

# OPERATION GUIDE HIGH PRESSURE DRYING SYSTEMS

- HP60B0
- INJ01
- HP60FDP

# **IMPORTANT** Read These Instructions Before Use & Save Instructions & Packaging





Injectidry's High Pressure drying systems are specifically developed to target high risk areas of hidden moisture such as: walls and ceilings, even those coated with watertight finishes like PVA paint and vinyl wallpaper coverings, double-sheeted fire walls, party walls, sound barriers, insulation, walls behind cabinets and fixtures and floors.

The Injectidry ®HP drying system is the only truly "industrial grade" system sold today. The internal blower is a Regenerative Blower and many operate 20,000 hours or more trouble free. This translates into more than 10 years of continuous operation. It is not a fan that is typically associated with a portable carpet cleaning machine or shop-vac.

U.S. Patents # 5893216, 6647639, 6886271 and other patents pending

**IMPORTANT** 

Due to probable high heat output, the Silencer should be elevated from surfaces that could be damaged by heat.

**IMPORTANT** 

Safety warnings are located on page 2 & 3.

Phone: 425-822-3851 Fax: 425-745-8480 Toll Free: 800-257-0797 or on the web at www.injectidry.com

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#### SAFETY WARNINGS - READ & SAVE THESE INSTRUCTIONS

Safety is always the number one concern when using electrical equipment. All electrical equipment can become dangerous if misused, abused or damaged. If the user fails to observe the warnings, injury might result to person, or damage to the HP60. By following the warnings below, the user can reduce the risk of shock, personal injury or fire.

#### ⚠DANGER:

### **RISK OF FIRE**



DO NOT place unit near open flame, fire or heat source.

DO NOT place near a heater as it could cause the unit to overheat, the housing to melt and cause a fire or electrical hazard.

# $\triangle$ DANGER

# TO REDUCE THE RISK OF ELECTRICAL SHOCK



DO NOT use unless you have read the operating instructions.

DO NOT use outside, in water, in rain, on a wet surface or near water.

DO NOT use to extract water.

DO NOT remove the faceplate as serious shock may occur.

DO NOT remove or alter grounding plug.

DO NOT use if not properly grounded.

DO NOT service the unit, connected to any power source.

DO NOT use with a solid-state speed control device.

# $\underline{\Lambda}$ WARNING:

#### WARNING

DO NOT alter or operate a fan with a damaged cord or plug. Discard fan or return to an authorized service facility for examination and /or repair.

DO NOT use an extension cord with this fan.

DO NOT run cord under carpeting. DO NOT cover with throw rugs, runners, or similar coverings. DO NOT route cord under furniture.

DO NOT place on unstable surface, wet surface, or in an enclosed space where there are no air exchanges.

# $\triangle$ IMPORTANT:

#### **CAUTION - TO REDUCE THE RISK OF SHOCK**

To reduce the risk of shock, connect only to an outlet provided with a ground fault circuit interrupter device.

# **AVERTISSEMENT DE SÉCURITÉ - LIRE ET CONSERVER CES INSTRUCTION**

La sécurité est toujours la première inquiétude en utilisant de l'équipement électrique. Tout équipement électrique peut devenir dangereux si employé improprement, maltraité ou a endommagé. Si l'utilisateur n'observe pas les avertissements, la blessure pourrait résulter à la personne, ou les dommages au HP60. En suivant les avertissements au dessous, l'utilisateur peut réduire le risque de choc, la blessure ou le feu personnel.

# $\triangle$ DANGER:

#### LE RISQUE DE FEU



NE PAS placer prêt d'une flamme, feu ou une source de chaleur.

NE PAS placer prêt d'un chauffage cela peu faire surchauffer l'équipement, le boyau de fondre et causer un feu ou un risque électrique.

# △DANGER:

# POUR REDUIRE LE RISQUE DE CHOC ELECTRIQUE



NE PAS utiliser à moins que vous ayez lu les instructions d'opération.

