

### Welcome!

We greatly appreciate your purchase of your TNP530 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; there are high-voltage components inside. Qualified Altinex service personnel or authorized representatives must perform all services.

#### 1.2 Installation Precautions

- For best results, place the unit in a dry area away from dust.

- To prevent fire or shock, do not expose 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 power. This supplies power to the pop-up socket. 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.

### 2. Installation Procedures

Note: Download and read the entire online manual to become familiar with the TNP530 and for detailed installation instructions.

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 2.50 in (64 mm) thick or less. Always confirm dimensions before cutting; specifications can change.

Step 2. Insert the TNP530 into the cutout. Under the table, place the support brackets into the grooves on the side of the unit at the desired height (#2). Secure them using the knurled security screws. Tighten wing nuts to set screws in place. See Diagram 4 of online manual for details. To lower the unit, push on the top cover until it locks into place.

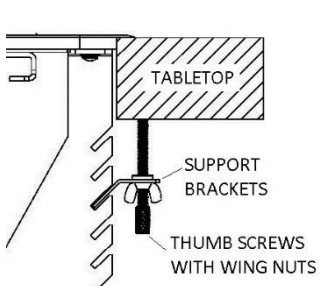
Step3. Secure cables to the underside of the table using hardware provided. Secure the power cord to the table separate from the signal cables. Leave enough slack in the power cord service loop to allow for easy opening and closing, but not too much as to cause excess drooping of the service loop. Adjust loop for best opening and closing of unit.

Step 4. Mount the RT300s onto the metal mounting bracket using four 4-40 screws (#4a). Hook the mounting bracket onto bottom support of TNP530 metal (#4b). Secure using thumb screws/wing nuts. See Diagram 5 of the online manual for details.

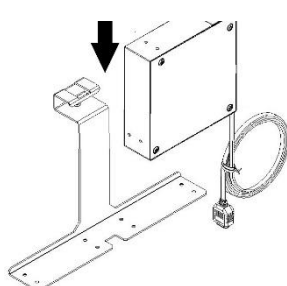
Step 5. Feed the retractable cables through the bottom of the TNP530, metal panel, and bushings (#5).

Slide bushings into plate openings to provide cable retention. Use provided 4-40 screws to connect the panel to the TNP530 chassis. See Diagram 5 of the online manual for details.

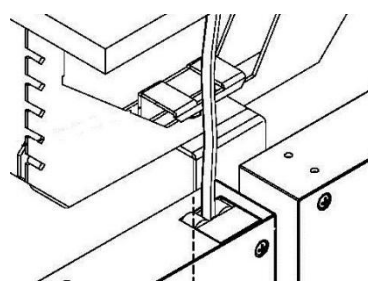
Step 6. Connect your cables to their corresponding input connectors on the bottom of the unit. Raise the unit into position, push down on the front of the top cover; the latching mechanism will then release, allowing the spring to raise it into position.



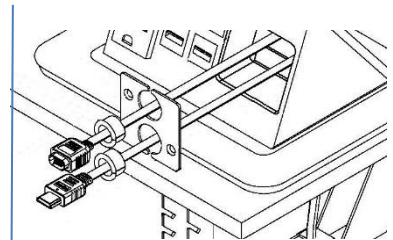
#2



#4a



#4b



#5

400-0621-001

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### 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.

### 4. Technical Specifications

Specifications are subject to change. See [www.altinex.com](http://www.altinex.com) for up-to-date information.

