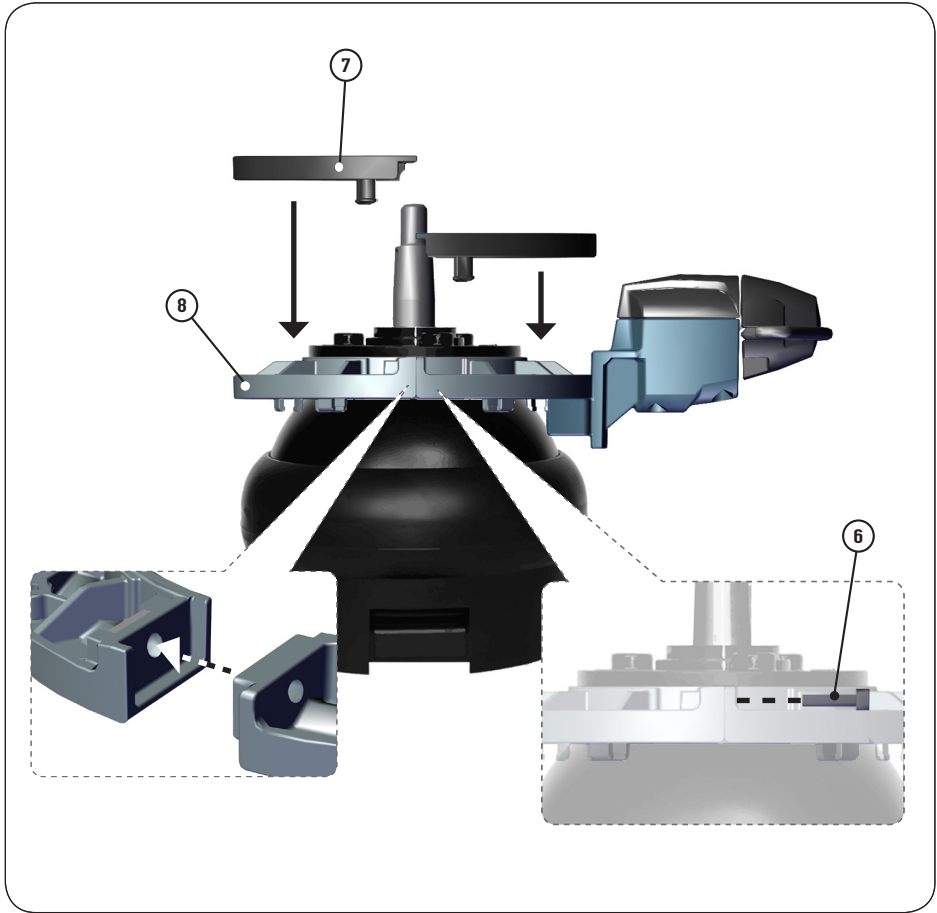


- 2 Before attaching the bracket to the tilt the surface that will be in contact with the bracket should be thoroughly degreased. The half-brackets must be positioned so that they rest on the tilt (5).



Attach the bracket to the steering system by means of the M4 screws (6) with a torque of 3 Nm (2.21 lbf).

