

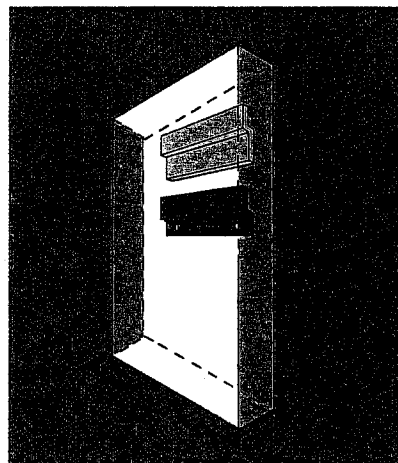
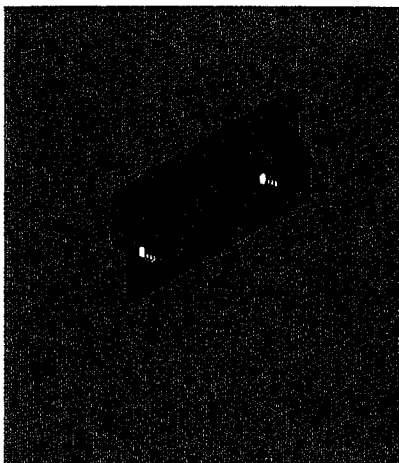
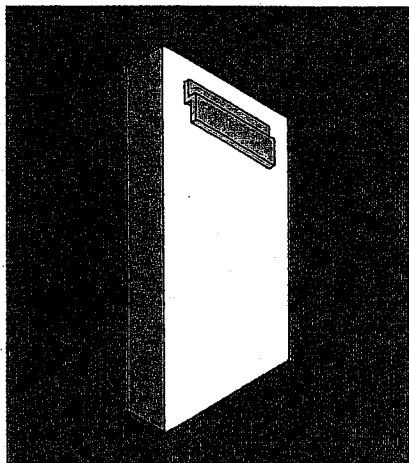
## A Note Regarding Wolf's E-"Z" Bar™ Mounting System

The illuminators described in the previous pages come equipped with Wolf's E-"Z" bar, a fast easy and accurate surface wall mounting system unique to Wolf illuminators. Simply follow the two steps below to hang any size illuminator. If you are ordering a recessed model, see the recessed mounting instructions below, and the drawings on the back page of this brochure.

Note that the back of your illuminator already has an E-"Z" Bar welded on it

Take the wall E-"Z" Bar out of the box and using a level, mount it on the wall.

Place the illuminator E-"Z" Bar over the wall mounted bar, and you're done.



Summary Table

	Bulbs per 14 x 17" Viewing Area			Switches			Hosp Grade Plug	Roller Grip Film Retainer	"Z" Bar	Recessed Mounting	Options	
	4	3	2	Cluster Switches	Auto Switch	Ind. Switches					Additional Cluster Switches	Mobile Stand
TrimlinePlus HiLo	■	Dims to 2 Bulbs		■	■	■	■	■	■	■	■	■
TrimlinePlus	■			■	■	■	■	■	■	■	■	■
Trimline III		■		■	■	■	■	■	■	■	■	■
Trimline			■	■	■	■	■	■	■	■	■	■
Trimline Basic			■			■	■	■	■	■		

\*An Auto Switch turns the illuminator on automatically when an x-ray is inserted into the gripper.

## Technical Information

### Construction

18 gauge C.R.S. body welded construction. Multi Panel Units are spot and heliarc welded assemblies from two panel to six panel units and can be tiered from a one over one to six over six units. Recessed models have a 16 gauge C.R.S. frame integrally welded to the assembly. Roller gravity film holder extends full length of unit. **Finish** Baked on white urethane-polyester powder coating.

### Electric

Electrical supply: 120 volts, 60 Hz, 0.55 AMP for each 14 x 17" viewing area. Specify if direct wiring (recessed units) is required. Ballast: for two lamp Class P thermally protected .55 AMP 120V. 60Hz. UL & CSA Listed. Switches: All models, rocker style 3 position, on/off/automatic film activated for each viewing area. A master control switch is included on multiple models having a switch cluster (excl. the 2 over 2 model). Location of switches: top right for singles and bank units. Lower right for tiered units. Cord sets, 3 wire grounded are installed on lower right side of surface mounted unit. Recessed units have a 3 wire pigtail (12" long) on the lower right side of illuminator with 1/2" BX connector. NOTE: 6 bank and up must be on a dedicated line with a 25 AMP breaker.

### Viewing Panel

Continuous length 1/8" thick translucent white shatterproof plexiglas. - Push up & pull out from bottom channel to remove.

