

OPERATING  
AND MAINTENANCE MANUAL  
FOR THE

# DRADER INJECTIWELD

MODEL W 30000

PLASTIC WELDER



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# Table of Contents

<b>1.0 General Information &amp; Safety</b>	
1.1 General.....	3
1.2 Receiving – Handling.....	3
1.3 Technical Data.....	3
1.4 Manufacturer / Head Office.....	4
1.5 Safety.....	4
1.6 Safety Precautions.....	5
1.7 Grounding Informations.....	5
<b>2.0 Air Requirements.....</b>	<b>6</b>
<b>3.0 Operating Instructions.....</b>	<b>8</b>
3.1 Basic Operating.....	8
3.2 Selecting the Correct Tip.....	9
3.3 Changing Tips.....	10
3.4 Temperature Settings.....	12
3.5 How to Weld.....	12
Weld Diagrams.....	14
Weld Diagrams Continued.....	15
3.6 Rod Feed.....	16
<b>4.0 Maintenance.....</b>	<b>19</b>
4.1 Storage.....	19
4.2 Tool Servicing or Repair.....	19
<b>5.0 Troubleshooting.....</b>	<b>19</b>
5.1 Troubleshooting Chart 1 Quick Reference.....	20
5.2 Troubleshooting Chart 2 Temperature Problems.....	21
5.3 Troubleshooting Chart 3 Cycling Problems.....	22
5.4 Troubleshooting Chart 4 Rod Feed Problems.....	23
<b>6.0 Warranty.....</b>	<b>24</b>
<b>7.0 Parts listing (Appendix A).....</b>	<b>27</b>
Drader Injectiweld Tips Available.....	32
Declaration of Conformity – CE.....	33



## 1.0 General Information & Safety

The "Drader Injectiweld" is to be operated by qualified persons in accordance with this manual and any maintenance requiring disassembly must be performed by authorized service personal only.

### 1.1 General

Information presented in this manual pertaining to equipment, installation, operation, maintenance, and troubleshooting should be read, understood, and followed for the safe and effective use of this equipment.

### 1.2 Receiving – Handling

Prior to operating the INJECTIWELD, carefully inspect the unit for any damage that may have occurred during shipment. Any claims for loss or damage must be filed by the purchaser with the carrier. A copy of the bill of lading will be furnished by the master distributor on request if the occasion to file a claim arises.

Please fill out information below for future reference:

Company Name: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Date Purchased: \_\_\_\_\_

Company Purchased from: \_\_\_\_\_

**IMPORTANT:**  
**Please read this operating and maintenance manual**  
**Befor plugging in the unit for the first time.**

### 1.3 Technical Data

<b>Model</b>	<b>W 30 000</b>
Power	120 V 60Hz/ 240 V 50 Hz
Watts	400 Watts
Weight	2.6 kg
Temp Range	230-310 C / 392-590 F
Air Consumption	4 cfm @ 90 psi
Air Requirements	Min. 80 psi Max. 100 psi
Rod Diameter	4 mm
Fuse Ratings 120V	1 @ 4A Fast Blow Fuses
Fuse Ratings 240V	2 @ 4A Fast Blow Fuses
Output	2.0 lbs/hr

## 1.4 Service Centres

When a welder must be sent to a service centre, contact Drader Injectiweld Head Office for instructions. Have on hand the welder serial number and a description of the symptoms prompting the required Service.

## Head ofTice Drader Injectiweld, Inc.

**5750 - 50 Street**  
**Edmonton, Alberta T6B 2Z8**  
**Canada**  
**Tel: 780-440-2231 Fax: 780-440-2244**  
**FM: 800-661-4122**  
**www.drader.com**

## 1.5 Safety

The operation, maintenance and troubleshooting of the INJECTIWELD requires practices and procedures which ensure personal safety and the safety of others. Therefore, this equipment is to be operated and maintained only by qualified persons in accordance with this operating and maintenance manual and within the guidelines of the state or province in which it is being used. Safety instructions specifically pertaining to this unit appear throughout this manual highlighted by either WARNING or CAUTION which identify different levels of hazard.



**WARNING:** Statements include operating and maintenance procedures or practices which if not carefully followed could result in serious personal injury.



**CAUTION:** Statements include operating and maintenance procedures or practices which if not carefully followed could result in minor personal injury or damage to the equipment.



**IMPORTANT** highlights instructions which need special emphasis to obtain the most efficient operation of this tool.



**HIGH VOLTAGE**



**HOT SURFACE**

## 1.6 Safety Precautions

- A. Never touch the welding tip at any time unless you are absolutely Sure that it is cold. SEVERE BURNS MAY RESULI. Wear heat resistant gloves when handling hot welder tips. Air line may remain connected to cool the welder.
- B. Always unplug the unit before examining or when leaving the unit unattended for a long period of time. Airline may remain connected to cool the welder.
- C. Never allow the cord to touch the tip at any time. Should the cord burn through, electrical shock may occur.
- D. Wear safety glasses while operating the welder.
- E. Use only certifcd replacement Parts.
- F. Consider your work area. Do not immerse the welder in water, expose it to rain or use in excessively damp or wet environments.
- G. Keep work area well lit and clean for maximum safety.

## 1.7 Grounding Instructions



The INJECTIWELD should be grounded. In the event of an electrical short circuit grounding reduces the risk of electrical shock by providing an escape wire for the electrical. This product is equipped with a cord having a grounding wire with an approximate grounding plug. The male end of the plug must be inserted into an outlet that is properly installed and grounded in accordance with all local codes.



**WARNING:** Improper use of the grounding plug can result in a risk of electrical shock.



**WARNING ELECTRICAL SHOCK CAN KILL.** Do not touch live electrical Parts. Any repair or replacement of the cord or plug should be handled by a qualified electrician. Ensure that the grounding wire is secured to the cylinder block. (The grounding wire is the wire with insulation having an outer surface that is green.)

Check with a qualified electrician or service person if the grounding instructions are not completely understood, or if in doubt as to whether the product is properly grounded Do not modify the plug provided; if it will not fit the outlet, have the proper outlet installed by a qualified electrician.



**IMPORTANT:** It is recommended that you have a Filter - Regulator present in your air system. The filter should be a 5 micron filter and the Regulator should be Set between 80 and 100 psi. To lubricate the welder, add one drop\* of light air tool oil for every 150 hours of use, directly into the air line after the filter.

\*one drop of oil is defined as the amount of oil that would drip from the end of a screw driver.



**CAUTION:** Use of automatic oilers will allow too much oil to be applied to the welder and the result may be damage to the printed circuit board and the air valve. This damage, caused by excessive oil, will not be under warranty.



**CAUTION:** For welders equipped with air filters, please make Sure bowl is fully inserted into body and then fully turned to lock bowl in place before applying air pressure to unit. When bowl is properly installed, the alignment markings on the bowl / bowl guard assembly and the markings on the body will line up. Failure to do so may cause air pressure to blow bowl off of unit resulting in serious personal injury. Depressurize unit before attempting to service.

1. ) **INSTALL** unit in a stable, vertical position
2. ) **INSTALL** as close as possible to point where air is being used
3. ) **INSTALL** the same size unit as the pipe line in use. Avoid using fittings or couplings that restrict air flow
4. ) **DO NOT** use plastic bowl units without a bowl guard installed. Plastic bowl guards minimize the danger of flying fragments in the event of bowl failure. If this unit is in service without a bowl guard installed, manufacturer's warranties are void.
5. ) **DO NOT** install the unit where it will be subjected to temperatures higher than 125°F (52°C)
6. ) **DO NOT** install the unit where it will be subjected to pressure higher than 150 psig (10,3bar)
7. ) **CAUTION:** Certain compressor oils, household cleaners, chemicals, solvents, paints, and fumes will attack plastic bowls and can cause bowl failure. See manufacturer's list (table 1). Do not use near these materials.
8. ) **WHEN BOWL** becomes dirty, replace bowl or wipe only with a clean, dry cloth.
9. ) **DO NOT** install on a compressed air line where the compressor is lubricated with, or the air contains a material that will attack plastic bowls or filter elements.
- 10.) **INSPECT** plastic bowls daily to detect crazing, cracking, damage, or other deterioration. Immediately replace with new bowl and bowl guard.
- 11.) **CLEAN** filter element periodically by removing from filter, tapping on surface, and blowing off with air blowgun. Reinstall filter, bowl, and guard before repressurizing unit.
- 12.) **DRAIN** manual petcock at bottom of bowl at least once per work shift.