NE PAS utiliser à l'extérieur ou prêt d'une source d'eau, dans la pluie, sur une surface mouillée ou sur l'eau.

NE PAS utilise pour extraire de l'eau.

NE PAS enlever la trappe d'accès un choc sérieux peut arriver.

NE PAS enlever ou modifier la prise de mise à la terre.

NE PAS utiliser si la mise à la terre n'est pas convenablement branché.

NE PAS réparer l'unité, lorsqu'elle est connectée à une source de pouvoir.

NE PAS utiliser avec un dispositif de contrôle de vitesse

# $\triangle$ WARNING:

# **AVERTISSEMENT**

NE PAS modifier ou faire fonctionner un ventilateur si le cordon ou la prise si endommagée. Retournez dans un centre autorisé pour examen et/ou la réparation.

NE PAS utilise une rallonge avec ce ventilateur.

NE PAS faire passer la corde sous la moquette.

NE PAS couvrir avec des déchets de tapis, sous tapis, ou les couvertures similaires.

NE PAS diriger la corde sous les meubles.

NE PAS place sur une surface instable, surface mouiller ou dans un espace clos où il n'y à pas d'échanges d'air.

 $\triangle$ IMPORTANT:

### **AVERTISSEMENT - POUR REDUIRE LE RISQUE DE CHOC**

Pour réduire le risque de choc, connectez à un circuit muni d'une prise avec mise a la terre.

#### NOTICE

**DO NOT** operate in an environment over 104° F or 40° C.

**FAILURE** to prevent bulk water from passing through the HP60 blower can cause severe damage to the internal workings of the blower and WILL VOID THE WARRANTY.

WHEN DRYING NEGATIVELY (AIR IN): Before running the HP60, attach to truckmount or portable extractor, or Injectidry's Water Separator before applying vacuum pressure to the material for at least 15 minutes or until no more bulk water appears from beneath flooring.

**WHEN DRILLING:** Know what you're drilling. Cavities can contain electrical, plumbing and other services. It is highly recommended that a drill stop be used.

**IMPORTANT** 

Due to probable high heat output, the Silencer should be elevated from surfaces that could be damaged by heat.



Protect the floor surface from possible damage by placing the HP60 on a pad or blanket.

# GRAY & BLACK WATER

Operators should follow current IICRC \$500 Water Damage Restoration Standards.

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# **HP60 SPECS**

DATA	U.S. DETAILED INFO	CANADA & OVERSEAS
Model No.	HP60, HP60i	
Weight of HP60	50 lbs.	22.68 kg
Total System Airflow	103 CFM (cubic feet per minute)	2.917 m³m (cubic meter per minute)
Wall Injector Diameter	3/16 inches	80.96 mm
Static Pressure (Maximum)	60 inches (water lift) and still has 55 CFM	152.4 cm
Housing Material	MDPE - med. density polyethylene	MDPE - med. density polyethylene
Motor Type	Industrial Regenerative Blower	Industrial Regenerative Blower
Power Draw - 115v	<ul><li>15A circuit needed</li><li>5.6 - 6.5 amps (no restrictions)</li><li>11 - 12 amps (avg. application.)</li></ul>	<ul><li>15A circuit needed</li><li>5.6 - 6.5 amps (no restrictions)</li><li>11 - 12 amps (avg. application)</li></ul>
Drying Modes	Either Negatively or Positively	Either Negatively or Positively
Dimensions	18 x 13 x 16.2 inches (with pipes) 13 x 13 x 16.2 inches (without pipes)	45.72 x 33.02 x 41.15 cm
Warranty	See page 13	See page 13
Accessories	<ul><li>Interceptor HEPA Filter</li><li>Vac-It Panels</li><li>Silencer</li><li>Water Separator</li></ul>	<ul><li>Interceptor HEPA Filter</li><li>Vac-It Panels</li><li>Silencer</li><li>Water Separator</li></ul>
Drying Capacity	134 linear feet (1 injector every 16")	40.84 m

