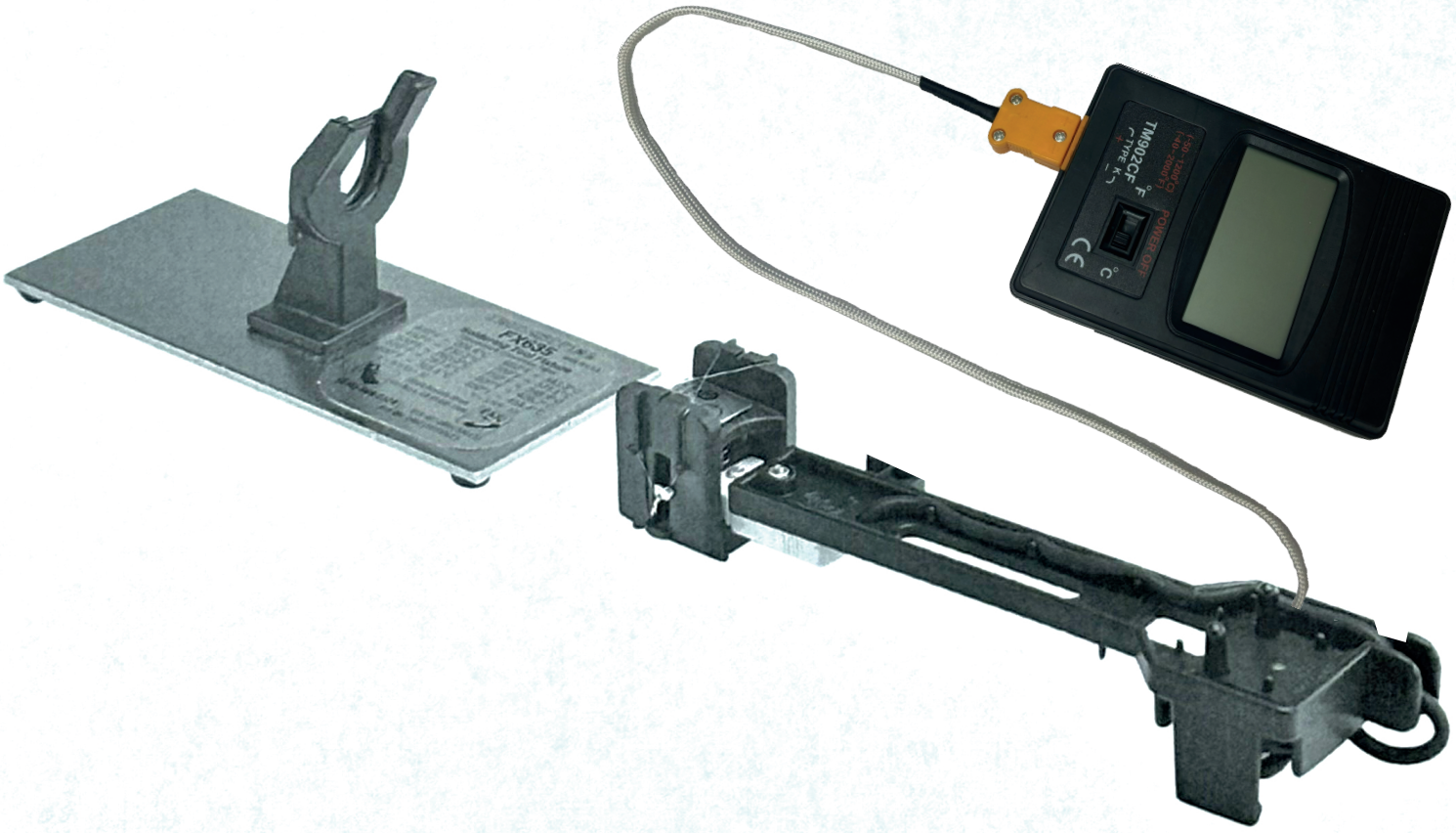
EDSYN INC®

MS412

Digital Temperature Measurement System

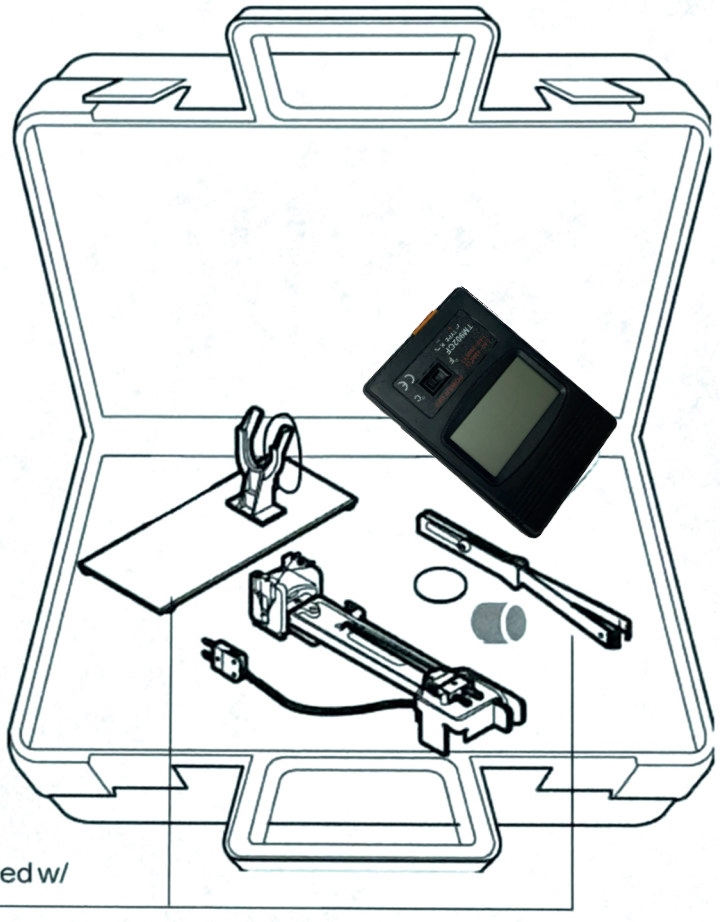


instruction manual

EDSYN INC®

Temperature
Measurment
Devices

MS412
Calibration System

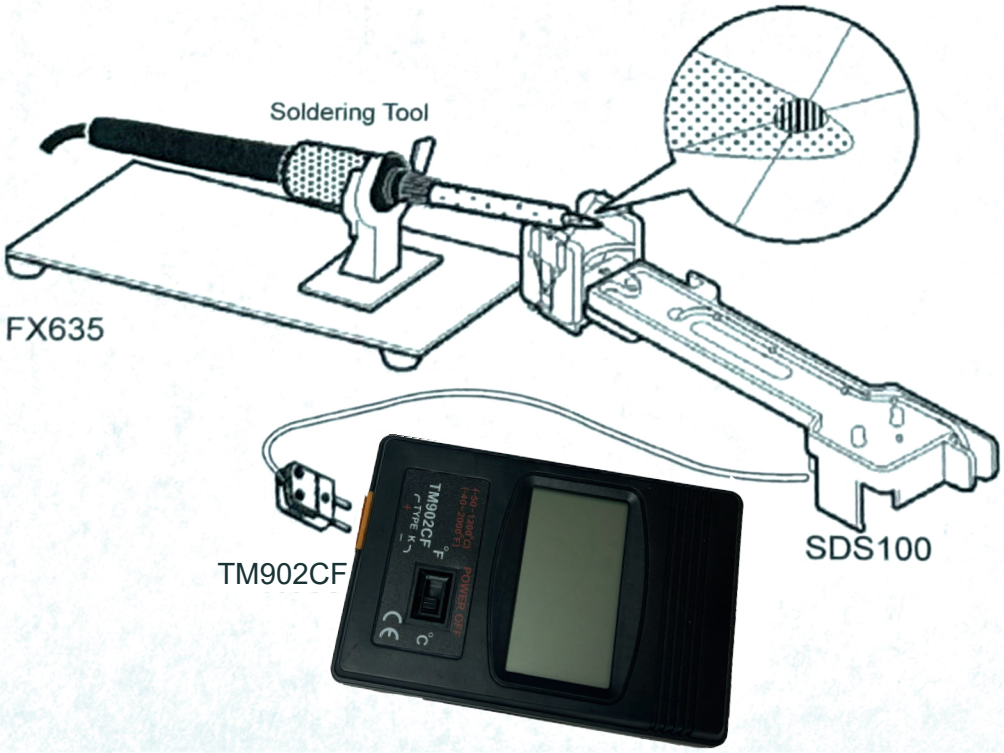


MS410
Temperature Meter & Sensor
FX635 & DS299 not included

Not included w/
MS410

TYPICAL SET-UP

1. 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.
2. Place the center of the thermocouple wire of the SDS100 on top of the bead.
3. Again, apply a small amount of solder on the center of the thermo-couple wire, just enough to embed the center.

