

A Day In The Life of a Hacker

Things we get up to when nobody is looking, and that keep me awake at night...

Adam Laurie

adam@thebunker.net

<http://www.thebunker.net>

FIRST Geek Zone

Seville, 2007

Contents

- InfraRed
- RFID
- ATMs / (Magstripes?)

Who am I?

- Co-Maintainer of apache-ssl
- DEFCON goon
- Bunker non-exec
- Freelance Hacker
 - White Hat!

What do I do?



InfraRed

- IR is the ultimate in 'security by obscurity'
 - Invisible rays hide a multitude of sins
 - Simple codes
 - Total control
 - Inverted security model
 - End user device filters content
 - e.g. Hotel PPV TV

InfraRed

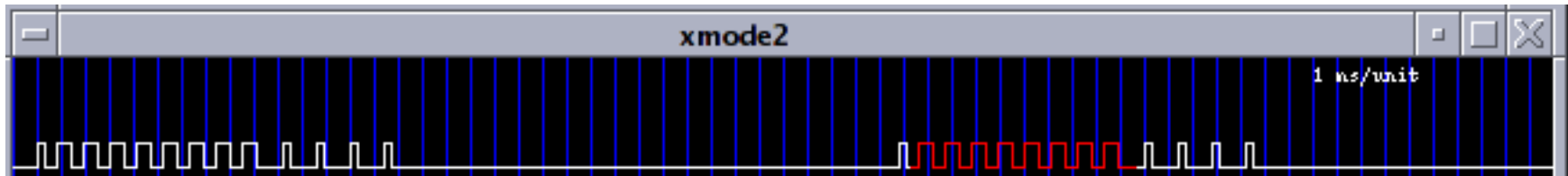
- Car keys
- Garage doors
- TVs

Garage Door Openers

- Simple code, manually configurable
- Dipswitch with 8 on / off bits = 256 possible codes



Analyse Data Bits With XMODE2



All on

S11111111 s s s s



All off

S 00000000 s s s s



1-7 off, 8 on

S 00000001 s s s s



1 on, 2-8 off

S 10000000 s s s s



1-3 off, 4-6 on, 7-8 off

S 00011100 s s s s

Conclusion: 1 start bit, 8 data bits, 4 stop bits



STOP
WHEN RED

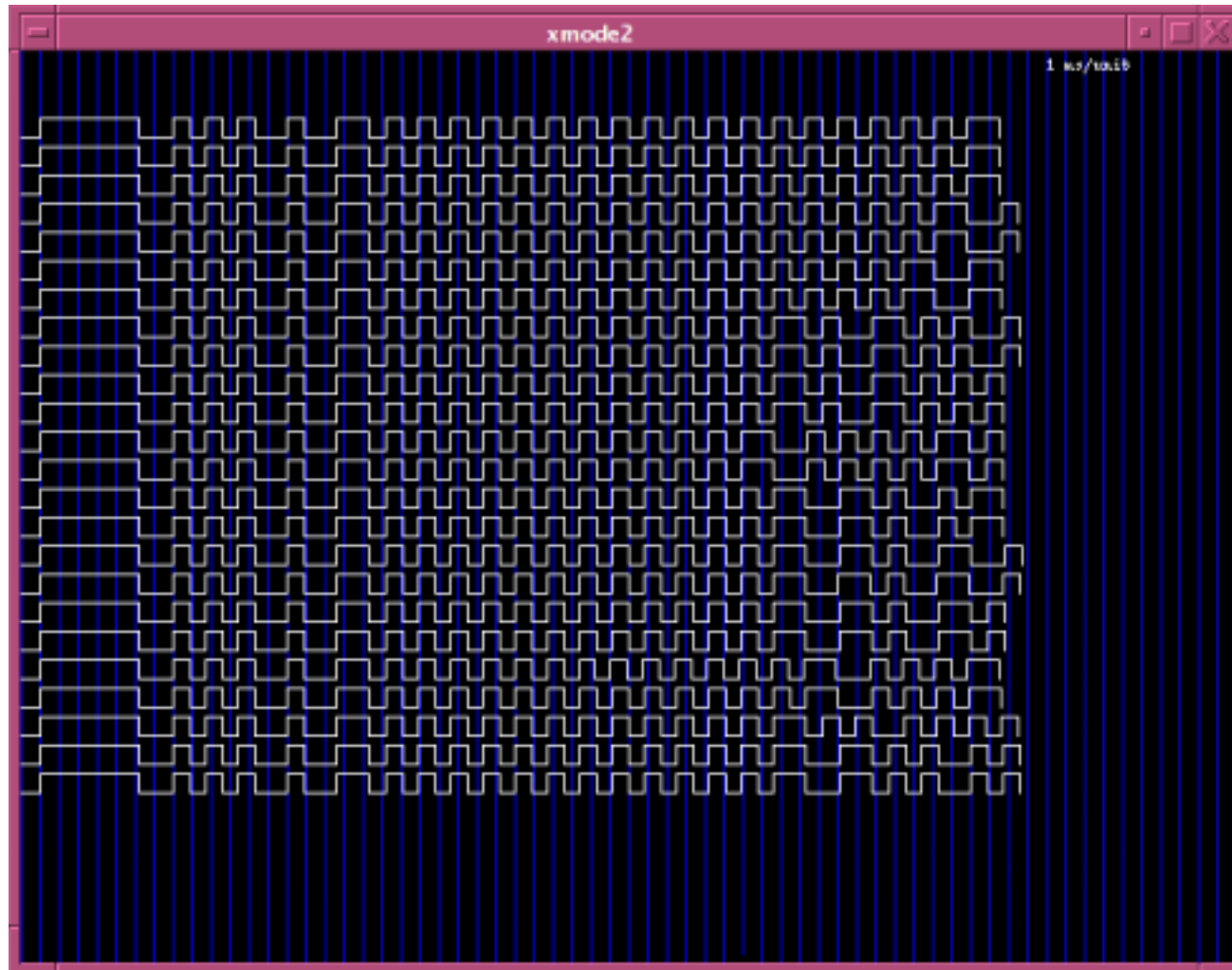


Security Notice
Please do not touch any equipment without permission.
Do not touch the equipment unless you are a trained technician.
Do not touch the equipment unless you are a trained technician.



