L15 Series-2.4G/Bluetooth Setup Manual

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Catalog

Version revision

Software version	Support manual version	Add content
01.44 or more	V4.3	Ctrl、Alt、Shift、GUI function keys
01.40 or more	V4.2	Japanese
01.40 or more	V4.0	2.4G extended cache setting function
01.32 or more	V3.9	1. Add on/off long press button to enter Bluetooth HID pairing 2. Increase on/off long press button 16S to enter 2.4G pairing function
01.25 or more	V3.8	1. Increase priority USB output and simultaneous USB and wireless simultaneous output modes 2. Fix the problem of alarming when the Bluetooth switch is successful, that is, the problem of waiting for the return command 3. Add GS-hex-0x1D conversion function 4. Add setting code for obtaining Bluetooth name and address function 5. Increase the buzzer frequency setting

Turn on the button without releasing

1. Press and hold for up to 14 seconds, and you will hear a sound. Release the button at this time, "Communication Mode" switches to Bluetooth SPP mode

2. Press and hold for 20 seconds, you will hear a sound, then release the button, "Communication Mode" will switch to Bluetooth BLE mode

3. Press and hold for 90 seconds, you will hear a loud noise, then release the button: quickly press the button 3 times within 10 seconds to enter the update MCU and Bluetooth program interface. If the button is not pressed three times quickly after 10 seconds, it will automatically enter normal use.

(Note: The third function has been blocked, if necessary, just tell it to open it)

LED light description (if it is a customized version, please ignore the LED description)

Green light--> charging indicator
      (1) Constant light means it is charging
      (2) When the battery is fully charged, it goes out
Blue light--> Status Indicator
      (1) Each time the code is scanned successfully, it will flash once quickly
      (2) Turn off when USB or 2.4G and Bluetooth HID are not connected
      (3) When USB or 2.4G or Bluetooth is connected, it will be always on
      (4) When entering 2.4G or Bluetooth HID pairing, it will flash quickly and continuously

When entering Bluetooth SPP/BLE pairing, it will flash slowly

Buzzer description(Note: If it is a customized version, please ignore the description of the buzzer)

One long beep-->State has：(1)Indicates boot (power on)；
                (2)Failure during Bluetooth data transmission;
A short tone-->State has:(1)Read the normal barcode successfully and upload successfully;
         (2)USB connection is successful；
         (3)2.4G/Bluetooth successfully connected or paired successfully；
High and low tone-->State has：(1)Get the setting code successfully；
         (2)The data is stored successfully；
         (3)Upload data is complete；
         (4)Enter the shutdown state；
Three short tones-->State has：
         (1) The USB/2.4G/Bluetooth connection is disconnected;
         (2) Uploading data is unsuccessful or the storage flash is full；
         (3) The setting code function does not work;

Three short tones with high and low sounds-->State has：Insufficient battery, ready

to enter the shutdown state;

Remarks: with an asterisk (*) are the parameters after factory restoration

1.Regular instructions

1.1 Restore factory defaults

Restore factory defaults	ˆ&002&ˆ	

1.2 Software version number

Software version number	ˆ&001&ˆ	

1.3 Battery function part

Display battery	ˆ&037&ˆ	

1.4 Output mode

USB priority output(*)	ˆ&05A&ˆ	Simultaneous output mode: USB and 2.4G or Bluetooth output at the same time (determined by the communication mode), where 2.4G or Bluetooth output is unsuccessful, it will alarm.
Simultaneous output mode	ˆ&05B&ˆ	

1.5 USB interface Type

USB-HID(*)	‸&015&‸	Setting the USB interface type will change the USB interface type of the transmitting end (i.e. scanning gun) and the receiving end (i.e.
USB-COM	‸&016&‸	

1.6 USB-HID data type

Transferable keyboard function keys	‸&051&‸	
Chinese characters can be transmitted directly (*)	‸&052&‸	
Direct ASCII code	‸&053&‸	

