



# User Manual

## Breeze

Revision 01.3

July 2019

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## Approvals – Europe



### CERTIFICATE AND DECLARATION OF CONFORMITY

#### FOR CE MARKING

Tempest Lighting, Inc.

11845 Wicks Street, Sun Valley, CA 91352, USA

t: +1 818 787 8984 f: +1 818 252 7101 e: info@tempest.biz

www.tempest.biz

Tempest Lighting, Inc. declares that their

Breeze Projector Enclosure Series 58.xxx.xx

complies with the Essential Requirements of the following EU Directives:

Low Voltage Directive 2014/35/EU

Test Report 60065-6500-01-14

Electromagnetic Compatibility Directive 2014/30/EU

Test Report 61000-6500-03-14

and further conforms with the following EU Harmonized Standards:

EN 60065 : 2014/AC:2016

Test Report 60065-6500-01-16

EN 60529:1991/AC:2016-12

Test Report 60529-6500-02-16

EN 61000-6-3:2007+A1:2011

Test Report 61000-6500-03-14

EN61000-6-1:2007

Test Report 61000-6500-03-14

EN55015:2019/A11:2020

Test Report 61000-6500-03-14

**Dated:** 21<sup>st</sup> September 2020

Position of signatory: President

Name of Signatory: Tim Burnham

Signed below:

on behalf of Tempest Lighting, Inc.



.....

## Approvals – China

 <b>强制性认证目录外产品确认书</b> <b>Confirmation Letter for Products</b> <b>Outside the Scope of China Compulsory Certificate</b>		
Ref. No: CL-TEMPEST-160818-1		
申请人: Applicant: Tempest Lighting Inc.	地址: Address: 11845 Wicks St., Los Angeles, CA 91352 United States	
生产厂名称: Factory: Tempest Lighting, Inc.	地址: Address: 11845 Wicks St., Los Angeles, CA 91352, USA	
产品名称: Product Name: 投影仪外壳, 灯具外壳 Projector Enclosures Moving Light Enclosures Lighting Enclosures	型号: Model: 18xx.IN, 19xx.IN, 2xxx.IN, 66xx.IN, 52.xxx.IN, 53.xxx.IN, 54.xxx.IN, 55.xxx.IN, 56.xxx.IN	商标: Trademark: Tornado, Twister, Thunder, Blizzard, Whispr, Typhoon, Cyclone, Tacit
产品标准: Standard: /		HS code: 9405.99.0000
产品描述(包括使用场所) Product Description (utilization of product) : Enclosures for high-powered luminaires and video projectors for outdoor use and indoor noise attenuation. For professional use only.  产品为用于户外和室内噪声衰减大功率灯具和视频投影仪的外壳。仅供专业使用。		
确认意见 Conclusion:  According to the product description, the models above are out of CCC scope. 基于产品描述, 如上型号的产品在中国强制性产品目录之外。  本确认书的有效有效期至: August 18th, 2017 Validity Period		



# Introduction

Thank you for purchasing a Tempest enclosure! We have worked hard to provide you with the very best product available for its purpose, and we shall continue to do everything possible to ensure that it works well for you for many years to come.

Please read this manual before starting work!

In the event of difficulty, please contact your Tempest reseller or Tempest direct:

[info@tempest.biz](mailto:info@tempest.biz)

