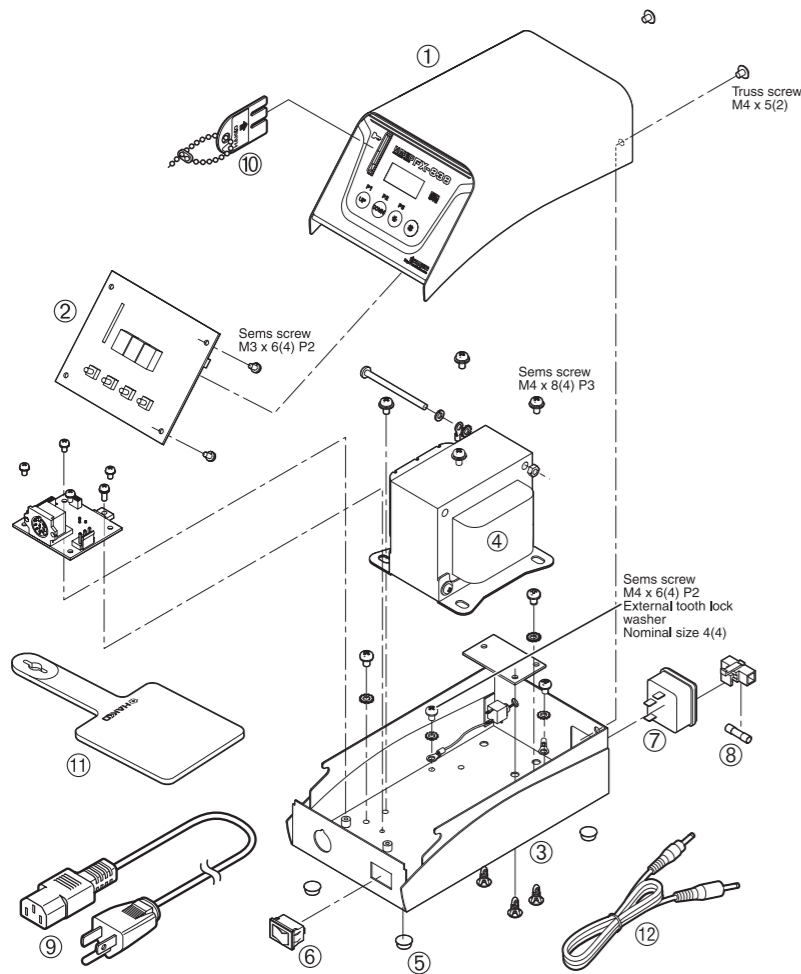


1. PARTS LIST



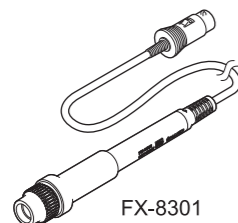
● HAKKO FX-838 Station

Item No.	Part No.	Part Name	Specifications
①	B3530	Cover	W/membrane sheet
②	B3526	P.W.B.	
③	B3529	Chassis	With rubber feet
④	B3525	Transformer	100-120 V
	B3549	Transformer	220-240 V
⑤	B2748	Rubber foot	
⑥	B2852	Switch	

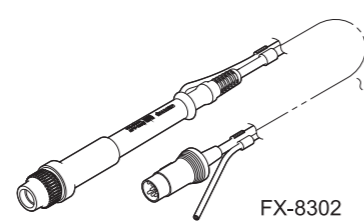
● Soldering Iron (Option)

Part No.	Part Name	Specifications
FX8301-01	HAKKO FX-8301	150W(27V)
FX8302-01	HAKKO FX-8302	150W(27V)