1.7 Vibration mode setting

Vibration mode is off	‸&038&‸	It is effective only when there is a vibration function.
Vibration mode is on (*)	‸&039&‸	

1.8 Data transmission mode

Normal mode (*)	ˆ&005&ˆ	In the normal mode, the scanned data is uploaded instantly, and the transmission fails, an alarm will be issued, and the data will not be saved.
Inventory mode	ˆ&006&ˆ	In the inventory mode, the scanned barcode will be automatically saved. If you need to view the statistical data or need to upload the data, you can scan the corresponding setting barcode to view it
Automatic storage mode	ˆ&007&ˆ	In the automatic storage mode, the data will be automatically saved when the distance is exceeded. When you need to upload the automatically saved data, scan the setting code "upload all data" to upload the automatically

1.9 Inventory mode

Upload statistics	ˆ&031&ˆ	
Upload all data	ˆ&032&ˆ	Clearing all data can be effective only in inventory mode.
Clear all data	ˆ&030&ˆ	

1.10 Forced case conversion of letters

No conversion (*)	ˆ&07C&ˆ	
Capital	ˆ&07D&ˆ	

lower case	‖‖‖‖‖‖‖‖‖‖‖‖ ^&07E&^	
Reverse case	‖‖‖‖‖‖‖‖‖‖‖‖ ^&07F&^	

1.11 GS Character conversion

No conversion (*)	‖‖‖‖‖‖‖‖‖‖‖‖ ^&060&^	
Convert to <GS>	‖‖‖‖‖‖‖‖‖‖‖‖ ^&061&^	
Converted to |	‖‖‖‖‖‖‖‖‖‖‖‖ ^&062&^	
Convert to]	‖‖‖‖‖‖‖‖‖‖‖‖ ^&063&^	
Convert to ^]	‖‖‖‖‖‖‖‖‖‖‖‖ ^&064&^	

1.12 Communication mode

Receiver mode (*)	‖‖‖‖‖‖‖‖‖‖‖‖ ^&010&^	To re-pair with another receiver, please refer to the function section of pairing 2.4G receiver for details
Bluetooth HID mode	‖‖‖‖‖‖‖‖‖‖‖‖ ^&011&^	Bluetooth HID mode is to switch to HID mode, and the previously paired Bluetooth will automatically connect. When there is a problem with the Bluetooth communication, the alarm will prompt that the Bluetooth connection is unsuccessful。

Bluetooth BLE mode	‸&012&‸	In the Bluetooth BLE transparent transmission mode, Bluetooth devices (ie, Bluetooth devices such as mobile phones/IPADs) need to download or develop low-power Bluetooth BLE transparent transmission software before they can be used. 　　When there is a problem with Bluetooth communication, an alarm will prompt that the Bluetooth connection is
Bluetooth SPP mode	‸&013&‸	In the Bluetooth SPP transparent transmission mode, Bluetooth devices (ie, Bluetooth devices such as mobile phones/IPADs) need to download or develop classic Bluetooth SPP transparent transmission software before they can be used. When there is a problem with Bluetooth communication, an alarm will prompt that the

2. Sound setting

2.1 Sound volume setting

Mute	‸&03A&‸	
Treble (*)	‸&03B&‸	
Midrange	‸&03C&‸	
Bass	‸&03D&‸	

2.2 Sound vocalize type

MCU pronunciation (*)	^&03E&^	
Scan head pronunciation	^&03F&^	

2.3 Sound frequency setting

Sound frequency 2048HZ	^&04C&^	
Sound frequency 2700HZ	^&04D&^	

3. Dedicated for 2.4G settings

3.1 Receiver mode

Receiver mode (*)	^&010&^	Set the receiver mode, it will automatically enter the 2.4G receiver mode, and connect to the last paired receiver by default.