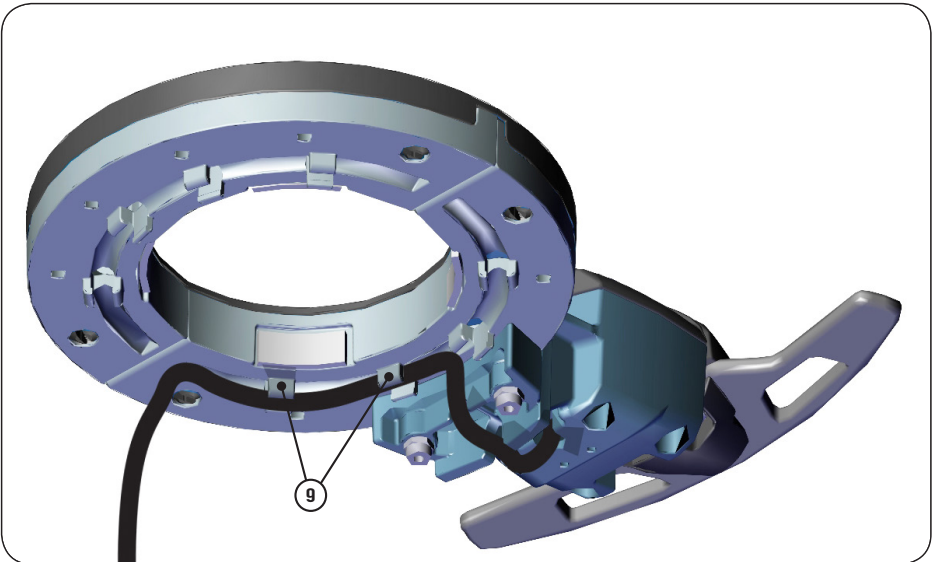
Once the bracket has been attached, position the half-covers (7) on their respective half-brackets (8).



- 3** Once the bracket has been attached to the tilt, block the electrical cable in the cable clips (9) on the lower part of the bracket.

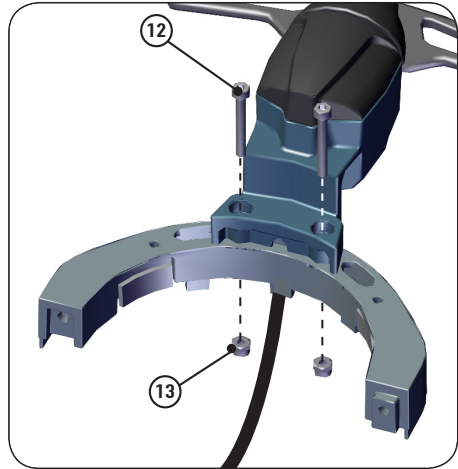
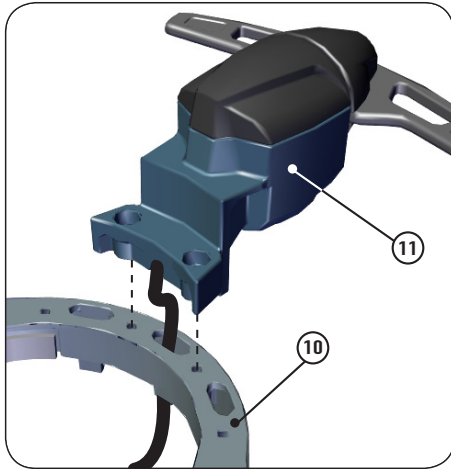
⚠ CAUTION

The installer must consider sufficient cable length to allow tilting of the mechanism avoiding that this movement can compromise the electrical connection to the device.