### Installation

**A. For surface mount** on stud walls, see the E-"Z" bar above. An electric receptacle 110V should be located near the area so line cord can be plugged in for power. **B. For recessed installation**, cut an opening in wall 1/2" larger than the overall size of illuminator bodies in length and height. Frame opening with 2x4s. Remove the left and right side reflectors from the illuminator assembly and drill two 3/16" dia. holes in the side of the body approx. 3" from top & bottom on both ends. Connect power line to the illuminator. Install assembly into the wall opening and fasten with #10 screws using the drilled holes, replace reflectors and glass. For walls other than stud construction, a wood frame should be inserted into wall to secure the illuminator assembly. Detailed recessing dimensions and drawing are on the back page of this brochure.

### Lamps

15 watt fluorescent lamps...4 for Trimline Plus, Hi Lo and Trimline Plus, 3 for Trimline III, and 2 for Trimline and Trimline Basic per each 14 x 17 panel. **Lamps are included with each illuminator.**

**Labels** UL & CSA listed.



## ILLUMINATOR MANUAL

### Contents

Receiving Instructions .....	1
Wall Mounting .....	2
Recess Mounting .....	2, 3
Plexiglass Removal .....	3
Bulb Replacement .....	3
Troubleshooting Guide .....	4
Replacement Parts .....	4

### Your Responsibility When Receiving Freight

#### 1) STEPS TO TAKE AT TIME OF DELIVERY TO PROTECT AGAINST LOSS OR DAMAGE

- A. Verify Count** - Make sure you receive as many cartons as are listed. If shortage is discovered, note how many cartons are short on carrier's receipt and have driver note the shortage on your copy.
- B. Carefully Examine Each Carton for Damage** - If damage is visible, note this on the receipt and have the driver note on your copy. If carton appears contents may be damaged, insist it be opened and you and the driver make joint inspection of the contents. Any concealed damage discovered should be noted on the delivery receipt and on your copy, retain your copy.
- C. Immediately After Delivery, Open All Cartons and Inspect For Concealed Damage** - Even though driver has left, all cartons should immediately be opened and the contents inspected for possible concealed damage.

#### 2) STEPS TO TAKE WHEN CONCEALED DAMAGE IS DISCOVERED

- A. Retain Damaged Items** - Damaged items must be held at the point where received. Containers and all inner packing materials must be held until an inspection is made by a carrier inspector.
- B. Call Carrier or Wolf X-ray To Report Damage and Request Inspection** - Call should be placed immediately upon discovery of the damage. Put off no longer than 15 days after delivery. Failure to report concealed damage within 15 days will result in the carrier denying your claim.
- C. Confirm Call In Writing** - For your protection we recommend that calls to the carrier be confirmed by writing.

#### 3) STEPS TO TAKE WHEN CARRIER MAKES INSPECTION OF DAMAGED ITEMS

- A. Have Damaged Items In Receiving Area** - Do not move damaged items from the receiving area prior to discovery of the damage. Allow inspector to inspect items, cartons, inner packing materials and freight bill. Be sure to retain your delivery receipt.
- B. After Inspector Fills Out Inspection Report, Read It Before Signing** - If you do not agree with any facts or conclusions made on the inspector's report, do not sign. Unless repairs will be satisfactory, be sure the inspector requests replacement on the inspection report. A new item can be ordered only if the inspection report specifies "REPLACE".

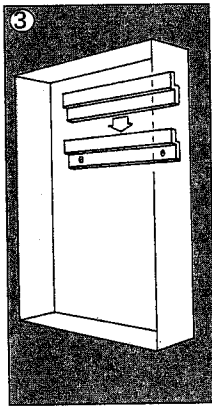
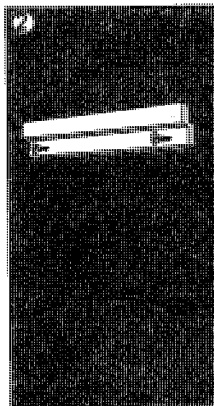
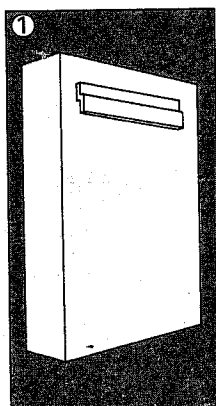
#### 4) STEPS TO TAKE AFTER INSPECTION HAS BEEN MADE

- A. Continue To Retain Damaged Merchandise** - Even though inspection has been completed, damaged items cannot be used or disposed of without written permission from the carrier.
- B. Do Not Return Damaged Items To Shipper** - Unless requested to do so.
- C. Secure Receipt From Carrier If Damaged Items Are Picked Up For Salvage** - If you surrender damaged merchandise to a carrier for salvage, secure a receipt from the driver when it is picked up and retain that receipt.

