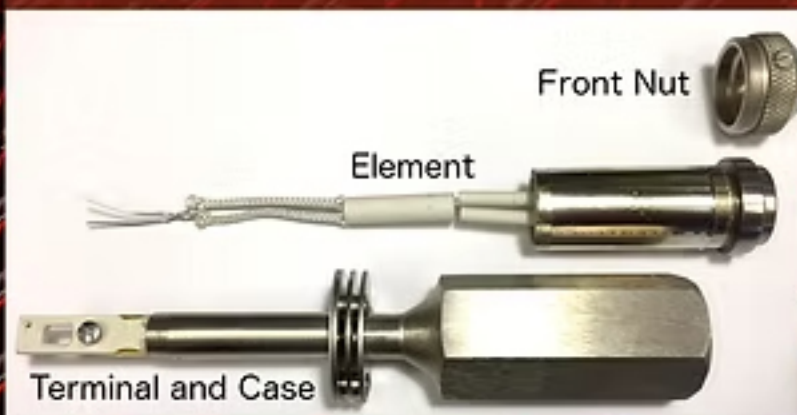


Element Replacement

- Unplug iron and make sure iron is cool. Unscrew Front Nut and Handle.
- Disconnect element leads from power contact screws on terminal.
- Press terminal guard at finger slots of terminal and pull out.
- Remove element from housing by pulling out with pliers.
- Insert new element making sure inside case pin lines up with slot of element.
- Connect leads of element to terminal power screws.
- Place terminal into case by squeezing the terminal guard ears into holes of housing.



For repair videos and MORE go to:
<https://www.youtube.com/user/HexaconElectric>
or search "Hexacon Electric"



WARRANTY FOR SOLDERING IRONS AND STATIONS

HEXACON Products are the result of many years' experience in manufacturing quality electric soldering equipment. Only the highest quality material is used in their construction, and they are carefully tested and inspected before leaving our factory. We guarantee the quality of the material used in our products and the workmanship used in their manufacture. HEXACON will repair or replace at its option any defective soldering equipment during the specified warranty period. Equipment that has been abused, misused, improperly or incorrectly maintained, modified, or improperly calibrated will not be warrantied. Tips and other consumables are excluded from the warranty. Distributors are not authorized to adjust complaints, make repairs or replacement. For any warranty claim, contact the factory. No other warranty is expressed or implied.

Element/Sensor/Power Cord	3 Months
Electronic Circuitry	12 Months
Manufacturing Defects/Workmanship	12 Months

Iron Holders

A properly designed iron holder can increase the efficiency of your soldering tool. Poorly designed holders may heat sink an iron causing idling temperature losses of up to 200 degrees F. Which part of the iron comes in contact with the iron holder is also critical to an iron holder's design. If the angle at which the soldering iron is supported is too great, convection heating will generate handle heat. Hexacon designed a custom bench mounted iron holder to accommodate as many as four soldering irons at one station.



HD-S12 (seen to the left) is one of our largest holders and is designed for large screw tip irons and heavy duty irons. Sits on bench top and is a low cost option. Also available with safety cradle on top as model HD-S13.

HD-892A (pictured right) Steel base with thermoset tray. Uses sponge SP-8141 or 8141C size 2-1/4" x 3-1/2"



HD-890 (pictured left without reservoir) Water reservoir with supplied plastic bottle. Keep sponge wet all day. Non skid ceramic base won't travel on bench if pulled. Easy to clean. Uses sponge SP-8121 or 8121C size 3-1/2" x 4-1/2".

Voltage Controllers



Did you know that using a voltage controller with your steady output iron lowers the iron voltage and reduces the energy usage too? The voltage controller can be used to turn the iron down during idle periods and still be ready to use when you are. A lower temperature on the iron will also have the added benefit of increasing the life of your soldering tip.

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HEXACON



Soldering Instructions

Select the right size iron for the joints to be soldered. Thermal demand of joint depends upon size, material, connection type and other factors. HEXACON can help recommend the proper size iron if you need help.

Use iron only on rated voltage. Use properly grounded outlet. Keep iron dry. Moisture will damage the heating element. Allow iron to heat up. Heat up time depends upon iron wattage and can vary from 3-10 minutes. Parts to be soldered must be clean and held together firmly.

Apply flux to joint to chemically clean surfaces during the soldering operation. Rosin type or other fluxes leave residues. More active fluxes leave more corrosive residues and must be removed. Some materials such as aluminum and stainless steel are more effectively soldered with active fluxes. Keep active fluxes away from heating element. Never dip hot tip of iron into liquid flux.

