Owner's Manual

C100-B001 Manual
Squeeze Off Tool



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DO NOT OPERATE THESE TOOLS UNLESS THESE INSTRUCTIONS HAVE BEEN CAREFULLY READ AND UNDERSTOOD

SAFETY WARNING:

DO NOT OPERATE THESE TOOLS UNLESS THESE INSTRUCTIONS HAVE BEEN CAREFULLY READ AND UNDERSTOOD. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN DAMAGES, INCLUDING WITHOUT LIMITATION DEFECTS, DETERIORATION, WEAR, ERROR, FAILURE OF THE SQUEEZE OFF TOOL, OR INJURY, INCLUDING WITHOUT LIMITATION DEATH AND INCAPACITATION. FOOTAGE TOOLS INC. EXPRESSLY DISCLAIMS ANY AND ALL LIABILITY FOR DIRECT, INDIRECT, INCIDENTAL, SPECIAL, BODILY, EXEMPLARY OR DAMAGES OF ANY KIND, WHETHER FORESEEABLE OR UNFORESEEABLE, ARISING OUT OR IN CONNECTION WITH THE FAILURE TO COMPLY WITH THIS OWNER'S MANUAL.

WARNING:

- DO NOT EXCEED THE RECOMMENDED SQUEEZE AND RELEASE RATES. TEMPERATURES BELOW 32°F (0°C). REQUIRE SLOWER SQUEEZES AND RELEASES. RELEASES ARE MORE CRITICAL THAN SQUEEZES; THUS, SLOWER RATES ARE REQUIRED. CONSULT YOUR LOCAL UTILITY REGARDING THEIR SPECIFIC RECOMMENDATIONS FOR THIS PROCEDURE.
- WHEN PERFORMING A SQUEEZE, STAY A MINIMUM OF 3 TIMES THE PIPE DIAMETER FROM FITTINGS, FUSIONS, OR PREVIOUSLY SQUEEZED PIPE.
- ENSURE THE GROUNDING SYSTEM IS PROPERLY PLANTED IN THE SOIL TO REDUCE THE CHANCES OF STATIC DISCHARGE.
- DO NOT MODIFY OR ALTER THE TOOL IN ANY WAY. ONLY USE FOOTAGE TOOLS REPLACEMENT PARTS PROVIDED BY THE MANUFACTURER OR AUTHORIZED DISTRIBUTOR.
- USE EXTREME CAUTION WHEN OPERATING THE TOOL NEAR LIVE ELECTRICAL WIRES, BURIED UTILITIES, OR OTHER HAZARDS.
- IN CASE OF MALFUNCTION, IMMEDIATELY STOP USING THE TOOL AND CONTACT A QUALIFIED TECHNICIAN FOR INSPECTION AND REPAIR.
- WHEN OPERATING THIS TOOL, SAFETY EQUIPMENT, INCLUDING SAFETY GLASSES ARE REQUIRED.
- BEFORE PERFORMING A SQUEEZE, CLEAN THE POCKETS ON THE UNDERSIDE OF THE LOWER BAR AND WHERE THE SIDE SHAFTS/CYLINDER RODS WILL CONTACT THE LOWER BAR. REINSPECT AFTER TOOL IS LOWERED INTO POSITION ON PIPE JUST PRIOR TO SQUEEZE.

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SAFETY WARNING:

WARNING:

- FOR HYDRAULIC SQUEEZE TOOLS: INSPECT HYDRAULIC HOSES FOR SIGNS OF DAMAGE OR CUTS AND REPLACE IF NECESSARY. ENSURE HYDRAULIC FITTINGS ARE FULLY ENGAGED.
- BEFORE PERFORMING A SQUEEZE, ENSURE THE PIPE IS CENTRED BETWEEN SIDE SHAFTS/CYLINDER RODS AND THE TOOL IS IN AN UPRIGHT POSITION.
- FOR HYDRAULIC SQUEEZE TOOLS: BEGIN TO ENGAGE THE SAFETY LOCK DOWN BOLTS WHEN THE UPPER BAR IS APPROXIMATELY ONE INCH FROM TOUCHING THE GAUGE STOP.
- FOR HYDRAULIC SQUEEZE TOOLS: ENSURE YOU READ AND UNDERSTAND HOW TO OPERATE THE NEEDLE VALVE IF INSTALLED ON HYDRAULIC PUMP.
- WHEN SQUEEZING HDPE PIPE, DUE TO THE NATURE OF THE MATERIAL, IT MAY BE NECESSARY TO DOUBLE SQUEEZE AND VENT TO ATMOSPHERE BETWEEN THE SQUEEZED SECTIONS IN ORDER TO ACHIEVE FLOW CONTROL.
- KEEP AWAY FROM ANY HIGH-PRESSURE HYDRAULIC LEAKS. A HIGH-PRESSURE JET OIL CAN CAUSE SERIOUS INJURY. REPAIR IMMEDIATELY.