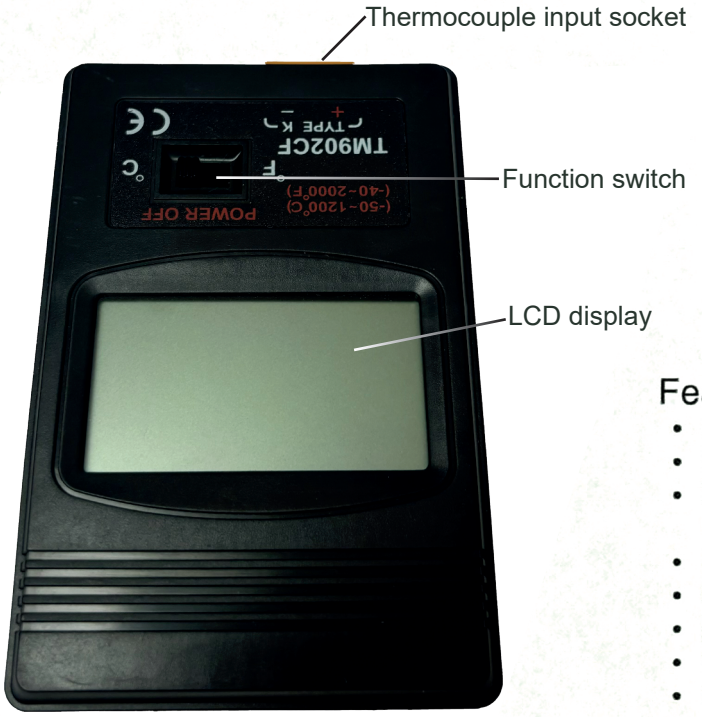


EDSYN INC®
Temperature
Measurment
Devices

TM902CF

Temperature Meter

is a compact digital meter that is suitable for accurate measurement of your soldering tip surface temperature, as well as in other temperature control



Specifications

- Thermocouple K sensor type
- 1ºC or 1ºF resolution
- (23±5ºC) accuracy
- 0.5" 3 ½ digits LCD display
- Open-circuit sensor
- DC 9V battery power supply
- 14mW, 150-200 hours battery life consumption
- Battery indicator displays when battery life is low
- Thermocouple max operating temperature of 250ºC/482ºF
- Dimension: 20x70x105mm(0.8x2.8x4.2in.)
- Weight: 150g(5oz)/including battery

Features

- Can match any standard type K sensor
- Fitted with standard K probe socket
- LCD display allows clear read out even at bright places
- LCD display provides low power consumption
- LSI-circuit use provides high reliability and durability
- High accuracy and wide measurement range
- Compact, lightweight, and excellent operation
- Circuit used high quality multi turns VR for keeping high accuracy and reliability

CENTIGRADE

Range	Accuracy
-50ºC to -40ºC	-4ºC
-39ºC to -20ºC	±3ºC
-19ºC to 0ºC	±2ºC
1ºC to 500ºC	±(0.75%+1ºC)
501ºC to 750ºC	±(1%+1ºC
751ºC to 1000ºC	±(2%+1ºC)
1001ºC to 1200ºC	±(4%+3ºC)

FAHRENHEIT

Range	Accuracy
-40ºF to -4ºF	±6ºF
-3ºF to 32ºF	±4ºF
33ºF to 932ºF	±(0.75%+2ºF)
933ºF to 1832ºF	±(1%+2ºF)
1833ºF to 2000ºF	±(4%+4ºF

Measurement Procedure

For measurement of high temperatures, surfaces, semi-solids, liquids etc., a range of hand-held probes are available or, if required, any suitable K type probe can be used.

