

Welding Controller

JANDA-400

Operation Manual

JANDA

Feature

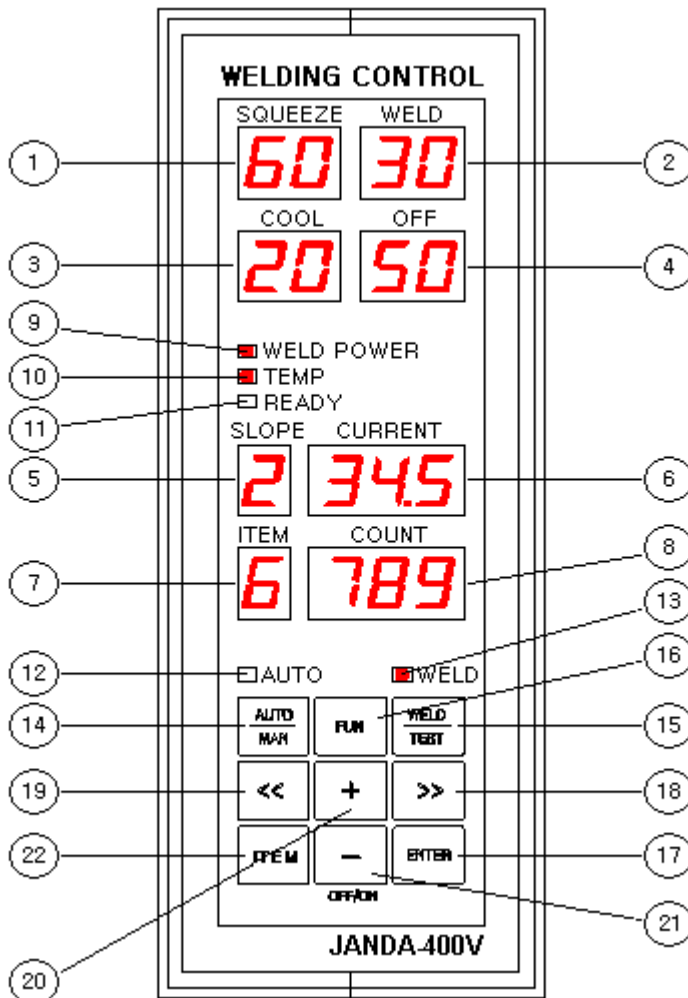
- ▶ This resistance weld controller is the lightest and smallest micro-computer controller.
- ▶ This is a multi-functional controller which is applicable for all resistance welders, such as Spot welder, Projection welder, Portable welder, Seam welder and Flash butt welder.
- ▶ The case of controller is ABS plastic, and weighs light and resists external shock and vibration.
- ▶ This is easy and simple to handle as it chose Full Digital Set-up Parameter(F.D.S.P) control system by micro-computer.

Specification

MODEL		JANDA-400V	
Weld power	VAC	220 and 440 +10%, -25%	
Control and solenoid power	VAC	90~250 (Free Voltage)	
Frequency	Hz	50/60	
Memory backup	-	10 years and over after power failure	
Indication	-	7-segment LED, 6.5(W) x 10.0(H)mm	
Number of mode input	In	Mode switch1(MS1), Mode switch2(MS2), Dry contact or open collector	
Number of start input	In	Start1(FS1), Start2(FS2), Dry contact or open collector	
Thermo switch input	In	Thyristor thermo switch, Dry contact or open collector	
Number of solenoid valve	Out	Solenoid valve1(VALVE 1), Solenoid valve2(VALVE 2), Control voltage output	
Weld end signal	Out	Relay contact output (1a1b), One short(0.3sec)	
Weld current	-	Control methode : Phase control by thyristor	
		Control angle : 20~160	
		Maximum analyze : 0.1% (0.0~99.9%)	
Weld counter	Count	0~3999	
Setting range	-	Weld Schedule : 0~9 schedules Squeeze time : 0~99 cycle Up slope time : 0~9 cycle Weld time : 0~99 cycle Cool time : 0~99 cycle Off time : 0~99 cycle Weld Current : 0.0~99.9%	
Ambient temperature	°C	-10 to 55°C (at non-freezing status)	
Storage temperature	°C	-25 to 65°C (at non-freezing status)	
Ambient humidity	%	35 to 85%RH	
Insulation resistance	-	Min. 100MΩ (at500VDC)	
Dielectric strength	-	2000VAC 50/60Hz for 1 minute	
Noise strength	-	±2kV the square wave noise(pulse width:1 μs by the noise simulator)	
Vibration	Mechanical	-	0.75mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 1 hours
	Malfunction		0.5mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 10 minutes
Size	mm	194(W) × 76(H) × 190(D)	
Weight	Kg	1.8Kg Max.	

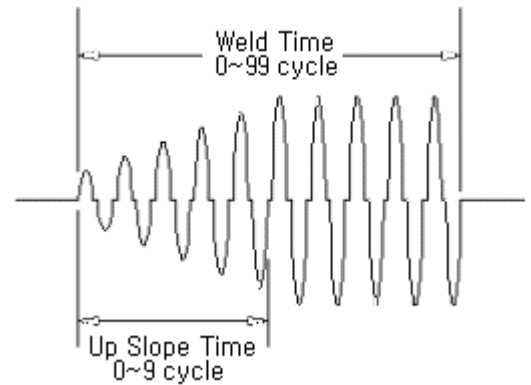
Function Explanation

Model : JANDA-400V(Vertical Type)



- 1 SQUEEZE : 0~99 cycle
- 2 WELD : 0~99 cycle
- 3 COOL : 0~99 cycle
- 4 OFF : 0~99 cycle
- 5 SLOPE(Weld current up slope) : 0~9 cycle ***
- 6 WELD CURRENT : 0.0~99.9%
- 7 ITEM(Weld schedule) : 0~9 schedule
- 8 COUNT(Weld count) : 0~3999 count
9 9 9.=1999 /9 9.9.=2999 /9.9.9.=3999

