Rogue riggers

Bill Wright's seen the best and worst of the installation trade, and he's got the photos to prove it

I've been an aerial installer since 1967, and before that I was an aerial installer's helper. There are many of us in this trade who care about the quality of our work and make sure that our customers get a fair deal. Lots of installers have built up really good businesses by simply being honest and by doing the job properly.

I'm sorry to tell you, though, that there are also many highly unsatisfactory people in our trade. There are the incompetents, who might be perfectly honest but really haven't a clue, there are the ones who are downright crooks, and there is every shade in between. Stick a pin in the big yellow book and there's a significant chance that you'll end up with someone who might be an incompetent idiot, or worse, might be a convincing but devious little git who will take you for every penny he can.

Word of mouth

Which firms should you definitely steer clear of? The dodgy ones can be difficult to spot, although grubby fliers pushed though letterboxes on new estates misspelling the words 'aerial' and 'satellite' are a bit of a giveaway! On the other hand, some of the smartest adverts and websites belong to cowboys and out-and-out crooks. Some of the slickest-looking outfits will rip off the unwary on a grand scale. Be wary of the ones with a huge advert in the phone book, because sometimes these are franchise-type operations, with a Mr Big who gets a fat introduction fee (ultimately paid by you) and a string of dodgy local riggers who are desperate for work because they are no good.

How can you find a decent aerial or dish installer? The answer is recommendation. Think around your circle of friends and colleagues. Who has lived in the area for years and years? Who has a house full of television sets? Who lives in a bad TV reception area? Who is a serial 'early adopter'? Who is shrewd? These are the ones to ask. If you have local authority or health authority contacts, find out who fixes the aerials for the schools, flats, and hospitals. And large property management agents usually know a good rigger.

Finding your man

When you find an installer, don't be put off if he tells you that you will have to wait for a week for a non-urgent job. Good installers are thin on the ground so they have lots of work. Be patient. The ones to worry about can be those who turn up five minutes after you put the phone down!

When the rigger of your choice arrives, let's hope he has a properly equipped van rather than an estate car with a few aerials in the back. Let's hope he has some decent test equipment – a spectrum analyser is essential. Proper ladders and safety equipment, public liability insurance, and a numbered invoice book are a must. If his sartorial style is epitomised by his tattered bobble hat, his skin is liberally embellished with amateurish tattoos, he has a slimy roll-up in the corner of his mouth and a disrespectful attitude to your new white carpet, you might have chosen unwisely. Yes, if it looks as if Uncle Fred and his halfwit son have come round in their Robin Reliant to fix Grandma's guttering, I suggest you get behind the settee until they go away.

Awful aftermath

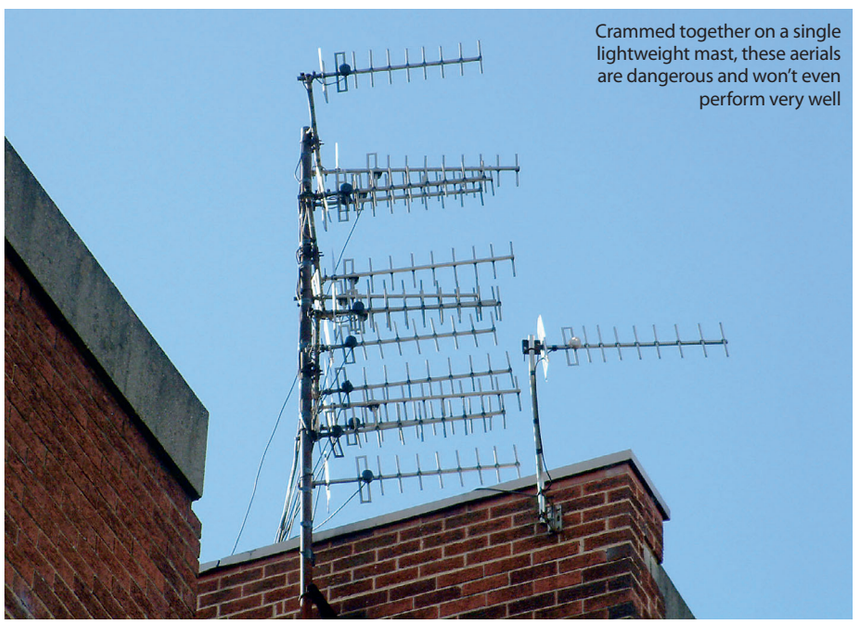
I'm terribly saddened and disheartened by the diabolical work done these days by many so-called installers. Every week I see installations that are either unsafe, unsightly, or ineffective, or any combination of these attributes. Every week I meet people who have been ripped off, some of them mercilessly. Vulnerable people are the main victims of the vulture-like installers, but even if you're young, clever, and clued-up, you aren't immune.

If you think garage mechanics and plumbers can be bad you should see what some riggers get up to! Although fraud, misrepresentation, and over-charging can't be photographed, lousy installations can. Welcome to my private gallery of horrors! I've selected a few photographs from my huge collection. So, here are a few shots showing some of the worst excesses of the cowboy riggers' art. Me? I look at these pictures and I don't know whether to laugh or cry ■ **Bill Wright**

The multi-aerial mast

This is what happens when a landlord or property manager short-changes his residents by not providing a TV distribution system. This mast goes back 30 years; generations of riggers have added aerials. Again, residents have been short-changed, because only one installer has bothered to fit his own wall bracket and mast.

Aerials don't work well when crammed together and, if mast snaps, 14 aerials will land on someone's car, or head. That would be an interesting legal wrangle. Note also the loose cables, leaving the aerials and running above the flat roof. A good distribution system, shared between all the flats, would cost peanuts.