# **HP60BO PACKING LIST**



HP60 Unit	1	
Main AIR IN - Quick Connects installed at factory	1	PTFC
Main AIR OUT - Quick Connects installed at factory		PTMA
AIR OUT Main Hose - 6' w/factory-set PRV		AOMH
AIR IN Main Hose - 6' inline filter, factory-set PRV & Main QCT		AIMH
Manual	1	

# **INJO1 PACKING LIST**



HP60 Unit	1	
Main AIR IN - Quick Connects installed at factory	1	PTFC
Main AIR OUT - Quick Connects installed at factory	1	PTMA
Carry Bag	1	CB1
Rolling Duffle Bag	1	CB2
Active Hoselines - 6' w/ 10 air ports each (2 Hosecuffs & 1 QC-Hose Connector)	12	AH3
AIR OUT Main Hose - 6' w/factory-set PRV	1	AOMH
AIR IN Main Hose - 6' inline filter, factory-set PRV & Main QCT	1	AIMH
Quick Connect - Manifolds	10	QCM01
Quick Connect - Hose Connectors	3	QCC01
Quick Connect - Small T's	2	QCT01
Hosecuffs	10	HC3
End Cap Plugs	4	QCEPO1
Tubing Connectors	50	RHO7A
Hard Tubing Stoppers (bag of 50)	1	RP1
Wall Injectors	170	IMO6A
Safety Yellow Blank Hose (1½" x 50')	1	PLO3
Safety Yellow Tubing (3/8" x 200')	2	RH05A
Silencer	1	SILENCER
Manual	1	



HP60 Unit	1	
Main AIR IN - Quick Connects installed at factory	1	PTFC
Main AIR OUT - Quick Connects installed at factory	1	PTMA
AIR OUT Main Hose - 6' w/ factory-set PRV	1	AOMH
AIR IN Main Hose - 6' Inline Filter, factory-set PRV & Main QCT	1	AIMH
Carry Bag	1	CB3
Rolling Duffle Bag	1	CB2
Safety Yellow Blank Hose 11/2"x50'	2	PLO3
Quick Connect - Panel T's (Hosecuffs attached)	7	VAC-T
Quick Connect - 11/2" Hosecuff	14	НС3
Quick Connect Inline Manifold	6	IMO1
End Cap Plug	7	QCEPO1
Variety Panel Package: (6) Large Multi Port Panels, (1) 8 Point, (1) Large Clear, & (1) U Panel Kit which includes (1) U Panel & (3) Small Panels w/ 3/8" Port	1	VACITPA-VP
Roll of Tubing	1	RHO5A
Soft Tubing Stoppers (bag of 40)	1	RP2
Silencer	1	SILENCER
Manual	1	

#### OPERATING INSTRUCTIONS

The HP60i is designed for use by professional water damage restoration specialists. It can be used to dry with either positive pressure or negative suction. Never use both operations at the same time as it could cause the system to overheat.

It is recommended that equipment be placed and handled with safety in mind. Clearly mark walkways with ANSI approved safety signs, shut down foot traffic and keep aisles as clear as possible.

#### Mold

Operators should always follow current IICRC S520 Mold Remediation Standards. Molds and fungi can grow throughout the natural and built environments. Mold spores are almost always present in indoor and outdoor air. In nature, mold helps break down dead materials and can be found growing on soil, foods, plant matter and other items. Mold produces microscopic cells called "spores" which are very tiny and spread easily through the air. Live spores act like seeds, forming new mold growths (colonies) when they find the right conditions.

Mold only needs a few simple things to grow and multiply:

- Moisture
- Nutrients
- Favorable temperatures

Take minimum steps to ensure that every drying job is proactively protecting your customers and the structure. Perform all work to minimize the amount of dust generated. Using the Interceptor HEPA



INTERCEPTOR (INFO1) HEPA Filter: 99.97% Efficient
Durable enclosure & easy to use

minimize the amount of dust generated. Using the Interceptor HEPA filter on every job can help minimize the spread of mold spores.