# INSTALLING YOUR ILLUMINATOR

## Wall Surface Mounting Instructions For: All Trimlines, OR Plus And Mammoline

Following the three simple steps below, you can quickly and accurately mount your illuminator on any wall surface. Make sure your illuminator is near a 110/120 volt AC receptacle.



- ① Note that the back of your illuminator has one E-"Z"-Bar welded to it, and one E-"Z"-Bar taped on. The taped on bar gets mounted to the wall in the same position as it's taped to the illuminator. Remove the taped on E-"Z"-Bar and go to the next step.
- ② Using a spirit level to ensure the bar is straight, attach the "wall" E-"Z"-Bar to the wall with screws with the flange up as shown in the drawing. The height of the illuminator from the floor should ensure that the center of the box is eye level.
- ③ Slide the illuminator E-"Z"-Bar over and down onto the wall mounted E-"Z"-Bar and you're done.

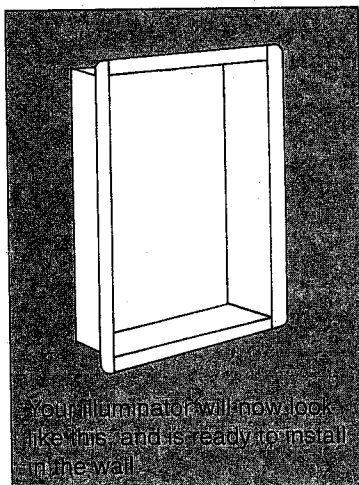
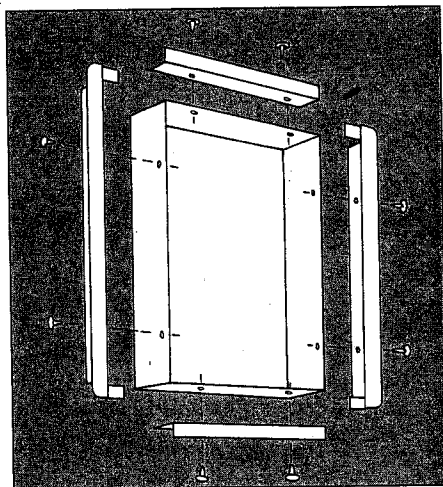
Note: Single units will have 1 bar. Doubles, triples and fours will have 2 bars. Five or six units across will have 3 bars. The same installation instructions as above applies to these also. The line cord on your illuminator is 8' long. Be sure your illuminator is close to a 110/120 volt AC power source.

## Wall Surface Mounting Instructions For: Econoline And MG7

Remove the Plexiglass (see "Plexiglass removal section" on the next page). Using the keyholes provided, screw the illuminator into the wall studs. Remember your line cord is 6' long so be sure to locate your illuminator near a 110V receptacle so you can plug it in easily.

## Recessed (Flush In The Wall) Mounting Instructions:

A simple 2 step process. First attaching the recessing frame, second putting the unit in the wall.



### How to Install Your Illuminator Recessing Frame

As shown in the drawing to the left, the frame consists of four sections that screw onto the body of your illuminator via screws and pre-drilled holes.

Using the screws and holes provided, screw in the 2 vertical frame sections first. Then, using the screws and holes provided, screw in the 2 horizontal frame sections (the flange on the vertical sections will overlap behind the horizontal sections).

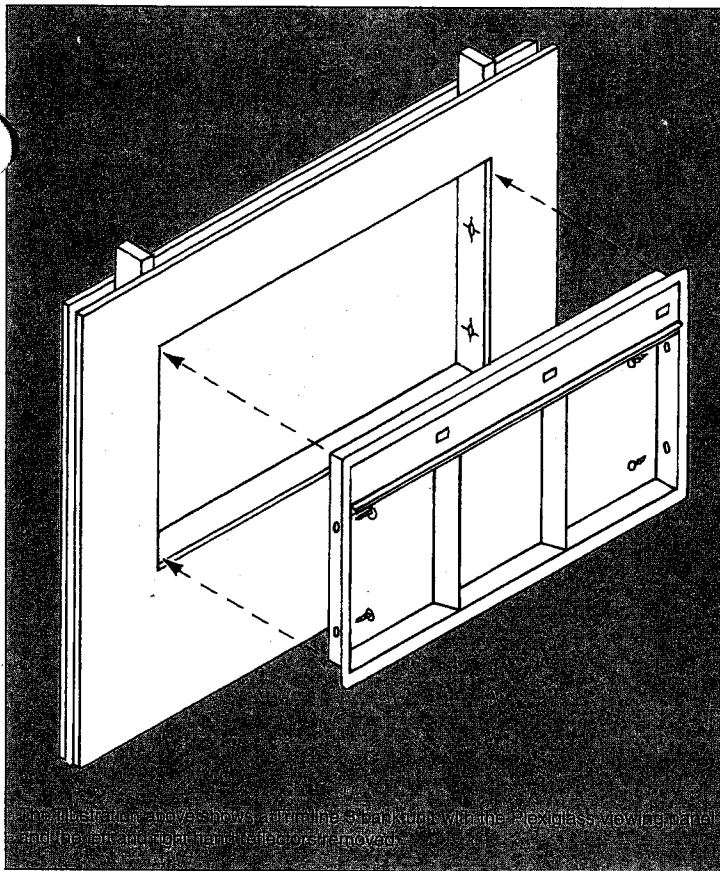
Note that to recess your illuminator, you must have the appropriate recessing kit. Stock numbers for the kits are shown below. (A single illuminator gets a single frame, a 2 over 2 illuminator gets a 2 over 2 frame, etc.)

