

R-E's Service Clinic

Your service shop

How does it rate?

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HERE'S A DO-IT-YOURSELF TEST FOR FINDING out just how smart you really are (without letting anyone else know, even your wife). It has nothing to do with your competence as an electronics technician; that is taken for granted. The test tells you how *efficient* you are—how much you get out of each hour in your working day. If you're a one-man-gang, like so many of us, you're the only producer on the force. So, if you want to get the best results, your efficiency rating must be high. Anything that reduces your efficiency reduces your output and your income.

Efficiency involves nothing but good common sense. Like all other successful processes, it was worked out over a period of a good many years by trial and error. In other words, I learned all about this by first doing it wrong and then finding out how to do it right. In many cases, I had to try quite a few wrong ways before I found one that worked much better. As far as I know, I have made all of the possible mistakes. If I left out any, let me know and I'll try them too. This evaluation will work with electronics shops from the one-man shop on up. I can guarantee one thing from several years of experience in finally doing it right: it *will* work and it will make life easier.

To begin take a close look at the working area—the bench. Are all of the necessary and frequently-used test instruments set up so that you can reach them easily, read them and use them? If the answer is yes, add 10 points. If the answer is no—if you have to get up and move to reach an instrument used often—take off 10 points.

Now how about your most frequently used hand-tools? Are they placed on the bench where you can get them quickly when needed? Yes? Add another 10 points. If you have to move to get them, or dig them up where you dropped them after the last job, deduct 10 points. In the same category, how about the special tools? For one very good example, where's that extra long Spintite wrench you need to get the tuner out of certain TV sets very quickly? There are several of these. If you don't have any of them, take off another 10; if you do, and have them where they can be gotten quickly, add 10.

How about service data? Check the

bench and the rest of the shop. Are your Sams *Photofact* folders all over the place? If you find them lying on the bench and the set for which they were pulled has been delivered some time ago, take off 10 points for each one. This applies to factory and all other data. If all data folders are properly filed except those on sets currently being worked on, add 10.

Still on the bench: Are there any repair parts *stored* on the bench, where access to them can be blocked by sets being repaired? If so, take off 10 points. If the parts are neatly stored on the side of the shop opposite the bench, where you can get them by just turning around, add 10.

Staying with the parts stock for a while, do you have a full stock (say at least two each) of all stock EIA values of resistors and capacitors filed by size and working voltage, wattage, and so on in cabinets so that you can find the size you need in the least possible time? This applies to resistors and capacitors, but could be used for tubes and transistors as well. If you do, add 10 points. If your stock is incomplete, so that you have to stop work and run all over town to find a 0.0039 μ F capacitor, take off 25 points. (That'll teach you to keep up a good working stock.)

Now back to the bench itself. If this is at least 20-feet long, how many sets (radio or TV, etc.) are on it at the present? If the bench is at least 20-feet long, and it is set up so that all the test equipment used for TV is at one work-position, and the test equipment used for radio, audio, etc., is at another, add 25 points. Now comes a stinger.

How many of the sets on the bench are being worked on? If there are only two, add another 25 points. If there are *any* sets on the working surface that are waiting for parts, take off 50 points. Check to see how long each one has been there; take off 10 points for each day. All units waiting for parts should be taken out of the work area, plainly tagged, and stored in a special place. While you're at it, check the tags. If all sets in the shop have plainly written tags, with all the necessary information, add 25 points. If there are any sets without tags of any kind, take off 25 for each one.

Now let's check the overall layout of

This column is for the service technician's problems—TV, radio, audio or industrial electronics. We answer all questions submitted by service technicians on their letterheads individually, by mail, and the more interesting ones will be printed here.

If you're really stuck, write us. We'll do our best to help you. Don't forget to enclose a stamped, self-addressed envelope. If return postage is not included we cannot process your question. Write: Service Editor, Radio-Electronics, 200 Park Avenue South, New York, NY 10003

the shop. If you have a work area that includes the bench, parts and service-data storage; plus two storage areas (one for incoming sets and the other for finished jobs waiting for delivery) and a smaller area for sets awaiting parts, add 100 points.

Check the "in-shop mobility" of the work. If each set is on a wheeled cart of the same height as the bench so that one man can move it easily from storage area to work area, add another 50 points. If sets are stacked on top of each other, or chassis laid out on the floor, take off 25 points. (That should be a -50 pointer, but I'm beginning to feel sorry for you.)

One more little but handy one. If each set being worked on or awaiting parts has all of the knobs, bolts, loose parts and defective parts removed and neatly stored in a small box with the set, add 20 points. If parts are scattered on the bench, take off 20; and if parts are on the floor, take off 30.

Finally, check the record-keeping system. If your shop tags are designed so that you can get all of the data you need from them instantly, without a lot of scratch-paper bits and pieces, add another 50 points. Finished jobs awaiting pickup or delivery should have the job ticket filled out with the price, labor done, parts replaced and everything else pertaining to that job.

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Here's one more. If you have a habit of getting into long discussions with customers (or friends or passers-by, etc.) and spending half an hour or more telling jokes, discussing competitors, tough-dog service jobs, the state of the economy, etc., etc., take off 100 points! Save this for service meetings and coffee-breaks.

These are simple things. It does not take up much time to set up your shop so that you get the maximum return from the time you spend in it. It does take quite a lot of will-power. I can

vouch for this personally. It's so easy to be sloppy. However, an efficient shop is a heck of a lot easier to work in, and you'll get a much greater return for the *time* you spend on each job. When you find an area where efficiency can be improved, do it; stop and fix it just as if it was a flat tire (which it is, when you think of it).

The plus and minus "points" are more of a gag than anything else. However, if you will give your shop this test and keep a scratch pad score, it can help. If you come out with a pretty good score on the plus side, good for you. If you come out with a score that is all on the minus side, boy are you sloppy!

Be just as honest in evaluating yourself as you are in analyzing a case of TV trouble. It'll pay off in increased income, reputation and customer satisfaction. (They get their sets back faster.)

R-E

reader questions

TRANSISTOR VOLTAGES

After an arc in the focus circuit of this solid-state set, I'm having a lot of other problems. There is a raster. but it's blank.