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PRELIMINARY ASSEMBLY:

To connect the C615-B105 static grounding kit, mount the grounding tool lead to the top bar with the ¼" hardware supplied (see drawing). Clean all connections before assembly. If a rachet is not used to torque the power screw by the top hex, insert the torque bar into the cross hole in the top of the power screw and thread the bolt and washer into the end to secure it. Do not use an extension on the torque bar. The tool as supplied by the manufacturer has sufficient leverage to perform the task it was designed for.



A.1 Location of Ground Spike

OPERATING INSTRUCTIONS:

A. Installation on Pipe

1. Inspect the tool to ensure that the tool is clean and free from any dirt that may hinder proper operation. The power screw must be clean, free of dirt and debris, and lubricated to function properly. Pay particular attention to the stationary bar pockets (A.2) where the end washer and bolts on the side shafts engage. It is critical that these pockets are clean and free of debris. Clean if necessary.

2. Open the tool sufficiently by unscrewing the power screw. Once the sliding bar touches the top bar, stop unscrewing the power screw. Excessive torque on the power screw with the sliding bar touching the top bar may cause damage to the bearing retaining hardware.

3. Lift and swing out the stationary bar and place the squeeze off tool over the pipe. Swing back the stationary bar and lock into position over the end washer and bolts of the side shafts. Full engagement of these washer into the stationary bar pockets is critical or tool damage may result.



A.2 Stationary Bar Pocket



A.3 End washer inside stationary bar pocket

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OPERATING INSTRUCTIONS:

B. Squeezing the Pipe

1. Set the gauge plate stops on both sides of the unit to the proper pipe size and SDR setting. Ensure both sides are identical, or tool damage may result. The required stop should be shown downward, such that they face the stationary bar.
2. Fully install the grounding spike in firm soil near the tool and work area. Moist soil is required to ensure good contact with the ground. Soak the area where the spike will be inserted, if necessary. This step is critical as the grounding system should dissipate any static electric charge generated when the gas flow is cut off during the squeeze operation, thereby reducing the risk of sparks being created.
3. Torque the power screw down until the bars start to touch the pipe. Position the tool centrally on the pipe and perpendicular to the pipe when viewed from the top. There should be an equal space on both sides between the pipe wall and side shafts. Adjust as needed. If the tool is not centered on the pipe, tool and pipe damage may result.
4. The rate of squeeze is very important in preventing pipe damage. A slow squeeze rate minimizes the damage to the pipe walls. Advance the squeeze bars until 50% of the original diameter of the pipe has been squeezed. At this time, it is important to wait a few minutes so that the pipe material has a chance to relax (5 minutes is recommended). Increase this time in colder weather, below 32°F (0°C).



B.1 Gauge Plate





B.2 Place tool centrally on the Pipe & at 90°

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OPERATING INSTRUCTIONS:

B. Squeezing the Pipe

5. Continue squeezing the pipe slowly until a further 25% of the pipe's original diameter has been squeezed. Again, pause and let the pipe have time to relax. (5 minutes).

6. Continue slowly squeezing until the gauge plate stops just come in contact with the stationary bar. The squeeze rate for this last portion should be approximately 1/2 inch per minute, no faster. Slower rates should be used below 32°F (0°C).

DO NOT CONTINUE TO SQUEEZE ONCE THE GAUGE STOPS HAVE BEEN REACHED OR TOOL DAMAGE MAY RESULT.

