*ESL integration requires ReefLink

Vectra™
Centrifugal Pump

Setup Guide

ECOTECH®
MARINE
www.ecotechmarine.com

060117

Congratulations on your purchase of a Vectra™ Centrifugal Pump!

⚠️ **Please read this entire setup guide before using your pump. By purchasing, installing or using this product, you are acknowledging that the Limited Warranty on p.19 is part of the sale terms.**

The information provided in this manual is subject to change, for the most up to date information visit ecotechmarine.com/support

Customer Support

ⓘ Many of the steps in this guide have corresponding how-to videos. View them on the EcoTech Marine website at **ecotechmarine.com/media-gallery/video**.

The EcoTech Marine Community is another tool for users to troubleshoot and learn about our products. For additional information about your Vectra Centrifugal Pump, please visit us at **community.ecotechmarine.com**.

UNITED STATES & CANADA

Contact EcoTech Marine directly for all warranty service and returns. Visit **ecotechmarine.com/support**

INTERNATIONAL

Contact your local distributor directly for all warranty service and returns. Visit **ecotechmarine.com/find-retailers/international-distributors**

ECOTECH® MARINE

Customer Support
1-800-785-0338
service@ecotechmarine.com or
ecotechmarine.com/support

Inside the Box

VECTRA PUMP

DRIVER

DRIVER BRACKET

QUICKCOUPLE FITTINGS

POWER SUPPLY

POWER CORD

Maintenance

Your Vectra Centrifugal Pump is designed to operate optimally with little attention after initial setup; however, due to the harsh conditions of a saltwater aquarium and resulting buildup of algae and other organic matter, it is advisable to clean the pump to ensure the longevity of your purchase.

EcoTech recommends doing a cleaning every 6 months or as necessary.

This can be accomplished by opening the impeller housing and gently brushing the impeller and inside of impeller housing with a soft brush under running water. If there is calcium buildup, it may be necessary to soak these parts in a mild acid solution such as vinegar.
Do not use strong acids, because these may damage the components.

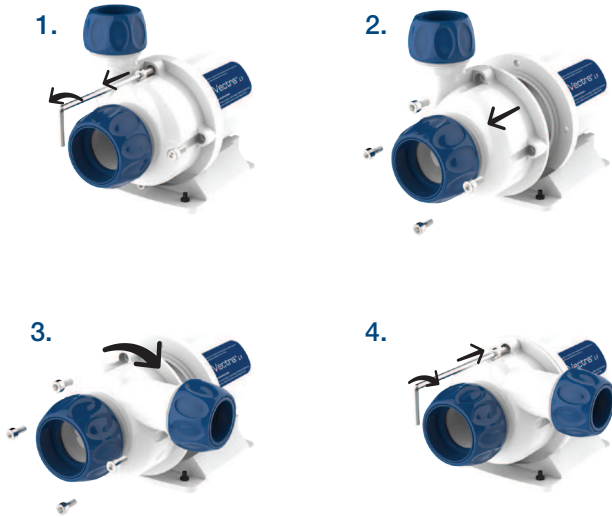After cleaning, reassemble the Vectra.

VECTRA DISASSEMBLY
WATCH THE VIDEO:
ecote.ch/vectradisassemble

Installing the Vectra™
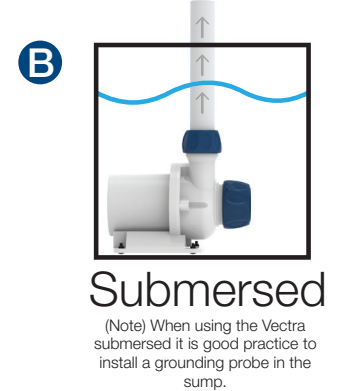
STEP 1: Adjust Vectra Head Position (optional)
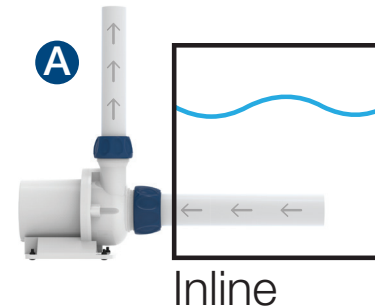
- It is possible to rotate the head of the Vectra to optimize for plumbing by removing all four hex bolts and rotating the head as shown below.

