

Cat6A & Cat8 Plugs

Cat6A Shielded Toolless RJ45 Connector - Clear Housing, No Crimp Tool, Trimmable Strain-Relief Boot, 10G 8P8C Plug for 22-26 AWG STP/UTP, Bulk OEM, Free Samples



Key specifications

Model No.	PR-C6ATL-T1
Connector Type	Cat6A shielded toolless RJ45 8P8C modular plug
Termination Method	Toolless, insulation displacement — no crimp or punch-down tool
Category / Bandwidth	Cat6A, 500 MHz

Product summary

- **See Every Conductor Before You Close It** – The translucent housing lets you verify the T568A or T568B colour sequence through the connector body before and after assembly. Most toolless plugs are opaque metal, so a mis-seated conductor stays hidden until the link fails a test.
- **No Crimp Tool, No Punch-Down Tool** – Strip, seat the conductors in the wire manager, trim, and close the shell. Insulation-displacement blades make all eight terminations as the housing snaps shut.
- **Full Cat6A Performance** – Rated to 500 MHz and 10GBASE-T over the full 100 m channel, backward compatible with Cat6 and Cat5e cable.
- **360° Metal Shield Housing** – A nickel-plated metal shield band encloses the termination area and bonds to the cable foil or braid, giving continuous shield continuity through the connector for EMI and alien-crosstalk control.
- **Trimmable Ribbed Boot Fits 5.0–8.0 mm Cable** – Cut rings from the moulded boot to match the exact jacket OD. One part number covers slim patch cable and oversized shielded riser cable.
- **Re-Terminable, Not Disposable** – Rated for up to 20 IDC re-termination cycles. Open it, re-lay the conductors, close it again. A mistake costs a minute instead of a connector.
- **Wide Fitment Window** – 22–26 AWG solid and stranded, insulated conductor OD 0.90–1.10 mm. Handles the thick-jacket, large-conductor Cat6A cable that defeats standard plugs.
- **Integrated Latch Guard** – A metal arch over the release latch prevents the snagging and snapped tabs that end a patch cord's service life early.
- **Full PoE Support** – 802.3af / at / bt compliant, 4PPoE to 90 W, for PoE cameras, access points and access control.
- **Bulk, OEM and Private Label** – Jars, bags or your own printed carton and barcode. Custom marking from 10,000 pcs, low MOQ, free samples for qualified buyers.

Product page:

<https://www.cnplugs.com/product/cat6a-toolless-rj45-connector-clear-shielded/>

Category: Cat6A & Cat8 Plugs

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Product details

Cat6A Shielded Toolless RJ45 Connector with Clear Housing: Terminate 10G Links Without a Crimp Tool

Every installer who has tried a toolless RJ45 connector has the same question, and it is a fair one: can a plug that assembles by hand really pass a Cat6A certification? The honest answer is that it depends entirely on whether the conductors are seated correctly — and that the reason cheap toolless plugs earned a poor reputation is that they give you no way to check. This connector was designed around that specific problem. The housing is translucent, so the conductor sequence is visible through the body before you close the shell and after you have finished. You are no longer trusting the connector. You are looking at it.

Prounta manufactures this Cat6A shielded toolless connector for installers, integrators, cable assembly houses and distributors who need dependable field terminations without carrying a crimp tool. It terminates 22–26 AWG solid and stranded cable, shielded or unshielded, and delivers full Cat6A performance to 500 MHz and 10 Gigabit Ethernet across a 100 metre channel.

How a Toolless Connector Actually Terminates

There is no crimp die and no punch-down tool involved. The connector arrives in three parts: the front housing carrying the eight contacts, a wire manager that sets the conductor sequence, and the rear body with its integrated strain-relief boot. You slide the boot onto the cable, strip the jacket, fan the pairs into the wire manager in T568A or T568B order, trim the conductors flush, seat the manager into the housing and close the shell. As it closes, **insulation-displacement contacts** cut through each conductor's insulation and clamp onto the copper, forming eight gas-tight connections simultaneously.

Gas-tight is the important phrase. The blade slices the insulation and grips the conductor tightly enough to exclude air from the contact interface, which is what prevents oxidation and keeps contact resistance stable for years. It is the same termination principle already trusted throughout the permanent cabling in your building, applied to a male plug rather than to a wall outlet.

Why the Clear Housing Changes the Outcome

Toolless connectors fail for one dominant reason: a conductor that is not fully seated in its channel when the shell closes. The blade catches the edge of the copper instead of biting into it, or misses entirely. The link may still pass a basic continuity check and then fail a certification test, or work at gigabit and collapse at 10G, or fail intermittently months later. Diagnosing it means cutting the connector off and starting again.

