

## Welcome!

We greatly appreciate your purchase of your TNP328 Series Tilt 'N Plug. We are sure you will find it reliable and simple to use. Superior performance for the right price, backed by solid technical and customer support is what ALTINEX has to offer. We are committed to providing Signal Management Solutions® to our customers for the most demanding audiovisual installations at competitive pricing and we welcome you to join the ranks of our many satisfied customers throughout the world.

## 1. Precautions and Safety Warnings

Please read this manual carefully before using your Tilt 'N Plug Interconnect Box. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your Tilt 'N Plug, and to prevent fire and shock hazards. Please read them carefully and heed all warnings.

### 1.1 General

- Unauthorized personnel shall not open the unit as there are high-voltage components inside. Qualified ALTINEX service personnel or their authorized representatives must perform all service.

### 1.2 Installation Precautions

- For best results, place the Tilt 'N Plug in a dry area away from dust.

## 2. Installation Procedures

Step 1 Cut an opening into the table's surface. Refer to the ALTINEX website at [www.altinex.com](http://www.altinex.com) for table cutout requirements.

**NOTE:** The table can be 2.25 in (57 mm) or less in thickness. Always confirm dimensions before cutting to insure that specifications have not changed.

Step 2 Insert the TNP328 into the table cutout.

Step 3 Place the support brackets under the table and place them between the support mount grooves on the side of the unit. Attach the brackets to the groove at the desired height and secure them to the bottom of the table using the knurled table securing screws provided with the additional wing nuts for added tightening. See Diagram 3 for details.

Step 4 To lower the unit, push on the top cover until it locks into place.

Step 5 Secure all cables to the underside of the table using the cable clamps and screws included with the TNP. Pass the power cord from the bottom of the housing and attach it to the table separate from the signal cables. Leave enough slack in the service loop to allow for easy opening and closing, but not too much as to cause excess drooping of the service loop.

Step 6 Connect the appropriate cables with the correct input connectors on the bottom of the unit.

Step 7 Once you have applied power and connected the proper cables on the bottom of the unit you may raise the unit. To raise the unit into position, push down on the front of the top cover; the latching mechanism will then release, allowing the pneumatic spring to raise it into position.

**NOTE:** It may be necessary to adjust the service loop of the cables for optimal performance.

## 3. Limited Warranty/Return Policies

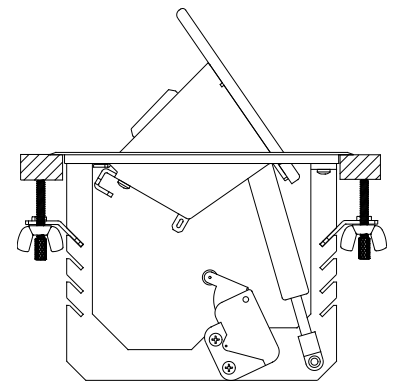
Please see the ALTINEX website at [www.altinex.com](http://www.altinex.com) for details on warranty and return policies.

To prevent fire or shock, do not expose this unit to water or moisture. Do not place the unit in direct sunlight, near heaters or heat-radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.

- Handle carefully; dropping or jarring can damage the bezel.
- Never place fingers inside the opening on either side of the unit. This action could cause injury due to sharp edges inside.
- Do not place heavy objects on top of the Tilt 'N Plug. Do not use excessive force to push down on the top of the unit.
- Disconnect the power cord to turn off the power. This supplies power to the socket on the pop-up panel. The power outlet should be installed near the equipment and be easily accessible.
- We recommend using wall outlets with a Ground Fault Circuit Interrupter (GFCI) for maximum protection.
- Install all cables according to the instructions found herein. Do not force or pull any cable that is attached to the Tilt 'N Plug.

### 1.3 Cleaning

- Surfaces should be cleaned with a dry cloth. Never use strong detergents or solvents such as alcohol or thinner. Do not use a wet cloth or water to clean the unit.



