

1036DX
LONER
ATMOSCOPE
Self-Contained
SMT Deluxe
Hot Air Station,
Page 22



SMT

1036DX

LONER ATMOSCOPE

Self-Contained SMT Deluxe Hot Air Station

A versatile and complete SMT hot air station that adjusts to either hot air or contact soldering techniques from the same station.



- Utilizes unique hot air tips for easier rework on Gullwings, J-Leads, PLCC's and small outline components
- Uses LONER general purpose soldering tips for through-hole rework
- Small hand tool is light and easy to maneuver
- Air control valve allows precise airflow
- LP250 vacuum pick-up tool included
- Electronic circuitry provides fast heat up and improved temperature stability

Specifications for Model 1036DX

Power Requirements	120V, 60Hz
Power Rating	85W - 230W
Heater Rating	24V, 53W
Temperature Range	400°F-800°F/205°C-427°C
Temperature Regulation	±6°F/±3°C
Tip-to-Ground Voltage Leakage/Resistance	< 2mV/< 2 ohms
Overall Dimension	4.1"W x 8.5"H x 9"D 104 mm x 216 mm x 229 mm
Weight	
Power Supply	4.6 lbs/2.1 kg
Hand Tool	SR362 3 oz/85 g
Pick-up Tool	LP250 1 oz/28 g

Contents

1036DX	Self Contained SMT Deluxe Hot Air Station (Includes LU26 Hot Air Tip and LT375 Soldering Tip)
PD533	Tool Pod for Hot Air Tool
LP250	Pick-Up Tool for SMD Components
PD532	Tool Holder for Pick-Up Tool
SH230	Sponge Holder with LN230 Liner, RS199 Cleaning Sponge and RS243 Pad
Accessory Kit Includes:	
HC273	Threaded Retaining Collar for Soldering Tip
WT620	Tip Wrench, 1/4" Socket
WT623	Tip Wrench, Dual Open End, 1/4" & 3/4"
WT624	Tip Wrench, Dual Open End, 1/4" & 5/16"
ST800	SMD Helper (Includes RB642 Shim Blade, WS630 Pull Wire)
WP556	WIGAPRY Low Static Computer Aid

1036

LONER ATMOSCOPE

Self-Contained SMT Hot Air Station

Designed for rework on larger components. The self-contained 1036 provides power and precision for components with up to 84 pins (208 QFP).



- Self-contained with built-in air source
- Zero crossing circuitry
- Uses a wide variety of nozzle sizes
- Expands to include optional soldering iron
- 95 watt heater provides power for larger components
- Most cost effective self-contained hot air station that EDSYN manufactures

Specifications for Model 1036

Power Requirements	120V, 60Hz
Power Rating	150W
Heater Rating	120V, 95W
Temperature Range	400°F-800°F/205°C-427°C
Temperature Regulation	±6°F/±3°C
Tip-to-Ground Voltage Leakage/Resistance	< 2mV/< 2 ohms
Overall Dimension	5.2"W x 8.5"H x 10"D 132 mm x 216 mm x 254 mm
Weight	
Power Supply	PS542 4.3 lbs/1.9 kg
Hand Tool	FA069 6 oz/170 g

Contents

PS542	Power Supply
FA069	Hot Air Hand Tool (Includes LT428 Hot Air Tip)
PD525	Tool Pod
SH230	Sponge Holder with LN230 Liner, RS199 Cleaning Sponge and RS243 Pad
Accessory Kit Includes:	
WT620	Tip Wrench, 1/4" Socket
WT624	Tip Wrench, Dual Open End, 1/4" & 5/16"
ST706	SMD Tool to Lift Off SMD's .002"/.05 mm x .238"/6.05 mm
RB641	Shim Blade Replacement .002"/.05 mm x .238"/6.05 mm x 3'/.61 m
WS630	SMD Pull Wire with Low Static Spool .01"dia./ .25 mm x 10'/3.08 m
AN122	Anti-Seize Compound

971HA



LONER ATMOSCOPE SMT Hot Air Station

New modular design offers unique versatility and outstanding performance using hot air or traditional contact rework techniques.



