

**BRAVO COMMUNICATIONS, INC.**  
**SURE/FIRE® 4-PORT DATACOM HUB PROTECTORS**

**MODELS :** TBS-4HUB, TBS-4HUB+, TBSB-4HUB, TBSB-4HUB+, RJ45SHUB, RJ45SHUB+, RJ45SBHUB, RJ45SBHUB+

**TERMINAL BLOCK STYLE**

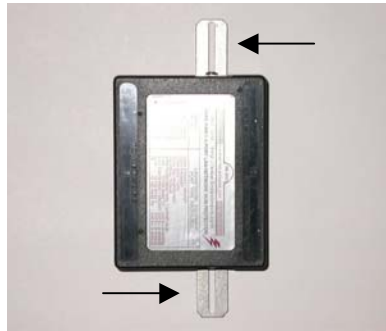


- ◆ 4-Port Expandable Hub Module Protects All Datacom And Control Signals UpThru 155 Mhz Data Rates
- ◆ Protects All 8 Signals/Wires Per Port For RJ Modular Ports And 4 Signals/Wires Per Port For TB Terminal Block Models, With Straight-Thru Wiring
- ◆ 4-Port Building Block Architecture With Single-Point Grounding for Shunting All Signals
- ◆ Each Hub Module Includes Four Convenient Grounding Screw Locations--Two On The Bottom Side And Two On The Sides
- ◆ 4-Port Modules Can Be Stacked Vertically And Horizontally For Unlimited Hub Expansion And Modularity As The Network Grows Or Changes
- ◆ Allows The Network Designer To Wall Mount, Desk Mount, Or Equipment Mount Directly To Premise Earth Grounding System Or Chassis/Frame Ground Or As Desired
- ◆ Comes Complete W/ 2 Grounding/Mounting Brackets, A 12 AWG Ground Wire And 4 Rubber Feet
- ◆ Individual Data Port Surge Test LED For All 4 Ports Shows Protection Status and Aids Troubleshooting
- ◆ Hubs Come In Injection Molded, Fire Retardent Plastic. Hub Front And Back Panels Can Be Color Coded For Easy Port Identification (Black Is Standard). Heavy-Duty Shielded Brushed Aluminum Hubs Are Also Available.
- ◆ Individual Hub Modules Are Hot Swappable In The System
- ◆ Stops All Voltage Transients Greater Than  $\pm 25$  Volts And Up To 25K Amps Per Line In Less Than A Pico-Second for TBS & RJ45S Models; And Transients Greater Than  $\pm 8$  Volts for TBSB & RJ45SB Models (Specify "+" In Part Number For Heavy Duty 25KA Protection; Otherwise Models Are 5KA) .
- ◆ Protects Datacom And Control Signal Equipment Repeatedly And Then Automatically Resets Itself
- ◆ Unique 3-Stage Protection On All Signal Lines Is Powerful Enough To Use For Both Inter-Building And Intra-Building Cable Run Installations with 25KA Models ("+" Models).
- ◆ 5-Year Limited Warranty

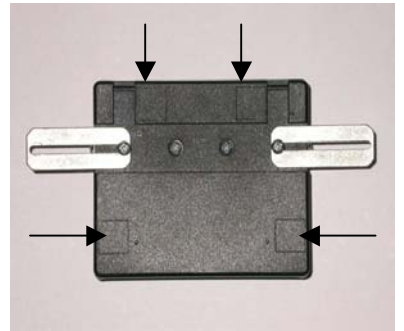
**SURGE PROTECTION**  
**BUILDING BLOCKS**



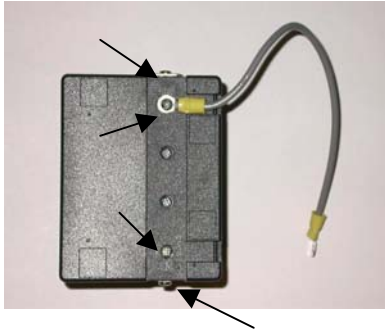
REAR PANEL VIEW RJ45



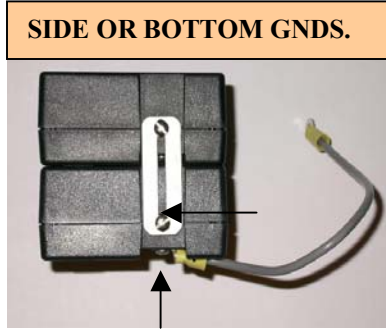
WALL-MOUNT VIEW WITH GROUND BRACKETS



BOTTOM VIEW WITH GND BRACKETS & 4 RUBBER FEET AREAS



BOTTOM VIEW WITH 12 AWG GROUND WIRE (4 GROUNDING LOCATIONS)



SIDE OR BOTTOM GNDS.

