

EDSY INC[®]

1036DX-230 ATMOSCOPE[®] self-contained SMT DeluxeHOT AIR STATION

- COMPLIES WITH MIL-S-45743E, MIL-STD-2000, DOD-STD-2000-1B, WS6536E AND ESD SPEC, DOD-STD-1686, DOD-



EMC Directive 89/336/
EEC



Pick-up Tool



SMD Hot Air

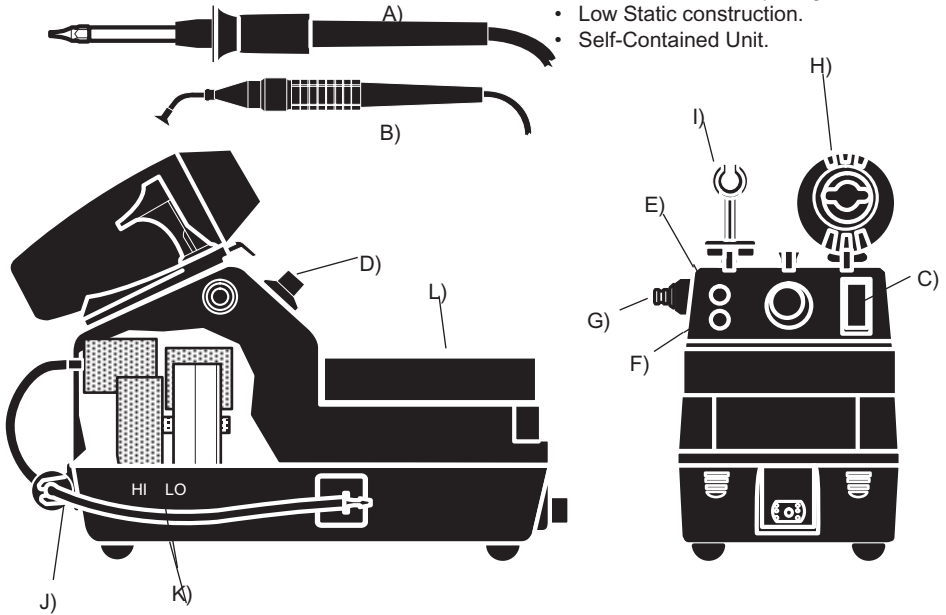


Soldering

instruction manual

FEATURES

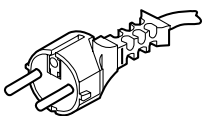
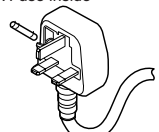
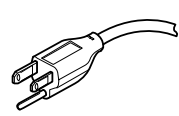

- 230 V input, 24 V output, 50 W Tool.
- 205°C - 427°C Temp range.
- Low Static construction.
- Self-Contained Unit.



- A) Hot Air & Contact Soldering Tool.
- B) LP250 Pick-Up Tool.
- C) Power Switch, Pump and Heater.
- D) Temperature Control Knob, 205°C - 427°C
- E) Pump LED.
- F) Heater Cycle LED
- G) Pump Switch & Regulator
- H) PD533 Tool Pod.
- I) PD532 Pod for Pick-up Tool.
- J) AF110 Filter.
- K) Temp. Calibration Pot.
- L) RS199 Cleaning Sponge.
- M) Vacuum, connect to LP250.

DISTINGUISHING FEATURES

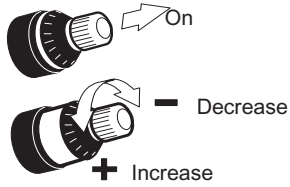
Power Cord

<p>For 1036DX-230</p> 	<p>For 1036DX-230B 3A Fuse inside</p> 	<p>For 1036DX-230I</p> 	<p>For 1036DX-230P POWER CORD WIRING BROWN to LINE BLUE to NEUTRAL GRN/YEL to GROUND</p> 
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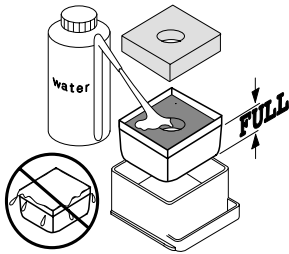
OPERATION

1. Turn on Power Switch (C).
2. Set Temperature Control Knob (D) to desired temperature.
3. Pull out Air Switch (G).
4. Turn Air Knob to set to desired air flow.

IMPORTANT: In case you remove the Air Knob, make sure the valve is shut off and turned fully clockwise before reinstalling.



Pour water on RS199 to moisten it completely. DO NOT OVERFILL.



LP250

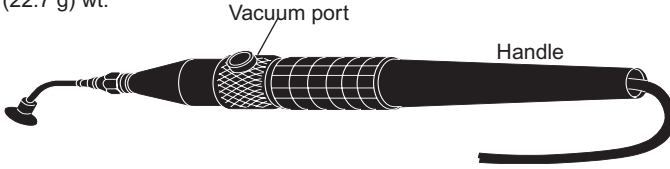
Lifting Pencil

.81 oz (22.7 g) wt.