**SOME MATERIALS THAT WILL ATTACK POLYCARBONATE PLASTIC BOWLS  
TABLE #1**

Acetaldehyde	Chloroform	Nitrobenzene
Acetic acid	Cresol	Nitrocellulose laquer
Acetone	Cyclohexanol	Perchloroethylene
Acrylonitrile	Cyclohexanone	Phenol
Ammonia	Cyclohexene	Phosphorous hydroxy chloride
Ammonium Fluoride	Dimethyl formamide	Phosphorous trichloride
Ammonium hydroxide	Ethane tetrachloride	Propionic acid
Ammonium sulfide	Ethyl acetate	Pyridine
Anaerobic adhesives	Ethyl ether	Sodium hydroxide
Anti freeze	Ethylamine	Sodium sulfide
Benzene	Ethylene chlorohydrin	Styrene
Benzoic acid	Ethylene dichloride	Sulfuric acid
Benzyl alcohol	Ethylene glycol	Sulphuric chloride
Brake fluids	Formic acid	Thiophene
Bromobenzene	Freon	Toluene
Butyric acid	Gasoline	Turpentine
Carbolic acid	Hydrazine	Tetrahydronaphthalene
Carbon disulfide	Hydrochloric acid	Thiophene
Carbon tetrachloride	Methylene chloride	Xylene
Caustic potash solution	Methylene succinate	
Caustic soda solution	Milk of lime	
Chlorobenzene	Nitric acid	

**TRADE NAMES OF SOME COMPRESSOR OILS, RUBBER COMPOUNDS, AND  
OTHER MATERIALS THAT WILL ATTACK POLYCARBONATE PLASTIC  
BOWLS**

Atlas "Perrna-Guard"	Kano Kroil	Some Loctite compounds
Buna N	Keystone penetrating oil#2	Stillman #269-
Celfulube #5 10 R #250	Marvel Mystery oil	75@polyurethane)
Crylex #5 cement	Mim. Rubber 366y	Stillman #SR5 13 {
Eastman 9 10	National Compound #N 1 1	neoprene)
Garlock	Nylock VC3	Stauffer Chem FYRQUEL
#98403(polyurethane)	Pmo #I306	Tannergras
Haskel#568-023	Petron PD287	Telar
Hilgard Co's hil phene	Prestone	Tenneco anderol495,500
Houghton and Co. oil #	Pydraul AC	Titon
1120,#1130	Sem regular motor oil	Zerex
Houtosafe 1000	Sinclair oil ""Lily White"	

This list is not the full list of harmful materials. Consult with Mobay Chemicals or General Electric Office for further information on Polycarbonate.

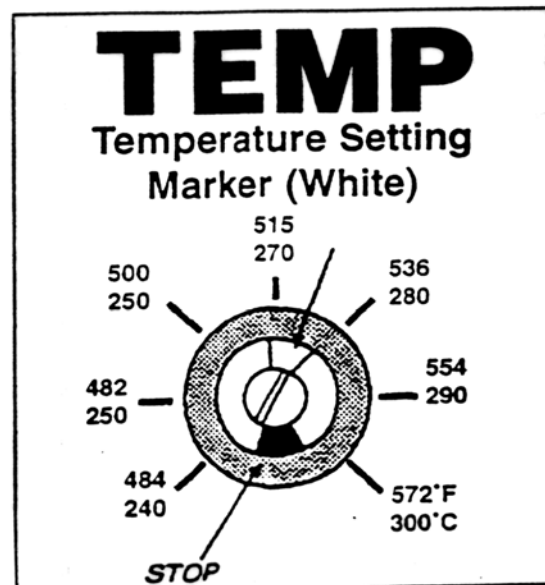
### 3.0 Operating Instructions

**!** **IMPORTANT:** In order to achieve quality welds you must ensure that the rod material matches the parent material. When switching to another rod material you must purge the old plastic from the barrel by feeding a minimum of 24" of new rod material through the welder. Using 6" of purge rod between material change or colour change will ensure the barrel has been cleaned of previous material. "Always purge before fabrication or repair work."

#### 3.1 Basic Operating Instructions

- A. Keep equipment clean at all times.
- B. Install the proper air fitting in the filter on the air line. A male quick connect fitting allows quick release of the air supply when storing the welder.
- C. Plug the welder into the appropriate electrical outlet. An ON/ OFF power switch is provided for convenience. Turn the switch On.
- D. Warm up the welder for about 10 min. The W30000 Model welder incorporates a new Temperature Control System. When first heating up the welder, the red LED will remain on until the set temperature is attained. Once the welder is up to temperature, the red LED will pulse on and off rapidly to maintain the set temperature.

Please note, if the welder temperature is above the Set temperature, the red LED will remain the Set temperature. Once the welder drops to the set temperature, the red LED will again pulse on and off.



- E. Operating temperature is selected on the front control panel using a small screw driver. The Operator must take care to turn the temp control gently and not exceed the high and low temperature limits. A small screwdriver is supplied for this purpose. (Diagram 1)
- F. The INJECTIWEW can be operated in ambient temperatures ranging from 0 to + 40 Celsius.
- G. If the INJECTIWELD is not being used for periods of 1/2 an hour or more either turn the welder off or turn down the temperature setting to the lowest level. There is a high temperature cutoff switch (HTCS) that may shut the welder off if the temperature inside the welder housing exceeds the set temperature limit. Once the welder cools off, the unit will operate normally.
- H. When not in operation, do not allow welder to sit with tip in vertical position otherwise molten plastic will move deep into the barrel and require an extended warm up period.

### 3.2 Selecting the Correct Tip

Selecting the correct tip can make a difference on the quality and the appearance of the weld. . With the purchase of your welder, you received two tips: a conical tip (T20002) and a 3/16" fillet weld tip (T20001) (rectangular).

The conical shaped tip is used mainly for repair of cracks, filling small holes, spot welding, reaching inaccessible points and prototyping.

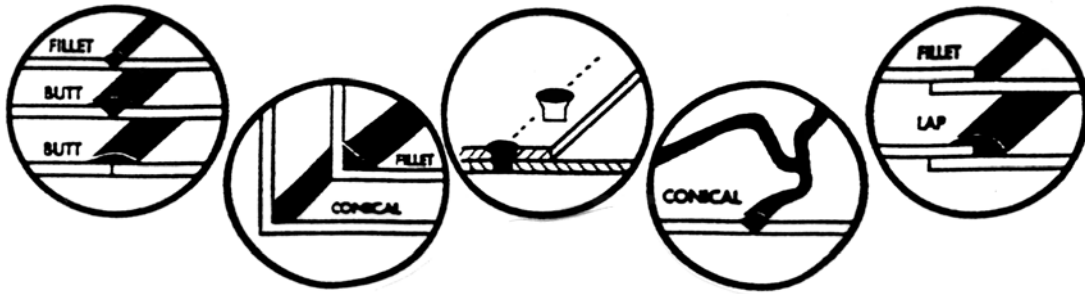
The fillet weld tip is used mainly for fillet welds (90 degree welds) and butt welds. The style of the tip allows one to weld from the corner out and be able to seal the corner without changing to another style tip. if the cracks in a product are straight enough, this tip can repair cracks as well. The longer preheat section on the back portion of the fillet tip allows for faster welding than the conical tip, while the front portion of the fillet tip shapes the weld and produces a smooth surface.

#### Available Tips




<b>Description:</b>	<b>Tip number:</b>	<b>Use:</b>
3/16" Fillet Weld Tip	T20001	Butt and right angle welds
1/4" Fillet Weld Tip	T20004	Butt and right angle welds
3/8 Fillet Weld Tip	T20005	Butt and right angle welds
5.5" Blank Weld Tip	T20007-5.5	Design your own welding tip
5/8" Butt Weld Tip	T20009	Welding belting or sealing flat joints
Bull nose Tip	T20003	Repairing blowholes in rotomolded parts
Conical Weld Tip	T20002	Spot welding, crack, repair, tack welding
Prototyping Tip	T20008	Prototyping & repairs (small welds)
Repair Tip	T20010	Prototyping & repairs (medium welds)
0.040" Lap Weld Tip	T20011	Difference in material thickness is 0.040"
0.060" Lap Weld Tip	T20012	Difference in material thickness is 0.060"
0.080" Lap Weld Tip	T20013	Difference in material thickness is 0.080"

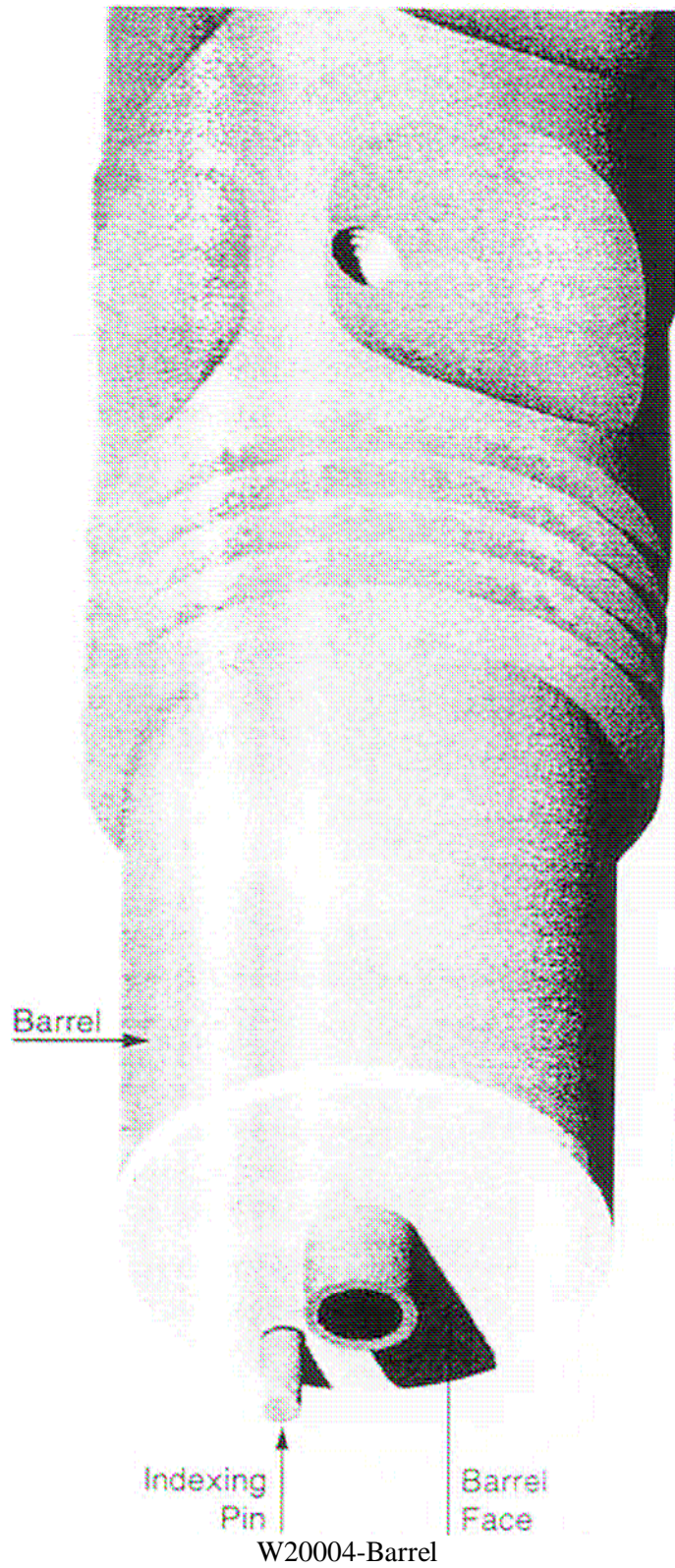
We can design custom tips for your application or you can make your own using a  
T20007-5.5

