

PREFACE:Hi. My name is Tom McSherry. A year and a half ago I quit my job as a corporate account rep at Egghead Software and started my own business working out of my home. One of the first things I discovered was the unanticipated difficulty of obtaining a Visa/Mastercard Merchant account for a home based business. My efforts to obtain one eventually led me to entering the arena as a representative of Teleflora CreditLine. I was quite active on Compuserve (especially the Work From Home Forum) and helped literally hundreds of people in similar situations to obtain a merchant account. In November of 1993, Teleflora restricted the types of businesses it would accept applications from. I moved on. I am still active online in this business, although not to the extent I was. As I got involved in this area I found that there is a dire lack of knowledge out there concerning this vital adjunct to one's business, and no place to obtain it. Banks play it "pretty close to the vest" on this stuff, since they 1) don't want you to know what kind of profit is in it and 2) don't want to give away any secrets that may help the criminal defraud them. Understandable, but unnecessary. I feel that it's about time someone revealed all the "ins and outs". I think I have. This manual explains, in all necessary detail, little known insider information concerning what the banks look for and why; how to present your best case to the bank; how to calculate the rate you SHOULD be paying and negotiate for it with an understanding of the process behind it; how to protect yourself from fraud; and how to keep your chargebacks down (don't know what a chargeback is??? Boy, do you need this manual!). Good luck and good reading!

=====Obtaining Merchant Status for High Risk Businesses

=====Table of Contents

Introduction: Why should you consider taking credit cards?.....2Why is it so difficult to obtain merchant status for my business?.....3Where to turn when the banks decline you.....5Anatomy of a Credit Card Transaction.....7Merchant Charges and What They Mean.....8Equipment Basics.....12How to Apply for a Merchant Account.....14The Care & Feeding of Your Merchant Account.....17Protecting Yourself From Chargebacks.....19Combating Fraud.....24Appendix A-Sources of Merchant Accounts:.....27Appendix B-Restricted Businesses.....30Appendix C-Prohibited Businesses.....31Appendix D- Computer Bulletin Boards.....32Appendix E-Sources of Credit Authorization & Draft Capture Terminals.....33Appendix F- Credit Authorization Software.....36Common Industry Terms:.....39Credit Card Specifications.....43CARD DATA FORMAT.....43

Copyright * 1993 by Tom McSherry. All rights reserved. No part of the contents of this book may be reproduced or transmitted in any form or by any means without the written permission of the author except as specifically stated below:Permission is granted to freely distribute this material via electronic network, commercial or other, providing that content remains unmodified and no fees are charged for its distribution or publication.

PAGE 1

=====INTRODUCTION: WHY SHOULD YOU CONSIDER TAKING CREDIT CARDS?=====

=====In 1992, the United States transacted point-of-sale credit and debit of \$264 billion on nearly 3.8 billion transactions. Average transaction size rose from \$60 to \$70.Over the next eight years, point-of-sale transactions on VISA and MasterCard credit and debit cards is projected to double from 3.8 billion in 1992 to 7.67 billion.It is obvious that credit card usage is booming. Increased card issuance and broader acceptance has spawned a transaction rich environment. New developments such as

portable wireless authorization and capture terminals open new ground and contribute to furthering the cashless economy. A recent survey of grocery shoppers using VISA cards to pay for their groceries found that 43% chose their grocery store on the basis of whether or not the store accepted VISA. Perhaps it would be unfair to directly extrapolate the results of this survey to other areas of retailing, but one can probably assume a correlation, given consumer psychology and motivation. Applying the above facts, it is fairly safe to say that if you're not accepting credit cards, you're losing business, and the situation is not getting any better! In addition to being an absolute necessity for mail order businesses, having the ability to accept credit cards seems, however unfairly, to lend credibility to the home office.

PAGE 2

=====WHY IS IT SO DIFFICULT
TO OBTAIN MERCHANT STATUS FOR MY BUSINESS?
=====

Unfortunately, being engaged in either of the above situations renders obtaining a merchant account from your local bank virtually impossible. Many new business owners have discovered to their chagrin that, no matter how much business they have previously conducted with their bank and no matter how well they get on with the bank's management, their answer is almost invariably "no". There are several reasons that this is so, but the underlying fear is fraud. Until the mid-1980s, just about any business owner who wanted to accept Visa and MasterCard found it easy to obtain merchant status. But rising incidents of credit card fraud have forced banks to become more discriminating. According to a report published by the American Banking Association, in 1980, national bankcard fraud losses reported to the MasterCard and Visa associations amounted to a few million dollars, but by 1991, the reported fraud losses amounted to about \$198 million nationally. A significant amount of money! Mail order and small home businesses are perfect breeding grounds for bank losses due to fraud or even unintentional mismanagement. Thus, in an effort to minimize their losses as much as possible, the banks attempt to take steps to eliminate identifiable sources of risk. As part of this process, they often require a full financial disclosure very similar to a loan application. And indeed, it is! As someone in the industry once commented, "a merchant account is an unsecured loan with no ceiling". Used dishonestly, it is a license to print money! What do we mean by this? Consider the nature of the process for a moment. We will cover the specifics in more detail in a later chapter, but for now suffice it to say that the bank deposits funds into your account in response to what amounts to a promise of payment. The promise is a plastic card held and presented to the merchant by a person who has been preapproved to receive credit from the issuing bank. The bank is relying on the merchant to determine that the promise is valid, i.e., that the cardholder has presented a valid card and that the cardholder is who he

PAGE 3 says he is. That is basically all that the bank requires before it releases funds to the merchant account. And there are many ways this process can be circumvented since so much reliance is placed upon the merchant. In fact, one of the biggest sources of fraud is in what they call the collusive merchant. Merchants have been known to accept stolen and altered cards which have not yet been printed on the merchant warning bulletin. The bank innocently accepts the merchant's deposits, which are withdrawn before the bank is notified that the drafts are invalid. Many thousands of dollars can change hands in just a few days. The merchant operates like this for awhile, then closes up shop and reopens somewhere else under a different name. Fraud can occur on the customer side of the equation as well, of course. In mail order and telephone sales situations the merchant does not typically deal face to face with the customer. This obviously presents a problem when it comes to verifying the identity of the person using the card. A call to the processor will produce an "authorization code", that only guarantees that the cardholder has not exceeded his limit and that the card has not been reported stolen. Unfortunately, approximately 60 percent of fraud losses occur before bank personnel know that the customer's card is missing. Statistics indicate that banks post approximately 40 percent of the fraudulent transactions to their customers' accounts before cardholders report their cards missing. Chargebacks and factoring

are other areas where small businesses are likely to get into trouble. The term chargeback can apply to any situation where a given transaction is disputed. There are procedural and non procedural chargebacks. Procedural chargebacks would be occasioned by the merchant, for example, forgetting to obtain the customer's signature on the draft. A nonprocedural chargeback is generally customer initiated, i.e., a customer refusing to pay the charge because of non delivery, shoddy merchandise, or even because his card was stolen and used before it was reported missing. Whatever the reason, it is very easy for a mail order operation or small work from home business to go out of business because of an inordinate amount of chargebacks, and leave the bank "holding the bag".

