

Instructions manual
US Version

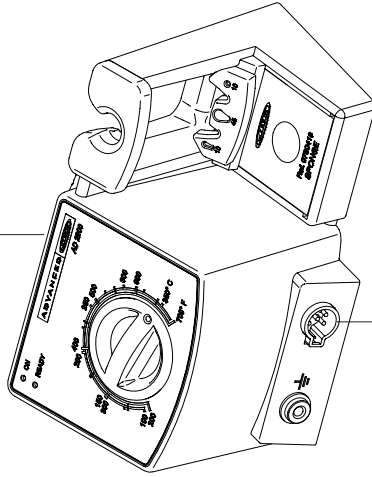
ADVANCED
SERIES



ADVANCED SOLDERING STATION

AD 2200

AD 2200
Control Unit 120V Ref. 2200100



Cartridges



2210

See page 11 for range



Handpiece **2210**

Ref. 2210000

Cartridges



2245

See page 10 for range

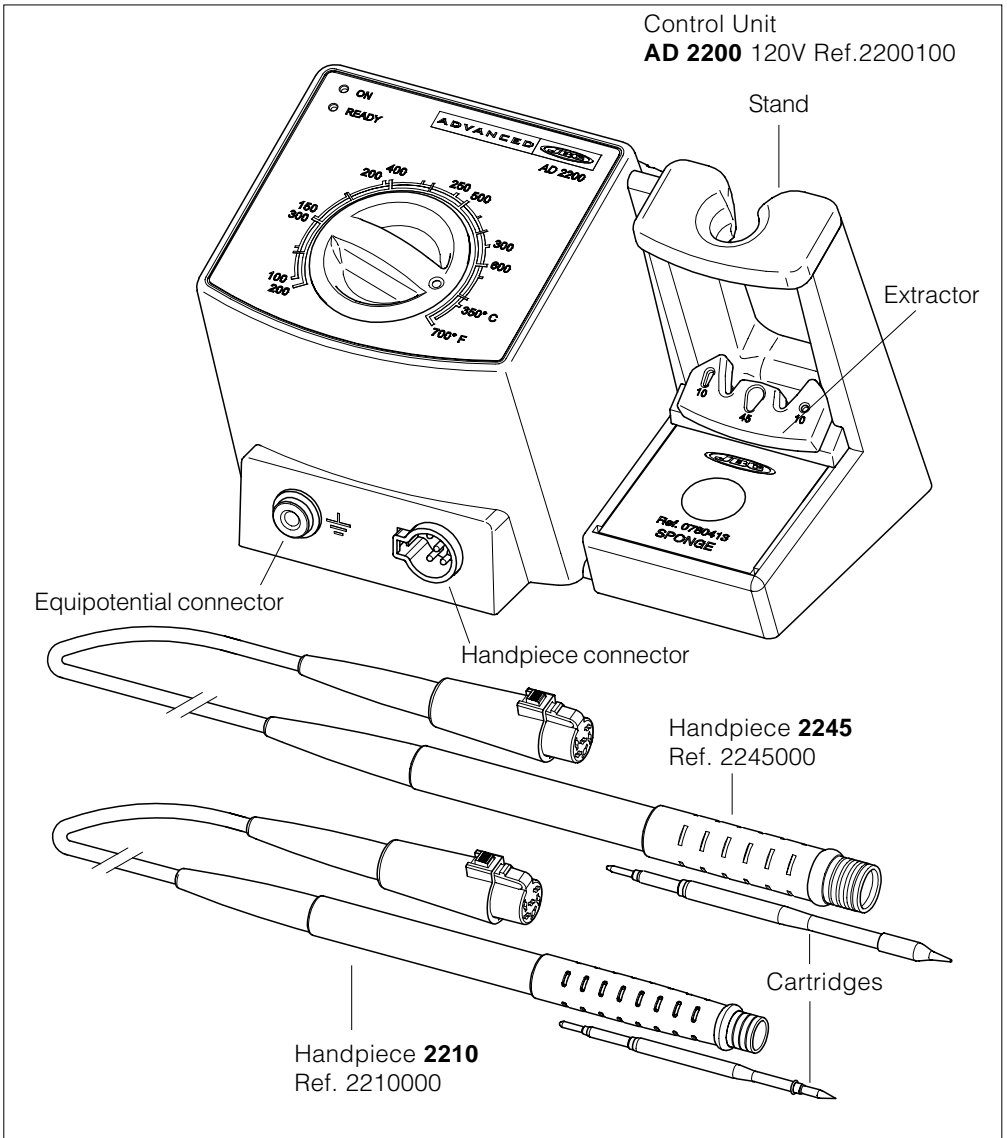


Handpiece **2245**

Ref. 2245000

We appreciate the confidence you have placed in JBC in purchasing this station. It is manufactured to the most stringent quality standards in order to give you the best possible service. Before turning on your station, we recommend you to read these instructions carefully.