Features/Description	TNP
TNP530*	
Audio Communication, 6 ft. (2 m)	
Computer Audio	3.5mm F-M (1)
Network	CAT-6 (RJ-45) F-M (1)
USB	Type A F-M (2)
Video 4ft. (1.2m) retract above table 4ft. (1.2m) fixed cable under table	
Video (VGA)	15-pin HD M-M (1)
Video (HDMI)	HDMI M-M (1)
Pass-Through AC Power	9-10 ft. (2.7-3.0 m)
120 VAC, 60 Hz, 12 A	NEMA F-M
Agency Approval	
UL/cUL Listed	File E254082
TNP530*	
Accessories Included	
Hardware	-Mounting screws/brackets -Cable clamps/screws -Fastener Tool -Retract mounting /screws

Table 1. TNP530 \* General

Mechanical	TNP530 / 528**
Max. Table Thickness	2.50 in (64 mm)
Height, opened	12.5 in (318 mm)
Width	9.7 in (246 mm)
Depth	6.53 in (166 mm)
Finish TNP530: TNP530S:	Matte Black Brushed Aluminum (stain proof coating)
Weight (approx.) TNP530(S)	5.1 lb. (2.31 kg)
Shipping Weight	
T° Operating	10°C-35°C
T° Maximum	40°C
Humidity	90% non-condensing

Table 2. TNP530 \* Mechanical

Electrical	TNP530 **
Power Rating (pass-through AC power)	120VAC, 60Hz, 12A total current

Table 3. TNP530 \*\* Electrical

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.

\* Includes models ending in S (brushed aluminum).

\*\* Dimensions and ratings include models ending in S.

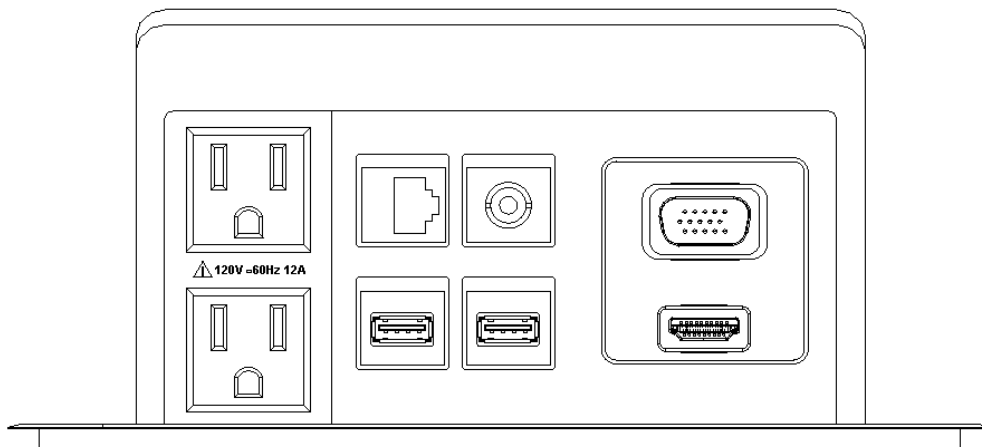
### 5. About Your Tilt 'N Plug Interconnect Box

- Leaf-spring for long service life (10 years warranty)
  - Convenient , easy to install cable retractors for HDMI and VGA cables
  - 2 AC sockets, 12 Amp total current
  - Standard high-quality black or brushed aluminum
- TNP530: Matte Black
- TNP530S : Brushed Aluminum (Stain Proof Coating)
- Pop-up dampening for smooth operation
  - Simple, drop-in installation
  - UL/cUL listed

TNP530 is a pre-configured, compact hybrid interconnect solution with retractable digital (HDMI) and analog (VGA) cables that includes audio, network and USB snap-in ports. The TNP530 is designed for mounting into tables, podiums, or other furniture as part of a presentation system.

The user interface is accessed by pushing down on the top cover allowing the unit to "tilt" open. Pushing down on the top cover after it is in the up allows the latch to lock the TNP520 in the down position; the top cover lies flush with the tabletop.

The TNP530 is a "hybrid" package that covers the needs of many users and includes the connectivity listed below. All connectors are passive and have 6 ft. (2m) cables that pass through to the bottom of unit.



