CypTronic Control System
User Manual



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Ver 1.2

Chapter 1 Introduction to Product

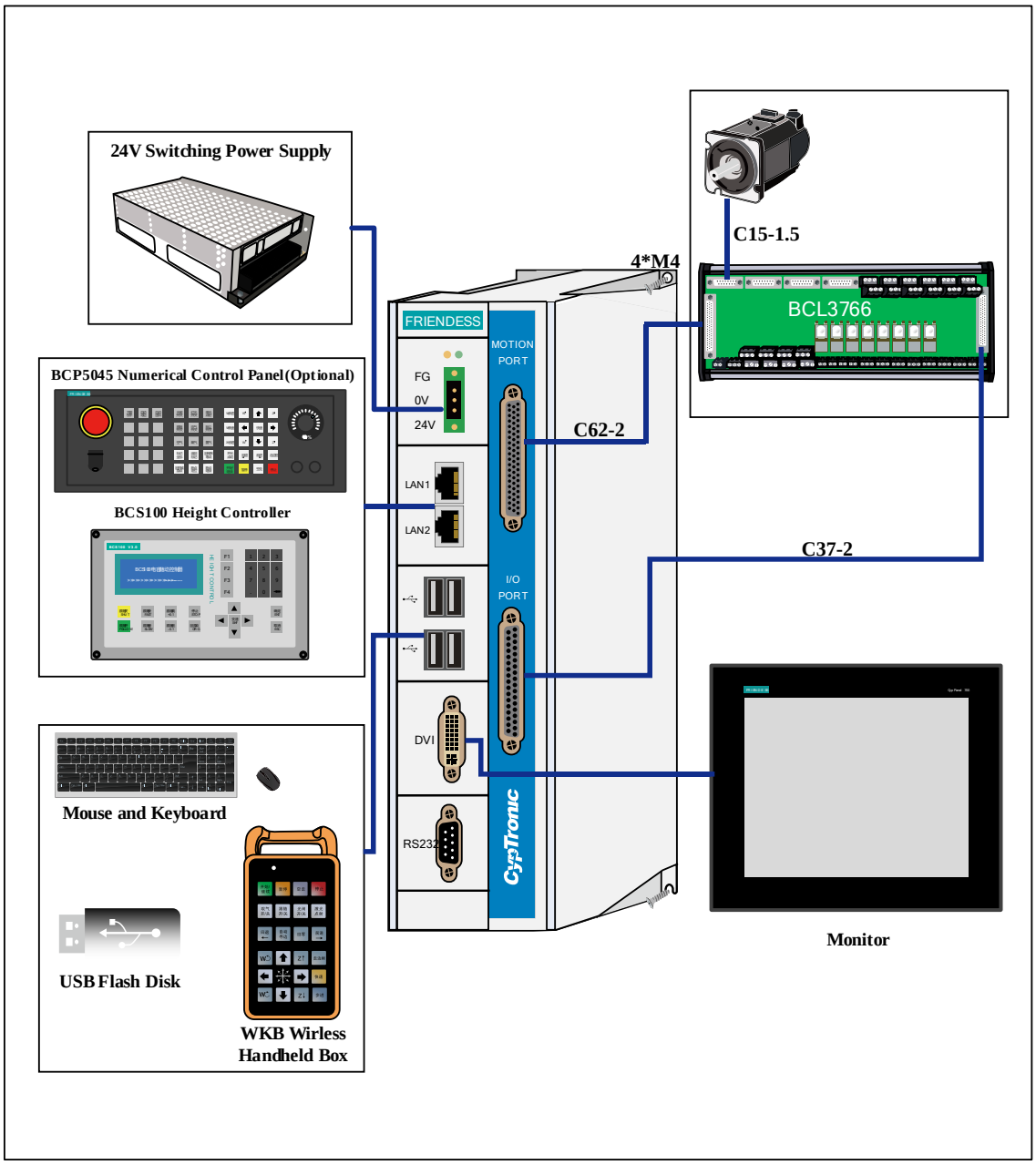
1.1 Introduction

CypTronic control system integrates series of motion control cards and is based on the X86 quad-core industrial motherboard. It includes CypTronic-K open-loop control system, CypTronic-F plate-tube control system and CypTronic-B closed-loop control system.

