



**User Acceptance Test (UAT) Flash  
EMV™ Test Card Set**

**Version 3.20**

**November 2019**

**Powered by B2»**

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## Revision History

Version	Date	Updated By	Revisions
1.00	July 13 , 2017	B2PS	<ul style="list-style-type: none"><li>• Initial document release</li></ul>
2.00	July 19, 2017	B2PS	<ul style="list-style-type: none"><li>• TC01, TC02 updated: v2.0 are contactless-enabled without need for prior contact host-approval transaction.</li><li>• Several typos corrected</li></ul>
2.10	Sept.27, 2017	B2PS	<ul style="list-style-type: none"><li>• Added cautionary note re BIN 196730</li></ul>
3.00	Sept.29, 2017	B2PS	<ul style="list-style-type: none"><li>• TC01, TC02 updated: v3.0 have a limitless Card Total Contactless Spend.</li></ul>
3.10	June 8, 2018	B2PS	<ul style="list-style-type: none"><li>• TC01, TC02: Contactless tags 9F52, 9F54, 9F55, 9F56, 9F57 now documented.</li></ul>
3.11	June 10, 2019	B2PS	<ul style="list-style-type: none"><li>• Set renamed to "Flash EMV Test Card Set". No change to cards themselves.</li></ul>
3.20	November 1, 2019	B2PS	<ul style="list-style-type: none"><li>• Clarification to Version 3.00 comment: 'Card Total Contactless Spend' was modified but transaction values can still remain limited due to other constraints.</li></ul>

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## Table of Contents

<b>Chapter 1 - User Acceptance Test Flash Test Card Set Profiles .....</b>	<b>2</b>
<b>1.1 Test Card 01 - Interac, DI, 1-AID(Interac), English/French, CAN, CAD.....</b>	<b>3</b>
1.1.1 Contact Interface: CVM List - Interac, AID A0000002771010.....	3
1.1.2 Contact Interface: Application Tag data, AID A0000002771010 .....	3
1.1.3 Contactless Interface: CVM List - Interac Flash, AID A0000002771010 .....	4
1.1.4 Contactless Interface: Application Tag data, AID A0000002771010 .....	4
<b>1.2 Test Card 02 - Interac, DI, 1-AID(Interac), French/English, CAN, CAD.....</b>	<b>5</b>
1.2.1 Contact Interface: CVM List - Interac, AID A0000002771010.....	5
1.2.2 Contact Interface: Application Tag data, AID A0000002771010 .....	5
1.2.3 Contactless Interface: CVM List - Interac Flash, AID A0000002771010 .....	6
1.2.4 Contactless Interface: Application Tag data, AID A0000002771010 .....	6
<b>Chapter 2 - ASCII Character Conversion Chart.....</b>	<b>8</b>

**CAUTION**

Multiple consecutive incorrect PIN entry attempts may result in the card being blocked.

This is known as being 'PIN Blocked'.

If this occurs, it will no longer be possible to enter an Offline PIN,  
which will cause all future transactions to be declined.

**\*\*\* It is not possible to unblock a 'PIN Blocked' card \*\*\***

**NOTICE**

Interac Flash cards have a '1xxxx' BIN range. These cards are supported by all Canadian processors but are not yet supported by all U.S. and international processors.

**\*\*\* Check with your acquirer account representative to determine if the Interac Flash BIN range is supported by their development host. If your processor does not yet support Interac Flash, the card will function properly at the POS but it will not obtain a host approval. \*\*\***

## Chapter 1 - User Acceptance Test Flash Test Card Set Profiles

This User Acceptance Test (UAT) Flash Test Card Set contains 2 Interac cards.