### TNP530

- USB F (x2)-Snap in Port
- RJ-45 F Network (x1)-Snap in Port
- 3.5 mm F Audio (x1)-Snap in Port
- 15-pin HD M (x1)-VGA retractable cable
- HDMI (x1) HDMI retractable cable
- AC Power (x2)

## 6. Application Diagrams

### Diagram 1: Application Diagram

#### TNP530

Factory Configured Tilt 'n Plug, US Power,  
SP3505SC. 2X Retract: VGA+HDMI, AUDIO, RJ45, 2XUSB

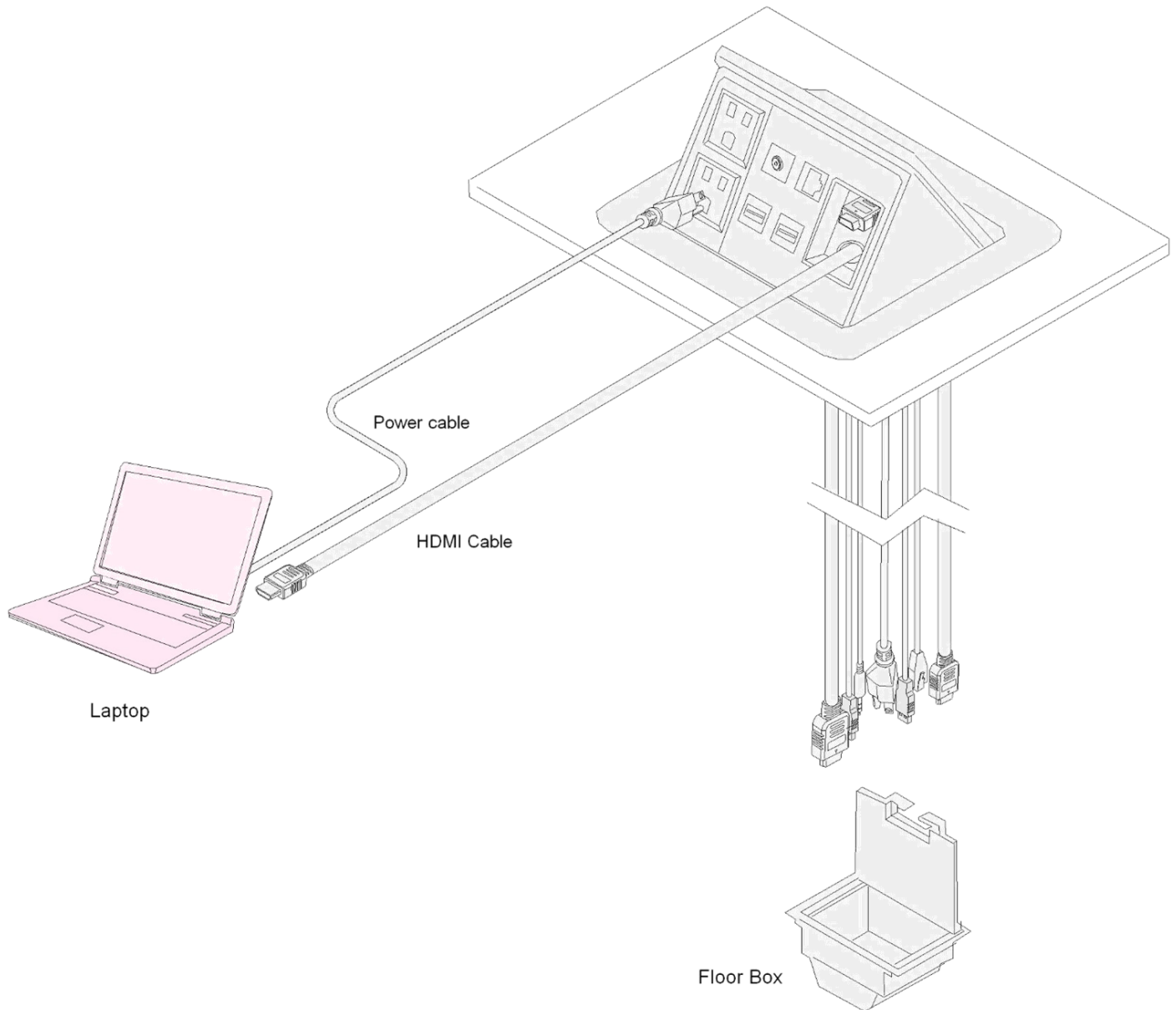


Diagram 2: Bezel Dimensions