The following stock numbers are for Recessing Kits for: Trimline Plus Hi-Lo, Trimline Plus, Trimline III, Trimline Series, Trimline Basic and the OR Plus - Single - 21701, 2 in 1 - 21702, 3 in 1 - 21703, 4 in 1 - 21704, 5 in 1 - 21705, 6 in 1 - 21706, 1 over 1 - 21711, 2 over 2 - 21722, 3 over 3 - 21733, 4 over 4 - 21744, 5 over 5 - 21755, 6 over 6 - 21766.

The following numbers are for the Econoline Recessing Kits - Single - 29701, 2 in 1 - 29702, 3 in 1 - 29703, 4 in 1 - 29704, 5 in 1 - 29705, 6 in 1 - 29706.

**PARTS LIST:** 2 Side Frames, 2 Top/Bottom Frames, 8 #6 Self Tapping Screws per section.

See the facing page for step 2: putting your framed illuminator in the wall.



## How to Install Your Framed Illuminator In The Wall

First remove the Plexiglass viewing panel. On all illuminators this is done by pushing the Plexiglass up until it clears the bottom groove and pulling it out and down, as shown in the illustration below.

Cut an opening in the wall 1/4" larger than the overall size of the illuminator body in length and height.

**For example: The 3 bank Trimline shown above measures 22" high and 42" long, therefore the opening cut in the wall will measure 22 1/4" high and 42 1/4" long.**

Frame the opening with 2x4's. Remove the left and right side reflectors from the illuminator assembly and drill two 3/16 diameter holes in the side of the body approx. 3" from top & bottom on both ends.

Punch out the holes and connect the power line with a BX\* connector (note: electrical connection must be done in accordance with local codes). The supplied power cord is not needed for recessed installation. Wolf X-ray recommends that illuminator units 14 bulbs and up be on a dedicated power line.

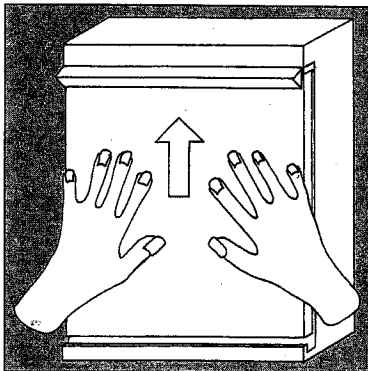
Install the assembly into the wall opening and fasten with #10 screws (not provided) using the drilled holes. Replace the reflectors and glass.

For walls other than stud construction, a wood frame should be inserted into the wall to secure the illuminator assembly.

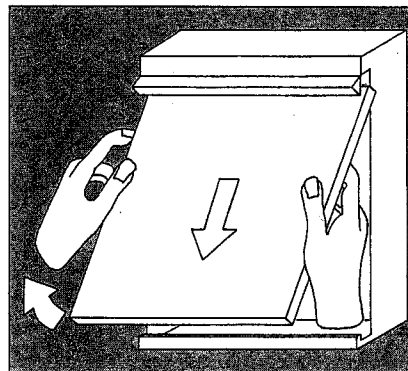
\* The cabinet grounding wire (green) must be firmly attached to the BX connector locknut. Correct wiring of ground connection is mandatory for proper illuminator performance.

## Plexiglass Removal: All Illuminators

In order to gain access to the inside of the unit, this is the way to remove the Plexiglass viewing surface.



With the unit upright, slide the glass upward until it clears the bottom groove.



When clear of the bottom groove, pull the glass down and out. Reverse this procedure to replace the glass. Illuminators with auto switching have a notch cut out of the top center of the glass. The glass **MUST BE REPLACED WITH THE NOTCH IN THE UP POSITION.**

**NOTE: Never remove glass from the left or right side as this will damage the auto switch.**

## How To Replace Bulbs

1. Disconnect power.
2. Follow instructions for Plexiglass removal above.
3. Replace bulb (see chart to the right for part #).
4. Replace Plexiglass.
5. Re-connect power.

