

No. 35 How To Go into Full-Time
Servicing
RADIO SERVICING METHODS



FOREWORD

This RSM Booklet marks an important point in your studies. You have now completed your preliminary training in radio servicing. At the same time that you were learning the fundamentals of radio theory from your Course, these RSM Booklets have been teaching you how to repair sets. First you learned to service as a radio mechanic does. Then you advanced to using the methods of the semi-professional serviceman.

If you plan to specialize in radio servicing as a career, you are now ready to learn the advanced professional servicing methods that will fit you for a successful career as a real Radiotrician.

The remaining Lessons of your Course will be devoted to teaching you these advanced methods. You will receive no more RSM Booklets. However, I advise you strongly not to consider yourself finished with your Booklets, for they are still valuable to you. In fact, they will continue to be useful throughout your servicing career. There are sections, and even whole Booklets, that you will want to read and re-read as the need for this information arises.

I suggest you skim through your Booklets from time to time to keep their contents fresh in your mind. Then, when you need some of the information they contain, you will be able to turn to it quickly.

J. E. SMITH.

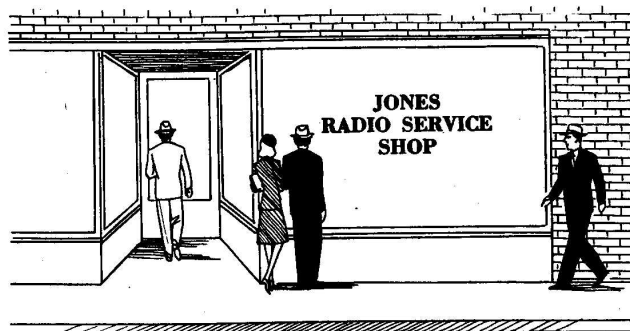


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How To Go into Full-Time Servicing

This Booklet is written for those of our students who have chosen a servicing career, and are now about to start on their Lessons Specializing in Radio Servicing. If you have chosen Communications as your field, the statements made here about the contents of future Lessons will not apply to you.

PREVIOUS Booklets have shown you, among other things, how to test parts, how to service receivers for specific complaints, and how to get started in a spare-time servicing business. If you have made a careful study of this information, and have faithfully carried out all the suggestions for getting practical experience in our NRI Practical Training Plan, you should be well on the way to becoming a professional serviceman.

Of course, you have not yet learned all there is to know about radio servicing. In fact, if you are taking the Lessons Specializing in Radio Servicing, your regular Course will soon start to feature the advanced methods of servicing that make the NRI-trained man stand out. You need this advanced training, plus the sureness of action that comes only with experience, before you can consider yourself a master of your profession. However, if you have learned all that these RSM Booklets can teach you, you're even now better equipped for radio repairing than are many men who make their living that way.

That is why we are now going to discuss the subject of a full-time radio servicing career for you. You may not wish to go into full-time servicing at this time—indeed, you should finish your complete Course before you take such a step—but by now you know enough about the profession and its problems to be able to devote really productive thought to the subject.

In this Booklet, we shall first discuss the question of whether you should make servicing a part-time or a full-time career. Then we shall give you general advice on how to start and run a full-time business.

PART-TIME OR FULL-TIME?

There are a great many NRI graduates who are operating their own full-time servicing businesses right this minute. Many others have kept their servicing on a part-time basis. Some of the latter prefer to work at some other job during the day, and let their servicing income supplement their regular pay; some look upon servicing as a hobby, and use it as a means of relaxation rather than as a source of income; some prefer to live in very small communities that will not support a full-time servicing business; in fact, there are a great many reasons why a man who is perfectly competent to make a full-time career out of servicing may prefer not to do so.

Whether you should be a part-time or a full-time serviceman is something that you, and only you, can decide. We are not going to attempt to persuade you either way—instead, we are going to give you practical advice, based on our experience in teaching many thousands of servicemen, so that you can have a good background for making your decision.

What factors should you consider before you make up your mind? Most important, perhaps, are your own feelings. If servicing a set gives you real pleasure—if you can't wait to get home from your regular job to start the evening's work on a set—if, in brief, fixing radios seems to you to be the most interesting profession possible—then certainly you should consider full-time work very seriously.

