BARCODE SCANNER

User Manual

Customer Service:

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V2.

In order to correctly use the bar code scanner, please read the instruction carefully and do not arbitrarily scan the setting codes, otherwise some settings may not be available temporarily.

Please note that this scanner is a laser bar code scanner, it can not scan barcode **on screen.** All the bar code on the digital manual should be printed to scan!

Please keep this instruction for reference in the future.

If you have any question or concern about the operation of the scanner, please contact us at one of the following email address:

server@nadamoo.cn

nadamoo@126.com

You should write down the model & the specific scenario and consult us , when you find the scanner is abnormal.

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Technical Parameter

Mfr P/N		
Connection technology	2.4 GHz Radio Wireless+Wired	
Max Transmission Range	100m in 2.4 GHz wireless mode	
Memory	100000 barcodes	
Battery capacity	1400mAh	
Charging power	DC 5V 500mA	
Light source	650±20nm VLD	
LED life	12000 hours	
Button life	8000,000 times	
Resolution	3mil	
Scanning width	30cm	
CPU	ARM 32-bit Cortex	
Bit Error rate	1/20million	
Printing Contract	>25%	
Decoding speed	300 times/sec	
Scanning angle	rotor angel±30°，inclination± 45°，declination ± 60°	
Drop test	2.0m	
Certificate	CE，FCC，RoHS ，IP54	
Depth of Field	3mil	2mm-100mm
	10mil	2mm-350mm
	15mil	5mm-500mm
	30mil	10mm-800mm
Applicable 1D barcode	UPC/EAN、Code128、Code39、Code 39Full ASCII、Coda bar、industrial /Interleaved 2 of 5, Code93、MSI、Code11、ISBN、ISSN、etc.	

Packing list

•Barcode scanner*1
•USB Cable*1
•Instruction Manual*1
•USB Wireless Receiver*1

Battery & Charging

The scanner is powered by 1400mAh rechargeable battery.
Please charge the scanner at least 30 minutes before use to ensure that the scanner has enough power.

Insert one end of USB cable into the bottom of scanner, and insert another end to computer USB interface or 5V DC USB interface adapter.

Charging indicator：
The red indicator light on the top of the scanner will slightly strobe during charging.
The red light will go off when the scanner is fully charged.

NOTE:
1. Please use computer USB interface or 5V DC power adapter for charging, the abnormal power adapter will cause permanent damage to scanner and battery.

2. When the top red indicator light cyclically flashes three times, it means the battery is at low power. Please stop using and recharge it.

Quick Start Guide

When the USB cable is inserted in, the scanner will automatically switch to wired mode.

Connection mode indication:

When the light on the top of the scanner turns green, it indicates the scanner is in 2.4 GHz wireless mode.

It is suggested to use 2.4GHz wireless mode/ wired mode on the computer

2. 2.4GHz wireless mode quick start guide

--To use the scanner on computer

STEP1. Scan the following code "2.4GHz Wireless Mode" to 2.4Ghz wireless mode. When the light on the top of the scanner turns green, it means the scanner successfully changes mode to 2.4GHz Wireless Mode.

2.4GHz wireless mode

STEP2. Plug the USB receiver in to USB port of your computer, within 30 seconds, scan the code "match" to pair the scanner with the USB receiver.

Match

Note: 30 seconds after the USB receiver is plugged, the scanner cannot match the USB receiver. If the pairing fails, the scanner will emits sound like "di en". Please unplug the USB receiver and plug it again, then scan the code "match "

STEP3. Scan the code "instant upload mode" to set the scanner to instantly upload the barcode

Instant upload mode

STEP4. Test the scanner using notepad , put the cursor in the blank and then scan a barcode to see if the barcode comes up.

3.Wired mode quick start guide

STEP1. Connect the scanner to your computer via USB cable. When the USB cable is inserted in, the scanner will automatically switch to the wired mode by default.

STEP2. Open notepad on computer, move cursor to the blank, scan a barcode to see if it can be uploaded.

NOTE :
In the case where the current mode is 2.4G mode, if the USB cable is inserted in, the scanner will automatically switch to wired mode, the light of the scanner is stay blue.

In the case where the current mode is 2.4G Wireless mode, if the USB cable is inserted in, the scanner will automatically switch to wired mode, the light of the scanner is stay green.