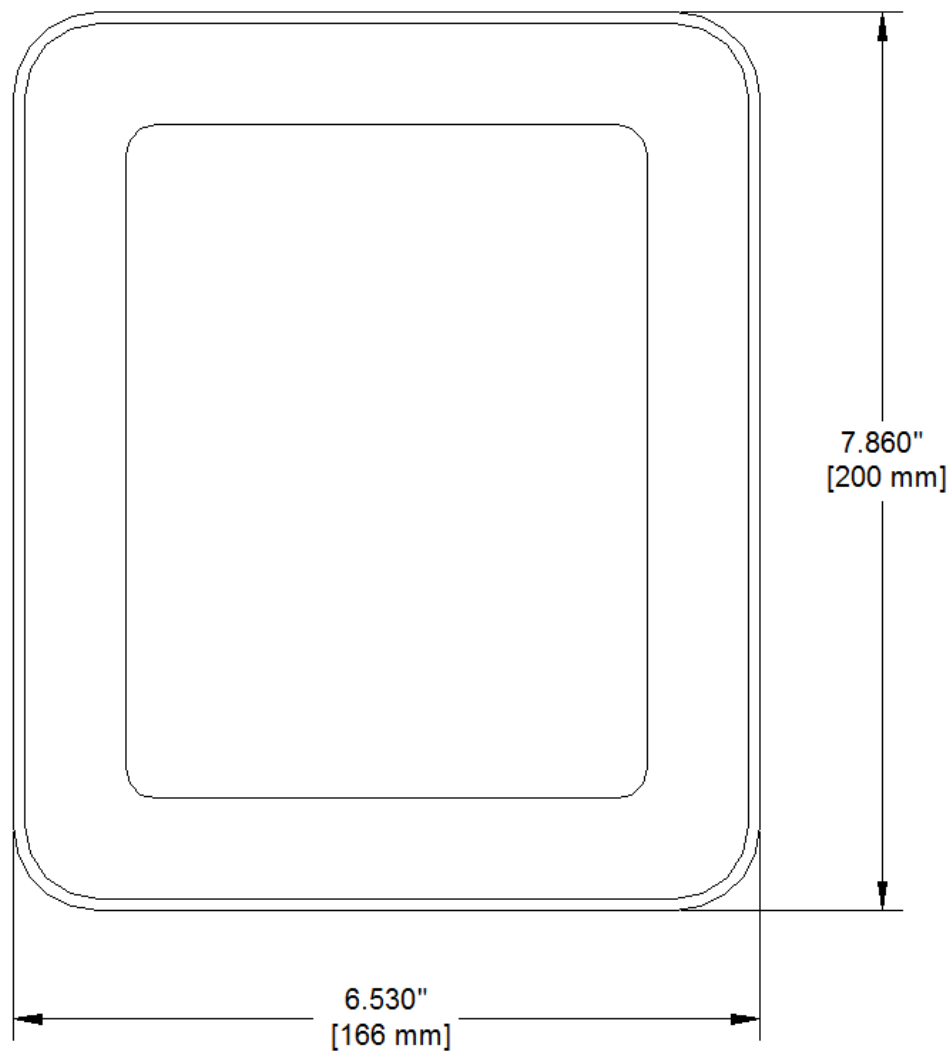


Diagram 3: Unit Dimensions

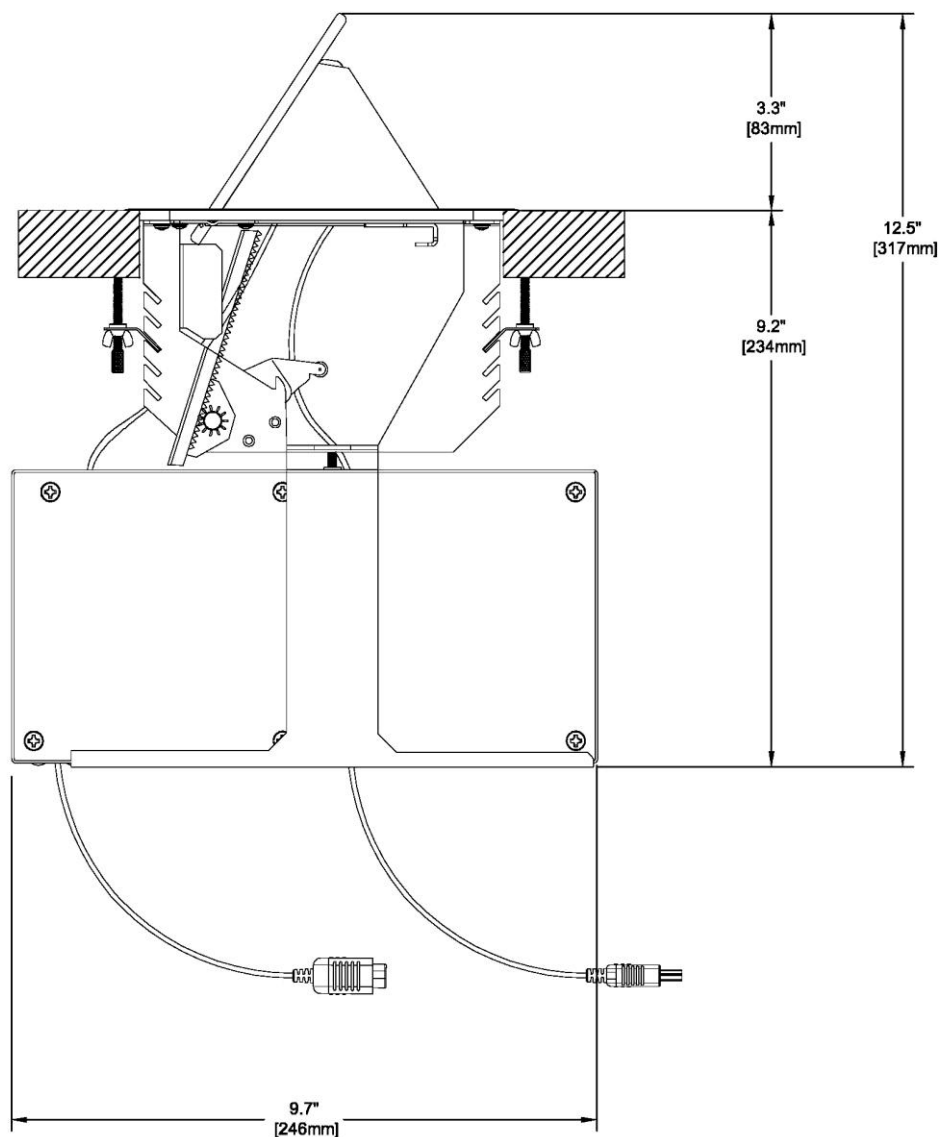
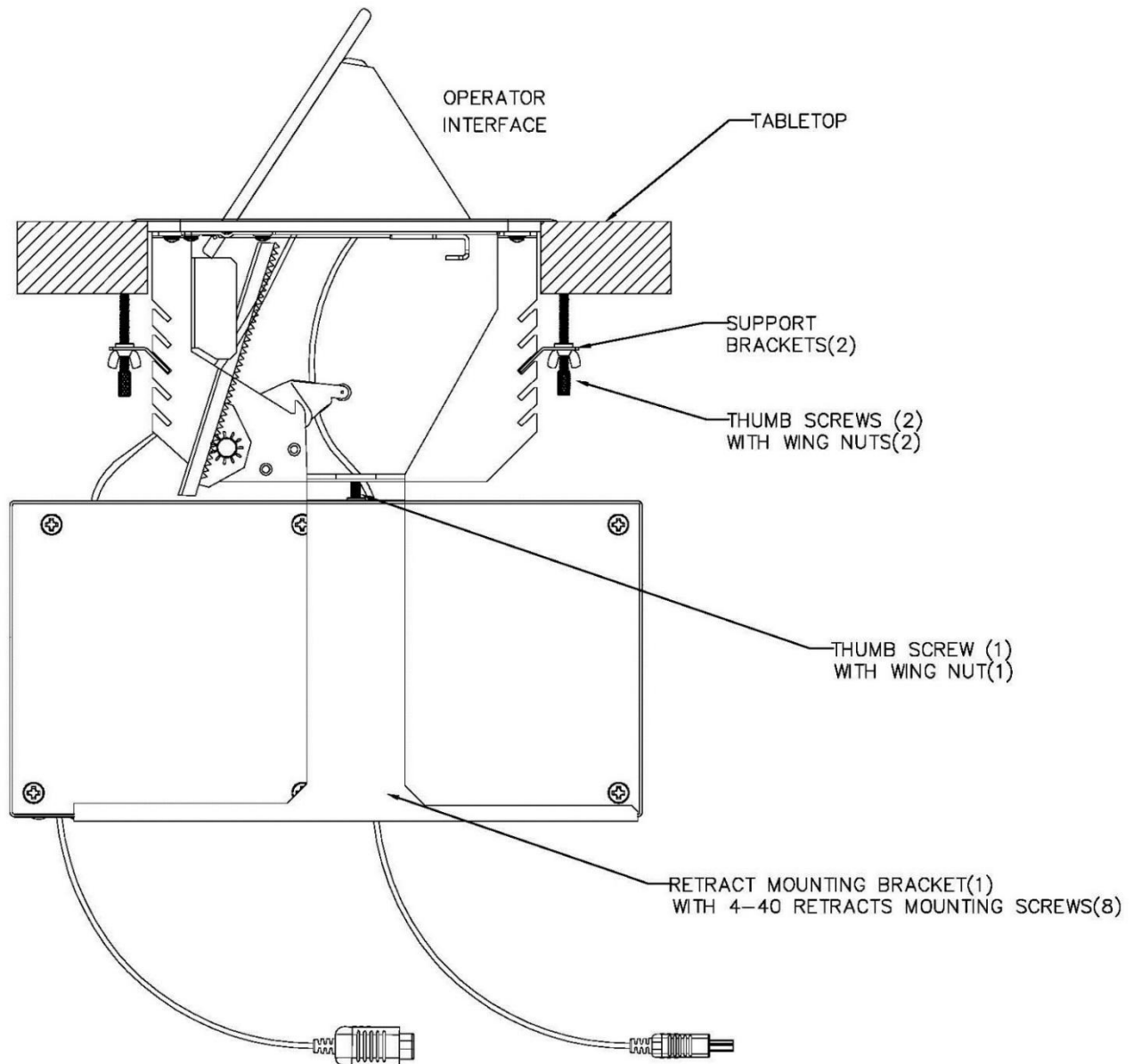