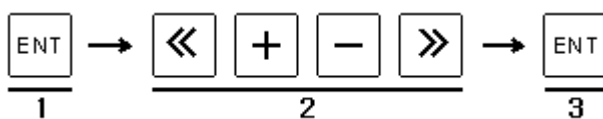
*** Slope(Up slope)



- 9 WELD POWER lamp
- 10 TEMP(Thyristor temperature switch) lamp
- 11 READY lamp
WELD POWER ON + TEMP ON + WELD ON
= READY lamp ON
- 12 AUTO /MAN(Auto /Manual) lamp
- 13 WELD /TEST lamp

- 14 AUTO /MAN(Auto /Manual) button
- 15 WELD /TEST button
- 16 FUN(Weld count clear) button
- 17 ENTER(Operation /Program) button
- 18 >> button : Preset position
- 19 << button : Preset position
- 20 + button : Data increment
- 21 - button : Data decrement
Operation : Control Power ON/OFF button
- 22 ITEM(Weld schedule) increment button

• Squeeze, Weld, Cool, Off, Slope, Current Setting



1. The indicator is blinked when press the button, "ENT"
2. Change the value for setting by using the button, "<<,+,-,>>"
3. Complete the setting pressing the button, "ENT"

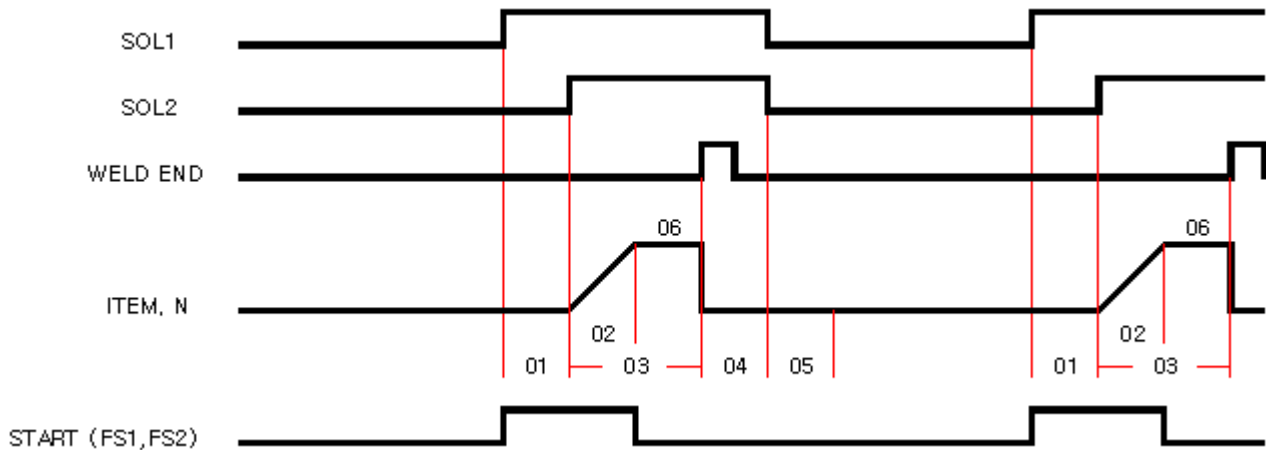
Operation Mode / Timing Charts

Operation mode	External mode switch		Schedule	Remarks
	MS1	MS2		
Spot /Projection mode	OFF	OFF	0 ~ 9	
2Head Spot /Portable mode	ON	OFF	1	Start switch1 (FS1)
			2	Start switch2 (FS2)
Seam mode	OFF	ON	0 ~ 9	
Flash butt mode	ON	ON	0 ~ 9	

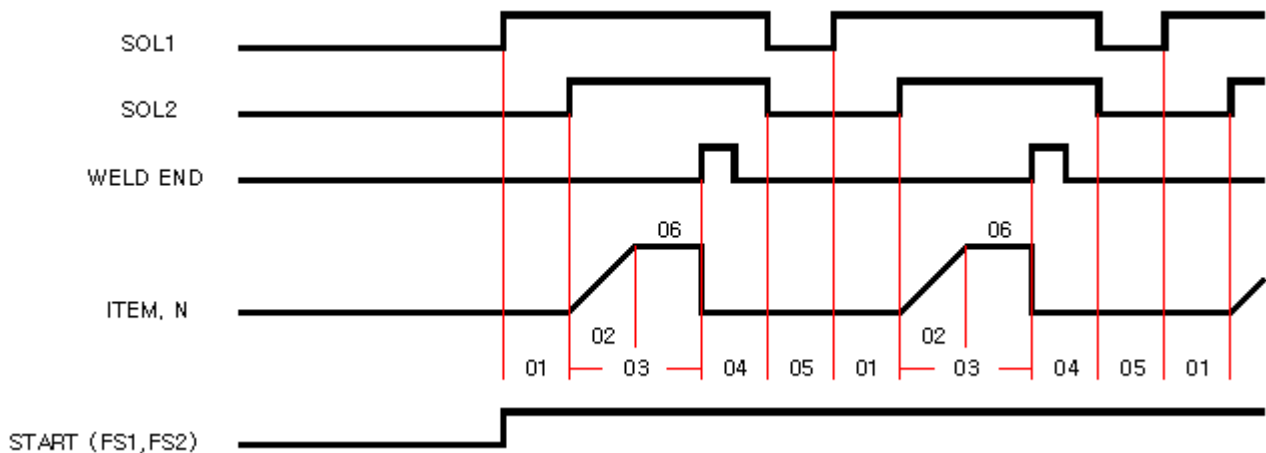
General timing charts

Weld Schedule	Squeeze time	Up slope time	Weld time	Cool time	Off time	Weld Current	Weld Count
	01	02	03	04	05	06	
0~9	0~99 cycle	0~9 cycle	0~99 cycle	0~99 cycle	0~99 cycle	0.0~99.9 %	0~3999