+1 818 787 8984

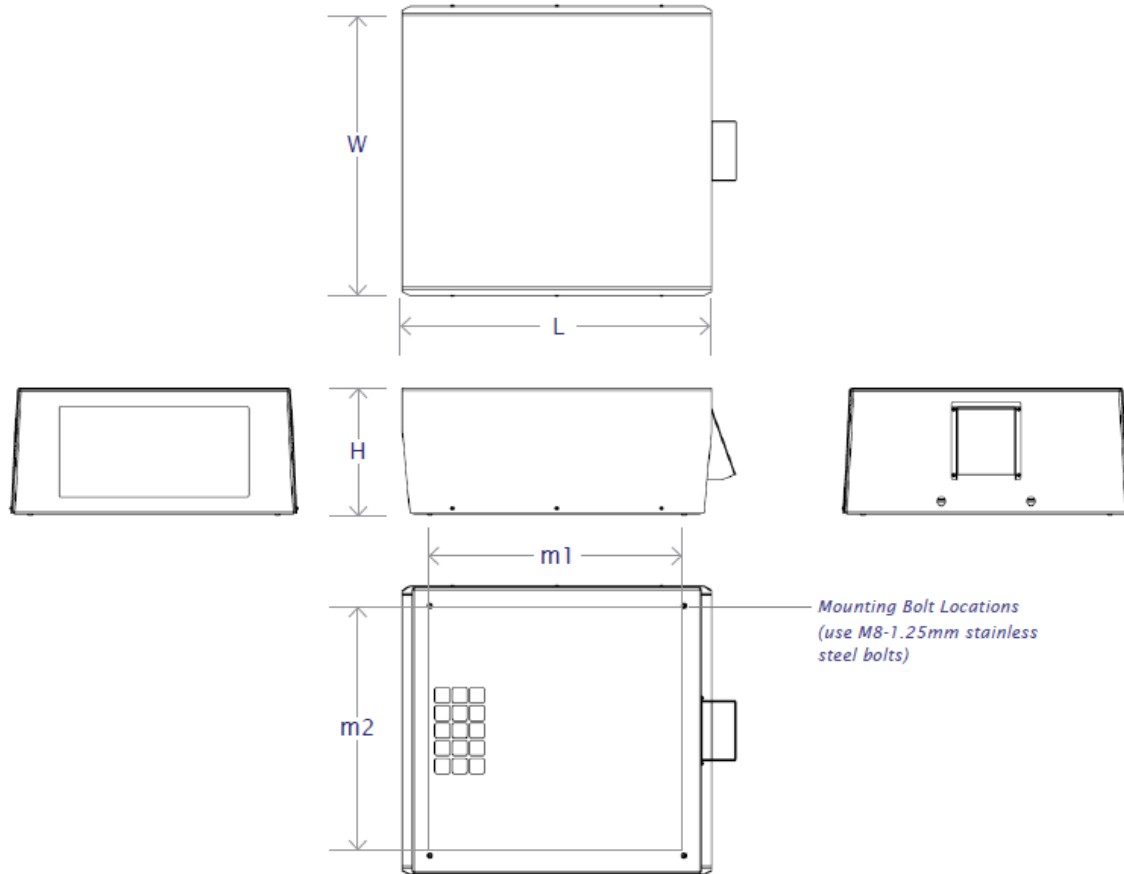
We will do everything we can to help you get the very best results from your Tempest enclosure.

## IMPORTANT: Safety Advisories

- All installation and rigging work done must where applicable be designed and built in accordance with norms and standards of the local authority having jurisdiction of the installation site. It is the responsibility of the installer to obtain such approvals as may be required to achieve full compliance.
- All electrical work must be carried out by a suitably licensed electrical contractor in full compliance with local electrical standards.
- Lifting: some enclosures and the equipment inside them may be heavy. Use properly rated lifting equipment where appropriate and never attempt to carry out work with fewer than the number of workers needed to lift safely.
- It is the responsibility of the installer to ensure that all local building, safety and electrical codes are strictly adhered to in the installation of this enclosure. Tempest Lighting, Inc., its employees and agents are in no way responsible for damage arising from failure to follow either the instructions in this manual or building, safety and electrical codes prevailing at the installation location.
- Do not attempt to install or operate the enclosure before fully reading and understanding this manual
- Never allow anyone who has not read this manual to open the enclosure or perform maintenance on the projector within.
- Never leave the enclosure unattended when open.
- Always make sure all bolts and latches are tight and safety locks are in place after performing any form of maintenance on the unit.
- Do not open any electrical boxes until power has been shut off to all supply lines to the enclosure (including the one powering the projector).
- Do not open the enclosure in wet weather.

