September 1987

Dear software programer/publisher:

We would like to inform you of our companies products and services.
You may have seen our ads or done business with us in the past.
Please note our new phone number. Our main products are security
keys for software protection. We also print custom labels for
commercial floppy disks and sell mailing lists of computer owners for
those companies interested in direct mail marketing.

More and more software publishers are now using security keys as an
effective solution to piracy. Hardware security keys provide maximum
protection against illegal distribution and are now available at a
modest cost. The usual problems with disk protection are eliminated.
The protected program is compatible with all types of drives,
transferable to a hard or ram disk, reliable, and the user can make
as many backups as he wishes.

Datalock security keys are small plastic devices which plug into the
joystick port. The program you want to protect is made to read the
unique circuit inside the key. If the correct key is not present,
the program will not work. A key is sold with every disk. All the
keys for one program are the same, but another program will use a
different set of keys. They are not interchangeable. We firmly
believe this is the most effective way to protect software available.
If you combine security keys with random program generation, it would
be impossible to create a copier program that breaks the protection.

We have been making security keys for over 3 years. We manufacture
keys in large quantity at low cost. The circuits we use in the keys
are all developed by us to be the most effective at a reasonable
cost. We have known for years that this type of protection is the
best and we feel we have the leading edge over any competition. Our
service is fast, with most orders shipped within one week. We sell
to small companies as well as large. We will handle orders from 10
pieces to over 100 thousand. They are available for $1.00 to $3.00
each depending on the type and quantity.

Even if you are not interested in using security keys, we ask you to
please keep this letter for reference. Many of our customers are
referred to us by companies with no interest in our product. Also,
you may be interested in this type of protection in the future. We
do not advertise in magazines regularly because they are intended for
consumers rather than publishers. We are also looking for
representatives. If you are interested, give us a call.

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If you are interested in using security keys to protect your programs, we can send you a program kit with a unique sample. The keys are currently available for C64, C128, Amiga, and Atari ST. You can insert the read routines into your program and evaluate the system before you decide to use it. If you are satisfied, you can order more of the same serial number key. Please send $5.00 check or money order and specify computer to obtain your program kit and more information about Datalock security keys.

Current prices for Datalock security keys.

Computer	10-100	100-499	500-999	*1000-
C64	$3.00	$2.50	$2.25	$2.00
C128	$3.00	$2.50	$2.25	$2.00
Amiga	$3.00	$2.50	$2.25	$2.00
Atari ST	$3.50	$3.00	$2.75	$2.50

* For larger orders we will quote lower prices and will ship in increments if desired. Please call or write.

FLOPPY DISK LABELS

We have just recently started printing disk labels for 5 1/4 inch commercial disks. They are 1.25 x 4.00 inches long. High gloss white material with black, blue, red, or green ink. If you are interested, please call and we will send you a sample and prices. We also plan to print labels for 3 1/2 inch disks. If interested, please let us know and we will send you a sample and prices when available.

C64/128 MAILING LIST

Does your business need more business? Our hot mailing list will help you increase sales and profits. Not just another list of owners or magazine subscribers. All the names on our list have responded to commodore 64/128 product ads. Why pay for expensive ads when you can reach active mail order buyers directly for pennies each? Over 4000 names provided on self stick labels sorted by zip code. Note: this list is not compiled by Datalock and does not contain Datalock customers.

C64/128 MAILING LIST $49.95 plus $3.00 postage and handling.

If you have a mailing list of C64/128 product buyers, we would be happy to trade with you. Send us the list and we will send you the same number of names from our list. We are also interested in buying Atari ST and Amiga owner lists. We do not have enough at this time to sell. If interested, please give us a call.

If you have any questions about our products, please feel free to call or write. Thank You.

Dear Software Publisher,

We would like to offer a solution to your software
protection problem. We are a large quantity manufacturer
of dongle keys. A dongle key is a small hardware device
which plugs into a port on a computer. Its sole purpose is
to protect the software in the machine. The program you want
to protect is made to read the unique key. If it is not
present, the computer will crash. We firmly believe this is
the most effective way to protect programs on the C-64 and
128 to date.

We are sure you are aware of the advanced disk copiers on
the market. With these, anyone can make copies of your
disks and give them to friends. The better your program is,
the more you will gain by using Datalock dongle keys. When
a customer shows your program to a friend, he will want one
too and will have to purchase one instead of copying it.
This is how you can realize increased sales and profits. In
the long run, dongle keys are much more profitable than
"protected" disks.