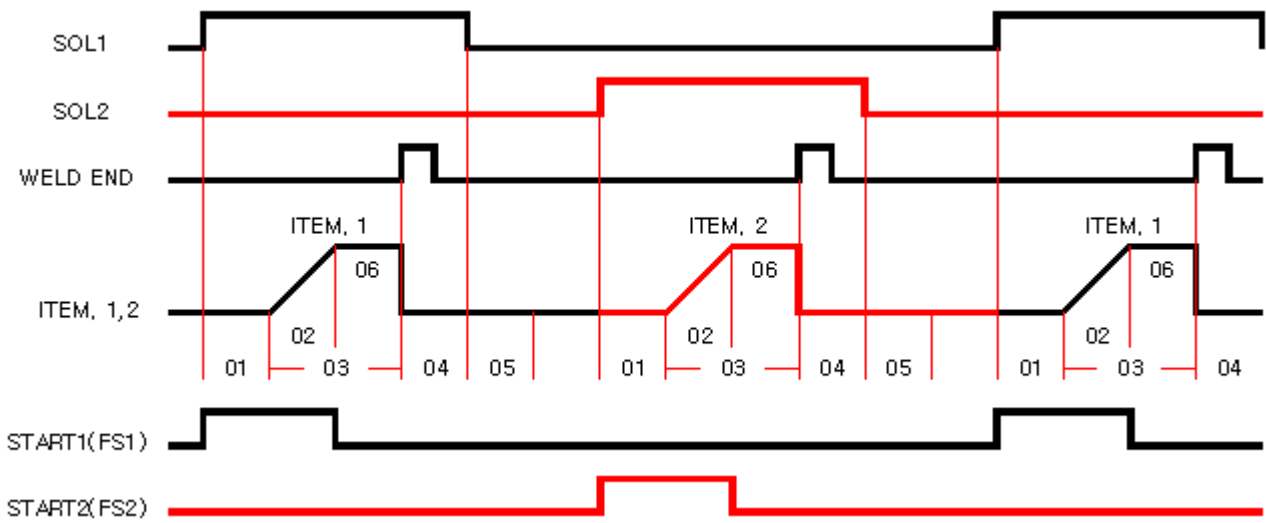
Spot /Projection manual mode (MS1 : OFF, MS2 : OFF)



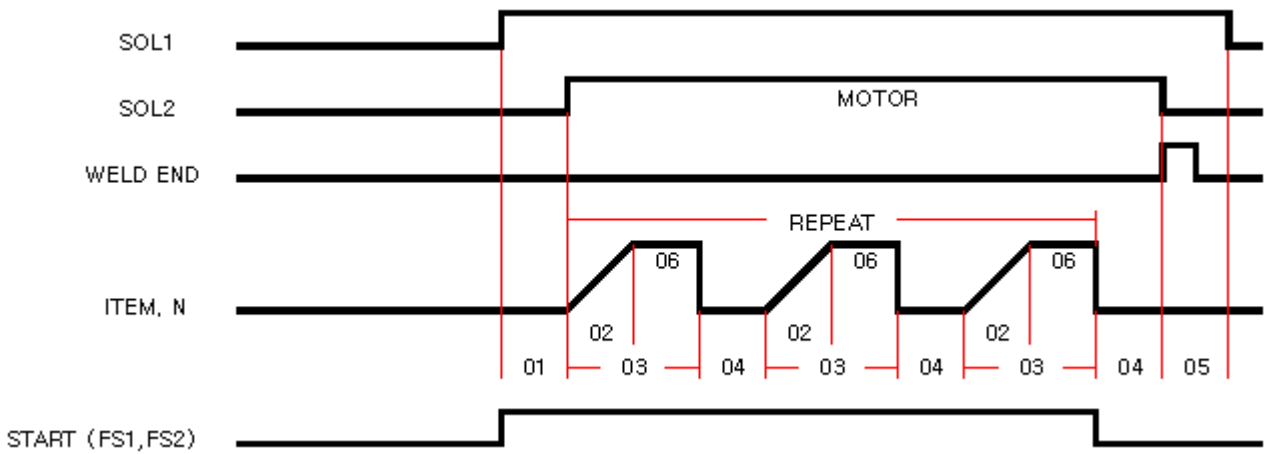
Spot /Projection auto mode (MS1 : OFF, MS2 : OFF)



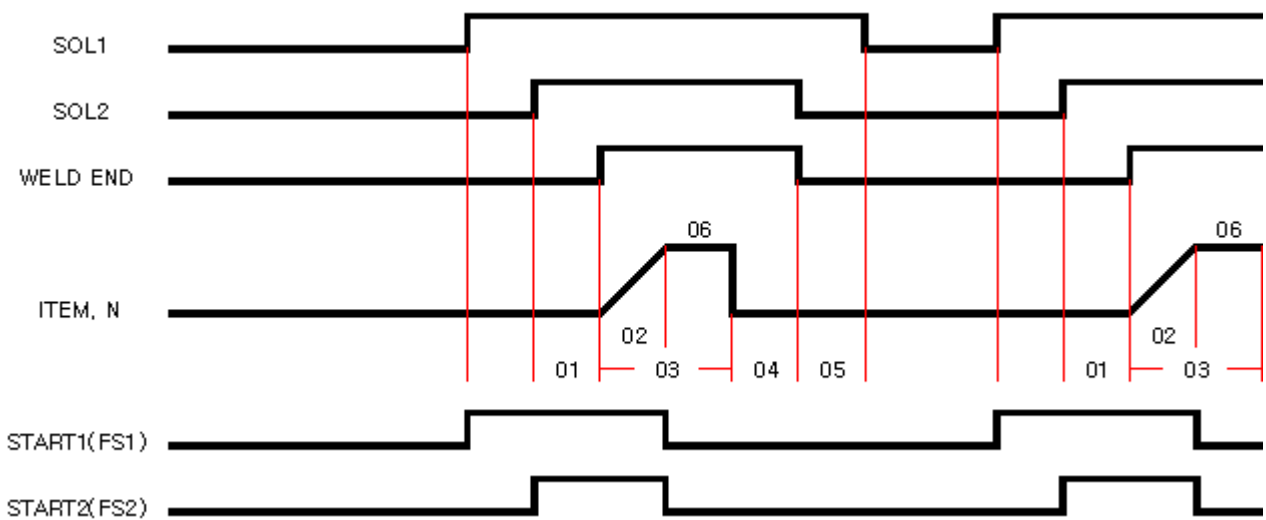
2Head Spot /Portable mode (MS1 : ON, MS2 : OFF)



