

**EDSY<sup>INC</sup>**

**HT500/-1/-2 SOLDAPULLT<sup>®</sup>**

Hot Tip Desoldering Tool

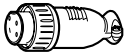
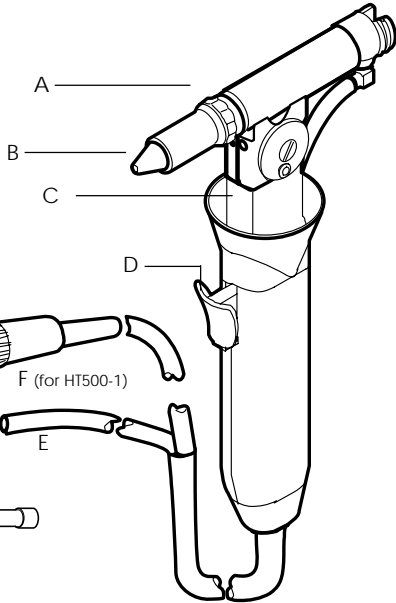
**POWER REQUIREMENTS:**

- 24V
- VACUUM SOURCE



ESD Safe

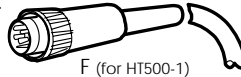
- A) Head Assembly- Includes the primary filtering system and solder debri chamber.
- B) Hot Tip Desoldering Tip- Wide range of desoldering Tips applicable.
- C) Head Shaft- Allows 4-point rotation of Head Assembly.
- D) Trigger- Activates vacuum suction.
- E) Vacuum Hose- Low Static silicone hose. Connects to vacuum source.
- F) Connector- To 24 V controlled output.



(for HT500)



(for HT500-2)



F (for HT500-1)



E

- G) Cleaning Shaft- For cleaning Desoldering Tip orifice: .05 (1.3 mm) and .025 (0.6 mm)

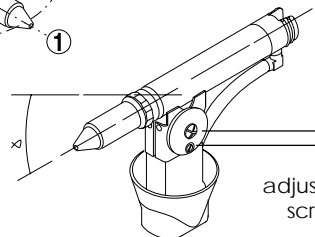
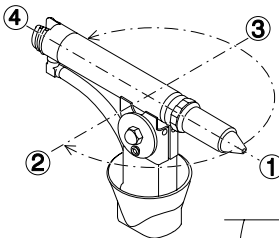


**SPECIFICATIONS**

- 24V, 50/60 Hz, 70W
- Weight: 11 ozs. (312 g)
- Temperature range of 400°F to 800°F (205°C-425°C)
- Voltage leakage from tip to ground, less than 2 MV
- Tip to ground resistance, less than 2 ohms
- COMPLIES WITH MIL-S-45743E, DOD-STD-2000-1B, WS-6536E and ESD SPEC, DOD-STD-1686, DOD-HDBK-263
- UL Listed

**ADJUSTMENTS**

The HT500 Head assembly can be adjusted into varying positions to suit the operator.



adjustment screws

While Tool is in the Pod, push handle down and twist handle until it locks into 1 of it's 4 positions. Twisting counter-clockwise will permit a 180° turn. Twisting clockwise will permit a 90° turn.

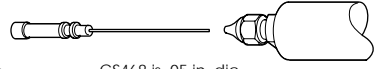
To tilt the Head assembly, loosen (2) Adjustment Screws. Tilt the Head assembly to desired position. Retighten Screws.

**Note: Head Assembly does not make a full 360° turn**

## OPERATION

1. Connect HT500 to 24V power supply and vacuum source.
2. Press trigger to activate vacuum.
3. Always clean the Tip with wet sponge and always re-tin (add fresh solder) during and after each operation.

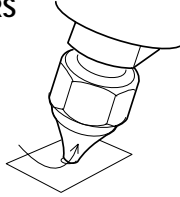
NOTE: When Tip orifice is blocked, use a correct size Cleaning Shaft while pressing the Trigger to clear the obstruction.



