INSTALLATION MANUAL

LXNAV RS485 Remote

Control stick

Version 1.11

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www.lxnav.com

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1 Important Notices

The LXNAV CAN Remote is designed for VFR use only. All information is presented for reference only. It is ultimately the pilot's responsibility to ensure the aircraft is being flown in accordance with the manufacturer's aircraft flight manual. The LXNAV CAN Remote must be installed in accordance with applicable airworthiness standards according to the country of registration of the aircraft.

Information in this document is subject to change without notice. LXNAV reserves the right to change or improve their products and to make changes in the content of this material without obligation to notify any person or organisation of such changes or improvements.

A Yellow triangle is shown for parts of the manual which should be read carefully and are important for operating the system.

Notes with a red triangle describe procedures that are critical and may result in loss of data or any other critical situation.

A bulb icon is shown when a useful hint is provided to the reader.

1.1 Limited Warranty

This LXNAV CAN Remote product is warranted to be free from defects in materials or workmanship for two years from the date of purchase. Within this period, LXNAV will, at its sole option, repair or replace any components that fail in normal use. Such repairs or replacement will be made at no charge to the customer for parts and labour, the customer shall be responsible for any transportation cost. This warranty does not cover failures due to abuse, misuse, accident, or unauthorised alterations or repairs.

THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED OR STATUTORY, INCLUDING ANY LIABILITY ARISING UNDER ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, STATUTORY OR OTHERWISE. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, WHICH MAY VARY FROM STATE TO STATE.

IN NO EVENT SHALL LXNAV BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM THE USE, MISUSE, OR INABILITY TO USE THIS PRODUCT OR FROM DEFECTS IN THE PRODUCT. Some states do not allow the exclusion of incidental or consequential damages, so the above limitations may not apply to you. LXNAV retains the exclusive right to repair or replace the unit or software, or to offer a full refund of the purchase price, at its sole discretion. SUCH REMEDY SHALL BE YOUR SOLE AND EXCLUSIVE REMEDY FOR ANY BREACH OF WARRANTY.

To obtain warranty service, contact your local LXNAV dealer or contact LXNAV directly.

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2 Technical Data

- Power input 8-18V DC
- Consumption at 12 V: 60mA
- Weight 300g

3 Versions

Remote is available in several different sizes and options as described in next chapters.

3.1 Functionality

Standard version with custom configurable function button "Fn"

Shempp-Hirth version with red starter button for M gliders

EB28 version with trim switch

3.2 Diameter of command handles

Diameter	Gliders
19,3mm	DG, LAK, Shempp-Hirth
20,3mm	LS, Stemme, Apis, EB29
24,0mm	Schleicher, Pipistrel Taurus, Alisport Silent, EB28
25,4mm	JS

3.3 Shapes

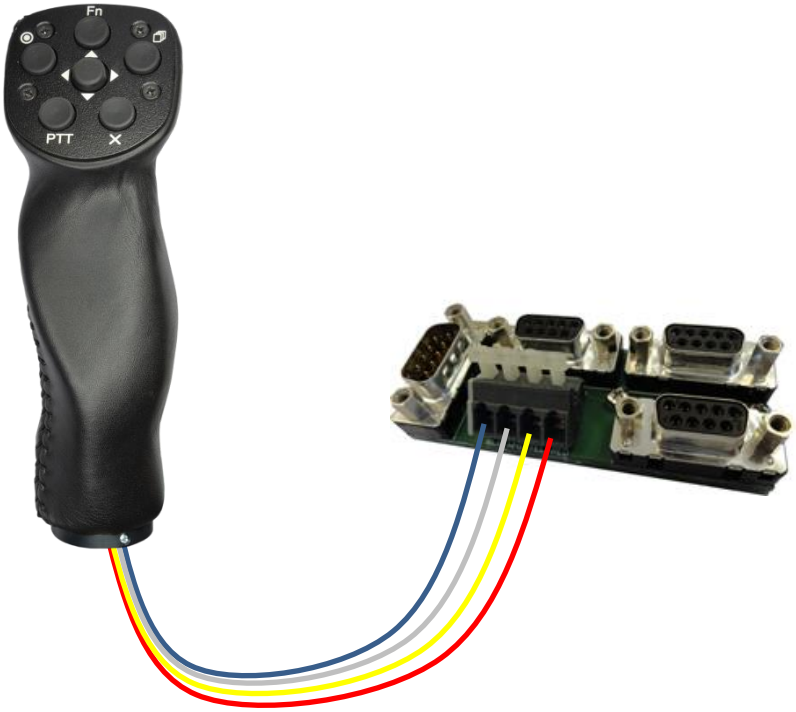
Left handed (optionally)