FAQs:

Q1. If i scan a product barcode, will it include the name of the product in the file automatically?
Answer:
The scanner works like a keyboard. The scanner does not interpret what the bar code is, it just "types" out a string of alphabet numeric characters that the bar code represents.

it's up to the database software you are using to interpret what that string of characters means. Once you acquire the barcodes, you have to correlate them to something more meaningful by either purchasing a software service that will interpret the barcode and relate it to a product, or you can use your own internal inventory system to assign the barcodes to specific products.
After creating the relationship between your barcode and the corresponded information ,when you enter the barcode into the software by the scanner,your software will look up the barcode and then output the related information of your product.

Q2. Why all barcode can not be read?

Answer:
After resetting the scanner into factory settings, the scanner was set to 2.4G mode by default.

If you want to use it in 2.4G wireless mode, please connect the scanner to you computer via USB receiver, and then scan the following codes "2.4GHz Wireless mode" "Match" "instant upload mode".

There may be some other reasons for this issue. Please troubleshoot the product according to the troubleshooting instruction on page 12.

Q3. Some barcodes can not be read, why?
Answer:
A. Incomplete and unclear barcodes might not be read.
B. It is possible that the setting is off by default for some barcode types which are not commonly used. You need activate a specific barcode type to get it working. Please feel free to contact our Customer Service Team for further assistance if you don't know the exact type of barcode that you are referring to

Q4. Why does scanner not read the barcode exactly. When I use the scanner to read a barcode of an item, I get a different result from the barcode itself.

Example 1, There are two separate barcodes together. It scanned the first 12 digits in the barcode but not the last five.

Solution: Please scan the code " UPC/EAN extra code-Enable" on page 32.

Example 2, The original barcode is " abc12345 " , the scanning result is "+A+B+C+D12348" , the scanner put "+" between character.

Solution: Please scan the code "Code39 FullASCII-Enable " on page 32.

If that is not your case, please send us a clear picture of the barcode and the result you

get, our customer service will help you to solve the problem.

Q5. Is there any barcodes to remove auto-enter after every scanning?
Answer:

To remove the auto-enter, please read the code "disable suffix" on page 29.

Q6. Why does scanner not read the first digit of UPCE barcode.
Answer:

To enable the scanner to read the first digit of UPCE, read the code "Show UPCE system digit" on page 31.

Q7. How to add TAB?
Answer:

To add TAB, read the code "TAB" on page 29.

Troubleshooting (2.4Ghz wireless Mode)

Problem	Possible Reason	Solution
Insert the USB receiver into the PC 's USB port, the receiver' s light does not light up.	The PC' s USB port is damaged.	Connect the USB receiver to another USB port.
	The USB receiver is damaged.	Contact us for the replacement.
Power on the scanner, the scanner has no reaction. the buzzer does not beep, the green light on the top of scanner does not turn on, the red scanning laser does not show up.	The battery run out.	Recharge the scanner.
The scanner can not hold the charge.	The PC' s USB port isdamaged.	Using another USB port for charging.
	The USB cable is damaged.	Contact us for the replacement.
Power on the scanner, the buzzer beeps, the green light on the top of scanner will be on, the red scanning laser does not show up or become a dot.	The laser head is damaged.	Contact us for the replacement.
Scanner and USB receiver are all in good condition. But the barcode can not be sent to my computer.		Unplug the receiver and plug it in to PC' s USB port, and scan the following codes: "2.4GHz wireless mode" "match" "instantly upload mode"
	The scanner failed to match the USB receiver ..	
	The scanner was set to storage mode, scanned data will be kept in the buffer of scanner.	

Optional Function Settings

Settings of the barcode scanner can be changed by scanning the setup barcodes included in this manual.

1. Switch Connection Mode

There are 2 operations to switch the mode.

1) Scan desired code to select the mode.

2.4GHz wireless mode

2) Press and hold the button for 10 seconds to change the mode

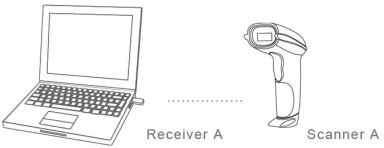
Connection mode indication:

When the light on the top of the scanner turns green, it indicates the scanner is in 2.4 GHz wireless mode.

3. 2.4GHz Wireless Mode Pairing Setting

In 2.4GHz wireless mode, two kinds of pairing modes are supported.