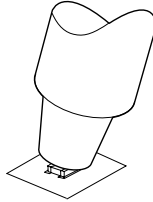
CS468 is .05 in. dia.  
CS468-1 is .025 in. dia.

## DESOLDERING POINTERS

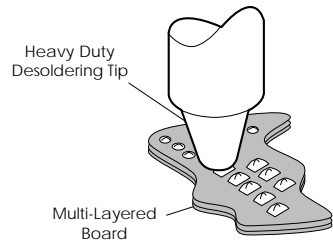
1. When desoldering small holes on flat areas, tilt Tool to allow adequate air flow to lift solder into chamber.



2. When using SMD Tips, heat up the connections by positioning the Tool perpendicularly. When solder melts tilt the Tool and depress trigger. (SMD Tips are recommended for HT500 using external vacuum).

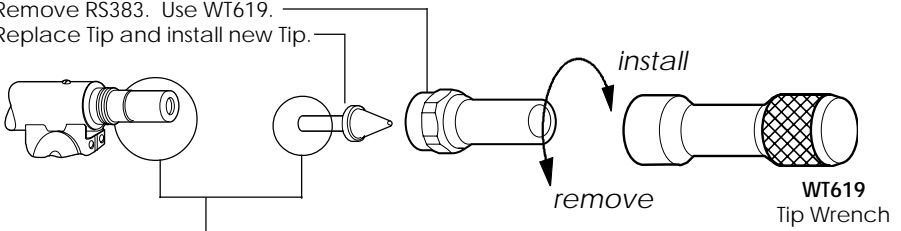


3. Extra-heavy duty desoldering on a multi-layered board is done by using a Heavy Duty Desoldering Tip and a Hi-Heat Soldering Tip simultaneously. Although pre-heating of the circuit board will speed up the process, it is not always necessary.



## REPLACING DESOLDERING TIPS

1. Remove RS383. Use WT619.
2. Replace Tip and install new Tip.

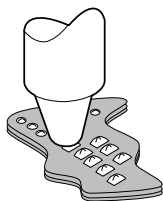


3. Apply **AN112** (in tube) or **AN122** (in syringe) Anti-Seize Compound before assembling.

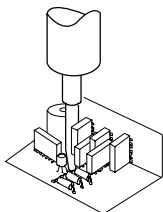
*INSPECT DAILY*

4. Install **RS383**.

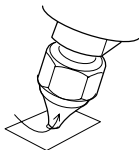
# Hot Tip Desoldering Tips Functional dimensions are approx.



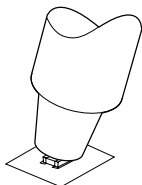
Extra-heavy duty desoldering on a multi-layered board is done by using a **Medium Life Desoldering Tip**.



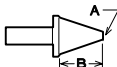
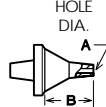
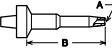

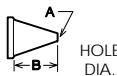
To reach deep, dense and compact areas, use a Long Funnel tip



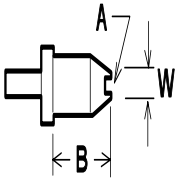
When using a **Replacement Desoldering Tip** to desolder small holes on flat areas, tilt Tool to allow adequate air flow to lift solder into chamber.



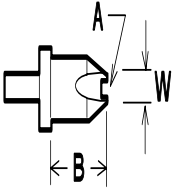
When using **SMD Tips**, heat up the connections by positioning the Tool perpendicularly. When solder melts, tilt the Tool and depress trigger.