	Test Card 01	Test Card 02
<b>Brand</b>	Interac	Interac
<b>Description (Card - Types)</b>	Canadian Debit	Canadian Debit
<b>AID list</b>	A0000002771010	A0000002771010
<b>PAN list</b>	1967 3028 3901 8644	1967 3028 3901 8644
<b>Expiry Date</b>	12/2022	12/2022
<b>Service Code</b>	220	220
<b>Interface</b>	Contactless, Contact, MSR	Contactless, Contact, MSR
<b>CVM</b>	<a href="#">See card definition</a>	<a href="#">See card definition</a>
<b>Approval Amount</b>	\$10.00	\$10.00
<b>Issuer Country Code</b>	124 - CAN	124 - CAN
<b>Application Currency Code</b>	124 -CAD	124 - CAD
<b>Language</b>	'enfr' - English, French	'fren' - French, English
<b>Card Version</b>	v3.0	v3.0

### 1.1 Test Card 01 - Interac, DI, 1-AID(Interac), English/French, CAN, CAD

A Dual Interface (Contact+Contactless), 1-AID(Interac) Interac (Canadian) debit card with an Issuer Country Code of 'Canada' and Currency Code of 'CAD'. Languages supported are English and French.

The recommended transaction amount to generate a host approval is \$10.00.

#### 1.1.1 Contact Interface: CVM List - Interac, AID A0000002771010

Cardholder Verification Method List ('0103 0203')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Terminal supports CVM type	Fail
2	Online PIN	Terminal supports CVM type	Fail

#### 1.1.2 Contact Interface: Application Tag data, AID A0000002771010

\* Tag value changes with card usage

Tag	Element name	Data	v3.x
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'	
57	Track 2 Equivalent Data	19 67 30 28 39 01 86 44 D2 21 22 20 08 97 74 00 00 00 1F	
5A	Application Primary Account Number (PAN)	19 67 30 28 39 01 86 44	
5F 20	Cardholder Name	55 41 54 20 49 4E 54 46 4C 2F 54 65 73 74 20 43 61 72 64 20 30 31 20 20 20 20 - 'UAT INTFL/Test Card 01'	
5F 24	Application Expiration Date	22 12 31	
5F 25	Application Effective Date	17 09 01	
5F 28	Issuer Country Code	01 24 - CAN	
5F 2D	Language Preference	65 6E 66 72 - 'enfr' (English, French)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
5F 56	Issuer Country Code (alpha3 format)	43 41 4E - 'CAN'	
82	Application Interchange Profile	18 00	
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10	
87	Application Priority Indicator	01	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 45 02 9F 4C 08 9F 34 03	
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 01 03 02 03	
94	Application File Locator (AFL)	08 01 02 00 10 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 02	
9F 0D	Issuer Action Code - Default	FC E8 FC 98 00	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00	
9F 0F	Issuer Action Code - Online	FC E8 FC 98 00	
9F 10	Issuer Application Data [InteracFlash]	xx *	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	09	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	

Tag	Element name	Data	v3.x
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 02 06 9F 1A 02 5F 2A 02 9F 37 04	
9F 42	Application Currency Code	01 24 - CAD	
9F 44	Application Currency Exponent	02	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 8A 02	
9F 62	Card Product Code [InteracFlash]	00 01	
9F 70	Form Factor Indicator [InteracFlash]	00	
DF 62	Application Selection Flag [Canada]	80 80	

1.1.3 Contactless Interface: CVM List - Interac Flash, AID A000002771010

Cardholder Verification Method List ('0203 1F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Terminal supports CVM type	Fail
2	No CVM required	Terminal supports CVM type	Fail

1.1.4 Contactless Interface: Application Tag data, AID A000002771010

\* Tag value changes with card usage

Tag	Element name	Data	v3.x
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'	
57	Track 2 Equivalent Data	19 67 30 28 39 01 86 44 D2 21 22 20 08 97 74 00 00 00 1F	
5A	Application Primary Account Number (PAN)	19 67 30 28 39 01 86 44	
5F 20	Cardholder Name	55 41 54 20 49 4E 54 46 4C 2F 54 65 73 74 20 43 61 72 64 20 30 31 20 20 20 20 - 'UAT INTFL/Test Card 01'	
5F 24	Application Expiration Date	22 12 31	
5F 25	Application Effective Date	17 07 01	
5F 28	Issuer Country Code	01 24 - CAN	
5F 2D	Language Preference	65 6E 66 72 - 'enfr' (English, French)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile	18 00	
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10	
87	Application Priority Indicator	01	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 45 02 9F 4C 08 9F 34 03	
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 03 1F 03	
94	Application File Locator (AFL)	08 01 03 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 02	
9F 0D	Issuer Action Code - Default	FC E8 FC 98 00	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00	
9F 0F	Issuer Action Code - Online	FC E8 FC 98 00	
9F 10	Issuer Application Data [InteracFlash]	xx *	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	

