

# RF ELIMINATION TECH BULLETIN

## WHAT IS RFI?

Radio Frequency Interference (RFI) is one of the hardest problems to solve on telephone systems. You can't see it, it may not always be there, and there is sometimes no rhyme or reason for what's happening, to be happening.

In general, the RFI is picked up by a component of the telephone system that is "tuned", by coincidence, to the source of RFI. RFI is usually worse when it is closer to the source of the radio transmission.

Here are the frequencies that are most often the source of problems on phone systems:

1. AM Radio (.5 to 3 Megahertz)
2. CB & Amateur Radio (3 to 30 Megahertz)
3. CB & Plastic Sealing Equip. (26 to 60 Megahertz)
4. FM, Air & Bus. Band Radio (60 to 150 Megahertz)
5. Neon / Dimmer Noise (60 - 120 Cycles)
6. Welding Noise (500 Hz to 150 Mhz)

## FIRST THINGS FIRST (THE BASICS)

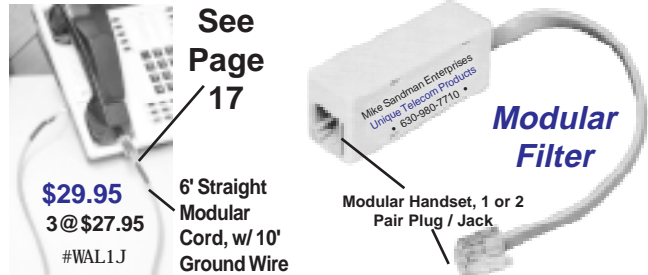
Before you go and buy a bunch of RF Eliminators, there are some basic things you should do to try to get rid of the RFI without using parts. I guess it's a toss up whether it's more economical to try our filters first (they're easy to mail to the customer since most are modular), then go out and spend the labor if they don't work right away... or do the basics first and get the remaining problems solved with our RF Eliminators. Even if our RF Eliminators don't work at first, they will probably fix what is left over after you do the basics.

FaxBack from Anywhere  
1-800-669-9900  
Document 501 & 502

Have our Flow Chart & Full Tech Bulletin Faxed to You Wherever You Are!

The nice thing about our filters is that they are modular, and only take a second to plug in to the phone in many cases. On some jobs, you may need the filters at the KSU also - they can't all be easy (see the diagrams on our FaxBack System).

## NEW! Shielded Handset Cord for NEON HUM!



- Grounding the system and spare pairs.
- Removing unused cables from the frame.
- Simply "retuning" the antenna to a different length.
- Find out where the RF is entering the system!
- Find out the frequency of the station you are hearing!
- Battling 60 Cycle Noise.
- Using a shielded handset cord for 60 Cycle Hum.
- Using carbon xmitters in place of electret for 60 Cycle Hum.
- Battling RF type plastic sealing equipment.
- Battling Welding Noise.
- CB & Ham Radio Interference
- Curing RF on Station Cables
- Curing RF on the Handset Cord
- Curing RF on Headsets
- Curing RF on CO Lines
- Curing RF on Modems & Fax Machines
- RF on Digital Systems
- RF on Analog Systems
- AM & FM Broadcast Stations
- Breaking the problem into smaller parts to make troubleshooting easier.

1 Line Modular Filters: \$14.95  
2 Line & Handset Filt.: \$18.95  
Hard Wire Filters: \$ 8.95



Available for All Frequencies:

Frequency (MHz)	.5-3	3-30	26-60	60-150
• Handset:	WAL1D	WAL1E	WAL1M	WAL1F
• 1 Pair Mod:	WAL1G	WAL1H	WAL1O	WAL1I
• 2 Pair Mod:	WAL1A	WAL1B	WAL1N	WAL1C
• 1 Pair Hard Wire:	WAL1K	WAL1L	WAL1Q	WAL1R

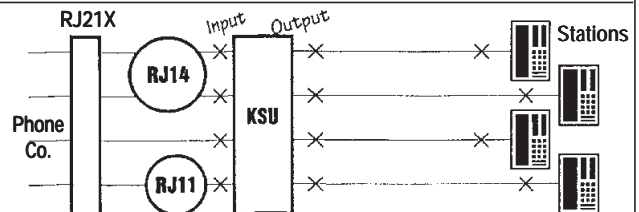


**BE SURE TO READ OUR TECH BULLETIN!**  
It has years of troubleshooting experience rolled into a few pages, to make *your* life easier!

**ALSO WORKS ON 10 Base-T ETHERNET!**  
If a customer located close to a radio station is having network problems, placing filters at the patch panel or other locations could solve the problem!

## ELECTRONIC KEY SYSTEM / PBX FILTER PLACEMENT:

- Proper Filter selection for the line side of KSU depends on wiring configurations.
- When RJ-11 jacks supply single line phones, use 1 Line Modular Filters.
- When RJ-14 jacks supply two lines, use 2 Line Modular filters.
- If the system is fed by RJ-21X blocks, use Hard Wire filters on each incoming line.
- Our 2 Line Modular filters are compatible with the station side of electronic key telephone systems and PBXs, since individual stations are typically fed with 2 pairs from the KSU. You may also need our Handset Filters on sets.



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