DESCRIPTION	PART NO.	HOLE DIAMETER			B			
		in.	in.	mm	in.	in.	mm	
<b>Medium Life</b> (High Heat Transfer)	ZD12	.03	1/32	0.8	.50	1/2	12.7	
	ZD13	.04	3/64	1.0				
	ZD14	.06	1/16	1.5				
	ZD18	.07	5/16	1.8				
	ZD19	.12	1/8	3.2				
	<b>Long Life</b> (Low Heat Transfer)	ZD08	.03	1/32	0.8	.44	7/16	11.8
	ZD10	.04	3/64	1.0				
	ZD11	.06	1/16	1.5				
<b>Funnel</b> 	ZD107	.02	1/64	0.5	.48	31/64	12.2	
	ZD112	.03	1/32	0.8				
	ZD113	.04	3/64	1.0				
<b>Long Funnel</b> 	ZD111	.03	1/32	.08	1.22	17/32	31	
<b>Replacement*</b> 	ZD25	.03	1/32	0.8	.39	32/64	9.9	
	ZD26	.04	3/64	1.0				
	ZD27	.07	5/16	1.7				
<b>SMD**</b> (FOR ZD505/905 series)	ZD57	.10	7/64	2.5	.55	9/16	13.9	
	ZD58	.13	1/8	3.2				
	ZD60	.15	5/32	3.8				
	ZD61	.25	1/4	4.5				
								

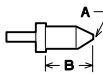
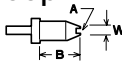
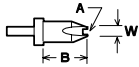
## Hot Tip Desoldering Tip



**Surface Sweep Tips** removes excess solder on pads for flatter surface, prior to SMD remounting.



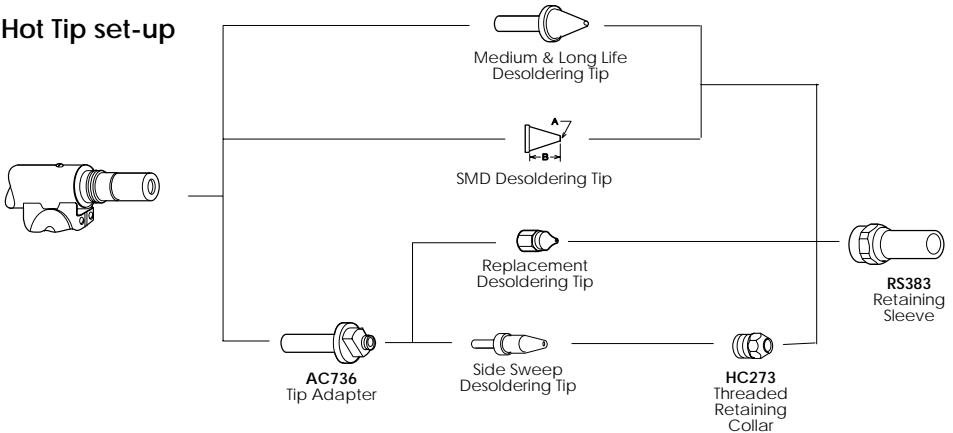
**Side Sweep Tips** allows removal of solder from the component side of the board.

DESCRIPTION	PART NO.	HOLE DIAMETER			B		
		in.	in.	mm	in.	in.	mm
<b>Economy**</b> 	ZD28	.03	1/32	.08	.30	5/16	7.6
	ZD29	.04	3/64	1.0			
	ZD30	.06	1/16	1.5			
<b>Surface Sweep**</b>  Hole Dia. = .06 in.	ZD70	<b>W</b>					
		in.	in.	mm			
<b>Side Sweep**</b>  Hole Dia. = .06 in.	ZD71	.08	3/32	2.0			

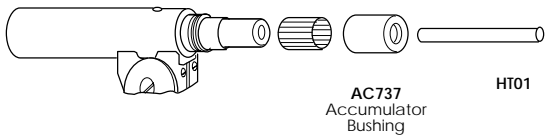
\*Tin New Iron Tips at Low Temperature before using.