POWER REQUIREMENTS:
 Vacuum, 5" - 22" Hg
 (.17 - .74 Bar) (.17 - .75 kg/cm²)



ESD Safe








Suction Cup
(see below)



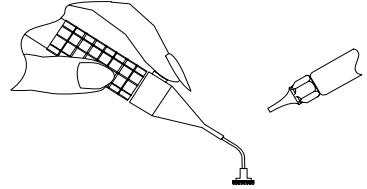
PD532
Holder for LP250
Lifting Pencil

HS305 Silicone Hose

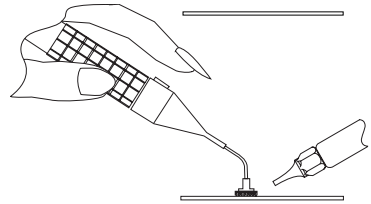
Suction Cups	face size
SPS12 Low Static 	1/8" Dia.
SP125 Low Static 	1/8" Dia.
SP250 Low Static 	1/4" Dia.
SP375 Disk (optional) 	3/8" Dia.
LN275 Lifting Needle (w/ HC273) 	.07 O.D.

FOLLOW THESE TECHNIQUES WHEN USING

PICK
Cover the Vacuum Port to pick up SMD.

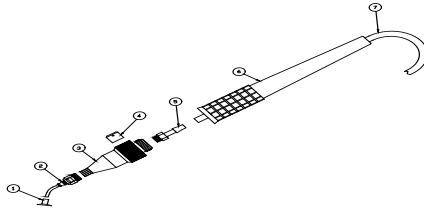


PLACE
Direct Hot Air towards the SMD leads to reflow the solder.



Move Hot Air Tool away from SMD but hold SMD in place until solder solidifies.

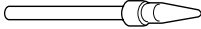
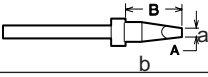
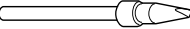
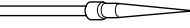


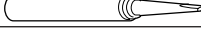
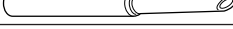
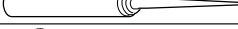


To remove SMDs:
Do PLACE technique.
Once the solder reflows,
Do PICK technique.

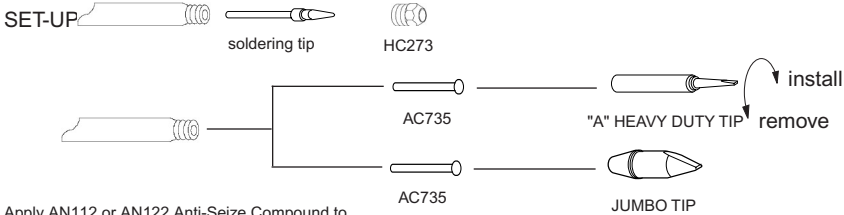


ITEM NO	PART NO.	DESCRIPTION	QTY REQ'D
1	SP250	Suction Cup, 1/4 Dia	1
2	LN276	Lifting Needle	1
3	SR736	Head Piece, Threaded	1
4	SR528	Vacuum Port Assy	1
5	SR261	Fitting, Male Barbed	1
6	SR529	Handle	1
7	HS305	Hose, 3/32 ID, Silicon, Low Static	36"

1036DX/B-230 does not include the LP250 and PD532

CONTACT SOLDERING TIPS

SOLDERING TIPS Iron Plated for long life•Nickel and Chrome Plated for optimum heat transfer CONTACT EDSYN FOR MORE SELECTIONS				a	b
	LT374	Standard Probe		.03 (0.8 mm)	.48 (12.2 mm)
	LT375	Standard Spade		.06 (1.5 mm)	.48 (12.2 mm)
	LT392	Extra-Long Needle Point		.02 (0.5 mm)	1.13 (28.8 mm)
	LT394	Extra-Long Spade		.07 (2.0 mm)	.93 (23.6 mm)
	LT446	SMD Probe		.03 (0.8 mm)	.48 (12.2 mm)
	LT337A	Heavy Duty Terminal Spade		.10 (2.5 mm)	.74 (18.8 mm)
	LT223A	Heavy Duty Fine Spade		.06 (1.5 mm)	1.21 (30.7 mm)
	LT222A	Extra long Needle Point		.04 (1.0 mm)	1.21 (30.7 mm)
	LT153AH	Jumbo Spade		.20 (4.9 mm)	.93 (23.6 mm)
	LT155AH	Jumbo Angle Spade		.32 (8.3 mm)	.97 (21.1 mm)

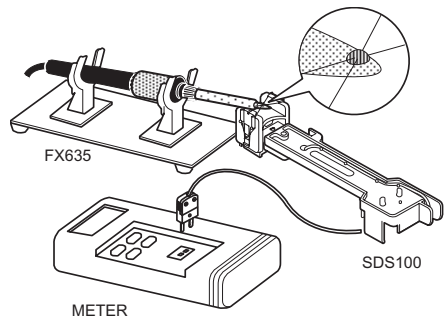


Apply AN112 or AN122 Anti-Seize Compound to Heater and area of Tip contact. AN122 Anti-Seize Compound comes in syringe dispenser.