# Installation

## Dimensions, Rigging Points, and Maximum Projector Dimensions/Power

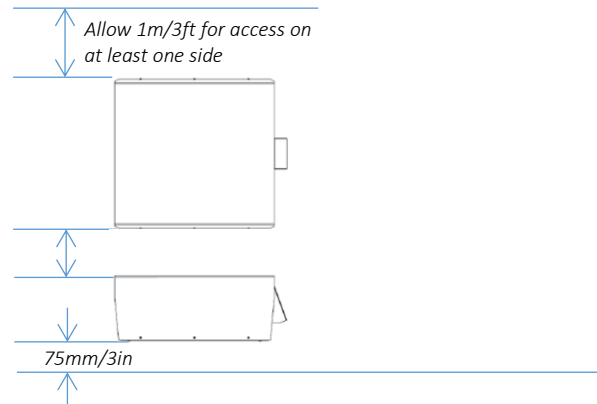


Model	Format	Length	Width	Height	M1	M2	Weight	Projector Max: Size (LWH) *	Projector Max Power
58.025	Landscape	559 22in	478 18.8in	241 9.5in	445 17.5in	368 14.5in	16kg 35lb	410x410x150 16x16x6in	500W
52.050	Landscape	762 30in	648 25.5in	318 12.5in	648 25.5in	534 21in	21kg 45lb	610x572x229 24x22.5x9in	800W
52.100	Landscape	864 34in	702 27.6in	346 13.6in	749 29.5in	588 23.16in	30kg 66lb	695x595x275 28x24.5x10in	1,000W
52.150	Landscape	1041 41in	702 27.6in	397 15.6	927 36.5in	588 23.16in	41kg 90lb	890x622x254 35x24.5x12in	1,600W

Note: Be sure to allow for the length of the lens and for connectors, cables and cable bend radii when calculating dimensions

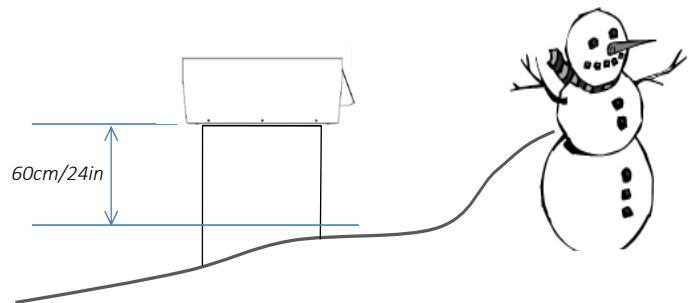
## Air Clearance

Observe the minimum clearances shown around your enclosure



## Snow Clearance

In areas where snow is likely, make sure the base of the enclosure is at least 24" [60cm] above highest potential snow drift level.



## Operating Temperature Range

Breeze may be used safely in locations where minimum temperatures do not fall below 0°C [32°F].

Maximum ambient temperatures when the projector is running (usually after dark) should not be higher than 2-3°C below the projector's stated maximum environmental limit. So, for a projector with a 45°C limit, ambients up to around 42° are ok. During daytime the enclosure fan will run automatically if the internal temperature exceeds 35°C.

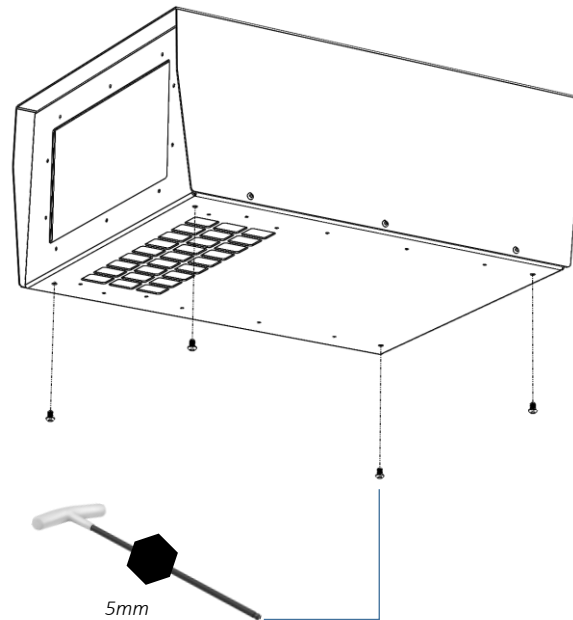
*If these conditions are not met, Breeze may not be the right enclosure for your project – consider upgrading to a Tempest Blizzard enclosure.*

## Mounting Bolts

- Each Enclosure must be mounted with FOUR points.
- All mountings must be made using the four M8 threaded holes on the bottom of the enclosure.
- Use a 5mm hex key to secure the M8 socket cap screws provided.
- If the screws provided are not long enough to reach through your structure, use any stainless steel M8-1.25mm screw of sufficient length.
- Tempest Lighting recommends the use of stainless steel mounting hardware.
- Make sure the inlet filter has at least 75mm/3in clearance below.

