

FAQ for USR 28k modems

COLLABORATORS

	<i>TITLE :</i> FAQ for USR 28k modems		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
WRITTEN BY		April 16, 2022	

REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

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Chapter 1

FAQ for USR 28k modems

1.1 FAQ for USR 28k modems

Informations based on MailList...

```
. Area: R-USR .....
Msg#: 7739                               Date: 10-05-94 22:07
From: Ed Reilly                           Read: Yes      Replied: No
  To: Ray Bornstein                       Mark:
Subj: 28.8 CONNECTS
```

=====
 ==> Quoting Ed Reilly to Ray Bornstein <==

```
ER> Ray, I hate to say this, for myself even, but the USR 28,800 is PURE
ER> BS. I have read threads on Compuserve and Many local BBSs' and NOBODY
ER> can connect to ANYTHING above 19,XXX. But even worse is that NOBODY
ER> from USR will even come CLOSE to answering the problem...the only
ER> thing I can say is... FRAUD. They KEEP blaming everything else and
ER> claim to have NOTHING to do with the problem. Yet my old BOCCAMODEM
ER> 14.4 could AT LEAST CONNECT at over 19,XXX, and BOCCAMODEM was noo
ER> PRIZE!
```

```
ER> I have just bought the USR Sportster Data/Fax Modem V.34 with V.FC
ER> this evening. I offer a challenge to USR to PROVE this is NOT a
ER> FRAUD!!!
```

```
ER> If I'm wrong...TELL ME HOW! Anybody from USR up to it????
```

```
ER> Thanks,
```

```
ER> Ed
```

```
ER> -!-
```

```
ER> . RM 1.3 . Eval Day 11 .
```

```
ER> * Channel 1(R) * 617-354-3230 * Cambridge MA * 130 lines
```

```
ER> * PostLink(tm) v1.20 CHANNEL1 (#15) : RelayNet(tm)
```

```
. Area: HST .....
Msg#: 32276                               Date: 10-08-94 15:57
From: Mark Bursky                         Read: Yes      Replied: No
  To: Phil Roberts                       Mark:
Subj: Re: Problems
```

.....
 ==> Quoting Mark Bursky to Phil Roberts <==

MB> The flashing ARQ indicator is only when I'm uploading files. When I
 MB> connect to other VFC BBS's everything will go fine than all of a sudden
 MB> the carrier drops. This happens on a daily basis. It seems like if the
 MB> modem is receiving a lot of line noise that it would try to retrain to
 MB> the next lower baud rate, but when I look at the ati6 results the baud
 MB> rate is the same as when I logged on. I'm confused. Thanks for your
 MB> help, I really appreciate it.
 MB> !- Xenolink 1.90
 MB> ! Origin: Mouse Trap * Serving Amigas Since 1987 * 619-464-2134
 MB> (1:202/122)

. Area: HST
 Msg#: 32515 Date: 10-12-94 10:48
 From: Joe Frankiewicz Read: Yes Replied: No
 To: Gene Lowry Mark:
 Subj: HST Connects between V.34

.....
 ==> Quoting Joe Frankiewicz to Gene Lowry <==

-> Joe "Bub", feel free to jump in any time and tell me what I'm doing
 -> wrong in trying to get an HST connect between V.everythings without
 -> setting B1 in the called modem.

JF> Use S56=192 S54=128 B1 on the originating side, that should do it.

JF> Joe

. Area: HST
 Msg#: 32446 Date: 10-09-94 02:30
 From: Gene Lowry Read: Yes Replied: No
 To: Charles Johnston Mark:
 Subj: HST Connects between V.34

.....
 ==> Quoting Gene Lowry to Charles Johnston <==

GL> Charles,
 GL> You asked me some days ago to look into a problem establishing an HST
 GL> connect between two V.34 Dual Standard Couriers (at least I think it
 GL> was you). I finally had some time today to do some work on the problem,
 GL> I also have to tell you that is wasn't pleasant.
 GL> On over a dozen attempts, calling from a daughter board V.everything
 GL> to my single board V.everything, I got only one connect at 16.8 HST.
 GL> The rest either got a V.32 (pick your variant, mostly V.32bis) or
 GL> failed to connect at all.
 GL> In all cases the single board V.everything on my BBS was set to answer
 GL> V.32 (B0) while I tried almost every trick in the book with the
 GL> daughter board V.everything to get an HST connect.
 GL> The one connect I got was with S27=4, S34=135, S56=192 and B1 set on
 GL> the dialing modem. Repeated tries with the same configuration failed