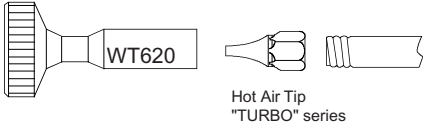
TEMPERATURE CALIBRATION (Contact Soldering)

AIR MOVEMENT WILL AFFECT THE TEMPERATURE READING.
WORK IN AN AREA WHERE THIS IS MINIMAL.

1. Turn on power and set Temperature Control Knob to 205°C.
2. Using a clean and well tinned Tip, apply a small amount of solder on the Tip, just enough to form a bead on top of the Tip.
3. Place the center of the thermocouple wire of the SDS100 on top of the bead.
4. Again, apply a small amount of solder on the center of the thermo-couple wire, just enough to embed the center.
5. Adjust LO-Temp. Set Pot so the Meter will read 205°C.
6. Set Temperature Control Knob to 427°C.
7. Adjust Hi-Temp. Set Pot so the Meter will read

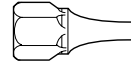


CHANGING HOT AIR TIP



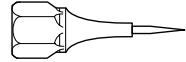
1. MAKE SURE YOUR TOOL IS COOL!
2. Using a WT620, turn the Tip or Retaining Nut (if applicable) counter-clockwise to remove.
3. Install new Tip.

"TURBO" Hot Air Tip

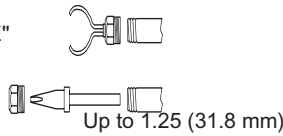


LU25	Small	.03 (.8 mm) Hole Dia.
LU26	Medium	.04 (1.0 mm) Hole Dia.
LU27	Large	.07 (1.7 mm) Hole Dia.
LU28	X-Large	.09 (2.3 mm) Hole Dia.
LU30	Hot Air Tooth Pick Needle	

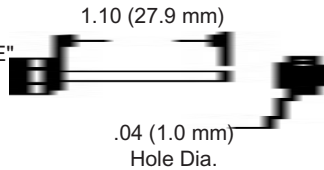
Laminar flow for very fine soldering & clearing solder bridges.



LU572
"DUAL-FLOW ADJUSTABLE"
Hot Air Tip
Hole Dia.= .04 (1.0 mm)

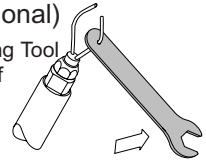


LU571
"LONG-FLOW BENDABLE"
Hot Air Tip
Hole Dia.= .04 (1.0 mm)

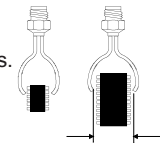


WT622(optional)

With a Bending Tool the Nozzles of Dual Flow Adjustable & Long Flow Bendable Tips



Flow Bendable Tips can be adjusted to direct hot air to accommodate most SMD sizes.

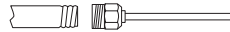


SET-UP

Hot Air Tip- "TURBO" series



Hot Air Tip- "LONG FLOW BENDABLE" series



Hot Air Tip- "DUAL FLOW ADJUSTABLE" series



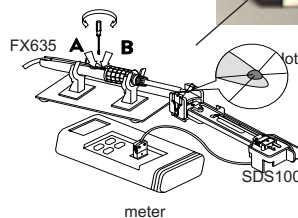
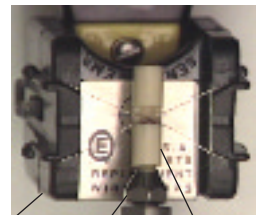
TEMPERATURE CALIBRATION (Hot Air Soldering)

FOLLOW SET-UP AS ILLUSTRATED

1. With the Hot Air Tip inside the TPL09-1, place the center of the thermocouple wire of the SDS100 inside the slot of TPL09-1 Locator.
2. Turn on power and set Temperature Control Knob to 205°C.
3. Turn Air Knob to desired airflow.
4. Adjust LO-Temp. Calibration Pot so the Meter will read 205°C.
5. Set Temperature Control Knob to 427°C.
6. Adjust Hi-Temp. Calibration Pot so the Meter will read 427°C.

You will need:

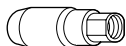
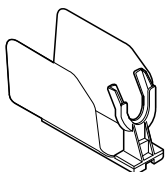
- MS412 Calibration System
- TPL09 Set (3 items)



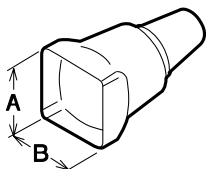
TPL09-1
Ceramic
Locator

SMD Hot Air Quadra-Flow Tips

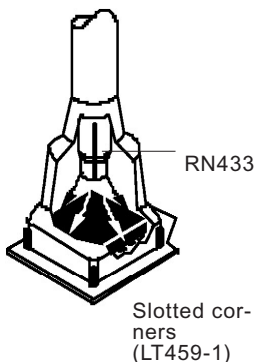
• WILL NEED LUA21 TIP ADAPTER



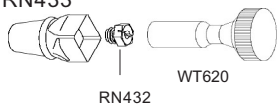
ALWAYS USE PD529 or PD529A (no shield) TOOL PODS



Quadra-Flow Tips create an "oven-like" condition around the SMD.