TV Remotes

More complex codes (more bits)



Hollywood Movies

Adult Features

Internet

Music

PC Games

Guest Services

CHANNEL INSTALLATION

CHANNEL
CHANNEL RING
INPUT

TV 40
DELETED
ANTENNA

LABEL (DOWNSD MM)

VIDEO BLANK
AUDIO BLANK
AUTO PROGRAM
EXIT

OFF
OFF



Press MENU To Continue

LOCKED

MONO

OWNED BY
MAJOR MALFUNCTION

PHILIPS

TV

2339

60

MOVIE RATINGS

G

VIEW

PG

VIEW

PG-13

VIEW

R

VIEW

NC-17

VIEW

X

VIEW

NR

VIEW

EXIT



Press **MENU**
for entertainment options

PHILIPS

60

Press **MENU**
for entertainment options

MOVIE RATINGS

G	BLOCKED
PG	BLOCKED
PG-13	BLOCKED
R	BLOCKED
NC-17	BLOCKED
X	VIEW
NR	VIEW
EXIT	▶

PHILIPS

S

01234

PRODAC
TESTBILD

12

2556

2.6

00 00 00 00 00

PRODAC AVM TESTBILD 01/04



PHILIPS

SYSTEM STATUS

MODE COMMERCIAL
CHANNEL TV 60 (ANTENNA)
DCM ON
CODES 192 48 13 202 43
4 192 0 0 0
SIGNAL TUNED
OP HRS 12DEh
ERRORS 0 0 0 0 0

★ **TEAM** ★
LEUSTV 2.51
AMERICA
WORLD POLICE

PHILIPS

mtiltree-30 version 4.8.4
File c:\metil\software\mtiltree.exe (1,320,960 bytes)
Created Tuesday April 27, 2004 5:43:58 PM
Started Friday July 23, 2004 5:27:50 PM
Modulator Fixed, Segment 3
TV Channel 70
Port 7003
Audio Channel 1
Screen pos 0 ,0
Slide file \\seachange_tr30\c_drive\metil\tr30\mtiltree\mtiltree.ppt
Start time 7/23/04 17:27:50
Last session 7/24/04 15:13:28
Total sessions 64
Alives sent 9420 Free RAM 4,096
Running on SEACHANGE_TR30, IP 10.1.1.130

TV INSTALLATION

INPUT

FRONT END

SYSTEM

UK

MANUAL SEARCH

327 MHz

PROGRAM NO.

PAYTV 95

STORE

Microsoft

FINE TUNE

Windows NT.

Workstation 4.0

with Microsoft Internet Explorer

PROTECTION

OFF

LABEL



PHILIPS

5TV

2246

HTTP/1.0 404 Object Not Found



PHILIPS 2345




You are not authorized to view this page

You might not have permission to view this directory or page using the credentials you supplied.

If you believe you should be able to view this directory or page, please try to contact the Web site by using any e-mail address or phone number that may be listed on the 192.0.1.192 home page.

You can click [@.is.krb](#) to look for information.

 **Loading...**






HTTP Error 403 - Forbidden
Internet Explorer



The page cannot be found

The page you are looking for might have been removed, had its name changed, or is temporarily unavailable.

Please try the following:

- If you typed the page address in the Address bar, make sure that it is spelled correctly.
- Open the 192.0.1.192 home page, and then look for links to the information you want.
- Click the  [Back](#) button to try another link. 
- Click  [Search](#) to look for information on the Internet.

HTTP 404 - File not found
Internet Explorer

Internet Service Manager

for Internet Information Server 3.0

Microsoft Internet Information Server

Introduction

WWW

FTP

Gopher

Documentation

Welcome to the Microsoft Internet Information Server (IIS) Web-based administration tool. You can use this tool to administer or view your Microsoft Internet Information Server from remote locations. In order to log on successfully, please ensure that your Windows NT user account is a member of the Windows NT Administrators group. Note that it is not possible to start or stop IIS services with this Web administration tool.

Best experienced with

Microsoft

Powered by BackOffice

[Click here to start.](#)