- Insert the sensor plug into the socket at top edge of the instrument, take care to observe the correct polarity
- Select the °C/°F function desired
- Use the sensing point of the thermocouple to measure the surface you would like to measure
- Read the stable reading

Battery Replacement

- When the battery voltage drops below the proper operation range the symbol will appear on the LCD display and the battery will need to be replaced
- Slide the battery cover away from the meter and remove the battery
- Replace with 9V battery and reinstall the cover

Accessories

TP792
Submersible Temp. Probe

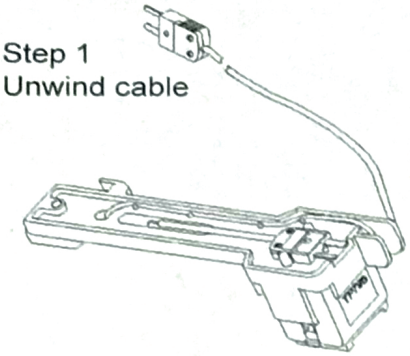
Thermocouple Material:	K(CA) NiCr / NiAL
Contact Type:	Insulation Type
Accuracy:	±.75% or ±2.2°C
Size:	.125 Dia. x 7.5"
Max. Temp.	1832°F (1000°C)
Min. Temp.	-58°F (50°C)
Compensating Lead Wire	-20°C to 90°C
Handle:	302°F (150°C) max.allowable Temp.

TP794
Large Surface Area Temp. Probe

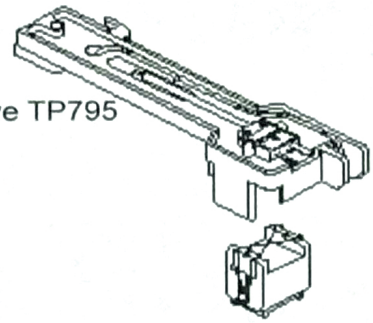
Thermocouple Material:	K(CA) NiCr / NiAL
Contact Type:	Ground Type
Accuracy:	±.75% or ±2.2°C
Size:	.590 Dia. x 3.4"
Max. Temp.	1382°F (750°C)
Min. Temp.	-58°F (50°C)
Compensating Lead Wire	-20°C to 90°C
Handle:	302°F (150°C) max.allowable Temp.