- Runs on shop air or nitrogen, 20-80 psi
- External calibration for ISO9000 compliance
- Graduated flow regulator monitors air flow in SCFH
- Optional FS205 foot switch available
- Built-in air switch activates air when tool is lifted from holder
- Uses same tips and nozzles as 1032 and 1036 hot air stations
- Easily converts to contact soldering fume extraction with OPT823 Fume Extraction Kit

Specifications for Model 971HA

Power Requirements	120V, 60Hz
Power Rating	15W - 220W
Heater Rating	120V, 95W
Temperature Range	400°F-800°F/205°C-427°C
Temperature Regulation	±6°F/±3°C
Tip-to-Ground Voltage Leakage/Resistance	< 2mV/< 2 ohms
Overall Dimension	4.1"W x 9.7"H x 10"D 104 mm x 246 mm x 254 mm
Weight	
Power Supply	3.3 lbs/1.5 kg
Hand Tool	3 oz/85 g



To rework SMD's, use LT428 tip



For touch up rework, use small SMD soldering tip

Contents

971HA SMT Hot Air Station
(Includes LT428 Hot Air Tip)

Accessory Kit Includes:

PAS53	Pod Air Switch, requires 20-80 psi
PD533	Tool Pod
PR570	Flow Regulator and Meter, SCFH
WT620	Tip Wrench, 1/4" Socket
WT624	Tip Wrench, Dual Open End, 1/4" & 5/16"
WP556	WIGAPRY Low Static Computer Aid

1032

LONER ATMOSCOPE SMT Hot Air Station

A versatile hot air station that runs on shop air or nitrogen. Small and easy to use, the 1032 works well on everything from small chip caps to 84-pin PLCC devices.



See page 27 for various applications

- Requires clean and dry shop air, 90 psi max
- Cost-effective
- Uses a wide variety of nozzles
- Adapts to foot switch operation
- Expandable to include soldering iron
- Wide range of temperatures allows for:
 - Heating of shrink tubes
 - Fast shaping of plastics
 - Fast melting of glue
 - Touch up after flow soldering
 - Clearing solder bridges between etches of circuit board

Specifications for Model 1032

Power Requirements	120V, 60Hz	
Power Rating	70W	
Heater Rating	120V, 95W	
Temperature Range	400°F-800°F/205°C-427°C	
Temperature Regulation	±6°F/±3°C	
Tip-to-Ground Voltage Leakage/Resistance	< 2mV/< 2 ohms	
Overall Dimension	4.2"W x 8.2"H x 10"D 107 mm x 208 mm x 254 mm	
Weight		
Power Supply	PS537	2.7 lbs/1.23 kg
Hot Air Hand Tool	FA069	6 oz/170 g

Contents

PS537	Power Supply
FA069	Hot Air Hand Tool (Includes LT428 Hot Air Tip)
PD525	Tool Pod
SH230	Sponge Holder with LN230 Liner, RS199 Cleaning Sponge and RS243 Pad

Accessory Kit Includes:

RB641	Shim Blade for ST706
WS630	SMD Pull Wire for ST706
ST706	SMD Tool
WT620	Tip Wrench, 1/4" Socket
WT624	Tip Wrench Dual Open End, 1/4" & 5/16"

MCS100HA

LONER ATMOSCOPE

Master Control Hot Air System

A computer-controlled high performance hot air system that features digital accuracy for precise temperature and air flow control. Great for ISO9000 requirements.



See page 27 for various applications

- Requires clean and dry shop air or nitrogen, 80 psi max
- Easy to read 4 lines x 16 character LCD
- Auto-calibration feature allows precise hands-free calibration of hot air temperature
- Can test and calibrate other hot air stations
- Easy to read and control air flow meter, SCFH
- ON/OFF air flow switch automatically activates when tool is removed from pod
- Connector system for easy tool replacement features standard connector for K-type thermocouple related accessories
- Unique collar system easily converts to contact, heavy-duty, and fume exhaust soldering