Another very important factor to consider is—do



You do not need to set up an elaborate shop when you start full-time servicing. Often you can use the location in which you have been doing your part-time work. The basement shop shown here, for example, was being used for part-time work at the time this picture was made. However, it would make an acceptable full-time shop. Some full-time servicemen never have much more equipment nor a much better location than this.

you have enough technical ability to be successful in full-time work? Frankly, we think the answer to this is "No" for most students at this point in their studies. However, this is no barrier to future full-time work; you should have all the technical ability you will need when you graduate.

Important as they are, interest and professional servicing ability are not by themselves sufficient reasons for choosing a full-time servicing career in preference to other work. You must also be sure you can make an adequate living out of servicing. Therefore, you should make a very careful survey of the possibilities for financial success in your locality.

If you have been operating a part-time service business (and, except under exceptional circumstances, you should not be thinking of entering full-time servicing if you have not had part-time experience), you probably have a fairly good idea of how much servicing business exists. Do you now have more sets to service than you can possibly handle on a part-time basis? If so, that is good evidence that there is enough demand for your services to make full-time servicing profitable.

Of course, this is true only if you are now turning out sets with really professional speed. If you can handle almost any job in an hour or less, and still find that



This is an example of an extremely well equipped small shop. You will not need as much equipment as this when you start full-time work—nor, in fact, until you have a very good business. A multimeter, a tube tester, and a signal generator are all you need, although it would be a good idea for you to have a signal tracer and a condenser tester also, or at least to plan to get them soon.

work piles up on you, then you are probably getting a sufficient volume of business to justify full-time work. However, if it takes you two, three, or more hours to service a set, then you have no very clear idea of just how much work you can handle when you have professional ability.

If you don't have much work to do, but have never tried very hard to get any, make a real effort for a few weeks to drum up business. Doing so will help you to estimate future business more cosely—and, incidentally, will give you some valuable experience in securing work.

Estimate your probable volume of business just as cosely as you can—and, when doubt exists, be pessimistic. Take every factor you can into account. Estimate the number of sets in your town (or in the section in which you intend to operate, if you live in a large city). Consider how much competition you will face. Estimate the amount of business established servicemen are doing—are they swamped with work, or are they finding it hard to make a living? If some are doing well and others poorly, try to discover the reason for

the difference; any information of this sort that you can get will be very helpful both in making your estimate of probable business and in conducting your business if you decide to start one.

In brief, analyze your chances for financial success realistically. If it seems unlikely that you can make the income you want, it is advisable to give up the idea of a full-time business—in that locality, anyway. You will be better off to continue in spare-time work, or to open a shop in some location where the chances for success are greater.

► Suppose that you have a deep interest in servicing, that you have completed your professional training, and that there is enough potential business to give you the income you want—is there anything else you should consider before making your decision? Yes, there is one more factor. You must be sure that you have enough capital to carry you until your shop is making money. It is sometimes possible to start a business on a “shoe string,” but usually it is not advisable to do so. More new businesses fail for lack of capital than for any other single reason.

You should have enough money to buy all the equipment and tools you need, plus enough to decorate your shop and get it ready for full-time work, plus enough to pay your business and personal expenses for at least three months. We cannot set any definite amount you should have before starting a business, for that depends on a variety of things—how much equipment and stock you already have, whether you already have a shop set up, the cost of living in your locality, etc.

If you don't expect to have enough money to start a full-time business when you graduate, you'll be wise to save as much as you possibly can and continue spare-time work until you have adequate funds.

► What we have said can be summed up in four questions:

1. Do you really want to be a full-time serviceman?
2. Are you technically ready for full-time work?
3. Is there enough business in your chosen locality to give you the income you want?
4. Do you have enough capital to start?

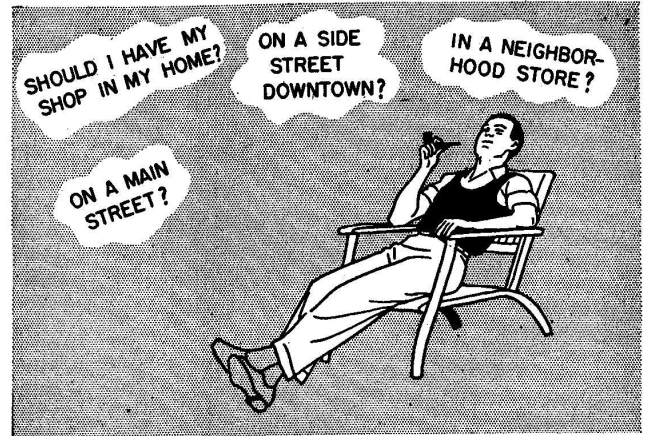
When you can answer an unqualified "Yes" to each of these questions, you are ready to start a full-time servicing business of your own. Now let's see how you can start and run such a business successfully.