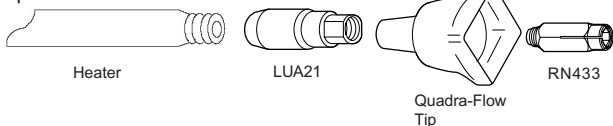
Use WT620 Tip Wrench to install Tips with RN432 or RN433



Fractional dimensions are approx.

PART NO.	A x B		FITS PACKAGE (for reference only)
	(in.)	(mm)	
LT448*	.21 x .35 7/32 x 11/32	5.3 x 8.9	SO-14
LT483*	.25 x .43 1/4 x 7/16	6.4 x 10.9	Ceramic DIP 16
LT489	.25 x .78 1/4 x 25/32	6.4 x 19.8	
LT449	.26 x .41 1/4 x 13/32	6.6 x 10.4	SO-16
LT480	.31 x .52 5/16 x 33/64	7.9 x 13.2	LCCC-22R
LT478	.32 x .45 5/16 x 29/64	8.0 x 11.4	LCCC-18R
LT462	.34 x .55 11/32 x 35/64	8.7 x 13.9	PLCC-18
LT470*	.36 x .36 23/64 x 23/64	9.2 x 9.2	LCCC-20
LT487	.36 x .60 23/64 x 39/64	9.1 x 15.2	
LT452	.38 x .52 3/8 x 33/64	9.5 x 13.2	SO-20L
LT481	.38 x .58 3/8 x 37/64	9.5 x 14.6	LCCC-28R
LT455	.40 x .40 13/32 x 13/32	10.2 x 10.2	PLCC-20
LT486	.40 x .60 13/32 x 13/64	10.2 x 15.3	
LT484	.40 x .79 13/32 x 51/64	10.2 x 10.2	SOJ-20
LT450	.42 X .43 7/16 X 7/16	10.7 X 10.9	SO-16L
LT454	.43 x .73 7/16 x 18.6	10.9 x 18.6	SO-28L
LT451	.44 X .48	11.2 X 12.2	SO-18L

Set-Up



cont.

SMD Hot Air Quadra-Flow Tips

The bigger the Quadra-flow Tip, the more air flow and higher temperature are needed.

Fractional dimensions are approx.

PART NO.	A x B		FITS PACKAGE (for reference only)
	(in.)	(mm)	
LT493	.45 x .85 29/64 x 55/64	11.3 x 21.6	SOJ-32
LT494	.45 x 1.05 29/64 x 13/64	11.4 x 26.7	SOJ-40
LT482	.47 x .58 15/32 x 37/64	11.9 x 14.6	LCCC-32R
LT472S	.48 x .48 31/64 x 31/64	12.2 x 12.2	
LT472	.49 x .49 1/2 x 1/2	12.4 x 12.4	LCCC-28
LT456	.50 x .50 1/2 x 1/2	12.7 x 12.7	PLCC-28
LT485	.52 x .64 33/64 x 44/64	13.2 x 16.2	
LT463	.60 x .60 39/64 x 39/64	15.2 x 15.2	
LT468**	.66 x .90 21/32 x 29/32	16.8 x 22.9	QFP-100
LT458**	.70 x .70 45/64 x 45/64	17.8 x 17.8	PLCC44 LCCC-44
LT491**	.71 x .94 23/32 x 15/16	18.0 x 23.9	
LT477**	.75 x 1.00 1/4 x 1	19.0 x 25.4	LCCC-84
LT459**	.80 x .80 51/64 x 51/64	20.3 x 20.3	PLCC-52
LT459-1	Slotted Corners (slot size: 0.125 x 200 depth)		
LT492**	.85 x .85 55/64 x 55/64	21.6 x 21.6	
§ LT460**	1.0 x 1.0 1 x 1	25.4 x 25.4	PLCC-68
§ LT460-1	Slotted Corners		
§ LT488**	1.17 x 1.17 111/64 x 111/64	29.7 x 29.7	QFP-144

*RN432 not required in Application set up

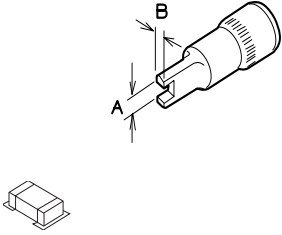
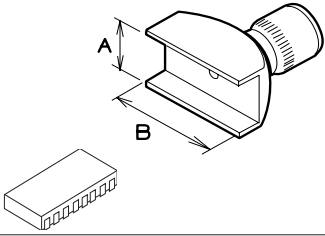
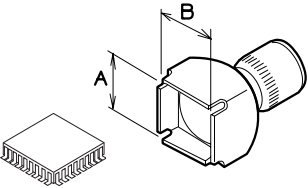
**Comes w/ RN433

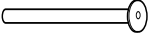
§ Will work better if Tool uses high air output (regulated shop-air). May need to preheat PCB with hot plates.