Seam mode (MS1 : OFF, MS2 : ON)



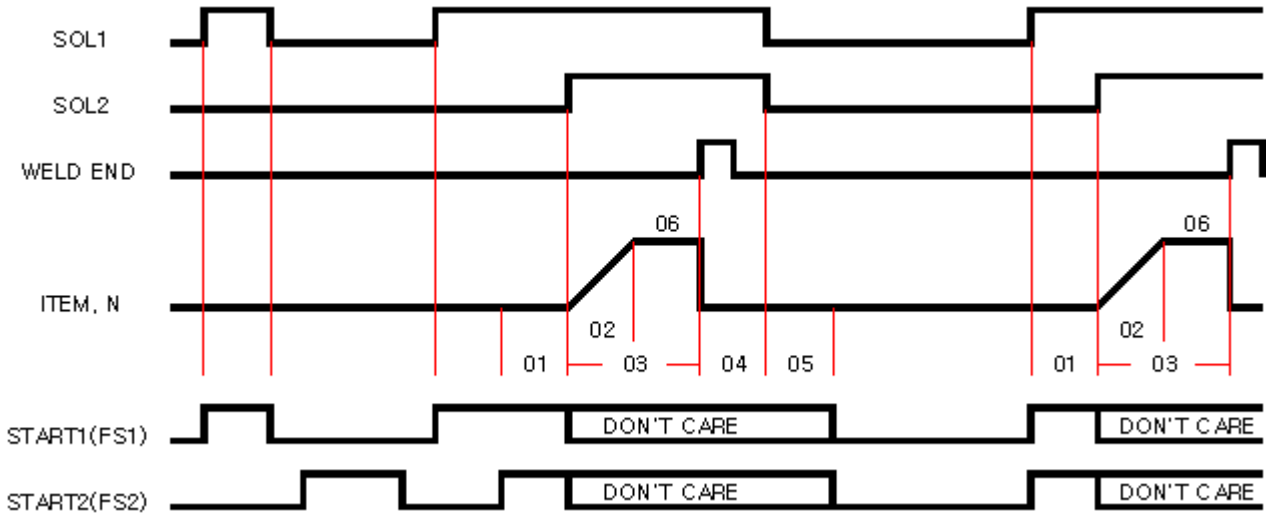
Flash mode (MS1 : ON, MS2 : ON)



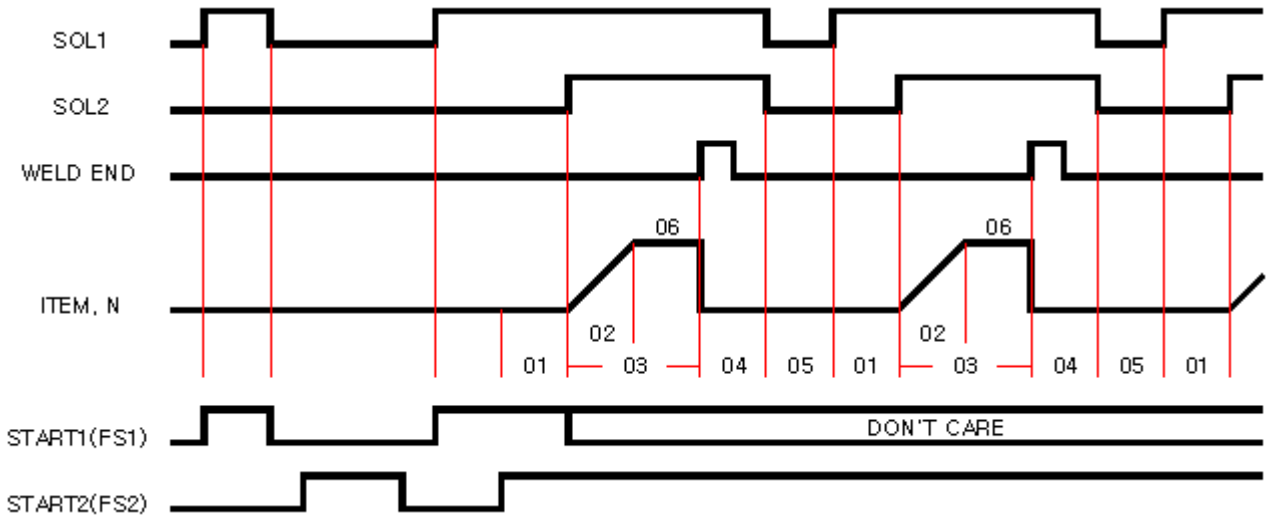
Detail timing charts

Weld Schedule	Squeeze time	Up slope time	Weld time	Cool time	Off time	Weld Current	Weld Count
	01	02	03	04	05	06	
0~9	0~99 cycle	0~9 cycle	0~99 cycle	0~99 cycle	0~99 cycle	0.0~99.9 %	0~3999

