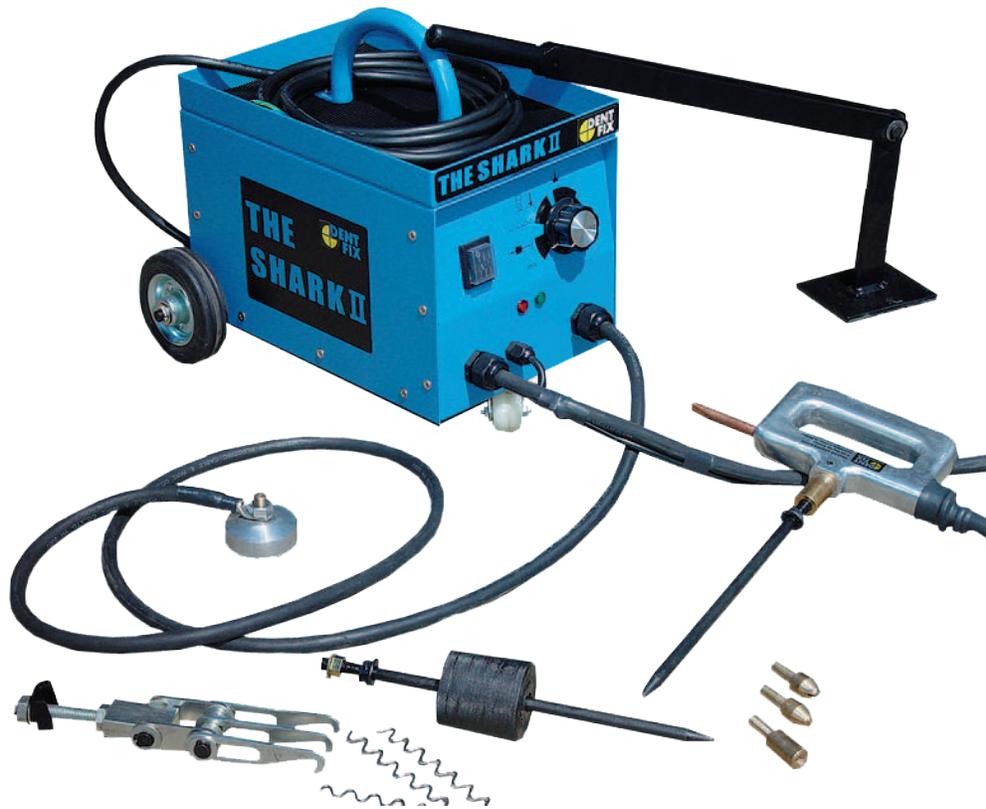




**A Multiple Pull Resistance Welder**

Instructions for connection, safe use, and maintenance



**Operating Specifications:**

Primary Input . . . 110/120 volt, single phase 50/60Hz  
Primary Amps . . . . . 20  
Duty Cycle . . . . . 2.0%  
Output . . . . . Smax 15 kVa

Manufactured in China  
exclusively for Dent Fix Corporation  
Gardena, CA



# “The Shark 2” Dent Pulling Station

## DF-595II

### SAFETY INSTRUCTIONS:

1. Read all instructions carefully before connecting or operating tool.
2. Always wear safety glasses. Use a dust mask if the operation creates dust. Caution is the key to safety.
3. Protect yourself from noise. Noise levels vary with work. If noise level is high, wear ear protection.
4. Wear gloves and protective clothing to avoid injuries from hot metal chips & pieces or malfunctioning attachments.
5. Only use accessories that are designed specifically for this tool.
6. Modifications to this tool may cause injury and may cause the tool to malfunction. Handle the tool safely. Do not operate the tool if it is damaged or in a wet environment.
7. When not in use - disconnect tool from the power supply.
8. Do not alter any part or component of this tool in any way, shape or form other than work authorized in statement #9 below.
9. Note: electrical connection & plug installation must be done by a trained electrician.

*Green/Yellow wire is the longest and always ground  
Two Shorter wires are power.*

### OPERATION:

1. Read all safety instructions.
2. Grind paint or rust from area to be worked on. It is important that the panel be clean to bare shiny metal. Attach the ground cable to a bare metal surface on the same panel that is to be repaired. Never allow the welding electrode to make contact with the grounding clamp.
3. Plug the power cord into appropriate outlet and flip switch to on position. A green light will illuminate indicating the unit is operational.
4. Select appropriate pull electrode: short rod in conjunction with lever puller or by itself for straight pulls by hand, long electrode in conjunction with slide weight for heavier damage, round shrink tip for panel shrinking, wiggle wire

tip is located on the top of the silver handle.

Note: screw in electrode and tighten with nut against connector on handle.

5. Always start welding with minimum weld time and light pressure. Increase weld time only when necessary. Long electrode may need a slight increase in weld time over the short rod. When proper weld time is used it will be very easy to remove the wire by simply wiggling it up and down.
6. Shrinking can be done with either the supplied shrinking electrode or with the attached wiggle wire electrode on top of the grey pull handle. Use the wiggle tip when only a few high spots need shrinking. Taller high spots may need an increase in the timer knob. Wetting the panel with a spray bottle first can enhance the shrinking effect. As with anything, practice and experience will lead to greater control.

