

SPL1204 User Manual V1.4

Updated by 2023-18-07



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Preface

Thank you for choosing the company's SPL1204 (4G/2G) Lock tracker, please carefully read the instructions before operating.

Please check the items in package with packing list, contact with the distributor when you found something leave out.

Disclaimer:

- Read this user manual carefully please. When you start use this product, then you are deemed to have read this user's manual.
- This Product used as assistant tool for Security only, can't prevent all kinds of deliberately theft or malicious damage vehicles. For the safety of your assets, you still need keep necessary vigilance and security awareness after you installed this product. We do not bear responsibility to any loss except product itself. Thanks!

1. Product Introduction

SPL1204 4/2G Lock tracker combined with positioning, monitor and observe, themain applies to container, trucks and other transportation object location andtracking services.

Product Features:

- Support battery low power alarm.
- Build-in GSM/GPS antenna.
- Support GPRS network data transmission.
- Support Lock ON/OFF alarm.
- Support Lock-string cut alarm.
- Support casing tamper alarm.
- Optional large rechargeable lithium battery.
- Support sleep mode.
- Support remote upgrade by OTA.
- Support Unlock with RFID card.
- Support Unlock with SMS/GPRS command.
- Support 25 Geo-fence.
- Build in with magnet.

Note:

- ✓ This product function based on GPRS network; need a SIM card which have GPRS data transmit and SMS functions.
- ✓ SIM card is not include in the packing list, please prepare SIM card before you use this device.
- ✓ Please only use the charger from the factory.

2. Packing List

No.	Name	Count
1	SPL1204 Lock device	1
2	Lock string wire	1
3	RFID card	Optional
4	Charger	Optional

3. Technical Parameters

Name	Parameters
Communicate module 2/4G optional	2G(M25): 850/900/1800/1900 MHz 4G CAT1(Optional) EC200N-CN LTE-FDD: B1/B3/B5/B8/B28/B66 LTE-TDD: B34/B38/B39/B40/B41 GSM:B3/B8
Color	Black
GPS Performance	AT6558R Acquisition sensitivity: -148dBm Tracking sensitivity: -162dBm GPS frequency: L1, 1575.42MHz Locate Sensitivity: <5m, CEP Hot start(average): <1s Cold start(average): <30s Maximum altitude:18000m
Working Current	Around 100mA@3.7V battery
Sleep mode Current	Around 3mA@3.7V battery
Back-up Battery	18,000 mAh rechargeable lithium battery(optional)
Tracker size	210mmx115mmx39mm
Tracker weight	About 1.2kg
Working temperature (High Temp battery)	-25℃ - +75℃
Moisture	5% - 95%
LED Indicator	Use blue/green/red/orange four color LED indicator to show the status of power/GPS/GSM/charger.
Blind area data	10,000 records

4. LED definition

LED Color			Status	Status Describe
1	GSM status	Red	1s blinking once	Searching network
			3s blinking once	Online
			0.2s fast blinking in 2s	Device receiving or sending GPRS data
			Off	GSM module fault, no power or LED die
2	GPS signal status	Green	1s blinking once	Initializing
			3s blinking once	GPS located
			Off	LED die, no power or GPS module fault.
3	Battery charger Full	Blue	Light on static	Battery fully charged
	Unlock		Light on static	Unlock, lock rope out
	Low power	Yellow	1s blinking once	Low power alarm
4	Battery charging	Orange	Light on static	Battery charging status

5. Device Installation

Before you start install the device, Please check the product you get with the packing list, if you have any problem please contact us or distributor in time.

5.1 Prepare works

- ✧ SPL1204 lock tracker
- ✧ Local GPRS SIM card
- ✧ RFID card

5.2 SIM Card Installation

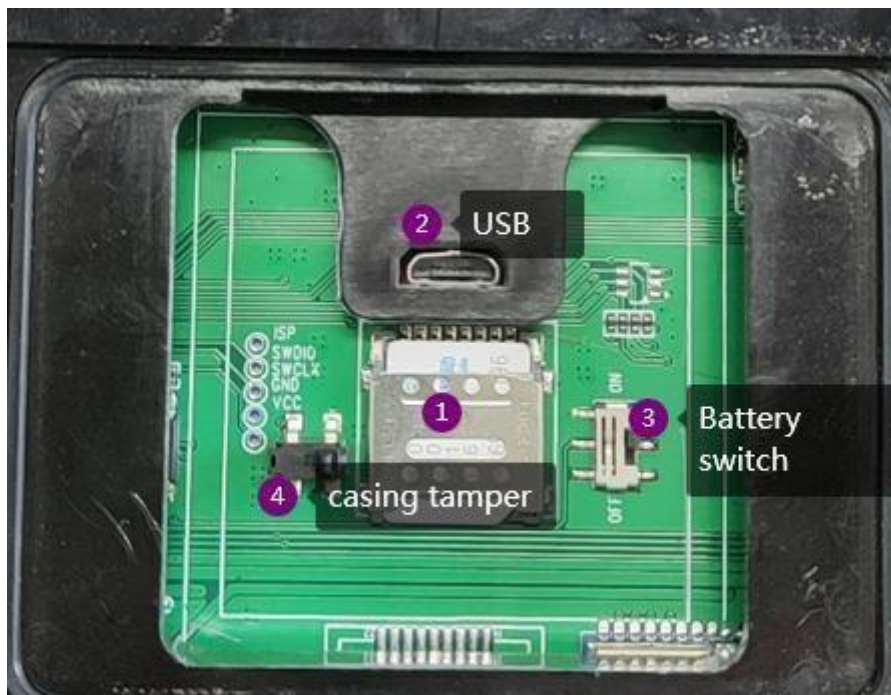
This device need install a SIM Card, which must have GPRS data transmission and SMS function. In default setting, this device will use around 5MB~20MB