GL> to connect at all as did many other configurations I tried.
 GL> Lacking two or either model to test with, I don't know that it's a
 GL> peculiarity of the daughter board modem, more likely a characteristic
 GL> of the breed IMHO. I will be writing up a formal problem report for USR
 GL> later today (read after sleep).
 GL> Joe "Bub", feel free to jump in any time and tell me what I'm doing
 GL> wrong in trying to get an HST connect between V.everythings without
 GL> setting B1 in the called modem.

GL> Gene Lowry
 GL>

GL> -!- msged 2.07
 GL> ! Origin: Bigfoot's RBBS - Tucson,AZ - HST - (8:902/1) or (1:300/11)

. Area: HST
 Msg#: 32602 Date: 10-12-94 17:25
 From: Francois Roy Read: Yes Replied: No
 To: Sam Watson Mark:
 Subj: Dropped Carrier

=====
 -=> Quoting Francois Roy to Sam Watson <==

SW> just drops carrier. I do reset the modem with a AT&F1
 SW> followed by a comma and some other simple setups that I have
 SW> found work well.

FR> Check if one of those "other simple setups that you have found to
 FR> work well" include a setting for S19. That register is an inactivity
 FR> timeout; if set to a value other than 0, the modem hangs up when that
 FR> many minutes elapse with no activity.

FR>
 FR> -!- msgedsq 2.1
 FR> ! Origin: Ready & Determined (1:163/506)

. Area: HST
 Msg#: 32485 Date: 10-10-94 14:23
 From: Sam Watson Read: Yes Replied: No
 To: All Mark:
 Subj: Dropped Carrier

=====
 -=> Quoting Sam Watson to All <==

SW> I have a USR V Everything on a 486sx and am using Intermail as a
 SW> front end to a BBS. I have recently noticed that the modem will
 SW> sometimes drop carrier if the users pauses for a min or two between
 SW> receiving data and entering any information. It happens with all baud
 SW> rates and configurations. It seems that if there is no data on the
 SW> line for a min or two it just drops carrier. I do reset the modem with
 SW> a AT&F1 followed by a comma and some other simple setups that I have
 SW> found work well. The only thing is dropping carrier if the line is
 SW> idle for a few min.

SW>
 SW> Any information that could be suggested would be appreciated. BTW i
 SW> have the node locked at 38400 baud. I found that if I lock InterMail
 SW> and the BBS software at any higher baud rate there is a problem (looks
 SW> like incorrect baud rate is passed to the BBS) when the BBS loads. I
 SW> have had a Zoom 28.8 VFC on this node and it would lock at the higher
 SW> baud rate and transfer to the BBS at the higher baud rate. I would
 SW> prefer to leave the USR 28.8 Courier on this node but due to the
 SW> problems I have encountered I may have to take the USR off and put
 SW> another Zoom on.
 SW>
 SW> Sam Watson

SW> -!- TriToss (tm) 1.03 - #78
 SW> ! Origin: My House BBS Inc. * Bolingbrook IL (1:2235/175)

. Area: HST
 Msg#: 32163 Date: 10-06-94 19:54
 From: Gene Lowry Read: Yes Replied: No
 To: Robert Dunnill Mark:
 Subj: Connect Speeds

.....
 ==> Quoting Gene Lowry to Robert Dunnill <==

GL> In a message of <Oct 02 94> Robert Dunnill (1:153/968) writes:

RD> I take it Courier V.FC/V.34 28.8K connects are rare? I have only seen
 RD> one in the three weeks I've had mine; usually, it's 26.4.