\*\*Non-Plated Alloy

### Hot Tip set-up



### Heater Set-up



## DAILY MAINTENANCE

- Remove and inspect Tip and Heater Assy.
- Inspect all Filters
- Remove solder debri from Desoldering Head Housing

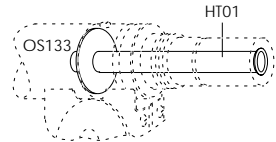
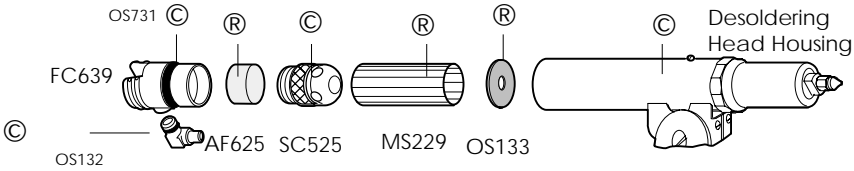
## WEEKLY MAINTENANCE

- Inspect Valve Assy.
- Inspect all O-Rings and Seals

### TO REPLACE FILTER & O-RING INSIDE DESOLDERING HEAD ASSY.

1. Pull out FC639 from Housing.
2. Unscrew SC525 from FC639 to remove AF625.
3. Insert new AF625 inside SC525 and screw back on.
4. Clean and apply OL111 on OS731 & OS132 O-Ring.

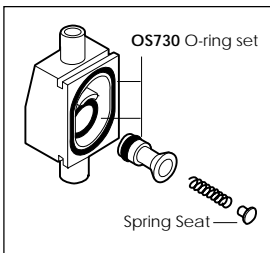
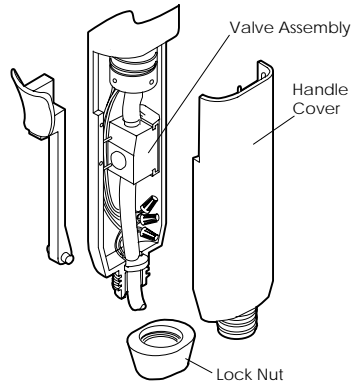
- Ⓒ - Clean  
Ⓓ - Replace



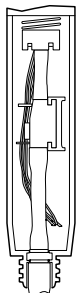
*When installing OS133, the HT01 should go thru the OS133.*