CROWN Tips™ Can be used for both Contact and Hot Air Soldering

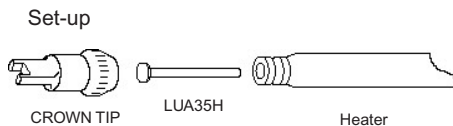
Medium Life, for best results, use at lowest possible temperature.

MUST BE USED WITH HEAT ACCUMULATORS (see below)

CROWN FORK Use LUA35H Heat Accumulator	P.N.	A" x B" (mm x mm)	SMD Package
	CT12	.068 x .100 (1.73 x 2.29)	SOT-23
	CT21	.090 x .060 (2.29 x 1.52)	805
	CT25	.105 x .210 (2.68 x 5.33)	SOT-89
	CT31	.135 x .070 (3.43 x 1.78)	1206, 1210
	CT42	.190 x .090 (4.83 x 2.29)	1808, 1812
	CT52	.199 x .100 (5.06 x 2.54)	
	CT53	.225 x .140 (5.72 x 3.51)	
CROWN TUNNEL Use LUA35H Heat Accumulator	P.N.	A" x B" (mm x mm)	SMD Package
	CT504	.200 x .180 (5.08 x 4.57)	SO-8
	CT510	.200 x .410 (5.08 x 10.41)	SO-14, -16
	CT711	.270 x .450 (6.86 x 11.43)	SOMC-16
	CT919	.340 x .740 (8.64 x 18.80)	SOJ-28
	CT113	.375 x .520 (9.52 x 13.21)	SO-20
	CT116	.375 x .620 (9.52 x 15.75)	SO-24
	CT118	.375 x .720 (9.52 x 18.29)	SO-28
CROWN QUAD Use LUA35H Heat Accumulator	P.N.	A" x B" (mm x mm)	SMD Package
	CT0808	.314 x .314 (7.98 x 7.98)	
	CT1010	.404 x .404 (10.26 x 10.26)	PLCC-20
	CT1616	.640 x .640 (16.26 x 16.26)	44-QFP
	CT1818	.704 x .704 (17.88 x 17.88)	PLCC-44
	CT2020	.805 x .805 (20.45 x 20.45)	PLCC-52
	CT2626	1.005 x 1.005 (25.53 x 25.53)	PLCC-68

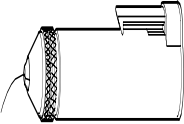
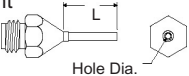
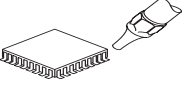
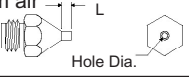
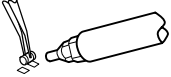
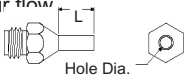
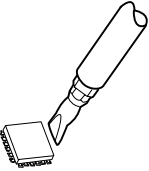
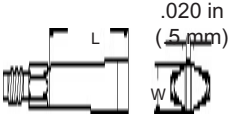
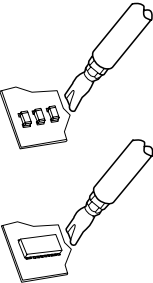



LUA35H Heat Accumulator
for both Contact and Hot Air
Soldering.



SMD Hot Air Tips

LUA73 Tip Adapter required

Application	Description	Part No.	Hole Dia.	L	W
	Jet Tip for pin point air flow. 	LT427	.02 in. 1/64 in. (0.6 mm)	.38 in. 3/8 in. (9.5 mm)	—
	Short Jet Tip for medium air flow. 	LT342	.04 in. 3/64 in. (0.9 mm)	.06 in. 1/16 in. (1.5 mm)	—
	Turbo Flow for large air flow. 	LT428	.06 in. 1/16 in. (1.5 mm)	.25 in. 1/4 in. (6.4 mm)	—
	Fan Tips use a wide air flow enough to cover one whole side of the SMD. 	LT426	—	.30 in. 5/16 in. (7.6mm)	.17 in. 3/16 in. (4.3 mm)
		LT434	—	.46 in. 15/32 in. (11.7 mm)	.23 in. 15/64 in. (5.7 mm)
		LT435	—	.59 in. 19/32 in. (14.9 mm)	.35 in. 3/8 in. (8.9 mm)
		LT436	—	.65 in. 21/32 in. (16.5 mm)	.43 in. 7/16 in. (10.8 mm)
	Dual Flow Tips blow hot air on both sides of the SMD, not on the SMD. 	LT526	.03 in. 1/32 in. (0.8 mm)	.30 in. 5/16 in. (7.6 mm)	.12 in. 1/8 in. (3.2 mm)
		LT534	.05 in. 3/64 in. (1.2 mm)	.46 in. 15/32 in. (11.7 mm)	.20 in. 13/64 in. (5.1 mm)
		LT535		.59 in. 19/32 in. (14.9 mm)	.28 in. 17/64 in. (7.0 mm)
		LT536		.65 in. 21/32 in. (16.5 mm)	.35 in. 23/64 in. (8.9 mm)