# **IMPORTANT**

Safety warnings are located on page 2 & 3.

#### Positive (Blowing) Drying Mode

Positive drying has several advantages including the delivery of air of known temperature and moisture content. The act of pressurizing a space means air is captured and pumped into an area from another known area such as the output of a dehumidifier which will be lower in humidity than the air in the surrounding area. Positive drying is almost always the fastest and most efficient use of energy due to the direct concentration of processed dry air.

The biggest problem with positive drying, is that air blown into a space must come out (cfm in = cfm out). The act of moving air into a cavity can cause the dispersal of dust, debris or mold from the space being pressurized. In fact, all buildings contain contamination to some degree within walls and ceilings.



Air Filtration Devices (AFDs) are *highly recommended* on all restoration projects. When using the HP60 in negative (suction) mode, an inline INTERCEPTOR HEPA FILTRATION device is *highly recommended*.

Carefully drill into each cavity and install at least one Wall Injector (IM06A). Two or more injectors per cavity could be beneficial if there are multiple layers of drywall, insulation, corner studding or extremely high moisture levels.

U.S. Patents # 5893216, 6647639, 6886271 and other patents pending

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#### **Negative (Suction) Drying Mode**

The goal of trapped moisture drying is the removal of moisture from an area of entrapment. Negative drying can usually accomplish the air exchanges necessary to dry. Air movement, whether positive or negative, supplies a transport vehicle for moisture. Absent an airflow through the trapped area, the ambient humidity within the space can rise to saturation. With suction applied to the airspace, the wet air can be drawn out of the airspace. The results will be lower humidity air acting as an absorbent sponge to which the moisture can move from the wet materials.

If there is known contamination, negative drying with inline HEPA filtration is *highly recommended*. The effort should be to move the moisture and contamination to the filter. This can be accomplished by negatively pressurizing the interstitial space by removing air from the wet area. The air can then be processed either through a HEPA filter system, or moved to the exterior of the built environment. This transport can be achieved by attaching the inline Interceptor HEPA filter system to the HP60 intake. This is the preferred approach.

Goals of structural drying should include containing contamination, and preserving and protecting structure from further loss or damage. Occupant and employee safety should be the first concern.

#### Setting Up the HP60i

The tubing is shipped un-cut, but recommended general purpose tubing length is 18"-20". Use 6" if you

wish to hang the Active Hoselines from the ceiling or upper walls. Installing the Wall Injectors on the cut tubing lengths is next.

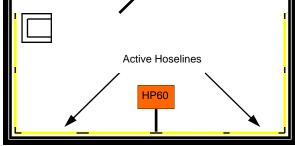
Place the HP60 in the middle of the drying run so that the air will be distributed equally (see illustration below).

#### Walls and Ceilings

In order to reduce the need for repairs, when drilling holes it is usually best to remove the baseboards. Before removing the base, use a pencil to score a light line at the top of the base. Remove the base and drill holes beneath the faint pencil line.

Repairs will be easier, and after the base is replaced or reset, the holes will usually be covered by the baseboards.

When drilling ceilings, drill holes at a 45° angle or greater. The Injectors, tubing and Active Hoseline will hold better if the injectors are hanging at an angle. To start drilling the hole, hold the drill so that the bit is directed straight into the ceiling. Penetrate the drywall only slightly, then change the drill bit angle so that the rest of the hole is drilled at a 45° angle or more. After full penetration, carefully pull the drill bit back to make as clean and small an opening as possible.





#### Cabinets

Drilling beneath cabinets requires a 1/4" drill bit. If the kick plate (toekick) cannot be removed, holes can sometimes be drilled inside the cabinet (which will be out of sight and can be repaired later).