data flow, please select suitable package.

Note:

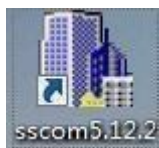
- Do not install SIM Card in opposite way.
- SIM Card must open GPRS data transmission function
- Confirm the SIM Card have enough balance inside.
- Test SIM card by cellphone to check if it can connect network
- Please do not remove or insert SIM Card without power off, to avoid the damage to SIM card and device

5.3 Power on switch



5.4 RFID No. White List

1. Tool "sscom":
2. Baud rate: 115200



3. Serial cable:



4. USB Driver:

<CH340 USB-SER> or <CP210x_Universal_Windows_Driver>

COM3 Silicon Labs CP210x USB to UART Bridge
COM9 USB-SERIAL CH340

5. Set by command(Please check at command list for details).

set RFID card white list With group	*269#6,B,x,ID1,ID2,...ID10,	Max: 50 ID card support. x=1-5, each time can set 10 RFID numbers,the RFID number need follow with " ". Example: Set first 2 ID cards: *269#6,B,1,0002346789,0007022058,
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The screenshot shows the SKYPATROL software interface. On the left, a command list is visible, including commands like [14:56:55.621]IN<--CAR ST:move and [14:56:56.635]IN<--SendTo: 2A2A03443A146923. On the right, a table displays RFID card settings. The table has columns for card ID, status, and other parameters. A pink box highlights the 'button to send CMD' in the bottom right corner of the interface.

5.5 Lock ON

Just insert the rope in, will be lock on by AUTO, and motor will run 1.5s for double lock after 3s rope insert.

5.6 Unlock

a. Unlock with RFID card

Swipe the RFID card at RFID reader position for 1-3s, when you hear the beep sound, means unlocking, after the sound end, then you can pull the lock wire out;

Unlock area shows below:



b. Unlock with SMS command

14	SMS unlock PW	AS1234*269#8,888888,#	Default unlock PW is 888888
15	Change unlock PW	AS1234*269#4,888888,123456,#	6 number PW.

After you send the command, when you hear the beep sound, means unlocking, after the sound end, then you can pull the lock wire out.

6. Setting Commands

To make the device work on GPRS mode together the control center software system, we have to set some parameters to make the device know where and how to connect the server.

The following parameters must be set before you use this device:

a. Server IP and Port (No.1 in table)

Device must have a server to upload the data to; in default it is set to our server IP and Port, if you use your own server, tell us before you place an order. The setting command is No.1, for example: AS1107*269#1,120.24.225.253,2008,0#
(In that command, "120.24.225.253" is the IP, "2008" is the port, "0" is UDP and upload self-def2.)

c. APN (No.3 in table)

Full name for APN is Access Point Name, which should be given when you buy a GPRS SIM Card. It is offered by GSM network supplier, like China Mobile public APN is CMNET.

It is consists of 3 parts: APN, APN user name, APN password. Some of the GSM operator do not have APN user name and APN password, just leave it blank.

d. Device parameters checking (No.6 in table, Optional)

7.Serial command list

Name	Command	Reply
SMS Set IP,PORT	AS1234*269#1,120.24.225.253,5577,1#	IP:120.24.225.253,5577,1 OK
Set domain	AS1234*269#1,tracking.net,5577,1#	
SMS SET ID	AS1234*269#2,12007845#	IDDO:00012345 OK
Set APN	AS1234*269#3,CMNET,,,#	APN:cmnet;OK
SMS restart	AS1234*269#B#	Restart;OK
SMS set back to factory	AS1234*269#F#	PASSWORD:1234;OK
Check IP,ID,APN	AS1234*269#C#	IP:120.24.225.253,2008,1,cmnet,,,ID:61000640,M:6,GPS:A,5,CSQ:28,CGR:1,ACC:1,BAT:33%,VER:AT16-V1.0 CSQ: GSM signal strength; Ms:6 online (M0:initialize; M2:Search Network; M3:dialing; M4: connecting; M5: login; M6: Online; M9:disconnect and re-connecting)
Change angle upload	AS1234*269#G,x#	X: 0-180 degree.
SMS query status	AS1234*269#R#	lowBAT:30%,10h ack:0 km:100,5 msg1:24,24 msg2:0,0
SMS set ACC ON/OFF interval	AS1234*269#7,x,y,#	Unit: seconds
SMS set timezone	AS1234*269#I,Ex/Wx,#	TIME:E/Wx OK
SMS set Mileage	AS1234*269#m,x#	Unit: KM
Change SMS password	AS1234PASSWORD:4321#	
Set authorized number	AS1234*269#5,X,X,X,X,#	X,X,X,X, set ok
Query authorized number	AS1234*269#P#	12345678912,,,,;OK