Specifications for Model MCS100HA

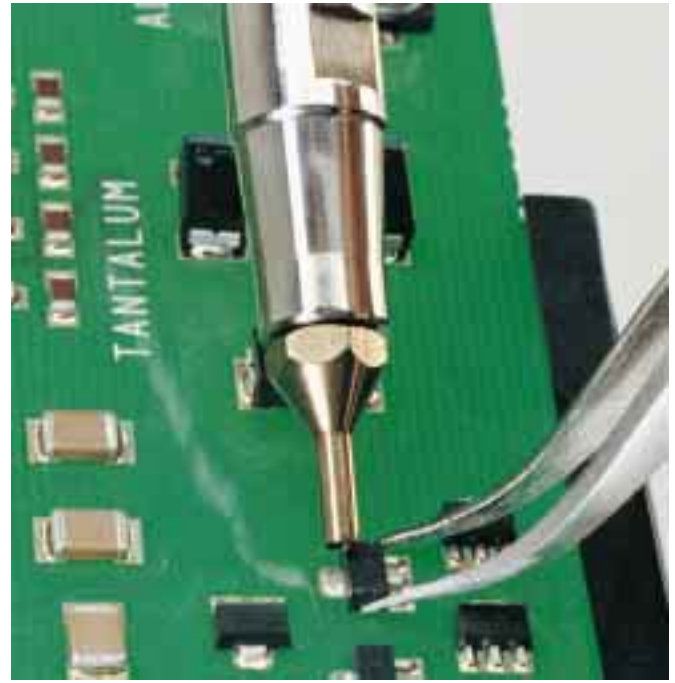
Power Requirements	120V, 60Hz
Power Rating	30W - 100W
Heater Rating	24V, 45W
Temperature Range	200°F-900°F/93°C-482°C
Temperature Regulation	±6°F/±3°C
Tip-to-Ground Voltage Leakage/Resistance	< 2mV/< 2 ohms
Overall Dimension	4.2"W x 10 H x 10"D 107 mm x 254 mm x 254 mm
Weight	
Power Supply	4.8 lbs/2.2 kg
Hot Air Tool	3 oz/85 g

Contents

MCS100HA	Master Control Hot Air System (Includes LT428 Hot Air Tip)
PR570	Air Flow Regulator & Meter, SCFH
PD533	Tool Pod
PAS53	Tool Pod Air Switch
Accessory Kit Includes:	
FX635	Soldering Tool Fixture
RB641	Shim Blade for ST706
ST706	SMD Tool
SDS100	Sensor Docking System
TPL09	Sensor Locator for Hot Air Calibration
WS630	SMD Pull Wire for ST706
WT620	Tip Wrench, 1/4" Socket
WT624	Tip Wrench, Dual Open End, 1/4" & 5/16"
HP375	High Performance Contact Soldering Tip



PRECISE CALIBRATION of hot air is achieved with the SDS100 Sensor Docking System and TPL09 Sensor Locator. This system also calibrates other soldering stations and can store in memory up to four tip temperatures and tip styles. Once calibrated, there is no need to recalibrate between tip changes.

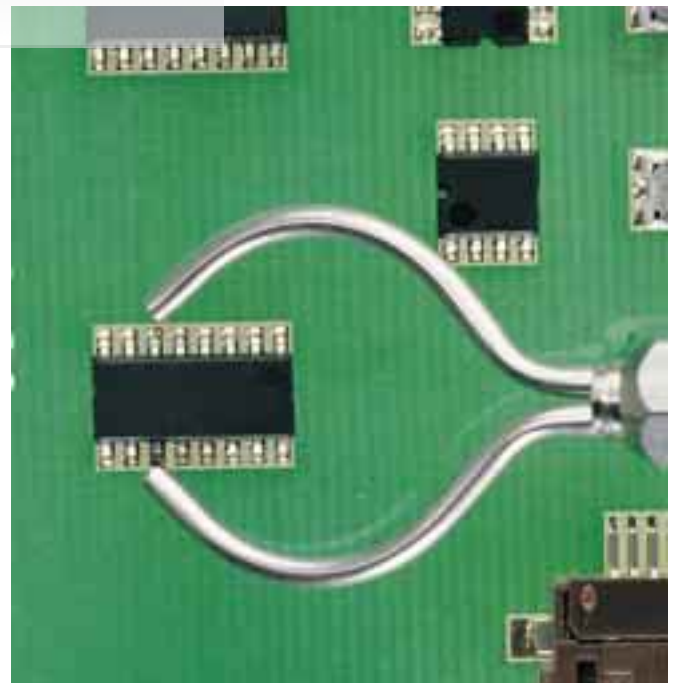


SMT REWORK IS QUICK AND CLEAN. The LT428 hot air tip is the standard tip installed on the 1036, 1032, 971HA and MCS100HA. Using nitrogen instead of shop air reduces oxidation and leaves cleaner solder joints.