PAGE 4

Factoring is another area that is tempting for some smaller businesses to engage in. Factoring takes place when one business runs charges from another business through its merchant account for some percentage of profit. This is against VISA/MC policies and, in some states, actually illegal.

=====WHERE TO TURN WHEN
THE BANKS DECLINE YOU.

=====While it is understandable why banks are reluctant to give merchant accounts in these circumstances, it is by no means impossible to obtain one. Enter the ISO. Independent Service Organizations represent one or more banks. The ISO's started as agents of the banks and received a fee. More recently, they sometimes become the principal representative of a bank. Some ISO's are limited in their scope of agency. They may have the merchant sign a contract at a specified discount rate then send the merchant agreement to the bank, which will take care of providing the merchant with an electronic terminal and other customer service functions. Other ISO's will provide the terminal as well as obtain the contract for the bank. Still others perform a full range of services for the bank: negotiating contract rates, selling the terminal, investigating the merchant, providing customer service and chargeback processing. Obviously, going through an ISO for your merchant account rather than a bank introduces another level of complexity and cost. Just as obviously, the cost will vary from ISO to ISO and it pays to shop. Unfortunately, although there are over 1,400 -odd registered ISO's in the U.S., only a few will accept "non-standard" business. To further complicate matters, the industry is, currently, to a great degree unregulated and this results in some questionable practices. The best way to protect yourself from these practices is to check references and be aware of some of the common areas of abuse. Some answers to obtain upfront:

PAGE 51) What bank(s) do they represent? Make sure your ISO is placing you with a bank that is large enough to serve your needs and has a good reputation, or if your ISO will be performing the services for the bank, that they have made adequate provisions for customer support. Generally, a bank will not allow its reputation to be damaged by the unethical practices of its ISO's. If there's a good bank behind you, chances are there's a good ISO in front of you. (Although this does not guarantee that you are getting the best deal...it still pays to shop.) 2) What are the discount rates? Rates can vary between 1.9% and 5% or more. Retail establishments with a history behind them and a high volume of credit card business can command rates of 1.9 to 3%. Smaller retail establishments and startups can expect 3 to 4% rates while often times rates of 4% and up are not uncommon for riskier types of businesses such as mail order and telephone sales operations. The rate you receive also depends, to a great degree upon what your average annual credit card volume is or is anticipated to be. This is more fully explained later in this guide. 3) Are there any other fees involved? Some ISO's charge a fee if your credit card volume does not reach a predetermined level each month. This minimum activity fee is instituted because profits to the ISO are slim, and if you're not doing enough business to justify the costs of maintaining your account on the books, they need to be recouped somewhere along the line. Obviously however, if you can find an ISO without these fees, you're that much better off! Other sources of potential charges exist in transaction fees and statement fees. A transaction fee is a surcharge over and above your discount rate for each transaction occurring over the network. This fee covers a part of the processor's

cost and is either passed on directly or built into the discount rate. This fee can range from \$0.20 to \$0.30 or more. Statement processing fees can range from free to \$15.00.4) What will you be paying for the equipment and is it a lease or purchase? If you're not careful here, you could end up paying \$4000.00 for a terminal that costs about \$150 from the manufacturer. This is an area that bears close scrutiny.

PAGE 6If you're in one of the riskier areas of business and find yourself being quoted uncharacteristically low rates (1.9% or so) grab your wallet to make sure it's still there! Unfortunately, there is not much that can be done here except shop around. It's a fact of life that prices go up as demand increases and the demand for merchant accounts for high risk businesses is such that the market will bear these prices willingly. We will look at this in more depth in our section on equipment. Unless you can obtain your account from a bank, or luck into an incredibly good deal you may as well resign yourself to incurring some heavy charges in this area. The specifics of these charges and all the information you need to negotiate the best possible arrangement for your business are detailed in the following sections, but first you need a little background on the transaction process itself.

=====ANATOMY OF A CREDIT CARD TRANSACTION=====

In order to understand where and what you can negotiate, you need a basic understanding of the credit card transaction process. As a merchant accepting credit cards, you are the starting point of a series of transactions culminating in the deposit of funds to your account. When you accept a credit card as payment for your goods or services, you will either fill out a paper draft using the familiar manual card imprinter to stamp your business name and address and take an imprint of the card, or you will swipe the card through an electronic terminal. Another possibility is that you will take the card number, without the cardholder being present, and either fill out a paper draft as above, or manually key in the information on the touch tone type numeric pad on your credit card terminal. Sales made in this latter manner are referred to as "non-swiped" and will be discussed later.

PAGE 7If you are using the card imprinter and paper drafts you will call a special number to obtain an authorization code (discussed later). If you are using an electronic draft capture system, the authorization will be performed automatically. You will make note of this code and enter it on the paper draft (it is saved automatically if you are using a terminal). At the end of the day, the paper drafts are deposited and the bank processes them or, if you are using an electronic credit card terminal, you perform a procedure called "settlement" whereby all the credit card sales that you have made for the day are electronically transmitted to the credit card processor (previously they have only been temporarily stored in the terminal's internal memory). The credit card processor, which can be your bank or an independent third party network functioning as the merchant processor, authorizes the charge and notifies the card processor through Visa, MasterCard or one of the other proprietary networks. The card processor collects the funds from the card issuing bank, wires the funds to the merchant processor and bills the customer. The merchant processor then pays the merchant for the amount of the sale minus a discount fee. This discount fee is split between the merchant processor and the card issuer. When the customer pays his bill, the card processor credits the card issuer's account for the full amount of the sale minus a transaction fee. This completes the cycle. With this basic understanding, you will be able to grasp why your charges are structured as they are. MERCHANT CHARGES AND WHAT THEY MEANAs mentioned in the preceding section, the merchant is paid for the sale a sum from which is deducted an agreed upon "discount rate". When you, as the merchant, set up an account to take credit cards with your bank or processor, you will sign an agreement setting the terms of this rate as well as other applicable charges such as equipment purchase, rental, etc.

