LEVITON

Patented
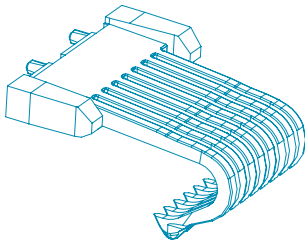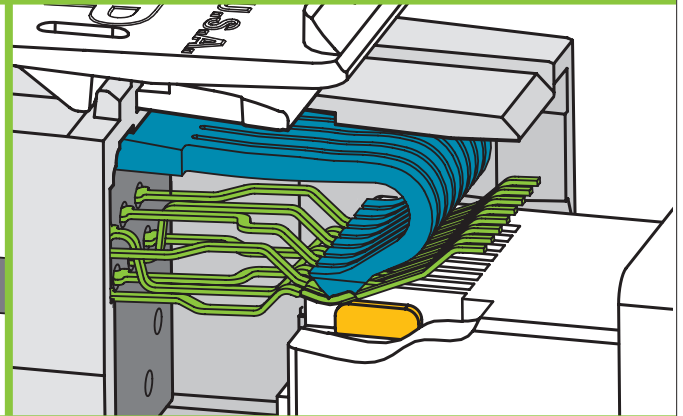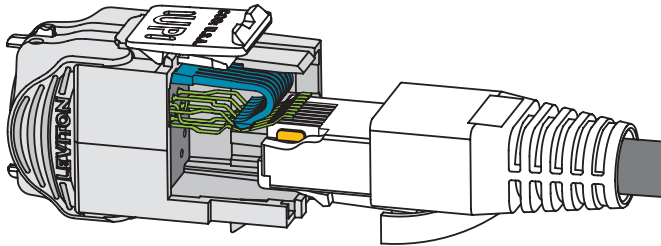
Retention Force Technology™ (RFT)
Improving Network Longevity

RFT is a unique polymer spring that **supports jack tines and increases their resistance to strain and damage**. This extends the life of jacks, saves on costly repairs and increases overall system longevity.

Benefits of RFT

- Unequaled durability and system reliability, extending the life of your network
- Ensures high performance over the life of the system
- Mechanical and electrical excellence to ensure network performance
- Reduced tine contact failure caused by stress, fatigue, or foreign object insertion
- Saves on costly repairs and reduces service calls
- Protects against tine damage from 4- or 6-pin plugs, common on testers with 6-position plugs
- For Power over Ethernet (PoE), RFT maintains contact force between plug and jack, preventing arcing from intermittent disconnects
- Available on all Leviton Atlas-X1™ and eXtreme® Jacks and select patch panels

Technologies That Benefit From RFT Protection

- Gigabit and 10 Gigabit Ethernet connectivity
- PoE — Delivers power over all 8 pins
- VoIP — Uses all 8 pins for IP and power

Best Jacks in the Industry for PoE Applications

- RFT delivers an additional layer of protection against PoE arcing damage
- Constant contact force at the jack/plug interface
- Prevents inadvertent intermittent disconnects while mated
- Works in conjunction with PoE optimized tine geometry to prevent arcing damage in critical-contact mating zone between plug and jack

RFT Delivers Performance and Cost Saving

Leviton's patented Retention Force Technology, found in Atlas-X1 and eXtreme® Jacks and select patch panels, provides unequalled durability and reliability to ensure long term network performance. The key feature, a patented polymer spring, supports jack tines and increases their resistance to strain and damage.

For example, when a 4- or 6-pin plug or probe is inserted into any Leviton jack or patch panel featuring Retention Force Technology, the spring returns tines to their pre-stress location and protects against long-term damage. Because insertion of 4- or 6-pin plugs into 8-pin connectors is common, we plan, design, build, and test for this real-world occurrence.

In addition, connectors with RFT feature advanced, gas-tight IDCs with superior wire retention, plus pair separation towers for easy punchdown.

Damaged connectors can cost an estimated $150 per replacement jack. Leviton jacks with RFT provide long-term reliability and performance saving valuable time and money by avoiding costly repairs.