Keep in mind, it may not be necessary to squeeze the pipe all the way to the gauge stops to obtain satisfactory flow control.

NOTE: TOOL MAY NOT GIVE ADEQUATE FLOW CONTROL ON HIGH DENSITY PIPE.

C. Releasing the Pipe

1. To avoid any damage to the plastic pipe, it is critical that a slow release rate be achieved. A release rate of 1/2 inches per minute is acceptable. This time allows for the plastic to "flow", decreasing the chances of material failure. Below 32°F (0°C), the release rate should be slower.

2. Unscrew the power screw slowly, not exceeding the release rate. Continue to open the tool at this rate until it can be removed from the pipe.

D. Re-rounding the Pipe if Required

Once the tool is fully open, reposition the tool 90° from the original squeeze, on top of the peaks of the squeeze. Squeeze the pipe back to its original shape as outlined in "Installation on Pipe" and "Squeezing the Pipe" detailed above. Consult your local utility for their specific recommendations regarding this procedure. The grounding spike may now be removed, and the tool repacked in it's shipping container.

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MAINTENANCE

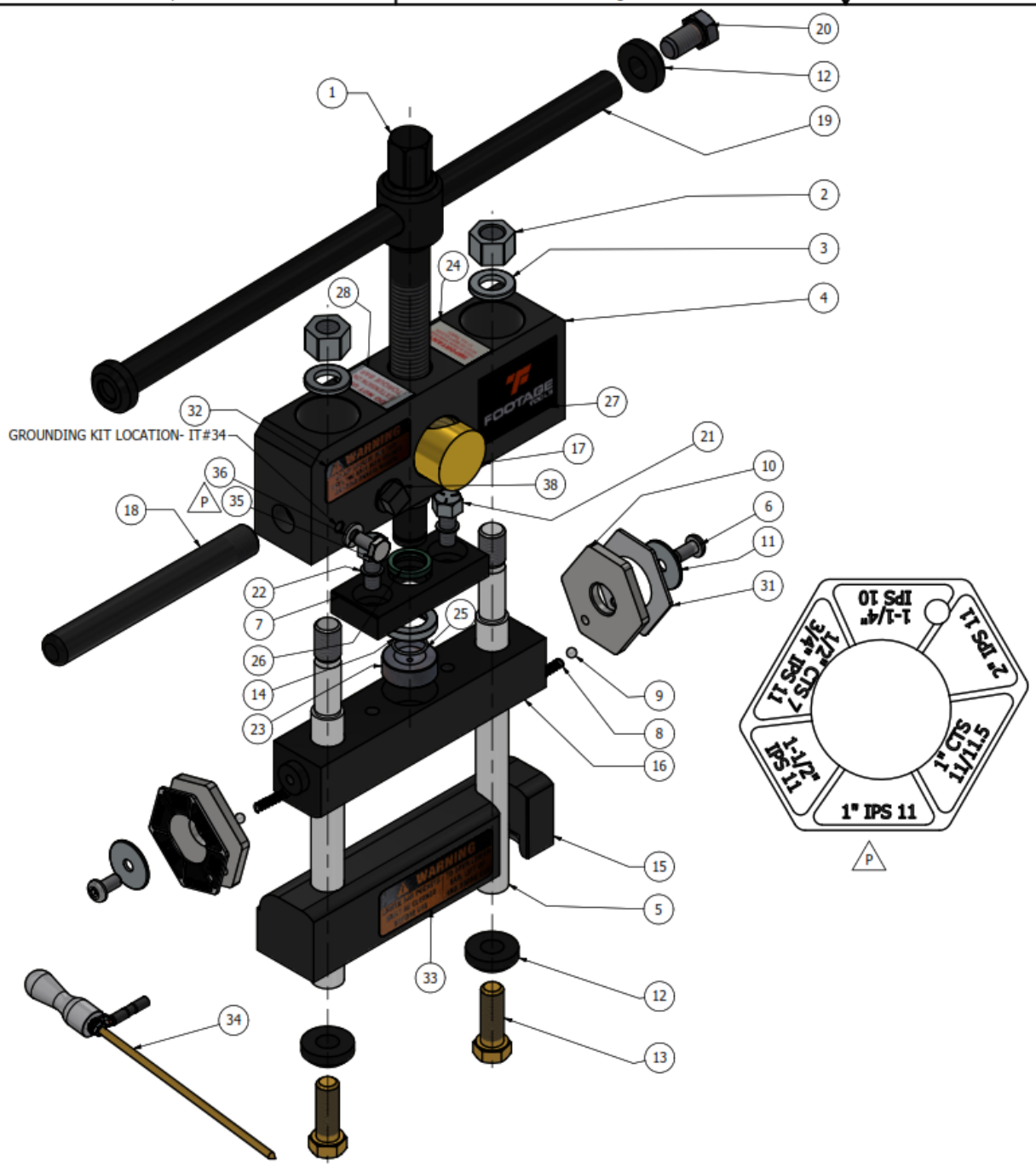
This section contains maintenance instructions for the tool. Do not attempt any maintenance that you do not fully understand, nor that you cannot do accurately and safely with the tools and equipment available to you. If you encounter a problem that you do not understand or cannot solve, contact your Footage Tools dealer.