GL> It all depends on the quality of the telco lines you go through and
 GL> the number of switches.
 GL> Gene Lowry

GL>

GL> -!- msged 2.07
 GL> ! Origin: Bigfoot's RBBS - Tucson,AZ - HST - (8:902/1) or (1:300/11)

. Area: HST
 Msg#: 32121 Date: 10-02-94 20:51
 From: Robert Dunnill Read: Yes Replied: No
 To: Gene Lowry Mark:
 Subj: Connect Speeds

.....
 ==> Quoting Robert Dunnill to Gene Lowry <==

==> Quoting Gene Lowry to Donald Durel <==

GL> I hate to tell you this, but this may be as good as it gets. In my
 GL> experience with the V.34s, I can get a 28.8 connect if I stay within
 GL> my central office. If I cross central office boundaries then 26.4 is
 GL> about as it gets although they're pretty consistent. If I go long

GL> distance, usually it's 26.4, other times 24.0. Sometimes during the
GL> day on 800 numbers as low as 21.6. Gene Lowry

RD> I take it Courier V.FC/V.34 28.8K connects are rare? I have only seen
RD> one in the three weeks I've had mine; usually, it's 26.4.

RD> ... Sorry about the crayon. They won't let me use any sharp objects.
RD> -!- FMail 0.94
RD> ! Origin: ABACUS-I BBS * Richmond B.C. 14.4V32 604-272-4311
RD> (1:153/968.0)

```
. Area: HST .....
Msg#: 32381                               Date: 10-10-94 21:19
From: Clay Tinsley                         Read: Yes      Replied: No
To: Jeff Archambeau                       Mark:
Subj: can't connect high speed
```

==> Quoting Clay Tinsley to Jeff Archambeau <==

JA> I JUST bought a 28.8 sportster with v.everything(except 34)
JA> it's got 14.4 fax, etc. I tried calling some BBS's in the
JA> area, but have only gotten a conect of 21.6 or less. I only
JA> got the 21.6 once, and mostly 19.2 on the others. I don't
JA> know what do do! Here's my init string. Is it something in
JA> here, or what?

CT> I hope you don't expect to get 28.8 connects all the time with a
CT> 28.8 modem - it's not like a 2400b or even a 14.4 - 28.8 is pushing the
CT> phone system to the max, and connects in the 19.2-26.4 range are pretty
CT> normal.
CT> If you own your dwelling, you might check the phone wires running
CT> from your telephone line entry point, and even run new wire if what you
CT> have is old. It may help, but it also may not make any difference.

CT> Keep in mind that a 19.2 connect can get decent throughput. I
CT> often see 2500-2600 cps on compressed files with 19.2 connects.

CT>
CT> -!- Msgedsq 2.2e
CT> ! Origin: Verbose Ink * 214-437-0914 * V34/VFC/V32t/H16/V32b/FAX
CT> (1:124/5125)

```
. Area: R-USR .....
Msg#: 7616                               Date: 09-26-94 16:04
From: Bill Garfield                       Read: Yes      Replied: No
To: Ray Bornstein                         Mark:
Subj: 28.8 CONNECTS
```

==> Quoting Bill Garfield to Ray Bornstein <==

RB> I have a U.S.Robotics Dual Standard Courier 28.8 modem with fax and ASL.
RB> I was hoping to get some feedback from others about 28.8 and 26400
RB> connects. My connects at 28.8 and even 264000 are few and very far

RB> between. As a matter of fact I havn't yet to connect with anyone at

BG> USR gave you good info.

BG> 28800 requires 33% more bandwidth than does 14.4 and 26400 requires
 BG> 25% more bandwidth than 14.4. and 24000 requires about 15% more than
 BG> 14.4 -

BG> There's more than just bandwidth that enters into the equation, but
 BG> bandwidth is certainly one of the key ingrediants.

BG> -!-

BG> . OLX 3.3 . Ate yerz ago i cudent evin pernownz injuneer, now i r one

```
. Area: R-USR .....
Msg#: 7944                               Date: 10-13-94 23:21
From: Drew Perry                         Read: Yes    Replied: No
To: Technical Support/all                Mark:
Subj: 26400/28800 Connects
```

=====
 ==> Quoting Drew Perry to Technical Support/all <==

DP> I recently, like many others, purchased a Sportster 28.8 which I
 DP> enjoy. However I noticed that when I connect, I connect at 26400 on my
 DP> end and the host system says Connect at 28.8. When I type ATI6 the
 DP> connect speed is given as 26.4/28.8. I was wondering why I seem unable
 DP> to get 28.8, but the host is.

