

# 6A-STD Controller

High speed, High accuracy. The most trustworthy electrical control partner in the machine tool industry.

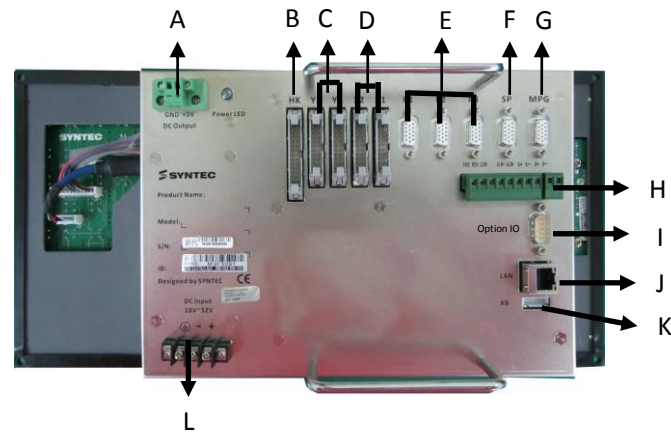
## Basic Installation Instructions v1.3

### 1. Controller Interface ( Front View )



A	8-inch monitor	Display Window	C	Function Buttons	F1~F5 Functions
B	Flip Cover	USB Port	D	Keyboard	Script Input

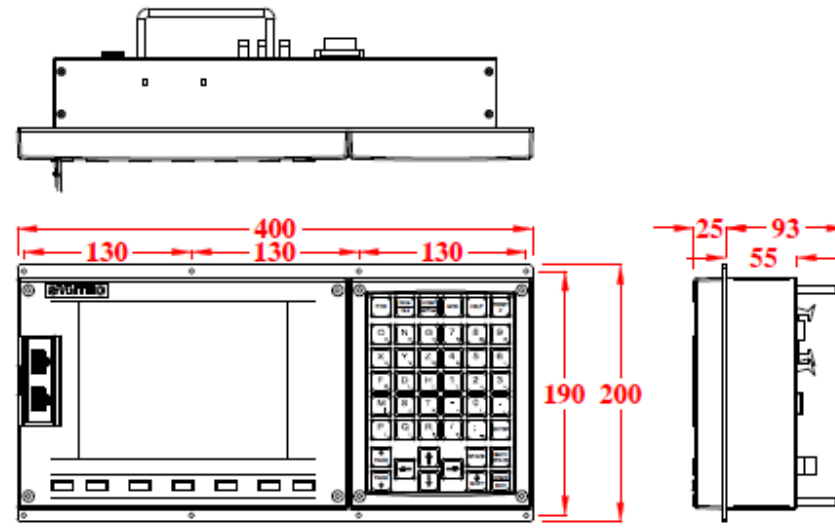
### ( Back View )



A	5V 2PIN PORT	5V Power output for the HK panel
B	HK PORT	HK panel interface
C	Y1&Y2 PORT	Output Interface Able to connect with external output terminal strips
D	X1&X2 PORT	Input Interface Able to connect with external input terminal strips.
E	P1~P3	Three sets of servo orientation control interface
F	SP PORT	Spindle D/A output ( Encoder feedback included )
G	MPG PORT	MPG Interface ( 7 sets of 1 point )
H	SPINDLE	Two sets of spindle D/A output interface (Switching points included)
I	Option IO	One set of Option IO

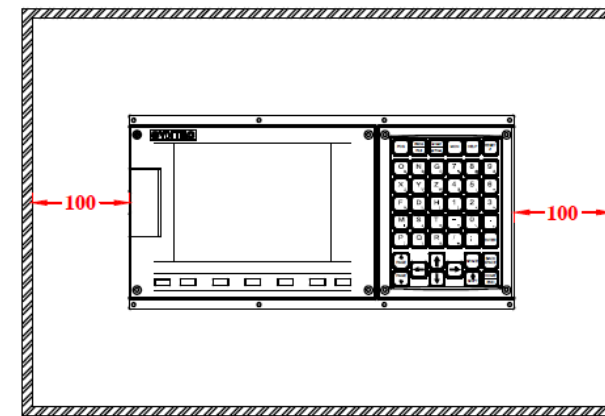
J	LAN	10/100M Internet Interface
K	KB	Keyboard Interface
L	DC 24V INPUT	Power input DC 24V · 1A