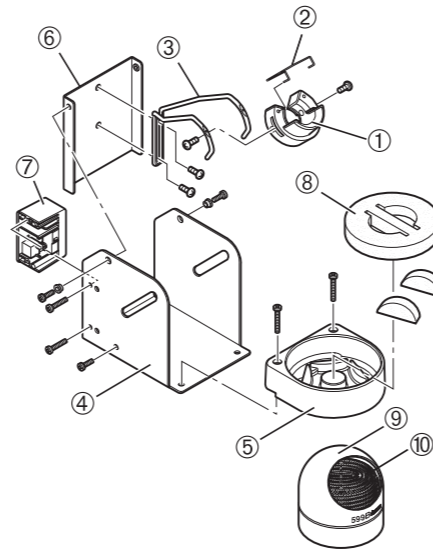
Item No.	Part No.	Part Name	Specifications
⑦	B2384	Power receptacle	
⑧	B2468	Fuse	125 V-5 A
	B1258	Fuse	250 V-3.15 A
⑨	B2419	Power cord, 3 wired cord & American plug	120 V USA
	B2421	Power cord, 3 wired cord but no plug	
⑩	B2422	Power cord, 3 wired cord & BS plug	220 V India
	B2424	Power cord, 3 wired cord & European plug	220 V KTL / 230 V CE
⑪	B2425	Power cord, 3 wired cord & BS plug	230 V CE
	B2426	Power cord, 3 wired cord & Australian plug	
⑫	B2436	Power cord, 3 wired cord & Chinese plug	220 V China
	B3508	Power cord, 3 wired cord & American plug	
⑬	B3550	Power cord, 3 wired cord & SI plug	
	B2388	Control card	
⑭	B2300	Heat resistant pad	
⑮	B3253	Connecting cable	



FX-8301



FX-8302



● HAKKO FH-200 Iron Holder (Option)

Item No.	Part No.	Part Name	Specifications
①-⑦,⑨,⑩	FH200-01	HAKKO FH-200	

● Iron holder parts

Item No.	Part No.	Part Name	Specifications
①	B3001	Iron receptacle	With screws
②	B2791	Tip fixing spring	
③	B3248	Retaining clip	With screws
④	B3251	Iron holder base	With rubber feet
⑤	B3249	Cleaner base	With rubber feet
⑥	B3250	Stay	
⑦	B3252	Switch case assembly	
⑧	A1536	Cleaning sponge	
⑨	599B-02	Tip cleaner	
⑩	599-029	Cleaning wire	

2. MAINTENANCE/CHECKING PROCEDURE

Performing proper and periodic maintenance extends product life and contributes to the quality of soldering work. Efficient soldering depends upon the temperature, the quality and quantity of the solder and flux. Apply the following service procedure as dictated by the conditions of the usage.

⚠ WARNING

Since the soldering iron can reach a very high temperature, please work carefully. Except where indicated, always turn the power switch OFF and disconnect the power plug before performing any maintenance procedure.

● Tip maintenance

1. Tip temperature

High temperatures shorten tip life and may cause thermal shock to components. Always use the lowest possible temperature when soldering. The excellent thermal recovery characteristics of the HAKKO FX-838 ensures effective soldering at low temperatures.

2. Cleaning

Always clean the soldering tip before use, to remove any residual solder or flux adhering to it. Use a clean and moist cleaning sponge or the HAKKO 599B tip cleaner. Contaminants on the tip have many deleterious effects, including reduced heat conductivity, which contribute to poor soldering performance.

3. After use

Always clean the tip and coat it with fresh solder after use. This guards against oxidation.

4. When the unit is not being used and the auto power shutoff is not active.

Never allow the unit to idle at a high temperature for extended periods. This will allow the tip to become oxidized. Turn the power switch OFF. If it is to be out of service for several hours, it is advisable to disconnect the power plug as well.

5. Inspecting and cleaning the tip

This procedure, if followed daily, will materially add to tip life.

1. Set the temperature to 250°C (482°F).
2. When the temperature stabilizes, clean the tip (see 2, above) and check the condition of the tip. If the tip is badly worn or deformed, replace it.
3. If the solder plated part of the tip is covered with black oxide, apply fresh solder, containing flux, and clean the tip again. Repeat until all the oxide is removed, then coat the tip with fresh solder.
4. Turn the power OFF and remove the tip, using the heat resistant pad. Set the tip aside to cool.
5. Remaining oxides, such as the yellow discoloration on the tip shaft, are not harmful but can be removed with isopropyl alcohol.