## TIP TYPES



### 3.3 Changing Tips

	<p><b>IMPORTANT:</b></p> <p>Use the retaining nut m c h provided in the case. The tip must be hot before changing in order to melt the plastic in the bore of the barrel and any plastic in the transition area between the tip and barrel. Once heated, the welder should be turned off and unplugged before removing the tip off of the barrel. Place the welder on a flat surface with the "Drader" logo facing up. Fit the retaining nut wrench over the tip and into the slots provided on the retaining nut and turn the retaining nut wrench Counter clockwise until the retaining nut is free.</p>
	<p>Using a pair of thermal gloves, slip the retainer nut off and place on a heat resistant surface. Free the tip by pulling away from the band <b>without twisting</b> the welding tip.</p>
	<p><b>CAUTION:</b></p> <p>Do not twist the tip during removal. Twisting during removal will damage the indexing pin (See Diagram 2).</p> <p>Ensure that the mating surfaces of the barrel and tip and place are free of burr and clear of melted plastic.</p> <p>A good interface is required to prevent plastic from extruding between the barrel and tip.</p> <p>For welders equipped with a barrel Indexing Pin (W30 000), the tip may be oriented at the desired angle and aligned to the indexing Pin.</p> <p>After the tips have been seated fully onto the barrel, the Tip Retainer Nut should be installed to lock the tip down. The Tip Retainer Nut should be tightened regularly during use. Avoid using the Tip Retainer Nut to force the tip down if the tip does not seat all the way down by itself.</p>
<p><b>Important:</b></p> <p><b>Before installing another tip on the welder, place a small amount of Heat Transfer Compound on the barrel screw, and on the barrel washer. Using the heat transfer compound increases the amount of heat that is transferred from the barrel to the tip.</b></p>	



(Diagram 2)

### 3.4 Temperature Settings

The following are some suggested temperature Settings for different types of rod.

#### **High Density Polyethylene (Natural I Fractional melt index) and Linear Low Density Polyethylene**

Temperature range is about 260 to 280°C. The setting most commonly used for this material is 270°C. When welding with PE with a higher melt index the temperature can be reduced slightly.

#### **Polypropylene (Natural homopolymer / Fractional melt index)**

Temperature range is about 270°C to 285°C. The setting most commonly used for this material is 280°C. When welding with PP which has a higher melt flow, the temperature can be reduced slightly. Copolymer PP will have a more forgiving and flexible weld if compatible with the material you are welding.

#### **ABS**

Rod material must be dried in an oven at 90 – 100°C for 1.5 to 2 hours. Use only what you need because the rod will pick up moisture from the air. Moisture in the rod will cause the extrudate to bubble. Temperature range 260°C to 275°C. The most common setting is 265°C.

**Polystyrene (HIPS natural)** Temperature range 250°C to 270°C. The most common setting is 260°C.

## **WARNING:**

**Do not run PVC through the welder. The Drader Injectiweld is not designed to process PVC rod material of any kind. Damage to the welder will occur. Please contact your Drader representative before running any material not listed above.**

### 3.5 How to Weld

Connect the air supply before the welder is turned on.

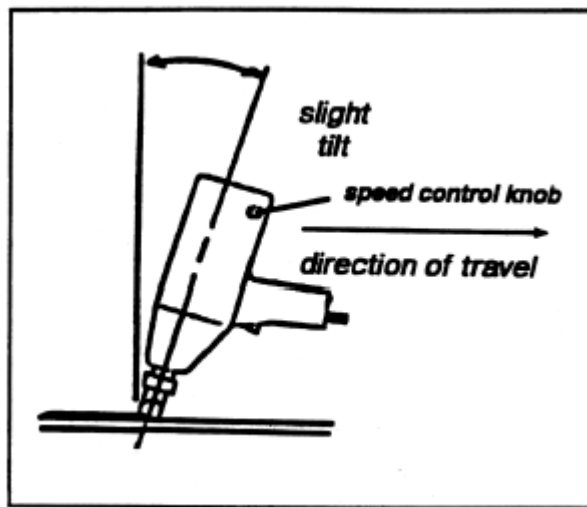
The welder will need to be turned on for approximately 10 minutes to come up to temperature from a cold Start. When the LED light flashes, the barrel and tip of the welder have reached the Set temperature as selected on the front control panel. The light will continue to flash as the heater maintains the selected temperature.

The Drader INJECTIWELD process uses heat from the welding tip to preplasticize the welding surface of the thermoplastic. Molten plastic is immediately injected under pressure, subsurface, into the weld to fuse the plastic together and form a sound weld.

The direction of travel when welding should be towards the Operator. The welding tip should be in proper contact with the surface to be welded and "dragged" along the surface at a speed that will plasticize (melt) the surface while at the Same time injecting the molten plastic immediately behind the tip.

If the speed is too fast and the surface is not plasticized the molten plastic will sit on top of and not bond to the parent material. If the speed is too slow the parent material will melt more than is required, producing a strong weld, but one that does not look professional.

The rate of feed of the welding rod should be adjusted to match the rate of welding so that just enough material is being extruded to produce a strong, professional looking weld. The rate of feed is controlled by the speed control knob on the front side of the welder. To increase the feed turn the knob Counter clockwise, to decrease the feed turn the hob clockwise.  
(See Diagram #3)

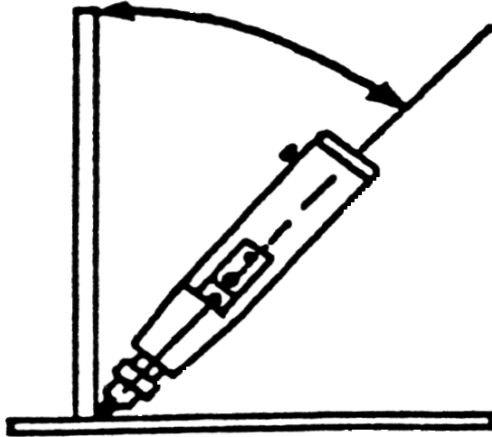


(Diagram #3)

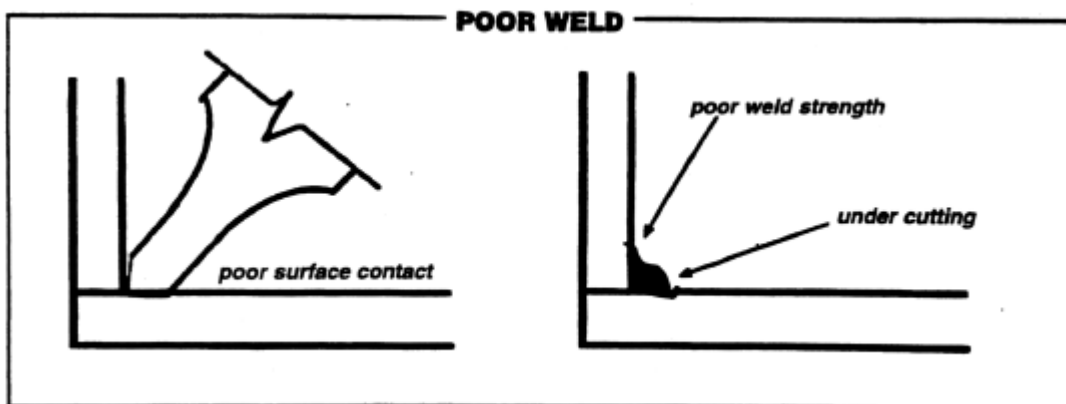
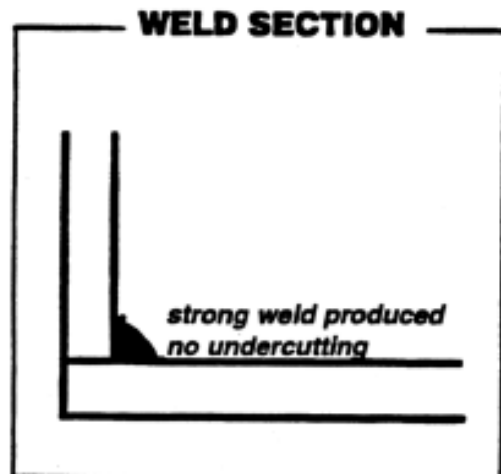
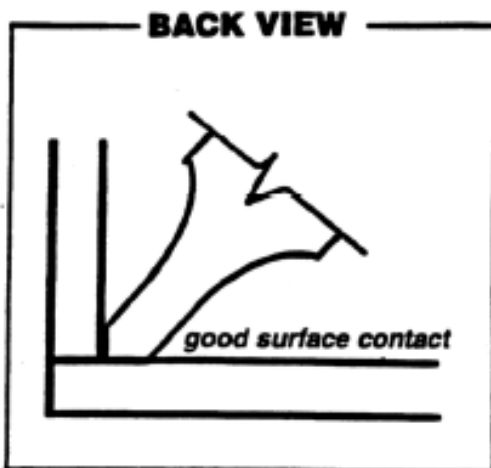
For all welding tips the position of the welder is slightly back in the direction of travel. When welding the preheat section of the welding tips must make contact with the surface of the material to be welded. The speed of travel is determined by the speed at which the tip can plasticize the surface.