LOCAL LAW GOVERNS EVEN SMALL BUSINESSES

For the protection of their citizens and all legitimate businesses, most communities have laws and ordinances governing the conduct and location of business enterprises. For example, it is often necessary to secure a license to run a business. Also, very often it is forbidden to carry on business activities in residential areas. Further, commercial enterprises often must pay special taxes that private individuals do not pay. Before you start to set up a business of your own, find out exactly what laws and ordinances affect you in your community. An official of the town or city hall should be able to tell you what the laws are. There may not be many of them—in most small communities, for example, only a license is required to start a business—but be sure you know exactly what is expected of you. Remember, ignorance of the law is no excuse.

► Incidentally, speaking of law, be careful about taking the advice of your friends on legal matters. Unless the man who gives you the advice is a lawyer, what he tells you may not be worth much. Unfortunately, common sense is not always a good guide in legal matters.

As a businessman, you will probably need more legal advice than does an ordinary citizen. For instance, you may accumulate some bad debts that you would like to collect; you may wish to form a partnership, instead of running your business completely by yourself; or you may even be sued by some customer who fancies he has been wronged by you. Each of these situations calls for competent legal help. Therefore, we suggest that you arrange for the services of a lawyer. Many lawyers, particularly young ones, are willing to handle small legal matters and extend advice to a beginning businessman like yourself at much less than the usual legal fee in the hope that you will eventually become a profitable client. See if you can locate such a lawyer. Of course,



Selecting the proper location for your shop is an important step. Give the matter real thought, weighing the advantages and disadvantages of each possibility. The information in this Booklet will help you reach the right decision.

you shouldn't expect to get much legal counsel for nothing, but you may be able to get considerable help at reasonable cost. In any event, do not take any important steps involving legal matters without competent legal advice. In such matters, a few dollars spent with a lawyer at the beginning may save you a great many dollars in the end.

Perhaps it seems odd to you that we should speak about laws and regulations at the very beginning of this discussion of running a business, but we do so deliberately. Business today is very much regulated, and any beginning businessman is wise to remember that fact.

SELECTING YOUR SHOP LOCATION

Selecting the location for your shop is one of your most important first steps. There are many questions involved—should you have it in your home, in a neighborhood store, or in a store in the downtown area?—if you decide on a downtown location, should it be on a main street or on a side street?

The right answer for you depends upon your own circumstances. If the community is small, and the

amount of business you can expect is therefore restricted, probably it is best for you to plan to do work in your own home, where your business expenses will be least. If you have built up a good business among your neighbors because your location is convenient for them, it may be best to plan to remain somewhere in the neighborhood, if not in your home.

Many people consider a man working from his own home to be just a "tinkerer," not really capable of doing professional work on a radio. Such people are far more apt to take their sets to a serviceman who has a separate shop. Therefore, if you must build up a great deal of business to make full-time servicing profitable, you'll do well to consider moving to a shop that stamps you at once as a professional. This might be either a downtown or a neighborhood shop, but, in most cases, a downtown location will give you more business.

► Whatever location you choose, it must serve to separate your business from your home life. As we said in an earlier Booklet, this is desirable in a spare-time business; it is necessary in a full-time business, for it is next to impossible to concentrate on earning a living in the midst of household activities.

Of course, the separation of home life and business life occurs automatically if you have an outside shop. If you must remain at home, a garage in your yard is the best location for your shop. A front room or a basement location that can be completely shut off from the rest of the house and reached by a separate entrance is almost as good. It should never be necessary for a customer to enter your personal home during business hours to do business with you.