PAGE 8This discount rate represents the profit that the card processor and issuing bank are making on the transaction. The profit that the processing network makes, called the transaction charge, can either be incorporated into the rate or broken out and charged separately. If the latter, you would be quoted a

after a few months of history have allowed them to calculate based upon a more accurate picture of your sales activity.) You now know the essential components of your probable rate. Based on the above conditions, you would probably end up being quoted a flat rate of around 2.41% (2.71 % for non-swiped) or a rate of 1.95% (2.25% non swiped) with a 23 cent transaction fee. Remember however, that in the example we used, only 1.81% of the fixed quote for swiped transactions was cost, the other 0.6% was profit...and similarly with the other quotes we figured. Therefore, if you were to be quoted a rate significantly higher than this, you would probably have some room to negotiate. Bear in mind however, the processor does have to make some money for his efforts, and if you're processing much less than the amounts used in this sample calculation, your rates may go quite a bit higher to allow for this legitimate profit to be made. Let's take one more example to illustrate. This time, you are a very small business processing \$20,000 annually with an average ticket of \$50. Using the same formula, your rate would be more like $(0.0135 + (600/20,000))$, or PAGE 114.35% plus a 23 cent transaction fee for swiped transactions and 4.65% plus a 23 cent transaction fee for non-swiped transactions. Of course, arguing that the profit should be less on a lesser annual amount MIGHT get you down to \$300 or so profit to the processor, in which case your rate would be either $(0.0135 + (300/20000))$ 2.85% + 23 cents for swiped or 3.15 + 23 cents for non-swiped. Do you see how this works? Great, let's pass on to the next major expense: equipment.

=====EQUIPMENT BASICS

=====The days of depositing paper drafts are just about over. Increasingly, the credit card companies are encouraging the use of electronic draft capture terminals to simplify the transaction process and decrease the possibility of fraud.. How do they "encourage" this? By raising prices, of course! About the only reason to have one of the old style manual imprinters anymore is when your business environment makes it impractical to use a terminal. This situation might occur when, for example, you are engaged in sales at a trade show and there is no telephone line handy to connect the terminal. If this or a similar situation apply, you may want to acquire a manual imprinter (and, if you are set up to process electronically, run the information through your terminal at a more convenient time. Unfortunately, unless you have a telephone nearby to call for a verbal authorization, you will not know until you actually run the charge through the terminal whether or not the card was stolen or the cardholder has exceeded his limit.) This equipment, should it be needed, may be purchased for around \$25. PAGE 12 Most merchants will be using electronic draft capture as their main method of processing sales. This will entail the purchase of an electronic draft capture terminal. Obviously, it is best to purchase the terminal outright: see if the ISO will allow this option. If not, you will be required to lease. Leases generally run in the neighborhood of \$50-\$70 per month for 48 months. Manufacturer pricing and sources for these terminals may be found in the appendix, but as most merchants will not be able to purchase direct from the manufacturer, (and many ISO's will not accept a hookup to their system with anything but what you have purchased from them) this information is of limited use. Given the going rates, if you can keep your equipment costs under \$2,500 on a lease arrangement, you're doing very well. Other options would be to see if you can purchase a used terminal, either from the ISO or independently. Before you pursue purchasing a terminal independently of the ISO, however, check to see that the ISO allows this and, if so, what the ISO will charge as a "reprogramming fee". ISO's will often charge a set amount varying from \$25 to \$700 or more to enter the phone, account numbers, and other information that you need to access their system into your terminal. Be sure you are aware of these fees upfront...they could make the difference between buying used and new equipment minor. You might also check to see what kind of warranty comes with the terminal. If you lease or purchase on an extended payment plan, the warranty should at least last as long as the payments. Most used terminals come with no warranty, and service might be difficult to obtain if needed, so it is best to make these arrangements before diving into what initially looks like a bargain. Another piece

of equipment you may need is a receipt printer. Generally these printers are in the same price range as the terminals. Whether or not you will need one will be determined by the type of business that you conduct. Obviously, if you are involved in a business that does very little face to face customer sales, your need will be minimal and the expense of a printer may be eliminated or served adequately by a general purpose printer attached to your computer. PAGE 13

While we're on the subject of equipment and computers you may be able to get by without the traditional terminal/printer units altogether if you use a personal computer. There are several software packages on the market that perform authorization and draft capture as well as several point of sale packages that integrate this feature into their sales module. This approach has many advantages. In addition to costing less than a hardware terminal, software can add flexibility in terms of being able to automatically process batch transactions at the end of the day (useful when performing transactions one by one would be inconvenient or too time consuming), being able to perform address verification, check guarantee and debit card transactions. Software based products also usually allow you to generate various management reports using data captured during the transaction process. Again, a word of caution: be sure to check with your bank or ISO before you purchase software...it may not be compatible with their system!

=====HOW TO APPLY FOR A MERCHANT ACCOUNT=====

Assuming you've identified a likely bank or ISO to handle your business, how do you go about applying and what information should you expect to provide to enable a favorable decision to grant you a merchant account?Applying for a merchant account, as we mentioned previously, is very much like applying for a loan. Some of the factors that will be considered are your type of business, length of time in business, general creditworthiness, previous merchant account status and your existing banking relationships. In general, you should have on hand and be able to submit information concerning how your business is financed, your business performance history (or your experience in the industry PAGE 14if you are just starting into business), your sales projections, business plan and personal credit history. Not all banks or ISO's will require all of this information, but having anticipated the possible need and prepared yourself with the data above, you will increase your chances of acceptance, especially if yours is a new operation.Areas of consideration:1) Type of business. As mentioned previously, certain types of businesses are more readily approved than others. An operation having a physical storefront will, in general, find approval easier to obtain than a home based business or mail order firm. A retail business selling , for example, clothes and general merchandise will have an easier time of it than a travel agency, even though both may have a storefront. For a full listing of businesses considered high risk see appendix B&C. If you find your business on this list, it doesn't mean you will not be able to obtain a merchant account, but that you will definitely be required to look longer and harder to find someone who will accept your application. Have patience and start with the contacts listed in appendix A.2) Length of time in business. The bank wants to assure itself that it is dealing with a viable business entity, and in its viewpoint, the longer you've been around, the higher the probability that you will continue in operation. Again, being a new startup does not necessarily preclude you from consideration, it just makes things tougher. Be prepared to show, through experience and/or education, that you understand the intricacies of operating a business and that you have a good grounding in the industry.AGAIN, BE PREPARED TO SUBMIT ANYTHING THAT MAY HELP YOU MAKE YOUR CASE: BUSINESS PLAN, MARKETING MATERIALS YOU HAVE DEVELOPED, SAMPLES OF AD COPY YOU INTEND TO PLACE, AND POSSIBLY EVEN ACTUAL PRODUCT SAMPLES.