3.1 One scanner to one receiver: One scanner only sends barcode to one receiver.



Pairing operation:
Plug the USB receiver into your computer , scan the code "match " to pair the scanner with the USB receiver

Match

Pairing indication:
(1) If the pairing succeeds, the buzzer beeps "DI-en""di di di"
(2) If the pairing faileds, the buzzer beeps "DI---en"

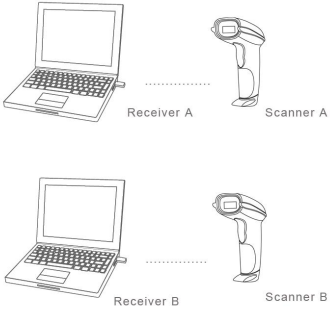
NOTE: 30 seconds after the USB receiver is inserted, the scanner cannot match the USB receiver. If the pairing failed, please unplug the USB receiver and plug it again, then scan the code "match".

Several units can work independently with different computers in the same area. They won't interface with each other during work.

If you want to use them on multiple computers, each with own scanner and receiver. Please follow the setps

（1）Plug the USB receiver A into PC A.
（2）Scan the code "match" using scanner A to pair the scanner A with the receiver A.
（3） 30 seconds after the USB receiver A is plugged (or unplug the receiver A), plug the USB receiver B into PC B USB port
（4）Scan the code "match" using scanner B to pair the scanner B with the receiver B.
.....

Match



3.2. Max.32 Scanner - to - One receiver

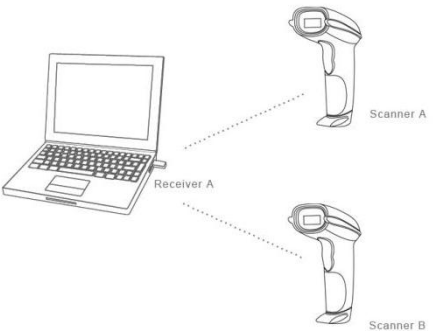
Multiple scanners send barcode to one USB receiver. One USB receiver can connect to 32 scanners at most.

Pairing operation:

(1) Plug the USB receiver A into PC 's USB port
(2) Scan the code "match" using scanner A to pair the scanner A with the receiver A
(3) Unplug the USB receiver A and plug it to PC 's USB port again
(4) Scan the code "match" using scanner B to pair the scanner B with the receiver A

...

Match



4. Upload Mode Setting

Two kinds of upload modes are supported in 2.4GHz wirelelss mode.

4.1. Instant Upload Mode : Read barcodes and upload it straight to the file you have opened.

** To set the scanner to upload barcode instantly, scan the following code:

Instant upload mode

Scanning indication:
(1) The blue/green indicator light flashes once and the buzzer beeps once when the barcode is uploaded successfully.
(2)The red indicator light flashes once and the buzzer emits sounds like slow "DI---en" when the barcode can not be uploaded.

Note:
The transmission speed between every character can be changed by scanining the following code. If some characters are missing, please set the scanner to lower transmission speed. The higher the value, the slower the speed is.

Speed 00 * (wireless default)

Speed 05

Speed 10

Speed 15

Speed 20

Speed 40

Speed 50

Speed 60

4.2. Storage mode : Read barcodes and store the barcodes in scanner' s own memory. You can upload the data to computer in batchs when you need them. Internal storage saves up to 100,000 barcodes.

Note: In storage mode, the barcode will be stored in the scanner and will not come up on your computer instantly. The barcode comes up on your computer only when you scan the settings code "upload data"

** To convert scanner from "instant upload mode" to "storage mode", please scan the following barcode "Storage mode ".

Storage mode

** Put the cursor in the blank, scan 'Upload Data' barcode to upload data from memory . (for storage mode only)

Upload data

** Put the cursor in the blank, scan "Show total storage" barcode to show total number of stored barcode. (for storage mode only)

Show total storage

** Scan the barcode "Zero clearing" to clear all stored barcode. (for storage mode only).

Zero clearing

Scanning indication:

(1) The blue/green indicator light flashes once and the buzzer rang a fast "DI-en" when the barcode is saved successfully in the built-in memory of the scanner

(2) The red indicator light flashes once and the buzzer rang a slow "DI---en" when the barcode can not be saved in the built-in memory of the scanner, because the space of memory is not enough and cannot store any more barcodes. Please upload the saved barcode by scanning the code "Upload Data" and then clear the saved barcode by scanning code "zero clearing".

Note 1:

In storage mode, the transmission speed between every barcode can be changed by scanining the following code. The higher the value, the slower the speed is.