The product specifications are as follows:

Product Specification			
Model		CypTronic-K2（F2/F5）	CypTronic-B2
Integrated Control Card		BMC1604V2（1605V2/1805）	BMC1214
Terminal Board		BCL3766	BCL3724
Application		open-loop plane（Pipe）	closed-loop high-speed and high-accuracy
System Configuration	Processor	Intel® Celeron® Processor J1900@2GHz	
	Storage	64G mSATA SSD	
	Memory	4G DDR3	
	Operating System	Windows Embedded Standard 7（X86）	
I/O port	Display	DVI-I×1	
	Ethernet	10/100/1000Mbps×2	
	USB Port	USB2.0×4	
	Serial Port	RS232×1	
Power supply		DC24V/2A（9-36V Wide Range）	
Work Environment		Temperature：0~60℃	
		Humidity：10%~90%（no condensation ）	
Ingress Protection		IP 20	
Overall Dimension		70mm×243mm×164mm	
Parts	62-pin Cable	C62-2	
	37-pin Cable	C37-2	N/A
	Servo Cable	C15-1.5	
	Wireless handheld box	WKB	
	3-pin Green Terminal	MSTB 2.5/3-STF-5.08	
	DVI-to-VGA Adapter	SAMZHE ZH-310	
	Numerical control panel (Optional)	BCP5045	

1.2 Connection Diagram



Note：The figure above is CypTronic-K connection diagram which is same with CypTronic-F. CypTronic-B is connected to BCL3724 without I/O port.

CypTronic-K2 matches with BCL3766; CypTronic-K matches with BCL3764.

CypTronic-F2、CypTronic-F5 matches with BCL3766; CypTronic-F matches with BCL3764.