1.

2.

3.

4.

Plumbing the Vectra™

Inline/Submersed

- The Vectra can be used as either an inline or submersed return pump. If you choose to use the Vectra as a submersed pump you may want to use an inlet screen. (sold separately)

A

Inline

B

Submersed

(Note) When using the Vectra submersed it is good practice to install a grounding probe in the sump.

Plumbing the Vectra™

Continued

Using the QuickCouple Connector

- Installation of the connector requires the correct size plumbing and ABS cement.
- Slide the Union collar on to the pipe with the thread side pointing down.
- Apply ABS cement to the inside of the Union Coupling and slide on to the bottom of the pipe. Make sure to allow the ABS cement to properly dry before operation.
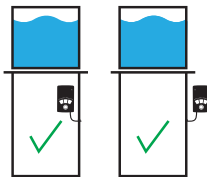
Union Collar

Union Coupling

1.

ABS

2.

3.
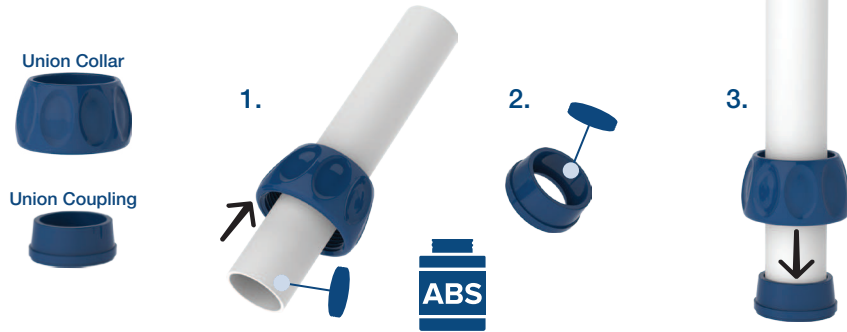
Installing the Driver

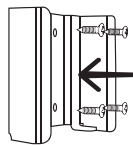## STEP 1: Choose Driver Location

⚠ Always use a drip loop. Any water damage will NOT be covered under warranty.

STEP 2: Mount Bracket and Install Driver(optional)
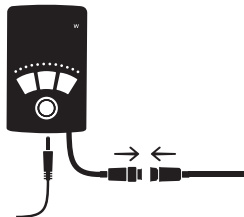

⚠ Installation requires use of a Phillips head screwdriver.

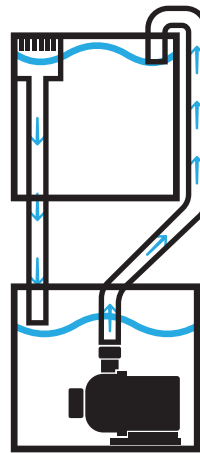## STEP 3: Connect to Pump and Plug in Driver

⚠ Please make sure that the connectors are properly seated and locked together.
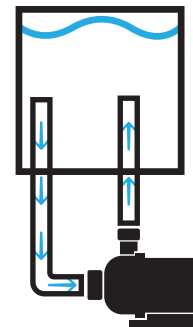
8

Configuration

⚠ IMPORTANT: READ BEFORE OPERATION

The Vectra driver can be configured for two different modes of operation, Return Pump or Closed Loop. Before operation make sure the Vectra is set to the desired configuration. **The Vectra's default configuration is for use as a Return Pump**. Switching between the two configurations is detailed on the next page.

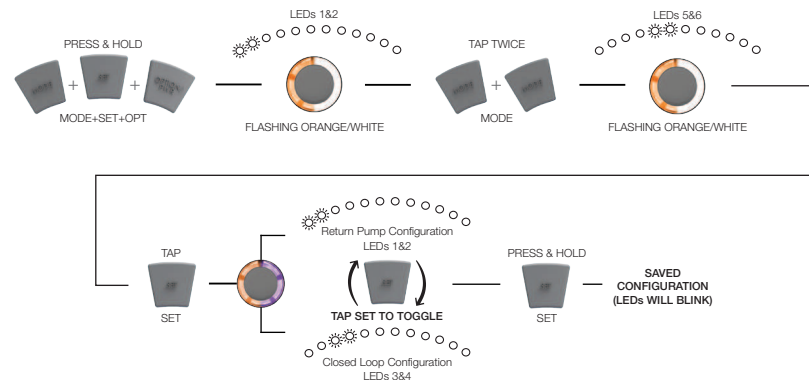**Return Pump**
(Can be used submersed or inline)