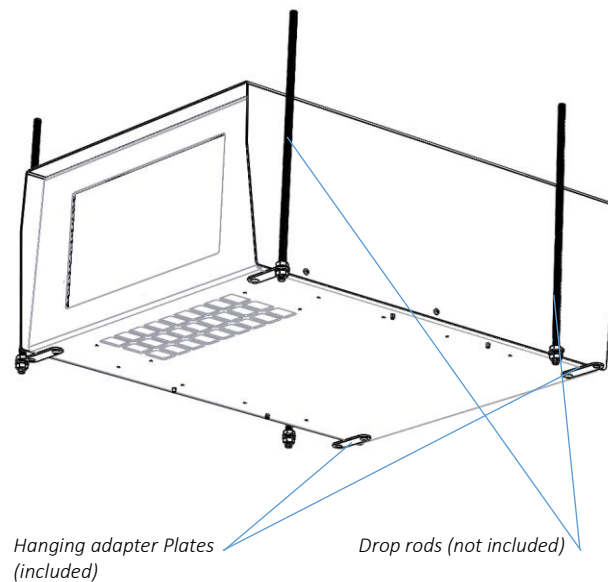
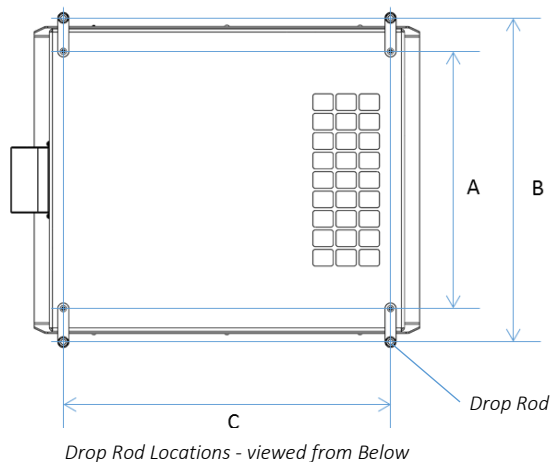
### IMPORTANT SAFETY NOTICES

Installer must ensure that all mounting points are secure and conform to local safety regulations. Tempest Lighting Inc. accepts no responsibility for damage or injury arising from inappropriate or unsafe installation.



## Hanging a Breeze Enclosure

If you need to hang your Breeze enclosure – for example below a ceiling or soffit, use the four hanging adapter plates supplied, along with M12 or ½" threaded drop rods, as shown here:



	A	B	C
<b>58.025</b>	368 [14.5"]	521 [20.5"]	445 [17.5"]
<b>58.050</b>	483 [19"]	635 [25"]	648 [25.5"]
<b>58.100</b>	588 [23.2"]	741 [29.2"]	749 [29.5"]
<b>58.150</b>	588 [23.2"]	741 [29.2"]	927 [36.5"]



# Wiring the Enclosure

## Power Wiring

### SAFETY NOTICE:

All electrical wiring and termination **MUST** be carried out by a suitably qualified and/or licensed professional, in accordance with electrical and safety norms applicable in the jurisdiction of the installation. Tempest, its employees and representatives will not be liable for any damage arising from failure to observe this requirement.

### Electrical Standards

#### Important:

*Fans and electronics are rated 115V or 230V, dependent on electrical standard.*

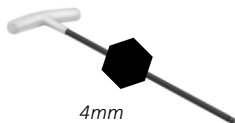
Enclosure model numbers ending **.US** are for use in countries using US and Japanese style electrical systems:

100-120VAC 50/60Hz

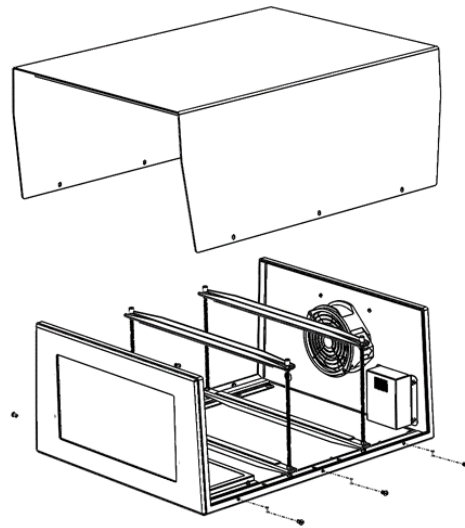
Enclosure model numbers ending **.IN** are for use in countries using European style electrical systems:

200-230VAC 50/60Hz

Remove the cover fixing screws, using a 4mm Hex Key.