### In Short:

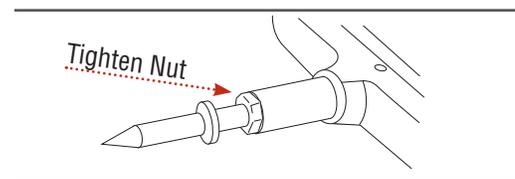
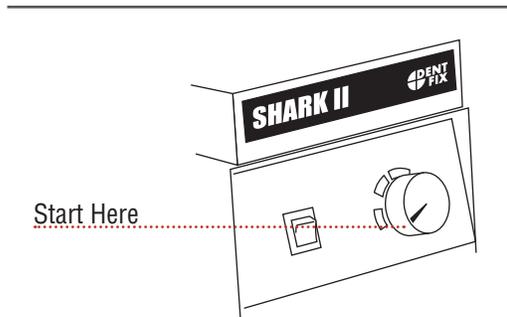


Figure 595II.1

1. Install appropriate pull rod (electrode) Make sure that the rods and electrodes are screwed in all the way and securely tightened (Figure 595II.1)
2. Grind area to be pulled. Area must be free of paint and rust. Should you be working on a galvanized panel, we recommended that you grind away the galvanization on the spots were welding will be done.
3. Begin with the shortest weld time setting. Increase weld time only if needed. It will not be necessary to increase weld time beyond what is recommended for each tip (Figure 595II.2)
4. You have a choice of several pulling methods and a shrinking tip. The damaged area will determine which electrode is to be used. Heavily damaged panels or long creases can be repaired using the wiggle wire in conjunction with the bear claws. Pulled by hand



Longer weld times do not increase adhesion of the pull rods, pins and wiggle wire.

Figure 595II.2

with the four finger bear claw attached to lever puller. By using the Bear Claw your pull power is spread over a wider area. The quality of finish you want will determine how and with which pull rod you finish the metal. It is possible by carefully pulling and shrinking

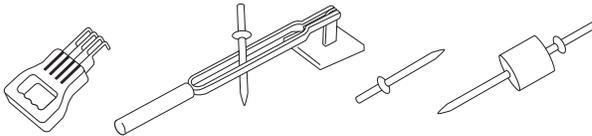


Figure 595II.3

to finish a panel repair and not have to use a dolly or hammer, only a file.

Note: Extensive shrinking may cause the unit to overheat. The transformer has a temperature fuse and will switch

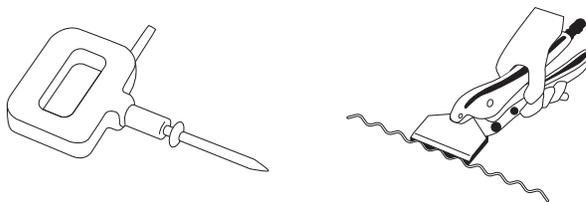


Figure 595II.4

off temporarily.

5. After welding, the best way to break off the pulling rod is by twisting. Wiggling from side by side may cause hole in the panel. Wiggle wire is removed by rocking up and down. We recommend using a Vise-Grip® model 8R.

6. Shrinking tip will help smooth out high spots created

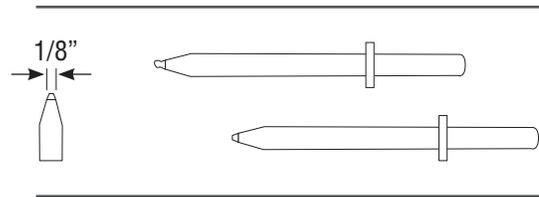


Figure 595II.5

by over pulling with rods or pins.

7. While using the tool it is periodically necessary to clean and regrind the tips of the pull rods. The tips are not being worn down, but actually add material that needs to be removed. The rods work better with a sharpened point of 3/32 to 1/8 of an inch across the top.

### General Maintenance:

The DF-595II SHARK 2 contains no customer serviceable parts. The unit should be opened only by a qualified electrician. Electrode tips will need to be cleaned and occasionally replaced (See chart of parts).

Six months warranty on parts and labor.

# Troubleshooting

## Answers to non performance of DF-595II "The Shark 2" Dent Pulling Station

When switching unit on, Green LED on machine does not light up.

1. Check to make sure that the wires are connected correctly in the plug. The Green/Yellow wire is ground, with the other two being power.
2. Pull out On/Off switch to make sure that all wires are connected.
3. If Green Power indicator LED lights up, but the Red indicator LED does not when the handle trigger is activated, check to make sure that trigger is not broken, nor that one of the cables on the trigger switch terminal block has been shorted out.

Electrode does not weld properly.

1. Apply less pressure on welding rod with the handle.
2. Grind weld electrode to a point, make sure it's clean.
3. Replace weld electrode.
4. Bad contact between ground clamp and panel, make sure contact is clean.
5. Panels alloy composition maybe at fault, try to weld on different car or piece of metal.
6. Possible power problem, use different outlet.
7. The Shark II is just like any other welder, it needs sufficient current to operate properly (up to 30-35amp) If you have to turn the timer dial indicator to is highest setting for the electrode to "stick" the machine is not getting sufficient current to operate. If you are continually "tripping" breakers, please contact your local electrician.
8. Make sure that grounding magnet is securely tightened on to the ground cable, and that the magnet itself is free of dirt and metal shavings
9. If using extension cord, please remove and plug unit directly into wall outlet. Your extension cord should be 12-10 gauge cable, and must not be over 20 feet in length.

Tool welds the moment weld electrode makes contact.

1. Circuit board bad, relay shorted.