Closed Loop

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The Vectra™ Driver

Wireless Indicator

SET Button

LED Strip

MODE Button

OPTION/Power Button

Control Dial

Battery Backup Input

Pump Cable Slot

Accessory Port
(M1/L1 only)

Power Input

▶ **USING THE**
Vectra
DRIVER
WATCH THE VIDEO:
ecote.ch/vectradriver

⚠ **WARNING**
If you are intending to use this pump as a return pump **do not** configure for closed loop operation. For more information please visit www.ecotechmarine.com/vectraoperation

Operation Configuration

⚠ **IMPORTANT**
Before attempting to operate the pump you must select the correct operational configuration. Review the following information. Modes, settings and safety features are determined by the pump configuration set on the driver.

⚠ **WARNING**
If you are intending to use this pump as a return pump **do not** configure for closed loop operation. For more information please visit www.ecotechmarine.com/vectraoperation

The default configuration of the pump out of the box is for use as a Return Pump. To switch between Return and Closed Loop, Press & Hold MODE+SET+OPT, the adjustment knob will flash Orange/White and LEDs 1&2 on the indicator bar will be lit. Next tap the MODE button twice, this will cause LEDs 5&6 on the indicator bar to light up, the adjustment knob will still be flashing orange and white. Next tap the set button once, this will cause the adjustment knob to flash orange/purple and the indicator bar will indicate what configuration the pump is in, for Return Pump Configuration LEDs 1&2 will be illuminated and for Closed Loop Configuration LEDs 3&4 will be lit brightly. At this point it is now possible to toggle between the two configurations by taping the set button. Once the desired configuration is selected press and hold the SET button to save, this will be indicated by a flashing of the LEDs.

PRESS & HOLD

LEDs 1&2

MODE+SET+OPT

FLASHING ORANGE/WHITE

TAP TWICE

MODE

LEDs 5&6

FLASHING ORANGE/WHITE

TAP

SET

Return Pump Configuration
LEDs 1&2

TAP SET TO TOGGLE

Closed Loop Configuration
LEDs 3&4

PRESS & HOLD

SET

**SAVED CONFIGURATION
(LEDs WILL BLINK)**

Return Pump Calibration

Calibration allows you to set the max and min speed of your Vectra to match the operational capacity of your plumbing. Calibration is most easily done on the EcoSmart Live website or mobile app through the use of a ReefLink but can also be done using the driver.

⚠️ It is highly recommended to watch the calibration video before attempting to calibrate your Vectra.
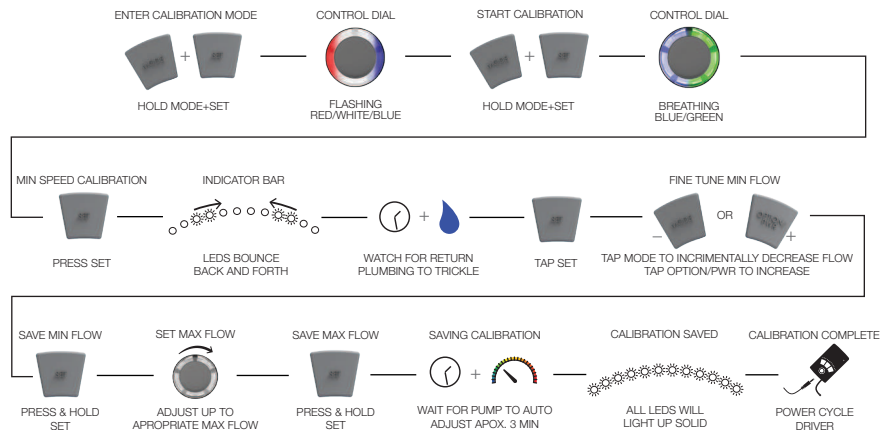
Watch the calibration videos: ▶

Calibration via driver: ecote.ch/vectracalibration
Calibration via ESL: ecote.ch/eslvectracalibration
Calibration via ESL app: ecote.ch/mobilevectracalibration

Calibration Using Driver

This flow chart illustrates the general actions taken to achieve calibration with the Vectra controller, for more detailed instructions please watch the video.