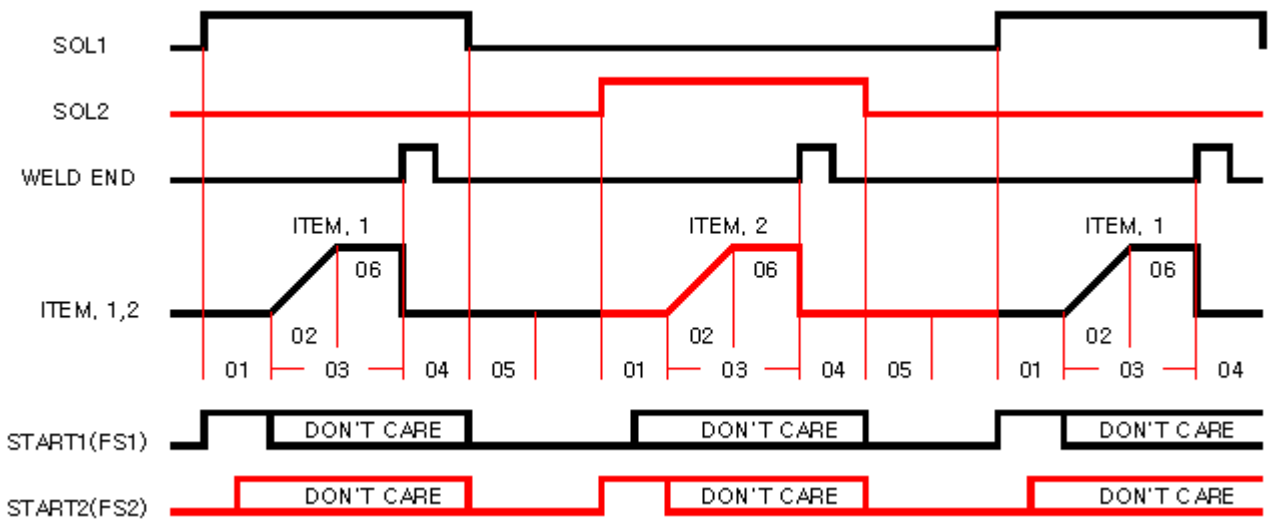
Spot /Projection manual mode (MS1 : OFF, MS2 : OFF)



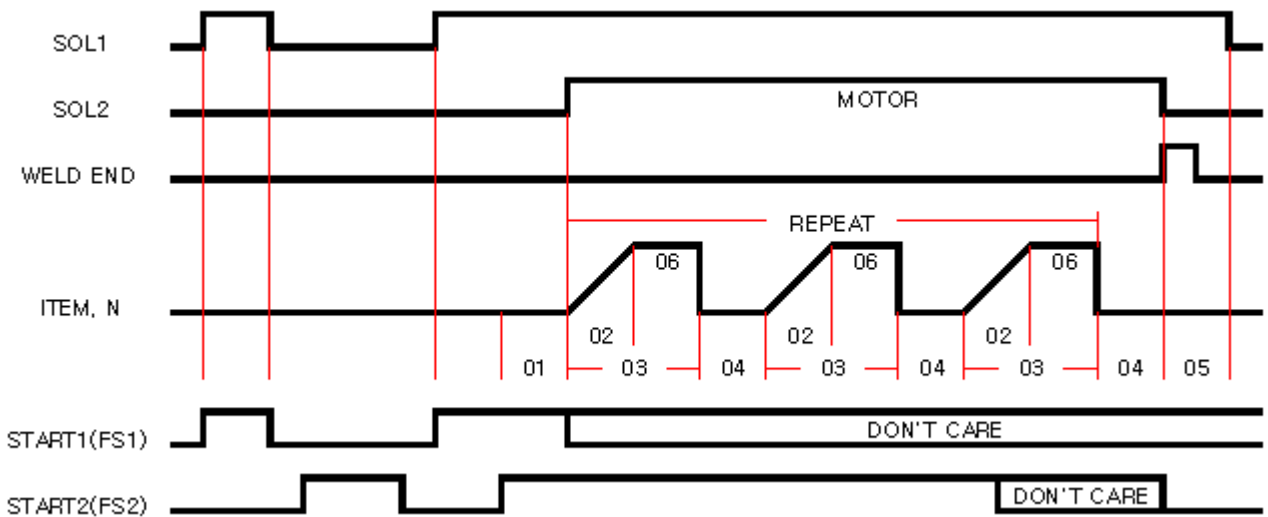
Spot /Projection auto mode (MS1 : OFF, MS2 : OFF)



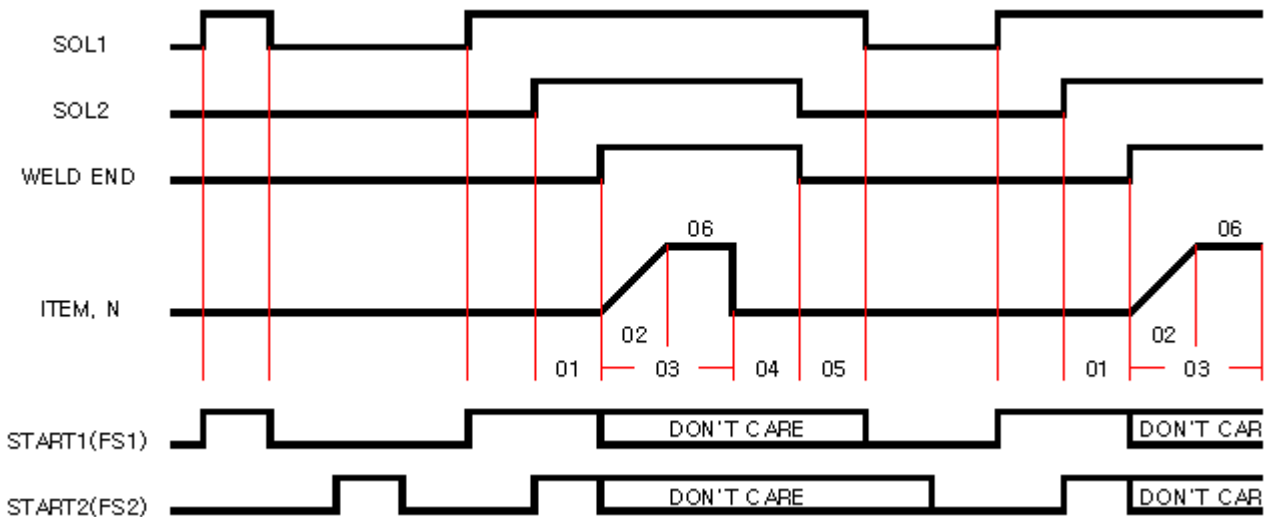
2Head Spot /Portable mode (MS1 : ON, MS2 : OFF)



