

DYNAMIC TRIM CONTROL SYSTEM

FOR INTEGRATION

SERIES E

INSTALLATION GUIDE

TOOLS

Drill bits
Ø 2.5 mm (3/32")
Ø 3 mm (1/8")
Ø 4 mm (5/32")
Ø 5 mm (3/16")
Ø 6.5 mm (1/4")



Hole saw
Ø 19 mm (3/4")



Screw bits
T10 T30
T20 T40
T25



Power drill



Sealant



Flat screwdriver



Bits screwdriver



Wrench

13 mm (33/64")
27 mm (1 1/16")



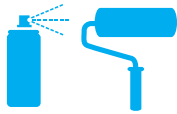
Utility knife



Hacksaw

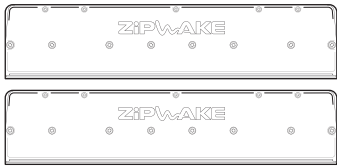


Antifouling



KIT BOX CONTENTS

INTERCEPTOR



2 x Interceptors
with Cable 3 m & Cable Cover

DISTRIBUTION UNIT



1 x Distribution Unit
with Power Cable 6 m

INTEGRATOR MODULE



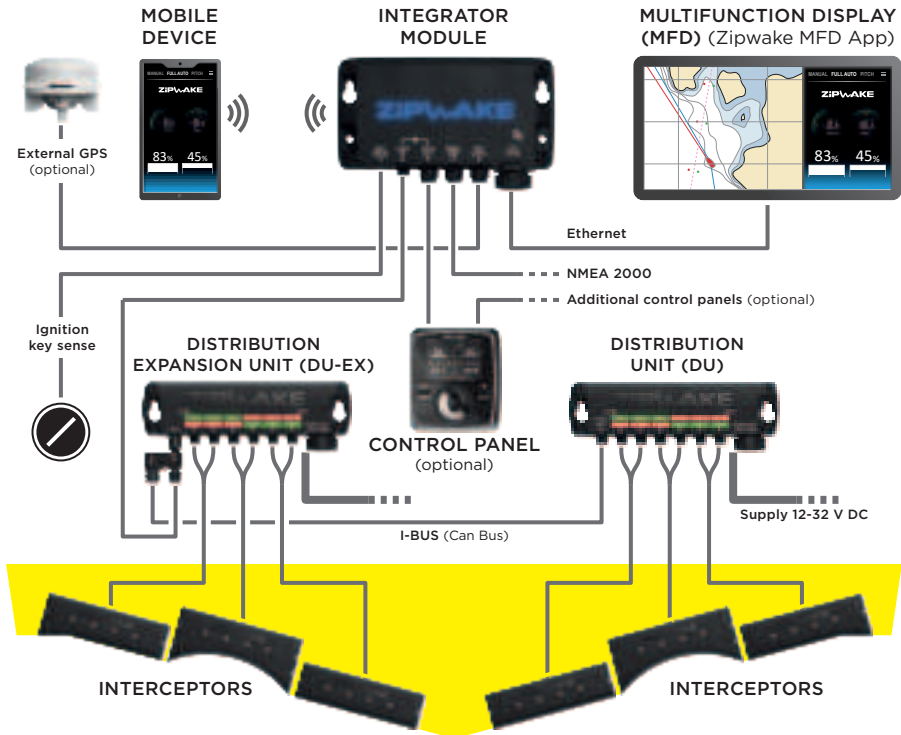
1 x Integrator Module

- + Operator's Manual
- + Warranty Card
- + Installation Guide
- + Drill Templates
- + Mounting Screws
- + Operator's Quick Guide
- + Startup Checklist



1 x Standard Cable 15 m

SYSTEM OVERVIEW

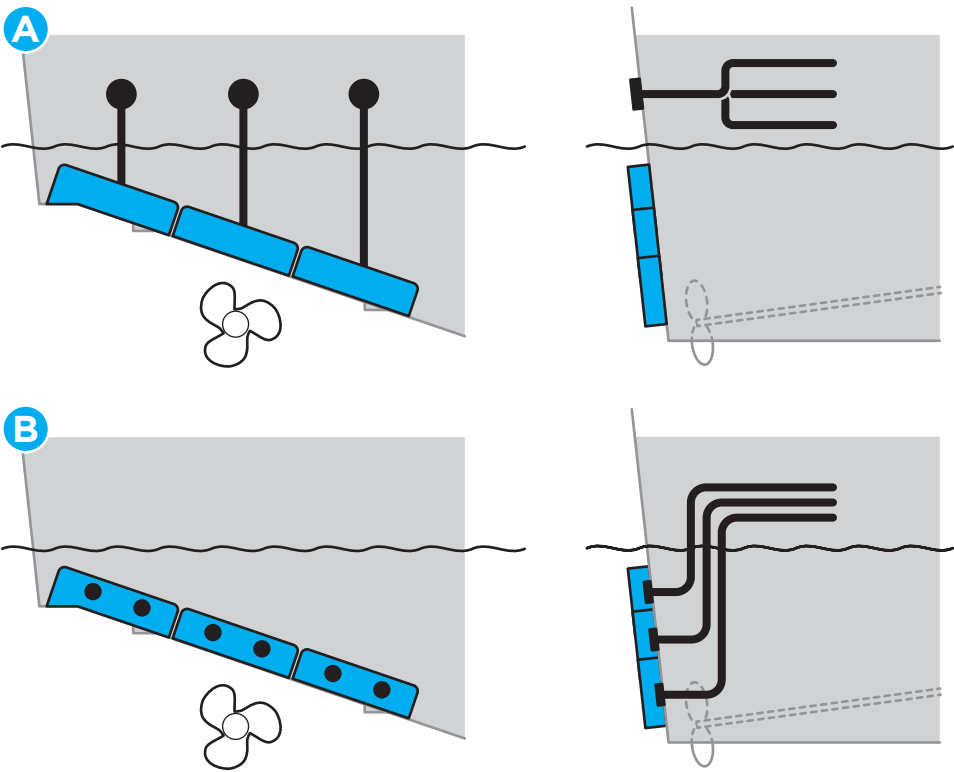


INTERCEPTOR

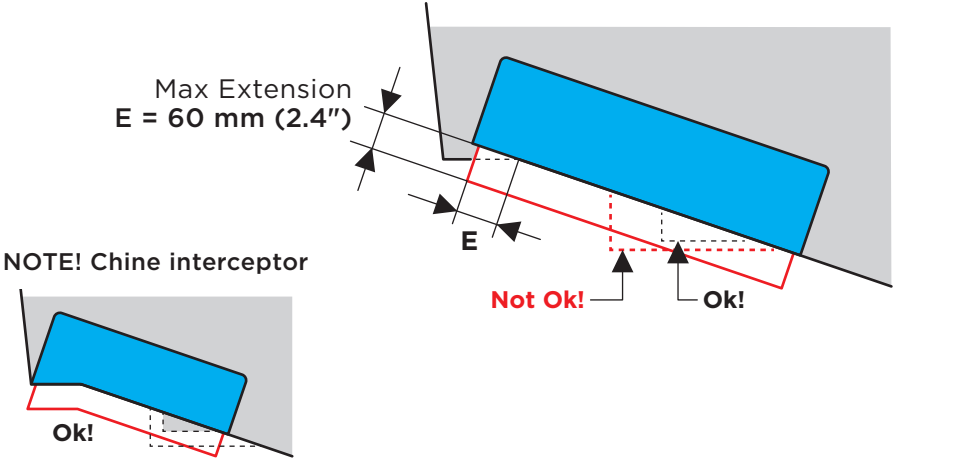
1 MOUNTING OPTIONS

THRU-HULL CABLE FITTINGS

Depending on preference, the interceptors can be mounted with thru-hull cable fittings above the waterline (A) or below, concealed behind the interceptors (B).