#### **Wood Flooring Systems and Other Specialty Floors**

Your Injectidry HP60 system is capable of drying specialty floors such as wood flooring systems, marble, tile, subfloors, etc. We were the FIRST to offer NEW Vac-It Panels (US Patent 6886271 and other patents pending), a unique way in which to dry these types of floors. The Vac-It Panel is sold in various panel sizes that range from  $10^{\prime\prime}$  x  $30^{\prime\prime}$  to  $30^{\prime\prime}$  x  $46^{\prime\prime}$ . These different sizes allow the restorer to dry any size and shape of area. Each 8 Point Panel is  $46^{\prime\prime}$  x  $30^{\prime\prime}$  and can be cut down to smaller sections  $(11^{\prime\prime}$  x  $15^{\prime\prime}$ ).

Our newest additions are the multi Port Panels and U Panel Kits. It is *highly recommended* that a negative (suction side) pressure relief valve be used when drying hardwoods. The Panels can also be used to dry plaster walls and other dense materials.

Every job varies as to the quantity and size of Panels needed. Additionally, the length of time needed to dry will depend on factors such as:

- The amount of water the floor was exposed to
- The length of time the wood has sat since initial wetting
- The thickness and quality of finish on the surface
- The layers of material beneath the top layer
- The type of substrate, if affected, and to what degree.

Drying times can range from one day to over ten depending on the above variables.

Clear panels are available for display & demonstration purposes. Water can be seen leaving the wood and coming out via vacuum. This is a great demonstration tool



for agents, adjusters or other customers.







#### ACCESSORIES FOR THE HP LINE





# **IMPORTANT**

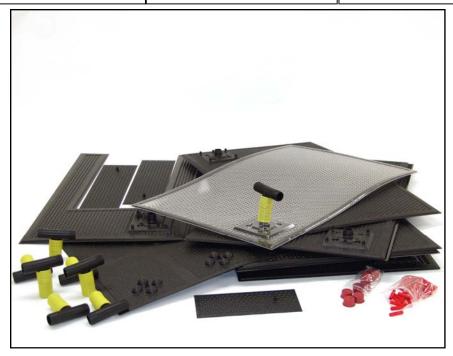
Due to probable high heat output, the Silencer should be elevated from surfaces that could be damaged by heat. We suggest placing on top of the HP60.

Place the HP60 on a blanket to protect floors. (Many floors do not require refinishing)

WATER SEPARATOR (WS)

SILENCER \*see warning (SILENCER)

INTERCEPTOR HEPA FILTER



VARIETY PAK OF PANELS (VACITPA-VP)

MULTIP-PORT PANELS SOLD IN 6 PAK (VACITPA-MP)

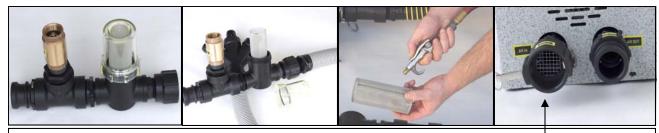
U PANELS (EA) (VACITPA-PUK)

CLEAR PANELS (SOLD IN PAIR) (VACITPA-C)