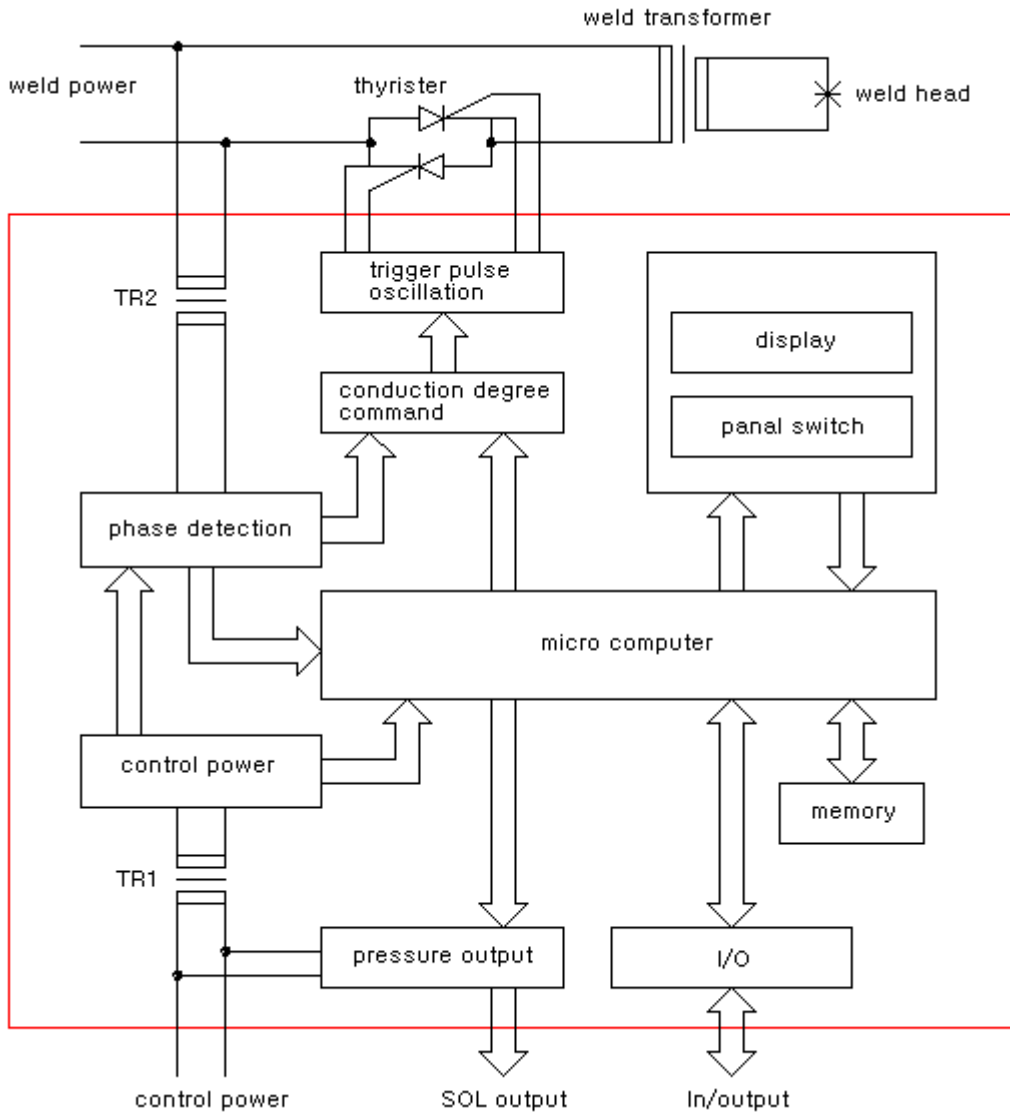
Seam mode (MS1 : OFF, MS2 : ON)