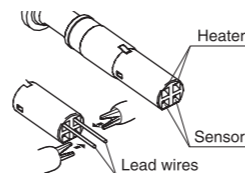
CAUTION
NEVER file or use abrasive materials on the tip to remove oxides!

● Checking Procedure

⚠ WARNING

Unless otherwise directed, carry out these procedures with the power switch OFF and the power UNPLUGGED.

● Check for a broken heater or sensor

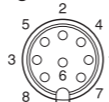


1. Check for a broken heater or sensor

Heater resistance	1.2-2.0Ω (Normal)
Sensor resistance	2.0-5.0Ω (Normal)

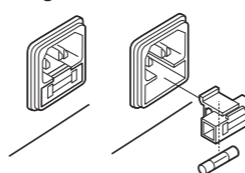
If the resistance exceeds these limits, replace the tip.

● Check the grounding line



1. Unplug the soldering iron from the station.
2. Measure the resistance value between Pin 2 and the tip.
3. If the value exceeds 2Ω (at room temperature), perform the tip maintenance described in section 2, tip maintenance.

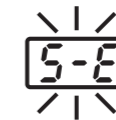
● Checking the power cord for damage



1. Unplug the power cord from the power receptacle.
2. Remove the fuse holder.
3. Inspect the fuse and replace if needed.
4. Put the fuse holder back in place.

3. ERROR MESSAGES

● Sensor Error



When there is the possibility that a failure has occurred in the sensor or heater (including the sensor circuit), [S-E] is displayed and the power is shut down.

NOTE:

The sensor error also occurs if the tip is not inserted properly. When the soldering iron is connected, [S-E] may be displayed momentarily. This does not indicate a malfunction.

● Low-temperature alarm



EXAMPLE:

350°C (400°C - 50°C)
Set temperature | Low-temperature alarm limit

If the tip temperature falls below the low-temperature alarm limit, [H-E] is displayed and the warning buzzer sounds. When the tip temperature rises above the low-temperature alarm limit, the warning buzzer will stop.

EXAMPLE:

Assume that the temperature setting is 400°C/750°F and the low-temperature alarm limit is 50°C/120°F. If the temperature continues to decrease and finally falls more than the set limit while the heating element is on, the temperature display starts blinking to indicate that the tip temperature has dropped below the limit you set.

[L-E] will be displayed if the soldering iron is not attached to the station OR the wrong soldering iron is connected.

● Soldering iron error



4. TROUBLE SHOOTING GUIDE

⚠ WARNING

Before checking the inside of the HAKKO FX-838 or replacing parts, be sure to disconnect the power plug. Failure to do so may result in electric shock.

● The unit does not operate when the power switch is turned on.

CHECK : Is the power cord disconnected?

ACTION : Connect it.

CHECK : Is the fuse blown?

ACTION : Investigate why the fuse blew and then replace the fuse. If the cause can not be determined, replace the fuse. If the fuse blows again, send the unit in for repair.

● The tip does not heat up. • The sensor error [S-E] is displayed.

CHECK : Is the tip inserted properly?

ACTION : Insert the tip completely.

CHECK : Is the heater/sensor broken?

ACTION : See the appropriate section of this manual regarding how to check the soldering iron cord and/or the heater/sensor for breakage.

● Solder does not wet to the tip.

CHECK : Is the tip temperature too high?

ACTION : Set the appropriate temperature.

CHECK : Is the tip contaminated with oxide?

ACTION : Remove the oxide (see "Tip maintenance" in section 2).

● The tip temperature is too high.

CHECK : Is the entered offset value correct?

ACTION : Enter the correct value.

ACTION : Contact your HAKKO representative.

● The tip temperature is too low.

CHECK : Is the tip contaminated with oxide?

ACTION : Remove the oxide (see "Tip maintenance" in section 2).

CHECK : Is the entered offset value correct?

ACTION : Enter the correct value.

● The soldering iron error [L-E] is displayed.

CHECK : Is incorrect soldering iron connected?

ACTION : Connect the HAKKO FX-8301 soldering iron.

● The low-temperature alarm limit error [H-E] occurs frequently.

CHECK : Is the tip too small for the items to be soldered?

ACTION : Use a tip with a larger thermal capacity.