An opaque metal housing hides all of this. Once the shell is closed, the termination is a black box. The translucent housing on this connector means the conductor colour sequence stays visible through the body — you confirm the order is correct before you close it, and you can confirm it again afterwards during troubleshooting without destroying the termination. In a building with hundreds of drops, being able to look at a suspect connector rather than replace it is a meaningful saving in labour.

The same clarity helps in production. Cable assembly houses running a visual QC step can inspect the conductor order on every finished assembly without extra tooling, which is precisely why our customers building patch cords in volume ask for translucent housings.

Step by Step: Terminating One Connector

The whole sequence takes under two minutes once you have done a few, and it is worth setting out precisely because most first-attempt failures come from two specific steps.

1. Slide the boot on first. Obvious, and forgotten constantly. Push the trimmable boot onto the cable, wide end towards the connector, before you strip anything.

2. Strip the jacket back about 30 mm. Score and remove the jacket without nicking the foil or the conductor insulation. On F/UTP cable, fold the foil and the drain wire back over the jacket rather than cutting them off — that folded-back foil is what the shield band clamps onto, and cutting it away is the most common reason a shielded termination shows no shield continuity on a test.

3. Untwist as little as possible. Separate the pairs only as far as you must to reach the wire manager. Cat6A tolerates far less untwisting than Cat5e — keep it under about 6.5 mm of untwisted length per pair. Excess untwist degrades near-end crosstalk and is the most frequent cause of a link that passes at 1 Gigabit

and fails at 10.

4. Lay the conductors into the colour-coded manager in T568A or T568B order, pushing each one fully to the front stop.

5. Trim flush across the front face of the manager with flush cutters.

6. Check the colours through the housing, then seat the manager and close the shell until it latches. Slide the boot forward. Test.

Step three and step six are the two that separate a certified link from a callback, and step six is the one only a translucent connector lets you perform at all.

Shielding and Cable Compatibility

The termination area is enclosed by a nickel-plated metal shield band that bonds to the cable's foil or braid and carries shield continuity straight through the connector to the mating port. This matters more at Cat6A than at any lower category, because 10GBASE-T is uniquely vulnerable to alien crosstalk — interference coupling between adjacent cables rather than between pairs inside one cable. A continuous shield path is one of the main defences, and it only works if it is unbroken end to end. The principle is set out in the Wikipedia article on [electromagnetic shielding](#): an enclosure only excludes interference if it is electrically continuous.

There is a rule that follows from this and it is worth stating plainly, because getting it wrong is common. **Match the connector to the cable.** A shielded connector on unshielded cable achieves nothing — there is no shield to bond to. An unshielded connector on shielded cable is worse: it leaves the foil terminated nowhere, and an ungrounded conductor running the length of a building behaves as an antenna rather than a screen. This connector is intended for F/UTP, U/FTP, S/FTP and STP cable. It will physically terminate unshielded cable and works perfectly well doing so, but if your cable is unshielded there is no benefit in paying for the shield.

Fitment: The Numbers That Prevent Returns

Most termination problems that get blamed on connector quality are fitment problems. Cat6A cable is physically larger than Cat6 or Cat5e — thicker insulation to hold pair geometry, often a separator spline, sometimes a heavy jacket for riser or plenum use — and a connector dimensioned for Cat5e simply will not accept it.

This connector accepts **22 to 26 AWG** solid or stranded conductors with an **insulated conductor OD of 0.90 to 1.10 mm**, and a **cable jacket OD of 5.0 to 8.0 mm**. That covers essentially the whole Cat6A range including oversized shielded riser cable. The ribbed strain-relief boot is moulded so that rings can be trimmed off to match your actual jacket diameter, giving a clean, tight finish on thin and thick cable from the same part number rather than forcing you to stock several.

If you are ordering in volume, send us your cable's datasheet — specifically the insulated conductor OD and jacket OD — and we will confirm fitment in writing before you commit. It takes us ten minutes and removes the single largest cause of dissatisfaction in this product category.

Where This Connector Earns Its Cost

A toolless connector costs more than a crimp plug, so it should be specified where the labour saving or the access constraint justifies it. In practice that means a few clear situations.

Repair and retrofit. A damaged plug on an installed cable can be replaced in place without pulling new cable and without a crimp tool on a ladder. This is where the reusability and the clear housing pay for themselves fastest.

Awkward and high-access locations. Ceiling voids, camera poles, lift shafts, industrial cabinets — anywhere carrying and operating a crimp tool one-handed is difficult. Assembly needs only your hands and flush cutters.