Set-Up

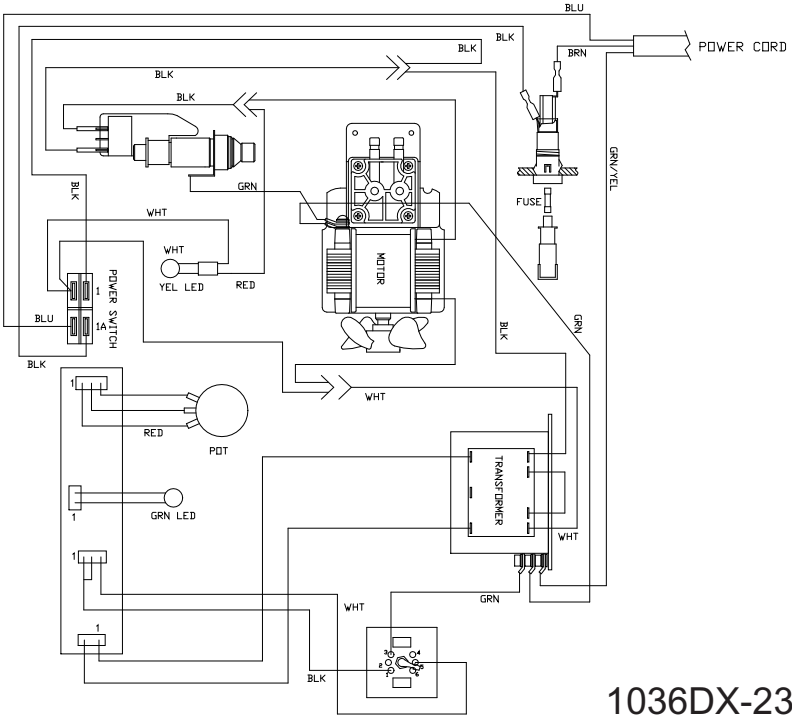


Heater

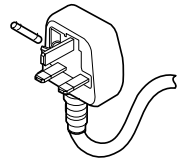
LUA73

SMD Hot Air Tip

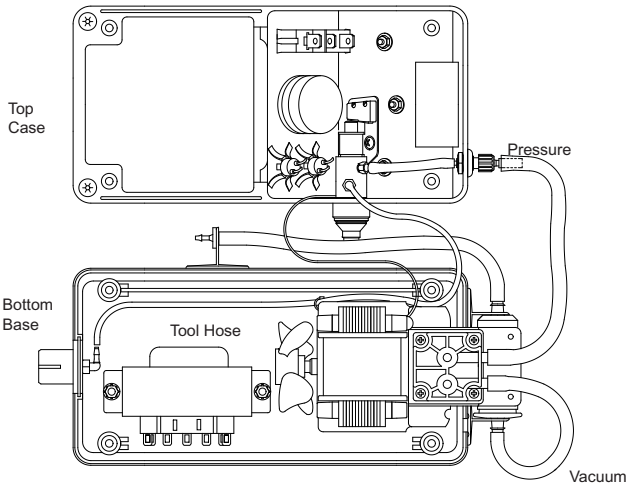
WIRING DIAGRAM



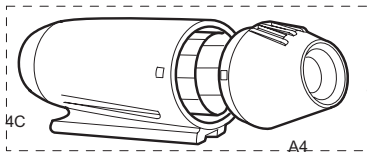
1036DX-230B
 POWER CORD
 3A fuse inside



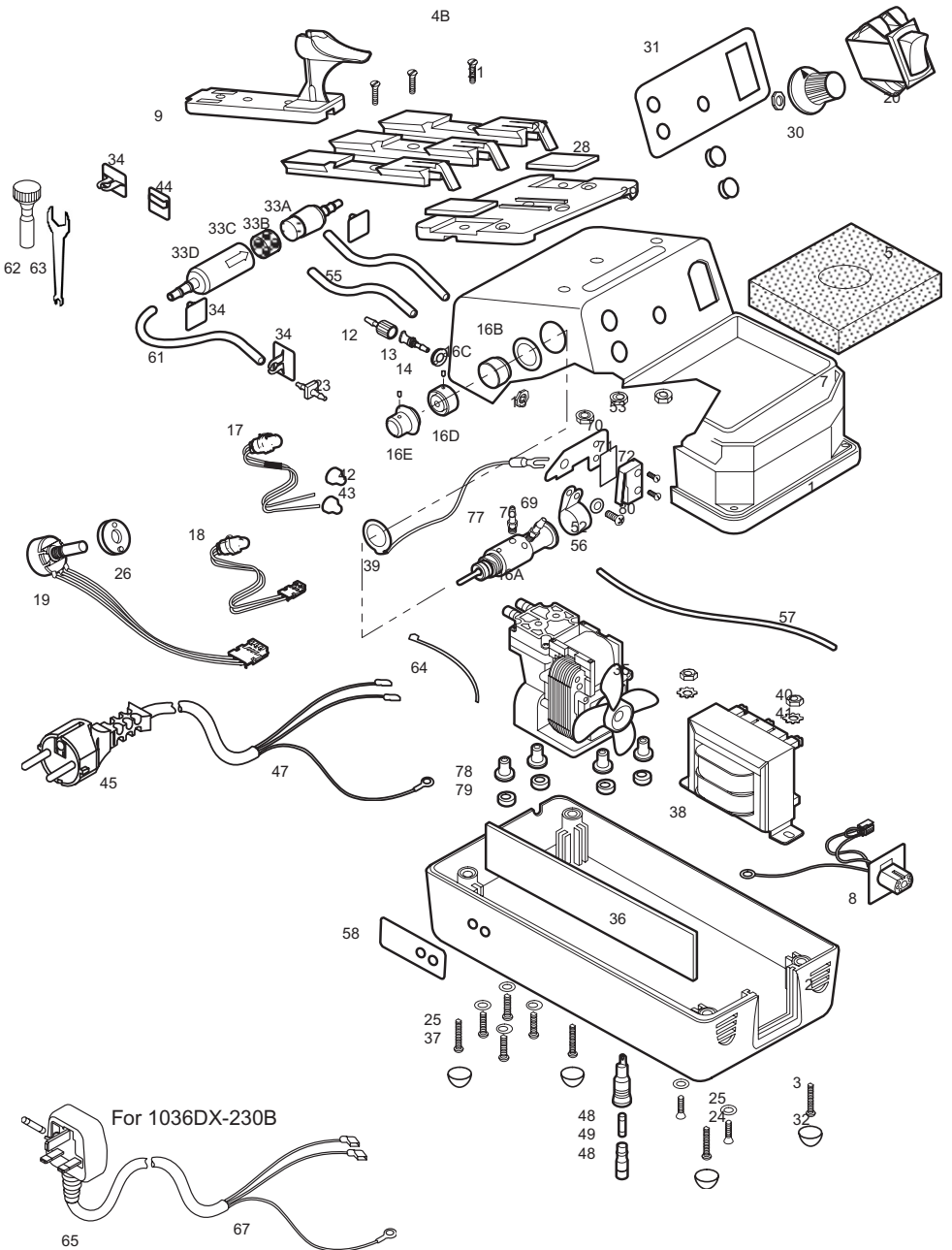
HOSE CONNECTION



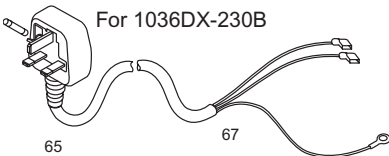
1036DX-230 SPARE PARTS LIST



4B



For 1036DX-230B



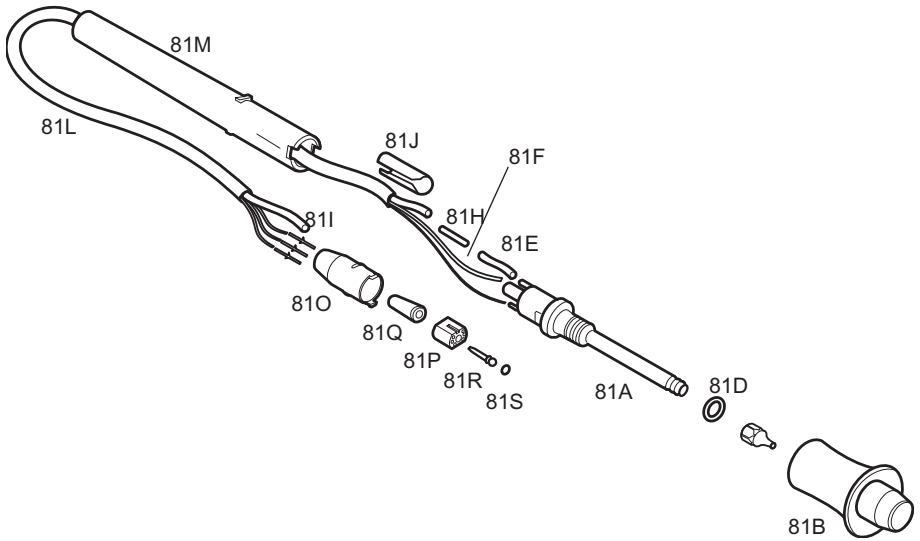
1036DX-230 SPARE PARTS LIST

ITEM NO	PART NO.	DESCRIPTION	QTY REQ'D
1	SR483	Top Cover, Power Supply	1
2	SR484	Bottom Base, Power Supply	1
3	SR011	Screw, Round Head, Phillips, Self-Tapping	4
4	PD533	Tool Pod	1
4A	SR457	Front Housing	1
4B	SR531	Housing	1
4C	SR532	Label for Tool Pod	1
5	RS199	Cleaning Sponge	1
7	SH232	Sponge Holder	1
8	SR651	Connector Assembly	1
9	PD534	Tool Holder for Pick-Up Tool	1
12	SR486	Fitting, Male Luer, for 1/8 ID Hose	1
13	SR275	Fitting, Female Luer, 1/8 ID	1
14	SR279	Color Code Ring For Quick Disconnect	1
15	SR274	Nut, for Female Luer	1
16A*	SR530	Housing & Needle Sub-Assy.	1
16B*	SR506	Flat Washer	1
16C*	SR507	Flange Nut	1
16D*	SR508	Retaining Cap	1
16F*	SR509	Control Knob w/ Graduated Dial	1
17	SR759	LED Assy. Yellow	1
18	SR573	LED Assy. Green	1
19	SR243	Potentiometer Assy.	1
20	SR452	Power Switch	1