Your programmers are wasting valuable time trying to create
a disk that can not be copied. With the Datalock system,
the customers can make backups without any special software
so you wont have the added expense of providing replacement
disks when their disk wears out. Your customers are looking
for quality programs, not unfamiliar disks. Let your
programmers apply their talent into making creative and
useful programs instead of "protected" disks. This is sure
to increase your sales.

There are many other problems with "protected" disks other
than increased cost to your company. First of all, any
protected disk can be copied with the new disk copiers on
the market. Any new "protected" disks are simply a
challenge for the people who make the disk copiers. Another
disadvantage to "protected" disks is compatibility. Many
will not work on non-1541 drives. New disk drives are
becoming very popular and a customer certainly isn't going
to buy a disk that does not load on his drive.

Why Datalock dongle keys? First of all, we don't know of
any other manufacturer that is making keys for publishers.
Some companies are making dongle keys for their own
programs, but they are not for sale. Tooling up to make
your own dongle keys would be costly. Our company makes
keys in large quantity at low cost. Our dongle keys have
clear advantages over other types used for the C-64. Some
keys made by other publishers have a I.C. chip and support
components in them. While this may work well, it is much to
expensive. Other keys simply have two resistors in them.

This is to easy to figure out and duplicate. The paddles could even be adjusted and used to run the software. Our dongle keys use a timing circuit which is very hard to measure and duplicate, yet inexpensive.

The dongle keys you will be interested in, plug into port 2 of the C-64 or C-128. Port one can be used for a joystick or light pen if needed. Each set of keys will be different. All the keys for one program will be the same, but another program will use a different set of keys. They are not interchangeable.

We have included a unique sample of our type 2 dongle key along with a simple demo program for the C-64. Plug the key into port two, insert the disk and load "demo",8,1. The demo program is protected with the dongle key. The sample dongle key is different then the others we have sent out. Its serial number is on the demo disk as well as the package the key was in. You can insert a key read section into your program and evaluate the effectiveness of the system. If you like how the system works, you can order more of the same series dongle keys. Specify the serial number on your purchase order.

The key contains a circuit which is connected to pins 5, 7 and 9. Use of any other pins would interfere with the keyboard. These pins are usually used for paddles. Two values will be read by a machine language subroutine in your program. One of the values will remain constant while the other will change in a certain amount of time. The key must be read in machine language because one of the values will change in a fraction of a second (to fast for basic). This length of time combined with the fixed value allows us to make 100's of series, each set with its own unique combination.

Before we go on to explain how you can insert the ml subroutine in your program, we must warn you not to change any of the delays or ranges of the actual test. While the delays may seem unnecessary and the range of values in some series to broad, they are important. Remember that each computer will not return the same values from the port. We have rigorously tested our keys on older 64's as well as many sx64's and 128's. The ml subroutine was made to work safely with all these computers. Although the values and delays should not be changed, we encourage you to put the subroutine and access it in a unique way which will deter pirates.

Basic Programming notes

Compiled basic is very popular for business and utility programs. You can create your program in basic and compile it so that it will run faster and can not be listed out. We recommend Speedwriter, Blitz or the Abacus compiler. Since this way of programming is so popular, we have included two ready to insert basic subroutines on the demo disk. List out the directory and you will find "basic sub 64" and

"basic sub 128". These programs are intended to be used in a compiled basic program. The "basic sub 64" uses bytes $CE00 through $CFFF (52736-53247). The "basic sub 128" uses bytes $1400 through $15FF (5120-5631). Add this program to your own and access it with gosub9000. At the beginning of your program, you will need a dim d%(xx) as the subroutine uses this array. On the first gosub, d%(xx) is set to the values of the ml read subroutine, then the ml subroutine is poked into memory and executed with a sys. If the correct key is in port 2 the ml program will destroy itself and return to basic. Then the basic subroutine returns. On subsequent gosubs, d%(xx) is already set, so the ml program need only be poked to memory and executed with a sys. If the correct key is not in port 2, the ml program will destroy itself and all of basic memory.

To try all this, simply load the correct basic sub and type gosub 9000. With the sample key in the computer, "ready" will appear after a moment. Without the key, the computer will hang up. List out this basic program and study how it works before you add it to your own program.