ENTER CALIBRATION MODE → CONTROL DIAL → START CALIBRATION → CONTROL DIAL

HOLD MODE+SET — FLASHING RED/WHITE/BLUE — HOLD MODE+SET — BREATHING BLUE/GREEN

MIN SPEED CALIBRATION → INDICATOR BAR → FINE TUNE MIN FLOW

PRESS SET — LEDS BOUNCE BACK AND FORTH — WATCH FOR RETURN PLUMBING TO TRICKLE — TAP SET — TAP MODE TO INCREMENTALLY DECREASE FLOW TAP OPTION/PWR TO INCREASE — OR

SAVE MIN FLOW → SET MAX FLOW → SAVE MAX FLOW → SAVING CALIBRATION → CALIBRATION SAVED → CALIBRATION COMPLETE

PRESS & HOLD SET — ADJUST UP TO APROPRIATE MAX FLOW — PRESS & HOLD SET — WAIT FOR PUMP TO AUTO ADJUST APOX. 3 MIN — ALL LEDS WILL LIGHT UP SOLID — POWER CYCLE DRIVER

Return Pump Modes

Constant Speed Mode

Active when solid green

% of set speed

Time
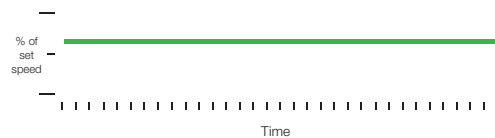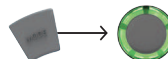
Constant Speed mode is the default mode, in this mode the speed is determined by the position of the control dial.
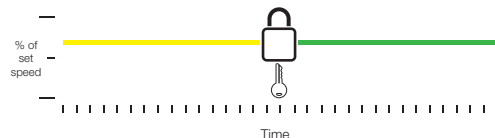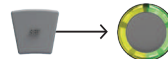
Feed Mode

Press+Hold Mode to enable/disable

% of set speed

Time
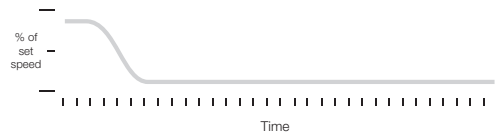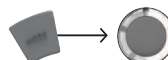
Press and hold the MODE button for 3 seconds to enter Feed Mode. The control dial will blink white and the pump will spin very slowly for 10 minutes (default setting) and then resume its set mode.
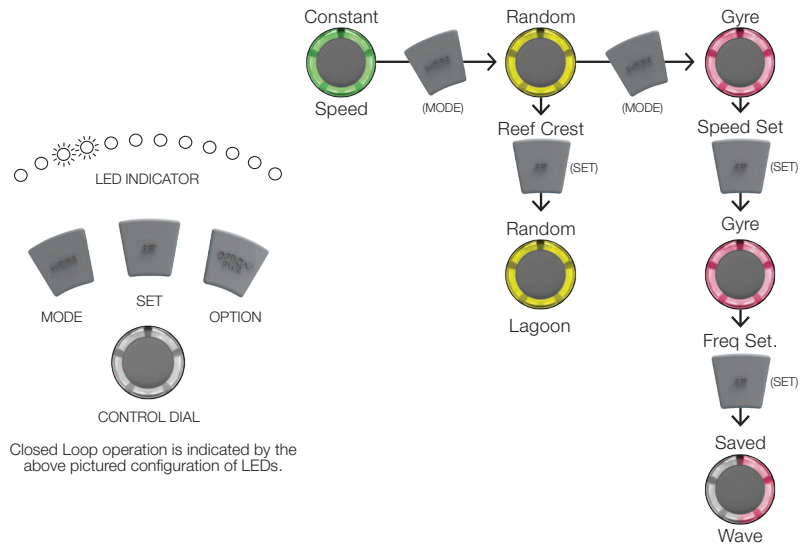
Speed Lock