SDS100
Sensor Docking System

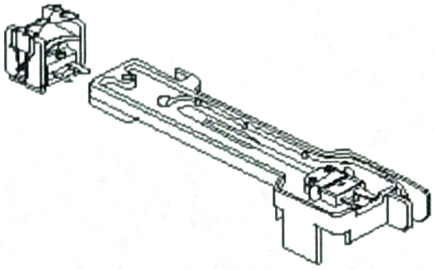
Step 1
Unwind cable



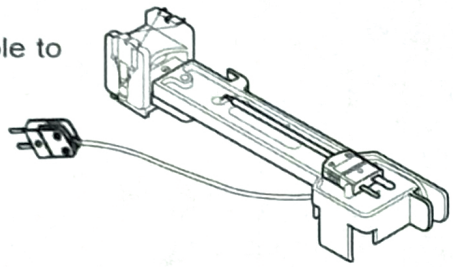
Step 2
Remove TP795



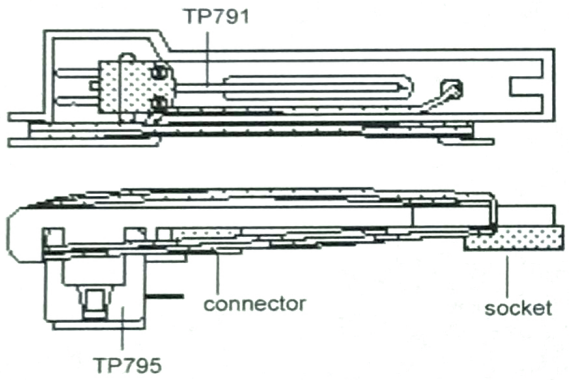
Step 3
Attach TP795 to socket



Step 4
Connect Cable to Meter

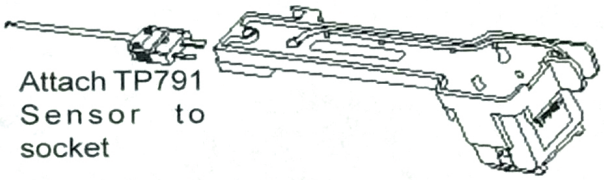


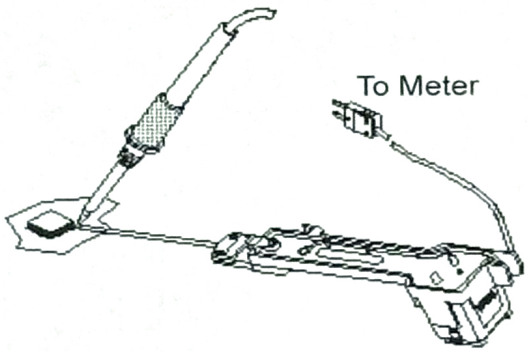
Storing Set-up



FOR SMALL AREA TEMPERATURE MONITORING

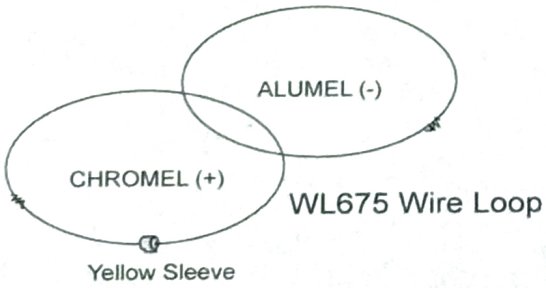
Attach TP791 Sensor to socket

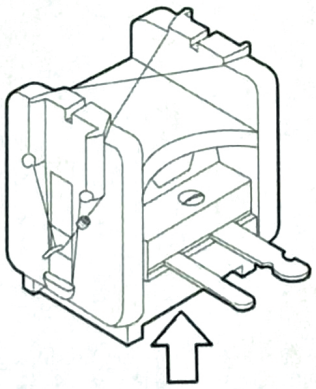


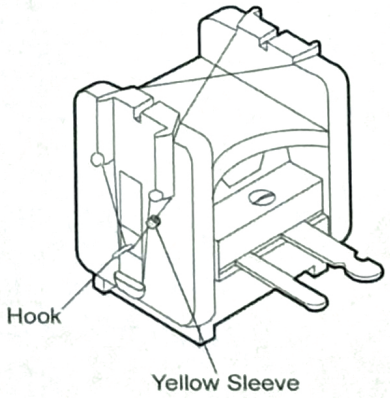


Replacing WireLoops

1. Press TP795 to loosen Wire Loops.







Soldering Stations (951, 971, 1051 and Others)

TEMPRATURE CALIBRATION

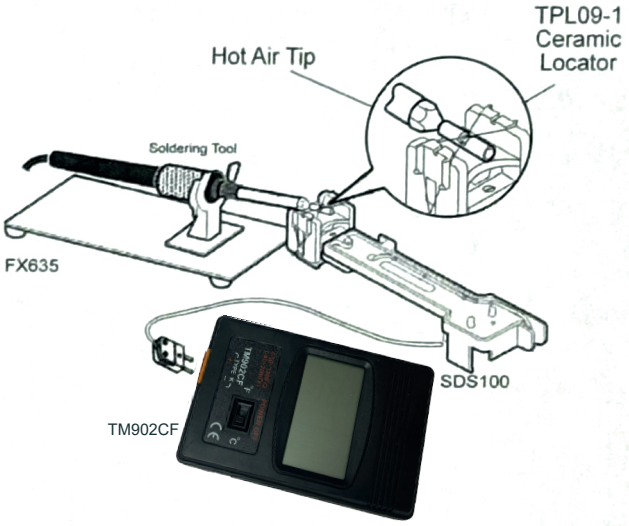
It is highly recommended to use new or a very clean thermocouple wires.

For Hot air, you will need:
- MS412 Calibration System
- TPL09 Set (3 items)

for HOT AIR soldering station

FOLLOW SET-UP AS ILLUSTRATED

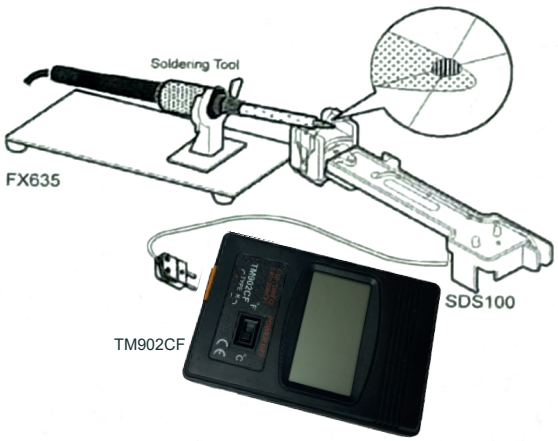
1. With the Hot Air Tip inside the TPL09-1, place the center of the thermocouple wire of the SDS100 inside the slot of TPL09-1 Locator.
2. Turn on power and set Temperature Control Knob to 400°F.
3. Turn Regulator Knob to 4 - 5 SCFH.
4. Adjust LO-Temp. Calibration Pot so the Meter will read 400°F.
5. Set Temperature Control Knob to 800°F.
6. Adjust Hi-Temp. Calibration Pot so the Meter will read 800°F.