C-64 Assembly Programming Notes

Everything you need to use Datalock dongle keys is included in this package. On the demo disk you will find a program called "64.C000". This is a ML sample which resides at $C000. If you load "64.C000",8,1 and type sys49152, the computer will check for the correct dongle key. If the correct dongle key is not plugged into port 2, the computer will lock up. This is only a sample program to get you started. You should relocate, hide, and scramble this subroutine to use it in your own program. Also on the demo disk is a program called "source64". This is the source assembly code that was used for the above program. You should load and list this program and study how it works.

The routine is reading the values for pot x and y. One of the values will be fixed and the other will change in a certain amount of time. Remember not to change any of the delays or values 197 through H57. The two lines you will be especially interested in are test ok and bad. You can jump to your own self destruct routine at the label bad. Instead of simply returning if the test is ok, you might want to jump to another subroutine or do something else before the RTS. Your main concern should be to make it hard to delete the read section from your program. Be sure you fully understand the read program before you begin to modify it for your own use.

C-128 Assembly Programming Notes

On the Demo disk you will find a program called "128.1400". This is a machine language sample which resides at $1400. If you load "128.1400",8,1 and type sys5120, the computer will check for the correct key. The program is very similar to the one for the C-64. Read the above paragraph. Also remember that you must be in a bank that allows I/O.

Extra Protection Tips

First of all, by using dongle keys in any way, you will be stopping more than 90% of the pirates. Most pirates use a nibble copier on "protected" disks. To break the Datalock system, a pirate would either have to make dongle keys or modify the program. Your main concern should be the program, not the dongle key. If a pirate tried to open the dongle key, he would find solid, hard plastic and would have to destroy it to get at the parts inside. He doesn't care what's inside anyway. He wants to show how smart he is by eliminating the need for the key. He doesn't want to make cheap looking homemade dongle keys. Although no protection system can stop a determined machine language expert, there are many things you can do to stop almost all pirates. Listed below are some things other users of dongle keys are doing to deter pirates.

1. Make your program autoloading and non resetable. The auto start section in the sample program is one way to defeat a hardware reset switch.

2. Use a loader program to load a scrambled main program. If you have the main program unscrambled on the disk, a pirate could use a disassembler on it easily.

3. Do not let the read program sit in memory as is. Descramble it, execute, and scramble it again. If a pirate does get at your code, the first thing he will do is hunt for a section that uses $dc00 $dc02 $d419 and $d41a.

4. Use an interrupt to execute the read routine. Many beginning programmers do not understand them.

5. Execute the read routine under rom. Most disasemblers will not be able to use this part of memory.

6. Use undocumented ml codes. The C-64 has many codes that will work but will come up as ??? on most disassemblers.

7. Use another language. Compiled basic programs combined with machine language are very popular and effective. Other types of languages that do not permit listing are also effective.

8. Include several simple read routines in your program. A pirate will study these first and may overlook the hidden code.

We thank all the programmers who have given us suggestions and advice on how to protect software. If you have any comments or questions, feel free to contact Grant R. Sonneman, president of Datalock Manufacturing. Thank You.

Series 20000 specifications

* Connector: Standard 9 pin connector with nylon insulator.

* Connector shell: Steel, cadmium plated with yellow chromate.

* Contacts: Phosphore bronze, gold over nickel plate.

* Main Shell: Polystyrene with self stick identification label.

* Filler: Polystyrene or Urethane.

PRICING

Prices subject to change without notice. We will negotiate blanket orders above 1000.

Quantity	Each
10-99	$3.00 (no labels)
100-499	$3.00
500-999	$2.50
1000-9999	$2.00

Save Shipping Charges. Send full payment with order and we pay regular shipping charges.

New Accounts. Prepayment in full will establish credit and save on shipping charges. C.O.D. orders are accepted as well.

Open Account. Net 7 days after you receive your order. Shipping charges are added to your invoice.

Printing Form

If you order 100 pieces or more, your dongle keys will come with self stick identification labels. Fill in the spaces below with your program title. Use only one letter per box. Please print!

D	A	I	G	L	E	S	O	F	T	!	
				B	B	S					
I	D	:	2	3	1	0	4	9	8	7	1	4
			Port 2								