PAGE 153) Creditworthiness. Be prepared to show good financial health, you will probably be asked to supply trade, banking, and personal references. In particular make sure you have no delinquent FICA or sales taxes, tax liens, judgements, or bankruptcies on your record. Any of these is an almost surefire disqualifier. If you haven't done so recently, now is a good time to contact the credit bureaus and ask for a copy of your credit file to see if there are any

derogatory entries that may need to be corrected before applying. If you have not been in business long enough to have established trade references, it may be acceptable to substitute references from persons with whom you have had some type of professional relationship; someone who can attest to your business skills and to the way you have been known to conduct your business. These references may be former employers or customers you have been associated with in the past. In startup situations where there is no business creditworthiness to consider, personal credit history may sometimes be considered. A bank or ISO may feel that the way you handle your personal finances is indicative of the way you will handle your business. Again, a clean record is a must. A few "slow pays" may be overlooked, but chargeoffs, bankruptcies and tax liens probably will not. 4) Previous merchant status. The theory is that if you have had a merchant account before and handled it adequately, you are likely to continue. Therefore, banks and ISO's are more inclined to look favorably on your application if you can show a previous history. Further, being able to show a recent history in the same business may qualify you for lower rates if, by that history, the bank can determine that you have a relatively high average ticket (discussed below), good volume, and an insignificant chargeback rate. 5) Banks will also look at the size of your average ticket. Banks like to see an average ticket that is above at least \$30. PAGE

166) If you are incorporated, be prepared to have the officers sign a personal guarantee of payment. The banks want their money and will often require this on their contracts to protect themselves and give themselves recourse to collect from the officers in the event the corporation goes under. 7) If you anticipate difficulty in obtaining a merchant account due to one of the factors detailed above, consider offering to establish a reserve account with the bank or processor. A reserve account is a deposit of funds or securities pledged to guarantee faithful performance and to give the bank or processor some reasonable assurance that funds will be available to meet any default of payment that may occur. A reserve account may induce an otherwise reluctant institution to grant a merchant account as it allows for a measure of safety. Reserve accounts usually vary according to anticipated or actual sales and degree of risk. Another possible option here is obtaining a surety bond to serve the same purpose.

=====THE CARE AND FEEDING
OF YOUR MERCHANT ACCOUNT

=====Once you have your merchant account there are steps you can take to preserve it. Merely obtaining a merchant account does not carry a guarantee of its continuance. Merchant accounts are subject to termination for any number of reasons including fraud or high chargeback rates. Once terminated, a merchant will find it very difficult to reinstate, even with another processor. Indeed, in some circumstances, a merchant may be "blacklisted" from ever obtaining a merchant account again. It behooves you therefore to avoid any actions that could result in a termination. Some of the more blatant causes of termination are discussed below. PAGE 171)

Misrepresentation. Misrepresentation concerning any aspect of your application may be cause for termination. Commonly misrepresented are type of business and how business is conducted. Even though it is more difficult for a mailorder or telephone sales operation to obtain a merchant account, do not succumb to the temptation (or some misguided ISO representative's suggestion) that you alter the facts. If you take 100% of your orders by phone, do not put 50% on your application. If, in the normal course of business, you change direction and focus, perhaps adding a line of product that would have initially caused the application to have been denied, or switching sales techniques to outbound telemarketing, be prepared to do some explaining if it comes to light. If you anticipate making such a switch, it would be a good idea to contact your processor, and if they do not have an objection to the proposed business changes, have them send you a letter to that effect. 2) Factoring. Previously mentioned, factoring is the act of running the charges of another business operation through your merchant account, usually for a profit. Again, this is against Visa/MC policy and will cause them to terminate your account with little chance of ever obtaining another. Don't be tempted to think

that they wont find out...all it takes is one dissatisfied customer initiating chargeback procedures (discussed below) to cause the processor to investigate.3) Chargebacks.Chargebacks are distinguished from simple credits or returns by the active involvement of the card issuer. Chargebacks can occur for procedural reasons such as forgetting a signature or in response to customer inquiries or complaints. Some of the more common are listed below:1) Cardholder dispute (merchandise is unacceptable to the customer, wrong merchandise was delivered, customer never received the merchandise) PAGE 182) Unauthorized use of credit card number (phone and mailorder particularly prone to this)3) The cardholder account number you received was invalid or illegible (even though authorization may have been obtained through your system).4) No cardholder signature or printed, signed sales receipt (always a risk for phone orders).5) Unauthorized signature.6) Processing error (i.e. a credit is processed as a purchase).7) Duplicate processing.8) Expired card.

=====PROTECTING YOURSELF
FROM CHARGEBACKS:=====

Chargebacks, especially for the home office and mailorder operations which seem to be prone to receiving them, are to be avoided at all costs since they may be grounds for account termination. In one processor's experience two to five purchases out of every thousand result in a chargeback. This is less than one half of one percent of all transactions. Visa itself estimates the average chargeback rate among all its merchants to be .07%. Anyone with a chargeback percentage of 1% or greater is in danger of having their account terminated. Unfortunately, mail order companies and others who accept non-swiped transactions tend to have an industry average that is significantly higher than the what Visa projects. This is in a great part due to the ease with which customers find they can delay their payments by challenging the charge on their bill, calling it an "unauthorized charge" even if it is not.

PAGE 19Another problem is that banks can issue chargebacks in error. And even when they do, or when a customer generated chargeback is reversed, there is no provision for eliminating the mistaken or reversed chargeback from the merchant's chargeback record! Thus even these get counted into your chargeback percentage.So, what can be done to protect against cancellation of a merchant account due to "high" chargeback rates? Briefly, it boils down to four areas: completing all necessary paperwork properly to protect against procedural type chargebacks, verifying and confirming the original sale to protect against customer initiated chargebacks, maintaining documentation and accurate recordkeeping for reference when they do occur, implementing procedures to skew the percentages in your favor.Protecting against procedural chargebacks:This is almost self-explanatory. Follow your processor's instruction manual religiously. If you are doing paper based transactions make sure that signatures are present and correct. Make sure that all areas which require information are completely filled in. If you are doing electronic draft capture there aren't too many areas where you can procedurally go wrong. Just make sure to settle your batches each day (remember, processors charge extra for settlements that occur beyond 24 hrs. of the initial sale).Protecting against customer initiated chargebacks:The best protection from chargebacks is to have a very liberal return policy. You may as well since the cardholder can get a refund through the card issuer anyway (they will debit your account) up to a year past the date of the sale in some cases. Having a liberal return policy will not only decrease your rate of chargebacks, but help your company's image by projecting confidence in the quality of your product.