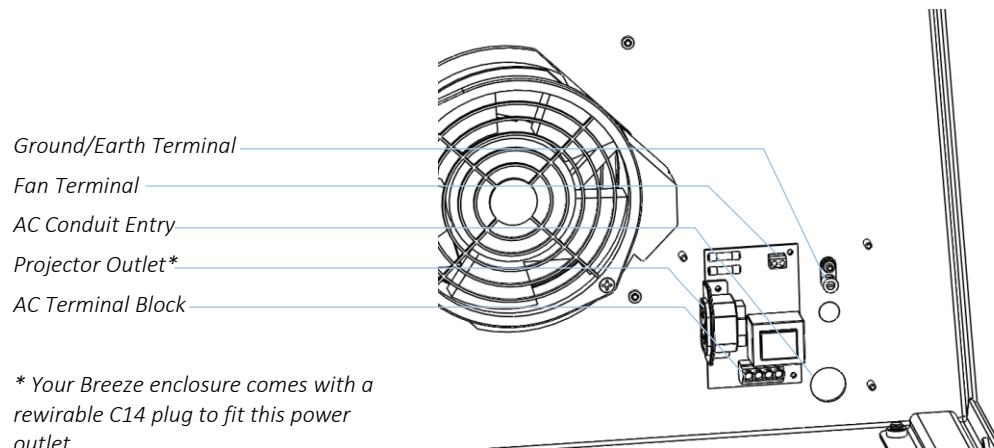
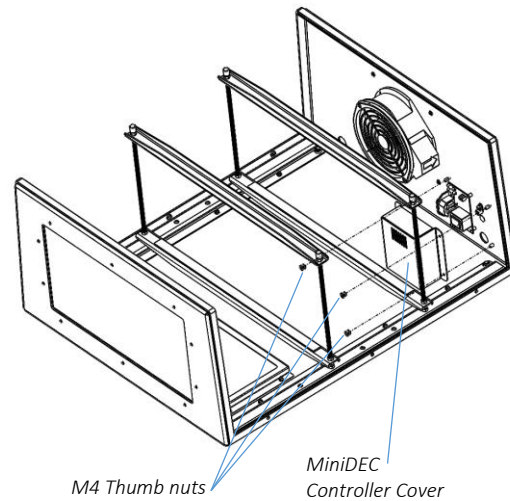


Lift off the top cover.



## Wiring Access

Remove the MiniDEC Controller cover, by releasing the three M4 thumb nuts.

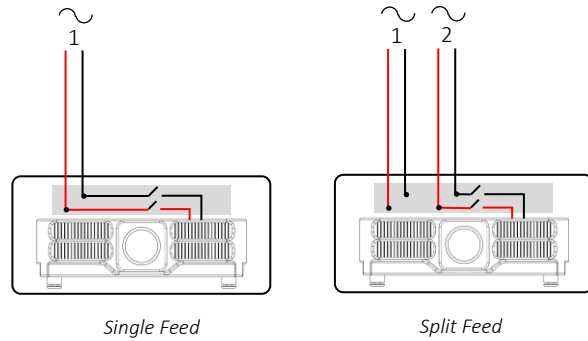


*You MUST connect projector power to the C13 outlet. If this is not done, the controller will not sense projector function and the projector will quickly overheat.*

## One or Two Power Circuits?

Tempest enclosures may be wired on single or double circuit supplies. On a single feed, both enclosure and projector are permanently on. With a split (double) feed supply, you can switch off the projector when not in use, while the enclosure continues to protect it 24/7.

*Tip: most people use single feed.*



### Single Feed

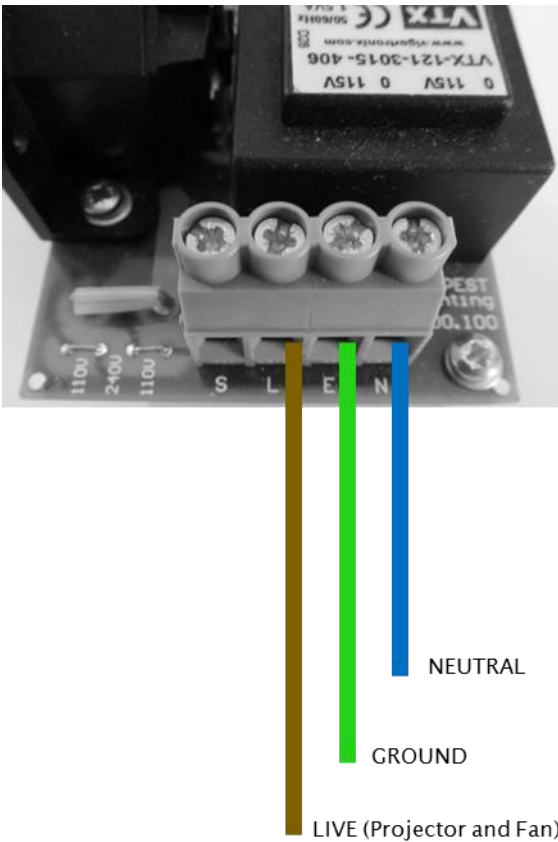
- Enclosure and projector are permanently on.
- Enclosure and Projector must be rated for the same voltage.
- Supply must be rated for projector current plus 100 watts.
- Supply must be permanently ON.