Tag	Element name	Data	v3.x
9F 17	Personal Identification Number (PIN) Try Counter	09	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 59 03 9F 5A 01 9F 02 06 9F 1A 02 5F 2A 02 9F 37 04 9F 58 01	
9F 42	Application Currency Code	01 24 - CAD	
9F 44	Application Currency Exponent	02	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 8A 02	
9F 52	Merchant Type Indicator Limits 01	00 00 00 00 50 01 99 99 99 99 99 99	
9F 54	Merchant Type Indicator Limits 02	00 00 00 00 50 01 99 99 99 99 99 99	
9F 55	Merchant Type Indicator Limits 03	00 00 00 00 50 01 99 99 99 99 99 99	
9F 56	Merchant Type Indicator Limits 04	00 00 00 00 50 01 99 99 99 99 99 99	
9F57	Merchant Type Indicator Limits 05	00 00 00 00 50 01 99 99 99 99 99 99	
9F 62	Card Product Code [InteracFlash]	00 01	
9F 63	Card Transaction Information [InteracFlash]	00 10 00 00	
9F 70	Form Factor Indicator [InteracFlash]	00	

## 1.2 Test Card 02 - Interac, DI, 1-AID(Interac), French/English, CAN, CAD

A Dual Interface (Contact+Contactless), 1-AID(Interac) Interac (Canadian) debit card with an Issuer Country Code of 'Canada' and Currency Code of 'CAD'. Languages supported are French and English.

The recommended transaction amount to generate a host approval is \$10.00.

### 1.2.1 Contact Interface: CVM List - Interac, AID A000002771010

Cardholder Verification Method List ('0103 0203')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Terminal supports CVM type	Fail
2	Online PIN	Terminal supports CVM type	Fail

### 1.2.2 Contact Interface: Application Tag data, AID A000002771010

\* Tag value changes with card usage

Tag	Element name	Data	v3.x
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'	
57	Track 2 Equivalent Data	19 67 30 28 39 01 86 44 D2 21 22 20 08 97 74 00 00 00 1F	
5A	Application Primary Account Number (PAN)	19 67 30 28 39 01 86 44	
5F 20	Cardholder Name	55 41 54 20 49 4E 54 46 4C 2F 54 65 73 74 20 43 61 72 64 20 30 32 20 20 20 20 - 'UAT INTFL/Test Card 02'	
5F 24	Application Expiration Date	22 12 31	
5F 25	Application Effective Date	17 09 01	



Tag	Element name	Data	v3.x
5F 28	Issuer Country Code	01 24 - CAN	
5F 2D	Language Preference	66 72 65 6E - 'fren' (French, English)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
5F 56	Issuer Country Code (alpha3 format)	43 41 4E - 'CAN'	
82	Application Interchange Profile	18 00	
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10	
87	Application Priority Indicator	01	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 45 02 9F 4C 08 9F 34 03	
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 01 03 02 03	
94	Application File Locator (AFL)	08 01 02 00 10 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 02	
9F 0D	Issuer Action Code - Default	FC E8 FC 98 00	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00	
9F 0F	Issuer Action Code - Online	FC E8 FC 98 00	
9F 10	Issuer Application Data [InteracFlash]	xx *	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	09	
9F 26	Application Cryptogram (AC)	x xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 02 06 9F 1A 02 5F 2A 02 9F 37 04	
9F 42	Application Currency Code	01 24 - CAD	
9F 44	Application Currency Exponent	02	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 8A 02	
9F 62	Card Product Code [InteracFlash]	00 01	
9F 70	Form Factor Indicator [InteracFlash]	00	
DF 62	Application Selection Flag [Canada]	80 80	