ALLOWED SPRAY RAIL OVERLAP

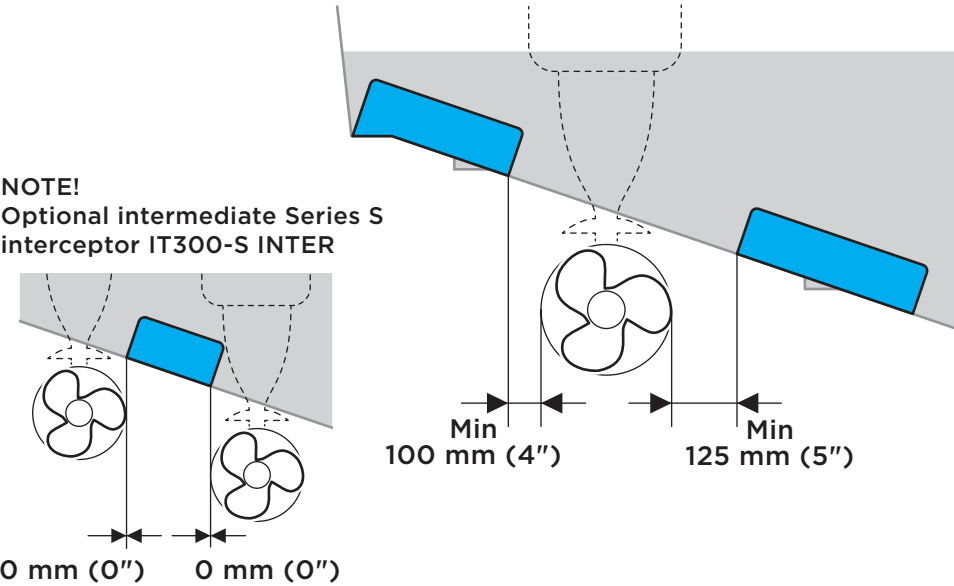


INTERCEPTOR

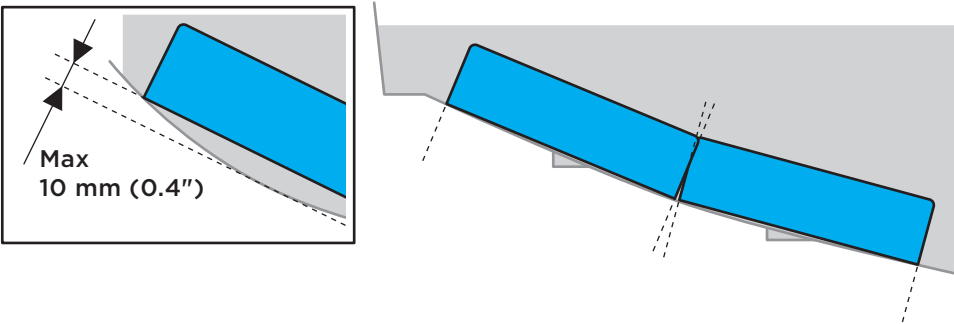
PROPELLER CLEARANCE

If the boat has an outboard engine or sterndrive, the interceptors must be mounted with clearance to the propeller(s).

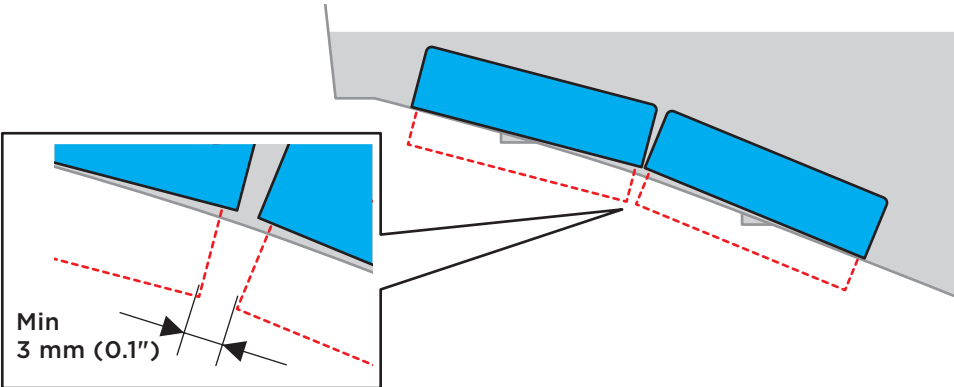
NOTE!
Optional intermediate Series S
interceptor IT300-S INTER



CONVEX BOTTOM CURVATURE



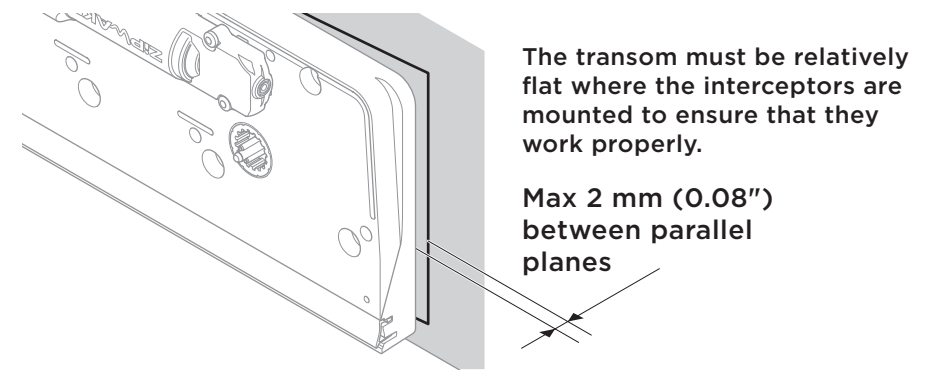
CONCAVE BOTTOM CURVATURE



INTERCEPTOR

2 PREPARE THE TRANSOM

ENSURE A FLAT SURFACE FOR EACH INTERCEPTOR



DRILLING TEMPLATE

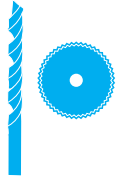
Start mounting the interceptors as far outward as possible, although well inside the transom. Continue inwards when installing multiple interceptors.

Convex bottom: Place two straightedges under the bottom parallel to the boat's centerline. When placed on the straight-edges and pressed against the transom, the template will have the right position. Fix the template on the transom with tape.

Concave bottom: Place one straightedge at the interceptor center and use one end of the template to find its right center position.

NOTE! Only if a concealed thru-hull fitting will be used

Option 1:	Option 2 (threaded hole):
1. Pilot hole $\varnothing$ 3 mm (1/8")	1. Pilot hole $\varnothing$ 3 mm (1/8")
2. Hole saw $\varnothing$ 19 mm (3/4")	2. Hole saw $\varnothing$ 16 mm (5/8")
	3. Tap M18 x 2.5



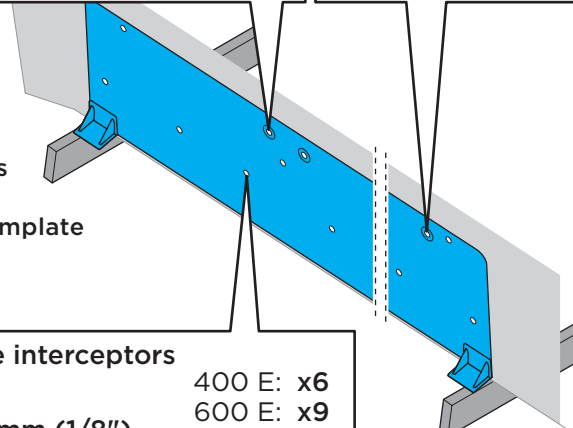
IT600/800/1000-E are dual-servo interceptors (2 holes)

IT400-E is a single-servo interceptor (1 hole)