Before use, the tip must be "tinned" with solder. A bright shiny layer of fresh solder will provide effective heat transfer to the surfaces being soldered. Solder is referred to as tinning even if no tin content in solder alloy is present. If the tip will not accept solder readily, cool to room temperature, clean with tip scrubber, apply flux and solder as soon as melting temperature is attained.

Heat joint with hot tip of iron and apply solder to junction of tip and joint. This heat bridge is the path the heat takes. Molten solder transfers heat to joint. Do not use too much solder. As soon as joint is hot enough so that the solder wets the surfaces and flows smoothly, slide tip off joint. Pre-tin parts with solder for quicker more reliable solder joints.

Keep tip fully inserted and tight in iron when soldering. Do not operate iron without a tip, or with a short tip, or with a tip pulled out from the element as iron will then overheat and shorten the life. Also, if tip is pulled out, heat transfer to the tip is lost. Keeping a tip properly inserted at the base of a plug tip iron is called fully seating the tip. Anything less than a fully seated tip will affect iron and element life.

Remove tips frequently to avoid freezing. Remove daily if iron is used continually, to remove built up oxidation or scale.

Use a temperature controller. Do not operate an iron continuously without using it. HEXACON irons are made to deliver heat and not to sit idle while hot. Disconnect iron when not used for long periods or operate at a reduced voltage to prevent overheating. Tip life will also be extended by reducing temperature over long idle periods.

Do not file plating on XTRADUR tips. Plain copper tips may be filed to clean or retin. See Tip Use & Care for other recommendations to extend tip life. Do not strike iron unnecessarily. HEXACON irons are the most rugged but care must be taken with good tools. HEXACON irons can be held in a vice due to the unique hexagonal shape of the case which allows grip on the flat sides.

HEXACON tools have replaceable parts with a few exceptions. See Element replacement instructions.

Temperature Controlled Stations and Irons

Soldering Stations allow to vary temperature relating to the task and application.



Therm-O-Trac (TOT) (pictured left) has a huge customer base who rely on decades of reliability and precision temperature control. Uses J Tips. The Therm-O-Trac was recently updated and you can visit our website for more information.

HTC (pictured right) is a lower cost temperature controlled station with a range of 550F -850F that uses a ceramic element. Uses CT Tips.



Phenix (pictured left) is a controlled temperature stick iron that uses the same element and tips as the HTC. It provides a fixed temperature available with variable power levels.

Replaceable Parts

Hexacon offers independently replaceable irons parts for Irons and Soldering stations for maximum versatility and economy.

Replacement parts include: Soldering tips (Xtradur or Copper), Elements, Heater Head (Combination of element and case), Cord Set (Three wire grounded cords, flexible and high temperature with molded plugs), Handles (Enameled hardwood or high temperature resistant fiberglass plastic), Front nuts (Knurled nut with set screw for holding tip), Housing (Element case), Set screws (Fasteners for plug type tips)

When ordering replacement parts always specify the part name, model number and wattage for your current iron.

Accessories

Hexacon offers the following accessories for your particular solder application: Temperature Controls, Mini-pots, Heat sinks, Fiberglass Soldering Aids, Lev Cheks, Braid Cleaner, Tip Scrubber, Hex -Wik and Solder Suckers



Tip Use and Care

Xtradur tips are plated and are furnished factory tinned with 100% tin and are ready for use.

Tips are iron plated over entire copper base and then have nickel and chrome plating on shank to provide corrosion protection and anti-solder creep.

Screw tips can be furnished in Copper with no plating and can be shaped to suit your application.



Recommendations to extend tip life:

Keep the working surface coated with solder at all times. Add excess solder to tip during periods of long idle. Don't wipe tip dry and then put in holder. Add solder to the tip and then put in holder.

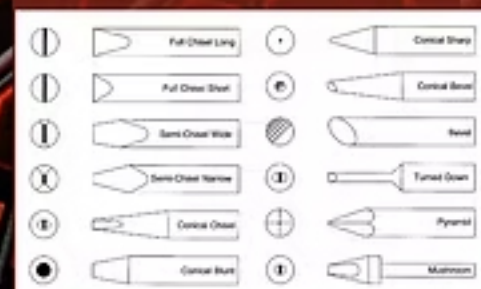
Remove burned solder or flux residues built up on tip with a clean wet sponge.

If tip surface is dirty, cool and clean with tip scrubber. Heat tip just hot enough to melt solder and retin with flux cored solder immediately.

Never file a plated tip or exposed copper will wear immediately.

Keep tip fully inserted and fully seated in iron.

Choosing the Right Tip: Size and Shape Matter



Plug style tip shapes come in a wide variety. Screw tips less so since they are copper and can be filed to accommodate a custom shape. Choose a tip shape that maximizes the contact area between the tip and the work. Match the size of the tip to the connection.

