~**Introduction**~
Thank you for buying this GEM product.

TRB-4RJ45 is a passive type transceiver box to allow you to combine 4 video signals from CAT5 cables to one CAT5 cable.   Or split the 4 signals from one CAT5 cable to 4 CAT5 cables.

~**Installation**~
[Step 1] Cable preparation
Run the CAT5 cable between your signal source and the output unit with proper length.

Assemble the RJ45 plug on CAT5 cable.   Please refer to the following diagram (fig. 1) of standard connection order carefully.   Mistakes are easy to make at this point.   Please make sure that the cores slide into the RJ45 plug with correct order and all cores go to the end of the plug before crimping.   The crimp tool will press the brass pins in to the individual cores and lock the plug on to the cable.

[Step 2] Connect TRB-4RJ45 to your system
Put on the TRB-4RJ45 on the signal end or on both end of your system with the prepared CAT5 cable with RJ45 plug.

Connect the signal sources on the TRB-4RJ45 and connect the output unit (ie. monitors or DVR etc.) on the other end by TRB-4BNC.

~**Important Notice for Installation**~
1.   The fig.2 shows the connection order for standard CAT5 cable with RJ45 plug.

2.   Strip the cable with proper length (10mm) will make the connection stronger and the CAT5 cable will be locked by the RJ45 plug.
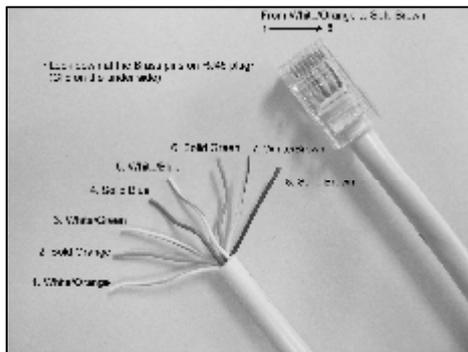
Looking down at the brass pins on the RJ45 plug
From Left to right:

fig.1

Pin	Color of Core
1 (Left)	White/Orange
2	Solid Orange
3	White/Green
4	Solid Blue
5	White/Blue
6	Solid Green
7	White/Brown
8 (Right)	Solid Brown

fig.2

~**Tip**~
Please note that there are two kinds of typical application of TRB-4RJ45 listed on page 2.

~Trouble Shooting~

[No Picture]
1. Video source is not working or not power on.   Please make sure the source is working normally.
2. The connection of CAT5 and RJ45 plug is not correct please re-check the connection order to standard.
3. The RJ45 plug has not been put on correctly, either with incorrect connection order or the cores are not far enough into the plug and not been crimped properly.   Cut off the end again and re-crimp.
4. The cable is damaged or there is a short or open circuit on the wire, please replace the wire.
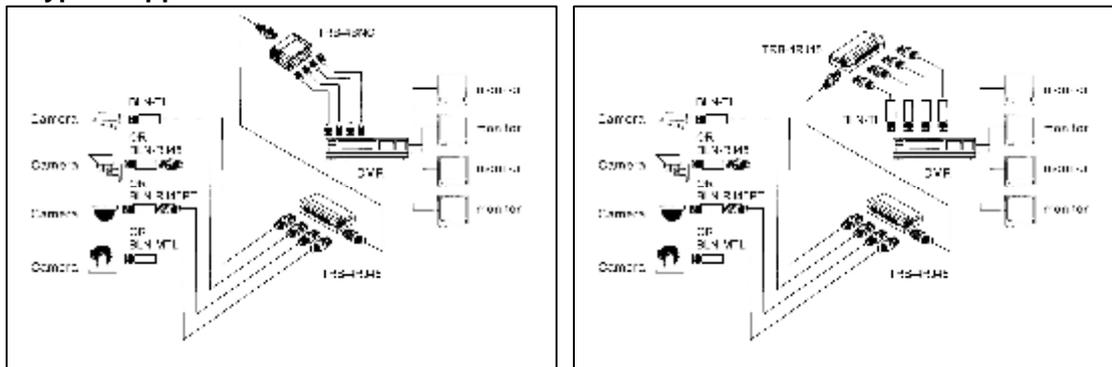
[Poor Picture]
1. Source is not working properly.   Please make sure the source is working normally and sending good quality picture.
2. The RJ45 plug has not been put on correctly, either with incorrect connection order or the cores are not far enough into the plug and not been crimped properly.   Cut off the end again and re-crimp.
3. Polarity incorrect with one balun being wired opposite to the other one, please re-wire.
4. Cable run too long.   The picture will deteriorate if the CAT5 cable run too long.   2200 feet is the maximum distance for a passive balun to be functioned with adjustments to DVR and monitor.   HOWEVER, a maximum distance 650 feet is recommended for using with equipment such as DVRs, multiplexers and quads.

~Specification~
Housing   :   ABS, Halogen Free UL 94V-0 104 x 43.5 x 27mm
Jack   :   a. Housing: PBT, Halogen Free UL 94V-0, black color
                      b. Contact: Ø0.46mm Phosphor Bronze 50µ Gold over 100µ Nickel plating
                      c. Shield: 0.25mm Thickness Stainless Steel, 80µ Tin plating
P.C.B   :   1.6mm Thickness FR4
Attachment :   a. Wiring Label
                      b. Double-sided adhesive tape

~ Typical Application~

1   2

~Limited Lifetime Warranty~

Gem Electronics warrants that this product is to be free from defect in materials and workmanship, for the life of the product.   The warranty given by Gem is in lieu of any other warranties, express or implied.   This warranty does not apply to units abused through misuse or subjected to improper and/or excessive voltage, beyond our control.   Gem assumes no responsibility for damages or penalties incurred resulting from the use of this product.   Gem's liability under any warranties shall be discharged by replacing or repairing, at our option, the defective product.   Gem's liability for any product shall not exceed a refund of the purchase price.   The warranty listed here is intended only as a summary of your full and complete warranty.   For a full and complete warranty of this product contact Gem Electronics.