# WELD DIAGRAMS

## Fillet Weld Tips

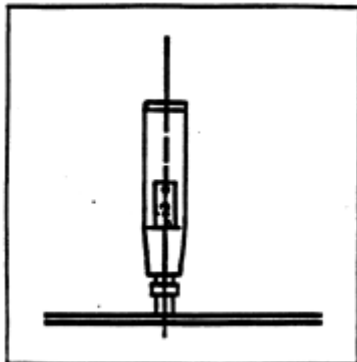


For Fillet weld tips make Sure both sides of the preheat section of the tip are making contact with the surface of the plastic you are welding.

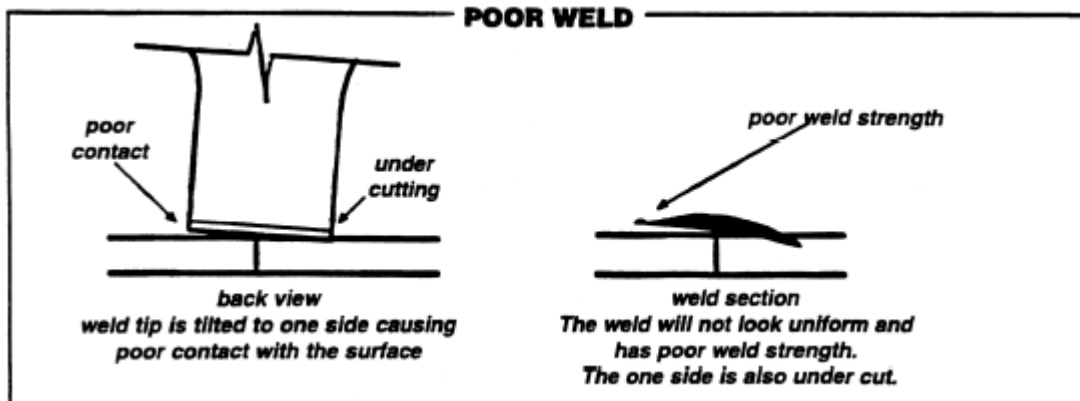
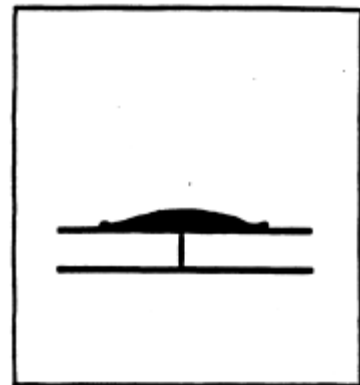
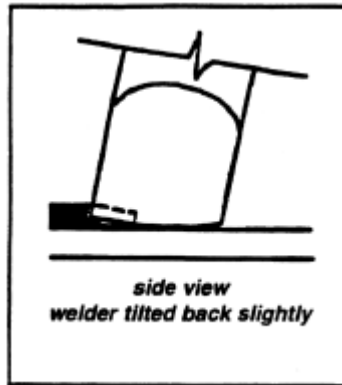
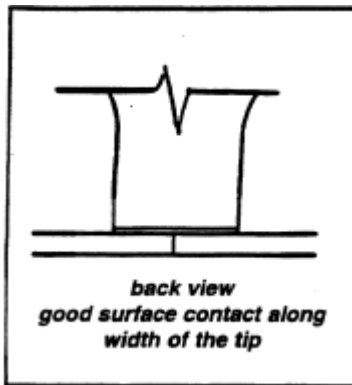


## WELD DIAGRAMS

### Butt and Lap Weld Tips



For butt and lap weld tips the welder is perpendicular to the surface and tilted slightly back in the direction of travel. When using lap weld tips the shoulder of the tip should butt up against the edge of the plastic sheet.



### 3.6 Rod Feed

Before feeding rod into the welder, ensure that the welder is up to temperature and that the tip retainer nut (#1) is tightened onto the correct tip. The tip retainer nut should be tightened before every use to prevent molten plastic from travelling into the welder through the heater and RTD Sensor. The recommended rod size for the Drader INJECTIWELD is 4mm diameter (5M2").

The 4mm diameter weld rod is fed through a roller System consisting of two opposing roller clutches (Mg) that allows the rod to feed into the welder but does not allow it to back out. To back the rod out, the user must half - turn the rod release knob (#55) clockwise while pulling on the end of the rod. Once released, a new rod may then be inserted into the rod feed tube (#56). The new rod should be pushed up the feed tube until it meets a restriction. Push the rod up 1 inch further until the rollers engage. Turn the knob further clockwise until the mechanism re-engages. The roller mechanism is engaged onto the rod material when the rod release knob can turn 1M freely with no resistance. If there is any resistance on the hob, then the hob must be turned further clockwise until it is free. During this procedure, do not pull the trigger (#38) to cycle the welder. (see diagram #4 & #5)



### **WARNING: DO NOT OPERATE WELDER WITHOUT PLASTIC ROD!**

Do not let the rod feed all the way up inside the feed tube. instead, remove the last 12" of rod from the welder and insert a full length of rod to continue welding. To eliminate the need for inserting new lengths of rod, Drader weld rod is supplied on cardboard spools. Rod may be fed directly off of the spool for a continuous supply of rod.

If the end of the rod does feed into the welder, do not cycle the welder to finish that rod off. Feed a new length of rod immediately behind the old rod pushing the old rod into the welder. While pushing on the old rod, pull the trigger to cycle the welder. This ensures that there is no gap between the old and the new rod while the welder is cycling.

Running the welder without rod may result in roller mechanism damage not covered under warranty. in such cases, the welder should be sent to the nearest available Drader Service Centre (Refer to section 1.4 of this manual).