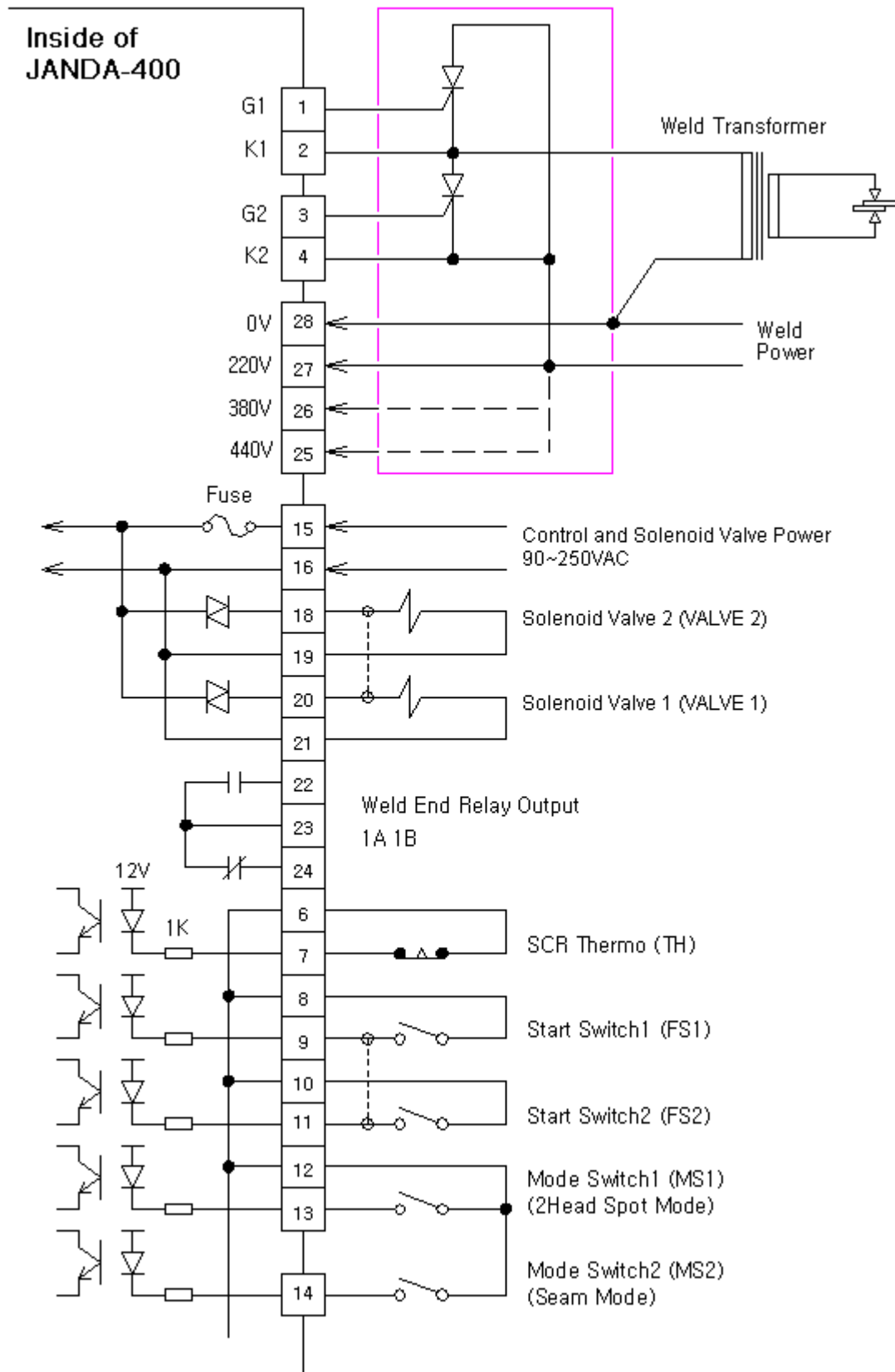
Flash mode (MS1 : ON, MS2 : ON)