Ensure the tool is in good operating order by routinely:

Inspect the power screw for dirt.	*Clean and lubricate*
Inspect the power screw thread for damage.	*Repair or replace as needed*
Inspect the end washer and bolts on the side shafts for dirt and/or damage	*Clean, repair or replace as needed*
Inspect the squeeze bars for surface damage	Replace if needed
Inspect the Stationary Squeeze Bar pockets (A.2) for debris	Clean as needed

SPECIFICATIONS

GENERAL	***C100***
Max Pipe Diameter:	*2”*
Weight:	*10.2 lbs.*
OPTIONAL ACCESSORIES	
Grounding Spike Kit (5 or 10 foot)	*C615-A105/C615-A110*



REVISION HISTORY

REV	DESCRIPTION	DATE	ECN / DCR	BY	REVIEWED BY
M	ADDED ITEMS #34-37	22OC14	1916	JLN	
N	ADDED ITEM #38 99-259-P0-0006	30SE22	2068	JLN	
P	TORQUE AND LOCTITE VALUES REMOVED. IT #35, #36, #38 VISUALLY SHOWN, GAUGE PLATE UPDATED, MASS INCLUDED, OM DESC. CORRECTED	17JL25	D2767	TA	

QTY	PART NUMBER	DESCRIPTION	MASS (lb)	ITEM
1	99-259-P0-0006	PLASTIC 3/8 NPT PLUG SQ DRIVE	.004	38
1	-	TIE WRAP		37
1	99-140-00-0004	WASHER HELICAL SPRING LOCK 1/4"	.002	36
1	99-100-00-0404	SCREW, CAP, HEX, 1/4-20 X 0.5 LG	.014	35
1	C615-B105	GROUNDING TOOL KIT ASSEMBLY	.965	34
1	LABEL-007	LABEL - LOWER BAR	.006	33
1	LABEL-009	LABEL -WARNING	.004	32
2	C125-14	GAUGE PLATE LABEL	.010	31
1	-	OWNERS MANUAL		30
1	BOX-C100	SHIPPING / STORAGE CONTAINER		29
1	LABEL-001	LABEL, DO NOT USE EXTENSION	.001	28
1	LABEL-010	FOOTAGE TOOLS INC. DECAL - NEW	.003	27
1	C100-8362	LIP SEAL 5/8"	.001	26
1	C100-9062	5/8 SNAP RING	.001	25
1	LABEL-00	POWER SCREW STICKER	.001	24
1	C100-60	POWER SCREW BUTT	.094	23
2	99-140-00-0005	WASHER, H.S.W LOCK 0.3125	.001	22
2	99-100-00-0506	SCREW, HEX HEAD 5/16-18 X 3/4"LG	.035	21
1	99-100-00-0706	SCREW, HEX HEAD CAP, 7/16-14 X 3/4"LG	.058	20
1	C105-42	TORQUE BAR ASM	1.171	19
1	C109-11	FIXED HANDLE	.156	18
1	C124-11	BARREL NUT	.441	17
1	C103-16	SLIDING BAR	.755	16
1	C104-13	STATIONARY BAR	1.157	15
1	C105-7	5/8" WIRE RETAINING WASHER	.028	14
2	99-101-08-0708	SCREW, HEX HEAD CAP 7/16-20 X 1" LG	.010	13
3	C110-17	END WASHER	.018	12
2	99-145-00-0041	WASHER 1/4 (FASTENAL #33207)	.002	11
2	C125-12	GAUGE PLATE	.157	10
2	99-157-00-0006	CHROME BALL	.001	9
2	C100-21	SPRING	.001	8
1	C102-14	RETAINER PLATE	.368	7
2	99-104-00-0408	SCREW, BTN, HD. CAP, 1/4-20 X 1/2	.011	6
2	C161-11	SIDE SHAFT	.607	5
1	C101-14	TOP BAR	1.873	4
2	99-140-00-0008	WASHER LOCK 1/2"	.014	3
2	99-121-00-0008	NUT, HEX, 1/2-20UNF	.047	2
1	C105-5	POWER SCREW 2"	1.289	1