Diagram 4: Mounting

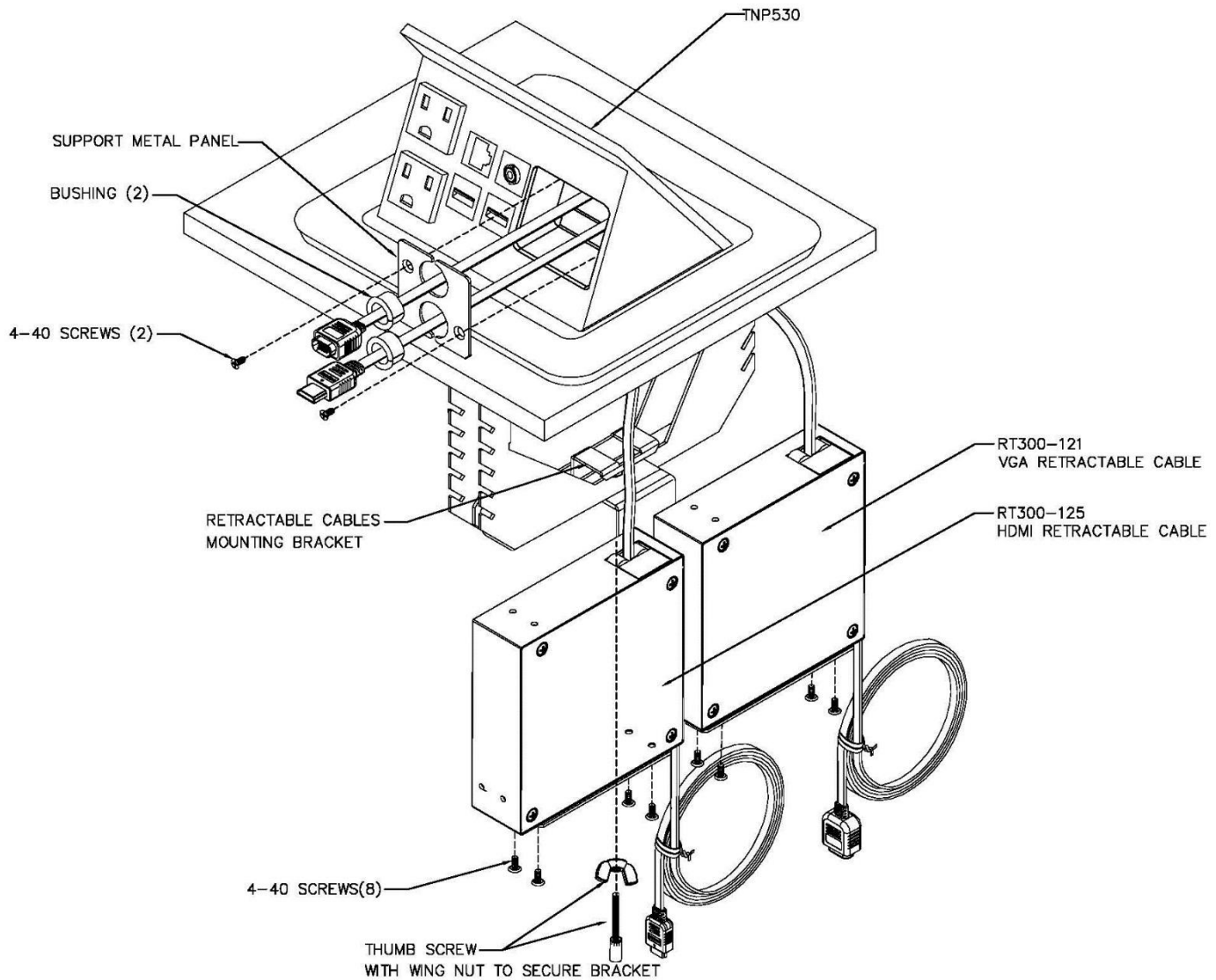




### Diagram 5: Installation instruction

Mount the RT300-125 and RT300-121 onto the metal mounting bracket provided. Secure each RT with the four 4-40 screws provided. Place the mounting bracket onto the bottom support of TNP530 metal and secure it using thumbscrew and wing nut.

Feed the retract cables trough the bottom of the TNP530, metal panel and bushings provided. Slide the bushings into plate openings to provide cable retention. Use 4-40 screws provided to connect the panel to TNP530 chassis.





### 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 AC.

For accessing retractable cables, no further configuration is needed after installation. Simply open the unit, pull the cable from the panel and connect to a source. When finished, disconnect the cable from the source, then gently pull and release the cable allowing it to retract back into the panel.

### 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:

Symptom	Resolution
Signal quality is poor.	<ol style="list-style-type: none"> <li>1. Please make sure that the highest quality 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>
Retract cables	<ol style="list-style-type: none"> <li>1. Make sure that no cable 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> <li>3. Retract cables are precision retractors. Once reaches the end, do not continue pulling on it. Doing so will damage cable and the retractor assembly.</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>