PAGE 202) For walk-in transactions, always match the signature on the credit card against the signature on the credit card receipt and photo ID (if allowed in your state). The only person authorized to use the credit card is the person whose name and signature appears on the card.4) For phone and mail orders, verify and confirm all orders. When accepting an order by phone, you are accepting the risk that the caller may be using a cardholder's credit card without the cardholder's knowledge. Even if you receive an authorization code there is no guarantee of payment4A) Two common instances of unauthorized phone orders:4a1) A caller uses a credit card number (with or without the cardholder's knowledge) to

order merchandise for a third party. The caller gives you a phony name, address and phone number hoping that you won't verify the information. If you do as they expect, you will ship the merchandise, the cardholder will dispute the charge because he never placed the order, and you will absorb the loss. 4a2) A caller uses a credit card number, giving you the cardholder's real name address and phone number. If you simply check the name and address in the telephone directory without calling to confirm the order, you will get a chargeback when the cardholder (who never made the call) disputes the charge. 4B) In these circumstances, it is best to follow the procedure below: 4b1) In addition to the order information, obtain the caller's name, address, home and work phone numbers. 4b2) Check the name, address and phone number(s) by independent means such as a phone directory or telephone information operator. Notify the customer that you must verify the name, address, and phone number by independent means before completing the order. There are also, lists of bad ZIPs and fraud-blocker databases PAGE 21 against which an order may be checked. The National Association of Credit Card Merchants' offers a Bin Number Directory of All VISA and MasterCard Issuing Banks, a Directory of Prison and Jail Addresses and ZIP Codes and a Directory of Mail Drop Addresses and ZIP Codes. There are also CDROM based products available for less than \$100 which allow you to search and retrieve any phone number/address combination in the United States. NOTE: If you take an American Express, Diners, Carte Blanche, or Discover card, you can call the credit card companies directly for an address verification. 4b3) Call back the cardholder to verify that the order is valid. Do not use the phone number(s) received with the order, e.g., check the phone directory if possible. To record that the order was confirmed with a call back, you may choose to use your own code on your internal order information sheets. If you have more than one employee, the employee's name or number should appear by the code. 4b4) If you cannot obtain a valid phone number, you may want to send a letter or mailgram to the cardholder at the confirmed billing address. Ask the cardholder to respond to you by telephone or, if immediate delivery was not requested, by letter to confirm the order. As an added check, you may want to ask the cardholder to identify the type of credit card used in placing the order. 4b5) Obtain a receipt or equivalent on all orders. Send your package UPS Registered, Return Receipt Requested. Or, if you're shipping a number of packages by Parcel Post and you have created a manifest, the Post Office's signature on the manifest constitutes proof of delivery. 4b6) Send each customer a receipt as a reminder of the purchase

PAGE 22 In addition to the above procedures, you may consider implementing some of the following: 5) Banks now allow the merchant to show its 800 number on the customer's statement. If your bank allows this, it is a good way for the customer to contact you directly about a questionable charge instead of going to the bank and initiating a chargeback or retrieval request. Speaking of the customer's statement, make sure that the description listed makes it clear what the purchase was. It is much easier for the customer to relate his recent book purchase to a line on his statement that identifies the merchant as "Tom's Book Company" rather than "TBC Ltd.". 6) Consider installing caller ID. This, of course, will allow you to match up the telephone number used to place the order with the phone number given. Any discrepancy should be noted, questioned, and resolved. If you are in an area that displays more than just the phone number on the caller ID, so much the better. You may have saved yourself a big loss, and if you're inclined to report it, may provide evidence necessary to prosecute. Maintaining Adequate Documentation: Visa/MC regulations require that the bank direct a cardholder's dispute to the merchant before a chargeback is initiated. Oftentimes this is ignored and the bank will issue a debit without giving the merchant an opportunity for a rebuttal. If this happens to you, have a talk with your bank and see if you can induce them to follow the regulations in future situations. Ask them to request that the issuing bank send a copy of the cardholder's letter of complaint as a matter of policy. Regardless of whether or not you are successful in this, it is imperative that you keep good records so that you have the maximum chance of a satisfactory rebuttal and chargeback reversal. PAGE 23 Practically speaking, you will want to keep all details of any given sale for at least a year.

This information will include customer name, address, telephone number, ship to address, method shipped (for later tracing if necessary), and signed receipt or other material which would be useful in rebutting any claim that the cardholder did not authorize the sale or receive delivery of the product or service. If you are using computer based Point of Sale software with credit authorization and draft capture, this recordkeeping will be automatic: all you need to do is remember to backup your data frequently and store it in a safe place. If you are on a manual system it will involve a little more work, but suitable audit procedures may be devised which suit the way you conduct business. Further, you may consider maintaining a database of every credit, return, chargeback and reversal. You can then calculate what your actual chargeback rate is (minus the reversals) and have some grounds to challenge the bank if they claim that your rate is too high. Also this will allow you to generate a list of credits which you may give to your bank with instructions not to process any of these as a chargeback (sometimes customers get impatient waiting for a credit to show up on their statement and will initiate a chargeback even though you have already generated the credit). Skewing the Percentages in your Favor: In an ideal world any unjustified chargebacks would not be counted against you. As mentioned before, however, this is not the case. Anything that can be done to affect the percentages will go a long way toward reducing the risk of account termination for having exceeded the 1% rate. Implementing the above procedures will help to reduce that risk, but some merchants carry this a step farther and break each sale into multiple sales. When, for example, a four item sale is rung up not as a single sale, but as four individual sales, the total number of transactions is increased thereby decreasing the total percentage of chargebacks (chargeback percentages are calculated on total transactions not dollar volume). This can be a very effective technique. Remember to get authorization for each sale however...if you are splitting one transaction into several, one authorization code will not cover more than one sale.

PAGE 24 If your records indicate that your Visa chargebacks are reaching critical mass, consider asking your customer for their MasterCard first. Get some of those sales (and some percentage of the chargebacks on a different credit card). MasterCard also has a higher limit on their chargeback percentages so bear in mind that even if your account is in danger of being terminated for chargebacks exceeding 1%, you may be able to get the bank to allow you to continue to process MasterCard sales. This way, at least, you do not totally lose the ability to accept credit cards.