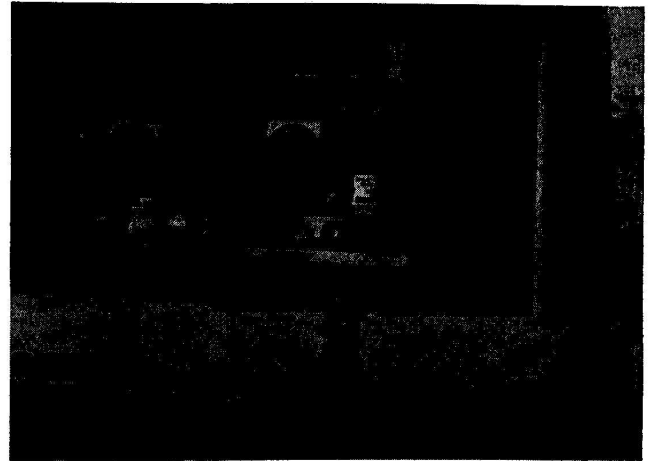
► Very often, the rent you can afford to pay will be one of the chief factors determining where your shop will be. It is generally agreed that you should pay about 5% to 7% of your total gross income as rent. Thus, if you estimate that you will gross \$5000 a year, your annual rent should be between \$250 and \$350—say \$20 to \$30 a month. Obviously, if you can pay only a small amount like this for rent per month, you'll not be able to afford a main-street, downtown location in any but the very smallest community. You may, there-

fore, automatically be forced into a side street or even into remaining in your own home if you estimate an income of this size.

A location on a side street may be no hardship to you if you intend to do service work only. If you intend to sell merchandise as well, however, a location on or very close to one of the important streets in your town is almost a necessity. This is because a great deal of your business will come from people who pass by your shop, notice the merchandise in the window, and come in to inspect and perhaps to buy. The serviceman, on the other hand, gets little business from the casual passer-by; his business is built up by advertising and by word-of-mouth recommendation from satisfied customers. To him, then, the attention-getting location on a main street is not necessary.

Of course, if you do intend to sell merchandise, you can expect a considerably greater gross income than you would get from servicing only. Therefore, by our 5% to 7% rule of thumb, you can afford to pay a much higher rent for a good location than a serviceman can. In fact, since so much of the success of a merchandising

A corner location in a downtown area is highly desirable if you intend to sell merchandise. If you intend to be solely a serviceman, however, it is seldom worth the high rent.



business depends upon its location, it is often considered a worth-while gamble to spend far more than 5% of the estimated gross at first to rent an excellent location, on the assumption that the improved location will create a large enough volume of business to justify the high rent. However, we are not going to attempt to give you much information about merchandising in this Booklet; we mention it here simply to point out that the factors to be considered in choosing a location for a service shop are not the same as those you must consider when you are establishing a merchandising business.

► The location you select for your shop should, as far as possible, make it convenient for your customers to do business with you. For example, a location with plenty of parking space near it is usually preferable to one without parking space.

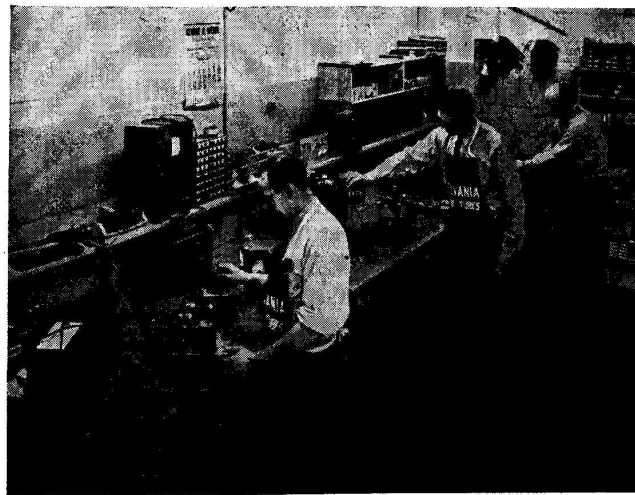
Remember, also, that you'll need to install an antenna for testing sets in your shop. It is better, therefore, to choose a location that is not completely shielded by tall buildings—and you should make sure that an antenna installation will be permitted. If you must use some other building to help support your antenna, make sure the property owner will permit you to do so.

If your business is servicing only, you'll do well to get a shop with a fairly small front window rather than a large display window. (Of course, a merchandising business needs display space.) This will make it easier for you to make the front of your shop attractive, for there will be less space for you to fill with display material. We'll say more about this later on.

► Perhaps the best way of settling the question of the location you should have is to pick the best one you can afford, taking every factor you can into consideration. Remember, you are not committed to one location for life; if you must start out in a place you don't particularly like, you can always move when business justifies it.