DP> Drew Perry

DP> -!-

DP> * Motown - L.A. BBS * Anaheim, CA * (714)535-1319

DP> * PostLink(tm) v1.20 LABBS (#279) : RelayNet(tm)

```
. Area: HST .....
Msg#: 32567                               Date: 10-11-94 02:28
From: William Grinolds                   Read: Yes    Replied: No
To: Craig Smith                          Mark:
Subj: USR<->VFC
```

=====
 ==> Quoting William Grinolds to Craig Smith <==

> I need some help. I just received my USR Courier on Wednesday. I'd like
 > to
 > find if there is any way to improve the connection between the USR and a
 > Zoom
 > VFC. I've noticed that the Zoom tends to get "confused" or the USR just
 > drops
 > off. I instructed the Zoomer to use -K0 to disable the MNP10 on his end,
 > and
 > this seemed to help. I'd still like to improve the connect, though..

WG> USR's implementation of V.FC isn't quite as good as Zoom's as far as
 WG> connect speed. But, of course, it is superior in that it constantly
 WG> probes the line and changes speeds as necessary. On normal

WG> voice-quality phone lines that are using the digital switching
 WG> stations, don't expect a connect much higher than 21.6. Now, V.34 on
 WG> the other hand, you can sometimes get 26.4 and even 28.8. It has a lot
 WG> to do with how your phone lines are wired. The more direct the line
 WG> (with no junction boxes, etc.) and if you use shielded wire, the
 WG> better your connects will be.

WG> Bill

WG> -!-

WG> ! Origin: ST:TNG BBS, (210)509-3272[V.34] / (210)647-5366[V.32bis]
 WG> (1:387/601)

```
. Area: HST .....
Msg#: 32352                               Date: 10-10-94 07:14
From: Gil Mitchell                         Read: Yes    Replied: No
To: Craig Smith                           Mark:
Subj: USR<->VFC
```

==> Quoting Gil Mitchell to Craig Smith <==

GM> Craig Smith proclaimed in a message to All:

CS> I need some help. I just received my USR Courier on
 CS> Wednesday. I'd like to find if there is any way to improve
 CS> the connection between the USR and a Zoom VFC. I've noticed
 CS> that the Zoom tends to get "confused" or the USR just drops
 CS> off. I instructed the Zoomer to use -K0 to disable the MNP10
 CS> on his end, and this seemed to help. I'd still like to
 CS> improve the connect, though..

GM> After 50-minutes on-line with USR tech-support; found that s27=32
 GM> (disable v.42bis) was a solution here. According to the "techie" there
 GM> is a problem with the handshake between USR-v.34s and Rockwell based
 GM> v.FCs.
 GM> CU gil

GM> OS2ing is Doing it RIGHT in Sand Springs,OK.

GM> -!-

GM> ! Origin: BSOOM!!! OS/2 Country (v.FC) 918-241-5405 (1:170/306)

```
. Area: HST .....
Msg#: 32301                               Date: 10-09-94 13:01
From: Mark Taylor                         Read: Yes    Replied: No
To: Bruce Feuchuk                        Mark:
Subj: Usr ds v.34 modem
```

==> Quoting Mark Taylor to Bruce Feuchuk <==

MT> Bruce Feuchuk wrote in a message to Gene Lowry:

BF> S10=20 to S10=7

MT> Increasing the size of your S10 register will keep YOUR modem from
 MT> hanging up on a BBS caller who can't disable call-waiting. If you run a
 MT> BBS, you should (IMHO) always have your S10 register set higher than
 MT> the default.
 MT> Mark

MT> marktaylor@vnet.ibm.com

MT> -!- timEd/2-B11

MT> ! Origin: HillTop/2 - Hamilton, IN --USA-- (219)488-3812 (1:236/10)

. Area: Main Board
 Msg#: 54100 Date: 10-12-94 15:50
 From: Technical Support Read: Yes Replied: No
 To: Bob Michalyshyn Mark:
 Subj: Modem Speeds