Symmetrical (optionally)

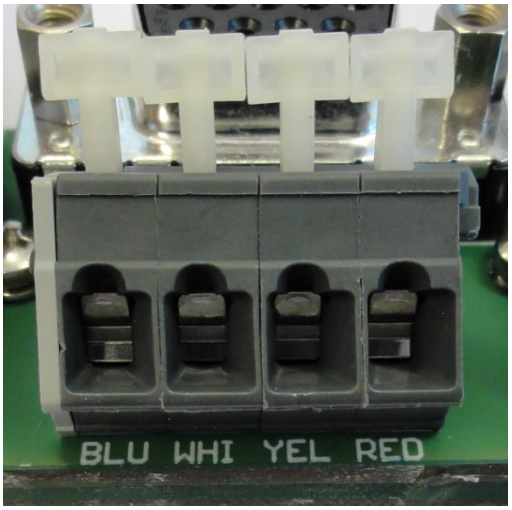
Right handed (standard order)

4 Installation

LXNAV remote stick is connected to RS485 bus through spring terminals on RS485 splitter.



Be careful, to connect correct colour wire to pin, which is marked with same colour.



PTT wires are connected to radio, SC is connected to Speed to fly input of vario unit.

If you are installing remote stick into double seater gliders or aircraft, be careful. Stick for rear seat is marked as DS. DS remote stick is programming to control repeater unit, which is installed on 2nd seat.