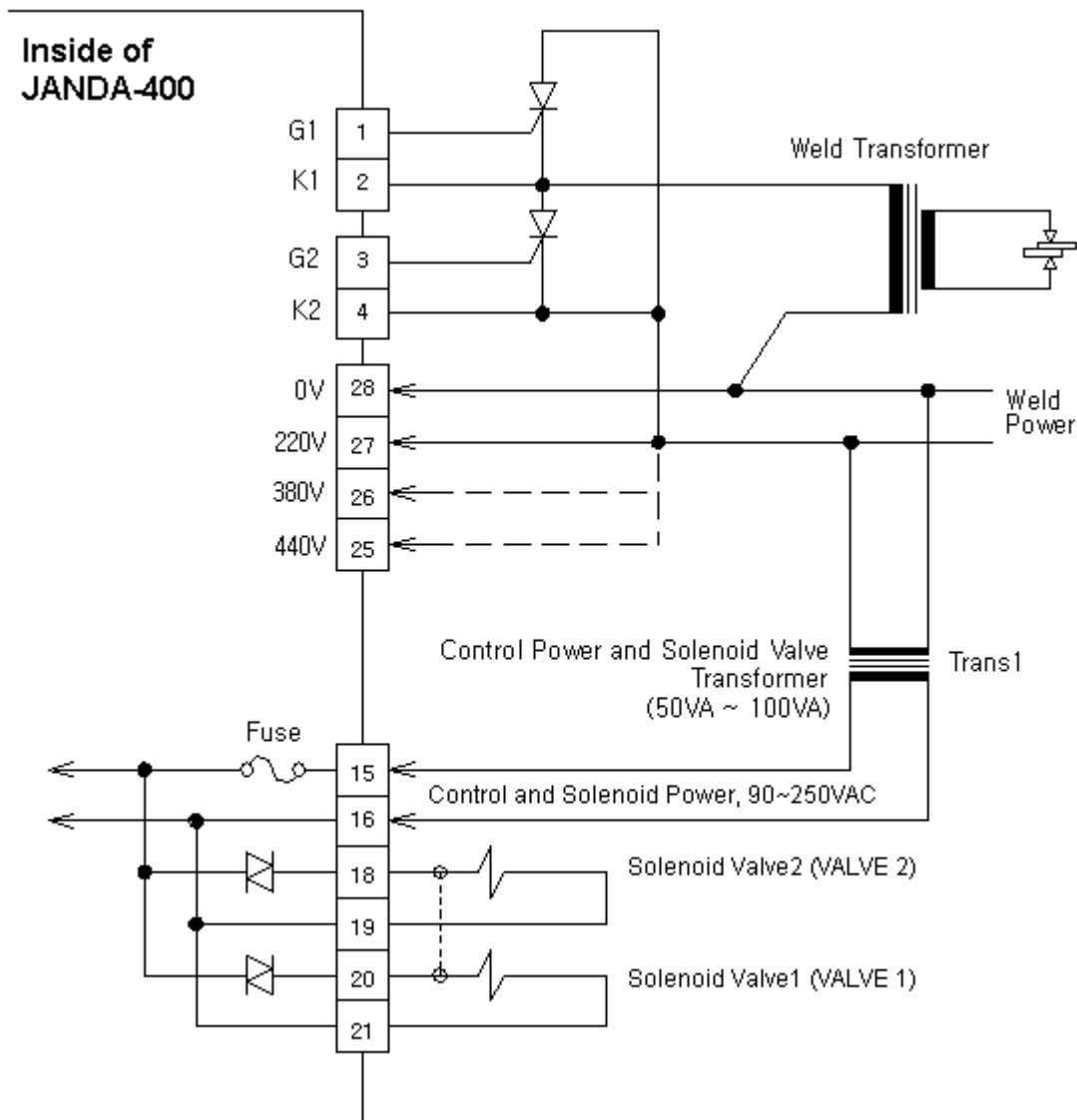


Block Diagram

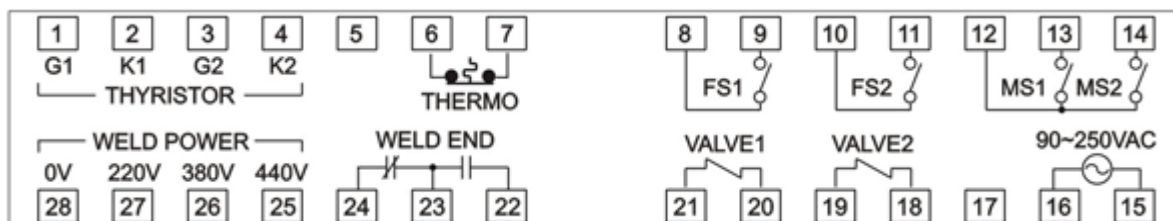


Connections

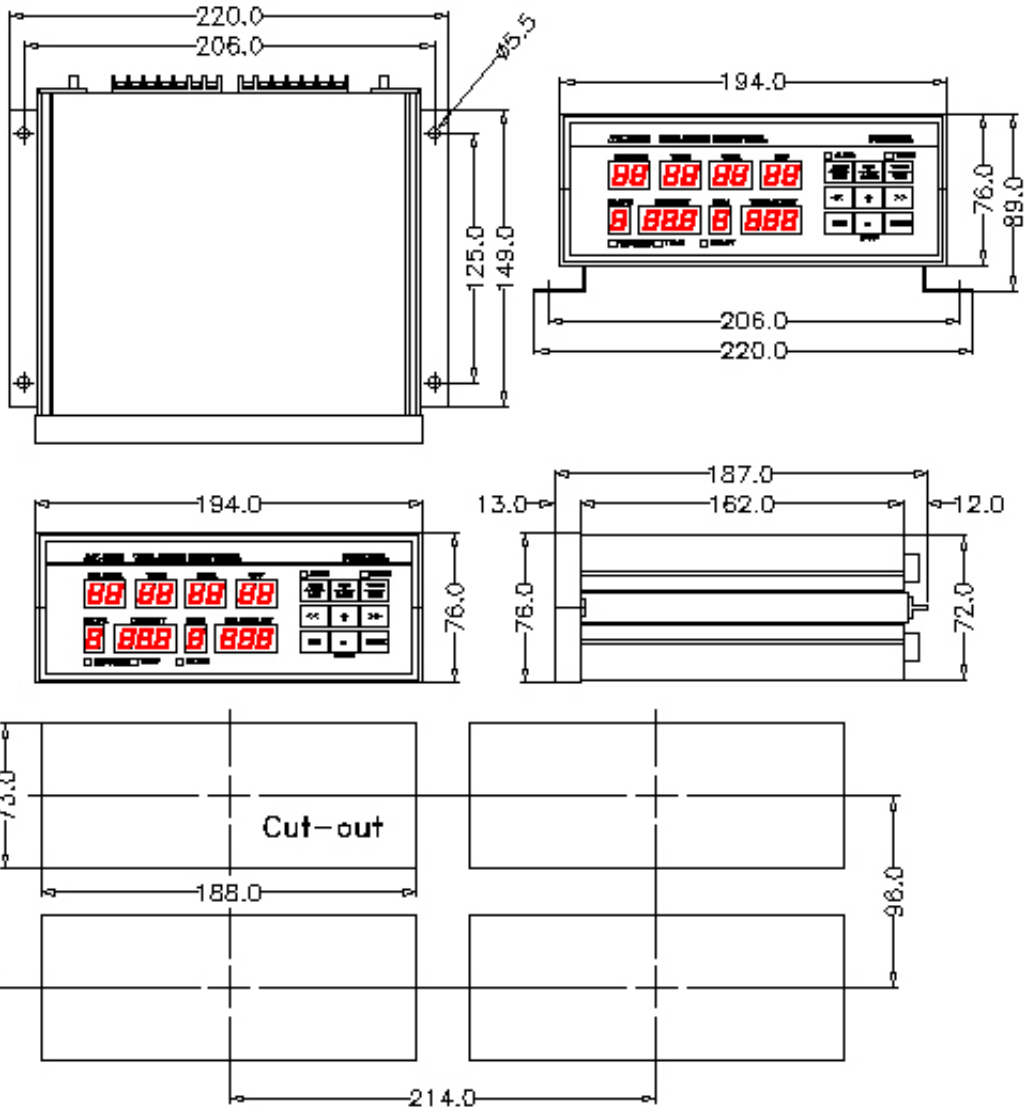




JANDA-400



Dimensions (unit : mm)



Schedule Table

SCHEDULE	0	1	2	3	4	5	6	7	8	9
SQUEEZE										
WELD										
COOL										
OFF										
UP SLOPE										
CURRENT										