### Split feed

- Enclosure power must be permanently ON.
- Projector power may be switched off.
- Enclosure power must be rated for 100 watts.
- Projector power must be rated for the projector (see projector manual).
- Projector and enclosure power must be same voltage.

### 3.4 Connect AC Wiring to MiniDEC Controller

#### Single Feed Operation



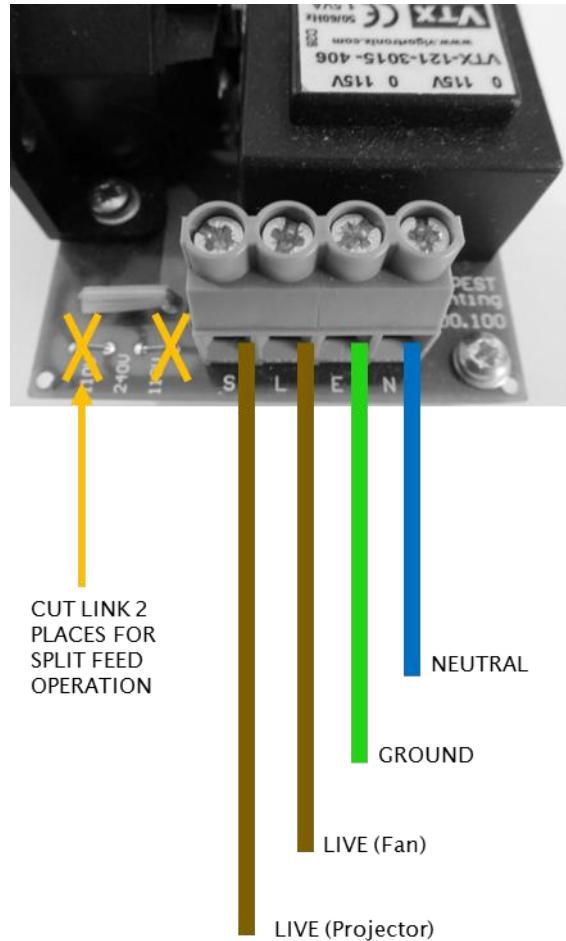
*Note: European wire colors shown for illustration only.*

#### Single Feed Wiring

Feed the controller with a single maintained supply. The enclosure should be powered 24/7. The projector must be switched off when needed using the projector control system.

*Breeze ships configured for single feed wiring operation.*

#### Split Feed Operation



#### Split Feed Wiring

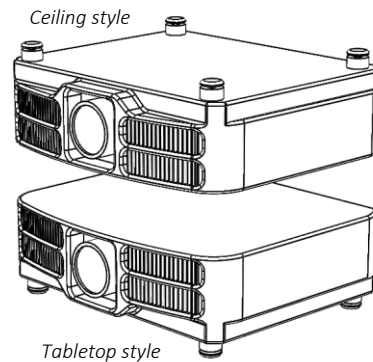
You may switch off the supply to the projector without interfering with the cooling fan operation. Connect feeder wires as shown, **AND CUT THE COPPER LINKS ON THE MiniDEC BOARD IN TWO PLACES, AS SHOWN.** Fan circuit should be maintained 24/7.

# Mounting the Projector

## Ceiling or Tabletop

You can mount your projector for either ceiling or tabletop operation, between Breeze's projector bails.

*Illustrations below are for tabletop mode...*

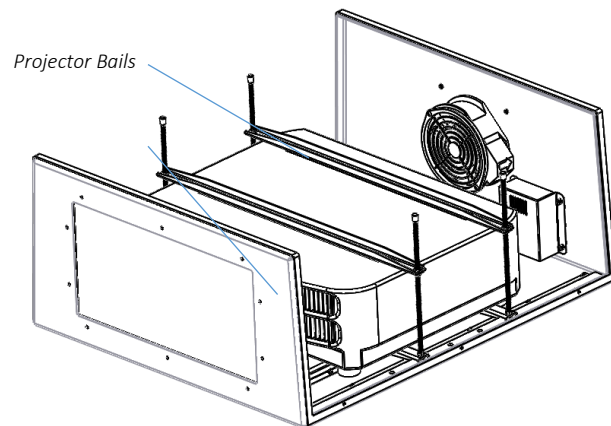


## Mounting and Aligning

Use a 10mm wrench if needed to remove the upper projector bails.