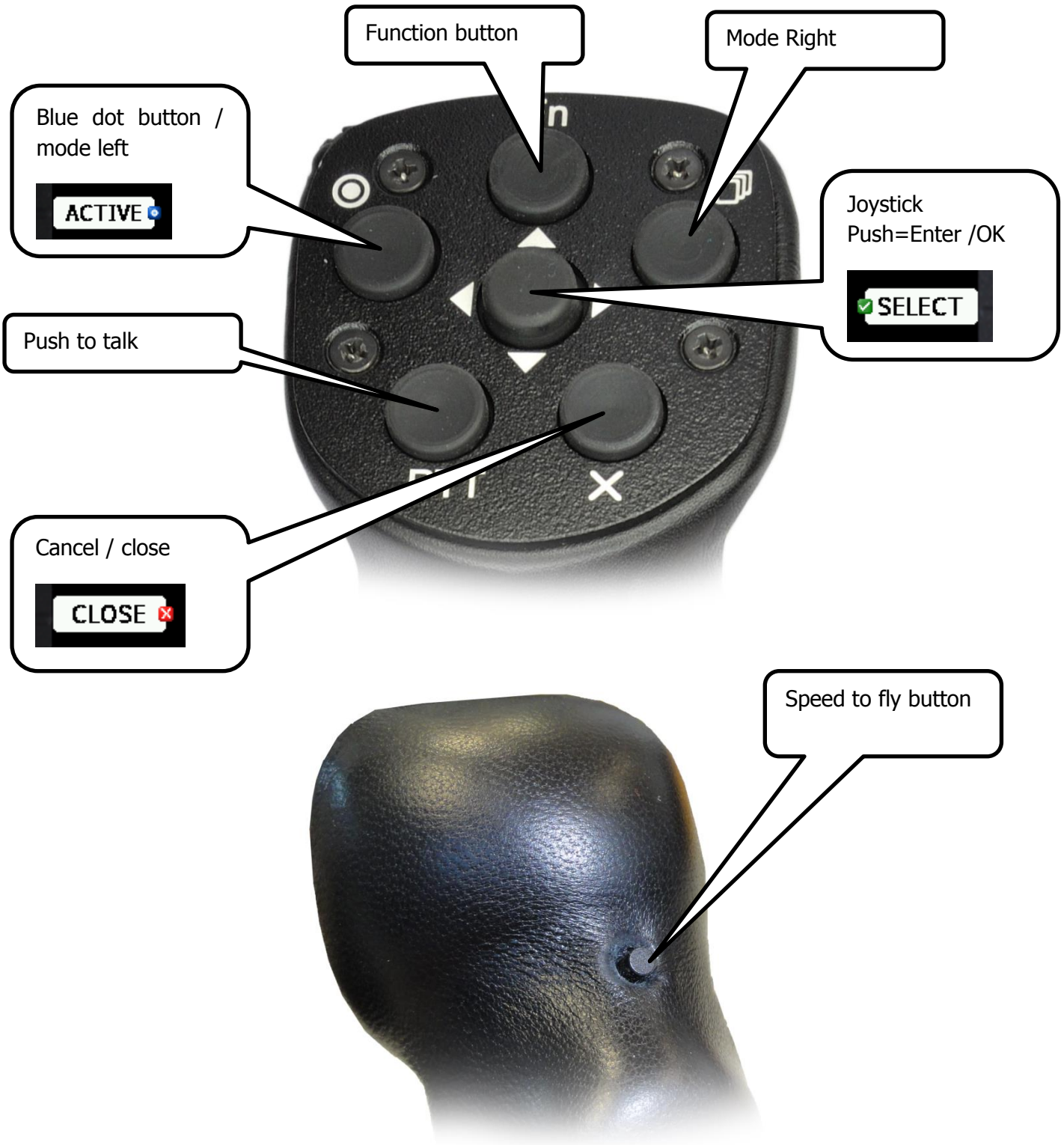
4.1 Remote with trim switch

Remote can be ordered with 3 position momentary switch for trimming purpose. Such remote has four additional wires with label "IN:WHITE, OUT:RED" where two white wires should be wired to positive and negative potential in glider, and the second pair of red wires go to trim driver. Polarity is not important, if trimmer has wrong moving direction simply switch one pair of wires between them and the direction will be reversed.

4.2 Remote with starter button

This option is for gliders with electric starter on internal engines. Remote has red momentary button for starting engines on the ground or in the air. Button is in normally open configuration and makes contact when it is pressed. Coaxial cable is separated from other wires and labelled as "Starter" and should be wired to engine control unit as stated in their manual.

5 Functions



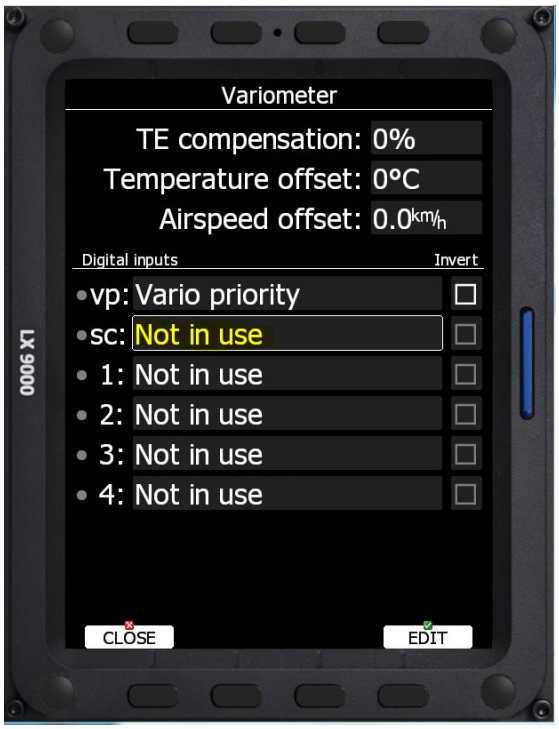
Function button (Fn) is custom button, which function can be set by user in setup – hardware – remote stick.

6 Remote without SC cable

We have been working very hard to simplify the remote stick so that we can have the same functionality but use fewer cables. The LXNAV new remote stick comes without the standard SC cable but the functionality is still available.