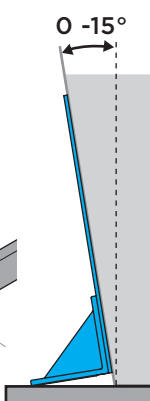
1 Drill pilot holes

2 Remove the template

3 Drill holes



0 -15°



Drill holes for the interceptors



400 E: x6
600 E: x9
800 E: x13
1000 E: x17

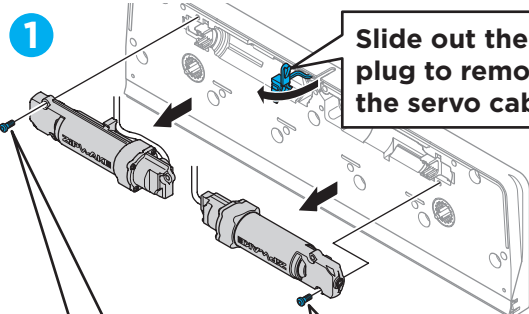
1. Pilot hole	$\varnothing$ 3 mm (1/8")
2. Drill	$\varnothing$ 6.5 mm (1/4")

INTERCEPTOR

3 INSTALL THE BACK PLATES

A. FOR THRU-HULL FITTINGS ABOVE THE WATERLINE
GO STRAIGHT TO STEP B

1

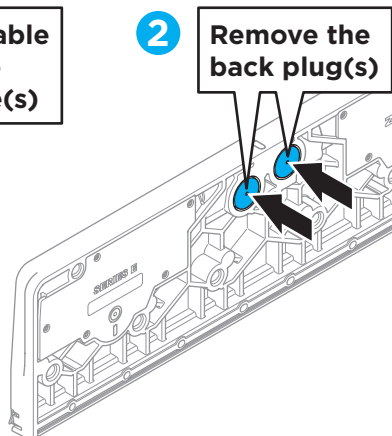


Slide out the cable plug to remove the servo cable(s)

Remove Servo unit(s):
T25 (PT 5.0x18)
(x3)



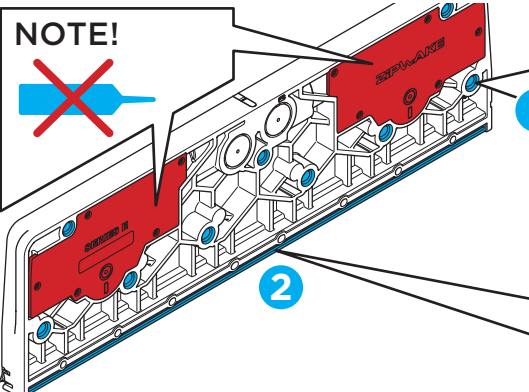
2



Remove the back plug(s)

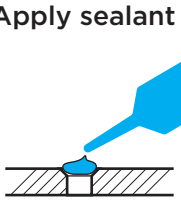
B. MOUNT THE BACK PLATE

NOTE!



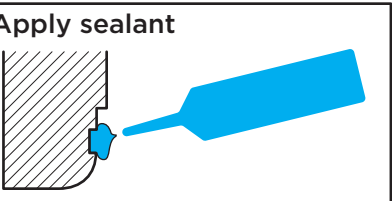
1

Apply sealant



400 E: x6
600 E: x9
800 E: x13
1000 E: x17

Apply sealant



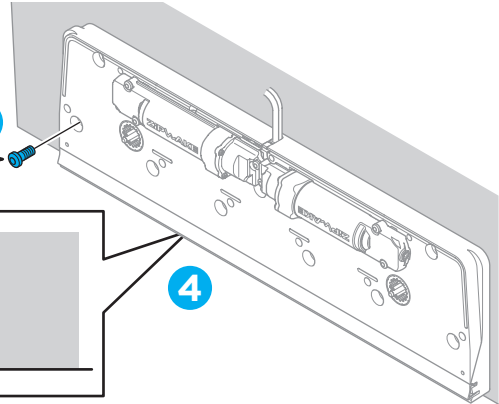
GRP hull: T40 (ST 8.0x45)



400 E: x6
600 E: x9
800 E: x13
1000 E: x17

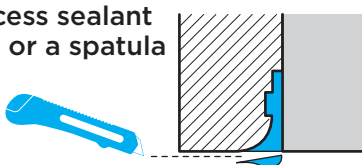
Metal hull: Machine screws
(not included)

3



4

Remove excess sealant with a knife or a spatula

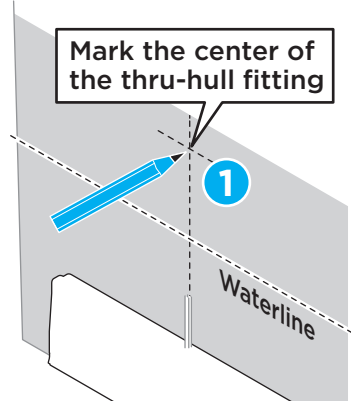


INTERCEPTOR

4A INSTALL THRU-HULL FITTINGS ABOVE THE WATERLINE

1

Mark the center of the thru-hull fitting

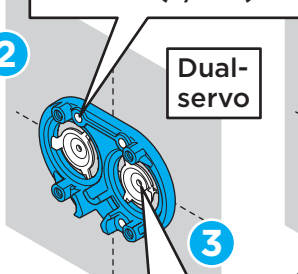


2

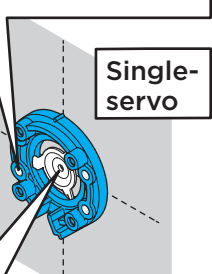
Drill holes (x4) for the cover base
Use the cover base as a drill template

Ø 4 mm (5/32")

Dual-servo



Single-servo

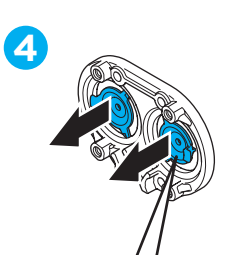


Drill holes for thru-hull fittings (1 or 2 holes)

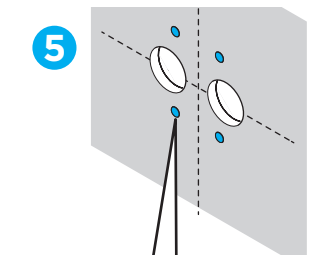
Option 1:	Option 2 (threaded hole):
1. Pilot hole Ø 3 mm (1/8")	1. Pilot hole Ø 3 mm (1/8")
2. Hole saw Ø 19 mm (3/4")	2. Hole saw Ø 16 mm (5/8")
	3. Tap M18 x 2.5



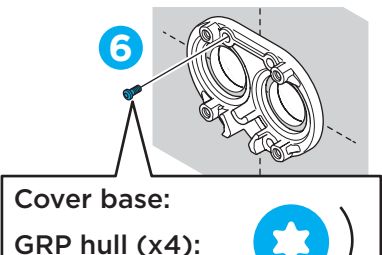
4



5



6



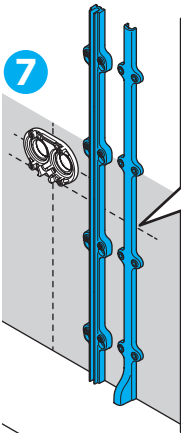
Cover base:

GRP hull (x4):
T25 (ST 4.8x25)

Metal hull: Machine screws (not included)



7

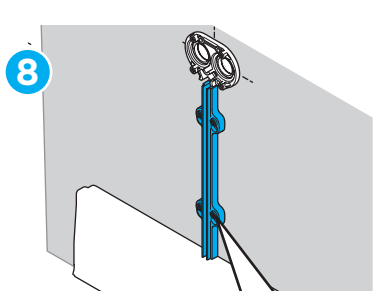


Place the cable cover on top of the interceptor and and cut it alongside the thru-hull cover base.