3.2 2.4G pairing

		1.There are two ways to enter 2.4G pairing: (1)Scan the setting code of the pairing receiver to enter the 2.4G pairing mode; (2)Press and hold the button for 8 seconds, you will hear the first beep, continue to press and hold until it beeps again (about 16 seconds in total) and then release the button, it will automatically enter 2.4 wireless and enter the pairing mode 2.Exit 2.4G pairing: (1)When the Bluetooth is paired, it will prompt once and end the pairing. (2)Double-click the button twice to exit, and a prompt will sound. (3)When you wait for 1 minute, it will automatically exit if it is not paired.And prompt three times. Note: When exiting pairing, if a new receiver is not connected, it will automatically connect to the last
Paired receiver	‖‖‖‖‖‖‖‖‖‖‖‖‖ ^&021&^	
Turn on and long press 16S to enter 2.4G pairing (*)	‖‖‖‖‖‖‖‖‖‖‖‖‖ ^&D10&^	
Long press 16S to enter 2.4G pairing (*)	‖‖‖‖‖‖‖‖‖‖‖‖‖ ^&D11&^	

3.3 2.4G extended cache settings

Disable 2.4G extended cache (*)	`^&D15&^`	1.Close: The scanned data is uploaded immediately, and the next data can be scanned after the data is uploaded.
Open 2.4G extended cache	`^&D16&^`	2.On: The scanned data is saved in the cache, and then the next transaction can be scanned without waiting for the completion of the transmission. Automatically store the cache, and then send the data.

1. Dedicated for Bluetooth setting

4.1 Bluetooth HID function setting exclusive

Bluetooth HID mode	^&011&^	Set the Bluetooth HID mode, it will enter the Bluetooth HID mode, and automatically connect to the last paired Bluetooth by default. Not in the broadcast state, if you need to pair, check the Bluetooth HID pairing details.
Bluetooth HID pairing	^&C0F&^	1.Enter Bluetooth HID pairing mode: (1)Set up Bluetooth pairing, you can search for Bluetooth through Bluetooth devices. (2)Press and hold the button for 8 seconds. When you hear the first beep, release it to enter the Bluetooth HID mode and set up Bluetooth pairing. You can search and pair via Bluetooth devices. 2.Exit Bluetooth HID pairing: (1)When Bluetooth is paired, there will be a beep and end the pairing. (2)Double-click the button twice to exit, and a prompt will sound. (3)Wait for 1 minute, if the Bluetooth is not paired, it will exit automatically and prompt three times. Note: When exiting the pairing, if the new device is not connected, the old device that has been paired for the last
Turn on and hold 8S Bluetooth HID pairing (*)	^&C25&^	
Turn off long press 8S Bluetooth HID pairing	^&C26&^	

4.2 Display or hide the Bluetooth HID virtual keyboard under IOS system

Show or hide the virtual keyboard under IOS system	‖‖‖ ‖‖‖‖ ‖‖‖‖ ‖‖‖ ‖‖‖‖ ^&C08&^	In HID mode, IOS system, quickly press 3 times to show or hide the IOS virtual keyboard

4.3 Bluetooth HID upload speed setting

Fast speed	^&C09&^	
Medium speed (*)	^&C0A&^	1.Fast upload is recommended under IOS. 2.Set the corresponding speed according to the response speed of the mobile phone under Android. When uploading content appears disordered or loses data, please lower the speed,
Low speed	^&C0B&^	
Ultra low speed	^&C20&^	

4.4 Bluetooth HID RSSI setting

Remarks: Please check the Bluetooth HID RSSI value table for details

4.5 Bluetooth SPP mode

Bluetooth SPP mode	^&013&^	Set the Bluetooth SPP mode, it will automatically enter the Bluetooth SPP mode, and automatically in the broadcast state by default, you can directly pair.

4.6 Bluetooth BLE transparent transmission mode

Bluetooth BLE mode	‎ˆ&012&ˆ	Set the Bluetooth BLE transparent transmission mode, it will automatically enter the Bluetooth BLE transparent transmission mode, and automatically connect to the last paired Bluetooth by default. If it fails to connect, it will automatically be in the broadcast state and can be directly paired.