=====COMBATTING FRAUD

=====Earlier on we mentioned fear of fraud as the biggest contributing factor to the reluctance of banks to establish merchant accounts for home based and mail order businesses. There are, according to a text published by the American Bankers Association, four types of groups or individuals most likely to perpetrate credit card fraud. These are the collusive merchant, con artist with a fraudulent telemarketing scheme, a criminal purchasing goods and services via telephone or mail with stolen or otherwise illegally obtained credit card numbers, and the dishonest employee. We really need only concern ourselves with the last of these, since the honest merchant will not involve himself in fraudulent schemes, and procedures have already been discussed to protect the merchant against taking fraudulent orders. A merchant's last point of vulnerability, then, is from the inside. Employees have been known to accept counterfeit or altered cards, ring up sales (in non-swiped transactions) using valid cardholder account numbers which have been illegally obtained, and even launder drafts (factor) for other businesses. The best protection against a dishonest employee is to avoid hiring one. Thorough preemployment background checks are recommended by professional credit card fraud investigators as your cheapest

PAGE 25 form of insurance against this type of employee. Considering that a background check can be made for about \$100, and weighing that against the damage and losses a dishonest employee can cause, this is without a doubt, true. Other anti fraud techniques: 1) Monitor your chargebacks. Be the first to notice any increase in claims of "unauthorized purchases". Note the date and time these occurred, employees on duty during that time and, if your

register supports it, the employee number of the person who rang up the sale. Check to see if an inordinate amount of these chargebacks can be attributed to a particular employee or if they are happening randomly. 2) Know the details of your business such as average ticket amount and the percentage of swiped transactions versus transactions which have been keyed into the terminal (you can bet your bank does!). If, all of a sudden, the numbers begin to change radically, it may be time for a closer look into the reasons why.3) If you suspect an employee, contact the credit card fraud investigator at your local police department . He can assist you in looking over the documentation and developing a case if the evidence warrants proceeding. Remember, if the bank suspects fraud, they most likely have the power to sieze your funds immediately (read your merchant contract)! They will take whatever there is and that could be potentially disastrous for your business.

PAGE 26=====Appendix

A-Sources of Merchant Accounts:

=====Try your local banks first. Many banks WILL accept home based and mail order business to some extent, although they try to minimize their exposure by having not more than around 10% of their portfolio involved in this type of business. Approach them properly, with documentation as outlined previously, and you may just be surprised at what happens! However, much more likely, you will end up searching for an ISO. Of the one thousand four hundred and eighteen franchised Visa/MC ISO's in the U.S., only a few (read this two or three) are willing to take nonstandard business as a matter of course. The alarming news is that these numbers keep decreasing! Noted below are a few of the sources that may still be willing to accept home based, startups and mail order businesses on a regular basis. No guarantees of any kind are made or implied although any information presented is deemed accurate as of November 1993. TELEFLORA CREDITLINE 12233 W. OLYMPIC BLVD. LOS ANGELES, CA 90064 PHONE: 800-325-4849 Note: Although this company has recently restricted its approval of home based and mail order businesses, it is extremely open to shareware authors who market from home or by mail. They also approve computer bulletin board services quite readily. If you fit within these categories, this is probably your best option: equipment prices are very reasonable, rates are low and they offer a software option to replace the terminal. 110 SOFTWARE & BUSINESS SERVICES 2228 BURGERDEARBORN, MI 48128 Phone: 313-278-3350 or 313-855-8644 (or, preferably email to Compuserve 71446,1035 Internet af393@leo.nmc.edu) Notes: (My company, thank you!) Able to arrange merchant accounts for many types of "non-standard" businesses...including Audiotex. Merchant approval generally runs 14 business days. Also handle terminal replacement software.

PAGE 27 Another source is your Yellow Pages under the "Credit Card & Other Credit Plans-Equipment & Supplies" heading. A brief search produced the listing shown on the following page :
 HARBRIDGE MERCHANT SVC
 2480 W 26TH AVE DENVER CO 80211 Phone: 303/455-6543
 CONTINENTAL BANNKARD SVC 760 S HILL ST LOS ANGELES CA 90014 Phone: 213/488-9655
 DATACARD CORP 901 CORPORATE CENTER DR # 406 MONTEREY PARK CA 91754 Phone: 213/264-8044
 CREDIT CARD PROCESSING CO 39 E MAIN ST ALHAMBRA CA 91801 Phone: 818/308-3309
 RETAIL SYSTEMS INC 310 LANG RD BURLINGAME CA 94010 Phone: 415/343-0978
 INTERNATIONAL BANK CARD SYSTEM 852 FOLSOM ST SAN FRANCISCO CA 94107 Phone: 415/904-0600
 PAGE 28 DATA CARD CORP 14261 E 4TH AVE AURORA CO 80011 Phone: 303/343-1030
 DATACARD CORP 6200 LYNDON B JOHNSON FWY DALLAS TX 75240 Phone: 214/980-2300
 NEW YORK RETAIL PARTNER 13338 41ST RD FLUSHING NY 11355 Phone: 718/359-3282
 CARD SERVICE OF NEW AMSTERDAM 9 E 41ST ST NEW YORK NY 10017 Phone: 212/922-0770
 JCB INTL CREDIT CARD CO 60 ROCKEFELLER PLZ NEW YORK NY 10020 Phone: 212/332-8120
 U S MERCHANT SVC 9 E 41ST ST # 301 NEW YORK NY 10017 Phone: 212/818-1807
 UNION BANCARD NEW YORK 1220 BROADWAY NEW YORK NY 10001 Phone: 212/947-6937
 MERCHANT BANKCARD SYSTEMS 103 BELAIR RD STATEN ISLAND NY 10305 Phone: 718/876-7286

PAGE 29

=====Appendix B-Restricted Businesses=====Restricted

businesses may be considered for approval, but will require extensive financial disclosure and review. Automobile Rentals: Merchants frequently charge customers for damage to the vehicle which results in chargebacks. This category has a very high loss to sales ratio. Bars/Cocktail Lounges Without Restaurant Facilities: There is a high propensity for cash advances and disputed billing amounts due to the nature of the business. Also, there is a high turnover of these types of businesses. Businesses Without a Storefront: MasterCard and Visa require a storefront or permanent retail location. Insurance Sales: Bank Policy Infomercials: Bank Policy Limosine Services: Lost or stolen credit cards are frequently accepted over the phone and limosine services frequently go out of business, leaving high chargebacks and loss potential. Mail/Telephone Order Firms Without 2 Years Prior Bankcard Experience: Cardholders can dispute any charge where there is no imprint or signature resulting in a high propensity of chargebacks and losses. Merchants Who Have Declared Personal/Business Bankruptcy Within 10 Years. Real Estate Related: Mortgage reduction programs do not save cardholders any more money than they can save on their own. Appraisal and loan fees often get charged back when an appraisal comes in low, a loan is not approved, or the real estate deal falls through. Self Improvement Courses: Cardholders usually pay in advance for the course, the quality of which can easily be disputed or the course can be cancelled.