Set the projector in place, and adjust the projector bails to the desired height, projector tilt and roll angles.

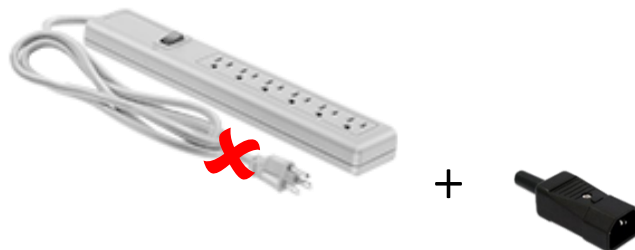
Align the projector, then tighten the projector bails to hold it firmly in place.



## Connecting Equipment

Install the provided IEC C14 plug onto the projector power cable, and connect to the IEC C13 outlet on the MiniDEC.

*Note: To power auxiliary equipment such as video servers or fiber boxes inside your Breeze enclosure, wire the provided C14 plug onto a locally available power strip, then connect both the projector and any aux equipment to the power strip.*



## Routine Maintenance

Check the following every six months:

### Clean Port Glass

Clean port glass using a window cleaning fluid or detergent.  
Use a soft, lint free cloth.

### Check Filter

Breeze enclosures use washable electrostatic open-core foam filters to keep dust out of inlet air.

In most cases, the filter will be good for 1-2 years. If the filter becomes clogged the temperature inside the enclosure will start to rise. This is an indication that the filter must be cleaned or replaced.

### Clean Filter

Remove filter and wash with water and a mild detergent.

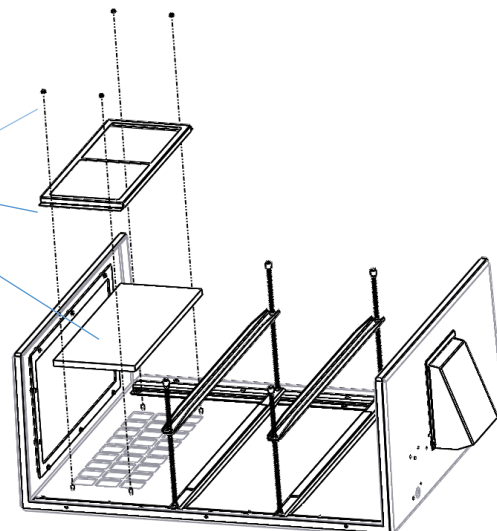
### Replacement Filters

#### Part Numbers:

58.03.025	Breeze 58.050 Replacement Filter
58.03.050	Breeze 58.050 Replacement Filter
58.03.100	Breeze 58.100 Replacement Filter
58.03.150	Breeze 58.150 Replacement Filter

### To Remove Filter

1. Remove the projector
2. Remove the filter frame nuts, using a 8mm nut driver
3. Remove the filter frame and filter.



### After Sales Support

Contact your Tempest dealer or email [info@tempest.biz](mailto:info@tempest.biz)

# Troubleshooting

Projector does not have power:

1. Check Projector power switch
2. Check projector is plugged into MiniDEC projector outlet
3. Check that enclosure feed circuit is on
4. Check voltage on AC input terminals
5. Check voltage on IEC C13 outlet

Enclosure overheats:

1. **Is the projector connected to the MiniDEC projector receptacle?** If the projector is powered independently the controller has no way to know when to turn on the exhaust fans!
2. Is the filter clogged or obstructed? If so, clean or replace it.

Dirt/Debris inside enclosure

1. Filter is either missing or damaged?
2. Top cover is not properly seated

Water in enclosure

1. Check the drain holes in the bottom of the enclosure. If they become blocked, then water that gets in cannot escape.
2. Check seals around side panels and back door

Fan LED is on but fans do not operate

The exhaust fan is protected by a 20mm 4A slow-blow fuse on the MiniDEC board. In very exceptional cases it is possible that either fuse could fail. Check visually.

The fuse is protected with a clear resin sealant and soldered to the circuit board. With care, you can de-solder the fuse and replace it, but we recommend replacing the DEC4 motherboard to maintain the integrity of the board's conformal coating.