## Replacement Bulb Stock Numbers

All Trimlines (except spinals)	21104-19
Trimline 36" Spinal	21278-09
Trimline 51" Spinal	21282-25
Econoline and MG-7	21104-19
Mammoline	28601-26
Vu-Plus	21500-17
Podolite	21506-25

## TROUBLESHOOTING GUIDE FOR ILLUMINATORS

### GENERAL NOTES ON ILLUMINATORS

- Large illuminators draw a lot of current, and may require a dedicated line. Follow the recommendations in the catalog or as marked on your illuminators. Under-powered illuminators will exhibit various lighting problems.
- Fluorescent lamps require a minimum 50 degrees air temperature to light properly.
- During periods of high electrical demand, electric companies may cut back on line voltage. Depending on the amount of cut back, illuminator performance may be affected.
- During high humidity, bulbs may have difficulty lighting. Wiping bulbs clean may help. Or, lower room humidity to restore operation.
- Rapid start ballasts **MUST** be properly grounded to function properly. If bulbs only light when you place your hand near or on them, the illuminator is not properly grounded.

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
Illuminator does not light at all.	Power not on.	Verify power at outlet.
	Blown fuse/circuit breaker.	Replace fuse or reset circuit breaker.
	Faulty power cord/connection.	Open ballast compartment and verify internal line cord connections. Check power cord and plug. If defective, replace.
All the lamps in one section do not light.	All fluorescent lamps burned.	Replace fluorescent lamps.
	Faulty power switch.	Check output side of ON/OFF or ON/OFF/AUTO switch-if defective, replace.
	Faulty ballast.	Check voltage in the range of 115v,-125v. If voltage OK and lights still out, replace ballast.
Some but not all lamps in one section fail to light.	Bulb burnt out.	Replace bulb.
	Loose connection between lamp holder and bulb and/or ballast.	Verify connections.
Some or all sections slow to light or flicker when turned on.	Poor or missing ground connection.	Determine proper ground inside illuminator, and in wall outlet. Also verify ground prong on plug properly plugs into outlet.
	Air temp below 50 degrees.	Raise room temperature or redirect air conditioner vents.
Individual bulbs slow to light.	Bulb not properly in connector.	Reposition bulb.
	Bulb old.	Replace bulb.
Some sections are brighter than others.	Mix of old and new bulbs.	Replace old bulbs.
	Mix of cool white & daylight bulbs.	Use only daylight bulbs.
Lights come on when auto switch is on even if there is no film.	Plexiglass improperly installed and is holding up the auto switch arm(s).	Remove plexiglass. Look for the edge with notches. Align the notches with the auto switch arm(s) and insert plexi-glass.

### REPLACEMENT PART NUMBERS

	BULB	ON-OFF SWITCH	MICRO SWITCH	BALLAST	E-Z BAR	LINE CORD
ALL MG 7	21104 10	21104 00	X	21113 07	X	21104 32
ALL ECONOLINE	21104 10	21104 00	X	21113 07	X	21104 32
PODOLITE	21506 25	21104 00	X	21113 07	X	21104 32
TRIMLINE	21104 10	21401 00	21001 00	21113 07	29401 10	21404 20
TRIMLINE BASIC	21104 10	21104 00	X	21113 07	29401 10	21404 20
TRIMLINE III	21104 10	21401 00	21001 00	21105 01	29401 10	21404 20
TRIMLINE PLUS	21104 10	21401 00	21001 00	21105 01	29401 10	21404 20
TRIMLINE PLUS III-LO	21104 10	21104 00 21401 00	21001 00	29001 07	29401 10	21404 20
TRIMLINE SPINAL 36" (ALL)	21270 00	21104 00	X	29200 07	29401 10	21404 20
TRIMLINE SPINAL 51"	21282 25	21104 00	X	29200 07	29401 10	21404 20

FILM HOLDERS	MG-7	ECONOLINES	TRIMLINES	PODOLITE
SINGLES	29601 02/03	29601 02/03	21401 20S	21506 02/03
SINGLE (BOTTOM SECTION)	X	X	21401 20S	X
2 BANK	29601 02/03	29601 02/03	21402 20S	X
2 BANK (BOTTOM SECTION)	X	X	21402 20S	X
3 BANK	29601 02/03	29601 02/03	21403 20S	X
3 BANK (BOTTOM SECTION)	X	X	21403 20S	X
4 BANK	29601 02/03	29601 02/03	21404 20S	X
4 BANK (BOTTOM SECTION)	X	X	21404 20S	X
5 BANK	X	29601 02/03	see note	X
5 BANK (BOTTOM SECTION)	X	X	see note	X
6 BANK	X	29601 02/03	see note	X
6 BANK (BOTTOM SECTION)	X	X	see note	X

NOTE: 5 BANK TRIMLINES - (1) 21402-20S & (1) 21403-20S 6 BANK TRIMLINES - (2) 21403-20S

## **Wolf X-Ray Corporation**

### **Wolf Warranty**

Wolf manufactured products are warranted, under normal use and service, to be free from defects in material and workmanship for a period of six months from the original date of shipment by Wolf. The evaluation, and determination to repair or replace defective part or parts, will remain the sole right of Wolf X-Ray. All repairs and replacements made under warranty are F.O.B. factory shipping point.

