

OMEGA

Iron Tip Soldering Robot

In-Line / Unit type

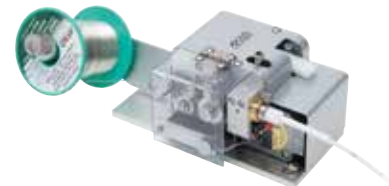
The OMEGA system has been designed exclusively for automated soldering. This soldering unit can be widely adapted for use in semi & fully automated systems, desktop robots, linear actuators and special purpose machines. The OMEGA is a new soldering unit compatible with MODBUS TCP/IP and Industry 4.0.



Model
OMEGA-LSP:
Controller and feeder separate type
OMEGA-LCO:
Controller and feeder combined type



Iron Unit
RSP



Solder feeder LFD

Iron unit RSP / RSL-R / RSL-FPR

It takes 8 seconds to replace the iron cartridge and it does not require position adjustment upon iron cartridge replacement.



RSP
for
point soldering



RSL-R
for
slide soldering



RSL-FPR
for
slide soldering

■ RSP/RSL-R/RSL-FPR

Type	RSP/RSL-R/RSL-FPR
Weight	0.8kg

Solder feeder LFD

It can control the feeding amount precisely by its pulse motor and the ZSB can be attached as an option.

■ LFD

Type	LFD
Solder Feed Motor	Pulse motor
Using ZSB Feeder	$\Phi 0.4 \sim 1.0\text{mm}$ (Option: $\Phi 0.3\text{mm}$)
Solder Wire Diameter	Using Normal Feeder $\Phi 0.3 \sim 1.0\text{mm}$ Using Large Diameter Feeder $\Phi 1.2 \sim 2.0\text{mm}$
Feed/Reverse Speed	0.1 ~ 50.0mm/sec
Weight	1.3kg

■ OMEGA controller

Type	OMEGA
Solder Condition	297 conditions Point:99 / Slide:99 / Special:99
Solder Step	9 Steps(Max.)
Setting Temperature	1~500°C
Heater Capacity	200W (Max.)
Power Source	AC85~264V(Single Phase)
Power Consumption	450W
Dimensions(W×D×H)	110×200×280mm
Weight	3.8kg

Simple operation on the Touch Panel

All operations can be done on the touch panel. The LCD shows a simple chart of the iron cartridge temperature on the touch panel, the current temperature change is clear at a glance.

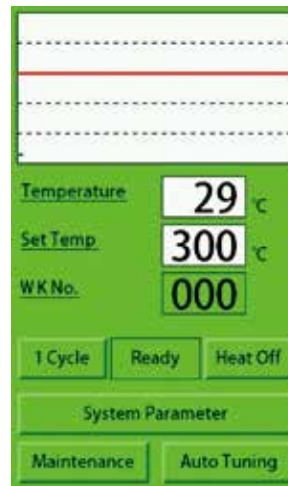
Auto tuning function

Auto tuning function allows the user to easily set the optimal temperature control parameter.

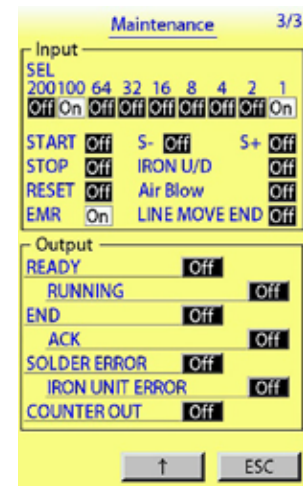
Maintenance mode

It can check the operation of the heater or motor control part and the conditions of each sensor in maintenance mode.

Further, it has an I/O check function and can easily perform the communication check with the host communication side or confirmation when a malfunction occurs.



▲ Operation Screen (Example)



▲ Maintenance Screen (Example)

OMEGA Manager

Special PC Software for OMEGA

With the OMEGA manager, it is possible to monitor and check the controller condition. It receives and sends a variety of process parameters such as temperature data, error occurrence, soldering condition, system parameters, and more. Information such as temperature data can be exported and saved as a CSV file, allowing for simple verification of the soldering condition and cycle time.



▲ Monitoring Screen



▲ Error Warning Screen



▲ Solder Condition Acquisition Screen

Main Value	Input Monitor 1	Input Monitor 2	Output Monitor	Error Monitor	State Monitor
① Pn	① 0001	① 0012	① Air Cylinder	① Memory Error	① Storage Complete
① Pn	① 0002	① 0014	① Air Blow	① Air Error	① No Part Position
① Wd No.	① Iron Tip/Blow	① 0018	① Ready	① Autotuning Error	① Heat Issue
① Wd No. (CT)	① Iron Stop Sensor	① 0019	① Running	① Disconnect of Sensor	① No Part
① Wd No. (TS)	① Iron Tip Sensor	① 0020	① END	① Sensor Error	① Autotuning
	① Solder Shortage	① 0024	① ACK	① Heater Burnout	① Filter Change
	① Solder Chipped	① 0025	① Solder Error	① Material Counter Error	
	① Stop	① 0026	① Iron-Off Error	① Emergency	
	① No. 1	① 0027	① Counter Out	① Heater Error	
	① No.	① 0028	① Heater Chipped	① Solder Shortage	
	① No. U/D	① 0029	① Over-Heat Output	① Solder Chipped	
	① Air Blow	① 0030	① Lead Ready Output	① Copper Sensor Time Out	
	① No. 2	① 0031	① New Binary Output	① Lower Sensor Time Out	
	① Line Move End	① 0032			

▲ Log Setting Screen