None of the above?

Contact [info@tempest.biz](mailto:info@tempest.biz)

## Warranty

### INSPECTION/WARRANTY/RETURNS.

A. Customer, at its sole expense, shall inspect all Goods promptly upon receipt and accept all Goods that conform to the specifications or catalog. All claims for any alleged defect in or failure of the Goods or Seller's performance to conform to the Contract, capable of discovery upon reasonable inspection, must be set forth in a written rejection notice detailing the alleged non-conformity, and be received by Seller within thirty (30) calendar days of Customer's receipt of the Goods. Failure by Customer to notify Seller of the alleged non-conformity within thirty (30) days will be conclusive proof that the Goods have been received by Customer without defects or damage, and in the quantities specified on the bill of lading and shall constitute an irrevocable acceptance of the Goods and a waiver of any such claim in connection with the Goods.

B. Seller warrants to Customer only that the Goods will be free from defects in material and workmanship at the time of delivery and, subject to the exceptions and conditions set forth below, for the following period (the "Warranty Period"): twenty four (24) months from the date of shipment by Seller. Seller may provide additional years of warranty coverage beyond 24 months, at the rate of 2.5% of the net sale price per year, up to a total of three additional years' coverage beyond the standard 24 month warranty period. Seller will remedy a defect as set forth in paragraph 7 D, below, (the "Warranty"). The Warranty is subject to each of the following exceptions and conditions:

1. Customer must promptly (and in all events within the Warranty Period) notify Seller of any alleged defect in a written notice (the "Notice") which shall set forth the quantity, catalog number, finish, original purchase order number, Seller's invoice number on which Goods were originally billed and a statement of the alleged defect, along with digital photographs showing such defects where feasible.

2. The Warranty shall not apply: (i) to any claimed defect that was capable of discovery upon reasonable inspection and deemed to be waived under paragraph 7 A, above; (ii) to any Goods that have been subject to misuse, abnormal service or handling, or altered or modified in design or construction; (iii) to any Goods repaired or serviced by any person other than Seller's authorized service personnel or to Goods installed other than according to installation instructions, or (iv) with respect to normal wear and tear. Seller warrants materials and finishes to customary commercial standard and makes no warranty whatsoever to cover minor imperfections of finish not affecting the performance of the Goods.

3. Seller makes no Warranty with respect to parts or components that are not the product of Seller, and specifically makes no warranty whatsoever for equipment housed inside enclosure products manufactured by Seller.

4. The Warranty is Seller's exclusive warranty with respect to the Goods. Seller makes no warranties, guarantees or representations, express or implied, to Customer except as set forth in this paragraph 7. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR USE OR FOR A PARTICULAR PURPOSE, ARE HEREBY EXCLUDED AND DISCLAIMED.

C. Seller will accept the return of Goods properly rejected under paragraph 7 A, above, or as to which Notice of an alleged breach of Warranty has been timely given and such Goods may be returned to Seller, freight prepaid, but only upon Customer's receipt of Seller's written return material authorization ("RMA") and shipping instructions. The RMA shall be void if the Goods are not received within 45 days after issuance of the RMA. No deduction or credit in respect of any rejected or returned Goods shall be taken until Customer has received Seller's further written deduction or credit/authorization following Seller's inspection to confirm nonconformity or defect. Seller will charge to Customer any and all costs incurred by Seller in connection with the handling, shipping, inspection and disposition of any returned Goods that are determined by Seller not to have been nonconforming upon Delivery or as to which the warranty hereunder is not applicable.

D. UPON ANY PROPER RETURN PURSUANT TO PARAGRAPH 7C, ABOVE, WHETHER IN CONNECTION WITH A REJECTION OF GOODS OR AN ALLEGED BREACH OF WARRANTY AND BASED UPON THE CONDITIONS SET FORTH IN THIS PARAGRAPH 7, SELLER AGREES THAT IT WILL, AS THE SOLE AND EXCLUSIVE REMEDY UNDER THE CONTRACT OR OTHERWISE, FOR ANY NONCONFORMITY OR BREACH OF WARRANTY, AND AT SELLER'S SOLE ELECTION: (i) REPAIR SUCH GOODS; OR (ii) REPLACE SUCH GOODS.

*NOTE: All sales are subject to Tempest Lighting, Inc. Standard Terms and Conditions (Standard Terms). In the case of any discrepancy between the foregoing and Standard Terms, Standard Terms shall prevail. Download Standard Terms [here](#).*