PHILIPS

TV

8:14

My Computer Recorders

Network Neighborhood

Internet Explorer

My Recent Places

My Computer

My Recent Places

TV INSTALLATION

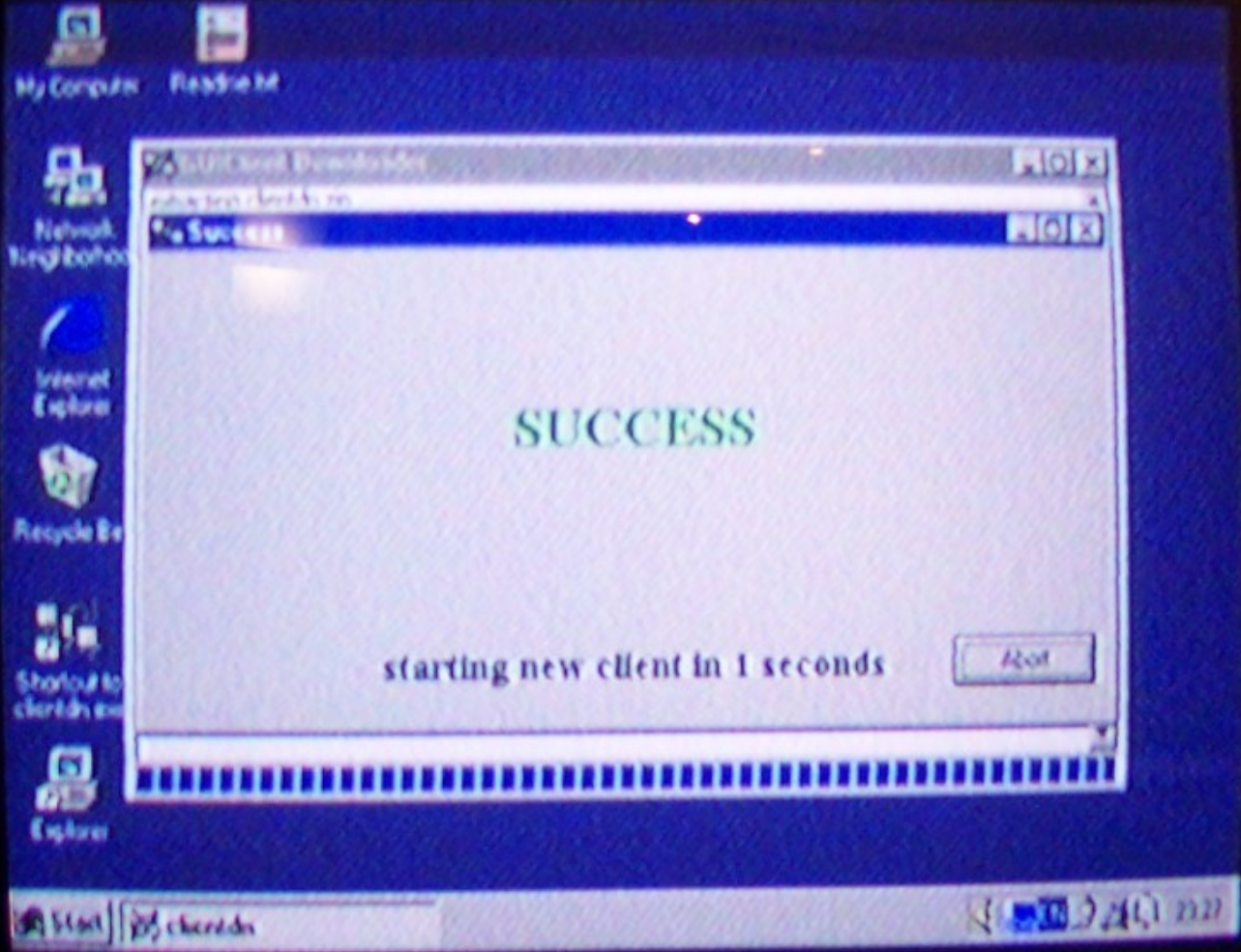
INPUT

FRONT END

PHILIPS

TV

2246



SUCCESS

starting new client in 1 seconds

Abort

PHILIPS

2322

MUTE

Microsoft ScanDisk

ScanDisk is now checking the following areas of drive C:

CHANNEL INSTALLATION

CHANNEL	TV 67
CHANNEL RING	DELETED
LABEL	(NONE)
VIDEO BLANK	OFF
AUDIO BLANK	OFF
AUTO PROGRAM	<input type="checkbox"/>
EXIT	<input type="checkbox"/>

ScanDisk detected an invalid long filename on this drive and was unable to fix it.

To fix the problem, run ScanDisk for Windows.

< Pause > < More Info > < Exit >

16x complete 

PHILIPS



CHANNEL INSTALLATION

- CHANNEL TV 68
- CHANNEL RING DELETED
- LABEL (NONE)
- VIDEO BLANK OFF
- AUDIO BLANK OFF
- AUTO PROGRAM ▶
- EXIT ▶

PHILIPS

EEPROM/102 SRAM Erase Program 1.2 MUTE

Erasing 4K EEPROM

4K Erase OK

CHANNEL INSTALLATION
CHANNEL TV102

CHANNEL RING DELETED
INPUT ANTENNA
LABEL (NONE)

Erasing 16K EEPROM

16K Erase OK

VIDEO BLANK OFF
AUDIO BLANK OFF

Erasing 256K SRAM

256K Erase OK

AUTO PROGRAM
EXIT

EEPROM/SRAM Erase Successful

PHILIPS

8



Please wait -
we are
looking
for a free
channel!



PHILIPS 2346

MUTE

VALLEY GIRLS Vol. 1

All records required to be created and maintained pursuant to 18 U.S.C. §2257 and 28 C.F.R. 75, with respect to this videotape, including all graphical

CHANNEL INSTALLATION

CHANNEL TV100

CHANNEL RING DELETED

LABEL (NONE)

VIDEO BLANK OFF

AUDIO BLANK OFF

Data of Production: 01-04

AUTO PROGRAM ▶

EXIT ▶

Madness Pictures ©

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PHILIPS

TV INSTALLATION

INPUT SYSTEM MANUAL SEARCH

Web Images Business Finder

Search the Web: Search

FRONT END UK

PROGRAM NO. STORE FINE TUNE PROTECTION LABEL

- Today! [Program No.](#) [Store](#) [Fine Tune](#) [Protection](#) [Label](#)
 - Shop [Travel](#), [Shopping](#), [Cars](#), [Jobs](#), [Property](#), [Mobile](#)
 - Organise [Yahoo!](#), [Toolbar](#), [Photos](#), [Calendar](#), [Briefcase](#)
 - Connect [Web Pages](#), [Broadband](#), [Groups](#), [Chat](#), [GeoCities](#)
 - Fun [Personals](#), [Games](#), [Movies](#), [Music](#), [TV](#), [Horoscopes](#)
 - Info [Finance](#), [Leads](#), [Sport](#), [Weather](#), [Personal Finance](#)
 - [Business Finder](#), [Small Business](#), [More Yahoo!](#)
- Make Yahoo! UK & Ireland your homepage - Get Yahoo! Toolbar

PAYTV 95

Assistant Discover the M...
ake the M...