Best heat transfer maximizes contact iron of tip to task like a full chisel shape or any tip that has a flat surface to increase contact area. A conical bevel has a flat surface and has better heat transfer than a conical sharp. Least efficient tip shape heat transfer is a conical sharp as it brings heat transfer down to a single point of contact.

A turned down tip can be useful to improve termination access and visibility. Turned down tips have a smaller mass and will heat up more quickly than a tip of the same length with more mass. Do not exceed wattage limits for turned down tips. The irons will run too hot and fail prematurely.

Increasing tip mass (longer tip, larger profile) will lower the idle temperature but provide better long term thermal capability upon consecutive connections. Decreasing tip mass (shorter tip, smaller profile) will raise idle temp but also result in larger temperature swings with each connection soldered.

Why use a sponge?

It is the most cost effective way to clean a tip. Sponge can be used on both sides and rinsed out at shift end. Sponges with a hole in the center provide the tip a wiping surface and a spot for the oxidized solder or dross to accumulate. A sponge is much cheaper to replace than a soldering tip.

Hexacon sponges have none of the surfactants that commercial sponges have. Those inferior sponges may have residues which can cause solderability problems.



Desoldering

Desoldering, or removing solder, is a normal function as you inspect the quality of a connection or decide to remove a particular component. HEXACON has some of the easiest and most economical methods to desolder without causing damage to the surface being reworked.



One method uses flux coated, braided copper wire that provides wicking of melted solder called HEX-WIK and allows for simple repairs. Hex-Wik comes in a variety of widths and flux types and spool lengths.

A more manual tool is a solder sucker. This small, lightweight, inexpensive tool does just what its name says suck solder. Available in 1 and 2 ounce bulb sizes and a variety of triplet options. As with HEXACON products triplets are always available separately.



Iron Family	PART #	TIP DIA (in)	WATTAGE	STD TIP #
Mini Irons	SI-21A	1/8"	15, 20, 25	HT477X
	SI-22A	3/16"	25, 30, 35	HT207X
	SI-23A	1/4"	30, 35, 40, 50, 60	HT313X
Super S Irons	SI-25S	1/8"	25, 30, 35, 40, 50	HT477X
	SI-26S	3/16"	25, 30, 35, 40, 50	HT207X
	SI-24S	1/4"	30, 35, 40, 50, 60	HT313X
Pinpoint Irons	P25/25H	1/8"	25, 35	HT477X
	P26/26H	3/16"	30, 40, 50 / 30, 35, 50	HT207X
	P24/24H	1/4"	40, 50, 60	HT313X
Power House Irons	P34/34H	1/4"L	80, 90	HT202X
	SI-P30	1/4"L	60, 75, 80	HT202X
	SI-30S	1/4"L	80	HT202X
	SI-30H	1/4"L	60, 75, 80	HT202X
	SI-P35/35H	5/16"	80, 90, 100	HT506X
Heavy Duty Plug Tip Irons	SI-P151/SI-P152	1/2"	175 / 200	HT293X
	SI-P155/155H	3/8"	150, 175, 200	HT140X
	SI-P115/115H	3/8"	110, 150, 175	HT140X
	SI-P200/200H	5/8"	200	HT499X
	SI-P250	5/8"	250	HT499X
	SI-P300/300H	7/8"	300	HT261X
	SI-P550	1-1/8"	550	HT262X
Heavy Duty Screw Tip Irons	SI-225	1/1/8"	250	T272
	SI-350	1-3/8"	350	T273
	SI-500	1-5/8"	500	T274
	SI-700	1-3/4"	700	T275
Stations	PART #	TIP DIA (in)	WATTAGE	STD TIP #
HTC Stations	HTC-5520	1/4"	VARIABLE	CT202X
	HTC-5530	11/32"	VARIABLE	CT302X
	HTC-5623	1/4" & 11/32"	VARIABLE/DUAL	CT202/302X
Therm-O-Trac (TOT) Stations	TOT-1002+	J Tips	VARIABLE	J202X
	TOT-1006A/B+	J Tips	VARIABLE	J202X
	TOT-2300+	J Tips	VARIABLE	J802X
Phenix Series	PHC-600	1/4"	VARIABLE	CT202X
	PHC-700	1/4"	VARIABLE	CT202X
	PHC-800	1/4"	VARIABLE	CT202X
	PHU-600	11/32"	VARIABLE	CT302X
	PHU-700	11/32"	VARIABLE	CT302X
	PHU-800	11/32"	VARIABLE	CT302X

Other wattages may be available. Contact factory for availability.
Hexacon Electric Co. Tel 908-245-6200 E-mail: sales@hexaconelectric.com