Note 2:

If the character upload speed（on page 19） is set to a slower speed，and the barcode upload speed is set to a higher speed. When uploading data in storage mode, the data maybe be lost. If some character or barcode are missing, please set the scanner to lower barcode transmission speed.

Speed 000* （wireless default）

Speed 005

Speed 040

Speed 050

Speed 060

5. Beep Setting

** Select desired decoding beep mode

Low volume

Medium volume

High volume (default)

Beep-Off

** Select desired start-up beep mode

High volume (default)

Medium volume

Low volume

Beep-Off

6. Scanning Mode Setting

2.4GHz wirelelss mode.

6.1. Manual trigger mode (default) :

User press the trigger, the scanner will emit a red light to read the barcode. When user release the tigger, the red light will go off.

** Scan the following codes to set the scanner to Manual trigger mode .

Manual trigger mode (default)

6.2. Continuous scanning mode

There' s no need to click the trigger in this mode. The red light of the scanner will be on all the time.

**** Scan the following codes to set the scanner to Continuous Scanning Mode.

Continuous Scanning Mode

7. Battery Remaining

Put the cursor in the field, scan the following barcode, the battery remaining tip " DumpEnergy: xxx%" will comes up in the location of cursor

Battery Reserve

8. Interface Setting

Two kind of Interface are supported.

8.1. USB-HID mode

In the HID protocol, there are 2 entities: the "host" and the "device".
The host communicates with the device and receives input data from the device on actions performed by the human.
The most common example of a "host" is a PC.
The "device" is the entity that directly interacts with a human, such as a keyboard or mouse.

** To set the scanner as a keyboard to enter the barcode , please read the following code "USB_HID(default)"

USB_HID (default)

8.2. USB virtual COM mode

In USB virtual COM mode, when you pull the trigger, the barcode wo n't come up on universal software like notepad, excel, word etc.

The scanner needs to work with driver and serial software, please contact us if you need to set it to USB virtual COM mode, we will send you the driver and tutorial.

9. Identity Barcode Type

This setting is to identify what type of the barcode is, follow the below steps to confirm:

Situation 1: Scan the code "Add ID front-on" below, then scan your goal barcode, there will be a character BEFORE the barcode you scanned, and this character states your Barcode Type. After that, if you don't need this prefix any more, please scan the code "Add ID front-Off (default)" to hide it.

Add ID front - ON

Scan Goal Barcode

Add ID front-Off

Barcode type	ID	Barcode type	ID
CODE 93	h	MSI/PLESSEY	f
CODABAR	k	EAN-8	d
UPC-A	b	EAN-13	e
UPC-E	c	INTERLEAVED 2/5	i
ISBN	f	CODE 11	m
CODE 39	a	CODE 128	g

10. Keyboard Language Setting

The scanner support 25 international keyboards:
You are suggested to set the keyboard type of the scanner to be in agreement with that in real use by scanning the correspondent barcode listed below.

UNITED STATES （default）

FRENCH

SERBIA/YUGOSLAVIA

BELGIUM

GERMANY

SLOVENIA

BRAZIL

HUNGARY

SPAIN

CANADIAN-FRENCH

ITALY

SWEDEN

CROATIA

LATIN AMERICA

SWITZERLAND (FRENCH)

NETHERLANDS

CZECHOSLOVAKIA (SLOVAK)

UNITED KINGDOM

POLAND

FINLAND

CZECHOSLOVAKIA (CZECH)

SWITZERLAND (GERMAN)

NORWAY

DENMARK

UNIVERSAL

PORTUGAL

11. Case Sensitivity Setting

The scanner can change all the letter cases of barcode into uppercase or lowercase.

Letter case of barcodes can be altered through scanning correspondent bar code below.

All Capital

All lowercase

Swap Capital/ lowercase

Cancel capital/lowercase settings

12. Power Off Setting

The scanner will be powered off if there is no operation on it in 2 mins by default. Short press on the trigger can wake it up.

Scan one of the following barcode to set the time interval,when it's idle exceeding the time interval you set,the scanner will be power off.

10s Automatic power off

50s Automatic power off

5mins Automatic power off

30mins Automatic power off

Power off

Never power off

13. Restore factory setting

To set the scanner to factory settings, please scan the code:

Restore factory setting

14. End character setting

By default, the scanner is sending a 'carriage return' after scanning a code (the same as pressing the 'enter' key) .

CR/ENTER (default)

Disable suffix

Tab

To add Enter Key, please read code " CR/ENTER(default) "
To disable Carriage Return,please read code " Disable suffix "

To add TAB, please read code "TAB"
To disable TAB, please read thes code " Disable suffix "

Note: if you need other Terminator, please contact us.