4. Technical Specification

Specifications are subject to change. Please visit <http://www.altinex.com> for up-to-date specification

Features/Description	
<b>TNP328/320C*</b>	
<b>Pass-Through AC Power</b>	<b>9ft. (3.0 m)</b>
<b>120 VAC,60 Hz, 12A</b>	NEMA Socket-Plug
<b>Agency Approval</b>	
<b>UL/C-UL Listed</b>	File E254082
<b>Audio, Video, Communication</b>	6 ft. (2 m)
<b>Computer video</b>	15-pin HD F-M (1)
<b>Computer Audio</b>	3.5mm F-M (1)
<b>HDMI</b>	**HDMI F-M (1)
<b>Network</b>	CAT-6 (RJ-45) F-M (1)
<b>Accessories Included</b>	
<b>Hardware</b>	-Mounting screws/brackets -Cable clamps/screws

Table 1 TNP328 General Specifications

Mechanical	
Max. Table Thickness	2.25 in (57 mm)
Height, opened	6.4 in (163 mm)
Width	5.7 in (145 mm)
Depth	5.2 in (132 mm)
Finish	Standard: Matt Black Finish Models ending in S: Brushed Aluminum
Weight (approx.)	2.75 lb. (1.25 kg)
Shipping Weight	5.5 lb. (2.5 kg)
T° Operating	10°C - 35°C
T° Maximum	40°C
Humidity	90% non-condensing

Table 2 TNP328 Mechanical Specifications \*\*\*

Electrical (Dual Outlet Panel)	TNP328
Power Rating (pass-through AC power)	120VAC,60Hz, Up to 12A total

Table 3 TNP328 Electrical Specifications \*\*\*

\* Models ending in "C" are customizable.

Models ending in "S" have brushed aluminum finish.

\*\* HDMI, the HDMI Logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

\*\*\* Dimensions and ratings include the customizable "C" models and "S" models.

### 5. The TNP328 Interconnect Box

- Available in high quality matte black finish or clear brushed finish
- Pre-configured, compact hybrid interconnect solution with HDMI and VGA interconnects or factory configured as a TNP320C
- Dual AC sockets rated for up to 12A from one power cord
- Simple, drop-in installation
- Gas spring for smooth operation
- UL listed



The TNP328 is a compact interconnect solution designed for mounting into tables, podiums, or other furniture as part of a presentation system. Inputs are accessed by pushing down on the top cover allowing the unit to tilt open. The inputs are hidden by pressing down on the top cover until the latching mechanism engages. In the closed position, the top cover lays almost flush with the tabletop. This tabletop solution offers up to dual 12 Amps from the AC sockets with computer video/audio, HDMI and network pass through cables. The passive cables are 6ft and are bundled together for organized cable management. The power cable is split to deliver power to both outlets on the tabletop from one AC plug. The TNP328 is one of many solutions available in the TNP Jr product line that can be customized with many different connectivity options as a TNP320C.