In the News

- US embassy storm
- North rivals year disarmament
- Blair backs Annan criticism
- "Mr Bear" attacks

OVERRIDE YOUR FRIENDS

PHILIPS

2247

TV INSTALLATION

INPUT SYSTEM Web Images Business Finance
FRONT END UK

Search the Web Search

MANUAL SEARCH 335 MHz

Today! **PROGRAM NO.** **PAYTV 95** Assistant
Shop **STORE** **OFF** (discover the...)
Organise **FINE TUNE** **OFF** (make the...)
Connect **PROTECTION** **OFF**
Fun **LABEL** **OFF**
Info **LABEL** **OFF**

...keepers & **EXCLUSIVE CONTENT**
...ing, Cars, Jobs, Property, Mobile
... Toolbar, Photos, Calendar, Briefcase
... Broadband, Groups, Chat, GeoCities
... Games, Movies, Music, TV, Horoscopes
... Weather, Personal Finance
... Business Finder, Small Business **More Yahoo!**

Make Yahoo! UK & Ireland your homepage - Get Yahoo! Toolbar

CHALLENGE YOUR EDIT 4 min 1,60 DM

PHILIPS

8TV

22:48

Welcome to ... mail,

Help Lo...

olders | **Inbox** | Sent | Trash | Drafts | Addresses | Options

@ net Inbox

CHANNEL INSTALLATION

Select Entry	Channel	Subject	Receive	Size
<input type="checkbox"/>	CHANNEL	TV100		0
<input type="checkbox"/>	CHANNEL RING	DELETED	2/12/	5K
<input type="checkbox"/>	LABEL	(USER)	2/12/	8K
<input type="checkbox"/>	VIDEO BLANK	OFF	2/12/	49K
<input type="checkbox"/>	AUDIO BLANK	OFF		
<input type="checkbox"/>	AUTO PROGRAM		2/12/	4K
<input type="checkbox"/>	EXIT	Delivery Notification: Message s:	2/12/	3K
<input type="checkbox"/>		Delivery Notification: Delivery h:		
<input type="checkbox"/>		Proposal	2/12/	2K
<input type="checkbox"/>		Proposal	2/12/	3K

PHILIPS

Welcome mail
Compose Message Messenger Express

I believe this makes sense in order to meet the EDT's requirements, as stated. However, it will be critical to determine very early on whether or not
consulted part of the assessment the communication effectiveness. This is because a lot of
engage

CHANNEL INSTALLATION

CHANNEL TV100

CHANNEL RING SAVED

LABEL (LUSER)

VIDEO BLANK OFF

AUDIO BLANK OFF

Check message is sent Dictionary English

Priority Normal Request receipt None

Close Window

Proposal 2/12/34

PHILIPS

Folio Information

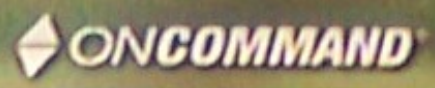
ONCOMMAND

Faj ████████ Bal. £983,00

04/25	*Room Charge	£87,00
04/25	*-Room Charg	£15,23
04/26	*Room Charge	£87,00
04/26	*-Room Charg	£15,23
04/26	-Room Servic	£13,95
04/26	-Room Servic	£3,50
04/27	*Room Charge	£87,00
04/27	*-Room Charg	£15,23

10 --MORE--

HOME Return to Previous Menu



Enter 4 digit wakeup time (Example: 0630)
First two digits = hour (00-23)
Second two digits = minute (00-59)

Wake Up Time

0530

Is this time correct?

- 10 Yes
- menu No


Hotel

 ONCOMMAND

Guest Checkout Successful.

Thank You and Come Again

HILTON

Press the  Button On Your

PHILIPS

8.00

RF

Hotel TV – New Capabilities

- Room enumeration
 - %age occupancy
 - Who's where
 - With who
 - Who's eating, drinking & viewing what
 - Where they've called
 - For how long

Hollywood Movies

Adult Features

Intern

Music

PC Games

Guest Services

TV SETUP MENU

LANGUAGE ENGLISH

CHANNEL INSTALL 

CABLE TUNING ON

BRIGHTNESS  28

COLOR  22

CONTRAST  57

SHARPNESS  15

TINT  0

NOISE REDUCTION LAS VEGAS ON

Press **MENU** To Continue

AUTO-PROGRAMMING ACTIVE

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	32	33	34	35
36	37	38	39	40		42
43	44	45	46	47	48	49
50	51	52	53	54	55	56
57	58	59	60	61	62	63
64	65	66	67	68	69	70
71	72	73	74	75	76	77
78	79	80	81	82	83	84

PRESS ANY KEY TO STOP

MUTE

CHANNEL INSTALLATION

- CHANNEL TV100
- CHANNEL RING DELETED
- LABEL (PRON)
- VIDEO BLANK OFF
- AUDIO BLANK OFF
- AUTO PROGRAM ▶
- EXIT ▶

PHILIPS

Welcome To



BARKER CHAN
Hilton

PRESS MENU
FOR ALL VIDEO & GUEST SERVICES
CHANNEL [] FOR TELEVISION STATIONS



Welcome To



BARKER CHAN
Hilton

PRESS MENU
FOR ALL VIDEO & GUEST SERVICES
CHANNEL  FOR TELEVISION STATIONS



TV 1

MONO

PRON WANTS TO
BE FREE

TV 043

PHILIPS

InfraRED - MMIRDA

Full slides from IR presentation here:

<http://www.alcrypto.co.uk/MMIRDA/>

RFID – Moo am I?