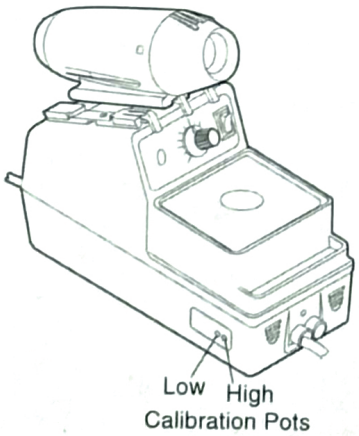


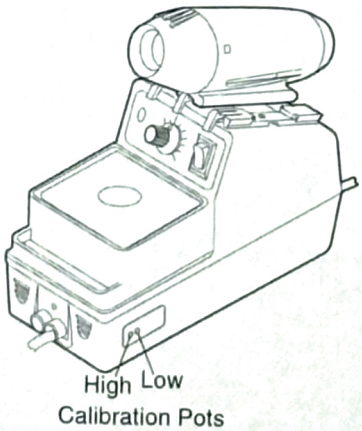
for CONTACT soldering station

FOLLOW SET-UP AS ILLUSTRATED

1. Turn on power and set Temperature Control Knob to 400°F.
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. Calibration Pot so the Meter will read 400°F.
6. Set Temperature Control Knob to 800°F.
7. Adjust Hi-Temp. Calibration Pot so the Meter will read 800°F.







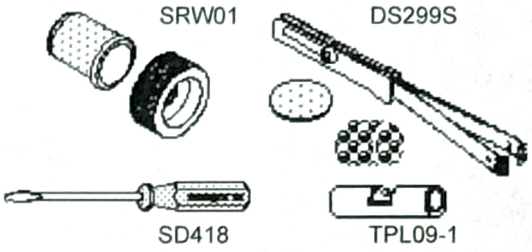
Hot Air Hand Tools (FA069, FA489, & FA493)

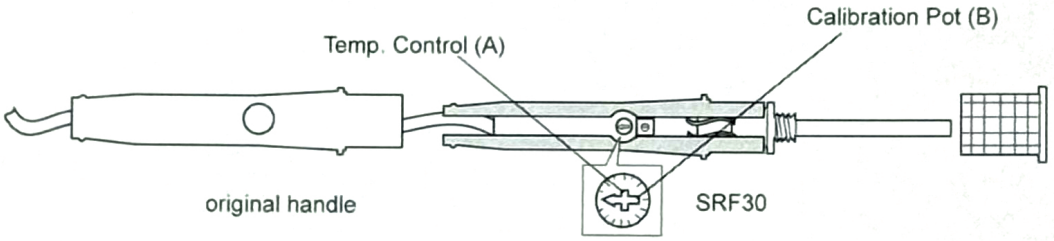
TEMPERATURE CALIBRATION

1. Use the DS299S to remove the temperature control knob. Remove RS321 sleeve. Turn temp. control (A) so arrow points to cord.
2. Use the SRW01 to pull out heater assembly, PCB & power cord from handle. Leave enough power cord slack to install SRF30.
3. Place heater assembly, PCB & power cord inside SRF30. Install RS321 and connect to air source.

