DATA MULTIPLEXER

MX2

Operation and Installation Manual

LIMITED WARRANTY

Pacific Micro Systems warrants its products to be free from defects in materials and workmanship for a period of one year from date of sale to the original owner or fifteen months from date of sale from Pacific Micro Systems.
This warranty provides for the repair or replacement (at our option) of any parts found to be defective in normal and intended use, provided that such defects are in our opinion due to faulty material or workmanship.

This warranty does not apply to products which have been improperly installed, subjected to extremes beyond the limits of our specifications, or which have been physically damaged. Nor does it apply to products found to be defective due to abuse, lightning or any other electrical discharge, salt or fresh water, spray, or improper or unauthorised repair. Pacific Micro Systems will pay shipping (method to be of our choice) and insurance for return of said product provided that the returned product proved defective under the terms and conditions of this warranty.

The obligation of Pacific Micro Systems shall be limited to the repair or replacement only.
In no event shall Pacific Micro Systems be liable for any special, collateral, incidental or consequential damages for (1) breach of any provisions hereof, including, without limitation, provisions regarding warranties, guarantees, and/or indemnities: or (2) any claims by the purchaser concerning the goods without limitation, claims of loss of goodwill, loss of profit or revenues, loss of use, cost of removal, installation or reinstallation, personal injury of any kind to the purchaser or anyone else.

The forgoing warranty is in lieu of all other warranties, whether expressed or implied, or arising by law, custom, or conduct, including, without limitation, the warranties of merchantability and/or fitness for any particular purpose.

Pacific Micro Systems policy is one of continued development. For this reason, Pacific Micro Systems reserves the right to change specifications without notice and without incurring any obligation to similarly alter products previously purchased.

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OUTLINE:

This Data Multiplexer MX2 receives data from a number of different Lorans, Satellite Navigators, GPS's etc capable of sending NMEA0182/3. Both ports receive NMEA0182/3 independently and send the information out all ports.

Features:
2 Current Loop, RS422 or RS232 asynchronous serial Inputs.
2 Current Loop (RS232 compatible) asynchronous serial Outputs.
4800 or 9600 baud rates to allow high thru-put of data..

Transmit and Receive LED indicators
Galvanic isolation between input supply, data inputs and outputs.

Capabilities (only on Port 1):
The MX2 are programmed individually during manufacture to give the required
   function:
Combine data from RX1 and RX2 and output on TX1 and TX2.
Filtering (pass or block) of a specific NMEA0183 Header, Talker or both.
Add or remove checksum to NMEA0183 sentence.
Capability to change NMEA0183 talker.
Manipulation of NMEA0183 sentences.

Data Combiner:
Port 1: All RX1 data is passed to TX1 and TX2
Port 2: All RX2 data is passed to TX1 and TX2

MTW Drop Leading 0:
Port 1: All data is passed, if an MTW sentence with a leading zero (0) is detected the leading 0 will be removed. E.g. $YXMTW,017.75,C becomes $YXMTW,17.75,C
Port 2: All data is passed through to the transmit ports.

PARTS SUPPLIED:

      1 x MX2 Interface.
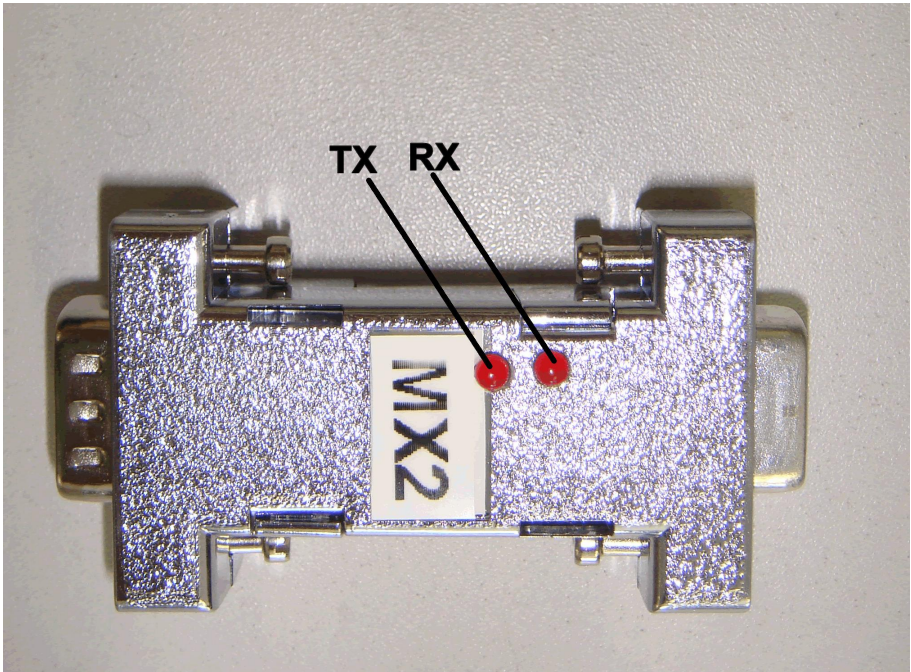   2 x DB9 cable connectors.

INSTALLATION:

1.   Run a two core screened data cable from each serial source to the required serial input..

2.   Run a two core screened data cable from each output to the data destinations.

3.   Run the supply cable to a suitable 12v supply.

Note:
The MX2 has DC isolation between its power supply input and ground. This makes it suitable for interfacing to any computer installation and all isolated ground equipment, without affecting the integrity of the battery positive (+) or negative (-) relative to ground.

MX2 OPERATION:

1.   As data is received in 1, or 2 the RX LED will flash.

2.   As data is transmitted out 1 and 2 the TX LED will flash.

<u>SPECIFICATIONS:</u>

Serial data capabilities:
Inputs: 1 and 2. RS232 or Current Loop/RS422.
Outputs: 1 and 2. Current Loop (RS232 compatible)

Serial Formats Received:
NMEA0183.

Serial Format Transmitted:
NMEA0183

Transmitted Data:
NMEA0183: 4800-9600, 8 data bits, no parity, 1 stop bit.

Power Requirements: 12 vdc @ 100 mA.
DC isolation between power supply input and ground is provided.

Weight: 22 grams.

Dimensions: 65 x 35 x 20 mm

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CONNECTION DETAILS

MX2 Port 1 DB9 female	Description
1	+12 vdc
2	
3	Current Loop Input RX1 + (Signal)
4	Current Loop Input RX2 - (Return)
5	Ground
6	
7	Current Loop Input RX1 - (Return)
8	Current Loop Input RX2 + (Signal)
9	12 vdc Supply Ground

MX2 Port 2 DB9 male	Description
1	+12 vdc
2	Output TX2
3	
4	
5	Ground
6	
7	Output TX1
8	
9	12 vdc Supply Ground

OUTPUT BAUD RATE

RX TX
LEDs