- Animal ID
- Hotel Door Entry
- Passport
- Car immobiliser
- Ski Pass
- Goods

Human Implants

DOCTOR FUN

16 Jan 2006



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<http://ibiblio.org/Dave/drfun.html>

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Human Implants



- Military
 - Access Control
- Mental Patients
 - Tracking
- Beach Bars
 - Digital Wallets

Unique ID?



- DIY Cloning Units
 - <http://cq.cx/vchdiy.pl>

Spot the original?



- Industry Defence:

“Clones do not have the same form factor and are therefore not true clones”

Unique ID?



- Readers cannot 'see'
so form factor
irrelevant

and...

Unique ID?



=



- Readers cannot 'see'
so form factor
irrelevant

identical blanks ARE
available...

Demonstration

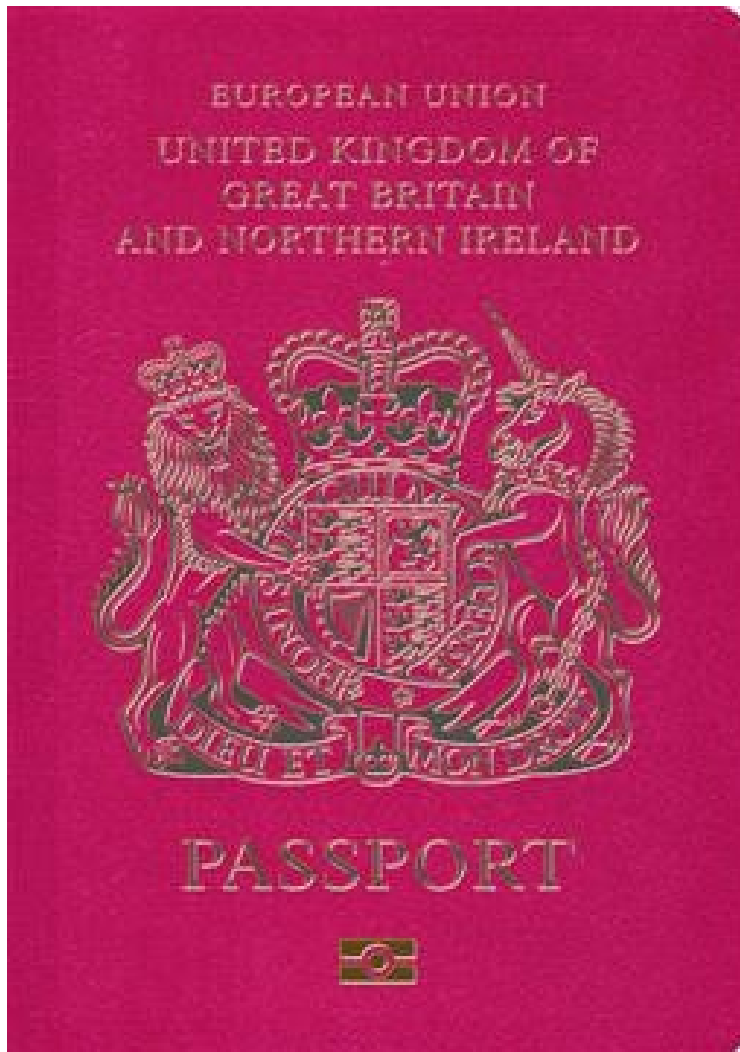
- Clone ISO 11784 'Animal' TAG
 - Cow implant
 - VeriChip paperweight

- Clone Trovan 'Unique' TAG
 - Door entry system

RFID implanted chip threats

- Track individuals
- Target individuals
- Impersonate individuals
 - Gain access to restricted areas
 - Provide alibi for accomplice!
- 'Smart' Bombs
 - Device only goes off if target of sufficient rank is in range.

Encryption is your friend



- RFID Enabled 'Biometric' passports
- 48 Items of Data
 - Fingerprint
 - Facial Image
 - Birth Certificate
 - Home Address
 - Phone Numbers
 - Profession

Keys to your kingdom



- Pseudo random UID
 - Cannot determine presence of specific passport without logging in
- Strong Authentication
 - Basic Access Control
 - 3DES
- Content Encryption
 - Extended Access Control

ePassport Modification

- “Not Possible” due to cryptographic signatures
 - Certificate Authority (CA) not verifiable
 - Signatures provided by document
 - CA Key provided by same document
 - Public Key Directory (PKD) not available
- Self-Signed Forgery may not be detected!

ePassport Certificates

New Zealand genuine:

Certificate:

Data:

Version: 3 (0x2)

Serial Number: 1122333666 (0x42e573e2)

Signature Algorithm: sha256WithRSAEncryption

Issuer: C=NZ, O=Government of New Zealand, OU=Passports, OU=Identity Services Passport CA
Validity

Not Before: Jan 23 21:46:58 2007 GMT

Not After : May 18 12:00:00 2012 GMT

Subject: C=NZ, O=Government of New Zealand, OU=Passports, OU=MRTD, CN=Document Signer
200701241034

Subject Public Key Info:

Public Key Algorithm: rsaEncryption

RSA Public Key: (2048 bit)

Modulus (2048 bit):

00:a8:bf:fb:c0:ae:f4:c7:fe:ec:19:71:b6:25:e9:

...

ePassport Certificates

New Zealand forgery:

Certificate:

Data:

Version: 3 (0x2)

Serial Number: 1122333666 (0x42e573e2)

Signature Algorithm: sha256WithRSAEncryption

Issuer: C=NZ, O=Government of New Zealand, OU=Passports, OU=Identity Services Passport CA
Validity

Not Before: Jan 23 21:46:58 2007 GMT

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Subject: C=NZ, O=Government of New Zealand, OU=Passports, OU=MRTD, CN=Document Signer
200701241034

Subject Public Key Info:

Public Key Algorithm: rsaEncryption

RSA Public Key: (2048 bit)

Modulus (2048 bit):

00:dc:19:33:f3:11:86:a4:82:b9:c7:21:45:ca:81:

...