DECORATING YOUR SHOP

A shop should have more than four walls, a floor, and a ceiling. It should be decorated and furnished so that it will impress your customers favorably. Dirt



Courtesy Sylvania Electric Products Inc.

Notice the simple bench used in this large service shop. It is common practice not to bother with an elaborate bench in a "hidden" shop—one the customer never sees. If yours is to be visible, however, by all means make it impressive.

and darkness have no place in a radio shop; neither has old-fashioned ornateness. A radio shop should be clean, orderly, and modern-looking; it should give the customer the feeling that up-to-date methods prevail.

This does not mean that you must have glass block walls and chromium fixtures. It does mean that your place should be thoroughly clean and well painted, with nothing of a makeshift appearance about it. Your bench should have the look of something made by an expert carpenter. A rough-and-ready, unpainted bench has no place here.

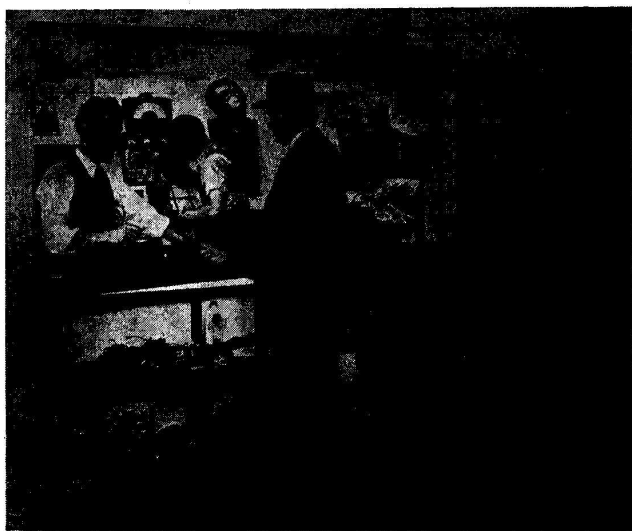
The layout of your shop is important. It should be designed first for your own convenience in working, and second for the impression it will make on your customers. The exact layout will depend, of course, on the dimensions of your shop. Generally speaking, however, you'll do well to have your bench and other working equipment up near the front, and your storage equipment, including shelves for finished and unworked-on sets, in the back.

It is important, also, to have your shop well lighted. You should provide both general illumination for the whole shop and a concentrated light for your workbench. Never use unshaded bulbs for either of these purposes; they cause eyestrain and spoil the appearance of the shop.

► Many large paint, linoleum, and building material manufacturers offer valuable decorating advice. If there is a local distributor for such products in your town, find out what assistance he can offer you in planning the appearance of your shop. If he does not have this service, write directly to several manufacturers of nationally advertised products of this sort. Tell them that you are opening a radio service shop, and ask for whatever information they supply that will help you in decorating it. Such information is usually free.

Here is an example of a large shop that features its service department. The complete assortment of test equipment is made more impressive by being placed in panels at the back of the bench. Notice that the counter permits customers to see the bench, but keeps them from getting too close to it. You will do well to adopt some such measure as this to keep customers at a distance; otherwise, you will be frequently annoyed by the "sidewalk superintendent" type, who likes to see everything you do.

Courtesy Sylvania Electric Products Inc.



► You should devote some thought to the problem of window decoration. Since there is little that a service business can display to attract attention, some imagination is necessary to get an attractive window. Some servicemen go so far as to put their service benches right in front of the window so that passers-by can see them at work. This is an effective attention-getter, since there is nothing that most people like to do better than to watch someone else working. However, remember that you will be leading a somewhat goldfish-like existence if you try this method of attracting attention to your shop; you may find the lack of privacy rather annoying at times.

YOUR WORKING EQUIPMENT

If you take our advice and do considerable spare-time work before starting full-time radio servicing, very likely you will have most or all of the equipment you need. You should have, as a bare minimum, the three basic test instruments—a multimeter, a signal generator, and a tube tester. Then, when you are servicing full-time, you should consider purchasing "time-savers" such as a signal tracer and a condenser tester.