# ROD FEED MECHANISM

## Model W30000

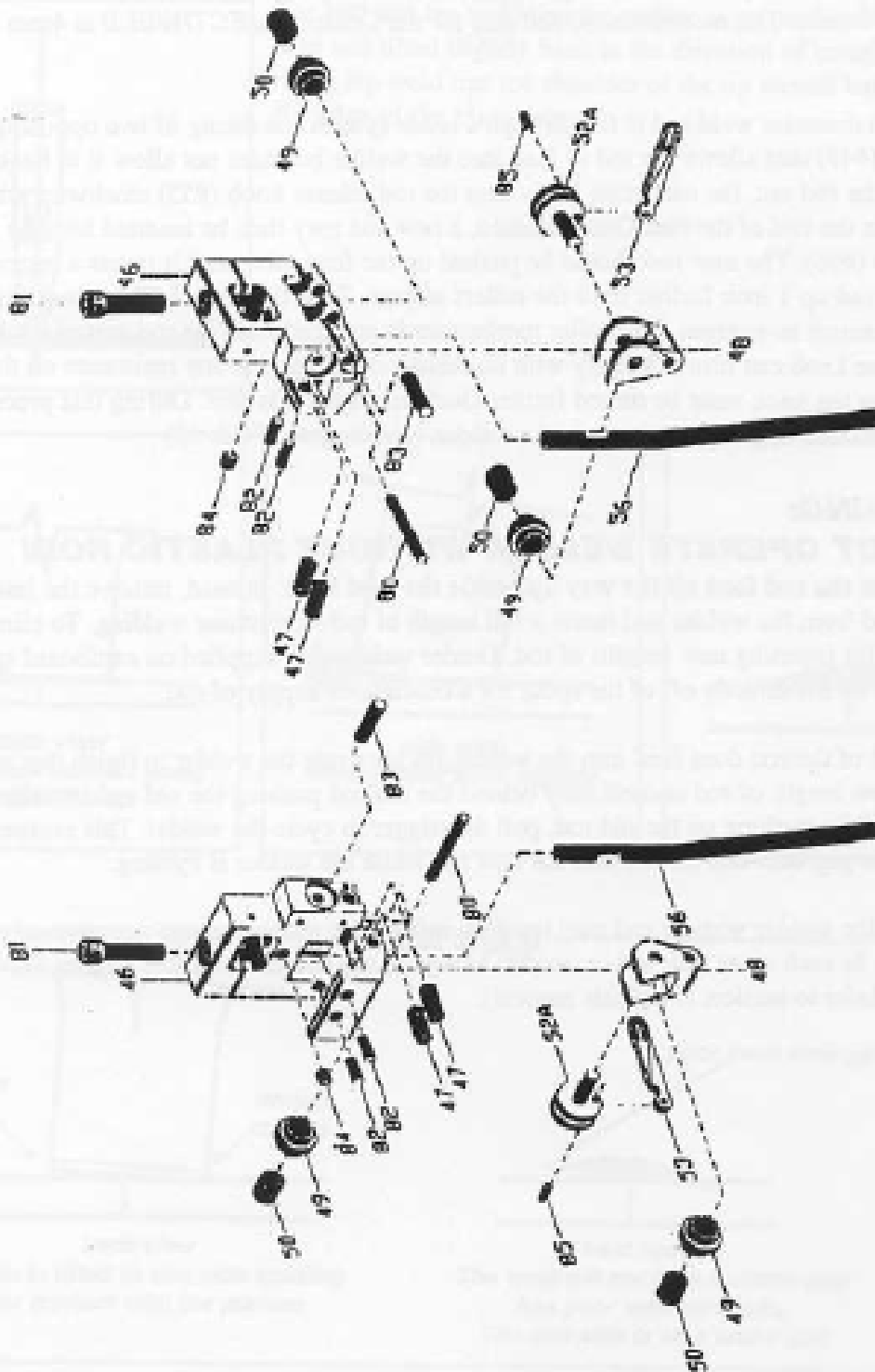


Diagram #4

# CROSS SECTION OF ROD FEED MECHANISM

Model W30000

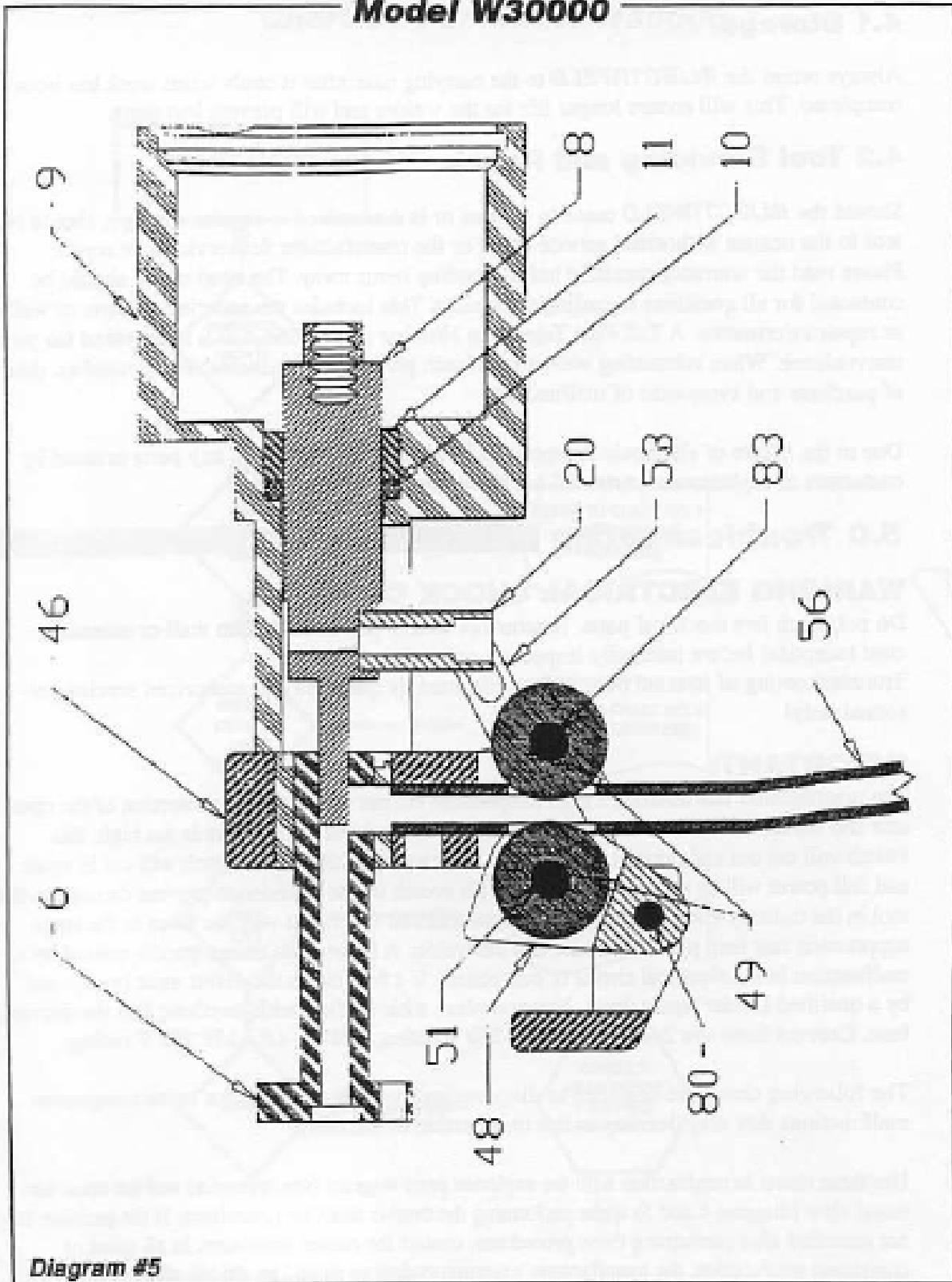


Diagram #5

## 4.0 Maintenance

### 4.1 Storage

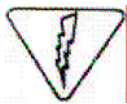
Always return the INJECTIWELD to the carrying case after it cools when work has been completed. This will ensure longer life for the welder and will prevent lost parts.

### 4.2 Tool Servicing and Repair

Should the INJECTIWELD cease to operate or is determined to require repair, it should be sent to the nearest authorized service depot or the manufacturer for servicing or repair. Please read the warranty carefully before sending items away. The head office should be contacted for all questions regarding the welder. This includes the ordering of parts as well as repair information. A Toll Free Telephone Number (1 -800-66 1-4 122) is provided for your convenience. When submitting welder for repair, please provide welder serial number, date of purchase and symptoms of malfunction.

Due to the nature of electronic components like the PC Board (#24), any parts ordered by customers as replacement parts will not be covered by warranty .

## 5.0 Troubleshooting



### **WARNING ELECTRICAL SHOCK CAN KILL**

Do not touch live electrical parts. Disconnect welder power cord from wall or extension cord receptacle before internally inspecting or servicing.

Troubleshooting of internal parts to be performed by qualified and authorized service personnel only !



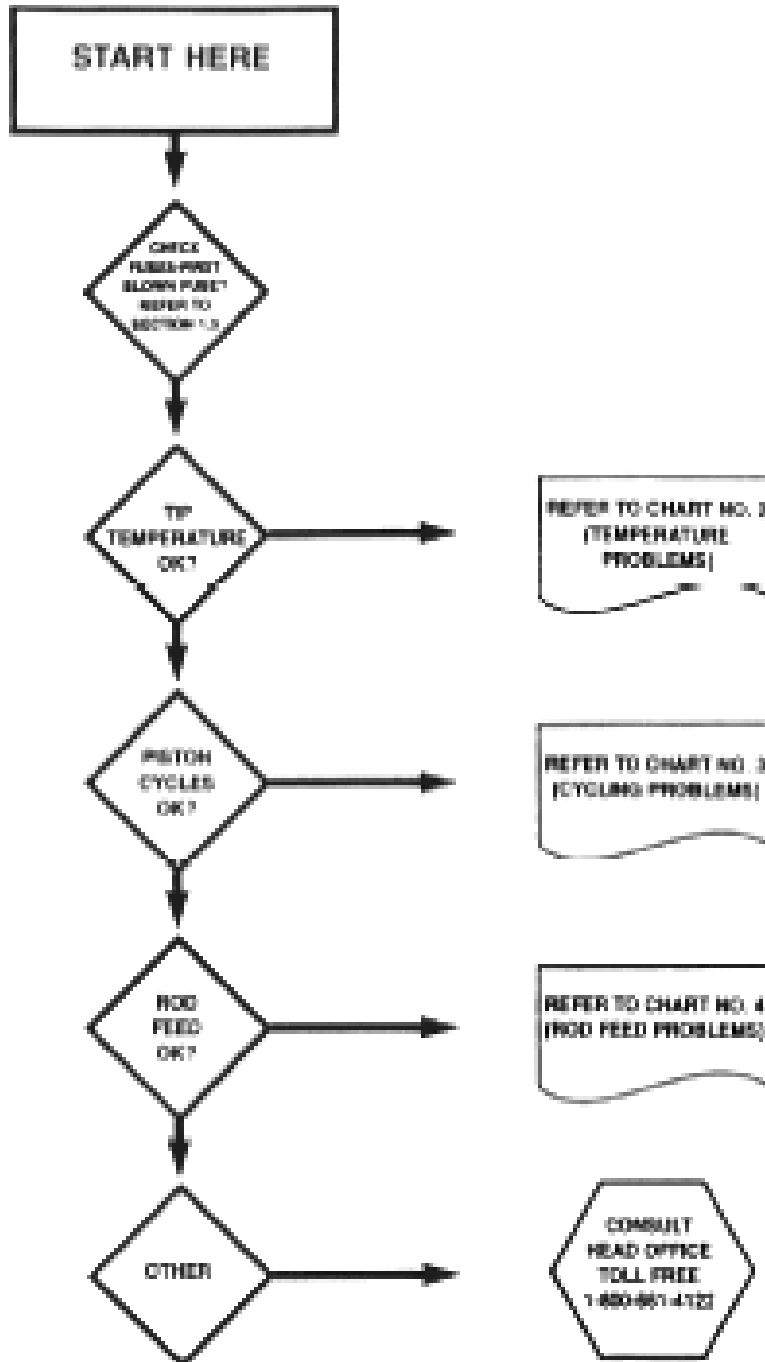
**IMPORTANT:** The manufacturer has installed a high temperature cut out switch for the protection of the operator and the tool. If the tool is left plugged in and the ambient temperature is too high, this switch will cut out and prevent overheating. After a drop of WF., the switch will cut in again and full power will be restored to the tool. This switch is also intended to prevent damage to the tool in the unlikely event of temperature control circuit failure. As well, the fuses in the surge suppression unit help protect the User and the welder. A blown fuse means trouble caused by a malfunction in the electrical circuit or component. If a fuse blows the defect must be repaired by a qualified Drader repair depot. Never replace a blown fuse with anything but the correct fuse. Correct fuses are 240 V - 4.0 AMP 250 V rating, 120 V - 4.0 AMP 250 V rating.