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4.7 Bluetooth name setting

Bluetooth name barcode definition	ˆ&COC&ˆXXX	1. Fix the front ″ˆ&COC&ˆ″ and the back ″XXX″ as the name to be set. 2. The Bluetooth name can be set to a maximum of 24 bytes. Note: After the name is modified, the Bluetooth HID/SPP/BLE names will all change.

		Step: 1. Scan the setting code "Bluetooth name ASCII definition" 2. Scan the content you need to add one by one, please look up the ASCII code table 3. Finally scan the setting code "Save data and exit" Note: The Bluetooth name can be set to a maximum of 24 bytes. Setting tutorial: You can refer to the tutorial of adding suffixes and suffixes.
Bluetooth name ASCII definition	‸&COD&‸	
Bluetooth name factory reset	‸&COE&‸	Set the Bluetooth name to restore the factory, and the set Bluetooth name will be cleared automatically. Or scanning to restore the factory will also clear the custom Bluetooth name.

4.8 Get the Bluetooth name

Get the Bluetooth name	‸&C10&‸	Only in the blue HID/SPP/BLE mode, the Bluetooth name can be obtained successfully, otherwise it will fail

4.9 Get Bluetooth address

Get Bluetooth address	‸&C11&‸	Only in the HID/SPP/BLE mode, the Bluetooth address can be successfully obtained, otherwise it will fail. The Bluetooth address cannot be displayed, and the serial port can be used to view the address for debugging

5. Sleep time setting

Do not sleep	‸&040&‸	
Go to sleep	‸&041&‸	
10S sleep	‸&042&‸	
30S sleep	‸&043&‸	
1min sleep(*)	‸&044&‸	Press and hold until you hear the first beep for about 8 seconds, release the button to enter sleep
2min sleep	‸&045&‸	
5min sleep	‸&046&‸	
10min sleep	‸&047&‸	
30min sleep	‸&048&‸	

6.language settings

United States of America(*)	^&080&^	
Germany	^&081&^	
France	^&082&^	
Italy	^&083&^	
Canada	^&084&^	
Spain	^&085&^	
Brazil	^&086&^	
Sweden	^&087&^	
Portugal	^&088&^	
Belgium	^&089&^	
Turkey F	^&08A&^	
Turkey Q	^&08B&^	
Italy-14	^&08C&^	
Netherlands	^&08D&^	

Poland	ˆ&08E&ˆ	
Finland	ˆ&08F&ˆ	
Latin America	ˆ&090&ˆ	
Serbia	ˆ&091&ˆ	
Hungary	ˆ&092&ˆ	
Denmark	ˆ&093&ˆ	
Norway	ˆ&094&ˆ	
Japanese	ˆ&095&ˆ	

7. Data editing

7.1 Suffix terminator setting

Suffix-None	‸&300&‸	
Suffix-return (*)	‸&301&‸	
Suffix-Newline	‸&302&‸	
Suffix-Tab	‸&303&‸	
Suffix-return and newline	‸&304&‸	

7.2 Hidden character settings

Hide front characters	‸&306&‸	Shortcut settings for characters before and after hiding. For details, please refer to shortcut settings for characters before and after hiding.
Hidden characters	‸&307&‸	

7.2.1 Character setting before hiding

Step:

(1)Scan the setting code "Hide previous characters"

(2)Set the first few digits of the sequence to hide, and use two data codes to represent the decimal number XX

(3)Set the number of digits to be hidden from the top (including its own data), and use two data codes to represent the decimal number YY

(4)Finally scan the setting code "Save data and exit".

XX represents the number of digits from the top, that is, it is hidden (including itself) from the number of characters in the top;

YY represents how many digits are hidden, that is, how many digits are hidden in the future

For example: the bar code content is: "ABCDEFGHIJKLMN", hide these characters DEFGH, make the output bar code "ABCDIJKLMN".