In addition, of course, you must have a good bench and a variety of hand tools. You will need more tools for full-time work than for part-time: since every moment counts, you should have the tools to do every kind of job you handle, instead of having to waste time making some tool do work for which it is not well suited. As an example, you should have a wide assortment of screwdrivers and socket wrenches. Furthermore, you should keep a tool kit always packed so you will not have to waste time loading the kit before leaving for an outside job. This will mean duplicating some tools.

A good antenna is a necessary part of your shop equipment. This should be an outside antenna to give you the best possible reception. If you are in a downtown location, you may find it necessary to install a noise-reducing antenna to overcome the interference near your location.

Finally, you should have a good assortment of replacement parts. By now you should have sufficient

experience with various repairs to know what items you need. It is a good idea to have enough stock on hand so that you don't have to make daily purchases from your wholesaler or mail-order supply house. Of course, don't go overboard—it is foolish to put too much of your capital into stock.

HELPERS

You must have at least one helper as soon as you open a shop of your own. There must be someone in the shop at all times to answer the telephone and greet customers. If your shop is in your own home, it may not be actually necessary to have this assistant in your shop, since you can have an extension telephone that can be answered by someone in the house when you are out on call.

At first, at least, the services of this assistant should cost you as little as possible. For this reason, it will be very helpful if you can get some close relative to take on the job at little or no cost to you. If you must hire someone, by all means get someone who can help you with your bookkeeping as well as answer your telephone. Of course, it would be handy to have a helper who could also assist you in servicing, but it is unlikely that you can afford anyone with such technical ability when you start out.

OPENING YOUR NEW SHOP

For the sake of the success of your new business, you should get your opening as much publicity as possible. Let every potential customer know that a new service is available in your community—a modern, efficient, high-quality radio repair shop that is ready to furnish excellent radio servicing at reasonable cost.

To this end, dramatize your opening. Don't just rent a store, hang up a sign, and move in your equipment haphazardly. Instead, prepare your new shop thoroughly before making any public announcement of your business venture. Clean it up, paint it, install your lighting, your bench, your storage equipment, your test equipment, and your supplies before declaring yourself open for business. You may even find it wise

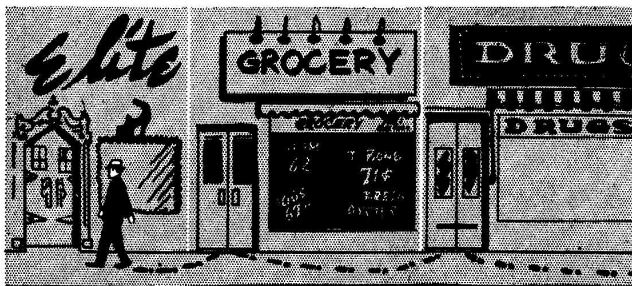


Courtesy Sylvania Electric Products Inc.

Many servicemen find it a good idea to hire a girl to take care of the front-of-the-shop work—answering the phone, keeping books, waiting on customers, etc.

to cover your window with Bon Ami while you are preparing the shop, so that it will not be open to the public view until you are completely ready. This serves two purposes—it prevents anyone from getting a poor impression while your shop is all upset by the process of moving in, and it also stimulates the curiosity of passers-by who wonder what is going on behind this opaque window. Any curiosity you can arouse in this way will serve to attract that much more attention to your shop when you finally throw open the doors.

Then, when every last bit of equipment is in place, when you are completely ready for business, do everything you can to attract attention to your shop. Advertise in your local newspaper, send announcements to your old customers, and, if possible, arrange some special feature that will make people notice your opening. You might offer a free gift to everyone coming in on opening day—perhaps a useful novelty, or a card entitling the holder to free inspection and checkup of his set for some limited time—or you might arrange to give a demonstration of the latest television or facsimile receiver. Almost anything that will attract public attention will be helpful.



When you are considering a location for your shop, you will be wise to interview the merchants near by. Find out as much as you can from them about the credit standing and financial ability of the people in the neighborhood. This is an excellent way of finding out whether your potential customers are able and willing to pay for your services.

CONDUCTING YOUR BUSINESS

An earlier RSM Booklet gave you advice on conducting a spare-time business. It will be worth your while to read that Booklet again, for most of the advice it gives, with one possible exception, applies equally well to a full-time business.

The exception to which we refer is the question of advertising. We said that a spare-time serviceman does not need to do much advertising; this is not, however, true of full-time technicians. It is highly unlikely that you can get enough business to be fully occupied without the help that advertising can give you.