The following charts are designed to diagnose and provide remedies for some component malfunctions that may develop in this unit outside of warranty.

Use these charts in conjunction with the exploded parts diagram (see appendix) and the cross-sectional view (diagram 4 and 5) while performing the trouble shooting procedures. If the problem is not remedied after performing these procedures, contact the master distributor. In all cases of equipment malfunction, the manufacturer's recommendations should be strictly adhered to.

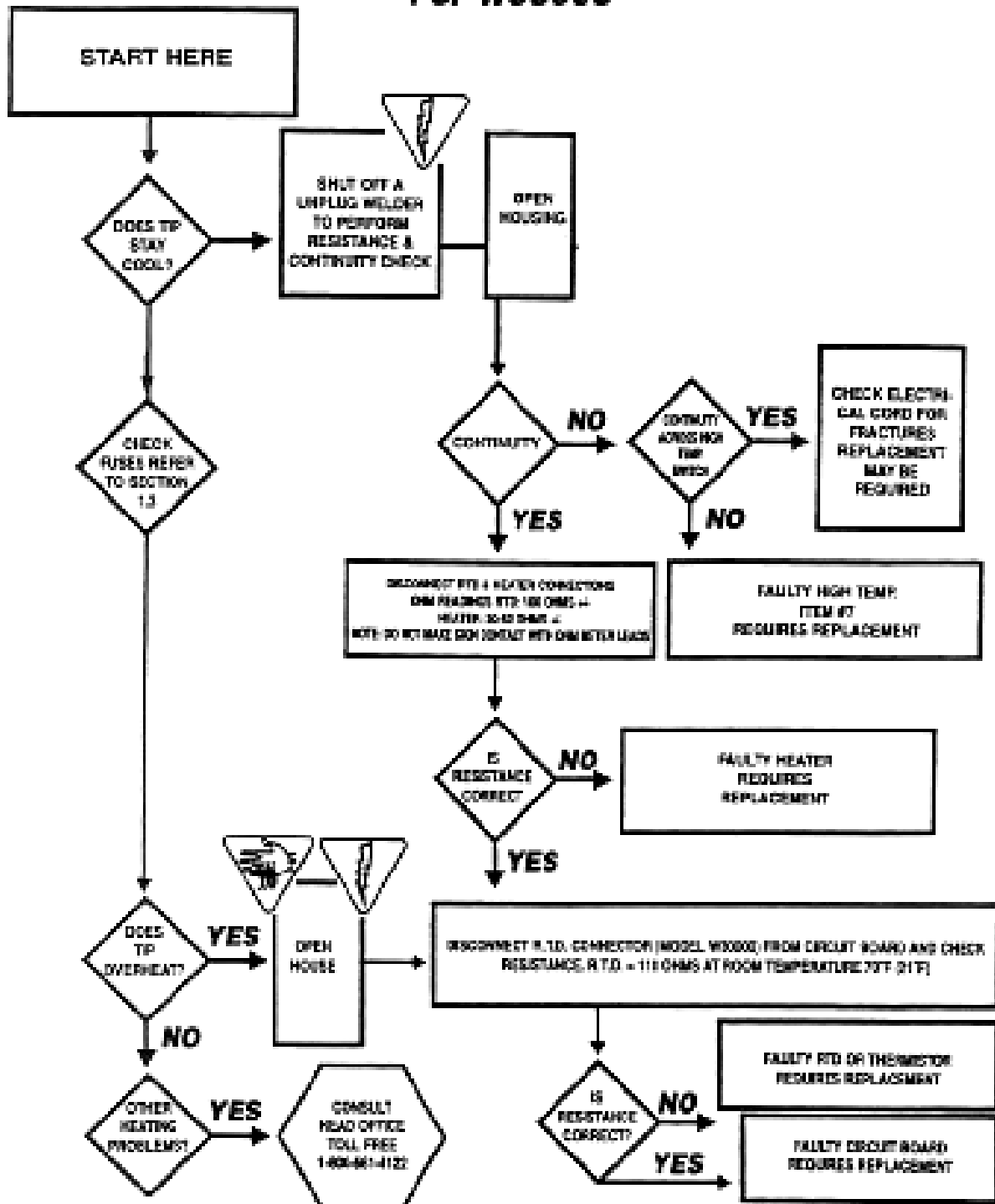
## 5.1 Troubleshooting

### Chart #1 For Model W30000



## 5.1 Troubleshooting

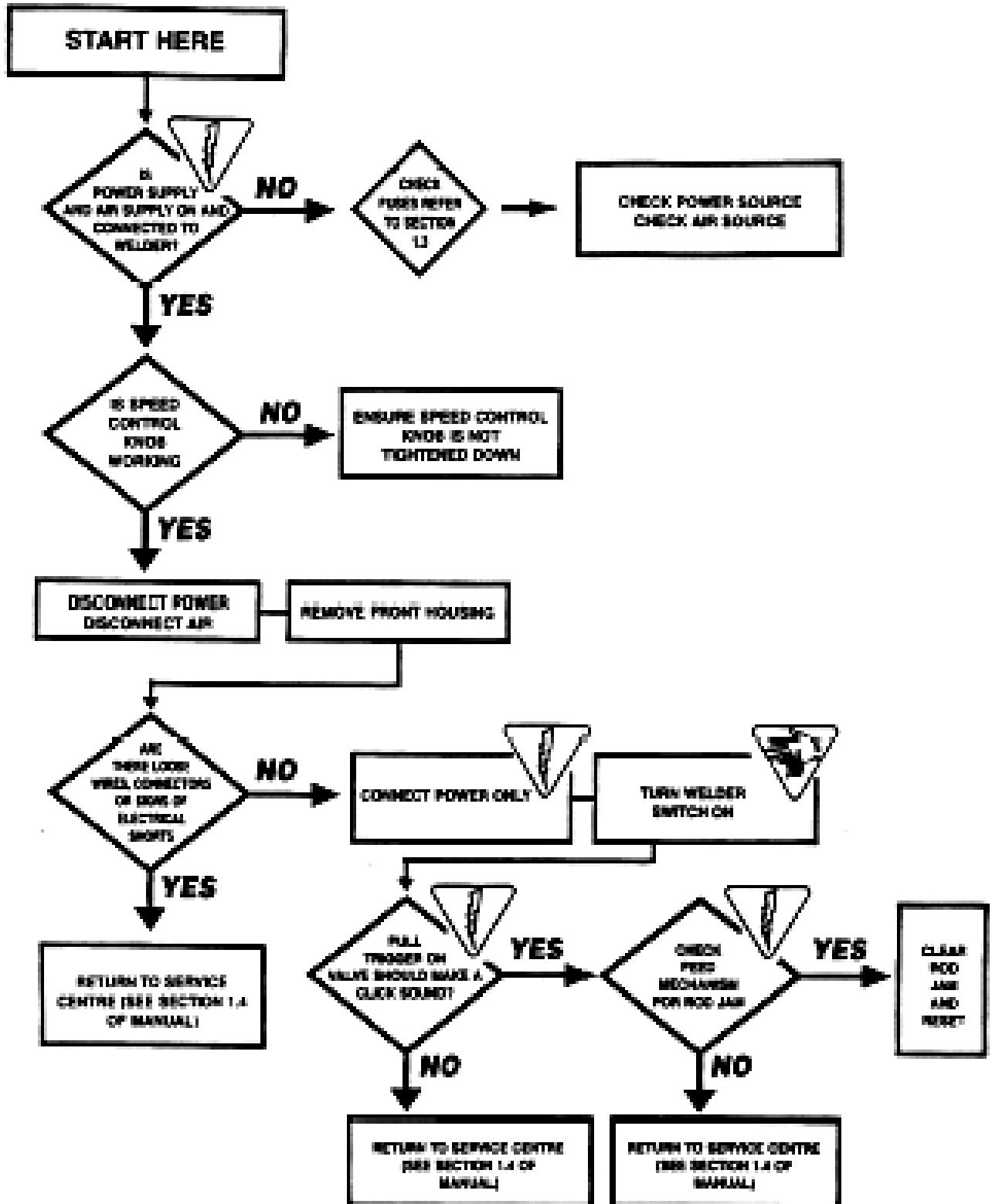
### Chart #2 Temperature Problems For W30000



