LXNAV Trig Bridge

Installation manual Version 1.2

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1 Important Notices 3
1.1 Limited Warranty 4
2 Installations 5
2.1 Packing Lists 5
2.2 Basics 5
2.3 Installation 5
2.4 Wirings 7
2.4.1 Trig bridge wiring for Trig TY 91/92 without TC90 head 7
2.4.2 Trig bridge wiring for Trig TY 91/92 with TC90 head 7
2.4.3 Trig bridge wiring for Trig TT 21/22 without TC20 head 8
3 Revision History 9

1 Important Notices

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

Notes with a red triangle describe procedures which 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 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 discretion, 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, provided that 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.

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

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2 Installations

2.1 Packing Lists

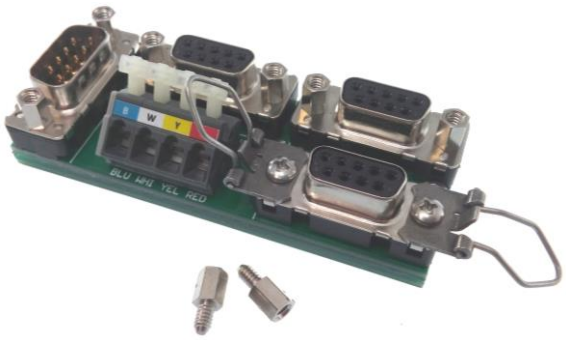
- Trig bridge
- Pair of spring locks for RS485 splitter

2.2 Basics

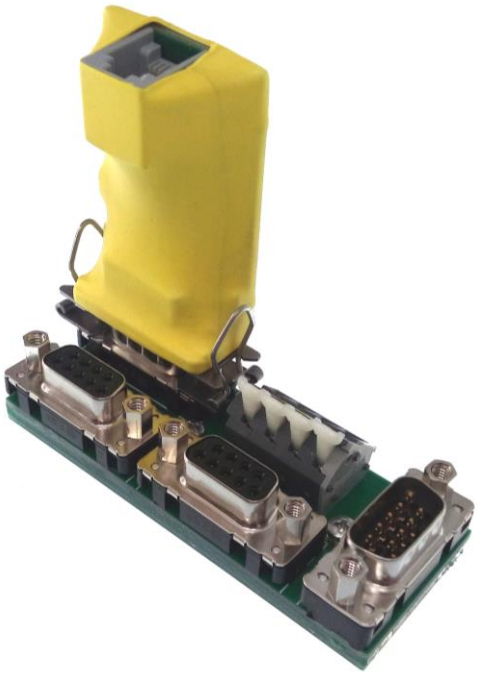
LXNAV Trig bridge connects Trig TY 91/92 radio or TT 21/22 transponder directly to LX 485 bus. Although it is on both sides RS485 communication, this one makes them compatible with converting different bus speeds. Bridge is connected to the LX 485 bus through a RS485 splitter with DB9 connector. Splitter is not part of package. If you don`t have spare port on your RS485 splitter you must order another 485 splitter.

2.3 Installation

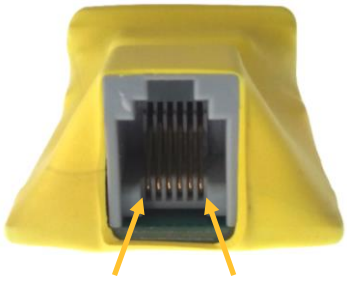
The RS485 splitter needs a small modification before the Trig Bridge can be fitted. It is necessary to remove two HEX screws, where the Bridge is to be connected and replace with the two spring locks that are in package.



After that small modification, fixing the Trig Bridge to the RS485 splitter will be very easy.



On the back side of the Bridge is a RJ12 connector with RS485 output for Trig radio or transponder. 12 V output from bridge can be only used for powering up small devices, do not power radio over this pin, it cannot supply such load. You can burn bridge or maybe even main instrument over which is powered.



1 2 3 4 5 6
Pin numbers

Pin number	Description
1	12V DC out, low current supply (do not power radio over this pin)
2	RS485-B
3	RS485-A
4	Do not connect
5	Do not connect
6	Ground

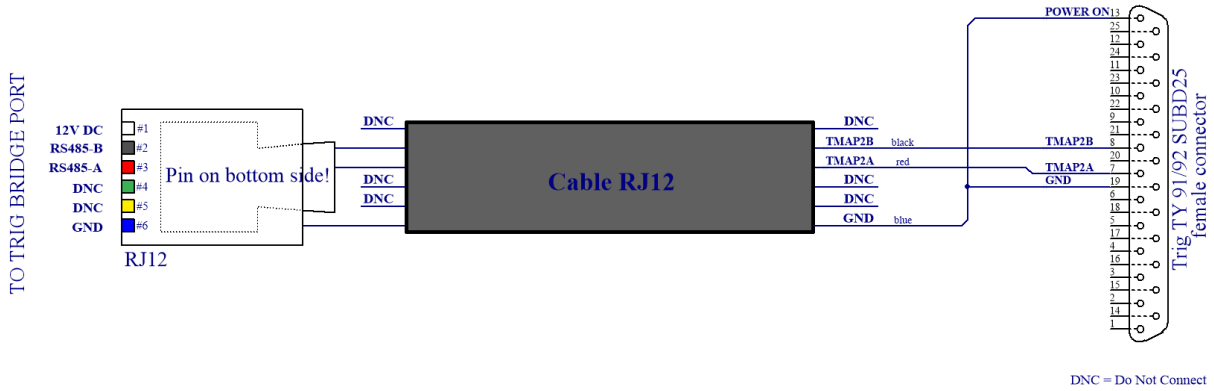
Minimum firmware versions for communication between Trig radio or transponder and LX Trig Bridge.