(1) Scan the setting code "Hide previous characters"

(2) The position of the character 'E' is the 4th position, so "XX" is '0', '4',

Look up the data code table and scan the data code table '0' and '4' in turn;

(3) Hidden "DEFGH" means a total of 5 characters, so "YY" is '0', '5',

Look up the data code table and scan the data code table '0' and '5' in turn;

(4) Finally scan the setting code "Save data and exit".

Remarks: Only operate (1) and (4), then you can clear the character settings before hiding or restore the factory.

7.2.2 Hidden character settings

Step:

(1)Scan the setting code "Hidden characters"

(2)Set the last few digits of the countdown to hide (including its own data), and use two data codes to represent the decimal number XX

(3)Set the number of digits from the bottom to be hidden, and use two data codes to represent the decimal number YY

(4)Finally scan the setting code "Save data and exit".

XX represents the penultimate digit, that is, hidden from the penultimate character (including itself);

YY represents how many digits are hidden, that is, how many digits are hidden forward

For example: the bar code content is: "ABCDEFGHIJKLMN", hide these characters DEFGH, make the output bar code "ABCDIJKLMN".

(1) Scan the setting code "Hide previous characters"

(2) The position of the character 'H' is the 7th position, so "XX" is '0', '7',

Look up the data code table and scan the data code table '0' and '7' in turn;

(3) Hidden "DEFGH" means a total of 5 characters, so "YY" is '0', '5',

Look up the data code table and scan the data code table '0' and '5' in turn;

(4) Finally scan the setting code "Save data and exit".

Remarks: Only operate (1) and (4), and the character setting after clearing hidden or restoring to the factory can also be cleared.

7.3 Add prefix and suffix settings

Add prefix	^&308&^	
Add suffix	^&309&^	
Save and end settings	^&305&^	

7.3.1 Add prefix setting

Step:

(1)Scan the setting code to "add prefix"

(2)Set the first few digits of the number to start inserting characters (including its own

data), and use two "data codes" to represent the decimal number XX (the first can be omitted and the setting is equivalent to "0", "1"), please query the corresponding data code surface

(3)Scan the content you need to add one by one, please look up the ASCII code table

(4)Finally scan the setting code "Save data and exit".

For example: the original barcode content is "ABCDEFGHIJKLMN";

The content after adding the prefix is ""ABCDE12345FGHIJKLMN"".

1. Scan the setting code to "add prefix"

2. In the original barcode, the prefix "12345" is added in front of the character'F', and the position of the original barcode content'F' is the 6th character, so the data code "XX" is "0", "6", search Data code table, and scan the barcode corresponding to the data code in turn.

3. The content added to the original bar code is "12345", a total of 5 characters. Look up the ASCII code table, the characters "1", "2", "3", "4", "5" correspond to the ASCII codes "31", "32", "33", "34", "35" in turn, And scan the corresponding barcode in turn

4. Finally scan the setting code "Save data and exit".

Remarks: Only operate (1) and (4), you can also clear the contents of adding prefixes for clearing or restoring to the factory.

7.3.2 Add suffix setting

Step

(1)Scan the setting code "add suffix"

(2)Set the penultimate digit to start inserting characters (including its own data), and use two "data code" to represent the decimal number XX (the last can be omitted and the setting is equivalent to "0", "1"), please check the corresponding data code table

(3)For the content that needs to be added for one scan, please look up the ASCII code table

(4)Finally scan the setting code "Save data and exit".

For example: the original barcode content is "ABCDEFGHIJKLMN";

The content after adding the prefix is ""ABCDE12345FGHIJKLMN"".

1. Scan the setting code "Add Suffix"

2. In the original barcode, the suffix content "12345" is added after the character'E', and the position of the original barcode content'E' is the 10th last character, so the data code "XX" is "1", "0", search for data Code table, and scan the barcode corresponding to the data code in turn.

3.The content added to the original bar code is "12345", a total of 5 characters. Look up the ASCII code table, the characters "1", "2", "3", "4", "5" correspond to the ASCII codes "31", "32", "33", "34", "35" in turn, And scan the corresponding barcode in turn

4. Finally scan the setting code "Save data and exit".

Remarks: Only operate (1) and (4), and you can also clear the contents of adding suffixes for clearing or restoring to the factory.