Purchaser's sole remedy for any defect is for repair or replacement pursuant to the foregoing.

Labor costs are not covered by this warranty, unless the product has been returned by the distributor to the Wolf factory, and the parts in question have proven to be defective as determined by Wolf. All freight costs associated with returning product to the factory must be prepaid. A Wolf return authorization number must be obtained prior to any enforcement of this warranty.

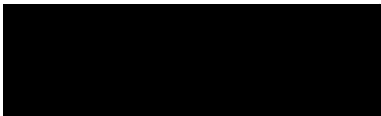
Product that has been improperly installed or altered in any way are not covered by this warranty.

Variable transformers, Ballasts, Switches, and plexiglass panels will be replaced providing notification of defect is received and confirmed by Wolf within 90 days of shipment.

This warranty is in lieu of all other warranties, express and implied, including warranties of merchantability and fitness for purpose.

Specifications shown were in effect at the time of the catalog preparation and are subject to change without notice.

## **Contractor Information**

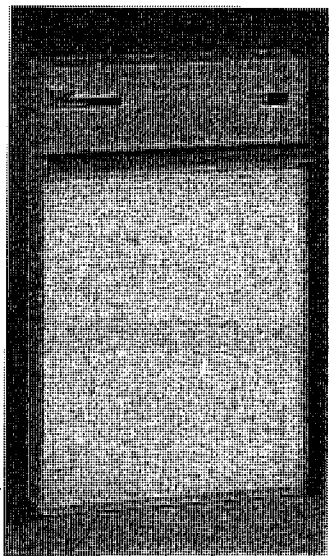
- Installed by:  
ISEC, Inc.  
10601 Calle Lee, Suite 190  
Los Alamitos, CA 90720  

- Service Provided by Wolf X-Ray  
Contact Customer Service for help at:  
800-356-9729

## **Wiring Information**

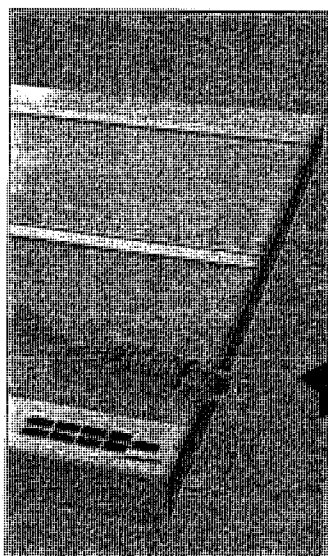
- See Features on page 8 describing Electric Technical Information
- See cross section on page 9 for location of electrical components
- Unit was changed to hard-wire by Letter 5NLOBW/0147 dated June 22, 2001.
- Wiring information to be provided by Electrical Contractor



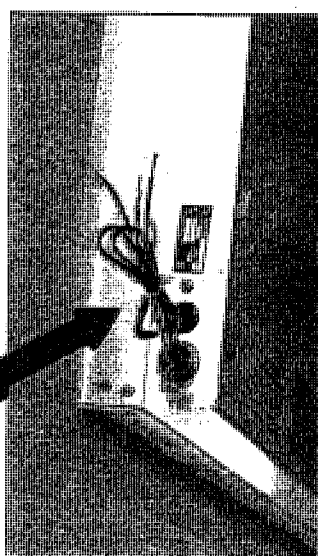
# Wolf Trimline Illuminator Series Technical Specifications



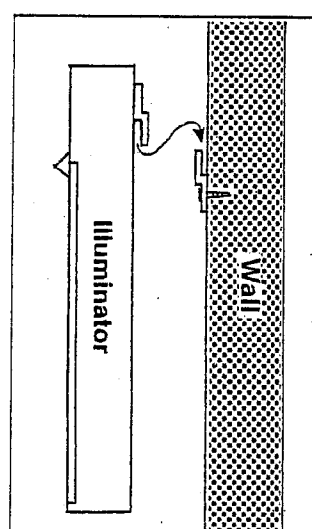
A single Trimline unit for wall mounting.