Device	Minimum firmware version
TY 91/92	V1.5
TC90	V1.4
TT 21/22	No minimum version required, but TC20 should not be used at the same time

2.4 Wirings

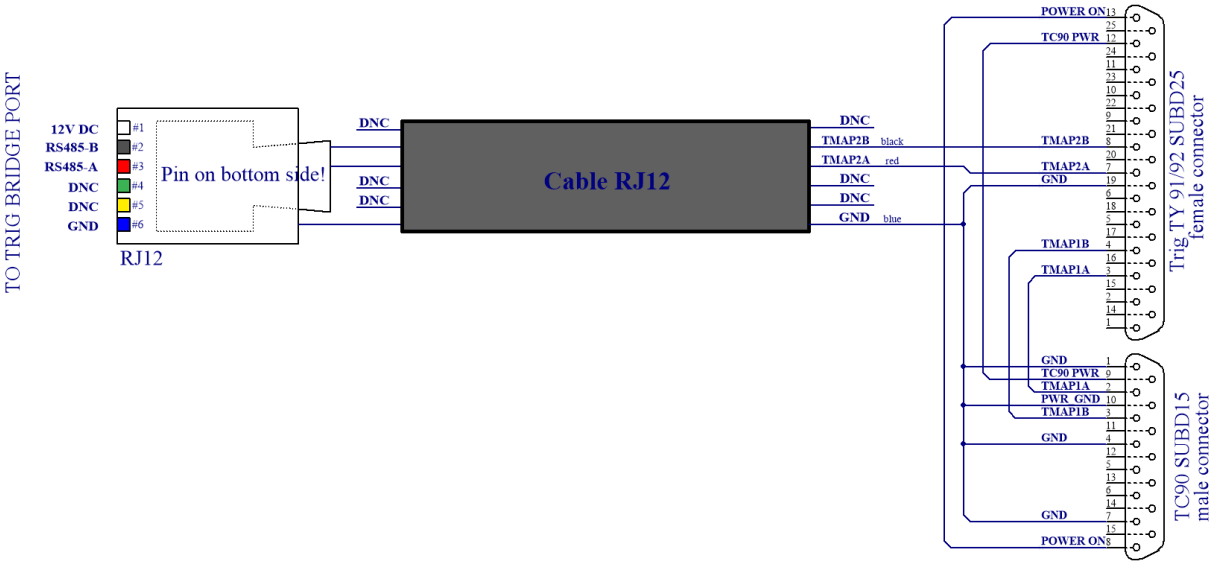
The wiring diagrams show the minimum required connection for communication between a LXNAV instrument and a Trig radio. The user should check the manual of the connected device for any further information. Radios and transponders without control head are in permanent ON mode. As soon as power is supplied, radio or transponder will power up. When control head is connected to Trig device, power depends on power button.

2.4.1 Trig bridge wiring for Trig TY 91/92 without TC90 head



DNC = Do Not Connect

2.4.2 Trig bridge wiring for Trig TY 91/92 with TC90 head

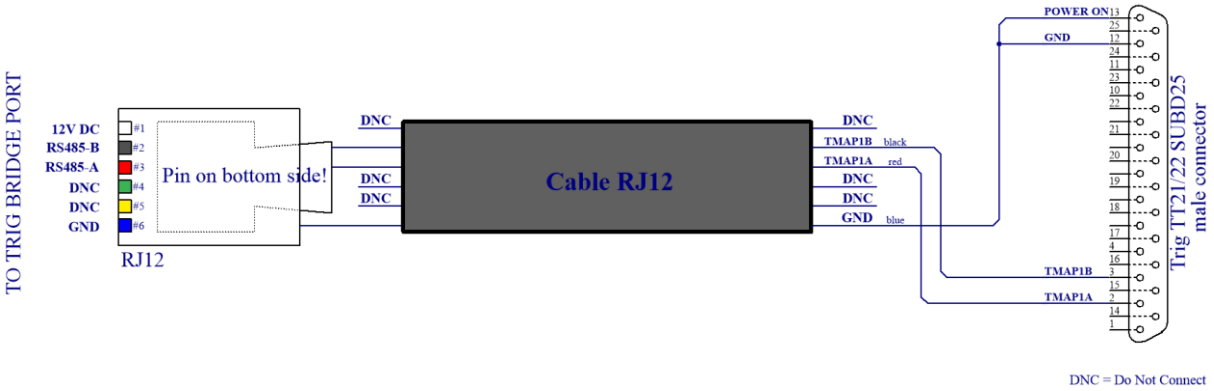


DNC = Do Not Connect

Complete cable for Trig Bridge can be bought from LXNAV, where are connectors for Trig radio and control head. Beside this there are left cables for PTT, microphone, speaker and power supply.

Trig TY91 can work only with one radio head.

2.4.3 Trig bridge wiring for Trig TT 21/22 without TC20 head



Transponder TT 21/22 can be only used with one external device at the same time. Whether with LX Trig Bridge or with TC20 control head. In any other way there can be data collision on communication bus. The connection between TT and Trig bridge is not certified!

3 Revision History

January 2017	Initial release of owner manual
March 2017	Added chapter: 2.4.3 Modified/updated all tables and description
April 2018	Updated chapter 2.4.2