7.4 Shortcut settings for characters before hiding

Hide the first one	^&601&^	
Hide the first 2 digits	^&602&^	
Hide the first 3 digits	^&603&^	
Hide the first 4 digits	^&604&^	
Hide the first 5 digits	^&605&^	
Hide the first 6 digits	^&606&^	
Hide the first 7 digits	^&607&^	
Hide the first 8 digits	^&608&^	
Hide the first 9 digits	^&609&^	
Hide the first 10 digits	^&60A&^	
Hide the first 11 digits	^&60B&^	

Hide the first 12 digits	‸&60C&‸	
Hide the first 13 digits	‸&60D&‸	
Hide the first 14 digits	‸&60E&‸	
Hide the first 15 digits	‸&60F&‸	

7.5 Shortcut setting of hidden characters

Hide the last 1 bits	‸&701&‸	
Hide the last 2 bits	‸&702&‸	
Hide the last 3 bits	‸&703&‸	
Hide the last 4 bits	‸&704&‸	

Hide the last 5 bits	‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖ ^&705&^	
Hide the last 6 bits	‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖ ^&706&^	
Hide the last 7 bits	‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖ ^&707&^	
Hide the last 8 bits	‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖ ^&708&^	
Hide the last 9 bits	‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖ ^&709&^	
Hide the last 10 bits	‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖ ^&70A&^	
Hide the last 11 bits	‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖ ^&70B&^	
Hide the last 12 bits	‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖ ^&70C&^	
Hide the last 13 bits	‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖ ^&70D&^	
Hide the last 14 bits	‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖ ^&70E&^	
Hide the last 15 bits	‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖‖ ^&70F&^	

2. Program update selection

Update the transmitter program	‖‖ ‖ ‖‖‖‖ ‖ ‖‖ ‖ ‖ ‖ ‖‖ ‖‖‖ ‖ ^&BF0&^	
Update the receiving end program	‖‖ ‖‖‖‖‖‖ ‖ ‖ ‖ ‖ ‖‖ ‖‖ ‖ ^&FF0&^	
Update Bluetooth program	‖‖ ‖‖ ‖ ‖ ‖‖ ‖‖‖ ‖ ‖ ^&CF0&^	

E
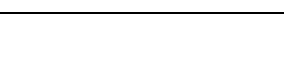
3. Relevant attachments

Data code table

0	‖‖ ‖ ‖‖‖‖ ‖‖ ‖ ‖‖ ‖‖ ‖‖‖ ‖‖ ^&3F0&^	
1	‖‖ ‖ ‖‖ ‖‖ ‖‖ ‖‖ ‖ ‖‖‖ ‖‖ ^&3F1&^	
2	‖‖ ‖ ‖‖ ‖‖ ‖‖ ‖ ‖ ‖‖ ‖‖ ^&3F2&^	
3	‖‖ ‖ ‖‖ ‖‖ ‖‖ ‖ ‖ ‖‖ ‖‖ ^&3F3&^	
4	‖‖ ‖ ‖‖ ‖‖ ‖‖‖ ‖ ‖ ‖‖ ‖ ^&3F4&^	

5	^&3F5&^		
6	^&3F6&^		ASCII
7	^&3F7&^		code
8	^&3F8&^		value
Null 9	^&400&^ ^&3F9&^		table
SOH	^&401&^		
STX	^&402&^		
ETX	^&403&^		
EOT	^&404&^		
ENQ	^&405&^		
ACK	^&406&^		
BEL	^&407&^		
BS	^&408&^		
HT	^&409&^		
LF	^&40A&^		
VT	^&40B&^		