You have purchased a **Advanced AD 2200** Control Unit. In order to complete the soldering station you should choose the suitable handpiece and cartridges for the task to do. The Control Unit is valid only for the handpieces **2210** and **2245** and corresponding cartridges.



Structure of Advanced soldering stations system

The Advanced series has 3 basic modules giving you full flexibility for choosing what you need for the work in hand, the modules being supplied separately.

Control unit

- **AD 2200** 120V Ref. 2200100

Handpieces

- **2210** Ref. 2210000
Power: 20W. For high precision work, SMD, etc.
- **2245** Ref. 2245000
Power: 50W. For general soldering work.

One version of soldering iron handpiece covered with heat isolater is available:

- **2245** Thermo-isolated handpiece ref. 2245110.

Cartridges

- Range of cartridges **2210** (for the 2210 handpiece) on page 11.
- Range of cartridges **2245** (for the 2245 handpiece) on page 10.

The handpieces and cartridges **2210** and **2245** comply with the MIL-SPEC-2000 referring to the potential difference between the soldering tip and ground connection, must be less than 2 mV.

For a station to work properly, a control unit, a handpiece and one cartridge are needed.

Control Unit AD 2200

The station is supplied with:

- Control unit which incorporates a stand with sponge and cartridge extractor.
- Connection cable to mains.
- Instructions manual.
- Transport packaging.

Technical specifications

- Temperature selection from 200 to 700°F (±5%).
- Power: 55W.
- Safety transformer, mains separator and double isolation, with integrated fuse of temperature protection.
- Input: 120V 60Hz. Output: 24V
- Electrical protection Class I.
- Total weight of unit: 6.5 lbs.
- ESD protected housing.
Typical surface resistance: 10^5 - 10^{11} Ohms/square.
- Equipotential connector is earth connected to the plug feed of the station.

RECOMMENDATIONS FOR USE

For soldering

- Clean the contacts and the printed circuit to be desoldered of dust or dirt.
- Preferably select a temperature below 662°F. Excess temperature may cause the printed circuit tracks to break loose.
- The tip must be well tinned for good heat conduction. If it has been inoperative for any length of time, it should be retinned.

Safety measures

- Incorrect use of this tool may cause fire.
- Be cautious when using the tool in places where inflammable products are stored.
- Heat can fire up inflammable products even when they are not at sight.
- Do not use when the atmosphere is explosive.
- Place the tool back on its stand in order to let it cool down before you store it.

OPERATION

LED lights

Red LED -ON- when lit, it indicates that the station is plugged in the mains.

Green LED -READY- when lit, it indicates that the system is ready and correctly set for working.

The green led light is on after a few seconds, is the time needed to carry on the self-checking system.

The green light is pulsing when the soldering iron is in sleep mode.

If the green led is not lit, the reason why, will be one of the following:

1. The handpiece or the cartridge are not plugged in.
2. The maximum available power has been exceeded for too long - e.g. in a very thick soldering at the high repetition rates.
3. The handpiece or cartridge has a short circuit or an open circuit.
4. Any other trouble preventing the system from working properly.

The green led goes off when the cartridge tip touches the extractor and the station stops the power supply.

The handpiece will reset itself automatically should the cartridge short circuit or go open circuit.

Should the handpiece be subject to:

- An electrical surge or the cartridge has not been fitted correctly.

Please turn the unit off and switch on again to reset.

Only for users of AC 2600 console ref. 2600000.

If you lock the working temperature thanks to the console, the green LED -READY- will remain on while the dial is set at the locked temperature.

If the dial is not set at the locked temperature, the green LED -READY- will be blinking. The farther the dial will be set from the locked temperature the slower the blinking pace will be.