FOOTAGE PART LIST

DRAWN nguyenj 2009-05-11

MANUFACTURING APPROVAL

TOLERANCES:
TIR 0.004
RMS 63 MAX
.X ± .02
.XX ± .01
.XXX ± 0.005

MASS 10.2 lbmass

SCALE .65
SIZE C

FOOTAGE TOOLS

TITLE
C100-B001 ASSEMBLY DWG 2" SQUEEZE OFF TOOL

DWG NO C100-B001

REV P

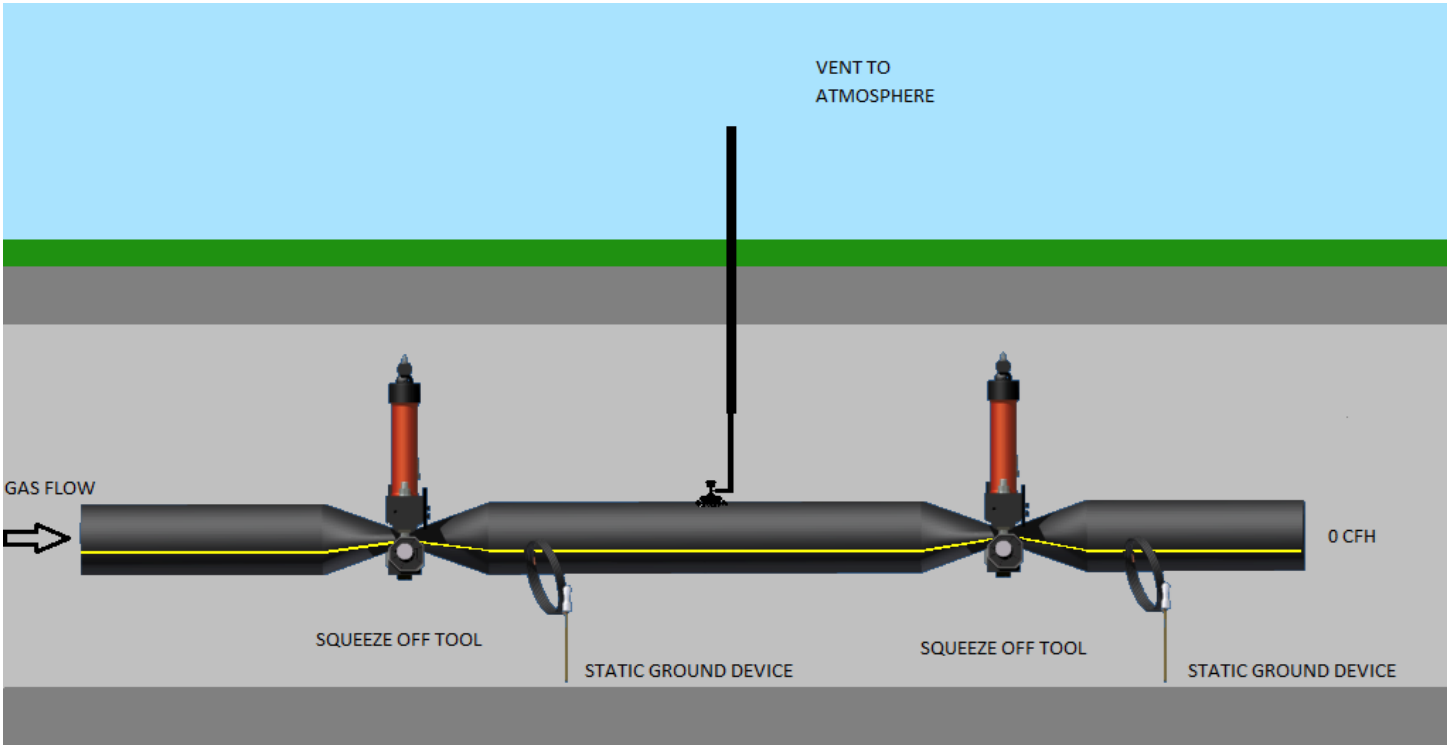
REMOVE ALL SHARP CORNERS UNLESS SPECIFIED OTHERWISE

SHEET 1 OF 1

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IMPORTANT NOTICE

If you experience difficulty obtaining flow control when squeezing HDPE pipe, we recommend you perform a double squeeze and vent to atmosphere.
Please consult your local utility for their specific operating procedure.



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FOOTAGE TOOLS INC. LIMITED LIFETIME WARRANTY

FOOTAGE TOOLS INC, hereinafter sometimes referred to as “Manufacturer” warrants each new industrial product of its own manufacture to be free from defects in material and workmanship, under normal use and service for the life of the tool. **Warranty is void unless warranty registration form is completed either online or manually and returned to FOOTAGE TOOLS INC. within thirty (30) days from the date of purchase.** This warranty and any possible liability of **FOOTAGE TOOLS INC.** hereunder are in lieu of all other warranties, expressed, implied, or statutory, including, but not limited to, any warranties of merchantability or fitness for a particular purpose.

The parties agree that the Buyers **SOLE AND EXCLUSIVE REMEDY** against Manufacturer, whether in contract or arising out of warranties, representations, instructions, or defects shall be for the replacement or repair of defective parts as provided herein. In no event shall Manufacturers liability exceed the purchase price of the product. The Buyer agrees that no other remedy (including, but not limited to, in incidental or consequential loss) shall be available to him. If during the warranty period, any product becomes defective by reason of material or workmanship and Buyer immediately notifies Manufacturer of such defect, Manufacturer shall, at its option, supply a replacement part or request return of the product to its plant in Toronto, Canada. No