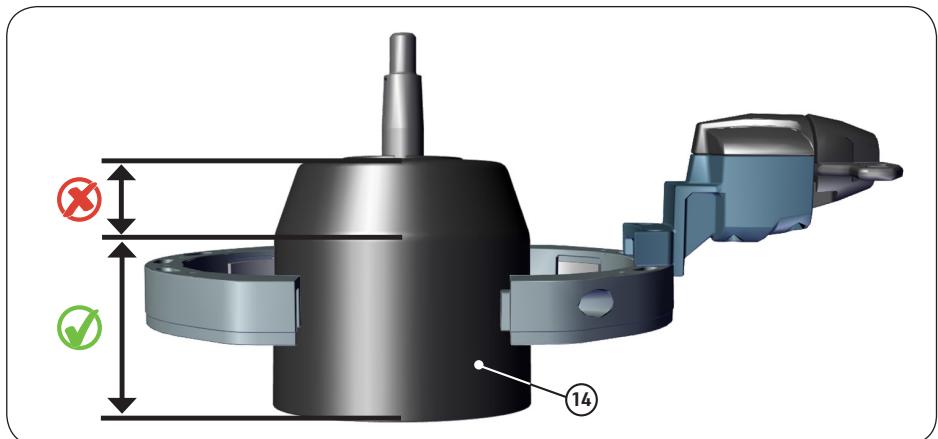


Installation on hydraulic front mounting pumps

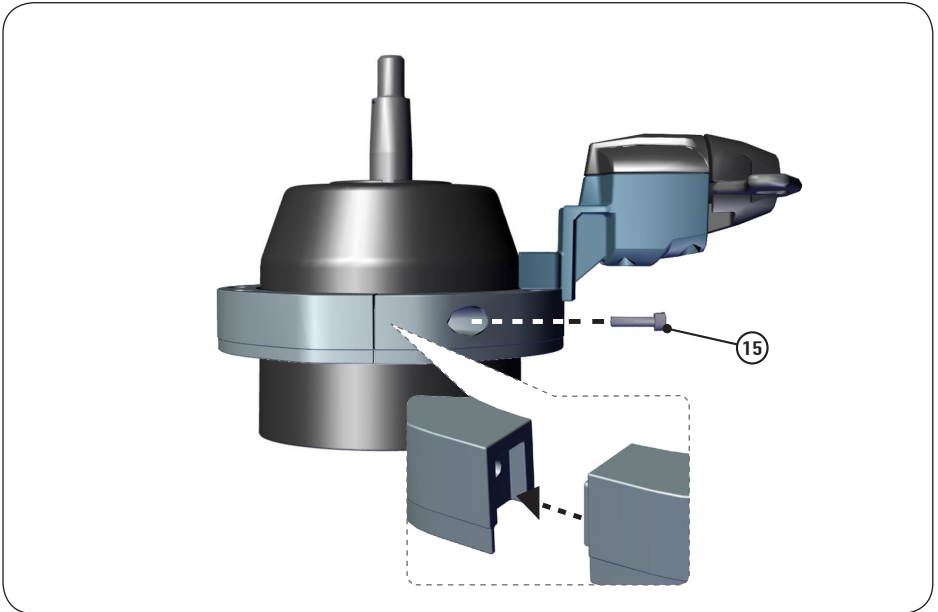
- 1 Pass the control device electrical cable through the hole provided in the half-bracket (10) beforehand. Attach the control device (11) on top of the mounting half-bracket with the M4 screws (12) and nuts (13) with a torque of 3 Nm (2.21 lbft).
For applications with dual command, repeat the procedure on the second device.



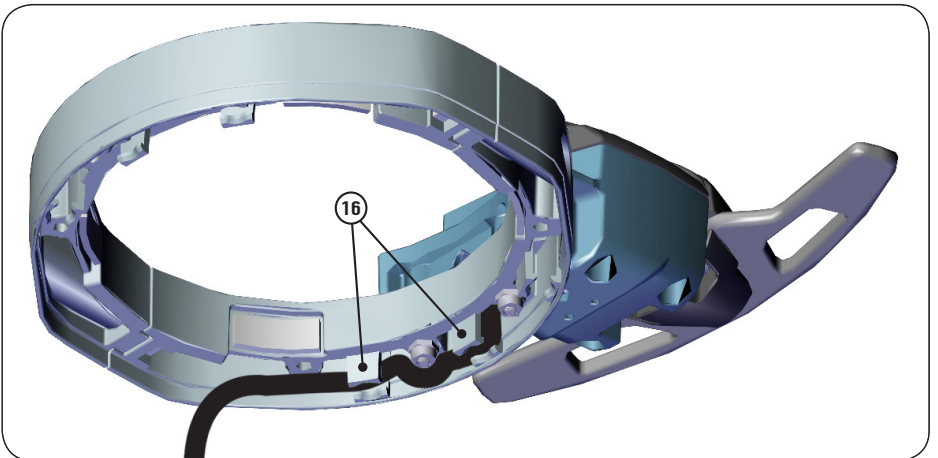
- 2 Before attaching the bracket to the steering system the surface that will be in contact with the bracket should be thoroughly degreased. The mounting bracket can be installed in any position as long as it is on the cylindrical surface of the steering system (14).