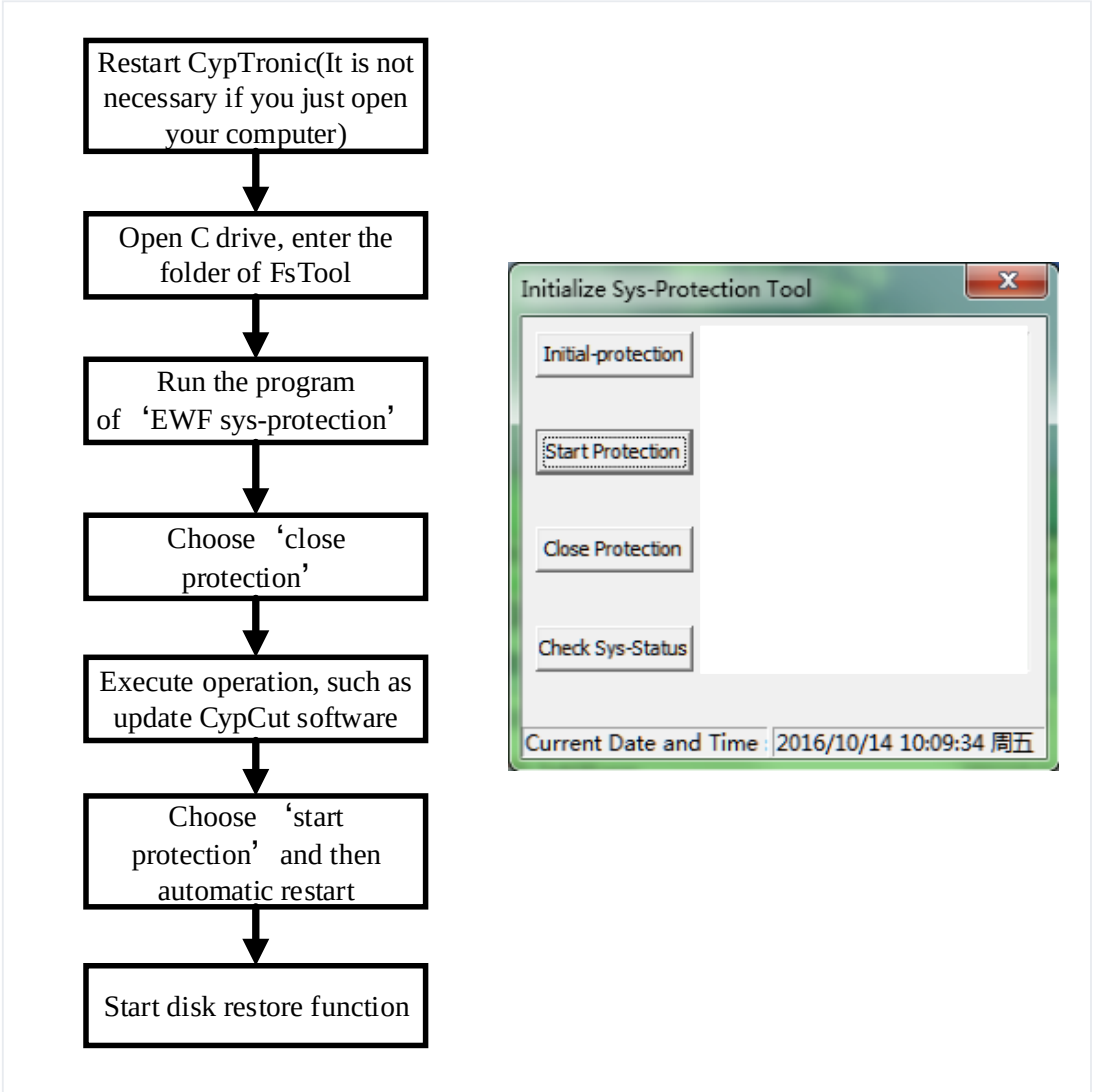
CypTronic-B2 matches with the version of BCL3724 V4.0 and subsequent versions; CypTronic-B matches with the version of BCL3724 V3.1 and previous versions.

Chapter 2 **Function Specification**

2.1 System Disk Protection Instruction

CypTronic contains Enhanced Write Filter plug-in (hereinafter referred to as EWF) in order to restore system disk at boot and prevent it from viruses. Please save the data files you want in D drive in case of losing the important data files.

If you need to temporarily turn off the disk restore function while operating CypTronic, such as updating CypCut software, you can perform the following steps:



If you are not sure whether the current situation of CypTronic is in protected mode, you can select "Check Sys-Status" in configuration tool.

The status can be shown as below:

Status	Illustration
Enable	In a state of system protection, the boot will restore the system disk data.
Disabled	Not in a state of system protection, the boot will not restore the system disk data.
No Starting Sys-Protection	Select “Initial-protection” and initialize the system protective function after automatic restart. Then you can start or close the function of protection.

Note：Close the protected mode when installing new driver.It is recommended that don’t insert U disk after closing the protected mode otherwise it may exist the risk of viruses and affect system. You should copy the files in D drive under protected mode, then unplug U disk and restart the computer to close EWF.

