

L6020 Desktop RFID Card Programmer User's Guide

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This User's Guide is for user, salesman, installing and technical support person of L6020 Desktop RFID Card Programmer, in order to make them understand the installing, testing and using of the unit clearly. Before operating the unit, please read this guide carefully and keep it for future reference.

The models are defined as per protocol and network modes:

Model No.	Explanation
L6020	Desktop RFID Card Programmer(Reader/Writer), ISO18000-6C/EPC Gen2, RS-232/USB
L6020-L	Desktop RFID Card Programmer(Reader/Writer), ISO18000-6C/EPC Gen2, LAN(TCP/IP)

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1. Brief Introduction

L6020 Desktop RFID Card Programmer is a UHF RFID card(tag) reader/writer. It supports ISO18000-6C / EPC Class1 Gen2 protocol to read and write the relative card(tag), as well as easy operation.








Product Applications

Application	Examples	Description
Vehicle Management	Parking lot	Charge automation, pass in and out management
	Highway Charge	Charge automation for highway, bridge and tunnel
	Dock/Container	Container management in road, railway and dock
	Vehicle Monitor	Vehicle monitor in traffic management
Logistics Management	Warehouse	Warehouse, Super market, Mailing, Package management
	Manufacture	Monitor the products in production-line
	Custom	Goods management for custom clearance
	Anti-fake	Anti-fake for products
Staff Management	Access Control	Access control system for staff pass in and out
	Work Attendance	Check on work attendance, HR management
	Miner	Miner management, insurance
	EduToHome	Students management between school and home

Product Performance

Item	Parameters & Performance
Reader-Tag Protocol	ISO18000-6C / EPC Class1 Gen2
Frequency Band	USA(902-928MHz), EU(865-868MHz), CN(920-925MHz), other frequency band
Communication	RS232, USB(with converter), LAN(L6020-L)
Identify Tag Range	Reading more than 10cm, Writing more than 5cm, depended on tag
Software Support	Provide Windows API, Demo sample software(With source Code)
Power Supply	DC 5V / 1A power supply
Dimension	160x110x40mm
Net Weight	0.5 Kg
Storage Temp	-30 ~ +80 degree celsius
Operation Temp	-20 ~ +75 degree celsius
IP Class	IP54
Work Performance	High speed micro-processor controlled, running steadily
Upgrade	Firmware can be upgraded easily by RS-232/USB/LAN

2. Product Aspect

Item	Photo & Description		
	Photo (L6020)	Photo (L6020-L)	
Product Aspect			
Accessories	Power Adaptor	CD	
			
	RS-232 Cable (for L6020 only)	RS-232 To USB Converter <i>(Optional, not provided by default)</i>	LAN Cable (RJ45) (For L6020-L Only)
			

Panel LED Indication:



- POWER (Red) : Power indication LED.
- COMM (Green) : Communication indication LED.
- STATUS (Green) : Read/Write status indication LED.

3. Installation & Connection

The reader must be installed and connected correctly before operating.

L6020: Connect the card programmer to computer by RS-232 cable or USB cable(with RS232-to-USB converter).

Note: For USB model, a USB-RS232 driver program needs to be installed. Please install the driver that we provided. After that, the USB port is simulated to a common serial port number(eg. COM4). Please set this serial port property to 115200bps, 8, N, 1. Then you may operate the card programmer just like the RS-232 model.

For some PC or OS, after installing the driver, user may need to restart the computer so as to validate the driver. Sometime it may be a good solution to plug out USB connector and plug in again in case of not well connection.

L6020-L: Connect the card programmer to computer or HUB by LAN cable(RJ45).

Note: The default reader IP Address is 192.168.0.178, Port is 4001.

User should set the PC IP address to the same section as reader (eg. PC IP address is 192.168.0.100, Mask is 255.255.255.0, Gateway is 192.168.0.1).

After power on by plugging 5V DC power supply, the card programmer will sound a BEEP, together with Red LED lighting. There are three LED lights on reader panel to indicate the different operating status:

POWER (Red):	Power indication LED.
COMM (Green):	Communication indication LED.
STATUS (Green):	Read/Write status indication LED.

A SDK(Software Development Kit) package is provided together with the card programmer. The SDK includes Demo software with source code, API functions set, and serial port Communication Protocol. When installation and connection succeed, user can use the provided Demo software to operate on the card programmer and tags.

Note:

For how to operate card programmer please see document "L6020 Desktop RFID Card Programmer Demo User's Guide.pdf".

For how to use API functions set by Demo please see document "L6020 Desktop RFID Card Programmer API User's Guide.pdf".

For serial port communication protocol please see document "L6020 Desktop RFID Card Programmer Communication Protocol User's Guide.pdf".

4. Attention before operating

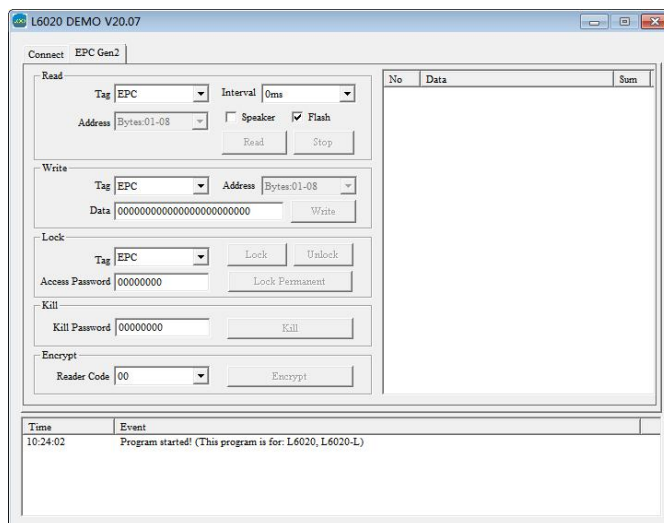
One 5V power supply(1000mA or above is suggested) must be required for this reader, too high voltage will damage the reader! A good quality power supply is required to guarantee the good reading/writing performance, please use our provided power adaptor as far as possible.



When reading/writing a card, please put card above the card programmer, with a direction according to the frame on the top of card programmer. It is highly suggested that user hold a tag to read it continually first, then write it. This way will get good writing result.



Reader is designed for close range reading/writing, in order to read/write card one by one. With correct operating way and good position, the writing success rate may reach 100%.



5. FAQ

The frequent asked questions and the resolutions are listed below:

Failure	Possible Reason	Solution
Reader can not be connected	Communication cable or port poor contact or not connected well	Check and connect communication cable well
	Driver not installed or error	Remove and install drive software
Card unreadable or unwritable	Power does not work, or poor contact for power plug	Check the power supply, use the correct power
	Tag is too far from reader or improper position	Move tag close to reader in good position
	Tag has been damaged or improperly operated	Change to a new tag