15. Barcode Setting

The code ending with word "*" is the default settings.

UPCA:	
UPCA-Enable*	UPCA-Disable
Show UPCA check digit*	Hide UPCA check digit
Show UPCA system digit*	Hide UPCA system digit
UPCA to EAN13-Enable	UPCA to EAN13-Disable*
UPCE	
UPCE-Enable*	UPCE- Disable

Show UPCE check digit*	Hide UPCE check digit
Show UPCE system digit	Hide UPCE system digit*
UPCE to UPCA-Enable	UPCE to UPCA-Disable*
EAN13	
EAN13-Enable*	EAN13-Disable
Show EAN13 check digit*	Hide EAN13 check digit
EAN13 to ISBN-Enable	EAN13 to ISBN - Disable*
EAN13 to ISSN - Enable	EAN13 to ISSN - Disable*

EAN8	
EAN8 - Enable*	EAN8-Disable
Show EAN8 check digit*	Hide EAN8 check digit
UPC/EAN Extra code	
UPC/EAN extra code-Enable	UPC/EAN extra code-Disable*
Code39	
Code39-Enable*	Code39-Disable
Code39 FullASCII-Enable	Code39FullSCII-Disable*
Show Code39 start/stop digit	Hide Code39 start/stop digit*

Code32

Code32- Enable	Code32-Disable*

Code128

Code128-Enable*	Code128-Disable

Code93

Code93-Enable*	Code93-Disable

Code11

Code11-Enable*	Code11-Disabel

CODABAR

CODABAR-Enable*	CODABAR-Disable

Show CODABAR start/stop digit	Hide CODABAR start/stop digit
Industrial 2 of 5	
Industrial 2 of 5 -Enable*	Industrial 2 of 5 -Disable
Interleaved 2 of 5	
Interleaved 2 of 5 -Enable*	Interleaved 2 of 5 -Disable
MSI	
MSI-Enable	MSI-Disable

16. Insert and delete character

The barcode scanners permit special characters to be added at the beginning (prefix) or end (suffix) of the scanned barcode. The character also can be deleted.

First step: Scan one of the following setup code to choose the event.

Insert character

Delete character

Second step: Scan one of the following setup code to choose the barcode type.

All barcode type	UPCE
UPCA	EAN8
EAN13	ISBN/ISSN
Code39	Code128
Code93	Codabar

Interleaved 2 of 5	Industrial 2 of 5
MSI	Code11
China post	GS1D
GD1L	GS1E
Code32	

Note: if you do not choose the barcode type, the setting will take effect for all barcode type by default.

Third step : Scan one of the following setup code to choose the data group.

Group 1	Group 2
Group 3	Group 4

Group 5	Group 6
Group 7	Group 8

Note 1: if you do not choose the data group, the scanner will take "Data group 1" as default setting.

Note 2:

The data group is used to distinguish between different setting events.
it work on the following circumstances:

1).Differentiating the setting for different barcode types
2).Distinguish add / delete prefix or suffix

Different events can take effect at the same time.

Example 1 :

If you want to put "A" before the Code39 type barcode, put "B" before the Code128 type barcode .
The setting steps is :
*Insert charater> Code39>**Data group 1** > Before barcode> 065 A> Saving settings*
*Insert charater> Code128>**Data group 2** > Before barcode> 066 B> Saving settings*

After that,
when the scanner read a Code39 barcode, it will add " A" before the barcode. When it read a Code128 barcode, it will add "B" before the barcode.
when it read other type barcode ,like UPC, it will not add any character.

Example 2:

If you want to put "A" before barcode, put "B" after barcode.
The setting steps is ：
*Insert charater > All barcode type > **Data group 1** > Before barcode > 065 A > Saving settings*
*Insert charater> All barcode type > **Data group 2** > After barcode > 066 B> Saving settings*

After that,
when the scanner read barcode 123456789, the barcode received by the computer will be A123456789B.

Fourth steps ： Scan one of the following setup code to choose the position

Before barcode

After barcode

Fifth steps ： Choose the character you want to add or the digit you want to delete.

Character table please refer to ASCII code table on page 35.

Note 1：
Ten characters can be added or deleted at most.

Note 2：
For the character deleting event, below is the corresponding deleting characters table.

001 SOH	One character
002 STX	Two characters
003 ETX	Three characters

004 EOT	Four characters
005 ENQ	Five characters
006 ACK	Six characters
007 BEL	Seven characters
008 Back Space	Eight characters
009 HT/TAB	Nine characters
010 LF	Ten characters

Sixth steps: Scan the below code to save the setting

Save setting

To remove the insert setting, scan the following code in order

Insert character

Clear setting

To remove the insert setting, scan the following code in order

Delete character

Clear setting

Insert or delete operation for example

In the process of setting, scan the irrelevant barcode, the scanner will exit setting status.

Example 1: Insert character: 123456789(Code128)

Insert Ab before barcode	Insert Cd after the third digit of the barcode	Insert Ef after barcode
1, Insert Characters		
2, All barcode types		
3, Data Group 1		
4, Before barcode	003 ETX	After Barcode
5, 065 A	067 C	069 E
6, 098 b	100 d	102 f
Each data group can insert within 10 characters		
7, Save Settings		
Setup result		
Ab123456789	123Cd456789	123456789Ef
Removal of insert character settings, Please scan in turn	Insert Characters	Clear settings

Ⅰ: Can set different bar code type, make this setting to this kind of bar code is effective

Ⅱ: Can set different data group, make different Settings take effect at the same time

Example 2：Delete Character, 123456789(Code128)

Delete one digit before barcode	Delete two digit after the third digit of the barcode	Delete three digit after barcode
1, Delete characters		
2, All barcode types		
3, Data Group 1		
4, Before barcode	003 ETX	After Barcode
5, 001 SOH	002 STX	003 ETX
6, Save Settings		
Setup result		
23456789	1236789	123456
Removal of delete character settings, Please scan in turn	Delete characters	Clear settings

Ⅰ：Can set different bar code type, make this setting to this kind of bar code is effective

Ⅱ：Can set different data group, make different Settings take effect at the same time

ASCII Table

000 NUL/SP	001 SOH	002 STX
003 ETX	004 EOT	005 ENQ
006 ACK	007 BEL	008 Back Space
009 HT/TAB	010 LF	011 VT
012 FF	013 CR/ENTER	014 SO
015 SI	016 DLE	017 DC1
018 DC2	019 DC3	020 DC4
021 NAK	022 SYN	023 ETB
024 CAN	025 EM	026 SUB
027 ESC	028 FS	029 GS
030 RS	031 US	032 SP
033 !	034 "	035 #
036 $	037 %	038 &
039 '	040 (	041)
042 *	043 +	044 ,
045 -	046 .	047 /

048 0	049 1	050 2
051 3	052 4	053 5
054 6	055 7	056 8
057 9	058 :	059 ;
060 <	061 =	062 >
063 ?	064 @	065 A
066 B	067 C	068 D
069 E	070 F	071 G
072 H	073 I	074 J
075 K	076 L	077 M
078 N	079 O	080 P
081 Q	082 R	083 S
084 T	085 U	086 V
087 W	088 X	089 Y
090 Z	091 [	092 \
093]	094 ^	095 _

096 `	097 a	098 b
099 c	100 d	101 e
102 f	103 g	104 h
105 i	106 j	107 k
108 l	109 m	110 n
111 o	112 p	113 q
114 r	115 s	116 t
117 u	118 v	119 w
120 x	121 y	122 z
123 {	124 |	125 }
126 ~	127 DEL	128 F1
129 F2	130 F3	131 F4
132 F5	133 F6	134 F7
135 F8	136 F9	137 F10
138 F11	139 F12	140 l_Shift on
141 l_Shift off	142 r_Shift on	143 r_Shift off

144 l_Alt on	145 l_Alt off	146 r_Alt on
147 r_Alt off	148 l_Ctrl on	149 l_Ctrl off
150 r_Ctrl on	151 r_Ctrl off	152 /(KP)
153 *(KP)	154 -(KP)	155 +(KP)
156 _(KP)	157 Enter(KP)	158 0(KP)
159 1(KP)	160 2(KP)	161 3(KP)
162 4(KP)	163 5(KP)	164 6(KP)
165 7(KP)	166 8(KP)	167 9(KP)
168 Inert	169 Delete	170 Home
171 End	172 Page Up	173 Page Down
174 Up	175 Down	176 Left
177 Right	178 Center	179 Insert
180 Delete	181 Home	182 End
183 Page Up	184 Page Down	185 Up
186 Down	187 Left	188 Right
189	190 Num Lock	191 caps lock
192 scroll lock		

FCC STATEMENT

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.