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DIRECT CONTACT REWORK TIPS can be used on the 1036DX, 1036, 1032 and MCS100HA. This is possible by changing collars and selecting the best CROWN tip for the job at hand. Use CROWN tips on four-sided components like PLCC's and QFP's.



NON-CONTACT REWORK is achieved by using an LT572 or LU572 dual flow adjustable tip. These tips have hot air directed to the leads not the component. The LT572 tip application can be used on the 1036, 1032, 971HA and MCS100HA. The LU572 tip can be used on the 1036DX. Both tips are bendable to tailor fit a wide variety of component sizes.

Crib Notes for SMT Hot Air Work Stations

1. Specifications

Mil-Specs	DOD-STD-2000-1B, WS-6536E, MIL-STD-2000
Low Static ESD-Safe	DOD-STD-1686, DOD-HDBK-263
Control Circuit	Closed Loop Zero Crossing

2. Spare Parts for 1036 and 1032

Part Number	Description
AF511	Low static muffler filter
CC355	Chamber coil
FA069	Hot air hand tool
HS307	Low static silicone hose, 1/8" i.d.
HT495	Hot tube
LT428	Hot air turbo tip
OS139	O-ring (set of 2)
PD525	Tool pod
PS537	Power supply for 1032
PS542	Power supply for 1036
RC349	Collar for handle, vinyl grip
RS199	Cleaning sponge
RS321	Retaining sleeve
SR028	Power cord for FA069
SR030	Clear handle for FA069
SR033	Circuit board, 120V
SR081	Vinyl foam sleeve
SR102	Heater assembly, 120V
SR257	Pressure gauge for 1032

4. Spare Parts for 971HA

Part Number	Description
HS307	Low static silicone hose, 1/8" i.d.
LT428	Hot air turbo tip
LTC71	Tip collet
PAS53	Pod air switch
PD533	Tool pod
PR570	Air flow regulator and meter
RCS75	Retaining collar sleeve assembly
RS199	Cleaning sponge
SR001	O-ring for heater assembly, .3" i.d.
SR240	O-ring for handle, .5" i.d.
SR574	Heater assembly, 120V
SR579	Handle
SR620	Hot air hand tool
15002W95	Circuit board, 120V

5. Spare Parts for MCS100HA

Part Number	Description
HS307	Low static silicone hose, 1/8" i.d.
LT428	Turbo tip
PAS53	Pod air switch
PD533	Tool pod
PR570	Air flow regulator and meter
RS199	Cleaning sponge

3. Spare Parts for 1036DX

Part Number	Description
AF040	Foam filter (set of 10)
AF110	Filter assembly
AF629	Felt filter (set of 10)
HS308	Hose, polyurethane, 3/32" i.d.
LP250	Pick-up tool
LU26	Medium turbo tip
PD532	Tool holder for pick-up tool
PD533	Tool pod
RS199	Cleaning sponge
SPS12	Suction cup, 1/8" dia.
SPS25	Suction cup, 1/4" dia.
SR062	O-ring for hand tool
SR138	Transformer
SR362	Hot air hand tool
SR394	Heater assembly, 24V
SR487	Regulator valve switch
SR521	Collar
SR535	Pump
15242W53H9	Circuit board, 24V

6. Additional Features




- The 1036DX, MCS100HA and 971HA can be used for contact or hot air soldering applications
- Easy maintenance and replacement
- Modular design for easy service
- UL listed
- 18 month warranty
- Made in USA

Crib Notes for SMT Hot Air Work Stations

NOTE: ALL HOT AIR HAND TOOLS (EXCEPT FOR THE 1036DX) ARE CONFIGURED TO USE HOT AIR TIPS WITH EXTERNAL THREADS. ADAPTERS MAY BE REQUIRED FOR HOT AIR TIPS WITH INTERNAL THREADS.