If necessary use the cable cover extension kit (CC-EX, optional) and cut it to desired length



8

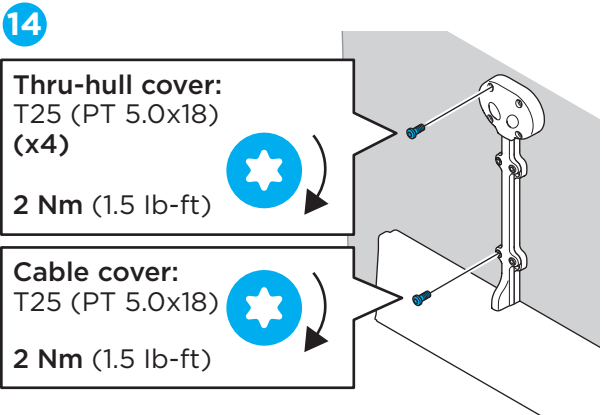
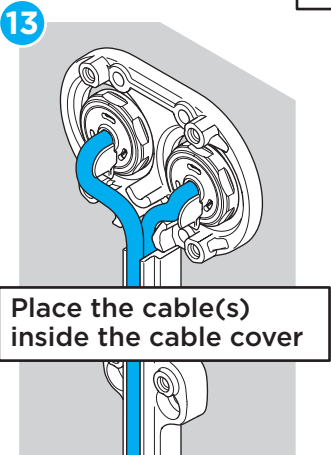
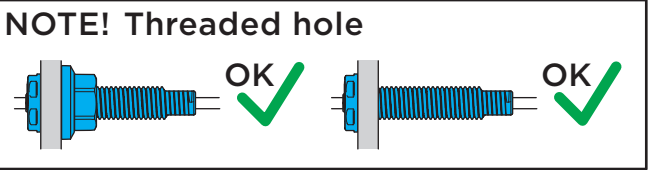
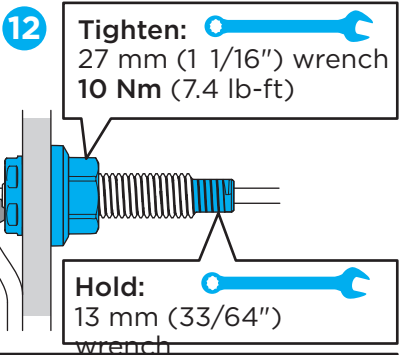
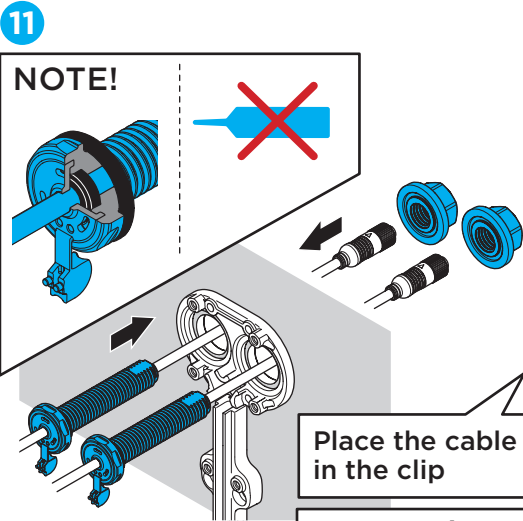
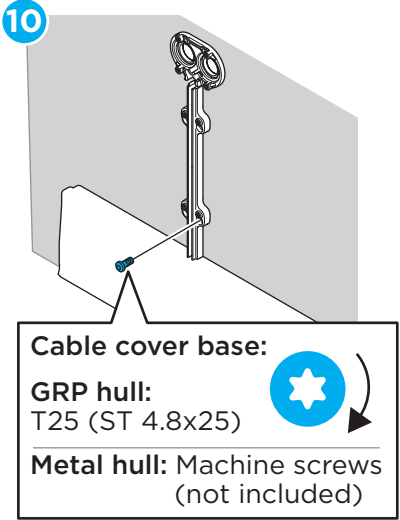
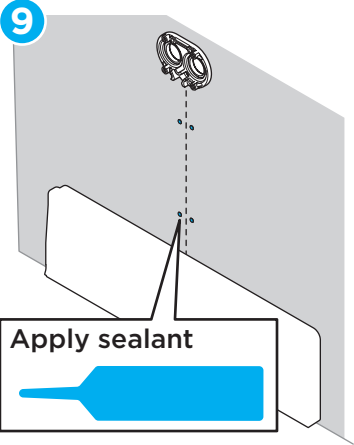


Drill holes for the cover base
Use the cover base as a drill template

Ø 4 mm (5/32")



INTERCEPTOR



INTERCEPTOR

4B INSTALL CONCEALED THRU-HULL FITTINGS UNDER THE WATERLINE

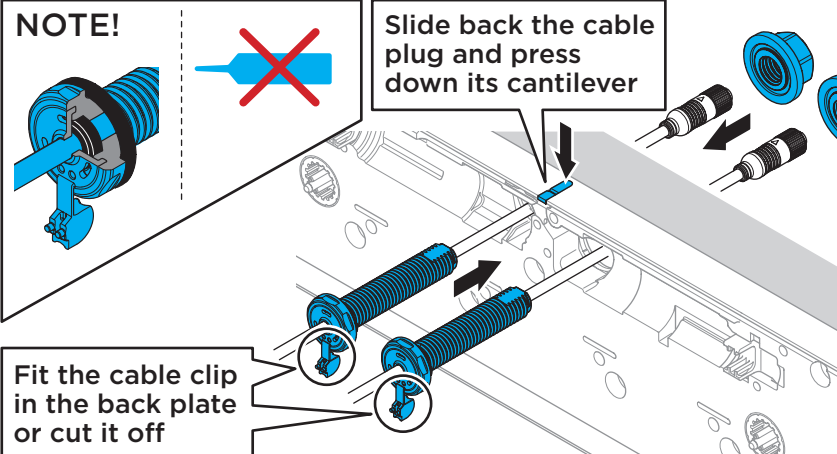
1

NOTE!



Slide back the cable plug and press down its cantilever

Fit the cable clip in the back plate or cut it off



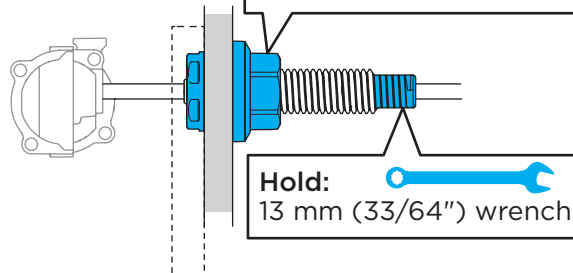
2

Tighten:  27 mm (1 1/16") wrench 10 Nm (7.4 lb-ft)

Hold:  13 mm (33/64") wrench

NOTE!
Threaded hole



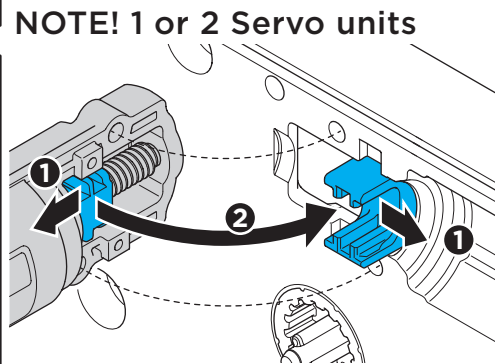
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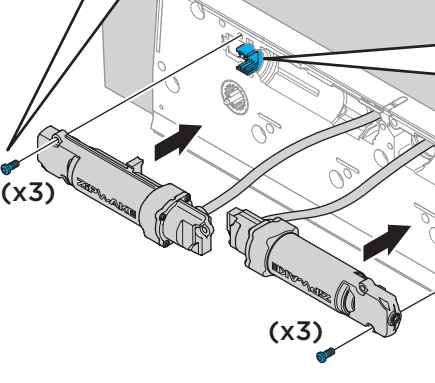
Servo unit(s): T25 (PT 5.0x18)