21	SR488	Screw, Flat Head, Phillips	3
23	HB356	Fitting, Male, for 1/8 ID. Hose	1
24	SR144	Screw, Round Head, Slotted	2
25	SR016	Washer, Flat, #6	6
26	SR255	Spacer, for Potentiometer Assy.	1
27	SR019	Dovetail	1
28	SR036	Shelf Plate Riser	2
29	SR035	Adapter Plate	1
30	SR045	Knob, Temperature Control	1
31	SR490	Label, Front Panel	1
32	SR012	Bumper	1
33A**	SR266	End Cap	1
33B**	AF629	Felt Filter	1
33C**	AF040	Foam Filter	1
33D**	SR533	Barrel, Clear, for AF110	1
34	SR439	Holder, Clip	1
35	SR491	Motor/Pump, 230V	1
36	15242W53H9	PCB Assy. 24V, 2-Wire	1
37	SR468	Screw, Round Head, Phillips	4
38	SR539	Transformer, Dual Primary	1
39	SR492	Wire Assy. Ground Lug	1
40	SR017	Nut, Hex, 6-32	3

ITEM NO.	PART NO.	DESCRIPTION	QTY REQ'D
41	SR139	Washer, #6, Lock, External Tooth	3
42	SR493	Crimp, Closed End, 22 - 18 AWG	1
43	SR494	Crimp, Closed End, 16 - 14 AWG	2
44	SR416	Holder, Tip Wrench Hanger	1
45	SR318	Power Cord only	1
47	SR461	Power Cord Assy.	1
48	SR569	Fuse Holder	1
49	SR249	Fuse, 1.6A	1
52	SR431	Washer, #10, Flat	1
53	SR467	Nut, Square Cone	3
55	HS307	Hose, 1/8 ID. Silicon, Low Static. (sold per foot)	2@
		4" and 6"	
56	SR518	Screw, Pan Head, Phillips	1
57	HS308	Hose, 3/32 ID. Polyurethane. (sold per foot)	12"
58	SR310	Label, Temp. Calibration	1
61	HL 603	Hose, 3/16 ID. Silicon, Low Static. (sold per foot)	2@
		6" and 1/2"	