Inverted panels (top & bottom) and a cluster switch



Back corner view showing frame of a recessed unit and 3 wire pigtail.



A diagram illustrating The Wolf E-'Z' Bar from a side view. Simply mount one bar on the wall, and slip the illuminator bar over it..

## Features

- 2 lamp 15 Watt Daylight F15T8D.
- Ballast 2 lamp, class P thermally protected 0.55 Amp, 120V, 60Hz, UL and CSA listed.
- 3 wire 8' line cord with spark proof hospital grade plug pigtail.
- Three-position rocker switch controls individual viewing panels on single through 6 in 1 bank units. All tier units (except 1 over 1 and 2 over 2) come standard with cluster switch controls for individual panel viewing and master on/off switch.
- Film activated on/off switch allows convenient and fast operation, conserves energy, eliminates distracting light from adjacent panels that are not in use, and minimizes heat.
- Wolf's unique E-'Z' Bar™ wall mounting system makes hanging your illuminator quick and accurate.
- Film held with roller gravity grip. Rollers are coated to prevent scratching the film.
- All housings are durable, welded all steel construction. Recessed units have integral welded frame.
- All metal surfaces finished in baked on white urethane-polyester powder coating.

## Technical Information

### Construction

18 gauge C.R.S. body welded construction. Multi Panel Units are spot and heliarc welded assemblies from two panel to six panel units and can be tiered from a one over one to six over six units. Recessed models require a Recessing Frame Kit. A frame that easily attaches to your illuminator - see stock numbers on the next page.

### Electric

Electrical supply: 120 volts, 60 Hz, 0.55 AMP for each 14 x 17" viewing area. Specify if direct wiring (recessed units) is required. Ballast for two lamp Class P thermally protected .55 AMP 120V, 60 Hz, UL & CSA Listed. Switches: All models, rocker style 3 position, on/off automatic film activated for each viewing area. A master control switch is included on multiple models having a switch cluster (excl. the 2 over 2 model). Location of switches: top right for singles and bank units. Lower right for tiered units. Cord sets, 3 wire grounded are installed on lower right side of surface mounted unit. Recessed units require an electrician to remove the cord and hard wire the unit to a direct in wall power source. Note: 6 banks and up must be on a dedicated line with a 25 AMP breaker.

### Viewing Panel

Continuous length 1/8" thick translucent white shatterproof plexiglass - Push up & pull out from bottom channel to remove.

### Finish

Baked on white urethane-polyester coating.

### Installation

**A. For surface mount** on stud walls, see the E-'Z' bar above. An electric receptacle 110V should be located near the area so line cord can be plugged in for power. **B. For recessed installation**, cut an opening in wall 1/4" larger than the overall size of illuminator bodies in length and height. Frame opening with 2x4s. Remove the left and right side reflectors from the illuminator assembly and drill two 3/16" dia. holes in the side of the body approx. 3" from top & bottom on both ends. Connect power line to the illuminator. Install assembly into the wall opening and fasten with #10 screws using the drilled holes, replace reflectors and glass. For walls other than stud construction, a wood frame should be inserted into wall to secure the illuminator assembly. Detailed recessing dimensions and drawings are on the back page of this brochure.