**1.2.3 Contactless Interface: CVM List - Interac Flash, AID A000002771010**

Cardholder Verification Method List ('0203 1F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Terminal supports CVM type	Fail
2	No CVM required	Terminal supports CVM type	Fail

**1.2.4 Contactless Interface: Application Tag data, AID A000002771010**

\* Tag value changes with card usage

Tag	Element name	Data	v3.x
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'	
57	Track 2 Equivalent Data	19 67 30 28 39 01 86 44 D2 21 22 20 08 97 74 00 00 00 1F	
5A	Application Primary Account Number (PAN)	19 67 30 28 39 01 86 44	

Tag	Element name	Data	v3.x
5F 20	Cardholder Name	55 41 54 20 49 4E 54 46 4C 2F 54 65 73 74 20 43 61 72 64 20 30 32 20 20 20 20 - 'UAT INTFL/Test Card 02'	
5F 24	Application Expiration Date	22 12 31	
5F 25	Application Effective Date	17 09 01	
5F 28	Issuer Country Code	01 24 - CAN	
5F 2D	Language Preference	66 72 65 6E - 'fren' (French, English)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile	18 00	
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10	
87	Application Priority Indicator	01	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 45 02 9F 4C 08 9F 34 03	
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 03 1F 03	
94	Application File Locator (AFL)	08 01 03 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 02	
9F 0D	Issuer Action Code - Default	FC E8 FC 98 00	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00	
9F 0F	Issuer Action Code - Online	FC E8 FC 98 00	
9F 10	Issuer Application Data [InteracFlash]	xx *	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	09	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 59 03 9F 5A 01 9F 02 06 9F 1A 02 5F 2A 02 9F 37 04 9F 58 01	
9F 42	Application Currency Code	01 24 - CAD	
9F 44	Application Currency Exponent	02	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 8A 02	
9F 52	Merchant Type Indicator Limits 01	00 00 00 00 50 01 99 99 99 99 99 99	
9F 54	Merchant Type Indicator Limits 02	00 00 00 00 50 01 99 99 99 99 99 99	
9F 55	Merchant Type Indicator Limits 03	00 00 00 00 50 01 99 99 99 99 99 99	
9F 56	Merchant Type Indicator Limits 04	00 00 00 00 50 01 99 99 99 99 99 99	
9F57	Merchant Type Indicator Limits 05	00 00 00 00 50 01 99 99 99 99 99 99	
9F 62	Card Product Code [InteracFlash]	00 01	
9F 63	Card Transaction Information [InteracFlash]	00 10 00 00	
9F 70	Form Factor Indicator [InteracFlash]	00	