8 POINT PANELS SOLD IN 10 PAK (VACITPA-8)

# **BASIC MAINTENANCE**

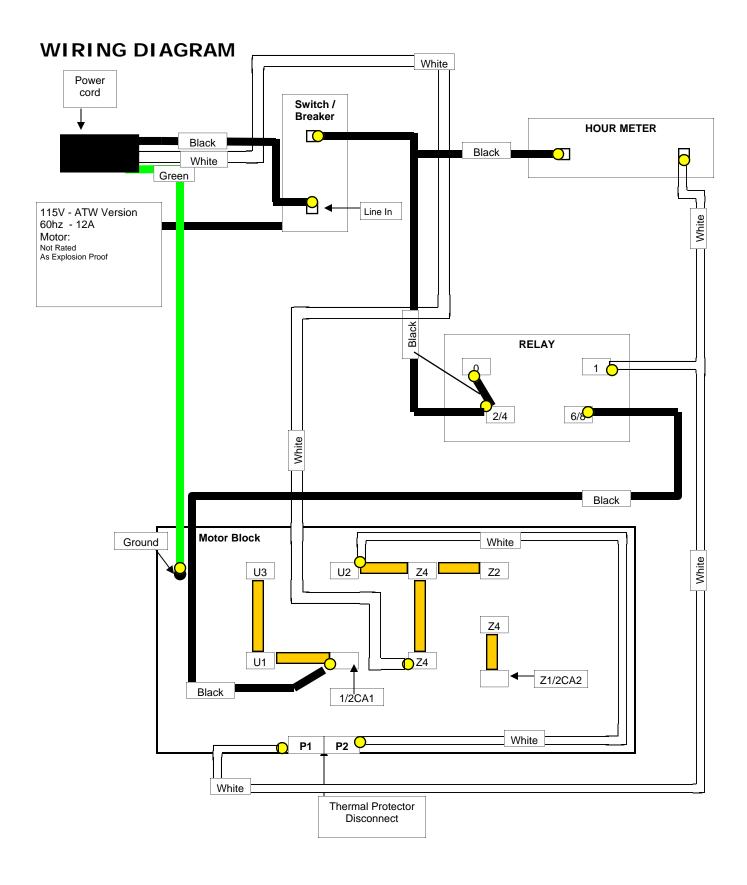
The HP system will require very little maintenance. The AIR IN hose has an Inline Filter which should be inspected before each job, and cleaned if needed. **Wear ANSI rated eye protection when cleaning.** 



Do not operate the unit if the screen is not clear or without the screen.

# TROUBLE SHOOTING GUIDE

PROBLEM	POSSIBLE REASON	POSSIBLE SOLUTION	
System will not power on	No power to the circuit	Try another piece of equipment on the circuit or use another circuit or use a circuit tester.	
	System could have ingested foreign material and/or water	<b>STOP USE</b> - Call the Injectidry Service Dept at 800.257.0797.	
	Loose wire		
System makes "humming" sound like it is running, then pops circuit breaker and / or does not produce air movement out of the AIR OUT pipes.	Impeller maybe stuck due to ingested foreign material & or water	STOP USE - Call the Injectidry Service Dept at 800.257.0797.	
System runs but cycles off then turns back on (repeats the cycle)	If drying hardwood floors: depending on the gap between floor boards, there could be too much back-pressure	Add more openings and monitor equipment. If there is no pressure relief valve, call Injectidry to order one at 800.257.0797 or your local distributor.	
	In either positive or negative operation, dirty or clogged Inline Filter	Clean Inline Filter on AIR IN Main Hose (clear top) and the screen located on the AIR IN Pipe (mounted on the HP60 itself).	
	The temperature where the HP60 is located is above 100 degrees F	Move the system out of the high temperature area and run supply hoses to the area to be dried.	
* Note: If the unit continues to cycle off and on	Thermal protector has faulted enough times that it needs to be replaced	STOP USE - Call the Injectidry Service Dept at 800.257.0797.	
System running at "half" the normal speed	Bad capacitor	STOP USE - Call the Injectidry Service Dept at 800.257.0797.	
The brass or copper colored device on the AIR IN and/or AIR OUT Main Hose is making a loud "hissing" noise and re- leasing air	You do not have enough openings (not enough wall injectors or not enough gaps between boards on a floor dry out)	Add more openings until the hissing stops. It isn't necessarily an operational problem but it will add decibels to the environment. Typically openings should be around 40 - 50 openings before it will sense back pressure.	



#### WARRANTY

#### **HP60 Roto-Molded Housing Warranty - 7 Years**

Injectidry Systems guarantees the HP60 housing to be free from defects in materials and workmanship for a period of seven (7) years from the original purchase date. This warranty is subject to the conditions listed below.

#### **Blower Warranty - 3 Years**

Injectidry Systems guarantees the blower to be free from defects in materials and workmanship for a period of three (3) years from the original purchase date. This warranty is subject to the conditions listed below.