.....
 ==> Quoting Technical Support to Bob Michalyshyn <==

-> I have a question with regards to my modems login speeds. I have a Dual Std.
 -> with the V.FC , V34 upgrade and I have yet to log on to any BBS that
 -> supports 28,800 V.FC or V34 including this board at the max speed. The best
 -> speed I have ever gotten is 26,400. I am using Procomm Plus for

TS> Lower connect speeds are caused by noise or poor bandwidth problems on
 TS> the phone line. Try removing ALL other devices from the line, like
 TS> answering machines, extension phones, surge filters, etc. Try running
 TS> new good-quality cable from the modem directly to the telco interface
 TS> box on the outside of the house. The problem may also lie in the cable
 TS> between your house and the telco office, but you'd have to contact the
 TS> phone company to get that checked. Also be aware that problems at the
 TS> OTHER end of the connection will also cause this. It only takes one
 TS> bottleneck to slow everything down.
 TS> The modem's ATi11 screen will tell you what is happening. The SYMBOL
 TS> RATE parameter is indicative of the bandwidth available. If the modem
 TS> cannot achieve a symbol rate of 3200 because of poor bandwidth, you
 TS> will never see anything faster than 26400. If you are getting a 3200
 TS> symbol rate but the speed is slow, then the problem is good old
 TS> fashioned noise.

. Area: Main Board
 Msg#: 54082 Rec'd Date: 10-12-94 15:21
 From: Technical Support Read: Yes Replied: No
 To: Chris Mcclenahan Mark:
 Subj: v.34

.....
 ==> Quoting Technical Support to Chris Mcclenahan <==

-> I have a USR Courier Dual Standard v.FC, v.34 28.8k modem. I have had it
 -> for about a month now, and I have not ONCE made a connection to another
 -> 28.8k modem, even another v.34 at more than 26.4k.... I even got a short

-> 2ft. serial cable.... still, no more than 26.4k..... what do you think the
-> problem could be? Thanks a lot-- Chris McClenahan

TS> Have you used the latest USRSDL.EXE upgrade? That may help a bit,
TS> but it sounds like your problem is in the phone lines. Try removing
TS> any answering machines, extension phones, surge filters, etc from the
TS> line. Replace any old phone jacks, jumper cords, or inside wiring.

```
. Area: R-USR .....
Msg#: 7501                               Date: 09-19-94 16:20
From: Bill Garfield                       Read: Yes    Replied: No
To: Lee Bosch                             Mark:
Subj: I can't believe it!
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.....
--> Quoting Bill Garfield to Lee Bosch <==

LB> I finally figured out what my problem with hooking to the H****

LB> MY BLOODY PHONE WIRING POLARITY WAS REVERSED!!!

BG> Lee, if reversing polarity of the phone wires "fixed" your problem,
BG> then I rather suspect that the problem was actually either:

BG> 1. A loose or corroded connection at the NI which you of course fixed
BG> by mere accident in the course of making the wiring changes there,
BG> or

BG> 2. A polarity-sensitive phone device *other than* your modem which
BG> was -causing- line loading or impedance problems. This is why we
BG> suggest disconnecting **everything** when hunting for these
BG> ghosts.

BG> Often times the most obvious area of concern is the one frequently
BG> overlooked. This is the overvoltage/spike protector built into
BG> many of the A/C line conditioning units, uninterruptible power
BG> supplies, PC master switch control units, and the plug-in phone line
BG> protectors from Rat Shack. -START- by disconnecting these.

BG> I don't know where or how this polarity myth got going, but it's
BG> nothing more than an old wife's tale. The USR Courier modems are not
BG> polarity sensitive, period. <-- Please note the period.

BG> If reversing line polarity shows demonstrable, repeatable, conclusive,
BG> and measurable performance differences, then there is indeed a
BG> problem. Such problems would of course include the distinct possibility
BG> of a damaged/defective modem.

BG> ~~~~~ ~~~~~

BG> * OLX 3.0 * HANGING: Bungee-jumping in beta trials