CHECK : Is the setting value for the low-temperature alarm limit too low?

ACTION : Increase the setting value.

● Though the soldering iron is placed in the iron holder, the sleep function is not activated.

CHECK : Check that the connecting cable is inserted firmly into the jack.

ACTION : Turn off the power switch and insert the connecting cable again.

● Tip error [---] is displayed.

ACTION : Contact your HAKKO representative.

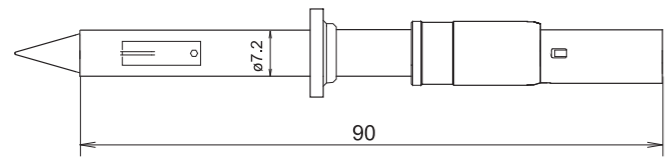
● Tip error [---] is displayed.

CHECK : Is the heater broken?

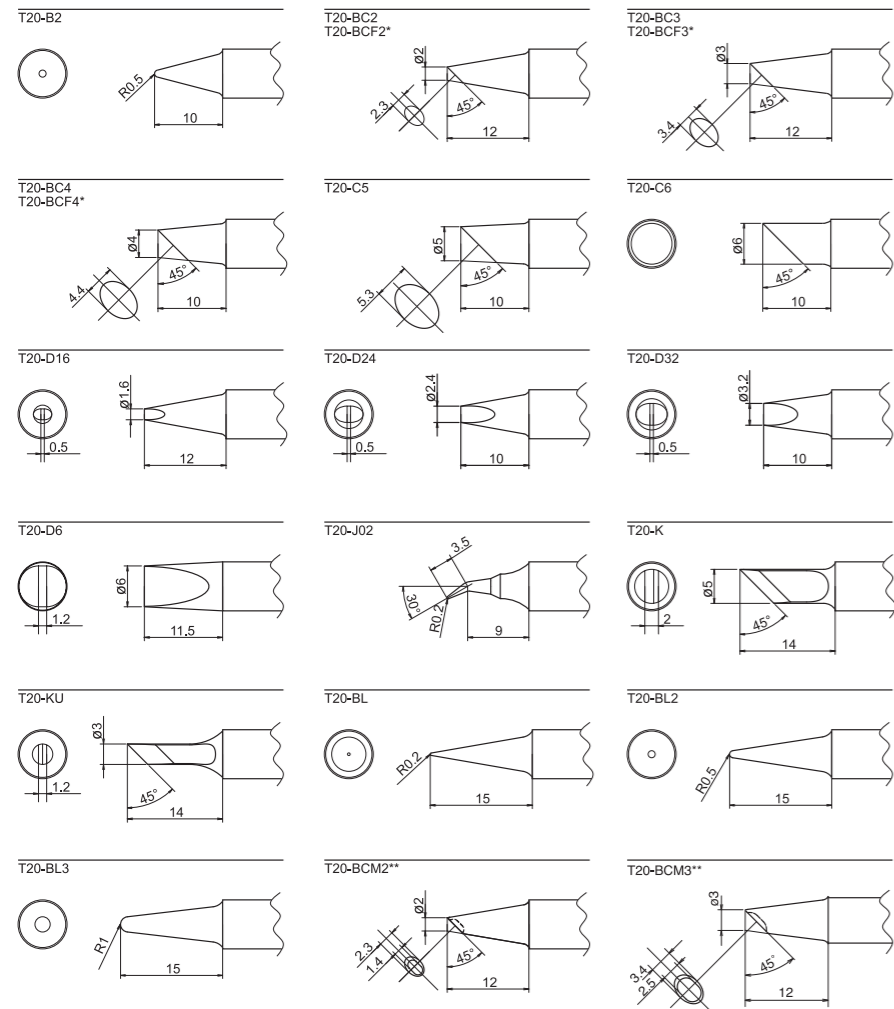
ACTION : Replace the tip with a new one.

If tip error [---] continues to be displayed after replacing the tip, contact your HAKKO representative.

5. TIP STYLES



Unit: mm



*Tinned on the soldering surface only.

**The part numbers T20-BCM2 and T20-BCM3 are not available for sale or use in the U.S.A.

MEMO