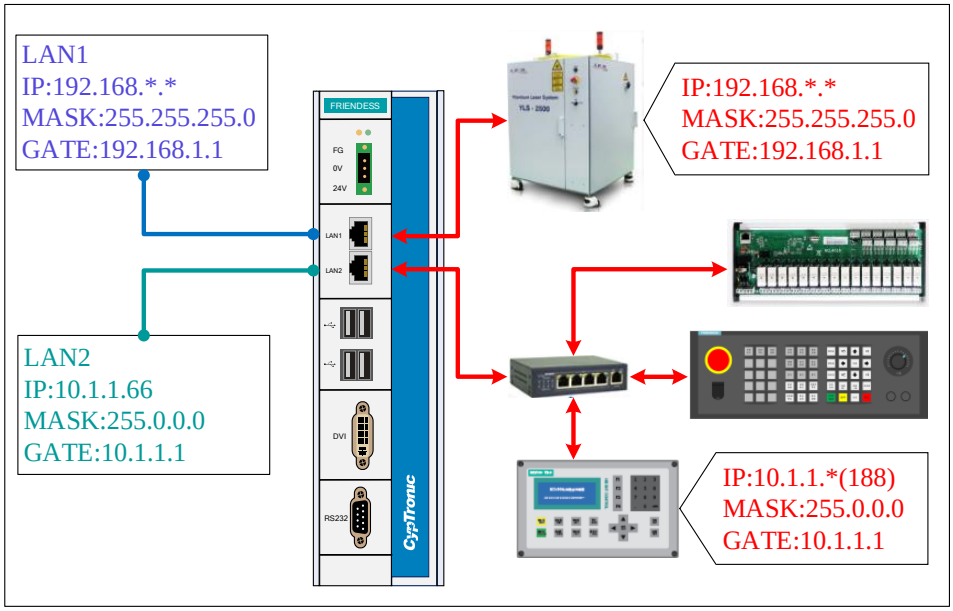
2.2 CypCut Instruction

CypTronic installs the software of latest version by default(CypCut、CypTube、TubePro and so on). Please refer to the User Manual for more detailed software information. Note:The CypCut (CypTube、TubePro and so on) configuration information won’t be restored at boot.

2.3 Network Configuration Instruction

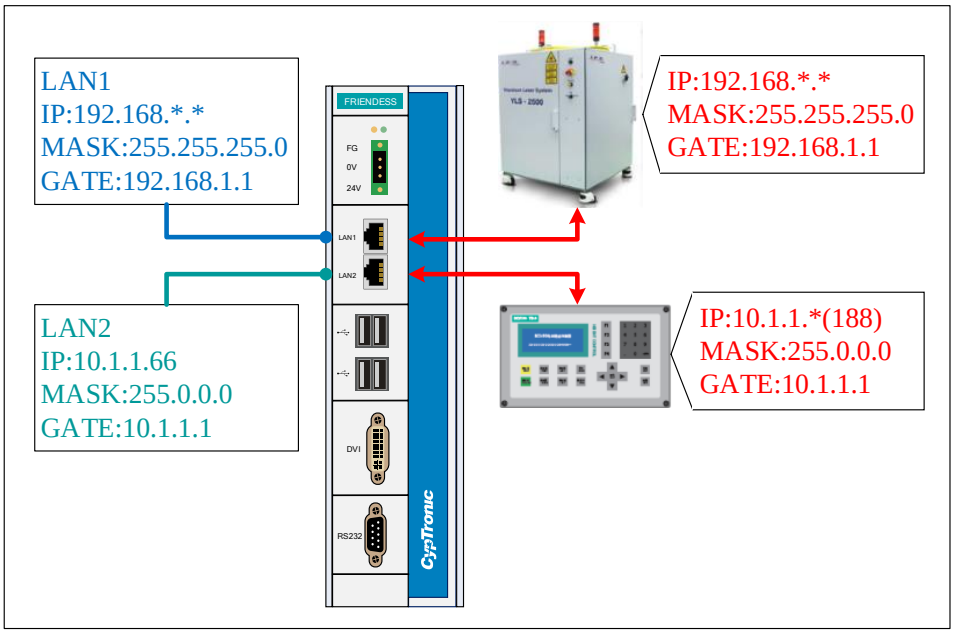
CypTronic is equipped with two Gigabit Industrial Ethernet ports. By default, LAN1 set as automatically obtain IP address, LAN2 set as “IP: 10.1.1.66; Mask: 255.0.0.0; Gate: 10.1.1.1”. The network settings refer to the following:

2.3.1 Connecting Multiple Devices Through Switch



Applicability	Configuration Points
More Than Two Network Devices	The configuration of LAN1 is based on laser equipment or other network devices. LAN2 is connected to the switch, all our peripherals are connected to the switch. LAN1 and LAN2 are configured with different network segments.