Sleep function

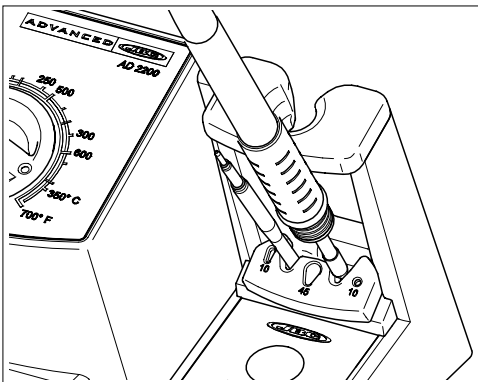
One of the Series Advanced features is that when the handpiece is placed in the holder, the temperature at the tip drops automatically to the sleep temperature. This function is only possible because of the quick response time which does not make the user realise the temperature rise to reach the selected temperature. Also by this, the oxidation of the tinning of the tip is considerably reduced and tip life is extended.

To indicate that the soldering iron is in sleep-mode, the green led starts pulsing. These parameters can be modified using the **Console AC 2600** Ref. 2600000.

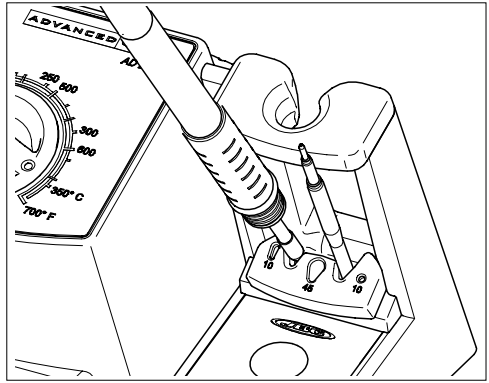
In order to take advantage of the above mentioned feature and as a security measure, it is necessary to place the handpiece on stand when the iron is not being used.

Changing the handpiece's cartridge

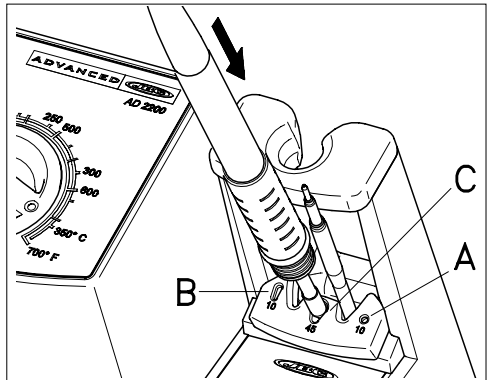
With the Advanced system, the cartridge can be changed quickly, without turning off the station, so you have two soldering irons in one. Here is what to do to change the cartridge:



1 - Place the handpiece and remove the cartridge.



2 - Place the handpiece on top of the new cartridge, press it slightly down and remove the handpiece.

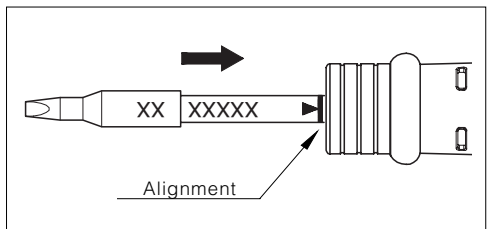


3 - Press the cartridge into the opening A, B or C:

A. For straight cartridges 2210.

B. For curved cartridges 2210.

C. For cartridges 2245.



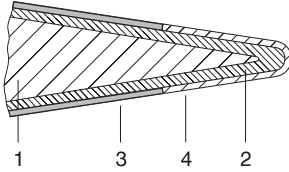
Important.

- It is essential to insert the cartridge till the end for a good connection. Take the mark ► as reference.

Advanced series cartridge

Cartridge is made of the heating element which has the heating system, temperature sensor and long life tip. **Long-life tip** is basically made of:

- 1 Copper
- 2 Iron
- 3 Chromium
- 4 Tin plate



Long-life tip care

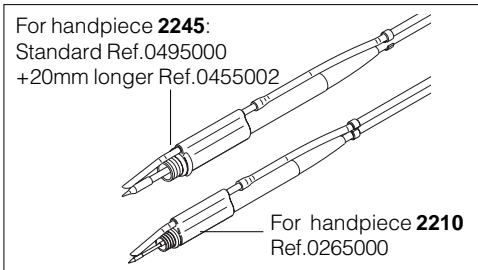
Except for the copper core, the rest of metals are placed galvanically on layers relatively thin, so it is necessary to avoid the reasons which can cause its destruction.