Radical Load Simulation
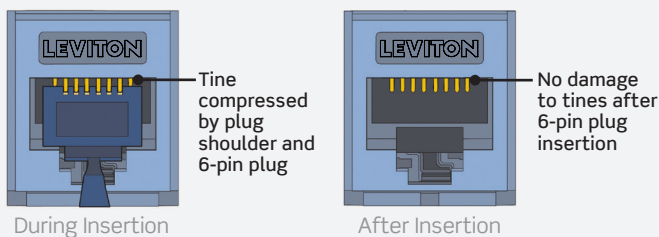### A True Test of True Performance

6P vs. 8P

We know it's necessary to insert 6-position (6P) plugs into 8-position (8P) connectors. When the outside "shoulders" of the 6P plug push against pins 1 and 8 in the 8P connector, the pins may be bent beyond their ability to return to normal position. When 8P plugs are later plugged in, open or intermittent-open circuit conditions may occur. Denying this reality in the design and development of jack systems ultimately leads to the development of an inferior product.

Industry standards such as ANSI/TIA-1096-A and ANSI/TIA-568 do not adequately address the issue. Fortunately, in Leviton's 20 years of designing, developing, and manufacturing telecommunications connectors we've learned to go beyond standards and regulations.
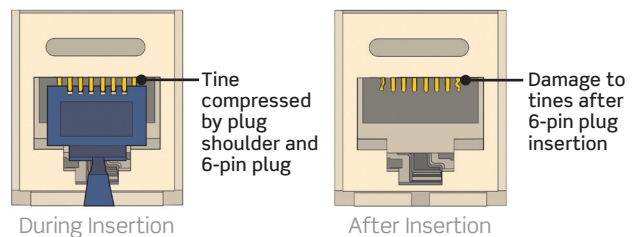
That's why Leviton jacks consistently stand up to the rigors of everyday use, including insertion of 6 position plugs. Competing warranties may call it "abuse and misuse", but we call it "normal and predictable field use".

We build our connectors with Retention Force Technology and put them through a series of demanding tests that we call Radical Load Simulation. The result is robust physical design and long-term performance. Leviton connectors consistently pass Radical Load Simulation, even at Cat 6A levels. This translates into an "invisible infrastructure".

Leviton Cat 6 Jack

Tine compressed by plug shoulder and 6-pin plug

During Insertion

No damage to tines after 6-pin plug insertion

After Insertion

Competitor's Cat 6 Jack

Tine compressed by plug shoulder and 6-pin plug

During Insertion

Damage to tines after 6-pin plug insertion

After Insertion

Leviton Jacks with Retention Force Technology

We put them to the test. **They pass every time.**

Leviton uses this set of three unforgiving tests, an integral part of Leviton's ISO 9001:2015 quality system, to simulate worst-case "normal and predictable field use" pertaining to 6P plugs. Every jack tested must pass without a single failure.

1 The Killer Plug Test

This test consists of repeatedly inserting and removing a 6P "Killer Plug" (so-called because it is under-crimped) into an 8P jack. Any incidence of deformed tines, or "jumped tines" sends the designers back to the drawing board. ("jumped tines" refers to tines that leave retaining combs and enter adjacent retaining combs). Following the insertion of a 4- or 6-pin plug or other foreign objects, RFT helps jack tines return to their pre-stress position and protects against long-term damage.

2 Discontinuity Under Radical Load Conditions

For Power over Ethernet applications, RFT maintains contact force between the plug and jack, preventing electrical arcing from intermittent disconnects caused by vibration or operational movement.

3 Wiremap Under Radical Side-Loaded Conditions

Again, an 8P patch cord is inserted into the previously stressed connector, and pulled to the left and right at severe angles, placing significant lateral stress on the connector-plug interface. Any resulting incidence of wiremap failure is considered a product failure.