Other ePassport threats

- Key data may be obtained through other channels
- Passport profiling
 - Determine country of origin without logging in
 - Implementation errors:
 - Australian passport does not start with '08' on select
 - Australian passport does not require Basic Auth on 'File Select', only on 'File Read'.
- Target specific passport holders
 - Bomb that works for Australians only...

RFIDIOT

- Open Source Python library
- Hardware independent
 - ACG
 - Frosch
 - PC/SC
 - OpenPCD coming soon

<http://rfidiot.org>

ACG reaction to RFIDIOt

“Unfortunately your companies activities seem to be counter to ACG's interests so we will not be able to support you any further.”

Email - 3rd January, 2007

ATM

Triton YOUR MONEY. OUR PASSION.

Please select desired transaction to begin:

- PREPAID PHONE**
- CASH CHECKS**
- WESTERN UNION AT ATM**
- ATM**
- CASH CHECK**
- MONEY TRANSFER**
- GET CASH NOW**

1 2 3 CANCEL
4 5 6 CLEAR
7 8 9 ENTER
0



Triton

This top-up card enables you to add credit directly to your T-Mobile pay as you go or U-Fix account in a wide range of outlets. This card can only be used with the T-Mobile (UK) pay as you go and U-Fix service and is subject to these terms and conditions. Use of this card constitutes acceptance of those conditions. This is not a debit, credit or identity card, or a voucher of any kind. For more information, or if you experience difficulty whilst using this card, please dial 150, direct from your mobile phone.

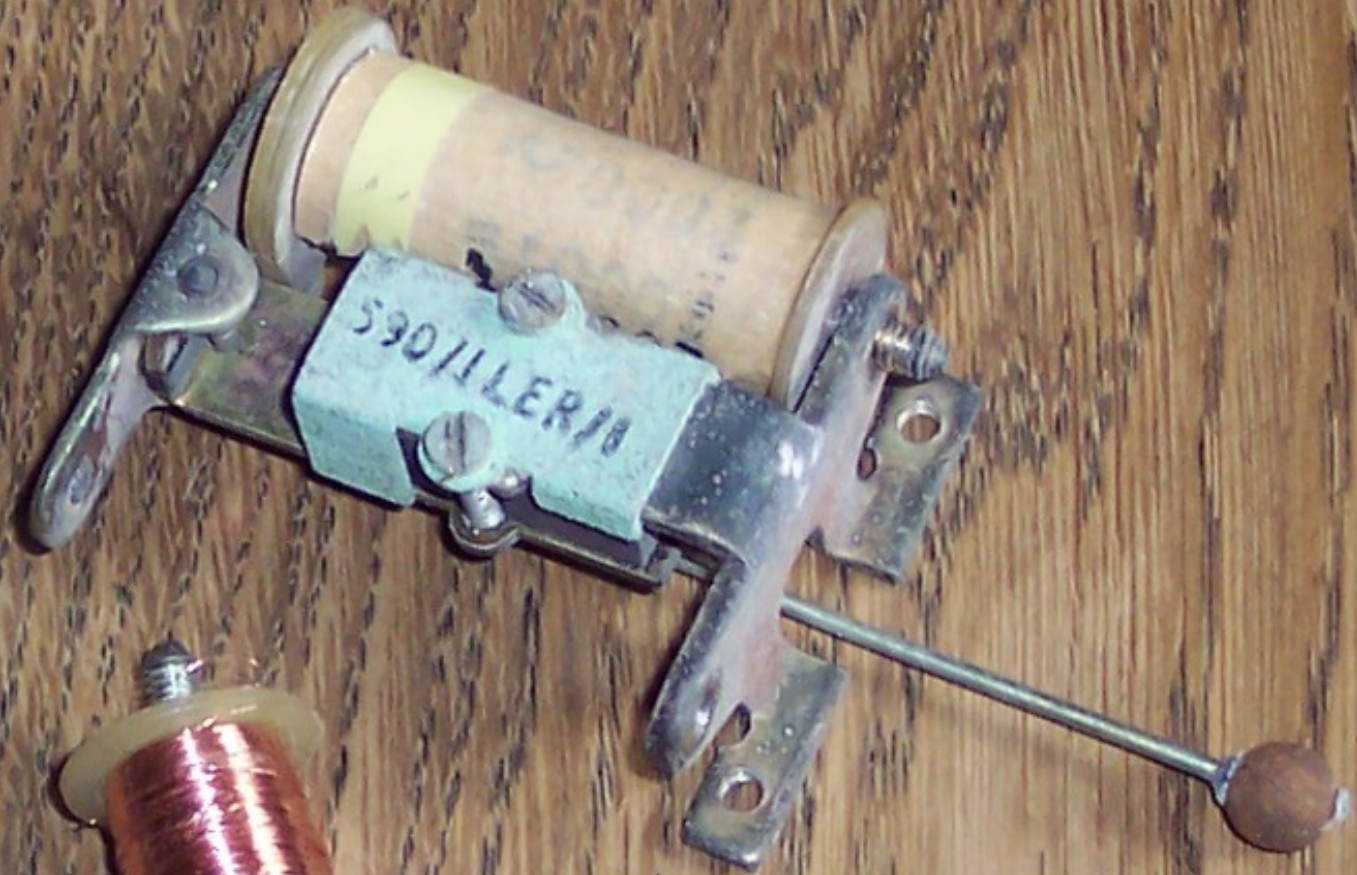
This card belongs to:

T · · Mobile ·

This top card enables you to add credit directly to your T-Mobile pay as you go or U-Fix account in a wide range of outlets. This card can only be used with the T-Mobile (UK) pay as you go and U-Fix service and is subject to these terms and conditions. Use of this card constitutes acceptance of those conditions. This is not a debit, credit or identity card, or a voucher of any kind. For more information, or if you experience difficulty whilst using this card, please dial 150, direct from your mobile phone.