See Appendix A

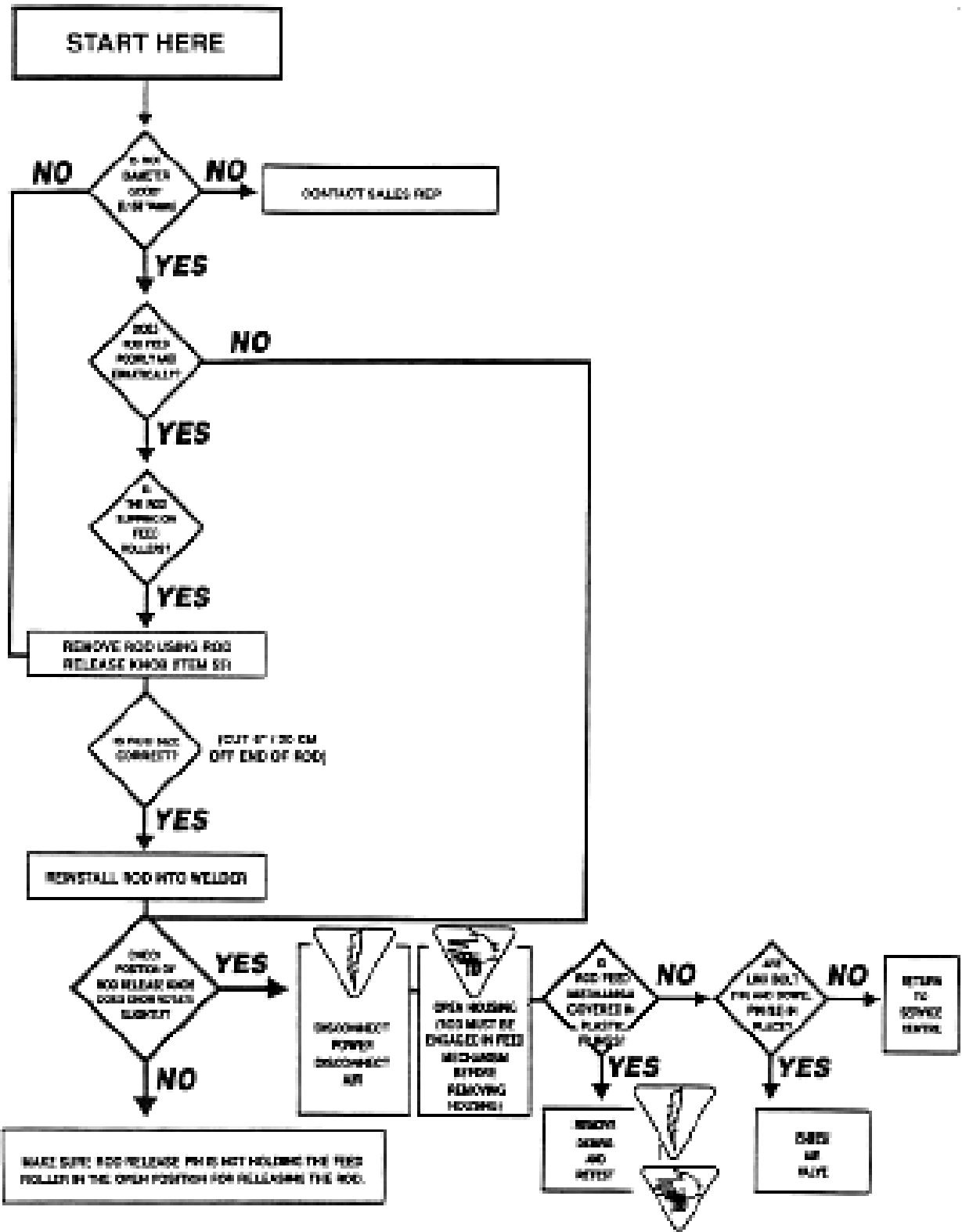
## 5.1 Troubleshooting

### Chart #3 Cycling Problems For W30000



# 5.1 Troubleshooting

## Chart #4 Rod Feed Problems For Models W30000



# REVIEW AND RETAIN FOR YOUR RECORDS

## Conditions of Warranty

Warranty on the "DRADER INJECTIWELD" PLASTIC WELDER extends to the original purchaser as a 6 month limited warranty against defects in material & workmanship, provided that the plastic welder is operated as instructed in the operating manual. The MANUFACTURER shall repair or replace, at its option, defective parts at no charge if the complete welder is returned in the original carry case to the nearest "DRADER INJE- Authorized Service Centre. Shipping charges shall apply to the purchaser in both warranty and non-warranty cases. Returned welders must be returned with proof of purchase. A minimum one hour shop time plus r e m shipping charge will be applied to welders sent into the Service Centre when no problems are found.

When requesting repair information or ordering Parts, it is essential that Model and Serial Numbers be quoted.

## This Warranty Does Not Cover...

1. Worn or broken Parts caused by negligence on the part of the user. Including: tips, feed system, piston -eals, air line, electrical cord, high temp and sleeving
2. Warranty on cartridge heater is limited to 30 days.
3. Damage due to corrosion, abuse, accident, faulty installation or tampering in any manner.
4. Electrical damage due to improper power supply, voltage spikes, and improperly filtered air.
5. Transportation costs, other incidental, d k t , special or consequential damages or losses.  
Due to the nature of electronic components like the PC Board (#24), any electric/electronic parts ordered by customers as replacement parts will not be covered by warranty.  
Any implied warranty of merchantability or fitness for a particular purpose is limited to 6 months following date of purchase. The manufacturer will not in any event be liable for any incidental or consequential damages of any kind, whether for breach of this warranty or any other reason.

**DRADER INJECTIWELD WARRANTY REGISTRATION CARD**

Please fill out completely and mail or fax in the following information to ensure warranty coverage of your Injectiweld Plastic Welder. Please print clearly.