Leviton Jacks with Retention Force Technology

A

B

C
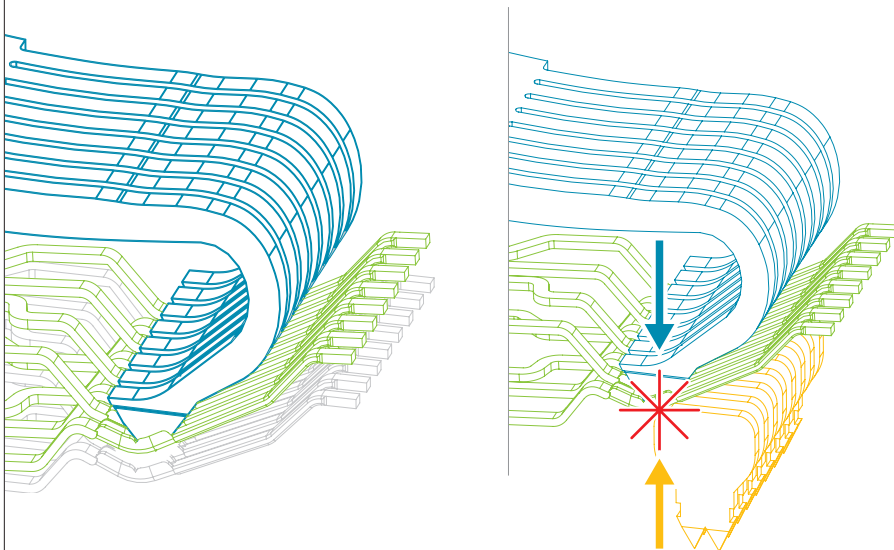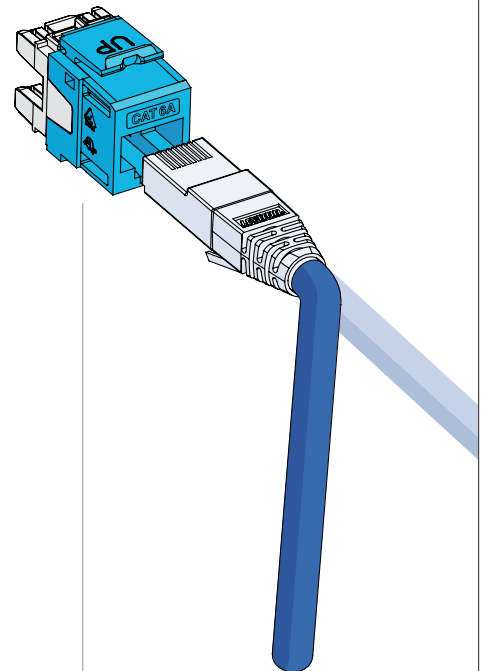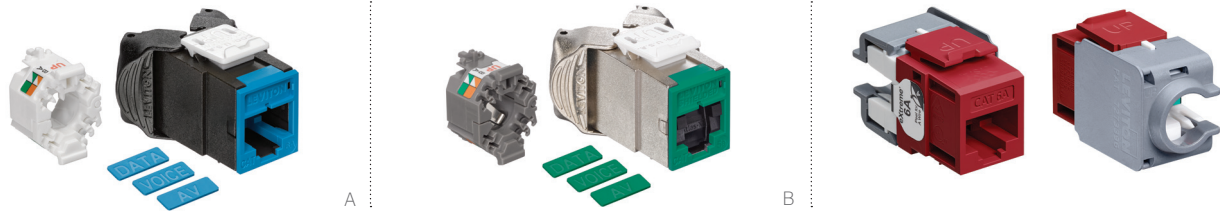
ATLAS-X1™ UTP QUICKPORT® JACKS

DESCRIPTION	CAT 8	CAT 6A	CAT 6	CAT 5E
Atlas-X1 UTP QuickPort Jack	—	**[A]** 6AUJK-R*6	61UJK-R*6	5EUJK-R*5
Atlas-X1 UTP QuickPort Jack with Shutter	—	6AUJK-S*6	61UJK-S*6	5EUJK-S*5
Atlas-X1 UTP QuickPort Jack, GreenPack® 12-pack	—	6AUJK-C^6	61UJK-C^6	—

ATLAS-X1 SHIELDED QUICKPORT JACKS

Atlas-X1 Shielded QuickPort Jack	81SJK-R†8	6ASJK-R*6	61SJK-R*6	5ESJK-R*5
Atlas-X1 Shielded QuickPort Jack with Shutter	—	6ASJK-S*6	61SJK-S*6 **[B]**	5ESJK-S*5
Atlas-X1 Shielded QuickPort Jack, GreenPack® 12-pack	—	6ASJK-C~6	61SJK-C~6	—