FF	`ˆ&40C&ˆ`	
CR	`ˆ&40D&ˆ`	
SO	`ˆ&40E&ˆ`	
SI	`ˆ&40F&ˆ`	
DLE	`ˆ&410&ˆ`	
DC1	`ˆ&411&ˆ`	
DC2	`ˆ&412&ˆ`	
DC3	`ˆ&413&ˆ`	
DC4	`ˆ&414&ˆ`	
NAK	`ˆ&415&ˆ`	
SYN	`ˆ&416&ˆ`	
ETB	`ˆ&417&ˆ`	
CAN	`ˆ&418&ˆ`	
EM	`ˆ&419&ˆ`	
SUB	`ˆ&41A&ˆ`	
ESC	`ˆ&41B&ˆ`	

FS	ˆ&41C&ˆ	
GS	ˆ&41D&ˆ	
RS	ˆ&41E&ˆ	
US	ˆ&41F&ˆ	
SP	ˆ&420&ˆ	
!	ˆ&421&ˆ	
”	ˆ&422&ˆ	
#	ˆ&423&ˆ	
$	ˆ&424&ˆ	
%	ˆ&425&ˆ	
&	ˆ&426&ˆ	
'	ˆ&427&ˆ	
(	ˆ&428&ˆ	
)	ˆ&429&ˆ	
*	ˆ&42A&ˆ	
+	ˆ&42B&ˆ	

,	ˆ&42C&ˆ		
_	ˆ&42D&ˆ		
.	ˆ&42E&ˆ		
/	ˆ&42F&ˆ		
0	ˆ&430&ˆ		
1	ˆ&431&ˆ		
2	ˆ&432&ˆ		
3	ˆ&433&ˆ		
4	ˆ&434&ˆ		
5	ˆ&435&ˆ		
6	ˆ&436&ˆ		
7	ˆ&437&ˆ		
8	ˆ&438&ˆ		
9	ˆ&439&ˆ		
:	ˆ&43A&ˆ		
;	ˆ&43B&ˆ		

〈	‖‖‖‖‖‖‖‖‖‖‖ ˆ&43C&ˆ	
=	‖‖‖‖‖‖‖‖‖‖‖ ˆ&43D&ˆ	
〉	‖‖‖‖‖‖‖‖‖‖‖ ˆ&43E&ˆ	
?	‖‖‖‖‖‖‖‖‖‖‖ ˆ&43F&ˆ	
@	‖‖‖‖‖‖‖‖‖‖‖ ˆ&440&ˆ	
A	‖‖‖‖‖‖‖‖‖‖‖ ˆ&441&ˆ	
B	‖‖‖‖‖‖‖‖‖‖‖ ˆ&442&ˆ	
C	‖‖‖‖‖‖‖‖‖‖‖ ˆ&443&ˆ	
D	‖‖‖‖‖‖‖‖‖‖‖ ˆ&444&ˆ	
E	‖‖‖‖‖‖‖‖‖‖‖ ˆ&445&ˆ	
F	‖‖‖‖‖‖‖‖‖‖‖ ˆ&446&ˆ	
G	‖‖‖‖‖‖‖‖‖‖‖ ˆ&447&ˆ	
H	‖‖‖‖‖‖‖‖‖‖‖ ˆ&448&ˆ	
I	‖‖‖‖‖‖‖‖‖‖‖ ˆ&449&ˆ	
J	‖‖‖‖‖‖‖‖‖‖‖ ˆ&44A&ˆ	
K	‖‖‖‖‖‖‖‖‖‖‖ ˆ&44B&ˆ	
L	‖‖‖‖‖‖‖‖‖‖‖ ˆ&44C&ˆ	

M	‸&44D&‸	
N	‸&44E&‸	
O	‸&44F&‸	
P	‸&450&‸	
Q	‸&451&‸	
R	‸&452&‸	
S	‸&453&‸	
T	‸&454&‸	
U	‸&455&‸	
V	‸&456&‸	
W	‸&457&‸	
X	‸&458&‸	
Y	‸&459&‸	
Z	‸&45A&‸	
[	‸&45B&‸	
\	‸&45C&‸	