This card belongs to:

T-Mobile





This top card enables you to add credit directly to your T-Mobile pay as you go or U-Fix account in a wide range of outlets. This card can only be used with the T-Mobile (UK) pay as you go and U-Fix service and is subject to these terms and conditions. Use of this card constitutes acceptance of those conditions. This is not a debit, credit or identity card, or a voucher of any kind. For more information, or if you experience difficulty whilst using this card, please dial 150, direct from your mobile phone.

This card belongs to:

T-Mobile

ATM 'default password' attack

- Non-bank based cash machines
 - Grocers, Newsagents, Petrol Stations etc.
- 'In-Band' management
 - Management interface is front panel
 - *AND NOTHING ELSE!*
- Simple activation, simple passwords
 - Two-key combination to access menu
 - Master '123456'
 - Admin '987654'

The Top Menu allows you to choose one of two options, CUSTOMER TRANSACTIONS or MANAGEMENT FUNCTIONS. Selecting CUSTOMER TRANSACTIONS changes the display to the Customer Welcome screen so the terminal is ready to perform customer transactions. Selecting MANAGEMENT FUNCTIONS opens the password screen, which in turn provides access to menus that are used for changing or viewing terminal parameters.

Whenever the MANAGEMENT FUNCTIONS choice is selected, the terminal will ask for a password to be entered. For a first-time configuration, enter the default MASTER PASSWORD of '123456' on the keypad and then press the <ENTER> key. This 'default' password will be valid until it is changed.

****NOTE****

The operator of the terminal must change the MASTER PASSWORD to a new password when the installation is complete.

The Top Menu serves an alternative purpose in the event of a machine malfunction or other error condition. Such conditions are normally reported by an "OUT OF SERVICE" message screen. The typical response to this message is to reset the terminal. After resetting the terminal the Top Menu screen will display any appli-

ATM Management

- No command to 'empty' cash trays
 - 'Purge' goes to internal tray
- No command to dispense cash
 - Test dispense goes to internal tray
- So what good is getting into the menu?

OPERATION MANUAL - MODEL 97XX-Series

SECTION 5 - MANAGEMENT FUNCTIONS

9700-SERIES 9705-SERIES 9710-SERIES 9750-SERIES

VALUE

FACTORY DEFAULT: '\$0.00'

ACCESS INSTRUCTIONS:

1. Select **TERMINAL CONFIGURATION** from the **MANAGEMENT FUNCTIONS** menu.
2. Select **SET TERMINAL PARAMETERS**.
3. Select **CASSETTE SETUP**.
4. Choose the **CASSETTE PARAMETERS** option.
5. Choose a cassette (A, B, C, or D).
6. Select the **VALUE** option.

DESCRIPTION:

The **VALUE** function allows the operator to set the value of a cash or non-cash item in a particular cassette. For cash, **VALUE** must be the denomination of the currency currently inside that particular



The Attack

- Enter management mode
- Change value of high denomination notes
 - £20 becomes £5
- Withdraw '£100'
- Receive £400
- Change it back!
 - Or get caught... :)

The Response

- Manufacturers removed manuals from websites
 - Were still there 72 hours after international news items
 - Are still on 3rd party sites today
- Too little, too late!

Defence

- Internal button or other secondary system

Defence

- Internal button or other secondary system



- Mainboards, Boards
- ATM Fuses and Batteries
- ATM Keypads, Touchplates and Overlays
- ATM Keys and Locks
- ATM Modems
- ATM Paper
- ATM Parts by Greenlink
- ATM Power Supplies
- ATM Printers and Cutters
- ATM Signs
- ATM Topper Lights, Bulbs and Ballasts
- Bell Sourced ATM Parts
- LCD Screens for ATM's
- New ATM Machines
- Parts for Diebold ATM's
- Parts for Tidel ATM's
- Parts for Tranax ATM's
- Parts for Triton ATM's
- Specials
- Used ATM Machine
- Used ATM Parts



We Accept

Bell Accounts

Mailing List

Join for News & Specials
Information is kept confidential

Enter Email Here!

BELL ATM

REPAIRS

- Fast
- Thorough
- Reliable

GUARANTEED

Email this to a friend

Key-Cabinet key for Triton 9600 ATM machine M-KEY-96CAB

Your Price

Qty

\$5.00

Browse Parts for ATMs
Manufactured By:

*atm-keys.png-2.0 (RGB, 1 layer) 1280x800

File Edit Select View Image Layer Tools Dialogues Filters Python-Fu Script-Fu



- ds, Boards
- s and
- oads,
- es and
- and Locks
- ems
- er
- s by
- er Supplies
- ters and
- is
- per Lights,
- Ballasts
- ed ATM
- ens for
- Machines
- Diebold
- Tidel ATM's
- Tranax
- Triton
- I Machine
- I Parts



We Accept

Bell Accounts

Mailing List

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The GIMP

File Xtns Help

Select By Colour

Mode:

Antialiasing

Feather edges

Finding Similar Colours

Select transparent areas

Sample merged

Threshold:

- Mainboards, Boards
- ATM Fuses and Batteries
- ATM Keypads, Touchplates and Overlays
- ATM Keys and Locks
- ATM Modems
- ATM Paper
- ATM Parts by Greenlink
- ATM Power Supplies
- ATM Printers and Cutters
- ATM Signs
- ATM Topper Lights, Bulbs and Ballasts
- Bell Sourced ATM Parts
- LCD Screens for ATM's
- New ATM Machines
- Parts for Diebold ATM's
- Parts for Tidel ATM's
- Parts for Tranax ATM's
- Parts for Triton ATM's
- Specials
- Used ATM Machine
- Used ATM Parts



We Accept

Bell Accounts

Mailing List

Join for News & Specials
Information is kept confidential

Enter Email Here!