To clean the tips, use the sponge included with the stand and check it is slightly moisted.

Only deionised water (car battery water) should be used in order to wet the sponge. If normal water was to be used, it is very likely that the tip will become dirty due to the salts dissolved within the water.

To re-tin the soldering tips, we recommend using the tip tinner/cleaner TT 9400 ref. 9400000.

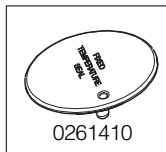
Fume extractor accessories



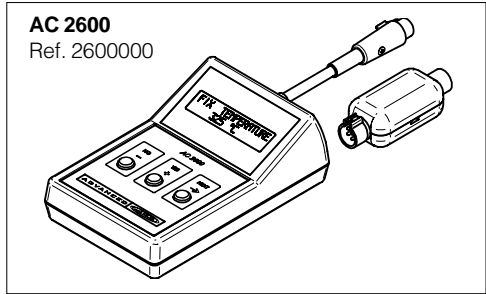
Specially designed for the Advanced Series handpieces 2210 and 2245. Easily clips onto the handpiece and can be quickly removed for easy maintenance.

Temperature sealing-cover

Accessory which replaces the selection temperature button and it is use to prevent operators from changing the temperature that has been pre-selected. Indicates the selected temperature.



Console AC 2600



The console **AC 2600** is designed for modifying the original regulation program parameters of the following Advanced control units:

- **AD 2000** soldering station.
 - **AD 2200** soldering station.
 - **AD 4200** and **AD 4300** dual soldering stations.
 - **AR 5500**, **AR 5800 (*)** and **DS 5300 (*)** desoldering stations.
 - **AM 6000** and **AM 6500 (*)** rework stations.
- (*) These stations need a console whose program version is 4.0 or higher.

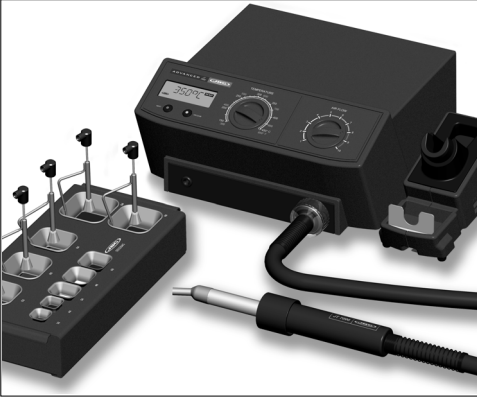
Changes available to perform:

- Fixing the the working temperature.
- Selection of temperature units in Celsius grades -°C- or Fahrenheit -°F-.
- Modification of sleep temperatures and standby times.
- Adjustment of temperature.
- Set the parameters back to the original parameters.
- Read-out data:
 - Working hours.
 - Sleep cycles and sleep hours.
 - Cartridge and iron changes.
 - Program version.

JBC reserves the right to make technical changes without prior notification.

ADVANCED SERIES

JBC®



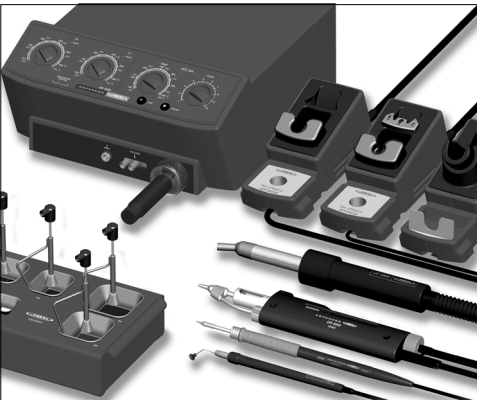
JT 7000

Hot-air flow repair station for desoldering all types of SMD's particularly QFPs and PLCCs of any size.



AR 5800

Desoldering station which enable the rapid desoldering of all kinds of insertion components.



AM 6500

Station for rework and repair of through-hole and SMT boards.



TE 5000

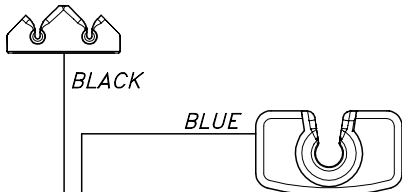
Hot-air flow repair station designed for soldering and desoldering small and medium-sized SMDs.