7. CROWN Tips INTERNAL THREADS

May be used for both Contact and Hot Air Soldering
MUST BE USED WITH LUA35H HEAT ACCUMULATOR

CROWN Fork	Part No.	width x gap	SMD pack
	CT12	.07" x .10" (1.7mm x 2.3mm)	SOT-23
	CT25	.11" x .21" (2.7mm x 5.3mm)	SOT-89
	CT31	.14" x .07" (3.4mm x 1.8mm)	1206, 1210
CROWN Tunnel	Part No.	width x gap	SMD pack
	CT504	.20" x .18" (5.1mm x 4.6mm)	SOIC-8
	CT510	.20" x .41" (5.1mm x 10.4mm)	SOIC-14, 16
	CT919	.34" x .74" (8.6mm x 18.8mm)	SOJ-28
CROWN Quad	Part No.	side x side	SMD pack
	CT1010	.40" x .40" (10.3mm x 10.3mm)	PLCC-20
	CT1818	.70" x .70" (17.9mm x 17.9mm)	PLCC-44
	CT2626	1.0" x 1.0" (25.4mm x 25.4mm)	PLCC-68



10. Turbo Hot Air Tips INTERNAL THREADS






LU25	Small	.03" (.8 mm) hole dia.
LU26	Medium	.04" (1.0 mm) hole dia.
LU27	Large	.06" (1.5 mm) hole dia.
LU30	Hot Air Contact Needle Laminar flow for very fine soldering & clearing solder bridges.	

11. Adjustable Hot Air Tips

LT style has EXTERNAL THREADS
LU style has INTERNAL THREADS

LT572 / LU572	Dual Flow .04"/1.0 mm hole dia. 1.25"/31.8 mm max. gap	
LT571/ LU571	Long Flow Bendable .04"/1.0 mm hole dia. 1.1"/27.9 mm nozzle length	

8. SMT Hot Air Tips EXTERNAL THREADS

Jet	Part No.	Hole Dia.	L	W	
	LT427	.02" 1/64 in. 0.6 mm	.38" 3/8 in. 9.5 mm	n/a	
	LT432	.04" 3/64 in. 0.9 mm	.06" 1/16 in. 1.5 mm	n/a	
Fan	Part No.	gap	L	W	
	LT426	.02" gap 1/64 in. .5 mm gap	.30" 5/16 in. 7.6mm	.19" 3/16 in. 4.8 mm	
	LT436	.02" gap 1/64 in. .5 mm gap	.65" 21/32 in. 16.5 mm	.43" 7/16 in. 10.9 mm	
Dual	Part No.	Hole Dia.	L	W	
	LT526	.03" 1/32 in. 0.8 mm	.30" 5/16 in. 7.6 mm	.13" 1/8 in. 3.2 mm	
	LT536	.05" 3/64 in. 1.2 mm	.65" 21/32 in. 16.5 mm	.35" 23/64 in. 8.9 mm	

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Use WT624 for bending the nozzles of Dual Flow Adjustable and Long Flow Bendable Tips to accommodate most SMD sizes.

12. Quadra Flow Hot Air Tips EXTERNAL THREADS

Place over SMD to reflow solder



	inches	mm	pack
LT456	.50 x .50 1/2 x 1/2	12.7 x 12.7	PLCC-28
LT458	.70 x .70 45/64 x 45/64	17.8 x 17.8	PLCC-44
LT459	.80 x .80 51/64 x 51/64	20.3 x 20.3	PLCC-52
LT460	1.0 x 1.0 1 x 1	25.4 x 25.4	PLCC-68
LT468	.66 x .90 21/32 x 29/32	16.8 x 22.9	QFP-100
LT488	1.17 x 1.17 111/64 X 111/64	29.7 x 29.7	QFP-144 LCCC-84
LT493	.45 x .85 29/64 x 55/64	11.4 x 21.6	SOJ-32

9. **TIP ADAPTER LUA73** required for **1036DX** when using EXTERNAL THREADED TIPS.

TIP ADAPTER HPA02 required for **971HA & MCS100HA** when using INTERNAL THREADED TIPS.

13. Suction Cups For LP250

Low static silicone

Part No.	face size
SPS12 Low static	1/8"/3.2mm dia.
SPS25 Low static	1/4" /6.4mm dia.