Attach the bracket to the steering system by means of the M4 screws (15) with a torque of 3 Nm (2.21 lbft).



3 Once the bracket has been attached to the steering system, block the electrical cable in the cable clips (16) on the lower part of the bracket.





2.3 Electrical connection

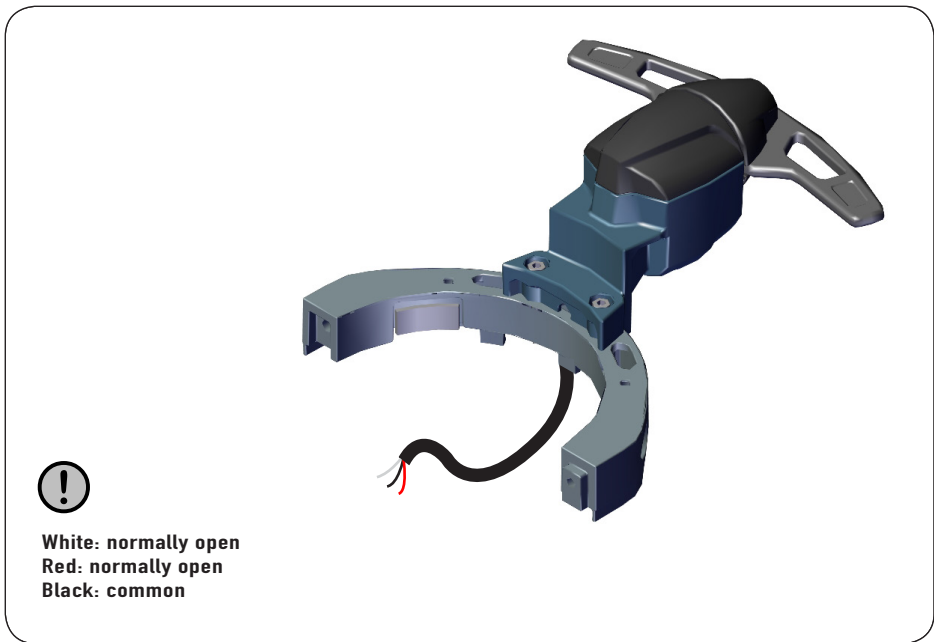
Connect the electrical conductors of the Paddle Trim as follows:

⚠ DANGER

The system will work only with 12VDC/24VDC power. DO NOT INSTALL ON SYSTEMS WITH DIFFERENT VOLTAGES FROM THESE!

⚠ CAUTION

Power limits: the device can be used with a resistive load of up to 5A and/or a maximum inductive load of 2A.



White: normally open
 Red: normally open
 Black: common

⚠ CAUTION

Once the electrical connections to the control device have been made, before attempting to drive the boat, perform a verification test to ensure that the system responds correctly to the commands given through the device.



3 - SAFETY WARNINGS

3.1 Safety rules during installation and use

The precautions and safety criteria given in this manual **MUST BE STRICTLY OBSERVED**. **UFLEX** declines any responsibility in the event that the user does not observe them, and is not responsible for any type of negligence that may be committed during the use of the system.

CAUTION

- Putting hands on the inside of the steering wheel during navigation can be dangerous. Only give commands to the device keeping the hands on the outside of the steering wheel.
- Do not modify or add devices to the system, without written authorisation or prior technical intervention by **UFLEX** showing the modification in the description of the intervention.
- Do not use the equipment for a purpose different from that for which it was intended, as specified in the installation manual.
- Do not allow non-specialised personnel to perform the installation.

DANGER

The system will work only with 12VDC/24VDC power. **DO NOT INSTALL ON SYSTEMS WITH DIFFERENT VOLTAGES FROM THESE!**

CAUTION

Any other applications apart from those shown in this manual ARE NOT ALLOWED.



4 - MAINTENANCE

4.1 Maintenance

Wipe the system using non-aggressive and non-abrasive soap and water.

5 - DISPOSAL

5.1 Disposal

If, for any reason, you intend to put the control device out of service dispose of the components in accordance with the regulations in force.