ELECTRIC WIRING DIAGRAM
Valid from Serial N. 97181

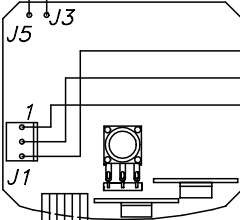
POWER INTERFACE
0001152

0269320

FUSE
1.6A

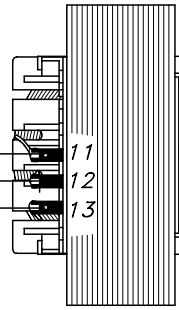


CONTROL PCB
0451188



BLACK 0V
WHITE 15V
RED 24V

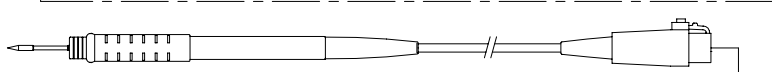
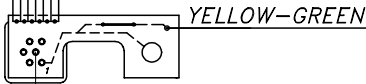
TRANSFORMER
0261940 (120V 60Hz)
0451900 (100V 60Hz)



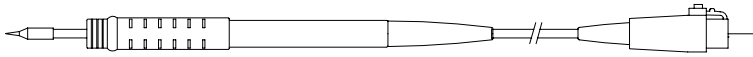
BLACK

BLACK

CAPACITOR
X2 100NF 250V AC
REF. 0266910



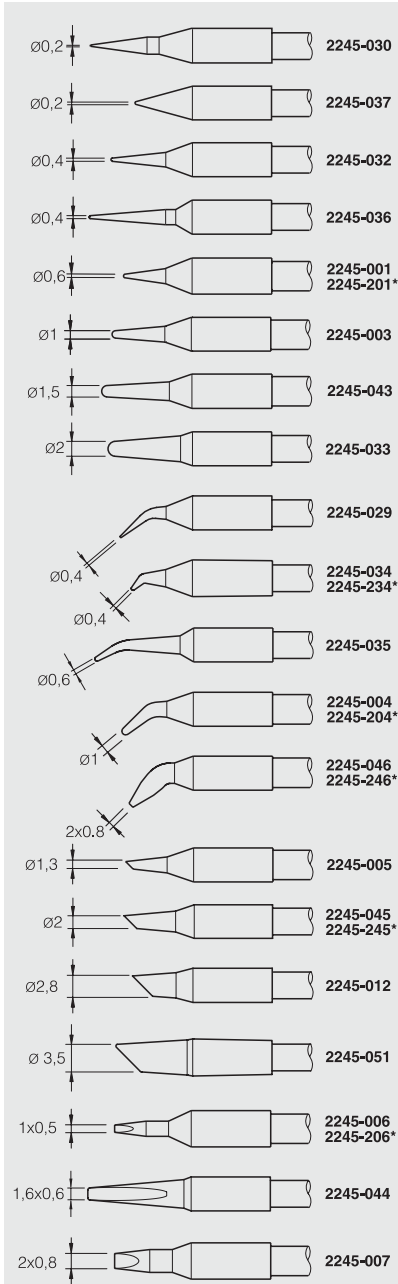
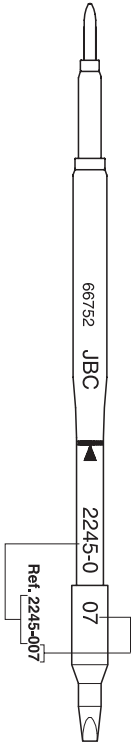
2210/2225 HANDPIECE
2210000



