Pigtail u.Fl 90°

Team BlackSheep (TBS)
u.FL – SMA 90° antenna pigtail, length 10 cm



Read the entire manual before installation. Never power on the transmitter without an antenna connected.

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1. Product description

1.1 Intended use

The TBS Pigtail u.Fl 90° is a 10 cm antenna extension cable (pigtail). One end has a miniature **u.FL** connector for connection to a transmitter – typically a video transmitter (VTX) or another module with a u.FL antenna connector. The other end has an **SMA** connector angled at 90°, onto which the antenna is screwed.

The pigtail lets you route the antenna connector from electronics hidden inside the frame to a suitable place, for example a hole in the rear of the frame or an antenna mount, and fix it there with a nut. The angled connector saves space where a straight connector would be in the way. A firmly mounted SMA connector also protects the fragile u.FL connector from stress during a crash or when changing the antenna.



u.FL connector (bottom left, for connection to the transmitter) and SMA 90° connector with nut (top right, for the antenna)

1.2 Specifications and package contents

Product designation	TBS Pigtail u.Fl 90° (manufacturer's name: 90 degree SMA U.FL pigtail (10cm))
Manufacturer	Team BlackSheep (TBS)
Length	10 cm
Transmitter-side connector	u.FL
Antenna-side connector	SMA jack (female), angled at 90°, threaded, with a nut for mounting in a hole
Package contents	1× pigtail
Not included	antenna, transmitter, tools and material for securing the cable

2. Use

2.1 Before you start

- Make sure your transmitter has a **u.FL** antenna connector and that the antenna has a male **SMA** connector with a centre pin.
- **RP-SMA** connectors are not compatible with the SMA connector. They will screw on mechanically, but the centre conductor does not connect and the transmitter then works practically without an antenna.
- Always install with the power disconnected – with the battery unplugged.
- Have a wrench or pliers ready for the SMA connector nut, and cable ties to secure the cable.

2.2 Installation

① Place the u.FL connector perpendicularly over the transmitter's antenna connector and press until it clicks into place. Do not press at an angle or use excessive force.

② Route the cable so that it is not pinched between frame parts, does not touch the propellers or sharp edges, and is not sharply bent – especially right next to the connectors.

③ Push the SMA connector through the hole in the frame or antenna mount and secure it with the nut. Tighten the nut with care, just enough to stop the connector from turning.

④ Secure the cable with a cable tie so that the u.FL connector does not come loose due to vibration or a crash.

⑤ Screw the antenna onto the SMA connector by hand until it seats. Do not tighten the antenna with a wrench.

⑥ Connect the power only after the antenna is attached.

Never power on the transmitter without an antenna connected – it may be damaged. After each installation, check that the antenna is screwed on firmly.

2.3 Disconnecting the u.FL connector

Disconnect the u.FL connector by pulling it straight up by the connector body – ideally with a flat tool slid under the connector or with a tool designed for u.FL connectors. Never pull on the cable or lever the connector sideways; this damages the connector on both the cable and the transmitter. u.FL connectors withstand only a limited number of mating cycles, so do not reconnect them unnecessarily.

2.4 Care and troubleshooting

After every crash, check that the cable is not cut or kinked, that the u.FL connector holds firmly and that the SMA connector nut is tight.

Problem	Possible cause and solution
Weak or noisy video, short range	Loose u.FL connector – reattach it until it clicks. Antenna with an RP-SMA connector – use an antenna with an SMA connector. Damaged cable or antenna – replace them.
SMA connector turns when screwing on the antenna	Loose nut – tighten it.
u.FL connector is loose or does not click	Worn or damaged connector – replace the pigtail and also check the connector on the transmitter.

3. Information for the EU and Czech Market

3.1 Importer and responsible person in the EU

The product is placed on the European Union market by the importer stated below, who is at the same time the responsible person within the meaning of Article 16 of Regulation (EU) 2023/988 of the European Parliament and of the Council on general product safety (GPSR).

Importer / responsible person in the EU	Rotorama, s.r.o.
Company ID (IČO)	051 57 692
VAT ID (DIČ)	CZ05157692
Registered office	Okrajová 1351, 674 01 Třebíč, Czech Republic
E-mail	info@rotorama.cz
Phone	+420 252 252 098
Website	www.rotorama.com

3.2 Disposal of electrical equipment



- The crossed-out wheeled bin symbol on the product, its packaging or in the documentation means that at the end of its service life the product **must not be disposed of together with mixed municipal waste**.
- Hand it over at a take-back point for electrical equipment – at a collection yard, at a take-back point of a collective system, or at the retailer when purchasing a new equivalent product. Take-back is free of charge for the end user.
- The obligations under Act No. 542/2020 Coll., on end-of-life products, are fulfilled by the importer through a collective take-back system.
- Proper disposal helps prevent negative impacts on the environment and human health and contributes to the reuse of secondary raw materials.

Through its contractual partner **ASEKOL a.s.**, the company ensures the take-back of waste electrical equipment from households and the separate collection of waste electrical equipment, batteries and accumulators in accordance with the applicable legislation. The customer is entitled to hand over old electrical equipment or a battery or accumulator at any collection point of the above contractual partner. The addresses of these take-back points are listed at www.asekol.cz, www.ecobat.cz and also https://visoh2.mzp.cz/RegistrMistZO/RegistrMistZOPublic/MapaMistZpetOdberu.

4. Warranty and rights arising from defective performance

The rights and obligations of the contracting parties are governed by Czech law, in particular by Act No. 89/2012 Coll., the Civil Code, and Act No. 634/1992 Coll., on consumer protection.

- The seller is liable to the buyer for the product being free of defects on receipt. If the buyer is a consumer, a defect may be notified **within two years of receipt** of the product (Section 2165 of the Civil Code).
- If a defect appears within **one year** of receipt, the product is deemed to have been defective already at the time of receipt (Section 2161(5) of the Civil Code).
- When purchasing online, a consumer has the right to **withdraw from the contract within 14 days** of receiving the goods without giving a reason (Section 1829 of the Civil Code).
- Claims should be made with the retailer from whom you purchased the product. The importer's contact details are given in Chapter 3.1.
- The competent body for out-of-court settlement of consumer disputes is the **Czech Trade Inspection Authority**, Štěpánská 796/44, 110 00 Prague 1, www.coi.cz.