]	ˆ&45D&ˆ	
ˆ	ˆ&45E&ˆ	
_	ˆ&45F&ˆ	
`	ˆ&460&ˆ	
a	ˆ&461&ˆ	
b	ˆ&462&ˆ	
c	ˆ&463&ˆ	
d	ˆ&464&ˆ	
e	ˆ&465&ˆ	
f	ˆ&466&ˆ	
g	ˆ&467&ˆ	
h	ˆ&468&ˆ	
i	ˆ&469&ˆ	
j	ˆ&46A&ˆ	
k	ˆ&46B&ˆ	
l	ˆ&46C&ˆ	

m	ˆ&46D&ˆ	
n	ˆ&46E&ˆ	
o	ˆ&46F&ˆ	
p	ˆ&470&ˆ	
q	ˆ&471&ˆ	
r	ˆ&472&ˆ	
s	ˆ&473&ˆ	
t	ˆ&474&ˆ	
u	ˆ&475&ˆ	
v	ˆ&476&ˆ	
w	ˆ&477&ˆ	
x	ˆ&478&ˆ	
y	ˆ&479&ˆ	
z	ˆ&47A&ˆ	
{	ˆ&47B&ˆ	
		ˆ&47C&ˆ	

}	^&47D&^	
~	^&47E&^	
DEL	^&47F&^	
Caps Lock	^&480&^	
Function key F1	^&481&^	
Function key F2	^&482&^	
Function key F3	^&483&^	
Function key F4	^&484&^	
Function key F5	^&485&^	
Function key F6	^&486&^	
Function key F7	^&487&^	
Function key F8	^&488&^	
Function key F9	^&489&^	
Function key F10	^&48A&^	
Function key F11	^&48B&^	
Function key F12	^&48C&^	

PrintScreen	‸&48D&‸	
Scroll Lock	‸&48E&‸	
Pause	‸&48F&‸	
Insert	‸&490&‸	
Home	‸&491&‸	
PageUp	‸&492&‸	
Delete	‸&493&‸	
PageDown	‸&494&‸	
End	‸&495&‸	
RightArrow	‸&496&‸	
LeftArrow	‸&497&‸	
DownArrow	‸&498&‸	
UpArrow	‸&499&‸	
Num Lock(keypad)	‸&49A&‸	
/(keypad)	‸&49B&‸	
*(keypad)	‸&49C&‸	

-(keypad)	`^&49D&^`	
+(keypad)	`^&49E&^`	
Enter(keypad)	`^&49F&^`	
1(keypad)	`^&4A0&^`	
2(keypad)	`^&4A1&^`	
3(keypad)	`^&4A2&^`	
4(keypad)	`^&4A3&^`	
5(keypad)	`^&4A4&^`	
6(keypad)	`^&4A5&^`	
7(keypad)	`^&4A6&^`	
8(keypad)	`^&4A7&^`	
9(keypad)	`^&4A8&^`	
0(keypad)	`^&4A9&^`	
.(keypad)	`^&4AA&^`	
AB~CF Reserve stand-by		
L-Ctrl Press	`^&4D0&^`	

L-Shift Press	‸&4D1&‸	
L-Alt Press	‸&4D2&‸	
L-GUI Press	‸&4D3&‸	
R-Ctrl Press	‸&4D4&‸	
R-Shift Press	‸&4D5&‸	
R-Alt Press	‸&4D6&‸	
R-GUI Press	‸&4D7&‸	
L-Ctrl Release	‸&4D8&‸	
L-Shift Release	‸&4D9&‸	
L-Alt Release	‸&4DA&‸	
L-GUI Release	‸&4DB&‸	
R-Ctrl Release	‸&4DC&‸	
R-Shift Release	‸&4DD&‸	
R-Alt Release	‸&4DE&‸	
R-GUI Release	‸&4DF&‸	
E0~FF Reserve stand-by		

Add Ctrl, Shift, Alt, GUI function keys

Note: there must be a press, there must be a release, the press and release must be used in pairs

Otherwise, there will be hot key issues such as data not uploading and inexplicable lock screen on the computer.