2 Nm (1.5 lb-ft)



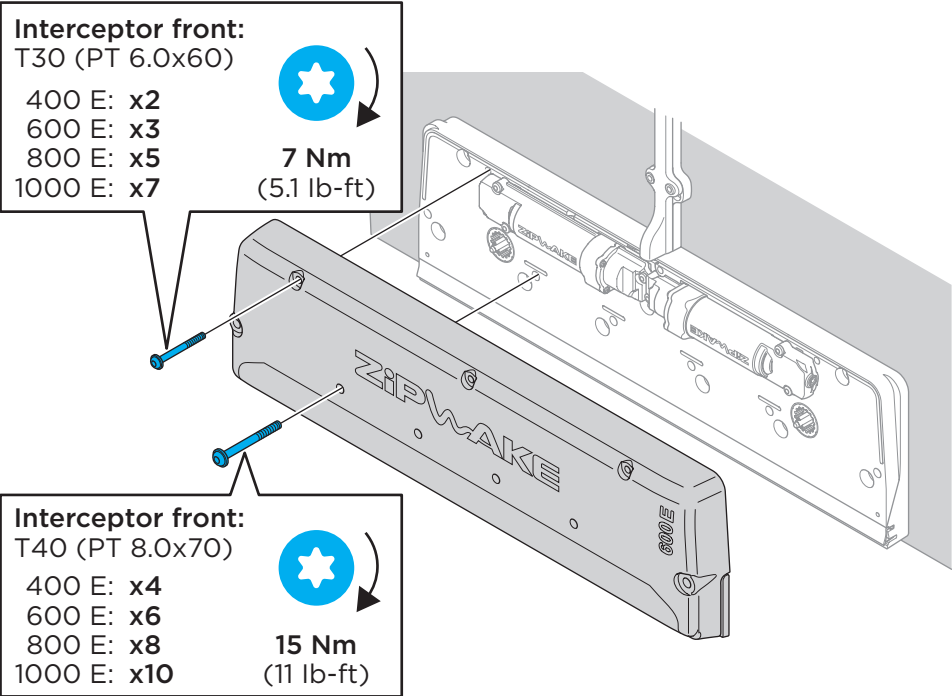
NOTE! 1 or 2 Servo units



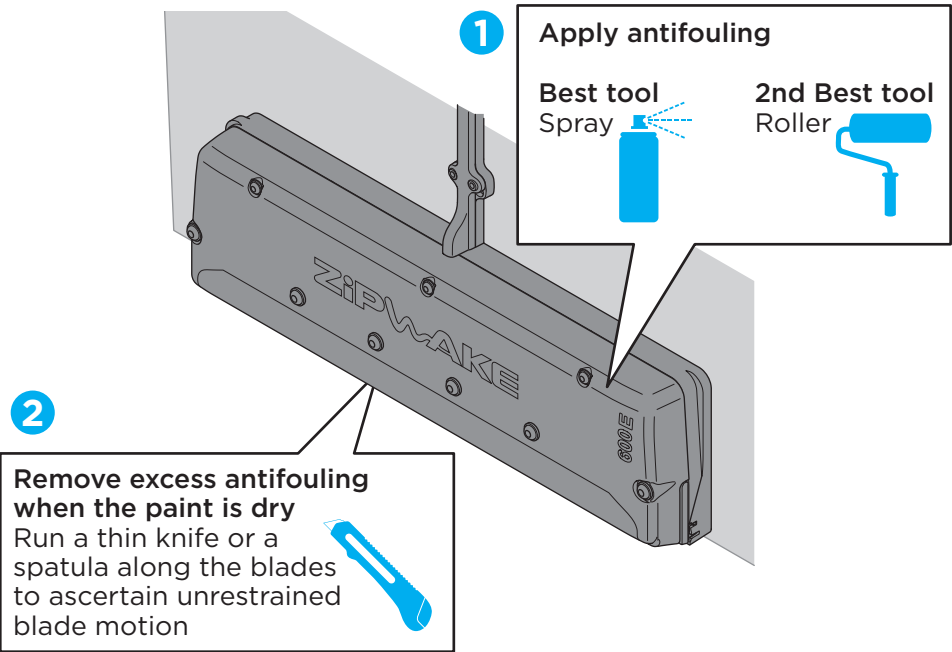


INTERCEPTOR

5 INSTALL THE INTERCEPTOR FRONTS



6 PAINT THE INTERCEPTORS WITH ANTIFOULING



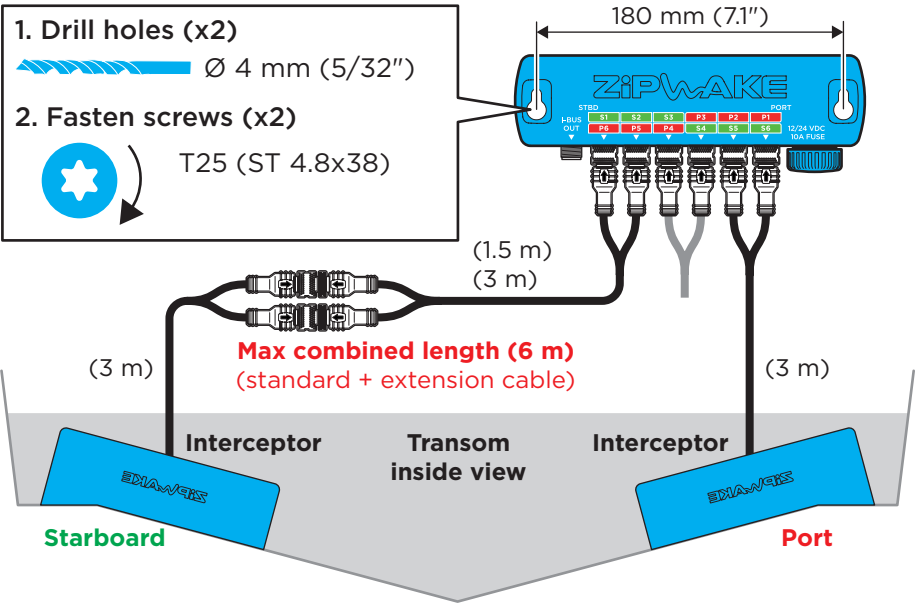
DISTRIBUTION UNIT

1 MOUNT THE DISTRIBUTION UNIT

Mount the distribution unit inboard where it is easy to connect it to both interceptors and power supply (battery) e.g. the engine room or other suitable compartment.

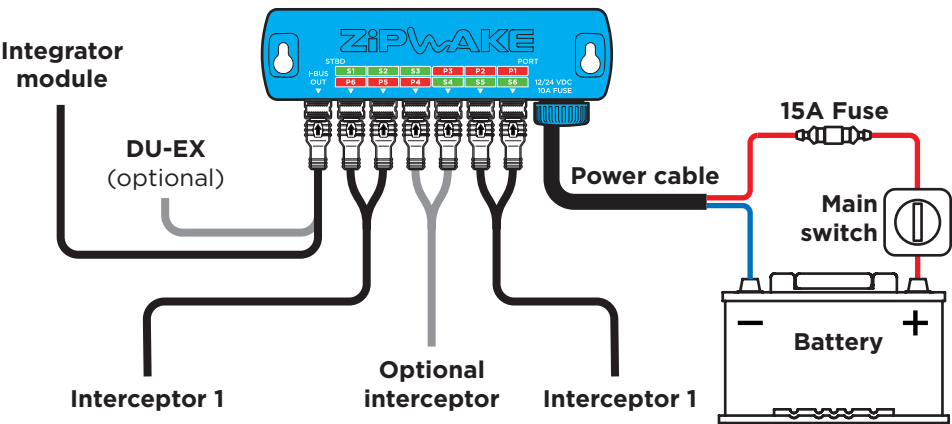
NOTE!

The maximum cable length (including extra cable) from an interceptor to the distribution unit is 6 m (20 ft).



2 CONNECT THE DISTRIBUTION UNIT

NOTE! Detailed wiring diagram is available at the end of this folder.