```
. Area: R-USR .....
Msg#: 7776                               Rec'd           Date: 10-07-94 16:42
From: Bill Garfield                       Read: Yes    Replied: No
To: Steve Ellis                           Mark:
```

Subj: 28.8 CONNECTS

.....
--> Quoting Bill Garfield to Steve Ellis <==

SE> I am in need of some help with my phone co and the SLC system
SE> they use. They have been out to my house on two occassions and tell me
SE> that everything is within tolerences. I am using the Sporster V.34
SE> (external) and am only able to see 19.k connects and a periodic 21.6.
SE> I have taken the modem to neighboring communities (here in St. Paul,
SE> Minnesota) and have seen 28.8 connects, so I know the modem (and my
SE> setup) is working properly.

SE> I'd sure appreciate any help you can give. The phone co has
SE> been very nice about it, but I get the impression they have done about
SE> all they are going to do unless I can come up with something more to
SE> tell them...

BG> Hello Steve.

BG> Usually the biggest headache with the SLC-96 (Subscriber Loop
BG> Concentrator) is poor bandwidth. The high frequencies fall off too
BG> rapidly beginning just above 3000 Hz. For the record, these things
BG> also come under many different names, including: RT (Remote Terminal),
BG> Pair Gain, Subscriber Mux (multiplexor) - it all depends on what area
BG> of the country you're in.
BG> Using USR's higher-end Courier product I've seen generally 1
BG> step better results through the "slick" than I do with the Sportster,
BG> but don't take that to the bank - it's merely my own experience. If
BG> you know someone who has one of the new Courier V.Everything modems you
BG> may want to see if you can borrow it to test this theory. It could
BG> simply be that you need a little higher tech modem to deal with the
BG> extreme limitations of the "slick".
BG> Try also disconnecting **everything** from the phone line
BG> except for your modem. - By everything, I mean exactly that - including
BG> any surge protection devices that you may have connected. There are
BG> also scattered reports that sometimes reversing the polarity of the
BG> telephone line can have an effect, though there's not much that's been
BG> offered in the way of supporting evidence. The easiest way to do this
BG> is get a second phone cord and a double female coupler. A standard
BG> telephone "silver-satin" phone cord is, by design, a crossover cable,
BG> so two of them in line together with the double female coupler should
BG> effectively reverse line polarity from what it normally is. IF THIS
BG> HELPS, then have the phone co. come back out and check your line for
BG> "balance" See if you can find out who the manufacturer of the
BG> SLC is. If it's Western Electric or AT&T, you should be able to achieve
BG> at least 24,000 bps through it on most calls. If it's an offshore
BG> brand from then results may be not as good.
BG> Keep us posted as to your results. FYI I no longer monitor
BG> Conference 0 (Main Board) on USR's support bbs - it just became too
BG> unweildy.
BG> -!-
BG> . OLX 3.3 . Tandy Corporation & Rat Shack: Creators of the 286/SX

. Area: R-USR
Msg#: 7756 Rec'd Date: 10-07-94 06:03

NA>I can't get a v.34 connect. Only a v.FC connect...even with another USR
NA>v.34.

TD> Make sure that S54=64 and S56=0.

NA>I have the 8/26/94 code installed which was released on 9/9/94.

TD> Did you do an AT&F1&W after you installed the new code?

NA>Also...I only get 26400 v.FC connects.

TD> Read back in this conference for discussions of phone line quality.

TD> -!-

TD> * Channel 1(R) * 617-354-7077 * Cambridge MA * 100 lines

TD> * PostLink(tm) v1.20 CHANNEL1 (#15) : RelayNet(tm)

```
. Area: R-USR .....
Msg#: 7618                               Date: 09-26-94 20:21
From: Doug Haire                         Read: Yes    Replied: No
To: Ray Bornstein                       Mark:
Subj: 28.8 CONNECTS
```

==> Quoting Doug Haire to Ray Bornstein <==

DH> RB|21000 connect seem to be what I am getting. I spoke with USR and
DH> they |claim that at 26400 and 28.8 requires a larger bandwidth of the
DH> phone |line clearly placing the blame on poor line conditions. AT&T
DH> is my long |distance carrier and even when I call USR it's at 24000
DH> or 21000.

DH> It's your phone line, not which carrier you use, in this case. You
DH> could test this by taking it someone else's location and using their
DH> phone line but only if you already know their phone line is good.
DH> There's not much you can do unless the problem is internal to your
DH> house/apartment. You can disconnect all other phone devices, if any,
DH> from your line and see if that helps. You can run a phone cord direct
DH> to the interface box test jack, if it's fairly accessible from a
DH> window, and see if you get an improvement. You can try a different
DH> phone cord (strangely enough, that seems to have helped a few people).
DH> You can try re-terminating your connections (they can get corroded).

DH> I am fortunate, my usual connection is 26400 with a few 28800's tossed
DH> in and a few 24000's, I rarely get worse than that.

DH> -!-

DH> . SIMR 2.1a #40 . Cruising the Information Superhighway in a '47

DH> DeSoto. * Telephone Exchange 407-791-2474 V.32bis ZyXel 19200!

DH> * PostLink(tm) v1.20 TELEPHONE (#222) : RelayNet(tm)