parts shall be returned without prior written authorization and a return goods authorization number from Manufacturer, and this Warranty does not obligate the Manufacturer to bear any transportation charges in connection with the repair or replacement of defective parts. The Manufacturer will not accept any charges for labor and/or parts incidental to the removal or remounting of parts repaired or replaced under this Warranty.

This Warranty shall not apply to any part or product which shall have been installed or operated in a manner not recommended by **FOOTAGE TOOLS INC**, nor to any part or product which shall have been neglected, or used in any way which, in the manufacturers opinion, adversely affects its performance; nor negligence of proper maintenance or other negligence, fire, or other accident: nor if the unit has been altered or repaired outside of a **FOOTAGE TOOLS INC.** authorized dealership in a manner of which, in the sole judgement of **FOOTAGE TOOLS INC.** affects its performance stability or reliability: nor to any product in which parts not manufactured or approved by **FOOTAGE TOOLS INC.** have been used, nor to normal maintenance services or replacement of normal service items. Equipment and accessories not of our manufacture are warranted only to the extent of the original Manufacturers Warranty and subject to their allowance to us, if found to be defective by them.

The original purchaser, user is responsible for “downtime” expenses and all business costs and losses resulting from a warrantable failure. **FOOTAGE TOOLS INC.** specifically disclaims any responsibility for any damages of any kind or description, whether to property or person, in any way connected with or arising out of the use of **FOOTAGE TOOLS INC.** products. The Buyer expressly acknowledges that this Limited Lifetime Warranty does not apply to any part or product not directly purchased from the Manufacturer.

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No person is authorized to give any other Warranty, or to assume any additional obligation on the Manufacturers behalf unless made in writing, and signed by an officer of the Manufacturer.