2.3.2 Connecting Two Devices

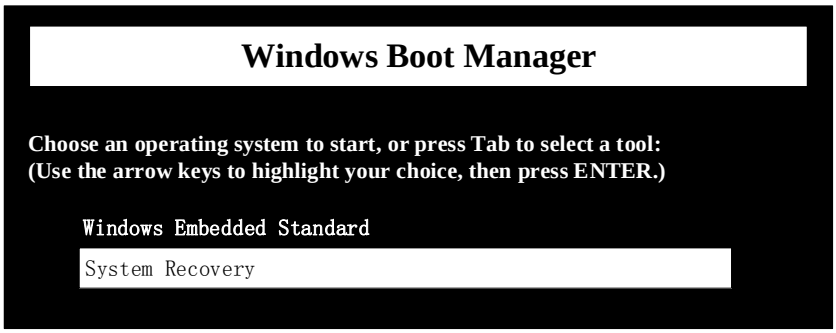


Applicability	Configuration Points
Only Two Network Devices	LAN1 and LAN2 are respectively connected to two peripherals. LAN1 and LAN are configured with different segment.

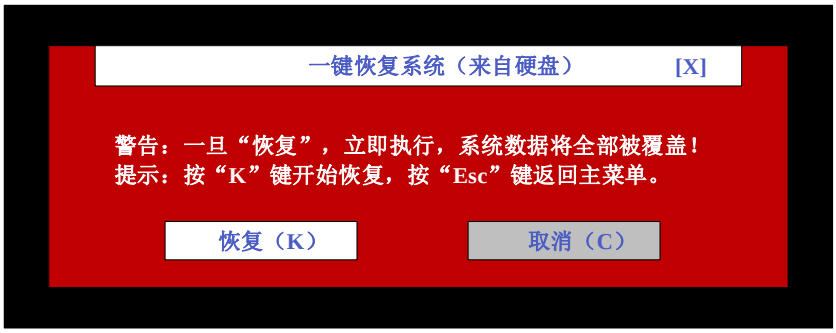
2.4 Recovery Instruction

CypTronic embeds recovery software to reset to defaults, proceed as follows:

1. Start the computer;
2. Select "System Recovery" on the Windows Boot Manager interface;



3. Automatically enter the "Password" interface, input 666666;
4. Wait for "一键恢复系统（来自硬盘）" interface, press "K" key or select "恢复（K）" to recover;

