

Nathan's TechNotes

Problem: From time to time the terminals or PCs have *garbage* appearing on their screens, and the problem keeps occurring.

Solution: The TP (twisted pair) for the composite (main) channel from port JA of one unit to port JB of the other unit is wired incorrectly. Here are the rules for proper RJ-plug

- 1) They MUST use TP.
- 2) It must be wired straight through. (It is obvious that they have done this because they do get some communication from end-to-end.)
- 3) Each individual twisted pair must be assigned to the correct set of RJ-45 pins in order to prevent split pairs. (They have split their pairs.)

How to fix the problem:

1.1) This is how they probably have wired the main channel TP.

RJ-45 (JA)	RJ-45 (JB)		
1	1		
2	2		
RCV+	3-----Red-----3	XMT+	Pair 1
XMT+	4--White/red stripe--4	RCV+	Pair 1
XMT-	5-----Blue-----5	RCV-	Pair 2
RCV-	6--White/blue stripe--6	XMT-	Pair 2
7	7		
8	8		

Notice that each pair has one rcv and one xmt signal! That means crosstalk. This is how it should be wired. One pair for XMT+ & XMT-, the other pair for RCV+ & RCV-. This is the

RJ-45 (JA)	RJ-45 (JB)		
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2	2		
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XMT-	5-----Blue-----5	RCV-	Pair 1
RCV-	6--White/red stripe--6	XMT-	Pair 2
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100015|^Model 354/358: *Garbage* keeps appearing on the terminals or PCs.|^June 13, 1997|^Nathan's TechNotes

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7	7		
8	8 ^Make Changes ^		