PAGE 30 Tour Companies: Cardholders pay in advance for services that can easily be disputed for quality and may not be rendered at all. Vitamin and Water Purifier Sales: These products are frequently associated with telemarketing scams and are often sold in conjunction with "giveaway promotions. Again, there is a high incidence of chargebacks and losses.

=====
Appendix C-Prohibited Businesses=====
In general, businesses in this category will be extremely hard to place. Adult Bookstores Airlines Bail Bond Payments Check Cashing Businesses Collection Agencies Credit Unions Dating/Escort Services Gambling Facilities Health Club Memberships Massage Parlors Marketing Firms with "Giveaway" Type Promotions Pawn Shops Savings and Loan Companies Sexually Explicit Telephone Communications and Publications Outbound Telemarketing Firms Thrifts Travel Agencies
PAGE 31

=====
Appendix D- Computer Bulletin Boards

=====
INDUSTRY ALERT
Visa has recently announced an intention to collect additional fees from certain types of BBS operations. They will be charging \$500 to sign up and \$250 per year thereafter and they will be requiring all banks and ISO's who have BBS accounts to collect these funds. This applies to bulletin boards that charge for time in any increment other than a yearly subscription fee. This is to be used to develop a database which will assist them in fighting the factoring and fraud that they claim often results from these types of services. These fees do NOT apply to: 1) Bulletin boards who charge only for products they sell. 2) Bulletin boards who charge an annual subscription fee. 3) Charges made with any other type of bankcard, i.e. MasterCard, Discover, American Express, etc. This is an extremely new policy on VISA's part and not all banks and ISO's are aware of it as yet. Steps were taken at BBSCON to register disapproval of this policy. Source: Teleflora CreditLine (Note: June 94. Visa has adopted these fees and MasterCard is working on something similar. It is called "High Risk Merchant Registration". High Risk Registration also applies to certain other forms of business such as outbound telemarketing.)

PAGE 32

=====
Appendix E-Sources of Credit Authorization & Draft Capture Terminals

=====
Please note: these are manufacturers and you may or may not be able to purchase direct. Information contained herein is for reference purposes only. You may need to contact a computer dealer in your area who specializes in point-of-sale hardware to obtain this equipment...your best bet is the bank or ISO you are working with. Consolidated NBS Inc. 5640 Pare St. Montreal, QB, CD H4P 2M1 800-463-0292; 514-735-1341 FAX: 514-342-

9763Product: 727; 757EX; 767; Softterm; TurboPricing: \$150-\$1,500 Works with: DEC; IBM; MicrocomputersData Card Corp.11111 Bren Rd., WMinnetonka, MN 55343800-328-8623; 612-933-1223FAX: 612-933-7971Product: Datatrol 680Works with: IBM PCDatacap Systems, Inc.212A Progress Dr.Montgomeryville, PA 18936215-699-7051FAX: 215-699-6779Product: TransITWorks with: IBM PC, XT, AT; RS-232 PAGE 33E.E.S. Companies, Inc.2 Vernon St., Ste. 404Framingham, MA 01701508-653-6911FAX: 508-650-1872Product: Multi-Port UnitPricing: \$795-\$1,395 Works with: Apple MacintoshMSD Systems, Inc.10031 Monroe Dr., Ste. 206Dallas, TX 75229214-357-4435 FAX: 214-350-4527Product: MSD 10 SystemRS232 deviceVeriFone, Inc.Three Lagoon Dr., Ste. 400Redwood City, CA 94065415-591-6500FAX: 415-598-5504Product: Mobile MerchantStandalone cellular unit.Product: OMNI 330Pricing: \$243-\$287Works with: most host systemsProduct: OMNI 380Pricing: \$315-\$390Works with: most host systems PAGE 34Product: PinStripePricing: \$498-\$794Compatible with: Most host systemsProduct: TRANZ 330/340Pricing: \$233-\$303Works with: Most host systemsProduct: TRANZ 330pnc/340pncPricing: \$258-\$327RS-232C device.Product: TRANZ 380Pricing: \$285-\$360Works with: Most host systemsProduct: TRANZ 420 Pricing: \$480-\$545Works with: most host systemsProduct: XL 300Pricing: \$168-\$195 Works with: most host systemsProduct: ZON II XPe/XJPricing: \$423-\$900Works with: most host computersProduct: ZON Jr XLPrising: \$163-\$190Works with: Most host systemsProduct: ZON Jr. PLUSPricing: \$120-\$150Works with: most host systemsXico, Inc.9737 Eton Ave.Chatsworth, CA 91311818-709-4403FAX: 818-709-5235 PAGE 35Product: Series 8900Pricing: \$344-\$2,100Standalone unit,

=====Appendix F- Credit Authorization Software

=====Again, this information is for reference only. These are manufacturers. You may need to purchase through an authorized distributor or dealer in your area. This is just a sampling of what is available, and as such, software applicable to a range of platforms is presented.Product Name: IC VerifyManufacturer: IC Systems 283 Beau Forest Drive Oakland, CA 94611 510-339-0391 FAX: 510-339-3480Pricing \$350 plus.IC Verify contains no Point of Sale features, but can link to many POS systems. It is one of the most robust products on the market today. Beware of the documentation though: it leaves MUCH to be desired.Product Name: Super AuthManufacturer: Atomic Software 100 Valley River Avenue Murphy, NC 28906 800-392-9550Pricing: \$295Super Auth is a fully integrated DOS based credit card authorization and check verification system that is easy to use and fully featured. A good alternative to IC Verify.

PAGE 36Product Name:Tele-PCManufacturer: Teleflora CreditLine 12233 W. Olympic Blvd. Los Angeles, CA 90064 800-325-4849Pricing: Currently \$175 but going up shortly.TelePC has no fancy bells or whistles like the programs mentioned above. It performs only the basic terminal functions of authorization and draft capture. Furthermore, it is specific to this processor, i.e. you need to have your merchant account through Teleflora in order to buy and use this system. However, if you are a Teleflora merchant and you don't need or want fancy features, this may be the program for you.Product Name: Register Mate Manufacturer: Champ Computer Systems 2655 Villa Creek, Ste. 170 Dallas, TX 75234 214-484-4754Pricing: \$99Register Mate is a DOS based retail point of sale application which prints and reads 5 types of bar codes. It will also print price tags and a full complement of over 50 reports. Register Mate includes credit card verification, can provide inventory control and sales management functions, attaches to electronic cash drawers and receipt printers and can interface with Dac Easy General Ledger program.Product Name: Credit Card DB Manufacturer:E.E.S. Companies, Inc. 2 Vernon St., Ste. 404 Framingham, MA 01701 508-653-6911 FAX: 508-650-1872Pricing: \$399This product runs on a Macintosh and requires 4th Dimension runtime. It performs credit card authorization and draft capture and supports individual and batch processing.