Crammed together on a single lightweight mast, these aerials are dangerous and won't even perform very well

Ban the boot

It's essential that the connectors on an LNB are waterproofed, and there's only one way to do it – by the skilled use of self-amalgamating tape, a stretchy product that bonds to itself and seals the connection perfectly. A snag arises here for many installers. Yes, it's that word 'skilled'. They've tried to use self-amalgamating tape and they've failed. They just can't do it – or is it that they can't be bothered?

It takes a few attempts to learn the technique and a few minutes to do it each time, and that level of dedication is out of the question for a lot of them. So they use these little rubber slide-on covers, which are quick, easy, and useless for keeping the rain out. The result is a cable full of water and a scrap LNB. Can you see the green gunge? That was once the copper inner conductor.

Corrosion can eat away at LNB sockets if they're not protected with self-amalgamating tape

Dishes on aerial masts

Satellite dishes should *never* be held aloft on aerial masts because strong winds on the large surface of a dish will bend the mast. You'd think this basic fact would be known to all installers.

This dish was installed by a large and allegedly experienced firm and it lasted about six months, until high winds arrived. Aerial masts are designed to be light and cheap. They don't need to be all that strong because aerials don't catch the wind in the way that a dish does. This mast is a 1in diameter aluminium one, and with a 65cm dish fixed at that height I'm surprised it lasted as long as it did. When there's really no alternative to mounting a dish above the wall brackets a scaffold tube should be used, not a TV aerial mast, and the dish should be fixed as low down as possible.

It's called an aerial mast for a reason – a 1in pole above the roof is not fit for a satellite mast

Broken bricks

If you are having an aerial or a dish installed discuss any possible brick damage with the installer, especially if you live in an older property. The handmade bricks in these pictures were fine for 200 years – then a stupid rigger came along with his massive hammer drill.

The *top picture* shows the wall bracket in position. The top brick has broken and has started to pull apart. The *lower picture* shows the brick face after the bracket was removed. The rigger had only attempted four fixings, despite using a six-hole bracket. The lower right fixings obviously failed when they were installed, so our hero gave up and didn't even try on the lower left. The fixing on the left has shattered a brick. Plastic plugs, the cheap, all-purpose fixing of choice for cowboys, are expanding fixings, so they break apart soft materials. Anchor bolts are always preferable.

Careless drilling can ruin the best brickwork

Dish in the win-d'oh

Just stupid. You'd think the installer would have realised what would happen when the customer opened his window. But no. I've seen dishes installed at the one point on the wall where they were screened from the satellite by a small solitary tree or by the only overhead road sign for miles. I've seen them installed where every passing 4ft 6in vandal could reach them from the pavement, and I've seen them installed where every passing double-decker wiped out reception. Then there was the one in the alley that the postman and the milkman couldn't get past without bending double.

Installers should really stand back and *think* before they get that drill out.

Trouble with your joints

Mr Rigger needs to join some co-ax cables. For a simple connection between two CT100 cables he needs two 'F' plugs, an 'F' line connector, and 6in of self-amalgamating tape. These items will make a joint that's lossless, gives a perfect impedance match, and is waterproof. The cost is about 35p. 'What,' says Mr Rigger, 'think I'm made of money?'

Top left shows an attempt by a posh AV outfit to feed two plasmas from one DVD player, using a bizarre mix of an electrical jointing block and 50ohm and 75ohm connectors. *Top centre* shows what can happen in the loft when a new house has three TV sockets. *Top right*, the customer paid £100 for a distribution amplifier; he got a 'distribution taped joint'. *Bottom left* shows how three flats can be connected economically to one downlead; *bottom centre* is just an extended downlead; and *bottom right* shows how the underground links at a chalet complex were connected – all 17 of them in a serial row!

Blasted bricks

Whenever possible, holes for cables should be drilled from the outside through the mortar joint. If the hole is drilled from the inside the face of the brick may be damaged. It's a shame to damage brickwork like this. Those bricks will probably still be there when Sky's long forgotten.

Some installers habitually drill from the inside, then hide the damage with a plastic item called a blast cover. This is just lazy. It's far better to measure the position of the hole accurately and drill from the outside.

Holes should be drilled from the outside so the face isn't blasted off the brickwork

Taping liberties

This LNB provided satellite signals for a communal TV system. As you see, it's a new installation, failing after two months because water had got into the cables, leaving 40 apartments with no satellite reception. As the terrestrial pictures were abominably bad due to an imbecilic aerial installation, most residents had resorted to Sky or Freesat, so failure of the satellite reception caused great despondency.

What you see is some fool's attempt to waterproof the LNB connections. I don't know why he bothered, because his attempts were totally ineffectual. He used insulating tape, not self-amalgamating tape – although it couldn't have been any worse if he'd used the tape his granny measures her knitting with. Actually, taking the installation as a whole, I think maybe his granny could have done a better job.

Trapped co-ax

If the slightest bit of damp gets into co-ax it becomes very 'lossy', meaning that what goes in at one end comes out at the other in a much diminished form. If you kink co-ax, squeeze it out of shape, or force it into sharp bends, or do anything at all unkind to it, it refuses to carry your TV signals properly.

Here, the rigger has fixed the mast into the wall bracket, trapping the co-ax under the 'U' bolt and squeezing the life out of it. The result was that one multiplex (a group of digital channels) had a deep 'notch' in the middle, causing picture break-up, and two analogue channels were snowy.

Such cable damage may affect some frequencies more than others. This installer blamed the nearby railway for poor reception!

Care should be taken to avoid kinks, crushing and sharp bends in coaxial cables