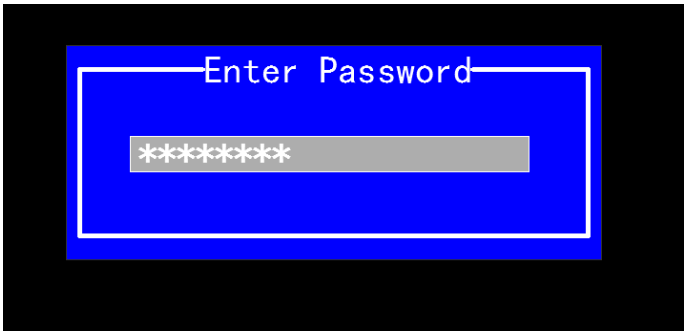


5. Wait for recovery complete and reset.

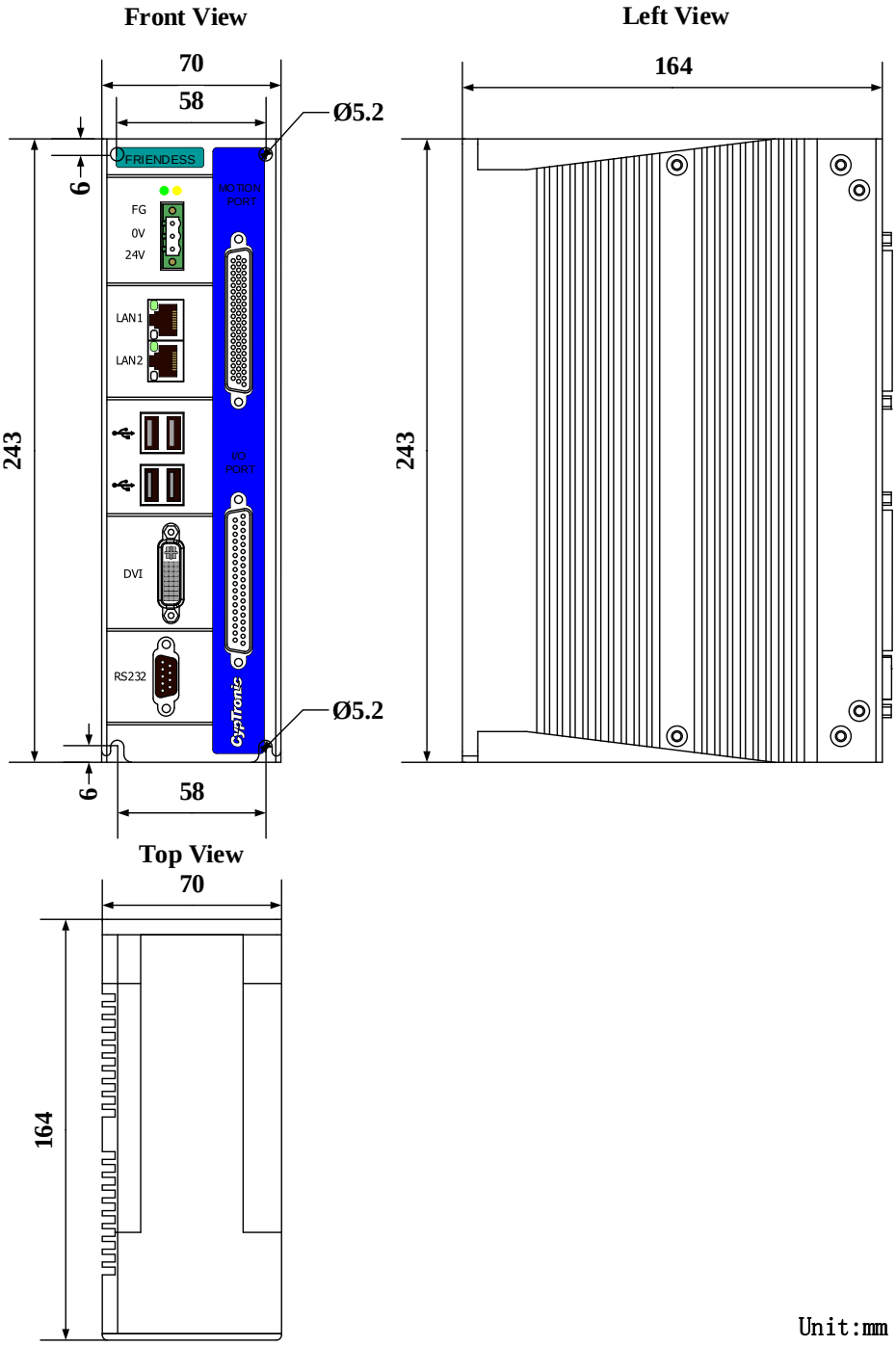
Note：Hide the drives where backup file is in case of unintentional modification.

2.5 Instruction of Entering BIOS

Press "delete" key at boot and input “61259023” on "Enter Password" interface to enter the BIOS and set up related information.



Annex I：Dimensions of CypTronic



Note：The images above are overall dimensions of CypTronic-K2. The hole size of CypTronic-F2、CypTronic-F5 and CypTronic-B2 is same with that of CypTronic-K2. Only the front panel is slightly different.