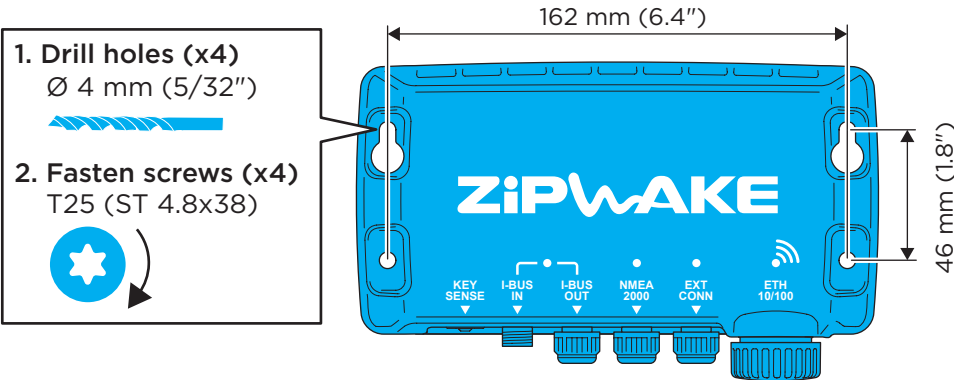
INTEGRATOR MODULE —

1 MOUNT THE INTEGRATOR MODULE

Mount the integrator module on a rigid surface where it is easy to connect it to the distribution unit and other equipment e.g. under the dash or another suitable compartment. If the system will be used with mobile devices, mount the integrator module for maximum signal strength.

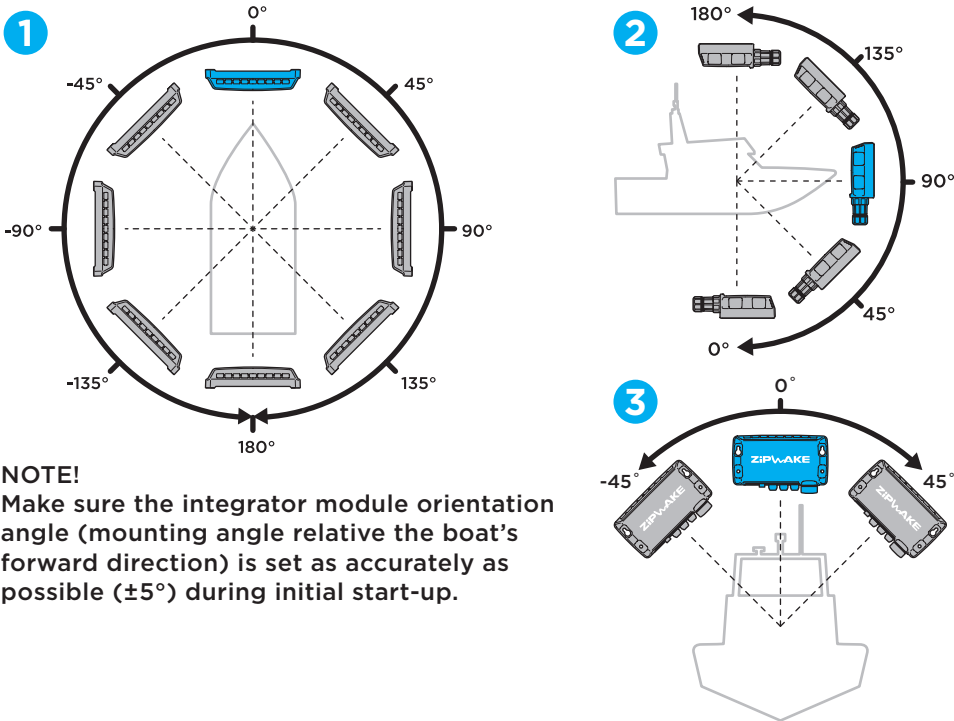
NOTE!

0.5 m (1.6 ft) safe distance to magnetic compass.



Mounting restrictions

Mount the integrator module within the angles shown in figures 1-3.



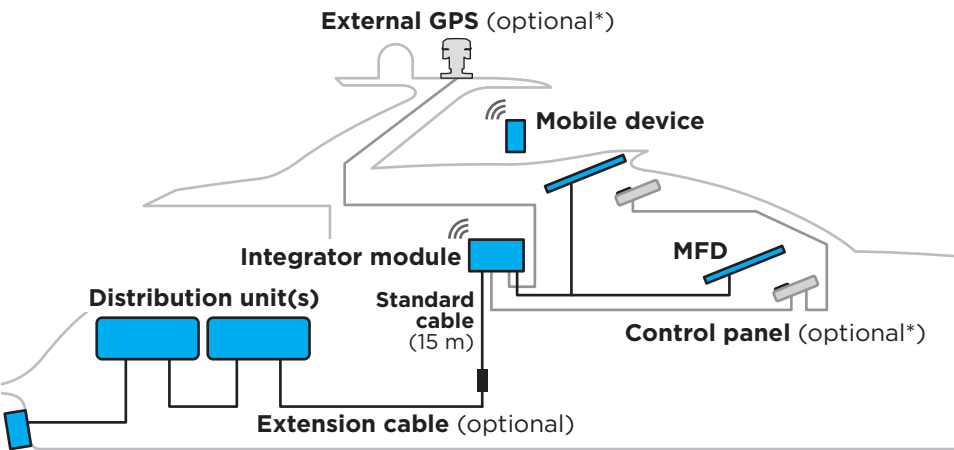
NOTE!

Make sure the integrator module orientation angle (mounting angle relative the boat's forward direction) is set as accurately as possible ($\pm 5^\circ$) during initial start-up.

INTEGRATOR MODULE —

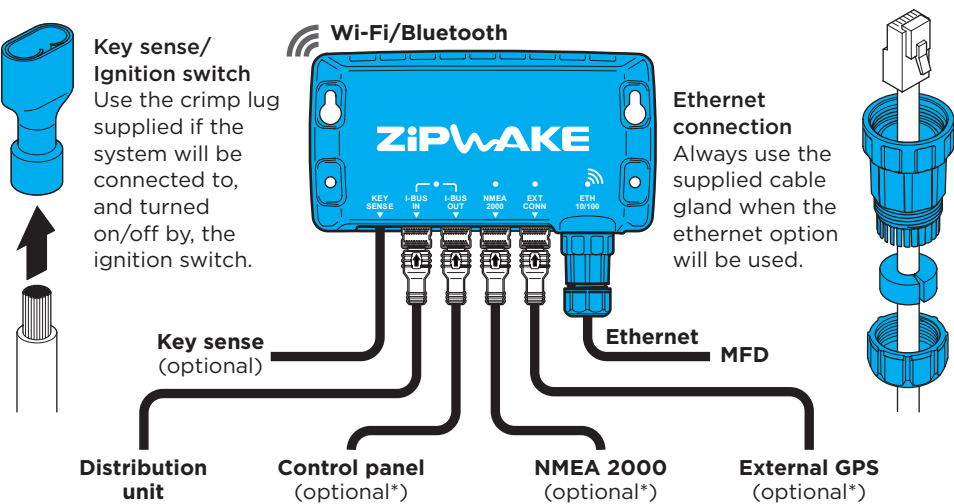
2 CONNECT THE INTEGRATOR MODULE

Route the cables between the integrator module, the distribution unit and optional multifunction display (MFD) and/or other equipment. Use optional extension cables if necessary.



With the integrator module connected, the system can be controlled from one or several sources e.g. an MFD, a mobile device or a Zipwake control panel.

NOTE! Detailed wiring diagram is available at the end of this folder.



*** IMPORTANT** The integrator module requires at least one external GPS signal via MFD, NMEA 2000, Zipwake control panel or Zipwake external GPS.

INTEGRATOR MODULE —

3 INITIAL START

Refer to the Operator’s Manual for detailed information about setting up and operating the system.

SETTING UP THE SYSTEM

MULTIFUNCTION DISPLAY (MFD)

The Zipwake application automatically appears on a connected (compatible) MFD. Refer to the MFD manufacturer or manual for detailed information on compatible models and how to launch integration applications such as the Zipwake Integrator Module interface on your MFD model. At first start-up, follow the steps on the MFD to complete system installation.

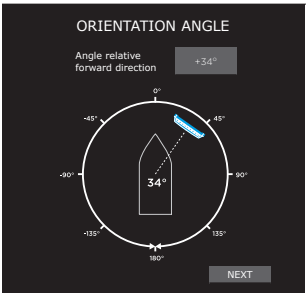
MOBILE DEVICE

Scan the QR-code from integrator module label **1** to connect to the Wi-Fi network. Scan the QR-code from integrator module label **2** to install the Zipwake App and add it to the device start screen for future use. Follow the steps in the app to complete system installation



NOTE!

Make sure the integrator module orientation angle (mounting angle relative to the boat’s forward direction) is set as accurately as possible.

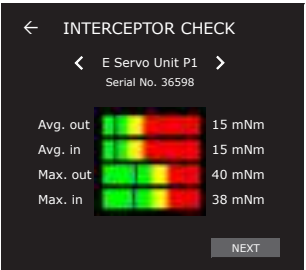
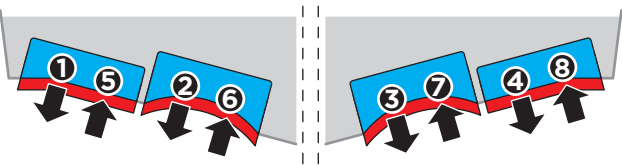


INTERCEPTOR CHECK

Carry out an Interceptor Check to verify function immediately after installation and before launching the boat. Repeat this before every launch.

NOTE! Interceptor Check will not start if no interceptor configuration has been saved to the system (refer to the Operator’s Manual).

The check repeats a 5 stroke sequence, where each interceptor blade is extended, one by one, from port to starboard and then retracted in the same order. Visually confirm that the interceptors move accordingly during the check. This confirms that the interceptors are correctly connected to the distribution unit(s).



All readings must be green!

Corrective action is always necessary when excessive servo torque levels are observed. The root cause is usually the flatness of the transom behind the interceptor and/or excess antifouling between its blades.

IMPORTANT

Always use the controls to move the interceptor blades. Never try to force the interceptor blades by hand.

WIRING DIAGRAM

ACCESSORIES

Model	Part No.	Description
CP-E	2012032	CONTROL PANEL E WITH STANDARD CABLE 15 M
DU-EX	2012034	DISTRIBUTION EXPANSION UNIT E WITH POWER CABLE 6 M
IT400-E	2012215	INTERCEPTOR 400 E WITH CABLE 3 M & CABLE COVER
IT600-E	2012018	INTERCEPTOR 600 E WITH CABLE 3 M & CABLE COVER
IT800-E	2012019	INTERCEPTOR 800 E WITH CABLE 3 M & CABLE COVER
IT1000-E	2012020	INTERCEPTOR 1000 E WITH CABLE 3 M & CABLE COVER
IT600-E TUNNEL R500	2012021	INTERCEPTOR 600 E TUNNEL R500 WITH CABLE 3 M & CABLE COVER
IT600-E TUNNEL R600	2012022	INTERCEPTOR 600 E TUNNEL R600 WITH CABLE 3 M & CABLE COVER
IT600-E TUNNEL R800	2012023	INTERCEPTOR 600 E TUNNEL R800 WITH CABLE 3 M & CABLE COVER
IT400-E CHINE PORT	2012216	INTERCEPTOR 400 E CHINE PORT SIDE WITH CABLE 3 M & CABLE COVER
IT400-E CHINE STBD	2012217	INTERCEPTOR 400 E CHINE STARBOARD SIDE WITH CABLE 3 M & CABLE COVER
IT600-E CHINE PORT	2012024	INTERCEPTOR 600 E CHINE PORT SIDE WITH CABLE 3 M & CABLE COVER
IT600-E CHINE STBD	2012025	INTERCEPTOR 600 E CHINE STARBOARD SIDE WITH CABLE 3 M & CABLE COVER
EC1.5-M12	2011258	M12 EXTENSION CABLE 1.5 M
EC3-M12	2011259	M12 EXTENSION CABLE 3 M
EC5-M12	2011260	M12 EXTENSION CABLE 5 M
EC10-M12	2011261	M12 EXTENSION CABLE 10 M
EC15-M12	2012038	M12 EXTENSION CABLE 15 M
EC20-M12	2012039	M12 EXTENSION CABLE 20 M
CC-EX	2012036	CABLE COVER EXTENSION E KIT
GPU	2011240	GLOBAL POSITIONING UNIT WITH CABLE 5 M & MOUNT KIT

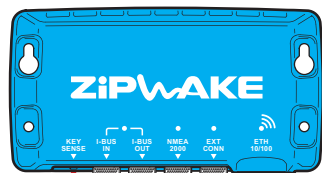
WIRING DIAGRAM

INTEGRATOR MODULE (IM)

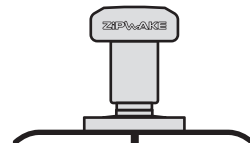
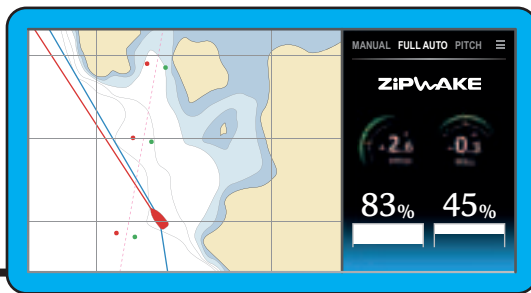
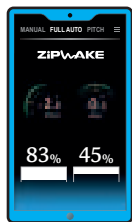
MOBILE DEVICE

MULTIFUNCTION DISPLAY

EXTERNAL GPS (GPU)



Wi-Fi/
Bluetooth



The external GPS can
be connected to the
integrator module or
any control panel

Extension cable (optional 1.5, 3, 5 or 10 m)

Extension cable* (optional)

Extension cable* (optional)

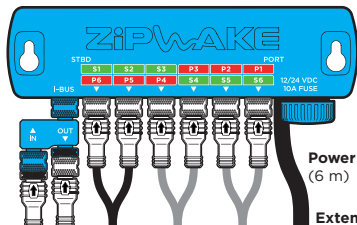
Extension cable* (optional)

Max combined cable length (15 m)
(standard + extension cable)

GPS cable (5 m)

To NMEA 2000 backbone
(optional GPS source, external
monitoring and/or control)

DISTRIBUTION EXPANSION UNIT (DU-EX) (optional)

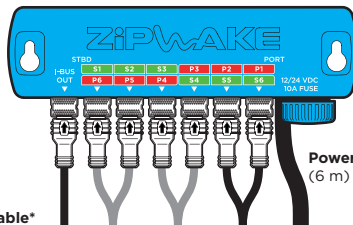


Power cable
(6 m)

Extension cable*
(optional)

Standard cable
(15 m)

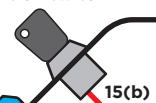
DISTRIBUTION UNIT (DU-E)



Power cable
(6 m)

CONTROL PANEL (CP-E) (optional)

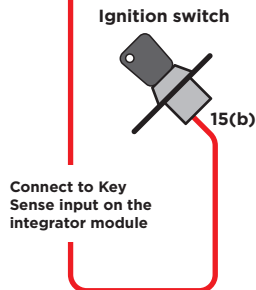
Ignition switch



Connect to Key
Sense input on
the control panel

Standard cable (7 m)

Additional
control panels

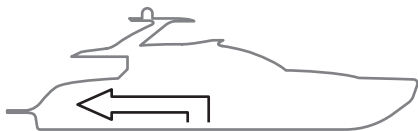


Connect to Key
Sense input on the
integrator module

NOTE! Connect DU-E and DU-EX to
the same power source and ground
potential (grounding point).