†= Cat 8 jacks available in grey and black only.   ^= Colors: White (W), Black (E), Blue (L)   * = Colors: Choose from any of the colors below.   ~ = Colors: White (W), Black (E), Grey (G)

ATLAS-X1 ACCESSORIES

DESCRIPTION	PART NO.
Atlas-X1 Bulk Icons, pack of 72 (2-sided icons, 24 of each icon)	ICONS-IC*
Atlas-X1 UTP Wire Managers, bag of 10, white	AXUJK-BWM
Atlas-X1 Shielded Wire Managers, bag of 10, grey	AXSJK-BGM
Atlas-X1 Shielded Wire Managers for Cat 8, bag of 10, black	AXSJK-BEM

* = Colors: Choose from any of the colors below.

EXTREME® UTP QUICKPORT JACKS

DESCRIPTION	1-PACK	GREENPACK® 12-PACK	QUICKPACK® 25-PACK	QUICKPACK 150-PACK WITH JACKRAPID TOOL
[C] eXtreme Cat 6A UTP Channel-Rated QuickPort Jack	6110G-R*6	6110G-C^6	—	—
eXtreme Cat 6 UTP Component-Rated QuickPort Jack	61110-R*6	—	61110-B*6	61110-J*6
eXtreme Cat 5e UTP Component-Rated QuickPort Jack	5G110-R*5	—	5G110-B*5	5G110-J*5

* = Colors: Choose from any of the colors below.   ^= Colors: White (W), Black (E), Blue (L)   All Leviton Category-Rated Jacks are RoHS Compliant.

White (W)   Light Almond (T)   Ivory (I)   Yellow (Y)   Orange (O)   Crimson (C)   Dark Red (R)   Purple (P)   Blue (L)   Green (V)   Grey (G)   Black (E)   Brown (B)

LEVITON

Leviton Patch Panels with Retention Force Technology

A

B

FLAT 110-STYLE PATCH PANELS & PATCH BLOCK

DESCRIPTION	CAT 6	CAT 5E
1RU 12-Port Flat 110-Style Patch Panel	69586-U12	5G596-U12
1RU 24-Port Flat 110-Style Patch Panel	69586-U24	5G596-U24
1RU 24-Port Flat 110-Style Patch Panel, magnifying lens label holder	69586-L24	5G596-L24
2RU 48-Port Flat 110-Style Patch Panel	69586-U48	5G596-U48
2RU 48-Port Flat 110-Style Patch Panel, magnifying lens label holder	69586-L48	5G596-L48
2RU 48-Port Flat 110-Style Patch Panel, central labeling	69586-C48	5G596-C48
4RU 96-Port Flat 110-Style Patch Panel	69586-U96	5G596-U96
12-Port 110-Style Patch Block, 89D bracket	69586-U89	5G596-U89

ANGLED 110-STYLE & QUICKPORT PATCH PANELS

DESCRIPTION	CAT 6	CAT 5E
1RU 24-Port Angled 110-Style Patch Panel	69587-U24	5G597-U24
1RU 24-Port Angled 110-Style Patch Panel, magnifying lens holder	69587-L24	5G597-L24
2RU 48-Port Angled 110-Style Patch Panel	[A] 69587-U48	5G597-U48
2RU 48-Port Angled 110-Style Patch Panel, magnifying lens holder	69587-L48	5G597-L48

FLAT QUICKPORT PATCH PANELS

DESCRIPTION	CAT 6A	CAT 6	CAT 5E
1RU 24-Port Flat QuickPort Patch Panel	[B] 6910G-U24	69270-U24	5G270-U24
2RU 48-Port Flat QuickPort Patch Panel	6910G-U48	69270-U48	5G270-U48

* = Cable management bar sold separately.　　　^ = 49005-DMB, high-density cable management bar included.
Cat 6A/6/5e patch panels are kitted with black 6110G, 61110, or 5G110 jacks.

RFT is only available with Atlas-X1™ and eXtreme® jacks, and select Leviton patch panels.

Learn more about Leviton connector technology at Leviton.com/PoE.

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