### 2. External Dimension ( Unit : mm )

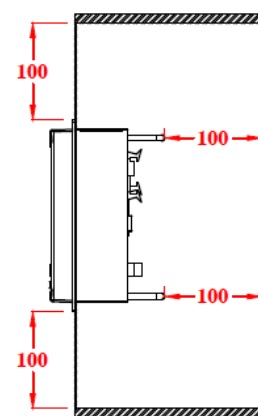


### 3. Suggested Installation Specifications ( Unit : mm )

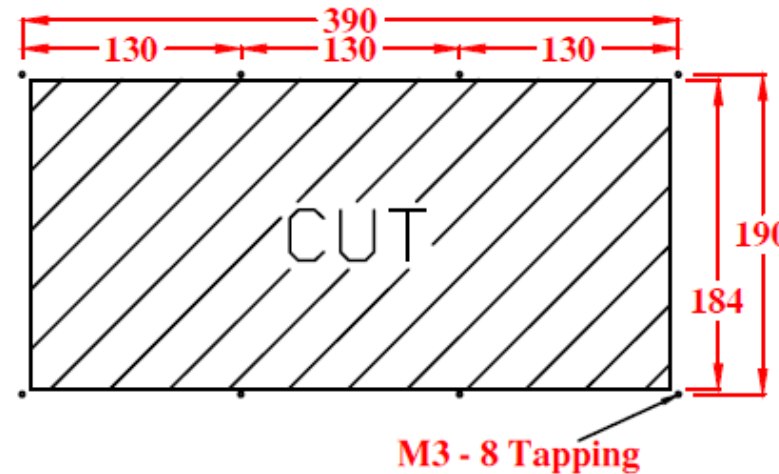
( Front View )



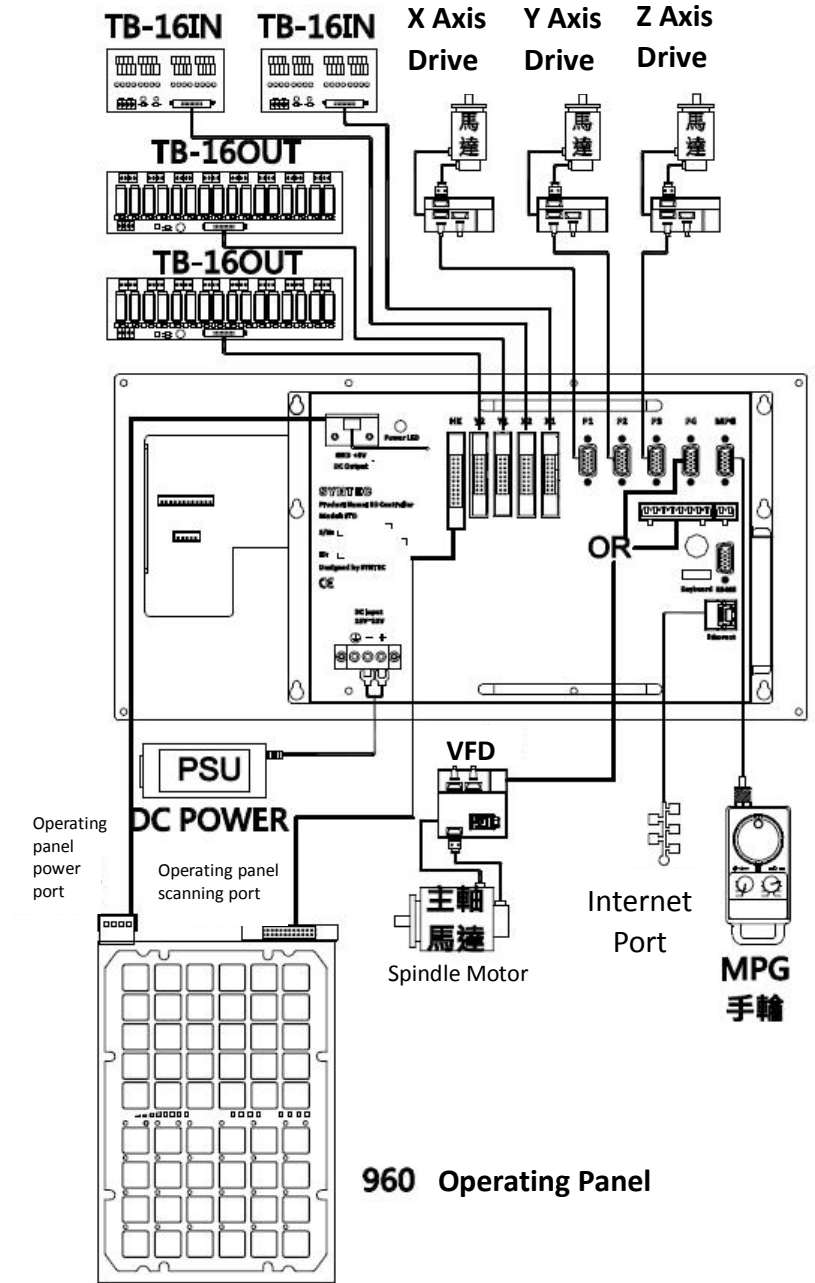
( Side View )



### 4. Mounting Hole Specifications ( Unit : mm )



### 5. Basic Wiring Diagram



### 6. Interface Configurations

Please notice the value and polarities of voltages.