2245 HANDPIECE
2245000

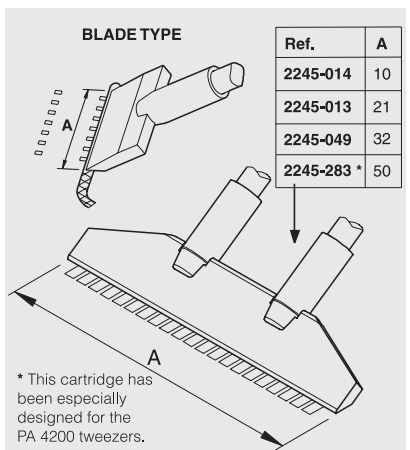
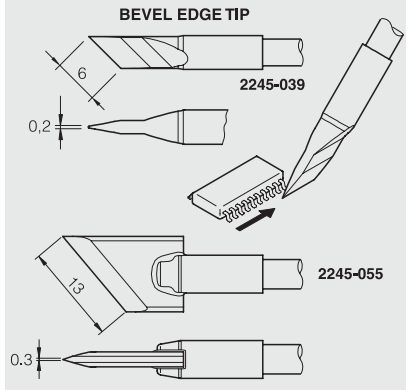
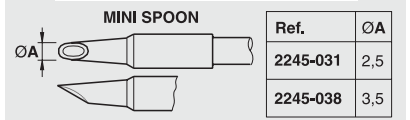
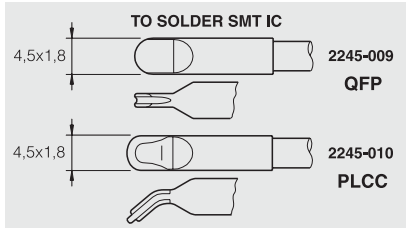
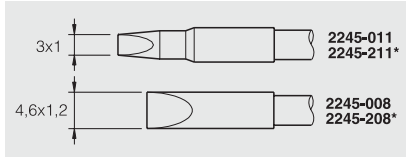
CARTRIDGE RANGE

2245



* These cartridges have a total length of 20mm longer than the normal cartridges, allowing them to reach places with difficult access and cartridges 2245-XXX are compatible with the AP 1300 solder feed iron.

All the cartridges shown are actual size.



* This cartridge has been especially designed for the PA 4200 tweezers.

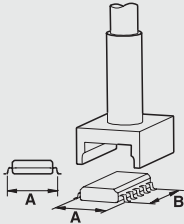
PATENT PENDING



FOR CHIP COMPONENTS

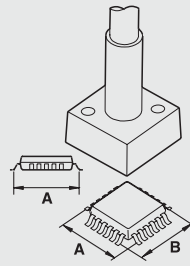
Ref.	A
2245-016	1,9
2245-017	2,2
2245-018	3,4
2245-019	4,5

TUNNEL TYPE FOR DUAL IN LINE IC



Ref.	A	B
2245-220	5,9	6,0
2245-250	5,9	8,0
2245-221	5,9	10,0
2245-222	7,5	12,0
2245-215	9,6	18,0
2245-226	14,6	28,4

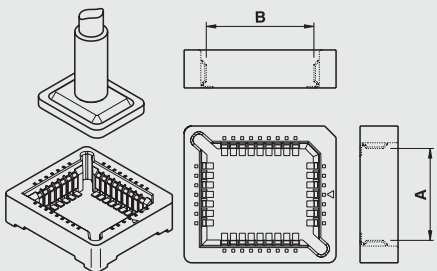
FOR IC'S: QFP AND PLCC



Ref.	A x B
2245-223	8,5 x 8,5
2245-224	12,0 x 12,0
2245-228	12,4 x 15,0
2245-227	17,5 x 17,5

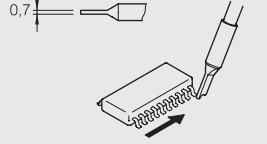
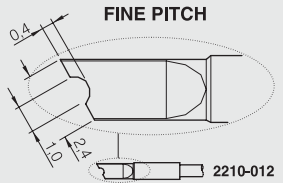
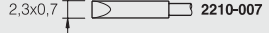
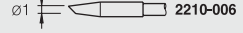
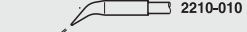
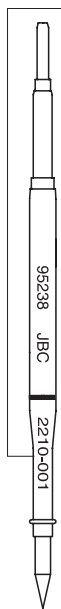
FOR PLCC SOCKETS

Ref.	NUMBER OF CONTACT POSITIONS	A	B
2245-248	32	11,9	14,5
2245-247	44	17,0	17,0



2210

Ref. 2210-001





WARRANTY

ENGLISH

The JBC 4 years warranty, guarantees this equipment against all manufacturing defects, covering the replacement of defective parts and all necessary labour.

Warranty does not cover product wear due to use or mis-use.

In order for the warranty to be valid, equipment must be returned, postage paid, to the dealer where it was purchased enclosing this, fully filled in, sheet.

SERIAL^o

STAMP OF DEALER

DATE OF PURCHASE



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