At the very least, you should have a display ad in the classified section of your telephone directory. Very likely you will find that newspaper and mail advertising will pay for themselves. See to it that the public is frequently reminded of the services you offer. The word "often" is almost always the key to success in advertising: generally speaking, a small ad every day is much better than a large ad once in a while.

Just how much you should spend on advertising depends upon your circumstances. If the servicing field is somewhat overcrowded in your community, and is therefore highly competitive, you will undoubtedly have to spend more than you would if there were little or no competition. No one can tell you exactly what the best

advertising procedure is for you; this is something you will have to learn from experience.

Since advertising is so important to you, you will do well to learn all you can about it. Probably your public library has some books available on the subject. Your newspaper will undoubtedly be glad to help you write ads (but remember, often the space salesman for a newspaper will be interested in selling you as much space as he can; don't allow yourself to be talked into spending more than you can afford).

Planning the Day's Work. If you are going to handle any real volume of business, you must plan your day's work to take advantage of every possible moment. You will have many different activities—servicing sets, picking up and delivering sets, getting parts, visiting prospects, planning advertising, etc.—and there is simply not enough time in a day to do all these things unless you set up a schedule that keeps your wasted time at a minimum.

The best way to keep from wasting time is to organize matters so that you stick at each phase of your occupation long enough to do some effective work on it. For example, it is better to service several sets one after the other than to fix one, deliver it to the customer, and then return to fix another. As far as possible, all your servicing should be concentrated in one part of the day, and all your pickup and delivery work in another part. Other business activities, such as getting parts or planning advertising, should also be done at definite, scheduled times as far as possible.

The early morning is a poor time to visit prospects or pick up and deliver sets, since housewives are generally busy with household duties at that time. Therefore, this is the best time of day for you to do your actual servicing.

The noon hour is a good time for you to buy parts, if you patronize a local distributor, or to order them if you buy from a mail-order house. After you've had some experience and have learned fairly well what your requirements of replacement parts are, you can probably buy parts on a larger scale and reduce the number of visits you must pay to your distributor. At the be-



You must keep your technical knowledge fresh to keep pace with the constant advances in radio. Set aside a definite time each week to devote to reviewing your Course and reading professional magazines.

ginning, however, it would be better for you to buy only a few days' supply at a time.

The afternoon hours are the best time for you to pick up and deliver sets and visit prospects. If possible, concentrate these activities between the hours of 2 and 4—the time when most housewives have least to do. Of course, if your customers are not home during the day, you may have to postpone these activities until the early evening hours.

► You should set apart some time of your day toward devoting thought to the improvement of your business and to planning your advertising. Never be content to let your business run itself—always be on the alert for opportunities to improve it, and spend many hours of good solid thought on its problems. Plan, also, to devote some time to your technical advancement; set aside at least one or two evenings a week to study the various

servicing magazines and to review parts of your NRI Course with which you do not feel very familiar.

Customer Relations. We have spoken, in an earlier Booklet, of the importance of treating your customers well and making a good impression on them. Always keep one fact in mind—your business, your very living, depends upon the good opinion your customers have of you. Do every job as well as you can; charge fair prices and no more; keep your personal appearance neat and your manners friendly—such actions will help convince your customers that you are an able, honest, and courteous businessman.

KEEPING RECORDS

If you have a paid helper, you must pay Social Security taxes for him, and may have to pay unemployment and other taxes as well. (Check with your lawyer on your local, state, and federal tax laws.) This at once means you must keep records of time worked, salary paid, etc. As a matter of fact, these are just a few of the records you must keep when you go into business for yourself.

What we have said in an earlier RSM Booklet about the importance of keeping records of the cost of doing business applies with even greater force when you start a full-time business of your own. If your business remains fairly small, you can probably keep much the same kind of records for full-time as for spare-time work (except that there will be more entries—the Social Security tax for your helper, for example). If you branch into merchandising, and particularly if you enter into credit sales of merchandise, you will have to keep much more elaborate records for full-time work.

We shall not discuss the merits of various systems of record keeping here, since, as we've just said, the method you use will depend largely upon your volume and kind of business. If you intend to keep more than the simplest sort of records, and have no particular bookkeeping training, we suggest that you hire an accountant to set up a record system for you. You can usually find someone who is willing to do this as a spare-time project—in fact, you can probably also hire him