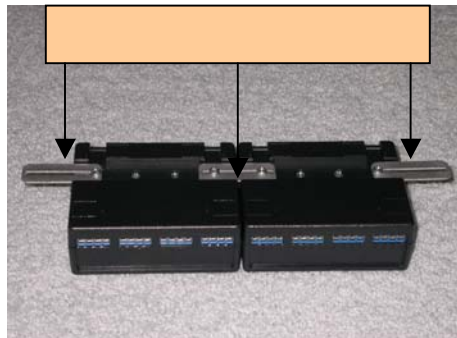
SIDE VIEW WITH VERTICAL STACKING & GROUND WIRE



MULTI-VIEW WITH VERTICAL STACKING RJ45 STYLE W/ LEDs



TB MODEL TOP VIEW W/ HORIZONTAL STACKING & GROUND/MOUNT BRACKETS



TB MODEL BOTTOM/FRONT VIEW W/ HORIZONTAL STACKING & GROUND/MOUNT BRACKETS



RING TERMINAL

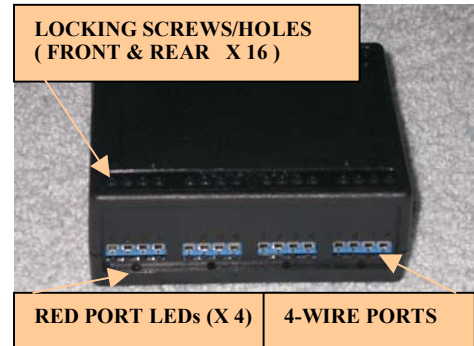
TOP VIEW WITH HORIZONTAL STACK & GROUND WIRE



TB MODEL TOP/FRONT VIEW W/ HORIZONTAL STACKING & GROUND/MOUNT BRACKETS



FACEPLATE COLOR CODING OF DATA/CONTROL WIRING/CABLE (EX. BLACK = RS232; GRAY = RS422)

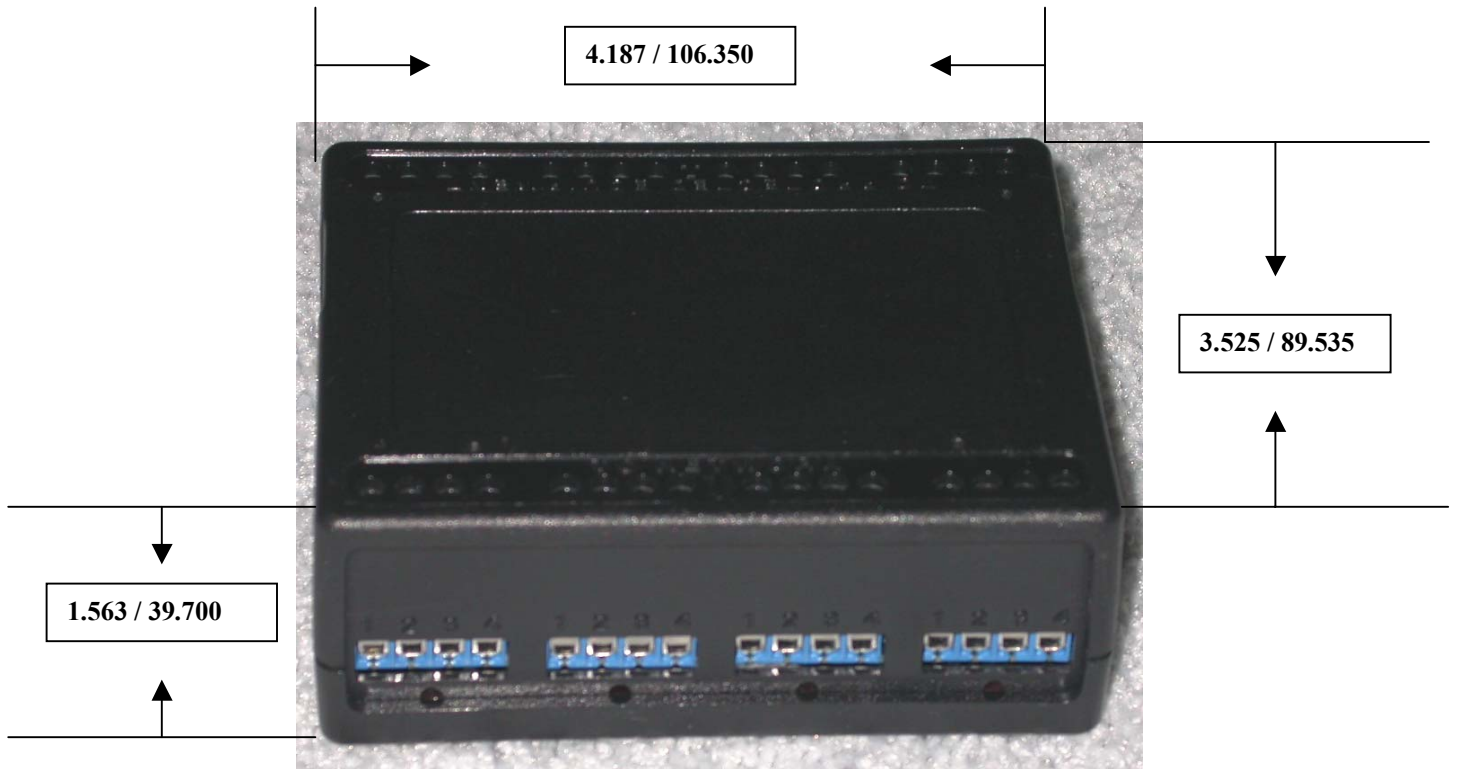


LOCKING SCREWS/HOLES (FRONT & REAR X 16)

RED PORT LEDs (X 4) 4-WIRE PORTS

TB MODEL TOP/FRONT VIEW W/LEDs CONNECTS 16 WIRES

# SURGE PROTECTION BUILDING BLOCKS



( Photo Shows Terminal Block Style )

**Note:** All dimensions are specified as inches / millimeters.

**BRAVO COMMUNICATIONS, INC.**  
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SAN JOSE, CA 95135 U.S.A.

**PART NUMBERS:** TBS-4HUB  
TBS-4HUB+  
TBSB-4HUB  
TBSB-4HUB+

**RJ45SHUB**  
**RJ45SHUB+**  
**RJ45SBHUB**  
**RJ45SBHUB+**