#### ● P1~P3 Connector Arrangement

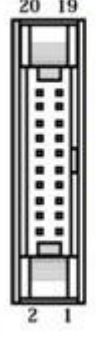
P1~P3	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL
	1	A+	6	C-	11	CW+
	2	A-	7	ALM+(+24V)	12	CW-
	3	B+	8	ALM-(GND)	13	CCW+
	4	B-	9	SERVO-ON	14	CCW-
	5	C+	10	SERVO-CLR	15	OUT_COM

#### ● MPG Connector Arrangement

MPG	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL
	1	MPG_A+	6	Z-	11	IN60 <sup>+</sup>
	2	MPG_A-	7	IN56 <sup>+</sup>	12	IN61 <sup>+</sup>
	3	MPG_B+	8	IN57 <sup>+</sup>	13	IN62 <sup>+</sup>
	4	MPG_B-	9	IN58 <sup>+</sup>	14	GND <sup>+</sup>
	5	MPG_Z+	10	IN59 <sup>+</sup>	15	VCC(+5V)

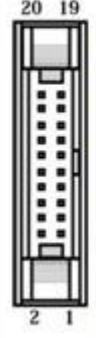
● X1 Connector Arrangement

X1	PIN	SIGNAL	PIN	SIGNAL
20	19	INPUT8	19	INPUT0
18	17	INPUT9	17	INPUT1
16	15	INPUT10	15	INPUT2
14	13	INPUT11	13	INPUT3
12	11	INPUT12	11	INPUT4
10	09	INPUT13	09	INPUT5
08	07	INPUT14	07	INPUT6
06	05	INPUT15	05	INPUT7
04	03	GND	03	GND
02	01	---	01	---



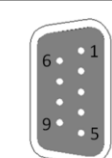
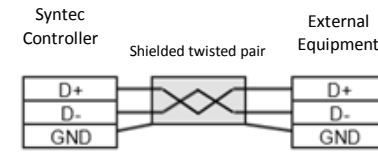
● X2 Connector Arrangement

X2	PIN	SIGNAL	PIN	SIGNAL
20	19	INPUT24	19	INPUT16
18	17	INPUT25	17	INPUT17
16	15	INPUT26	15	INPUT18
14	13	INPUT27	13	INPUT19
12	11	INPUT28	11	INPUT20
10	09	INPUT29	09	INPUT21
08	07	INPUT30	07	INPUT22
06	05	INPUT31	05	INPUT23
04	03	GND	03	GND
02	01	---	01	---



● Option IO Connector Arrangement


Option I/O	PIN	SIGNAL	PIN	SIGNAL
1	--	6	RS485_D-	
2	--	7	RS485_D+	
3	--	8	--	
4	--	9	5V	
5	GND	10	--	

※Notice : Please apply shielded twisted pair when using the RS485 interface. Besides the D+ and D- signal cable, please make sure the air gap is connected to GND on both sides to prevent the RS485 interface from burning down.

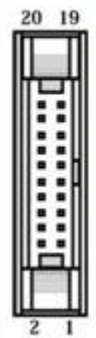
● Y1 Connector Arrangement

Y1	PIN	SIGNAL	PIN	SIGNAL
20	19	OUTPUT8	19	OUTPUT0
18	17	OUTPUT9	17	OUTPUT1
16	15	OUTPUT10	15	OUTPUT2
14	13	OUTPUT11	13	OUTPUT3
12	11	OUTPUT12	11	OUTPUT4
10	09	OUTPUT13	09	OUTPUT5
08	07	OUTPUT14	07	OUTPUT6
06	05	OUTPUT15	05	OUTPUT7
04	03	GND	03	GND
02	01	24V	01	24V



● Y2 Connector Arrangement

Y2	PIN	SIGNAL	PIN	SIGNAL
20	19	OUTPUT24	19	OUTPUT16
18	17	OUTPUT25	17	OUTPUT17
16	15	OUTPUT26	15	OUTPUT18
14	13	OUTPUT27	13	OUTPUT19
12	11	OUTPUT28	11	OUTPUT20
10	09	OUTPUT29	09	OUTPUT21
08	07	OUTPUT30	07	OUTPUT22
06	05	OUTPUT31	05	OUTPUT23
04	03	GND	03	GND
02	01	24V	01	24V



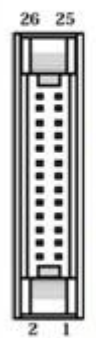
● SP Connector Arrangement

SP	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL
1	A+	6	C-	11	SP_FWD(O46)	
2	A-	7	ALM+(+24V)	12	SP_REV(O47)	
3	B+	8	ALM-(GND)	13	SP_COM	
4	B-	9	DA+	14	GND	
5	C+	10	DA-	15	+5V	



● HK Connector Arrangement

HK	PIN	SIGNAL	PIN	SIGNAL
26	25	---	25	XDI55
24	23	XDI54	23	XDI53
22	21	XDI52	21	XDI51
20	19	XDI50	19	XDI49
18	17	XDI48	17	5V
16	15	GND	15	XDO62
14	13	XDO61	13	XDO60
12	11	XDO59	11	XDO58
10	09	XDO57	09	XDO56
08	07	XDO55	07	XDO57
06	05	XDO53	05	XDO52
04	03	XDO51	03	XDO50
02	01	XDO49	01	XDO48



● SPINDLE Connector Arrangement

SPINDLE	PIN	SIGNAL
1	2DA-	
2	2DA+	
3	1DA-	
4	1DA+	
5	ALM+	
6	ALM-	
7	NC	
8	DCM	
9	REV	
10	FWD	