```
. Area: R-USR .....
Msg#: 7617                               Date: 09-26-94 22:08
From: Bill Garfield                     Read: Yes    Replied: No
To: Ray Bornstein                       Mark:
Subj: 28.8 CONNECTS
```

.....
--> Quoting Bill Garfield to Ray Bornstein <--

BG> Expecting 28,800 bps? Your results may vary.

BG> If you find that you're unable to achieve full speed 28,800 bps
BG> connections or your modem sometimes behaves erratically, the reason is
BG> possibly a phone line problem. Either insufficient bandwidth, poor
BG> signal to noise ratio, or an imbalance in the phone lines... either
BG> yours, the phone lines of the system you are calling, or in the lines
BG> and telephone switching equipment anywhere along the way.

BG> Here are the minimums:

BG> ^^^^^^^

BG> 28,800 bps V.FC/V.34 -REQUIRES- 3200 Hz bandwidth, from 320 - 3520 Hz.

BG> 26,400 bps V.FC/V.34 -REQUIRES- 3000 Hz bandwidth, from 375 - 3375 Hz.

BG> 24,000 bps V.FC/V.34 -REQUIRES- 2800 Hz bandwidth, from 467 - 3267 Hz.

BG> by contrast..

BG> A 21,600/19,200/16,800 link requires a usable bandwidth of only 2400
BG> Hz, from 600 - 3000 Hz. This is the same amount required for V32 &
BG> V32-bis (4800, 9600 & 14,400).

BG> Alas, while most U.S. domestic phone lines can easily support the
BG> requirements of 9600/V.32 and 14400/V.32 bis, some may not have
BG> the technical parameters necessary to support V.FC and V.34 at
BG> *FULL* speed. This, in a nutshell, is what you (and some others) may
BG> be experiencing.

BG> Compared to V.32 & V.32 bis, 28,800 bps requires 33% more bandwidth,
BG> 26,400 bps requires 25% more bandwidth and 24,000 bps needs 17% more
BG> bandwidth. This additional bandwidth *MUST* be there from end to end,
BG> from one modem to the other. Either you have it or you don't, and
BG> your modem is telling you by its performance.

BG> As the domestic telephone companies race to install fiber optic
BG> cables, the bandwidth situation should gradually improve. Until
BG> then...

BG> *****

BG> ***** * There ARE several things you can -try- for improving at home
BG> modeming: * * Go throughout the house and disconnect -ALL- telephonic
BG> devices attached * * to the phone line. This includes extension
BG> phones, answering machines, * * fax machines, caller-id boxes,
BG> line-in-use indicators, cordless phone * * base units, demon
BG> dialers, and voltage spike protectors or line filters * * like those
BG> commonly found in PC Desktop master-switch power directors * * and
BG> power line conditioning units. If you find that any of this helps, *
BG> * then start plugging things back in one by one until the culprit is
BG> * * identified. It may even be a combination of things.

BG> * *

BG> * * If your telephone wiring is a rat's nest and/or

BG> you've strung some * * extension lines yourself and not used

BG> genuine telephone-type wiring, * * consider having a professional

BG> replace your haywired additions. Your * * telephone wiring should

BG> also be WELL AWAY FROM the A/C power wiring in * * walls & ceilings.

BG> *

BG> *****
BG> ***** As always, your mileage will vary.

BG> * OLX 3.0 * HANGING: Bungee-jumping in beta trials