Oversized cable that defeats standard plugs. Heavy shielded riser and outdoor cable often will not fit a conventional plug at all. The wide fitment window and trimmable boot solve that directly.

For high-volume patch cord production in a controlled environment, a crimp plug remains more economical per unit — our [Cat6A single row shielded modular plug](#) is the right choice there, and our [Cat6A and Cat8 plug range](#) covers the full crimp lineup. We would rather tell you that than sell you the wrong part.

Are toolless RJ45 connectors reliable enough for a certified installation?

Yes, when the conductors are seated correctly — which is exactly the variable this design controls. The insulation-displacement principle behind it is the same well-proven method used throughout the permanent cabling already installed in your building. What has historically gone wrong with toolless plugs is seating errors hidden inside an opaque housing. Being able to see the conductor sequence through the body before closing the shell removes most of that risk. Certify the link as you would any other and you will have documented proof rather than an assumption.

Do I need any tool at all?

No crimp tool and no punch-down tool. You need a jacket stripper and a flush cutter to trim the conductors, both of which are already in any installer's pouch. That is the whole tool list.

Can I reuse the connector if I make a mistake?

Yes. The shell opens, the conductors can be re-laid and the connector closes again, rated for up to 20 IDC re-termination cycles. Do bear in mind that each cycle needs fresh conductor length, so leave a little service slack when you first strip the cable.

Will it work with unshielded cable?

Mechanically yes, and it terminates U/UTP perfectly well. But the shield only does something when there is a cable shield to bond to, so if your plant is unshielded there is no performance reason to pay for a shielded connector. Conversely, never put an unshielded plug on shielded cable — an unterminated foil is worse than no foil at all.

My Cat6A cable is very thick. Will it fit?

The connector accepts jacket diameters from 5.0 to 8.0 mm and insulated conductor diameters from 0.90 to 1.10 mm, which covers oversized shielded riser cable that standard plugs reject. The boot is trimmable so the fit stays clean at both ends of that range. Send us your cable datasheet and we will confirm before you order.

Does it support PoE?

Fully. It meets IEEE 802.3af, 802.3at and 802.3bt including 4PPoE up to 90 W, with 1.5 A per contact. The gold-over-nickel plating matters here — PoE current makes a stable, low-resistance contact interface more important, not less.

Can we get our own logo or part number on it?

Yes. Custom marking is available from 10,000 pieces, along with private-label packaging, your own barcodes and housing colour options. We manufacture in our own plant, so tooling and marking changes go straight to the production line.

Is a translucent housing as strong as an opaque one?

Yes. The housing is moulded from virgin polycarbonate rated UL 94V-0 — the same resin family as our clear crimp plugs — and the mechanical load in service is carried by the metal shield band and the latch, not by the transparency of the plastic. Clear polycarbonate is the standard material for RJ45 plug bodies; what is unusual here is applying it to a toolless design where the interior is worth seeing.

Technical specifications

Specification	Published value
Model No.	PR-C6ATL-T1
Connector Type	Cat6A shielded toolless RJ45 8P8C modular plug
Termination Method	Toolless, insulation displacement — no crimp or punch-down tool
Category / Bandwidth	Cat6A, 500 MHz
Data Rate	10GBASE-T to 100 m; backward compatible Cat6 / Cat5e
Standards	ANSI/TIA-568.2-D, ISO/IEC 11801 Class EA, IEC 60603-7-51
Wiring Scheme	T568A / T568B, colour-coded wire manager
Housing	Translucent polycarbonate, UL 94V-0, with nickel-plated metal shield band
Shielding	360° shield continuity, bonds to cable foil or braid

Specification	Published value
Contact Material	Phosphor bronze
Contact Plating	50 μ" gold over 100 μ" nickel
Conductor Size	22-26 AWG, solid and stranded
Insulated Conductor OD	0.90 – 1.10 mm
Cable Jacket OD	5.0 – 8.0 mm (trimmable boot)
PoE Support	IEEE 802.3af / at / bt, 4PPoE up to 90 W
Current Rating	1.5 A per contact
Contact Resistance	≤ 20 mΩ
Shell-to-Shell Resistance	≤ 50 mΩ
Insulation Resistance	≥ 500 MΩ
Dielectric Strength	1000 V AC / 1 minute
Mating Durability	≥ 750 cycles
IDC Re-Termination	Up to 20 cycles
Operating Temperature	-40 °C to +85 °C
Compliance	RoHS, REACH, ISO 9001
Packaging	10 / 50 pcs jar, bulk bag, OEM carton
MOQ / Lead Time	500 pcs; custom marking from 10,000 pcs; 7-15 days