With the new stick, there is no more need to solder these wires to the vario wiring loom. The SC function is programmable through LX80/90xx (version 5.x)

To make the SC function work with the new stick, please check the SC setting in the configuration/setup page. For the LX80/90xx go to **Setup->Hardware->Variometer**



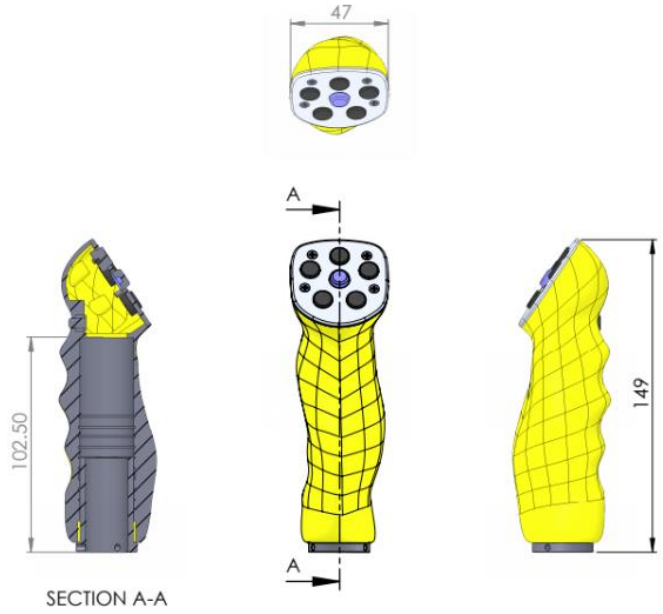
Please make sure that none of input is set to "SC on/off switch" or "SC toggle button".

Configuration table for all SC switch options for new and old sticks

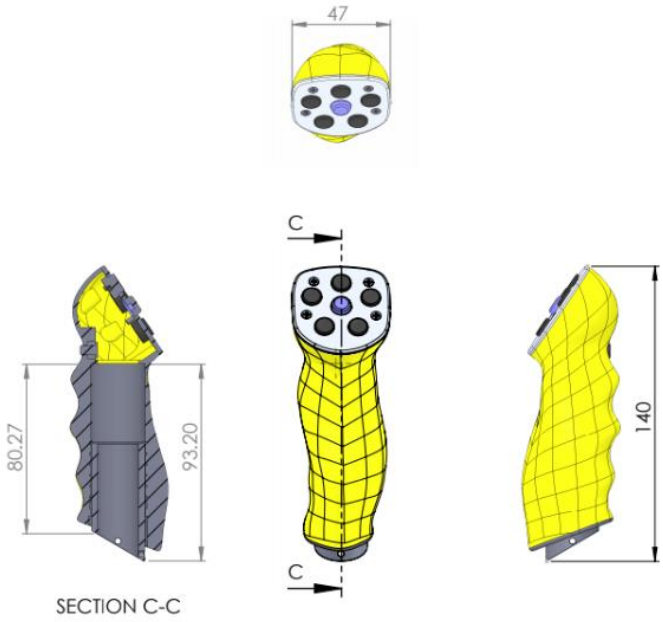
Remote stick type	Setup->Hardware->Variometer->SC input
LX remote without SC cable	Not in use
OLD LX remote with SC cable (before 8/2015)	"SC toggle button"
OLD Remote with SC switch	"SC on/off switch"
Using flap sensor	Not in use
Using magnetic flap sensor (AS style)	"SC on/off switch"

7 Dimensions

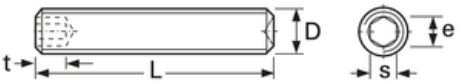
7.1 Normal insert



7.2 Slanted insert



7.2.1 Mounting screws (DIN 916/ISO 4029 M 3 x 6)



D = 3 L = 6 s = 1,5

e = 1,73 t = 2

8 Revision history

Rev	Date	Comment
1	April 2018	Added chapter 1, 3, 6 and 7
2	May 2020	Added chapter 7
3	May 2021	Added chapters 4.1 and 4.2 Updated chapter 7

The pilot's choice

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