6. Application Diagrams

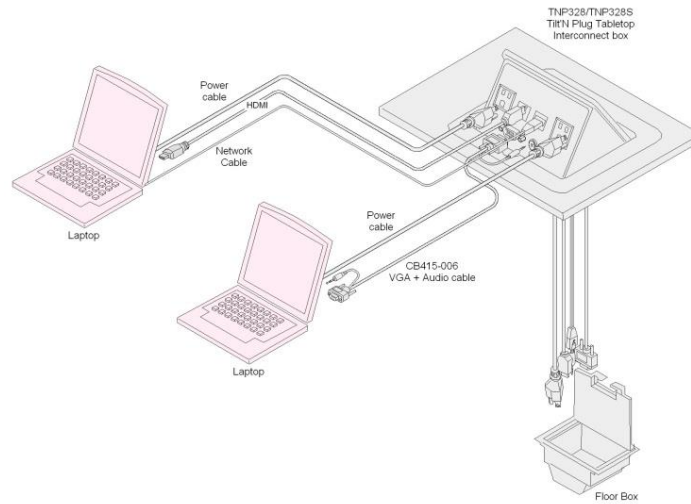


Diagram 1: Typical Setup and use of a TNP328

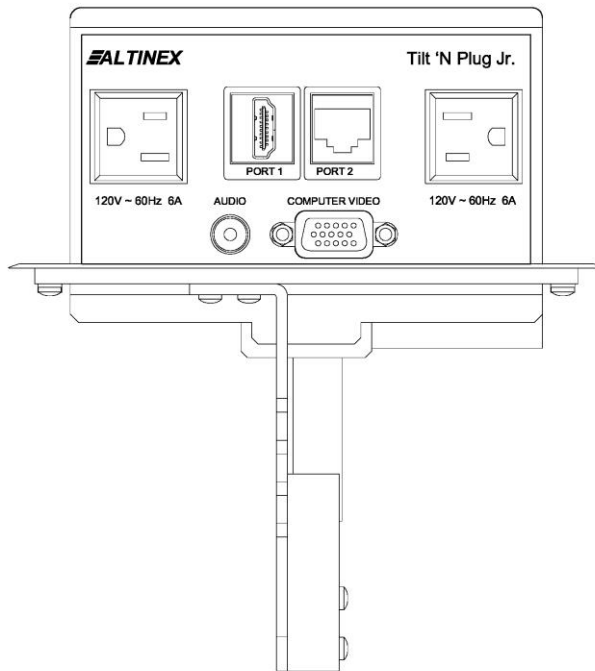


Diagram 2: Front View

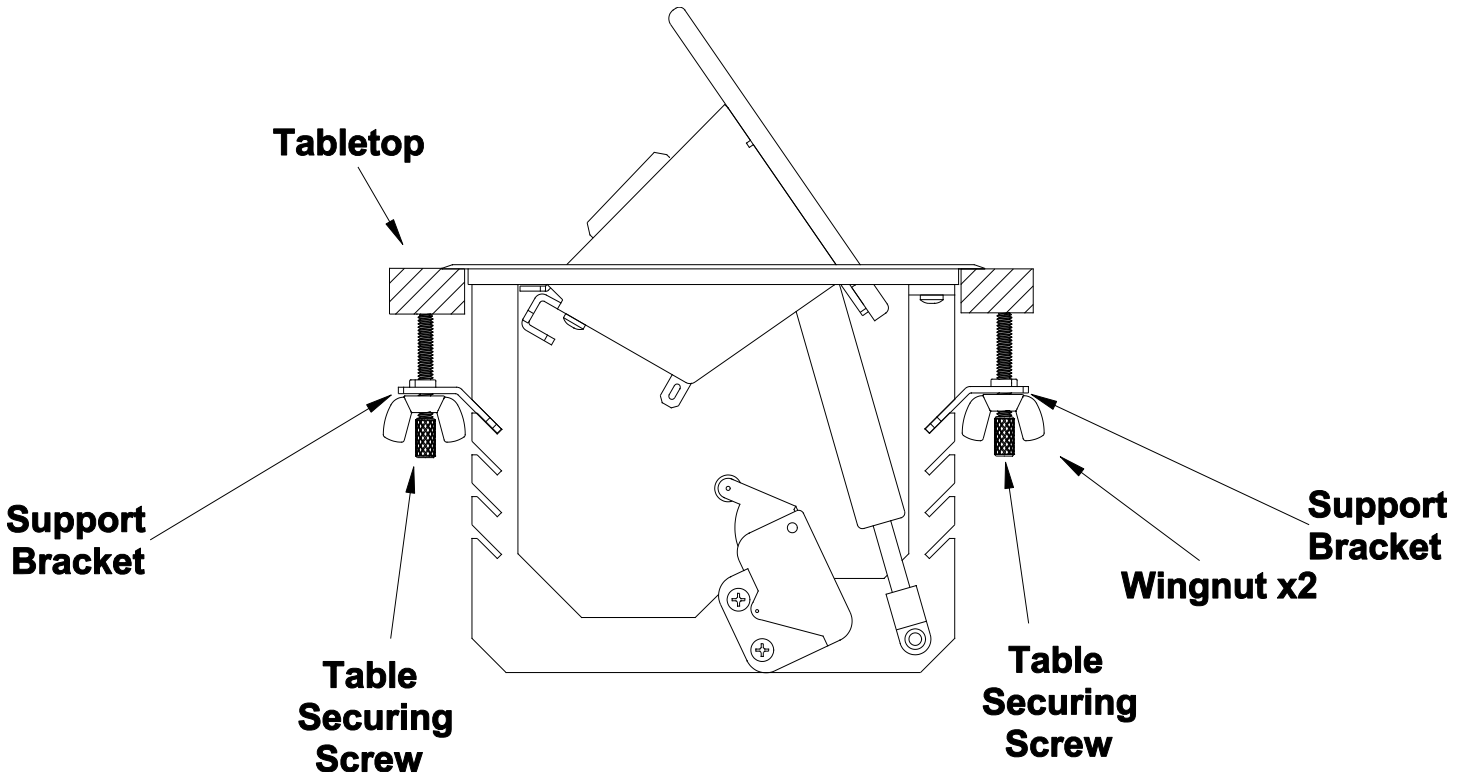


Diagram 3: Mounting the TNP328

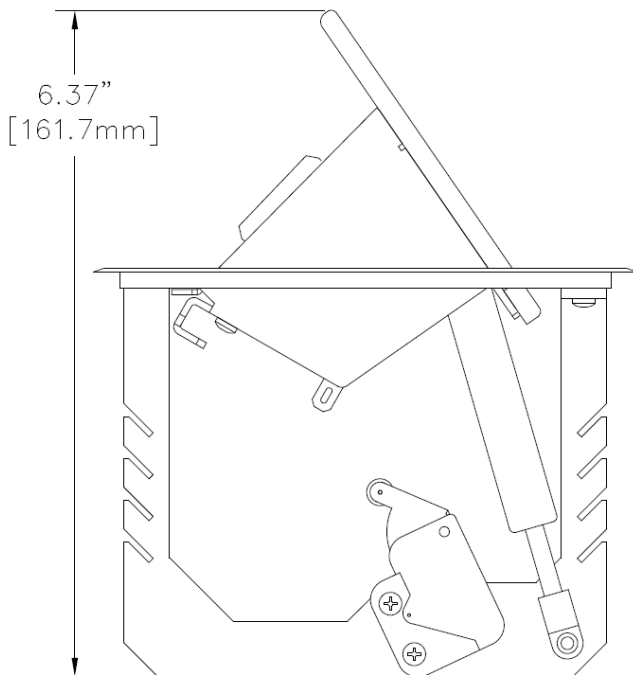


Diagram 4: Side Dimensions

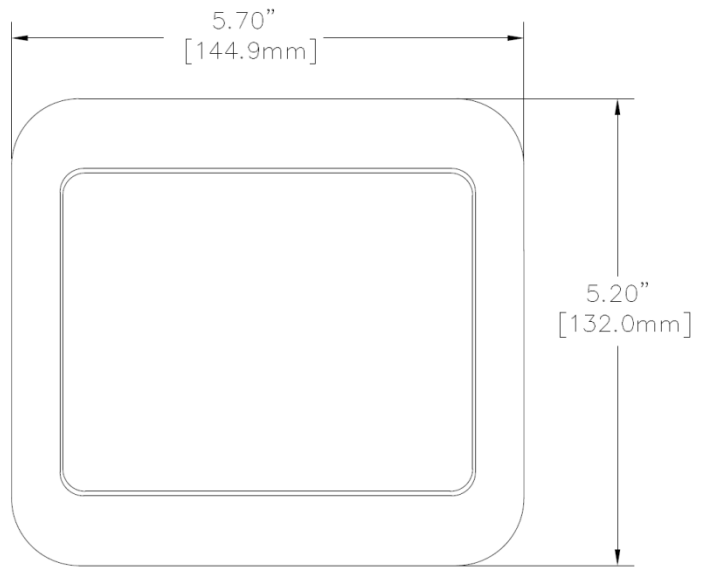


Diagram 5: Top Bezel Dimensions

**7. Operation**

**7.1 Opening and Closing the Tilt 'N Plug**

The Tilt 'N Plug will open easily when the top is pressed down and then released.

When the Tilt 'N Plug is not in use, simply press the top down until it is level with the surface of the table and then release. The unit will remain hidden until needed again.

**7.2 Power/Signal Connections**

Connect external devices to the appropriate connector on the Tilt 'N Plug. Remember, the devices plugged into the AC power connectors should not draw more than 12A total.

**8. Troubleshooting Guide**

The Tilt 'N Plug supplied was carefully tested and no problems were detected. However, we would like to offer the following suggestions:

TNP	
Symptom	Resolution
Signal quality is poor.	<ol style="list-style-type: none"> <li>1. Please make sure that the highest quality video and network cables are used.</li> <li>2. The TNP is a passive unit and does not alter signals in any way. If there is suspected problem with the signal quality, check the quality of the cables coming into and the TNP and connecting to the output of the TNP. If they are of low quality or improperly assembled, this will affect the overall quality of the signal.</li> </ol>
Damaged power cord	<ol style="list-style-type: none"> <li>1. Make sure that no cable or power cord is damaged or pinched.</li> <li>2. If there has been damage, do not use the Tilt 'N Plug. Please call the ALTINEX Customer Service Department at (714) 990-2300 to have the unit repaired.</li> </ol>
Unit raises too slowly	<ol style="list-style-type: none"> <li>1. If the unit does not rise into position correctly, check the service loops for the signal and power cords on the bottom of the unit. If the service loop is too small the cables will counteract the spring trying to raise the unit into position.</li> </ol>
Unit tilts up too fast	<ol style="list-style-type: none"> <li>1. If the unit rises into position too fast, check the service loops for the signal and power cords on the bottom of the unit. If the service loop is too large and the cables are putting upward pressure on the unit, the unit will tilt up too fast.</li> </ol>
Unit does not close all the way	<ol style="list-style-type: none"> <li>1. If the unit does not close flush with the bezel, check the service loops for the signal and power cords on the bottom of the unit. If the service loop is putting upward pressure in the unit, the unit will not be able to seat all the way down.</li> </ol>