## Chapter 2 - ASCII Character Conversion Chart

Dec	Bin	Hex	Char	Dec	Bin	Hex	Char	Dec	Bin	Hex	Char
00	00000000	00	<b>NUL</b>	44	00101100	2C	,	88	01011000	58	<b>X</b>
01	00000001	01	<b>SOH</b>	45	00101101	2D	-	89	01011001	59	<b>Y</b>
02	00000010	02	<b>STX</b>	46	00101110	2E	.	90	01011010	5A	<b>Z</b>
03	00000011	03	<b>ETX</b>	47	00101111	2F	/	91	01011011	5B	[
04	00000100	04	<b>EOT</b>	48	00110000	30	<b>0</b>	92	01011100	5C	\
05	00000101	05	<b>ENQ</b>	49	00110001	31	<b>1</b>	93	01011101	5D	]
06	00000110	06	<b>ACK</b>	50	00110010	32	<b>2</b>	94	01011110	5E	^
07	00000111	07	<b>BEL</b>	51	00110011	33	<b>3</b>	95	01011111	5F	_
08	00001000	08	<b>BS</b>	52	00110100	34	<b>4</b>	96	01100000	60	`
09	00001001	09	<b>HT</b>	53	00110101	35	<b>5</b>	97	01100001	61	<b>a</b>
10	00001010	0A	<b>LF</b>	54	00110110	36	<b>6</b>	98	01100010	62	<b>b</b>
11	00001011	0B	<b>VT</b>	55	00110111	37	<b>7</b>	99	01100011	63	<b>c</b>
12	00001100	0C	<b>FF</b>	56	00111000	38	<b>8</b>	100	01100100	64	<b>d</b>
13	00001101	0D	<b>CR</b>	57	00111001	39	<b>9</b>	101	01100101	65	<b>e</b>
14	00001110	0E	<b>SO</b>	58	00111010	3A	:	102	01100110	66	<b>f</b>
15	00001111	0F	<b>SI</b>	59	00111011	3B	;	103	01100111	67	<b>g</b>
16	00010000	10	<b>DLE</b>	60	00111100	3C	<	104	01101000	68	<b>h</b>
17	00010001	11	<b>DC1</b>	61	00111101	3D	=	105	01101001	69	<b>i</b>
18	00010010	12	<b>DC2</b>	62	00111110	3E	>	106	01101010	6A	<b>j</b>
19	00010011	13	<b>DC3</b>	63	00111111	3F	?	107	01101011	6B	<b>k</b>
20	00010100	14	<b>DC4</b>	64	01000000	40	@	108	01101100	6C	<b>l</b>
21	00010101	15	<b>NAK</b>	65	01000001	41	<b>A</b>	109	01101101	6D	<b>m</b>
22	00010110	16	<b>SYM</b>	66	01000010	42	<b>B</b>	110	01101110	6E	<b>n</b>
23	00010111	17	<b>ETB</b>	67	01000011	43	<b>C</b>	111	01101111	6F	<b>o</b>
24	00011000	18	<b>CAN</b>	68	01000100	44	<b>D</b>	112	01110000	70	<b>p</b>
25	00011001	19	<b>EM</b>	69	01000101	45	<b>E</b>	113	01110001	71	<b>q</b>
26	00011010	1A	<b>SUB</b>	70	01000110	46	<b>F</b>	114	01110010	72	<b>r</b>
27	00011011	1B	<b>ESC</b>	71	01000111	47	<b>G</b>	115	01110011	73	<b>s</b>
28	00011100	1C	<b>FS</b>	72	01001000	48	<b>H</b>	116	01110100	74	<b>t</b>
29	00011101	1D	<b>GS</b>	73	01001001	49	<b>I</b>	117	01110101	75	<b>u</b>
30	00011110	1E	<b>RS</b>	74	01001010	4A	<b>J</b>	118	01110110	76	<b>v</b>
31	00011111	1F	<b>US</b>	75	01001011	4B	<b>K</b>	119	01110111	77	<b>w</b>
32	00100000	20	<b>SP</b>	76	01001100	4C	<b>L</b>	120	01111000	78	<b>x</b>
33	00100001	21	!	77	01001101	4D	<b>M</b>	121	01111001	79	<b>y</b>
34	00100010	22	"	78	01001110	4E	<b>N</b>	122	01111010	7A	<b>z</b>
35	00100011	23	#	79	01001111	4F	<b>O</b>	123	01111011	7B	{
36	00100100	24	\$	80	01010000	50	<b>P</b>	124	01111100	7C	
37	00100101	25	%	81	01010001	51	<b>Q</b>	125	01111101	7D	}
38	00100110	26	&	82	01010010	52	<b>R</b>	126	01111110	7E	~
39	00100111	27	'	83	01010011	53	<b>S</b>	127	01111111	7F	<b>DEL</b>
40	00101000	28	(	84	01010100	54	<b>T</b>				
41	00101001	29	)	85	01010101	55	<b>U</b>				
42	00101010	2A	*	86	01010110	56	<b>V</b>				
43	00101011	2B	+	87	01010111	57	<b>W</b>				