#### Active Hoseline - 1 Year

**Roto-Molded Housing Warranty:** Injectidry Systems will repair or replace for the original purchaser (at Injectidry's option), the parts necessary to correct any defects in materials and workmanship for a period of seven (7) years. During the first year, Injectidry Systems will cover all material, labor, and shipping costs to and from the service center. The customer is responsible for all labor and shipping costs after one (1) year from the original date of purchase.

**Blower Warranty:** Injectidry Systems promises to the original purchaser to repair or replace (at Injectidry's option), the parts necessary to correct any blower unit found to be defective in materials or workmanship for a period of three (3) years from the date of purchase. During the first year, Injectidry Systems will cover all material, labor, and shipping costs to and from the service center. The customer is responsible for all labor and shipping charges after one (1) year. Take precautions to keep <u>bulk water\*</u> from being sucked into blower. The unit is not warranted against damage caused by <u>bulk water\*</u> passing through the blower. Also take precautions to install the Main Hoses correctly, as stated in this manual. The unit is not warranted against damage caused by ingested materials passing through the blower.

Active Hoseline: Warranted for one (1) year.

**Limitations & Exclusions:** This warranty will not extend to Injectidry products showing any accidental damage, alteration, normal wear, disassembly, lack of proper maintenance, damage from fire or flood, damage from corrosive or other chemicals, improper voltage use, unauthorized repairs, use of non-genuine parts and materials, misuse, or any other causes beyond the control of Injectidry. The warranty obligation extends only to the repairs or replacement of parts found to be defective upon the examination and the decision of Injectidry Systems.

The preceding limitations constitute the entire warranty. No other warranty or responsibility is expressed or implied. The warranty includes legal rights to the original purchaser, and additional rights may be available, varying state to state. In addition, Injectidry Systems Repair Department must authorize all incoming products and/or repair work to be completed by an authorized repair center. Injectidry Systems is not responsible for any repairs or modifications to any of its products, unless completed by Injectidry Systems or an authorized service center. We are not responsible for subsequent damage caused by the user and or its agents.

<u>Bulk Water\*:</u> It is particularly important for the user not to allow bulk water to pass through the unit. This can happen on negative suction if water is present in the area of the injectors. Mist is not considered Bulk Water.

#### **CUSTOMER SERVICE**

#### **Return for Repair Request**

You can obtain a Request for Repair Form by calling 800.257.0797 or by going to our website for a form on the "Contact Us" page. **Return Request** 

You can obtain a Request for Return Form by calling 800.257.0797 or by going to our website for a form on the "Contact Us" page.

#### **Incomplete Shipments**

All shortages must be reported within five business days.

Be sure to check the number of cartons or packages. You can compare this count with the total listed on Bill of Lading. Confirm that you have received all cartons or packages pertaining to this shipment.

If quantities do not match, have the delivery driver note shortage. If the missing cartons or packages do not show up in the next few days, contact the Shipping Department and we will reship on a new order.

You must file a Freight Claim for shorted packages if the count differs from the Bill of Lading. For your protection, the carrier who delivers merchandise to your door is responsible for any loss or damages. Acceptance of the shipment by the carrier company is acknowledgement that the articles were delivered to them were in good condition and properly packaged.

#### Freight Damage

Orders are shipped Freight on Board (F.O.B.) from our warehouse in Lynnwood, WA. If the customer has chosen to ship the order with their own account and or carrier, the customer will be responsible for the filing of the freight damage claim. If the customer chose to use Injectidry's account/carrier, Injectidry will file the freight damage claim. All freight damage should be reported to the Injectidry Shipping Department immediately upon discovery.

Inspect your shipment upon delivery. Have the driver note all visible damage on the waybill before you sign. If the discovery of damage is found after the driver has left immediately call the carrier.

Injectidry chooses our carriers carefully and strives for your equipment to be delivered in a timely and undamaged condition. If a mistake happens we do all we can to communicate the problem with the carrier so that it is not repeated. Please let us know immediately if you have any problems.