PAGE 37Product Name: Peachtree Point of Sale Manufacturer:Peachtree Software, Inc. 1505-C Pavilion Place Norcross, GA 30093 800-247-3224; 404-564-5800Pricing: \$595Network

compatible retail system integrating with Peachtree CompleteAccounting. Handles interfacing to third party credit card software. MISCELLANEOUS SYSTEMS & PLATFORMS
Product Name: Infinity Point of Sale System Manufacturer: Data Pro Accounting
Software, Inc. 5439 Beaumont Center Blvd., Ste. 1050 Tampa, FL
33634 800-237-6377; 813-885-9459 FAX: 813-882-8143 Pricing: \$950
(PC); \$1,195 (UNIX/XENIX) Infinity POS system can be used standalone or as a module
integrating with other accounting modules and is compatible with Novell and other
networks. This software performs credit card authorization and draft capture
functions. Product Name: Point of Sale Manufacturer: IBES Corp. 671 N. Plano
Rd., Ste. 201 Richardson, TX 75081 214-907-8475 FAX:
214-907-9806 Pricing: \$2,000 and up Point of Sale runs under AT&T UNIX System V;
XENIX; DEC/ULTRIX and is a full point of sale package which also supports a credit
card authorization interface. Product Name: AS/Entry DMAS Retail 2000 Manufacturer:
IBM (International Business Machines) Old Orchard Rd. Armonk, NY
10504 800-426-2468; 914-765-1900 Tech support: Use toll-free no.

PAGE 38 Pricing: \$5,200 Used on System 36 and AS400's, this product
provides IC, AR, GL, sales analysis and purchasing functions as well as credit card
authorizations. Product Name: Netmaster/AP Manufacturer: Innovative Electronics,
Inc. 10110 USA Today Way Miramar, FL 33025-3901 305-432-0300
FAX: 305-432-0705 IBM mainframe or Tandem application. It interfaces to
NCR, IBM and Fujitsu Point of Sale terminals. Product Name: StoreLink
Manufacturer: LeRoux, Pitts & Associates, Inc. (subsidiary of NYNEX Corp.)
5770 Roosevelt Blvd., Ste. 410 Clearwater, FL 34620 813-
531-3414 FAX: 813-530-1096 Pricing: \$125,000 Compatible with: Tandem
NonStop/Guardian PAGE 39 Common Industry Terms: Auth Only A code
that indicates the transaction was authorized by the backup host. Balancing
Verifying and transmitting the transactions stored in the
terminal. Batch A session beginning with the first transaction and
continuing to the point of settlement. Batch Total The total amount of the
transactions in the batch. Card Reader The slot on the side of the terminal that
automatically reads the magnetic stripe on the back of a credit card.
Chargeback Sale amount that is charged back to a merchant's account. Credit
A refund transaction which credits a customer account with their
refunded amount. Credit The written form or electronic format supplied or
approved Voucher by the financial institution for use in consummating credit
transactions applied to the account of a purchaser on the basis
of a credit card properly honored by the merchant under the terms of a
current merchant agreement. Data Information used by the terminal that
relates to a specific transaction or operation. Display The screen
on your terminal directly above the keypad; the screen presents prompts and
messages to guide you through transactions. PAGE
40 Download The process of transferring data from a remote computer or
terminal to another. Editing To correct or void the amount of a
transaction that has been previously captured. Force A function
used to capture previously authorized transactions. Host
Authorization center computer used to process transactions. Item Count The
total number of transactions in the batch including sales, credit, force and
edited transactions. Keypad The key panel on the terminal labeled with
numbers, alphabet, and labels that identify special functions. Mag Stripe
This unit may be built into the keyboard of a PC based Reader POS system,
incorporated into a credit authorization terminal, or sold as a separate
unit. When a credit card is presented, the operator runs the card
through the slot instead of typing in the card number. Manual
Transaction using account information entered from the Transaction keypad
rather than the automatic reading devices such as a card reader. Also known
as a non-swiped transaction. Out of Balance The item count or total entered do
not match the terminal's record. PIN A Personal Identification
Number. A confidential code or electronic signature used by card holders to
identify themselves as the proper users of a credit or debit card to

the host computer. Prompt A message appearing on the terminal's display telling you what type of information to enter. Receipt Printer Used to give written proof of sale to a customer. Units are available in either a 40 or 80 column format. PAGE 41 Review Batch information displayed by the terminal. Report Batch information printed. An electronic printer is required. Sale A transaction used to charge credit/debit customers for their purchase. Scroll To move text across a display screen. Settlement The demand deposit account or other account approved Account by the financial institution which has been or will be established and maintained by the merchant with a bank or other institution for the purpose of debiting and crediting the merchant for credit card transactions and fees. Swipe The action of sliding a card through the card reader. Voice An approval code received via a telephone call; voice Authorization authorization is necessary when the terminal is unable to complete a transaction. Wedge An interface device for magnetic stripe and bar code readers which allows the reader to be connected between the computer's keyboard and the computer. The computer sees the magnetic stripe or bar code information as if it were typed in to the program via keyboard. This device eliminates the need for a serial port to plug the reader into. PAGE 42

===== CREDIT CARD SPECIFICATIONS =====

Magnetic Stripe Encoding TRACK 1 developed by the International Air Transportation Association (IATA), contains alphanumeric information for the automation of airline ticketing or other transactions where a reservation database is accessed. TRACK 2 developed by the American Bankers Association (ABA), contains numeric information for automation of financial transactions. This track of information is also used by most systems which require an identification number and a minimum of other control information. TRACK 3 developed by the Thrift Industry, contains information, some of which is intended to be updated (re-recorded) with each transaction, e.g. Cash Dispensers which operate "off-line". CARD DATA FORMAT TRACK 1 and TRACK 2 The standards for Tracks 1, 2, and 3 have established basic encoding specifications for credit cards and debit cards. The Interbank and Visa Specifications are based on these standards, as well as the ATM requirements of Burroughs, Diebold, IBM, NCR, and TRW. These standards are also the basic encoding specifications for I.D. cards - used for access control, factory data collection, patient identification, and a variety of revenue control systems. PAGE 43 ADDENDUM: I hope you found this useful. If you would like to be informed of new revisions of this manual or if you would like to be kept abreast of new developments in the field (as I have time to post them), please drop me an email at af393@leo.nmc.edu or Compuserve 71446,1035...nothing fancy, just your contact info and...I'd appreciate it...a comment on the manual.--Tom McSherry, af393@leo.nmc.edu