### TO REPLACE O- RINGS INSIDE VALVE ASSEMBLY

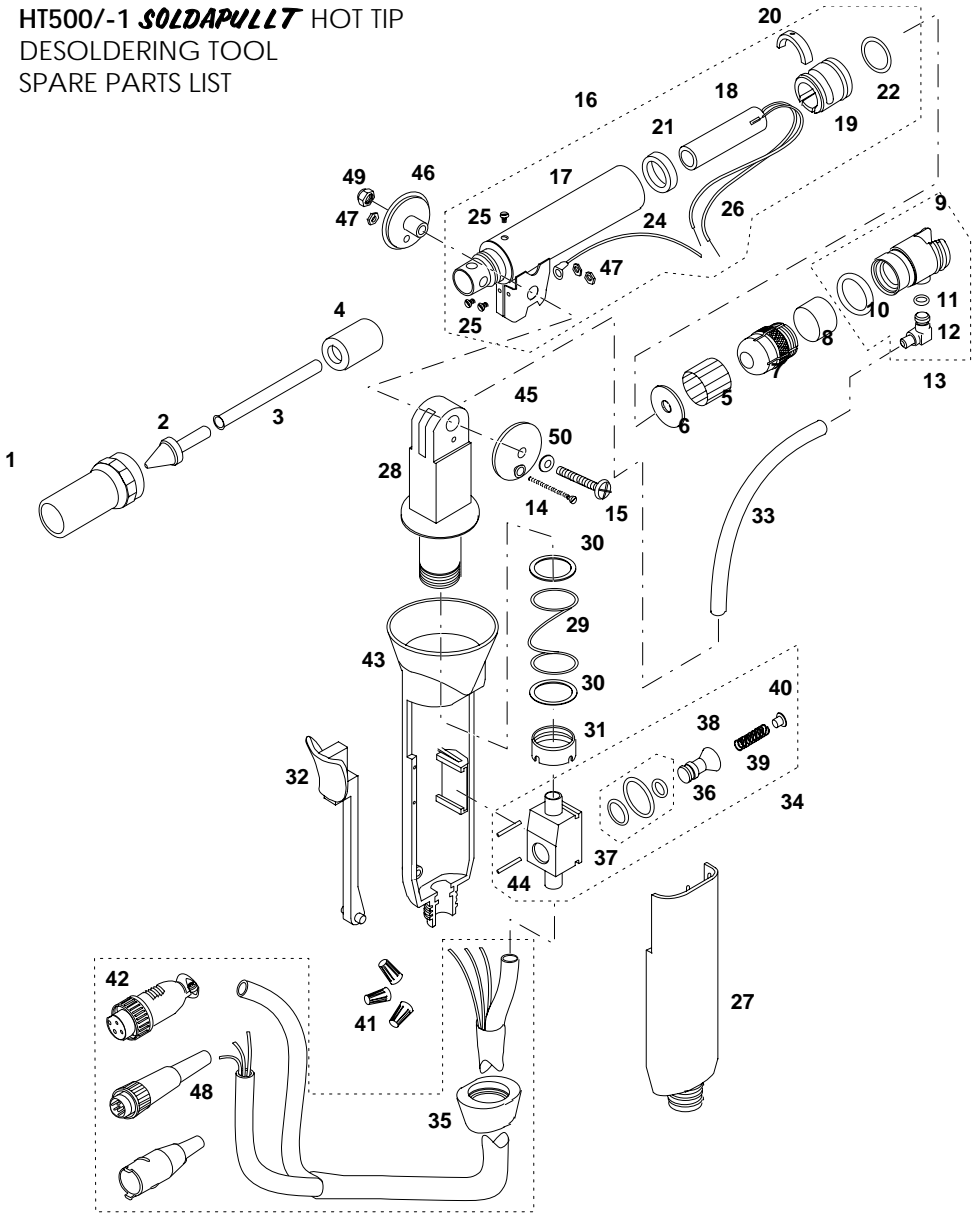
- a) Unscrew Lock Nut at the end of the HT500 Handle.
- b) Remove Handle Cover.
- c) Slide out Valve Assembly while placing your finger over the Spring Seat. BE CAREFUL NOT TO LET THE SPRING AND THE SPRING SEAT SHOOT OUT FROM THE HOUSING
- d) Clean all parts with alcohol only.
- e) Replace **OS730** O-Ring Set (set of 3).
- f) Lube new O-rings with **OL111** O-Ring Lube.



**CAUTION:** Make sure the wires are not pinched by Valve Assembly.



HT500/-1 **SOLDAPULLT** HOT TIP  
 DESOLDERING TOOL  
 SPARE PARTS LIST



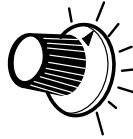
ITEM NO.	PART NO.	DESCRIPTION	QTY REQ'D
1	RS383	Retaining Sleeve	1
2	ZD13	Hot Tip Desoldering Tip	1
3	HT01	Hot Tube	1
4	AC737	Accumulator Bushing	1
5	MS229	Mica Sheet	1
6	OS133	Silicone Washer	1
7	SC525	Solder Cone	1