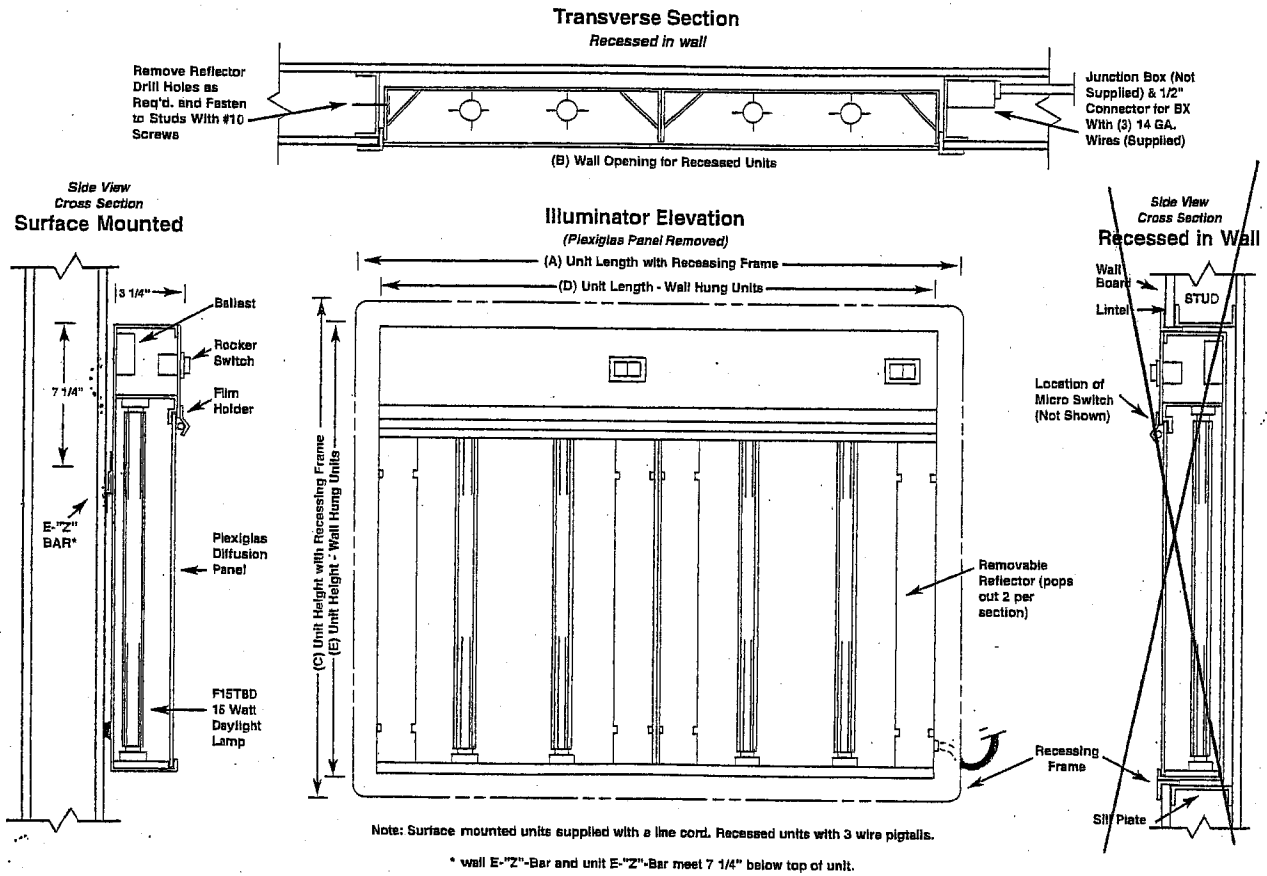
### Lamps

Two F15T8D 15 watt daylight fluorescent lamps per each 14x17" viewing area, lamps are included with each illuminator.

### Labels

UL, CSA listed and ISO 9001/EN46001 approved.

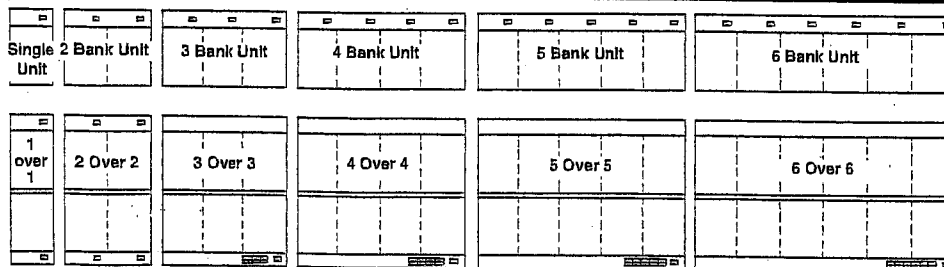
# TRIMLINE



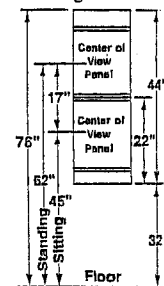
Letters reference drawing above which illustrates a 2 in 1 - Dimensions are in inches

	Description	Stock #	Recessing Frame Stock #	AMPS	For Recessed Illuminators with Frames			For Wall Hung Illuminators	
					Unit Length (A)	Wall Opening Length (B)	Unit Height (C)	Unit Length (D)	Unit Height (E)
Bank Side	Single Unit	21401	21701	0.5	17	14 1/4	25	14	22
	2 in 1	21402	21702	1.1	31	28 1/4		28	
	3 in 1	21403	21703	1.6	45	42 1/4		42	
	4 in 1	21404	21704	2.2	59	56 1/4		56	
	5 in 1	21405	21705	2.8	73	70 1/4		70	
	6 in 1	21406	21706	3.3	87	84 1/4		84	
Tier One Over Another	1 over 1	21411	N/A	1.0	17	14 1/4	47	14	44
	2 over 2	21422	21722	2.2	31	28 1/4		28	
	3 over 3	21433	21733	3.3	45	42 1/4		42	
	4 over 4	21444	21744	4.4	59	56 1/4		56	
	5 over 5	21455	21755	5.6	73	70 1/4		70	
	6 over 6	21466	21766	6.6	87	84 1/4		84	

## Trimline Configurations Available



## Mounting Locations



For further assistance call 800-356-9729