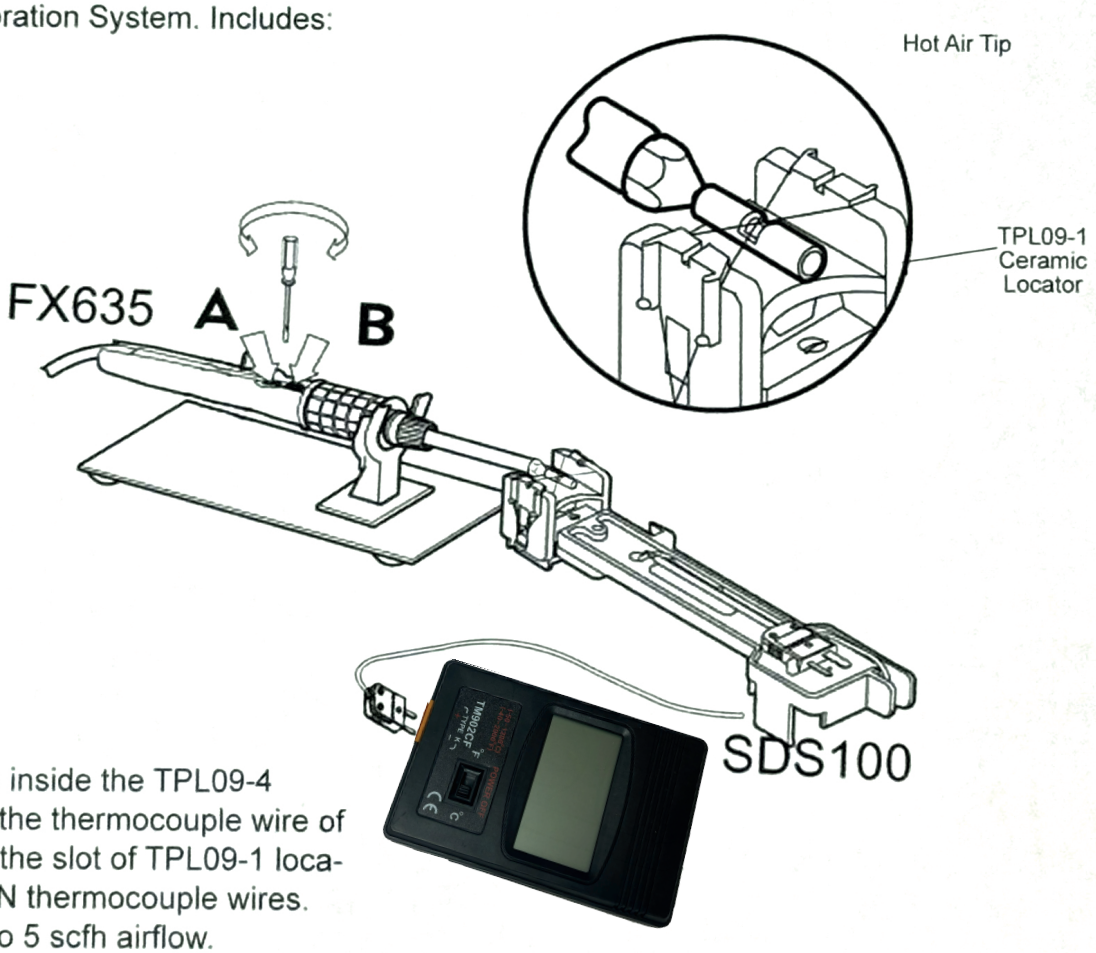
Items Needed

- SRW01
- DS299S
- SRF30
- MS412
- TPL09-1
- SD418





4. Follow set-up shown using of the MS412 Temperature Calibration System. Includes:
   - •TI680
   - •SDS100
   - •FX635



5. Insert the hot air tip inside the TPL09-4 place the center of the thermocouple wire of the SDS100 inside the slot of TPL09-1 locator. Use only CLEAN thermocouple wires.
6. Turn on air, adjust to 5 scfh airflow.
7. Turn temp. control (A) fully clockwise. Adjust calibration pot (B) until reading stabilizes at 850°F.
8. Assemble unit in original handle.

Warranty

Edsyn stands behind its products. We warrant that new tools will be free from defects for 18 months from the date of purchase. During this time period Edsyn will repair or, at it's option, replace the tool at no charge. This warranty does not include tips and accessories. Any tool that appears to have been deliberately abused, altered or destroyed is not covered by this warranty.

Technical Support

Contact our Customer Service for assistance related to the purchase of this product or recommendations on a challenge that you may encounter. There are many replacement parts that are available to keep your tool in top condition. To speak to someone in Customer Service, call 818-989-2324.

Designed Patented & Assembled in U.S.A.

Design, color, weight, and material subject to change without notice. Components from other designs may be used with information pertaining to it, but not applicable to another use. Labels and instructions will supersede this information.

EDSYN INC®

...bringing innovative ideas to life

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