ITEM NO.	PART NO.	DESCRIPTION	QTY REQ'D
8	<b>AF625</b>	Felt Filter	1
9	<b>SR148</b>	Housing for End Cap	1
10	<b>OS731</b>	O-Ring for End Cap	1
11	<b>OS132</b>	O-Ring for End Cap Elbow Connector	1
12	<b>SR147</b>	Connector for End Cap	1
13	<b>FC639</b>	End Cap	1
14	<b>SR008</b>	Flat Head Slotted Screw for Index Flange	1
15	<b>SR168</b>	Pan Head Phillip Screw for adjusting Desoldering Head Assy.	1
16	<b>HT500H</b>	Desoldering Head Assembly- Repairable by EDSYN Customer Service Dept.	1
17	<b>SR136</b>	Desoldering Head Housing	1
18	<b>SR120</b>	Heater Element	1
19	<b>SR117</b>	Heater Element Bushing (O-Ring included)	1
20	<b>SR118</b>	Retaining Key for Heater Element Bushing	1
21	<b>SR119</b>	Teflon Spacer for Heater Element	1
22	<b>OS731</b>	O-Ring for Heater Bushing	1
24	<b>SR121</b>	Grounding Wire	1
25	<b>SR122</b>	Screw, 2-56 x 1/8 Pan Head Slotted	3
26	<b>SR145</b>	Sleeving, Braided Fiberglass	2
27	<b>SR004</b>	Handle Cover	1
28	<b>SR124</b>	Head Shaft	1
29	<b>SR125</b>	Spring for Head Shaft	1
30	<b>SR126</b>	Washer, Nylon	2
31	<b>SR127</b>	Retaining Nut for Head Shaft	1
32	<b>SR128</b>	Trigger	1
33	<b>HL603</b>	Hose, Low Static Silicone, 3/16" I.D.	5"
34	<b>SR335</b>	Valve Assy.	1
35	<b>SR393</b>	Nut, Retaining, for Handle	1
36	<b>OS730</b>	O-Ring Set (Three O-Rings)	1 set
37	<b>SR129</b>	Valve Housing	1
38	<b>SR130</b>	Poppet (O-Ring Included)	1
39	<b>SR131</b>	Return Spring for Poppet	1
40	<b>SR132</b>	Seat for Return Spring	1
41	<b>SR133</b>	Wire Nuts	3
42		<b>SR134</b> Hose and Wiring Assembly for HT500	1
		<b>SR565</b> for HT500-1 <b>SR635</b> for HT500-2	
43	<b>SR123</b>	Handle Base	1
44	<b>SR143</b>	Wire Guide, Nylon, 3/8" Length	2
45	<b>SR005</b>	Index Flange (Screw Side)	1
46	<b>SR006</b>	Index Flange (Nut Side)	1
47	<b>SR007</b>	Nut, Hex, 2-56 thread	3
48		<b>SR135</b> Connector for HT500	1
		<b>SR353</b> for HT500-1 <b>SR633</b> for HT500-2	
49	<b>SR170</b>	Cap Nut, Hex #8-32 x 5/16"	1
50	<b>SR169</b>	Washer, Flat, 1/16" thick	1

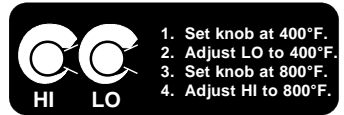
# CALIBRATION (for ZD500DX, 505, 905 series only)

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

1. Using a clean Tip, turn on power and set Temperature Control Knob to approx. 500°F (260°C). Allow Tip to warm up.
2. Tin the tip properly and place center of the thermo-couple wire on tip.
3. Apply a small amount of solder on the center of the thermo-couple wire, to form a good contact between the tip and the thermo-couple wire.
4. Set Temperature Control Knob to 400°F (205°C).
5. Adjust **LO**-Temp. Calibration Pot so the Meter will read 400°F (205°C).
6. Set Temperature Control Knob to 800°F (427°C).
7. Adjust **HI**-Temp. Calibration Pot so the Meter will read 800°F (427°C).



Temperature Control Knob



Calibration Pot

THE NAMES LONER, SOLDAPULLT, ATMOSCOPE, AUTO-VAC, IDLE-REST, CROWN, OCTAVAC AND KLATCH ARE REGISTERED TRADEMARKS OF EDSYN, INC.



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TIP STYLE ON SOLDERING, DESOLDERING AND HOT AIR TOOLS MAY VARY.

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