set RFID card white list With group	AS1234*269#6,B,x,ID1,ID2,...ID 10,##	Max: 50 ID card support. x=1-5, each time can set 10 RFID numbers,the RFID number need follow with " "; Example: Set 2 ID cards: AS1234*269#6,B,1,0002346789,000702 2058,##
Query RFID card number by group	AS1234*269#6,Q,x#	x=1-5
Clear RFID number by group	AS1234*269#6,C,x#	x=1-5
Clear all RFID No.	AS1234*269#6,C#	
SMS unlock PW	AS1234*269#8,888888#	Default unlock PW is 888888
SMS unlock PW	AS1234*269#8,888888#	Default unlock PW is 888888
Change unlock PW	AS1234*269#4,888888,123456, #	6 number PW.
Check IP,ID,APN	AS1234*269#C#	IP:120.24.225.253,2008,1,cmnet,,,ID:610 00640,M:6,GPS:A,5,CSQ:28,CGR:1,ACC :1,BAT:33%,VER:AT16-V1.0
GOOGLE LINK	AS1234WHERE2#	Track from 61000640,PLS help at speed:0Km/h,battery:32%,V, http://maps.google.com/maps?hl=en&q= 22.59270,113.87099 2017-08-22 16:04:17 (M0:initialize; M2:Search Network; M3:dialing; M4: connecting; M5: login; M6: Online; M9:disconnect and re-connecting)
OTA command	AS1234*269#W,IP,PORT;#	
Sleep mode No.1	AS1234*269#9,M1,x1,x2,##	M1:close GPS and GSM both, only enable sleep with unlock; x1=wake up working time; x2=sleep mode sleeping time, need larger than 5min;
Sleep mode No.2	AS1234*269#9,M2,x1,x2,##	M2: close GPS and GSM both, enable sleep with unlock and lock; x1=wake up working time; x2=sleep mode sleeping time, need larger than 5min;

Sleep mode No.3	AS1234*269#9,M3,x1,x2,#	M3: close GPS, sleep GSM(can receive SMS) enable sleep with unlock and lock; x1=wake up working time; x2=sleep mode wake up time, need larger than 5min; x3=reserved Unit is minute.
Mode No.5 Not sleep mode	AS1234*269#9,M5,x1,x2,#	M5: upload by moving or static. X1=moving upload interval(need speed); X2=static upload interval; Unit is seconds.
Mode No.6 G-Sensor	AS1234*269#9,M6,X,Y,Z,W,S#	M6: detect moving by G-sensor X=vibrate sensitive (range:10-100, suggest to set 15); Y=vibrate time to exit from sleep(unit is seconds, suggest to set 5s); Z=no vibrate detect time(unit is seconds, suggest to set 30s); W=working duration after exit from sleep(unit is minute); S=sleep mode duration(3-65535min)
Low power deep sleep mode	AS1234*269#9,M7,x1,x2,#	M7: Low power enter protection mode(close GSM&GPS), only allow RFID to unlock. X1=Low power percent, default is 10% X2=report duration, unit hour.
Exit from deep sleep mode	AS1234*269#9,M7,0#	
Disable sleep mode	AS1234*269#9,M0#	
Serial command format convert to SMS command	“AS1234”+”Serial command” + “#”	

8. FAQ

8.1 Show offline in Software Platform

Check if the device LED indicator shows normal. If device is not beside you, use telephone to check. Call the SIM card telephone you inserted in device, and make sure the SIM card is working.

8.2 All the devices show offline in Software Platform

Check the software platform server part, if it works normal contact with your GSM network operator. If both server and GSM network have no problem, then contact us.

8.3 Device do not get correct position

First time get position will take longer time (around 1~2 min), please put the LED side face to sky with no cover to get position. If it takes long time and do not get correct location, please check if the device install position is correct and no metal shield above it.

8.4 Device do not get GSM network

Make sure the SIM card has money/enabled GPRS, and was correct installed, and make sure the device not in a GSM signal blind area (such as underground garage).

9. Upgrade steps

1. Install the eFWTool.Driver:

 eFWTool Driver	2012/4/19 17:52	应用程序	1,721 KB
 eFWTool	2022/9/14 14:54	应用程序	860 KB

2. serial cable:



3. Power on the device, make sure the device is under working status and battery normal (>30%);
4. Connect device to computer and set the FW upgrade tool as below:

