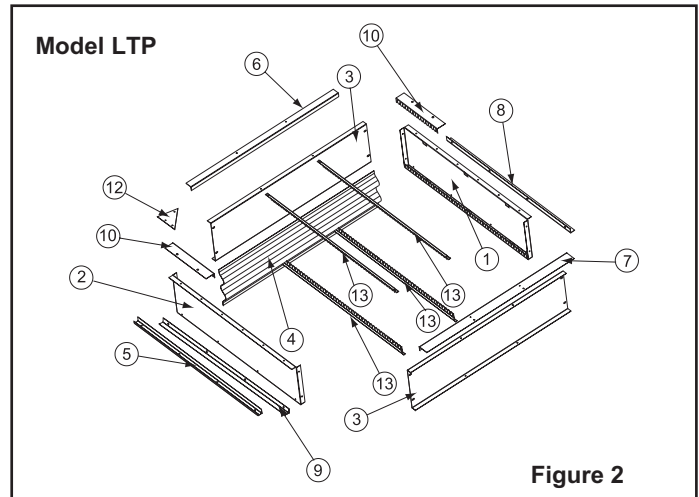
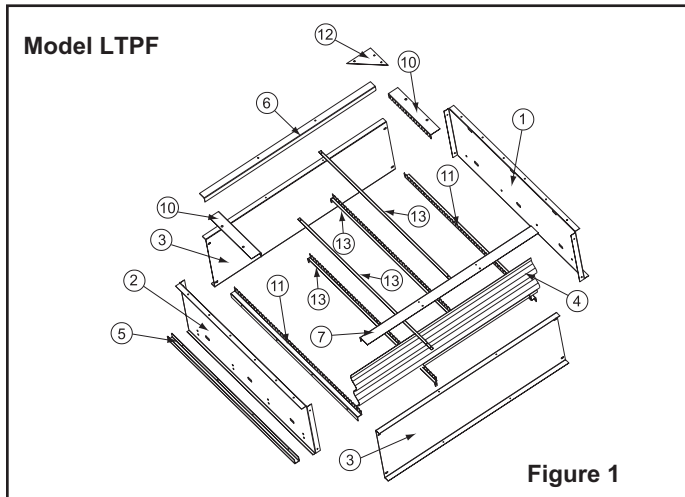




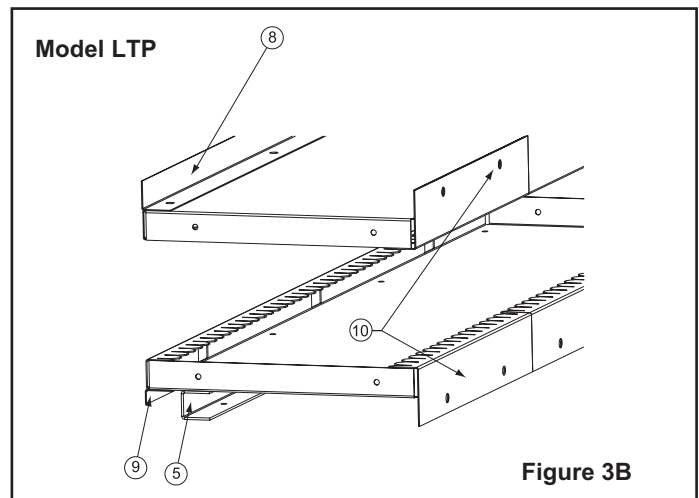
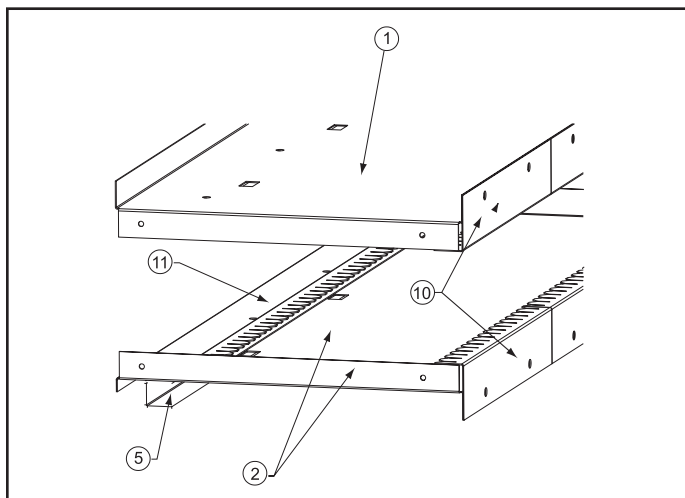
PLASTIC LIGHT TRAP (LTP & LTPF) ASSEMBLY/INSTALLATION INSTRUCTIONS

ITEM	DESCRIPTION	QTY.	ITEM	DESCRIPTION	QTY.
1	Top Panel	1	8	Top Mounting Flange (LTP Only)	1
2	Bottom Panel	1	9	Bottom Mounting Flange (LTP Only)	1
3	Side Panel	1	10	Profile Retainer	As Req'd.
4	Light Trap Profile	As Req'd.	11	Exhaust Light Trap Retainer (LTPF Only)	2
5	Support Channel	1	12	Corner Support	4
6	Filler Left	1	13	Spacer	See Note
7	Filler Right	1	14	$\frac{3}{16}$ " x 1" Gasket Material	2 x Height

Note: There are no spacers used on Light Traps less than 48" in height. There are two spacers on the 48" and 4 spacers on the 60" and taller. The spacer for the inlet side is not the same as the spacer for the outlet side.



Figures 1 and 3A show the model LTPF light trap. Figures 2 and 3B show the model LTP light trap. The LTPF model (mounted to the fan) is deeper than the LTP model (regular inlets). The exhaust light trap retainer shown in Figure 1 and 3A is unique to the LTPF model. The top and bottom mounting flanges shown in Figures 2 and 3B are unique to the LTP.



Framing

The light trap will require an upper and lower stringer for mounting the top and bottom mounting brackets. 2" x 6" lumber or greater is preferred. A 2" x 4" filler is required on the sides to provide a flush surface for light reduction. Place the $\frac{1}{16}$ " x 1" gasket material on the inside edge of the filler as shown in Figure 4.

1. Use a flat horizontal surface to assemble the light trap housing. Keep the unit square during assembly.
2. Using the $\frac{1}{4}$ " x $\frac{5}{8}$ " screws provided, loosely assemble the sides to the top and bottom to allow ease of profile installation. If assembling the LTPF, attach the exhaust light trap retainer to the top and bottom panels and support channel to the bottom panel. If assembling the LTP, attach the top and bottom mounting flanges to the top and bottom panels and the support channel to the bottom panel.

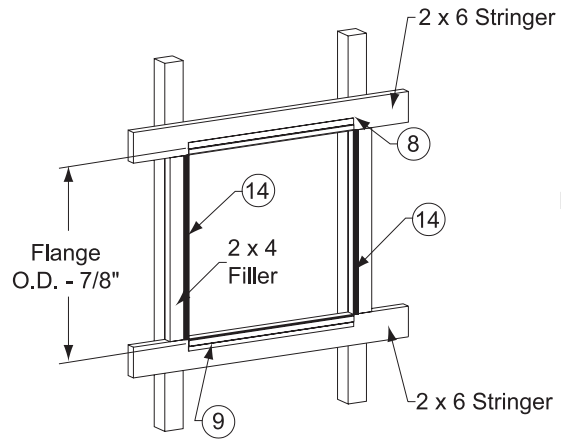


Figure 4

3. With the assembled frame placed on a flat, horizontal surface and the mounting flanges contacting the flat surface, the profiles are now ready to be inserted. Place the first profile in the second retainer slot with the body of the profile against the bottom right side panel as shown in Figure 5. Continue installing all other profiles.

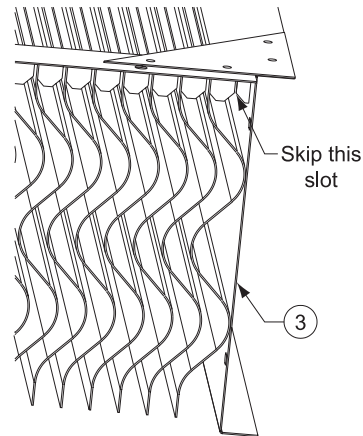


Figure 5

4. Using the $\frac{1}{4}$ " x $\frac{5}{8}$ " screws provided, mount the profile retainers to the assembly. Start at either end and capture one profile in each slot with the exception of the right side where you started. You will skip one slot at the end as shown in Figure 5.

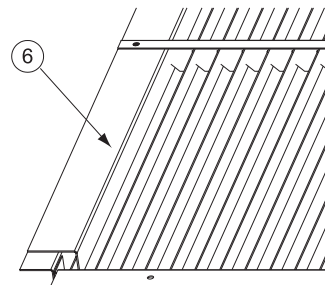
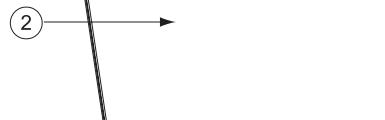


Figure 6

5. Once all profile retainers are in place, pull the top and bottom toward the profiles and tighten the side panel screws.

6. Install the right and left fillers as shown in Figure 6 and Figure 7 using #10 Tek screws. The fillers will overlap the edge of the first profile on each and attach to the side panel flange. Make sure the assembly is square and install the corner supports using the #10 Tek screws provided. Mount as shown in Figure 9.



7. Mount and fasten the middle retainers insuring all slots are occupied by a profile except the slot skipped in Steps 3 and 4. To prevent collection of debris, the angle of the middle retainers should face the bottom of the light trap as shown in Figure 2. Turn the light trap over and install the middle retainers on the inlet side of the light trap.

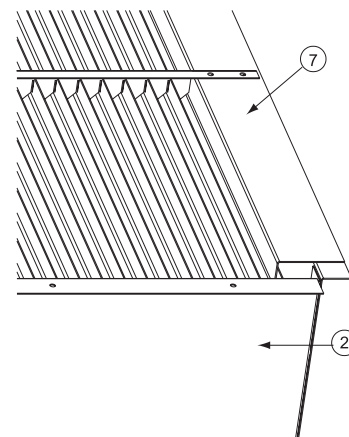


Figure 7

Note: Acme Engineering & Manufacturing Corp. has made every effort to produce a product that will eliminate light. The customer should insure that the mounting surface is good enough to eliminate light or use a filler, caulking, etc. to resolve the problem.

Mounting

1. Attach the top and bottom mounting brackets to the wall opening with the top of the lower bracket even with the framed opening. The distance from the lower mounting bracket to the bottom of the top bracket should be $7/8$ " less than the outside dimension of the light trap flanges as shown in Figure 4.
2. More than one person will be needed when mounting the larger light traps in the opening of the wall. Slide the light trap top mounting flange (wide flange) into the top mounting bracket until contact is made with the bracket and the housing. The bottom flange will now clear the bottom bracket and can be pushed in toward the building. The bottom flange will slide in behind the bottom bracket (see Figure 8).
3. Once the unit is installed, insure enough of the top mounting flange is supported by the top mounting bracket to hold the light trap against the wall securely.

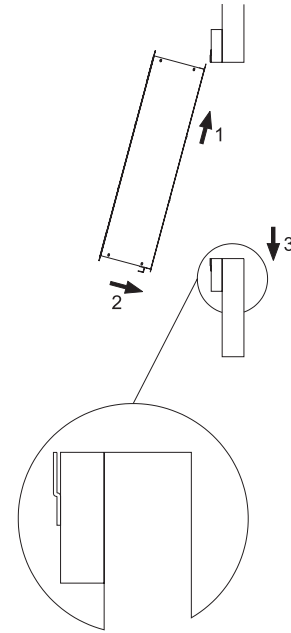


Figure 8

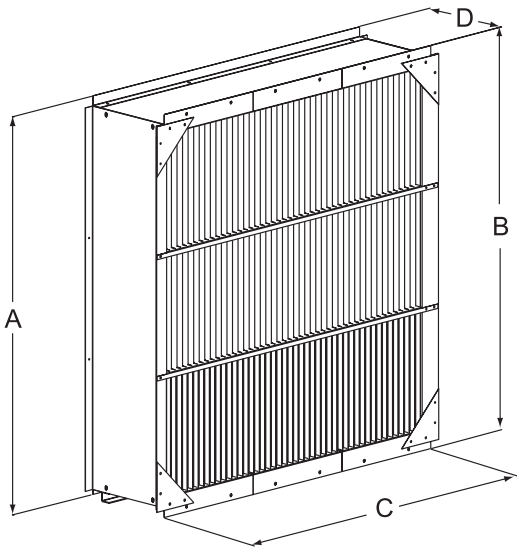


Figure 9

Dimensions For Blackout Fan Light Traps				
Model Number	A	B	C	D
Opening Height & Width	Opening Height Plus 3.42"	Opening Height Plus 3.84"	Opening Width Plus 2.04"	Fan Light Trap
LTPF2424*	27.42	27.84	26.04	12.69
LTPF3636	39.42	39.84	38.04	12.69
LTPF4242	45.42	45.48	44.04	12.69
LTPF4848	51.42	51.84	50.04	12.69
LTPF6056*	63.42	63.84	58.44	12.69
LTPF6060	63.42	63.84	62.04	12.69
LTPF6358*	66.42	66.84	60.04	12.69
LTPF7260*	75.42	75.84	62.04	12.69

* Not available in brownout light traps.

Note: Brownout light traps have same dimensions as above blackout light traps.

Dimensions For Tunnel Inlet Blackout Light Traps				
Model Number	A	B	C	D
Opening Height & Width	Opening Height Plus 3.42"	Opening Height Plus 3.84"	Opening Width Plus 2.04"	Inlet Light Traps
LTP2424*	27.42	27.84	26.04	9.7
LTP2436	27.42	27.84	38.04	9.7
LTP2424	27.42	27.84	50.04	9.7
LTP2460	27.42	27.84	62.04	9.7
LTP3624	39.42	39.84	26.04	9.7
LTP3636	39.42	39.84	38.04	9.7
LTP3648	39.42	39.84	50.04	9.7
LTP3660	39.42	39.84	62.04	9.7
LTP4824	51.42	51.84	26.04	9.7
LTP4836	51.42	51.84	38.04	9.7
LTP4848	51.42	51.84	50.04	9.7
LTP4848	51.42	51.84	50.04	9.7
LTP4860	51.42	51.84	62.04	9.7
LTP6024	63.42	63.84	26.04	9.7
LTP6036	63.42	63.84	38.04	9.7
LTP6048	63.42	63.84	50.04	9.7
LTP6056*	63.42	63.84	58.04	9.7
LTP6060	63.42	63.84	62.04	9.7
LTP0945*	12.42	12.84	47.04	9.7

* Not available in brownout light trap

Note: LTPi inlet light traps are to be mounted on the outside of the building and are sized to fit over shutter. Rough opening should be cut to accommodate shutter.

TERMS AND CONDITIONS OF SALE

ACCEPTANCE All orders and sales are subject to written approval and acceptance by an executive officer of Acme Engineering & Manufacturing Corporation at Muskogee, Oklahoma, (the "Company") and are not binding on the Company until so approved.

DELIVERY All shipping and delivery dates are estimated only. No delays in delivery will subject the Company to any costs, damages or fees for late delivery. Delivery of the products herein specified shall be made F.O.B. point of shipment, unless otherwise stated. The Company shall not be liable for delay due to causes beyond its reasonable control, such as Acts of God, acts of the purchaser, acts of civil or military authorities, priorities, fires, strikes, floods, epidemics, war, riots, delays in transportation, car shortages, and inability, due to reasons beyond its reasonable control, to obtain necessary labor, material, or manufacturing facilities. In the event of such a delay, the date of delivery shall be extended for a period equal to the time lost by reason of the delay.

TERMS OF PAYMENT If, in the judgment of the Company, the financial condition of the purchaser at any time does not justify continuation of manufacture or shipment on the terms of payment specified, the Company may require full or partial payment in advance.

Pro rata payments shall become due as shipments are made. Each shipment or delivery shall constitute a separate sale, and the default of any shipment or delivery shall constitute a separate sale, and the default of any shipment or delivery shall not vitiate the contract as to other shipments or deliveries.

PRICE ADJUSTMENT Prices are subject to change until the Purchaser's order has been accepted by the Company.

SALES AND SIMILAR TAXES The Company's prices do not include sales, use, excise, or similar taxes. Consequently, in addition to the price specified herein, the amount of any present or future sales, use, excise,

or other similar tax applicable to the sale of the product herein shall be paid by the Purchaser, or in lieu thereof the Purchaser shall provide the Company with a tax exemption certificate acceptable to the taxing authorities.

CANCELLATION Any contract resulting from the Purchaser's order may be canceled by the Purchaser only by negotiations and upon payments of reasonable cancellation charges which will take into account expenses already incurred and commitments made by the Company.

DESIGN CHANGES The Company reserves the right to make changes in design, improvements and additions in and to its products any time without imposing any liability or obligations to itself to apply or install the same in any product manufactured by it.

TITLE The title and right of possession of the products sold herein shall remain with the Company and such products shall remain personal property until all payments herein (including deferred payments whether evidenced by notes or otherwise) shall have been made in full in cash and the Purchaser agrees to do all acts necessary to perfect and maintain such right and title in the Company.

PRICE ADJUSTMENTS AND PROTECTION Prices on products manufactured by the Company are firm for shipment up to four months from the date of the original order entry. Such prices are subject to adjustment if shipment is made after four months and up to ten months from the date of the original order entry, if products are shipped ten months from the date of the original order entry, prices will be adjusted to the price in effect at the time of shipment automatically. All complete component accessory material manufactured by others and furnished with the Company's products such as motors, drives, vibration equipment, controls or other completely assembled component structures, are subject to adjustment to the price at time of shipment regardless of the date of original order entry.

SAFETY ACCESSORIES The Company manufactures products designed to serve multiple applications and offers a wide range of safety equipment, including guards and other devices, as may be required to meet customer specifications. Without exception, the Company recommends that all orders include applicable safety devices. Products ordered without applicable safety devices is clearly the responsibility of the Purchaser. Further, the Purchaser warrants that it has determined and acquired any and all safety devices required for products sold by the Company. Weather covers and guards for motor and V-belt drives, couplings, shafts and bearings, along with inlet and outlet screens, are optional accessories noted in the price list.

GOVERNING LAW The rights, obligations and remedies of Purchaser and the Company, the interpretation of these terms and conditions and the sale of products by the Company shall be governed by Oklahoma law, without regard to any principles of conflict of laws.

ARBITRATION Any dispute arising under or in connection with these terms and conditions or the sale of products shall be settled by binding arbitration administered by the American Arbitration Association under its Commercial Arbitration Rules, and judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. The dispute shall be resolved by one neutral arbitrator who shall have no affiliation with either Purchaser or the Company and shall be selected by the American Arbitration Association office in Dallas, Texas. The arbitration proceedings shall be held in Muskogee, Oklahoma.

APPLICABLE DOCUMENTS The agreement between the Company and the Purchaser relating to the products includes these terms and conditions of sale, any applicable installation and maintenance instructions provided by the Company and any terms appearing on the Company's quotation, sales order acknowledgment and invoice.

WARNING Acme products are designed and manufactured to provide reliable performance but they are not guaranteed to be 100% free of defects. Even reliable products will experience occasional failures and this possibility should be recognized by the Purchaser and all End Users. If these products are used in a life support ventilation system where failure could result in loss or injury, the Purchaser and all End Users should provide adequate back-up ventilation, supplementary natural ventilation or failure alarm system, or acknowledge willingness to accept the risk of such loss or injury.

WARNING DO NOT use in HAZARDOUS ENVIRONMENTS where fan's electrical system could provide ignition to combustible or flammable materials unless unit is specifically built for hazardous environments. Comply with all local and national safety codes including the National Electrical Code (NEC) and National Fire Protection Act (NFPA).

CAUTION Guards must be installed when fan is within reach of personnel or within eight (8) feet (2.5 m) of working level or when deemed advisable for safety.

DISCLAIMER The Company has made a diligent effort to illustrate and describe the products accurately in all Company literature; however such illustrations and descriptions are for the sole purpose of identification and do not express or imply any warranty.

LIMITED WARRANTY

WARRANTY AND DISCLAIMER: The Company extends this limited warranty to the original purchaser and warrants that products supplied by the Company, shall be free from original defects in workmanship and materials for two years from date of shipment (except for the warranty periods noted for products listed below), provided same have been properly handled, stored, installed, serviced, maintained and operated. This warranty shall not apply to products which have been altered or repaired without the Company's express authorization, or altered or repaired in any way so as, in the Company's judgment, to affect its performance or reliability, nor which have been improperly installed or subjected to misuse, negligence, or accident, or incorrectly used in combination with other substances. The Purchaser assumes all risks and liability for results of use of all products.

Evaporative cooling pads are warranted to be free of defects in materials and workmanship for a period of two years from date of shipment provided same have been properly handled, stored, installed, serviced, maintained and operated; and further, not subjected to excessive heat, corrosive agents or chemicals, or mechanical abuse that may cause tearing, crushing or undue deterioration, nor used on a system or in a manner other than that for which it was designed as explained in the product literature.

The following products are warranted to be free of defects in materials and workmanship for the periods shown from date of shipment: Acme's exclusive duplex split pillow block bearings and shaft five years, belts one year, Polyethylene tubing 90 days, AIR40 Heater warranty one year, AIR40 Emitter warranty three years and DDP fan lifetime warranty on its propeller, cone, and housing.

LIMITATION OF REMEDY AND DAMAGES: All claims under this warranty must be made in writing and delivered to P. O. Box 978, Muskogee, Oklahoma, 74402, within 15 days after discovery of the defect and prior to the expiration of two years from the date of shipment by the Company of the product claimed defective, and Purchaser shall be barred from any

remedy if Purchaser fails to make such claim within such period.

Within 30 days after receipt of a timely claim, the Company shall have the option either to inspect the product while in Purchaser's possession or to request Purchaser to return the product to the Company at Purchaser's expense for inspection by the Company. The Company shall replace, or at its option repair, free of charge, any product it determines to be defective, and it shall ship the repaired or replacement product to Purchaser F.O.B. point of shipment; provided, however, if circumstances are such as in the Company's judgment to prohibit repair or replacement to remedy the warranted defects, the Purchaser's sole and exclusive remedy shall be a refund to the Purchaser of any part of the invoice price, paid to the Company, for the defective product or part.

The Company is not responsible for the cost of removal of the defective product or part, damages due to removal, or any expenses incurred in shipping the product or part to or from the Company's plant, or the installation of the repaired or replaced product or part.

The warranties set forth above do not apply to any components, accessories, parts or attachments manufactured by other manufacturers; such being subject to the manufacturer's warranty, if any. To the extent not prohibited by the manufacturer's warranty, the Company shall pass through to Purchaser such manufacturer's warranty.

THE COMPANY'S WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY EXPRESSLY DISCLAIMED AND WAIVED. THIS WARRANTY CONSTITUTES THE COMPANY'S SOLE AND EXCLUSIVE WARRANTY FOR DEFECTIVE GOODS AND PURCHASER'S SOLE AND EXCLUSIVE REMEDY FOR DEFECTIVE PRODUCTS.

No employee, agent, dealer, or other person is authorized to give any warranties on behalf of the Company or to assume for the Company any other liability in connection with any of its products except in writing and signed by an officer of the Company.

REPLACEMENT PARTS If replacement parts are ordered, purchaser warrants that the original components in which these replacement parts will be placed are in satisfactory working condition, and

when said replacement parts are installed, the resultant installation will operate in a safe manner, at speeds and temperatures for which the original product was purchased.

TECHNICAL ADVICE AND RECOMMENDATIONS, DISCLAIMER: Notwithstanding any past practice or dealings or any custom of the trade, sales shall not include the furnishing of technical advice or assistance or system design. Any such assistance shall be at the Company's sole option and may be subject to additional charge.

The Company assumes no obligation or liability on account of any recommendations, opinions or advice as to the choice, installation or use of products. Any such recommendations, opinions or advice are given and shall be accepted at Purchaser's and End User's risk and shall not constitute any warranty or guarantee of such products or their performance.

LIMITATION OF LIABILITY The cumulative liability of the Company to the Purchaser and any other persons for all claims in any way relating to or arising out of the products, including, but not limited to, any cause of action sounding in contract, tort, or strict liability, shall not exceed the total amount of the purchase price paid for those products which are the subject of any such claim. This limitation of liability is intended to apply without regard to whether other provisions of this agreement have been breached or have proven ineffective even if the Company has been advised of the possibility of such claims or demands. In no event shall the Company be liable to the Purchaser or any other person for any loss of profits or any incidental, special, exemplary, or consequential damages for any claims or demands brought by the Purchaser or such other persons.

INDEMNITY The Company's maximum liability to Purchaser and to any end user is as set forth above. The Company makes no warranty to anyone for any products not manufactured by the Company and shall have no liability for any use or installation of any products (whether manufactured by the Company or other manufacturers) not specifically authorized by this sale. Purchaser acknowledges various warnings by the Company regarding the products and its installation and use. If the Company incurs any claims, lawsuits, settlements, or expenses (including attorney fees) for any loss, injury, death or property damage including, but not limited to, claims arising out of the Purchaser's or any end user's installation or use of the products, the Purchaser shall indemnify and hold the Company harmless.



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