Press+Hold Set to enable/disable

% of set speed

Time

Press and hold the SET button to enable Speed Lock, once enabled the existing speed of the pump will be locked in and will not change if the control dial is moved. To make speed adjustments while Speed Lock is enabled tap SET which will allow you to use the control dial momentarily to adjust the speed. After 10 seconds Speed Lock will automatically re-engage at the newly adjusted speed.
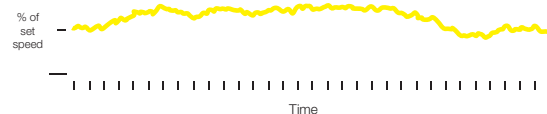
Closed Loop

Mode Flow Chart

LED INDICATOR

MODE   SET   OPTION

CONTROL DIAL

Closed Loop operation is indicated by the above pictured configuration of LEDs.

Constant
Speed

(MODE)

Random

(MODE)

Gyre

Reef Crest

(SET)

Random

Lagoon

Speed Set

(SET)

Gyre

Freq Set.

(SET)

Saved

Wave

Closed Loop Modes

Lagoonal Random

% of set speed

Time

Lagoonal Random Mode simulates a low-energy lagoon environment. It is indicated by a yellow control dial and the third and fourth LEDs illuminated. The control dial is used to set the maximum speed of this mode. The speed of the pump is changed slowly to recreate the gentle currents of a lagoon.

Reef Crest Random

% of set speed

Time
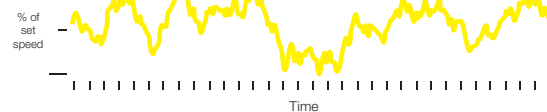
Reef Crest Random Mode simulates a high-energy reef environment. It is indicated by both a yellow control dial and the first two blue LEDs illuminated. The control dial is used to set the maximum pump speed during this mode. The pump will change speed frequently and drastically to simulate crashing waves and surging tide.

Gyre

% of set speed

Time
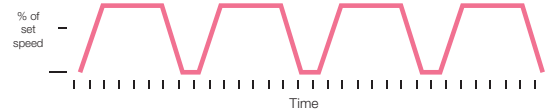
When first entering Gyre Mode, set the maximum pump speed with the control dial and press the SET button to lock it. The LEDs will begin to ramp, indicating the pulsing frequency between 2 seconds and 2 hours. Next, use the control dial to adjust the pulse frequency. The first six LEDs represent 2 seconds to 2 minutes. The seventh through 12th LEDs represent 5, 10, 20, 60, 90 and 120 minutes, respectively. Press and hold SET until the control dial flashes and then breathes pink, indicating the wave is saved.

Feed Mode - Feed Mode is also available in the Closed Loop Configuration see pg.13 for operation

Vectra™ with EcoSmart Live™

The Vectra Pump has even more capabilities and control available through EcoSmart Live & ReefLink. To learn more visit: www.ecosmartlive.com

VECTRA WITH ECOSMART LIVE
WATCH THE VIDEO:
ecote.ch/vectraesl

Computers, Mobile Devices
Control your aquarium equipment any time, anywhere

WIFI

EcoSmart Live
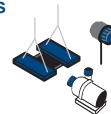EcoTech's powerful, cloud-based control platform.

WIFI

ReefLink
The wireless bridge between your equipment and EcoSmart Live.

RF

Vectra, Radion Lights VorTech Pumps
Control equipment without wires or adapters.

Unlock Additional Vectra Features
Customize modes, create schedules and much more.

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Troubleshooting

In the event of a problem:

1. Check that the pump is plugged in and there is power.

2. Unplug the pump and inspect the impeller for damage or obstructions.

3. Reconnect the power and reset the driver **(video: ecote.ch/resetdriver)**.

4. If the pump still does not function properly, use one of these support methods:

   - Watch our extensive collection of how-to videos.

     These videos are available at **ecotechmarine.com/media-gallery/video**

   - Visit our support community to ask questions and learn more about your Vectra

     Centrifugal Pump at **community.ecotechmarine.com**

If you are still experiencing problems, contact our industry-leading customer service at **service@ecotechmarine.com** or **1-800-785-0338, Option 2**.