WIRING DIAGRAM

* **Extension cable** (optional)
(1.5, 3, 5, 10, 15 and 20 m)



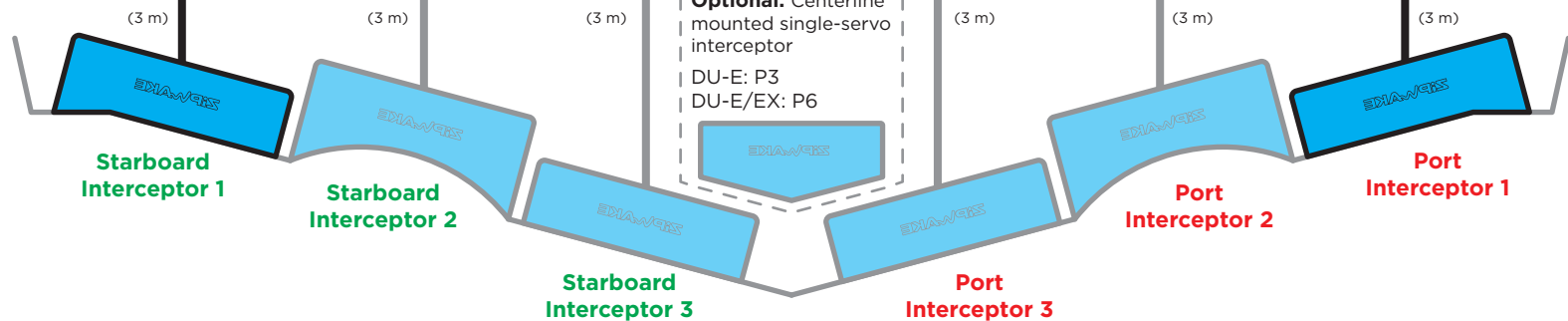
NOTE!
Transom inside view

Extension cable
(optional 1.5 or 3 m)

Max combined cable length (6 m)
(standard + extension cable)

STARBOARD

PORT



Up to six dual-servo interceptors or any mix with single-servo interceptors

Optional: Centerline mounted dual-servo interceptor

DU-E: P3 & S3
DU-E/EX: P5 & P6

Optional: Centerline mounted single-servo interceptor

DU-E: P3
DU-E/EX: P6

POWER SUPPLY (12-32 V DC)

15A melting type fuse

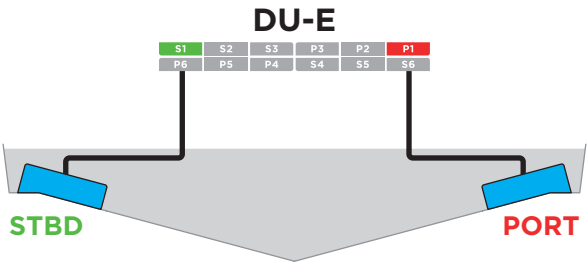
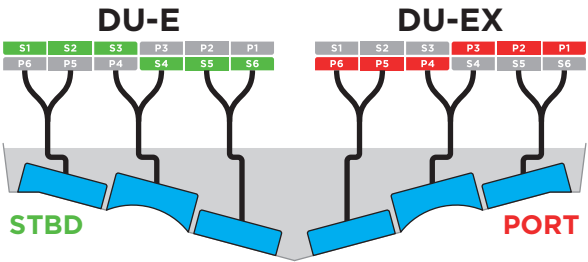
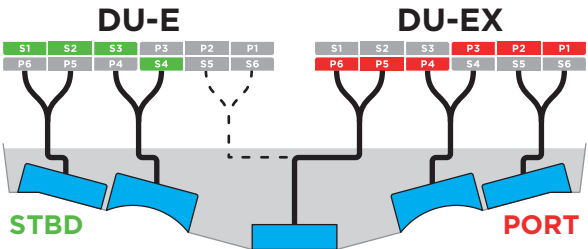
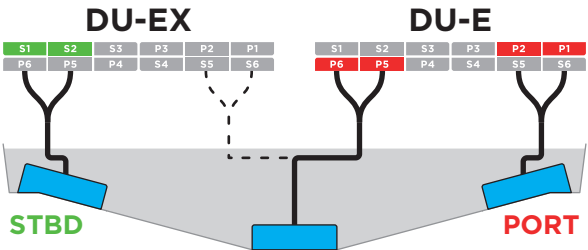
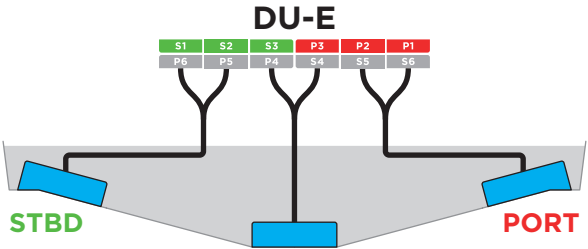
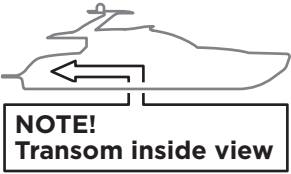
NOTE! Do **not** use automatic thermal/magnetic fuse.

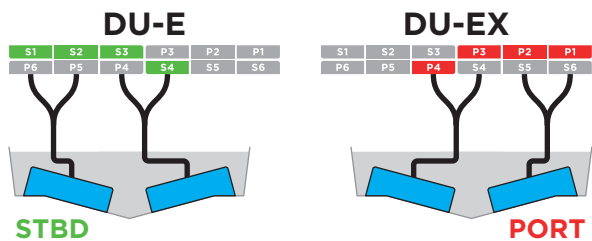
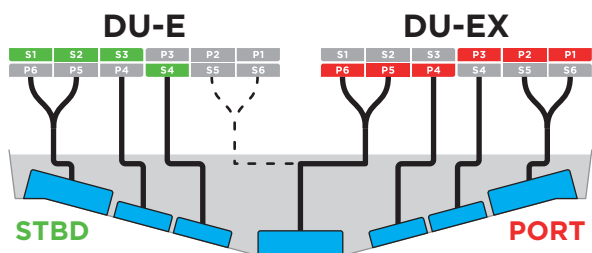
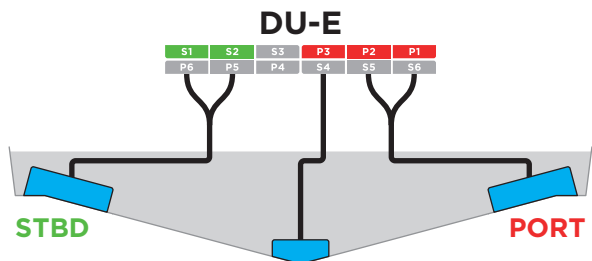
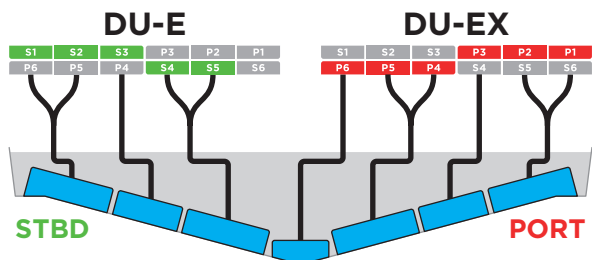
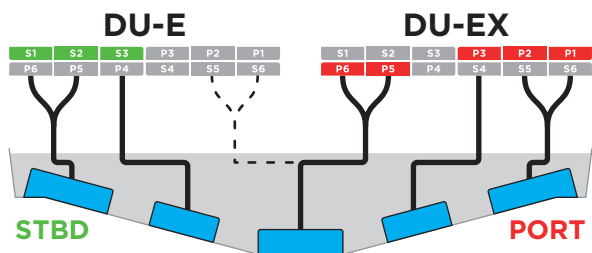
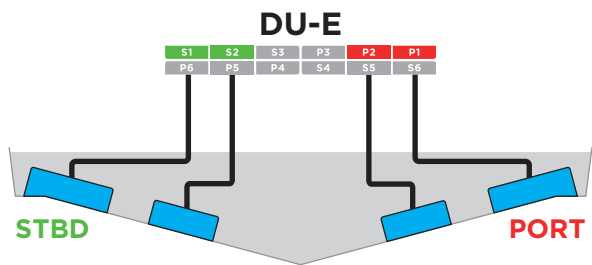
Main switch

Auto Cleaning

NOTE! Connect power directly to the positive battery terminal if interceptor **Auto Cleaning** will be used. Refer to the Operator's Manual on how to turn on the interceptor **Auto Cleaning** function.

DU/INTERCEPTOR CONFIGURATIONS





Visit zipwake.com for additional information such as:

- Operator's Manual and Installation Guide in different languages
- Product specifications, including a list of accessories and spare parts
- Application examples and interceptor mounting options
- Drawings and 3D models of system components
- Software upgrades for your Dynamic Trim Control System

ZIPWAKE

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