Contact Name: \_\_\_\_\_ Telephone: (    ) \_\_\_\_\_

Company Name: \_\_\_\_\_ Fax: (    ) \_\_\_\_\_

Street Address: \_\_\_\_\_

City, State: \_\_\_\_\_

Postal, Zip Code: \_\_\_\_\_

Date Purchased (mm/dd/yy) \_\_\_\_\_ Welder Serial Number: \_\_\_\_\_

Welding Applications: \_\_\_\_\_ Types of Plastic Used: \_\_\_\_\_

Company Welder Purchased From: \_\_\_\_\_

**MAIL:**

**DRADER INJECTIWELD INC.**

**5750 – 50 Street**

**Edmonton, Alberta, Canada**

**T6B 2Z8**

**Fax:**

**DRADER INJECTIWELD INC.**

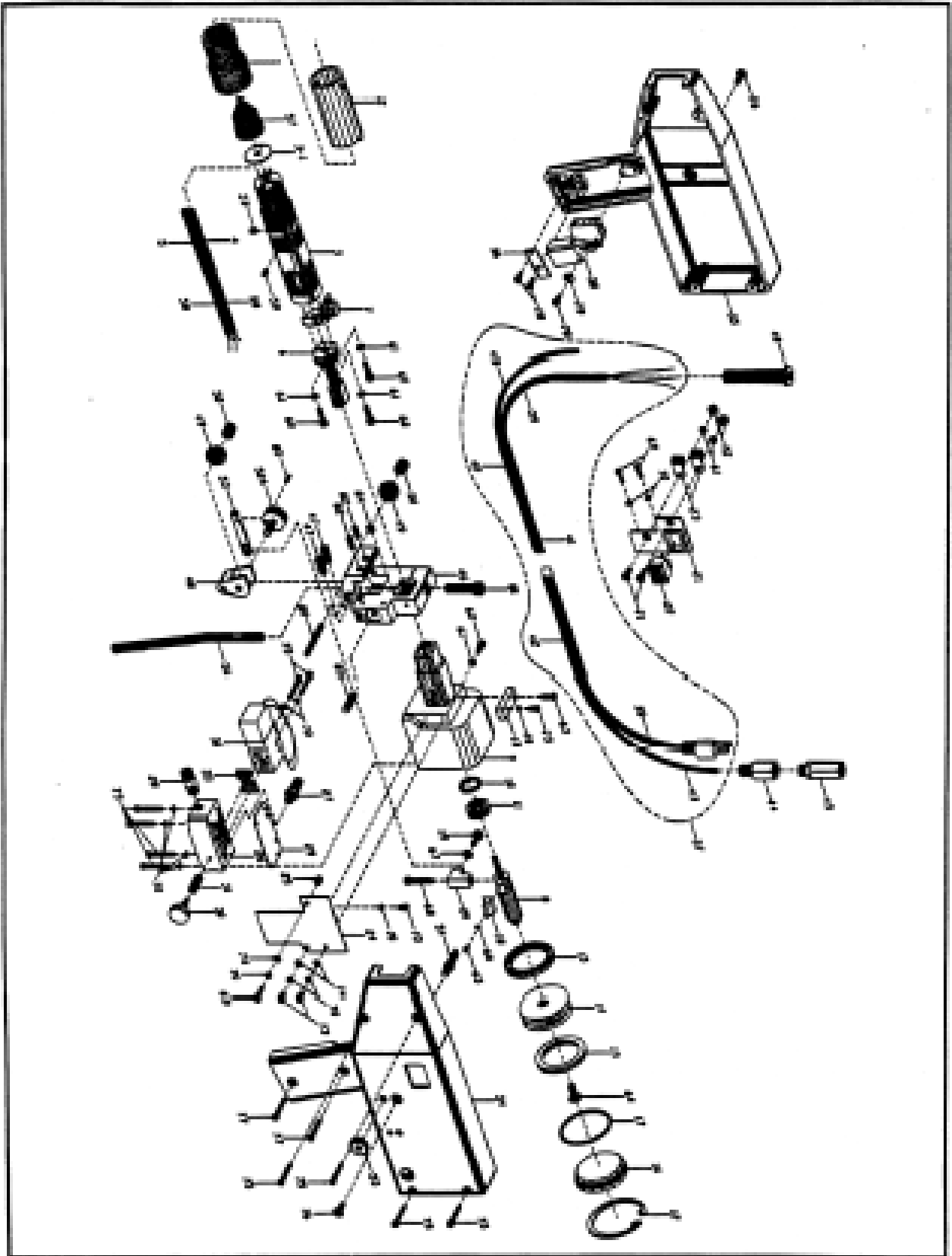
**1-780-440-2244**

**DRADER**  
*INJECTIWELD*

**DIAGRAM  
&  
PARTS LIST**

**FOR MODEL  
W 30 000**

# Complete Welder Exploded View For W30000



### 7.0 Parts Listing For Model W 30 000

WELDER SUPPLY RECORD			
Item #	P/N	Description	Qty/Welder
1	W10002	Welding Tip Retainer Nut	1
2	W10003	Retaining Nut Wrench	1
3	W10004	Barrel	1
4	W10005	Heater Element-400 Watt	1
5	AW30006	RTD Sensor	1
6	W10007	Connecting Tube	1
7	W10008	Hi-Temp C/O Switch Assy.	1
8	W10009	Piston Rod	1
9	W10010	Cylinder Body	1
10	S/S-W10010-1	“O” Rinf 5/81 Dx7/8 OD	1
11	W10010-2	Oilite Bushing	1
12	W10010-3	Internal Snap Ring	1
13	W10010-4	Insulating Block	1
14	W10011	Piston	1
15	W10011-1	Cup Seals	1
16	W10012	Cylinder End Caps	1
17	S/S-W10012-1	“O” Ring – 2” Diameter	1
18	W10013	Interrupter	1
19	S/S-W10021	Connecting Link Bolt	1
20	W10022	Connecting Link Driver	1
21	W10023	Switch Bracket	1
22	W10023-1	Power Switch	1
23	S/S-W10023-2	Cable Clamp – 5/16	2
24	W30024	PC Board #1	1
25	S/S-W10024E	Alum.Spacer – ¼ D X ¼ LG	1
26	W10025	Air Distribution Block	1
27	W0025-1	Muffler	1
28	W10025-2	Push – on Air Fitting, 1/8 NPT	1
29	W10026	Gasket – air distribution block	1
30	W10027	Speed Control Bolt	1
31	S/S-W10027-1	Speed Control Spring	1
32	W30028	1-Way Air Valve	1
33	S/S-W10028-1	Valve Gasket	1

<b>WELDER SUPPLY RECORD</b>			
<b>Item #</b>	<b>P/N</b>	<b>Description</b>	<b>Qty/Welder</b>
34	W10029	Welder Housing – Front	1
35	W10030	Welder Housing – Rear	1
36	W10030-1	Power Cord Strap	1
37	W10031	Power Cord / Tubing Assy.	1
38	S/S-W10031-1-12/24R	Trigger Switch	1
39	W10031-2	Power Cord	1
40	W10031-3	Cord Guard	1
41	W10031-4	Fiberglass Tubing-3/4"x5"	1
42	S/S-W10031-5	Heat Shrinking Sleeving-3/4"x3/4"	2
43	W10031-6	Air Supply Line-1/4x75"	1
44	W10031-7	Inline Air Filter	1
45	W10031-8	Air Line Fitting 1/4" NPT	1
46	W20014	Main Support	1
47	S/S-W20041-1	Compression Spring	2
48	W20015	Pivot	1
49	W20016	Driver	2
50	W10016-1	Clutch	2
52a	W20017A	Crank	1
53	W20019	Connecting Link	1
54	W20019	Rod Release Pin	1
55	W20020	Rod Release Knob	1
56	W20021	Rod Feed Tube	1
57	W20022	Conical Weld Tip	1
58	T10002	3/16 Fiberglass Tubing – 4"	2
59	W10005-1	10-32x1/4 Brass Tip Set Screw	2
60	10-32x1/4	8-32x5/8 SHCS	3
61	8-32x5/8	#8 Lock Washer	6
62	#8	8-32x3/8 SHCS, (grounding)	1
63	8-32x3/8	8-32x1/2 Plastic Screw	1
64	1/4-20x5/8	1/4-20x5/8 Flat Head Screw	1
65	4-40x3/16	4-40x3/16 SHCS	1
66	#4	#4 Lock Washer	1
67	#10	Washer, #10,032 thick	1
68	8-32x1	8-32x1 SHCS	1
69	6-32x1/2	6-32x1/2 SHCS	3

<b>WELDER SUPPLY RECORD</b>			
<b>Item #</b>	<b>P/N</b>	<b>Description</b>	<b>Qty/Welder</b>
70	#6	#6 Lock Washer	13
71	8-32x1/2	8-32x1/2 Flat Head Screw	2
72	#8	Hex Nut	2
73	6-32x1/4	6-32x1/4 SHCS	4
74	#6	#6 Flat Washer NAS620-6l	3
75	6-32x1	6-32x1 SHCS	10
76	10-24x1/2	10-24x1/2 Machine Screw	2
77	6-32x3/4	6-32x3/4 SHCS	2
78	#6	#6x3/8 Selt Tap Screw	3
79	#8	#8 Flat Washer	1
80	3/16x1-3/4	3/16x1-3/4 Dowel Pin	1
81	5/16-18	5/16-18x1-1/4 SHCS	1
82	3/16x1/2	3/16x1/2 Dowel	2
83	1/4x1	1/4x1 Dowel	1
84	1/4-20x1/4	1/4-20 Set Screw	1
85	1/8x3/8	1/8x3/8 Dowel Pin	1
86	W30025	Air Filter Unit	1
87	W30025-1	Pipe Nipple	1
88	W30026	Bracket Rof Air Filter Unit	1
89	W30027	Air Filter Replacement Kit	1

## Parts Sold as Assemblies

	PC Boards are always shipped with an Insulating Bar 1 each of (W30024 and W10010-4)
	High Temp Cut Off Switch always ships with a bracket 1 each of (W10008-1 and W10008-2)
AW20015-1	Pivot Assembly with Bearings (W20015-1(x1), W20015-2(x2) S/S W20015-1(x1))
AW20016	Driver Assembly with Roller Clutch 1 each of (W2006, W20016-1)
AW10031	Power Cord / Tubing Assembly (Other Voltage) Call Drader
AW20033-120	Surge Suppression Assembly (120V) 1 each of (W10031-2-120, W20033-1, W20032-2, W20033-3, W20033-7, W20033-8, W20033-10, S/S W20033-9)
AW20033-***	Surge Suppression Assembly (Other Voltages) Call Drader
AW20025	Air Filter Assembly 1 each of (W30025, W30025-1, W30026, W30027)
AW20017	Crank Assembly (Steel) 1 each of (W20017A, W20019, S/S W20019-1)

## Corrections to Manual

### Page 27 – View of Welder

- Switch bracket (item #21) shows #6 lock Washers. Should be #8
- No Pivot Bearing shown. This is Part # W20015-2(x2)
- Welder housing (item #34) – should show 6x#6 flat washers
- View of PC Board does not show bracket. Use 1x 6-32 x ¼ SHCS and  
1x #6 lock washer
- There is no Surge box assembly shown. Please see Assembly #s AW20033-\*\*\* for  
the proper order numbers

# Declaration of Conformity - CE

## Application of Council Directives

73/23/EEC 89/336/EEC 92/31/EEC 93/68/EEC

## Standards to which conformity is declared:

EN-50141	EN-55014	EN-55104	CISPR 11/14/16
EN-50082-1	EN-10004-11	EN-60-335-1	EN-50081-1
EN61000-4-2	EN-61000-4-4	EN-61000-4-5	EN-60-335-2-45
IEC-801-2	IEC-801-3	IEC-801-4	EN61000-4-11
IEC-1000-4-5	IEC-1000-4-11		IEC-1000-4-2

Manufacturer's Name: Drader Injektivweld Inc.

Manufacturer's Address: 5750-50 Street  
Edmonton, Alberta  
T6B 2Z8

Importer's Name: \_\_\_\_\_

Importer's Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Type of Equipment: Plastic Welder

Model Number: W30000

Date Approved: June 24, 1997

We, the undersigned, hereby declare that the equipment specified above conforms to the above Directives and Standards.

Signature: 

Full Name: Alfred Bitter

Position: Production Supervisor

Signature: 

Full Name: Gordon McTavish

Position: General Manager