- Non-immersible parts carry an ingress protection rating of IPX0 and must not be immersed in water.
- Danger: To avoid possible electrical shock, special care should be taken since water is employed in the use of aquarium equipment.
- DO NOT attempt repairs yourself; return the appliance to the manufacturer for service or discard.
- DO NOT immerse driver in water. If the driver falls into the water, DON'T reach for it! First unplug it and then retrieve it. If electrical components of the driver get wet, unplug the appliance immediately.
- Carefully examine the appliance after installation. It should not be plugged in if there is water on parts not intended to be wet.
- The pump's Driver is NOT WATERPROOF; water can permanently damage them. This damage IS NOT covered under warranty. Protect these components from splashes, drips, or other contact with water.
- Do not operate any appliance if it has a damaged cord or plug, or if it is malfunctioning or if it is dropped or damaged in any manner. The power cord of this appliance cannot be replaced: If the cord is damaged, the appliance should be discarded. Never cut the cord. DO NOT DROP. The Vectra Centrifugal Pump is fragile, and a fall onto a hard surface can result in permanent damage. Damage from dropping IS NOT covered under warranty.
- Position the aquarium stand and tank to one side of a wall-mounted receptacle to prevent water from dripping onto the receptacle or plug. A "drip-loop" should be employed for each cord connecting an aquarium appliance to a receptacle. A "drip-loop" is the part of the cord below the level of the receptacle (or the connector if an extension cord), to prevent water from travelling along the cord and coming in contact with the receptacle. If the plug or receptacle does get wet, DON'T unplug the cord. Disconnect the fuse or circuit breaker that supplies power to the appliance, then unplug and examine for presence of water in the receptacle.
- Close supervision is necessary when an appliance is used by or near children. Keep out of reach of young children.
- To avoid injury, do not contact moving or hot parts such as heaters, reflectors, lamp bulbs, and the like.
- Always unplug appliance from outlet and battery backup when not in use, before putting on or taking off parts, and before cleaning.
- Never yank cord to pull plug from outlet. Grasp the plug and pull to disconnect.
- Do not use appliance for other than intended use. The use of attachments not recommended or sold by the manufacturer may cause an unsafe condition.
- Do not install or store the appliance where it will be exposed to weather or to temperatures below freezing.
- Make sure appliance is securely installed before operating it. Read and observe all the important notices on the appliance.
- If an extension cord is necessary, a cord with a proper rating should be used. A cord rated for less amperes or watts than the appliance rating may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
- NEVER place either half of this device near magnetically attractive surfaces or sensitive electronics.
- The motor and driver can become HOT. Be cautious around these surfaces.
- DO NOT stick fingers or anything else into the pump. NEVER run this pump dry for any period of time.

RF Module Important Information: The product you have purchased contains the EcoTech Marine RF Module, part number 900-00088. This module gives your product the ability to communicate wirelessly to other EcoTech Marine products as well as certain other manufacturer's products that were designed in compliance with the specifications for our RF Module. Use of this module in products not consented by EcoTech Marine is prohibited. This product is for indoor usage only.

Français: Cet équipement est prévu uniquement pour un usage à l'intérieur des bâtiments
English: This device is intended for indoor use only.

European Union – Disposal Information: This symbol means that according to local laws and regulations your product should be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Some collection points accept products for free. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

FCC Compliance Statement: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation. Any changes or modifications not expressly approved by EcoTech Marine could void the user's authority to operate the RF module, and/or the product that incorporates the RF Module. The user is cautioned to maintain a 20cm (8 inch) spacing from the product to ensure compliance with FCC regulations.

CE Declaration of Conformity: The equipment complies with the RF exposure Requirement 1999/5/EEC, Council Recommendation on the limitation of exposure of the general public to electromagnetic fields (0-300 GHz). This equipment meets the following conformance standards: EN 300 328, EN 301 489-17

This device contains: EcoTech Marine's RF Module
Part Number: 900-00088   FCC ID: VKB271831   IC: 7349A-271831
CMIIT ID: 2017DJ2627

204-720178

RoHS Compliant®

The Vectra Pump can be used in the following countries:

AT	BG	BE	CY	CZ	DK
EE	FI	FR	DE	GR	HU
IE	IT	LV	LT	LU	MT
NL	PL	PT	RO	SK	SL
ES	SE	GB	IS	LI	NO
CH					