62	WT620	Tip Socket Wrench	1
63	WT623	Tip Wrench	1
64	SR050	Cable Tie	1
65	SR454	Power Cord only (british plug)	1
67		Power Cord Assy.	1
69	SR514	Clamp	1
70	SR515	Bracket	1
71	SR434	Insulator	1
72	SR113	Micro Switch	1
76	SR512	Fitting, Male, Barbed, for 3/32 ID Hose	2
77	SR513	Fitting, Male, Barbed, for 1/8 ID Hose	1
78	SR470	Well Nuts	4
79	SR469	Spacers for Well Nuts	4
80	SR516	Screw, Pan Head, Slotted	2

* For complete assembly, order SR487 Air Flow Regulator Assy.

**For complete assembly, order AF110 In-Line Vacuum Filter



ITEM NO.	PART NO.	DESCRIPTION	QTY REQ'D
81A	SR864	Heater Assy. 24V	1
81B	SR521	Collar	1
81C	LU26	Turbo Tip, Medium, LONER Universal	1
81D	SR062	O-Ring	1
81E	HS304	Hose, 3/8 ID. Silicon, Low Static	1-1/4"
81F	SR522	Shrink Sleeve, 3/8 Dia. Green	1/2"
81G	SR445	Wire, 22 AWG. Black 51", 51", 2"	3@
81I	HS308	Hose, 3/32 ID. Polyurethane	60"
81J	HS309	Hose, 3/16 ID. Polyurethane, Clear	2"
81K	SR524	Wire, 22 AWG. Non-Insulated	51"
81L	SR525	Hose, 1/4 ID. Silicon, Low Static	45"
81M	SR579	Handle	1
81N	SR415	Connector, Male Crimp	3
81O	SR674	Connector Shell	1
81P	SR675	Connector Housing	1
81Q	SR649	Boot	1
81R	SR647	Barbed Fitting	1
81S	SR648	O-ring, #2-006	1

For complete assembly, order SR362 Hot Air & Contact Soldering Tool



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