BELL ATM

REPAIRS

- Fast
- Thorough
- Reliable

GUARANTEED

Email this to a friend

Key-Cabinet key for Triton 9600 ATM machine M-KEY-96CAB

Your Price Qty

\$5.00

Browse Parts for ATMs
Manufactured By:

- ATM Keypads, Touchplates and Overlays
- ATM Keys and Locks
- ATM Modems
- ATM Paper
- ATM Parts by Greenlink
- ATM Power Supplies
- ATM Printers and Cutters
- ATM Signs
- ATM Topper Lights, Bulbs and Ballasts
- Bell Sourced ATM Parts
- LCD Screens for ATM's
- New ATM Machines
- Parts for Diebold ATM's
- Parts for Tidel ATM's
- Parts for Tranax ATM's
- Parts for Triton ATM's
- Specials
- Used ATM Machine
- Used ATM Parts



Bell Accounts

Mailing List

Join for News & Specials
Information is kept confidential

Enter Email Here!

BELL ATM

REPAIRS

- ▶ Fast
- ▶ Thorough
- ▶ Reliable

GUARANTEED

Email this to a friend

Key- Cabinet key for Diebold CSP ATM machines

M-KEY-CSPCAB

Your Price

\$5.00

Qty

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Key-Cabinet key for Tidel ATM machines M-KEY-TIDCAB

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- ATM Circuit Boards,
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BELL ATM

REPAIRS

- Fast
- Thorough
- Reliable

GUARANTEED

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Key-Cassette key for De La Rue Cassettes M-KEY-DLRCASS

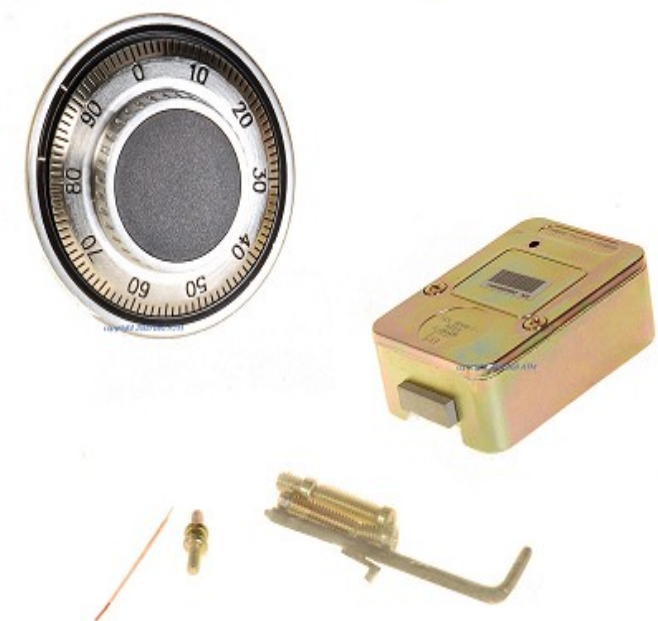
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Qty

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- Batteries
- ATM Keypads, Touchplates and Overlays
- ATM Keys and Locks
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Lock Kit- spin dial for various model ATM machines (Complete) B3330

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\$59.00	<input type="text" value="1"/>	

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Lock-electronic combination for all Triton ATM machines as well as some Tidel and Tranax models. B33E

Includes keypad, locking mechanism, battery holder, 9 V battery and hardware, as well as 2 conversion screws for upgrading from spindial lock.

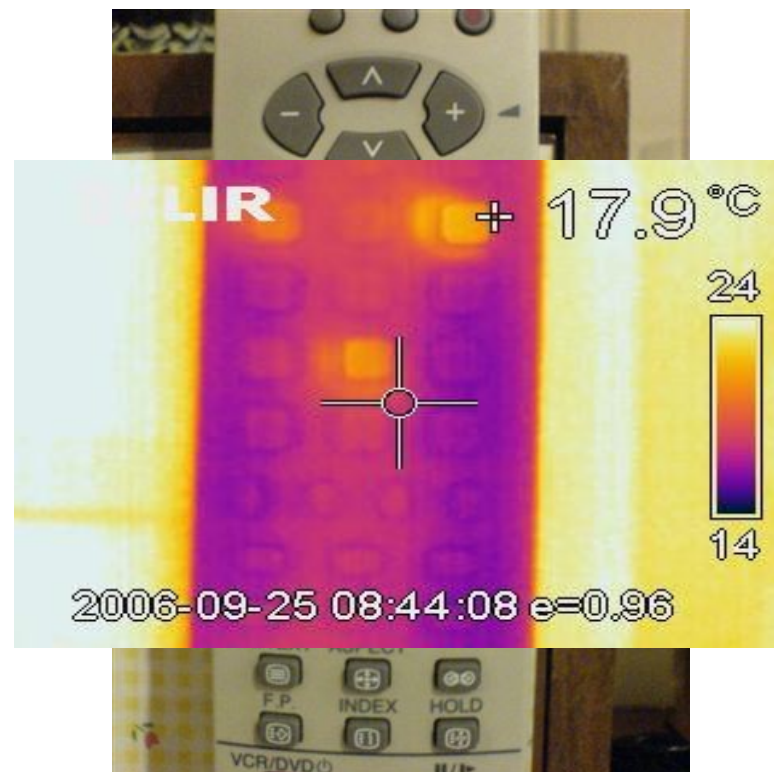
Your Price

\$145.00

Qty

Keypads and PINs







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Questions?

<http://rfidiot.org>

adam@algroup.co.uk