



## **CAT cables**

for ACOM S-series amplifiers

Technical Information

Wiring diagrams

**OUTSTANDING HF POWER PRODUCTS**

November 2022

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**Title of Documentation** CAT cables for ACOM S-series amplifiers  
Technical Information  
Wiring diagrams

**Type of Documentation** Technical Information

**Purpose of Documentation** This document explains connection between ACOM S-series amplifiers and transceiver via CAT interface cable.

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Web: [www.acom-bg.com](http://www.acom-bg.com)  
E-mail: [documentation@acom-bg.com](mailto:documentation@acom-bg.com)

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## 1. GENERAL INFORMATION

Congratulations on using one of ACOM solid-state amplifiers.

ACOM is pleased that you have chosen one of our products, and we will endeavor to provide you with the information and support you need to enjoy your purchase for many years.

We urge you to read all of the following materials before you embark on operating your new amplifier.

Traditionally, the ACOM solid-state series amplifiers are named as **nnnS** or **nnnnS**, where **nnn/nnnn** is a model number (for example ACOM 700S or ACOM 1200S).

All these amplifiers feature CAT (Computer Aided Transceiver) interface for connection to your transceiver.



In this document ACOM solid-state amplifiers are also called ACOM S-series hereafter.

### 1.1. Introduction and Description

This document includes information (wiring diagrams) for the CAT connection cables for ACOM S-series amplifiers. This information will help you to assembly a right CAT cable to connect your ACOM S-series amplifier to your particular transceiver.

Most of the modern transceivers can be connected by CAT to the ACOM S-series amplifiers. This will allow the amplifier to track the transceiver frequency without any transmission and change the bands automatically when in OPERATE mode.



ACOM S-series amplifiers will operate normally with **CAT/AUX** unconnected if your transceiver has no such input.

ACOM S-series amplifiers require reliable CAT signal transmission between the amplifier and the transceiver. A key role in this is played by the cable and connecting element technology employed.

When you assembled a CAT connection cable by yourself, please, use a cable and connectors according to international and your local standards for trouble free operation.

### 1.2. Documentation Validity

This document refers to the ACOM S-series power amplifiers and describes the CAT interface connectivity of all amplifiers produced till the publishing date of this manual.

This manual is valid till a new manual is issued.

### 1.3. To the Reader of this Manual

This document is written for the technically qualified users who will use the ACOM amplifier.

To ensure your safety in accordance with safety and security standards, read this manual carefully and follow the steps described in it.

Everyone who will use the amplifier must read this manual, and follow the instructions in it, and other accompanying ACOM documentation (see Section **1.4 Additional Documentation**), and consider also the appropriate safety precautions.



This document includes information on non-ACOM products, e.g., transceivers.

And because of that, it is the sole user's responsibility to check the correctness of the information as well as to check the original documentation of his transceiver or other equipment.

ACOM is not liable for non-ACOM information correctness or for another's actions and whole responsibility shall be assumed by the user/owner.

#### Informational notes

Observe the informational notes provided in this manual to ensure reliable and efficient operation of the amplifier. In this manual, you will find the following informational notes:



*The information symbol highlights operating procedures or practices that may improve equipment reliability and/or personnel performance, or to emphasize a concept.*



*The book symbol represents a **cross reference** to external documentation, e.g., other ACOM manual.*

#### NOTICE

*These notes call attention to a procedure or instructions which, if not correctly performed, **could result in property damage or equipment damage not exclusively to the amplifier but also to connected equipment.***

## Symbols and fonts used for marking text

In this manual the following symbols and fonts are used for marking text:

Format	Meaning
<i>Orange bold text</i>	Identifies all internal links in the document between <b>Sections</b> , <b>Figures</b> , <b>Tables</b> , etc. for your convenience.
<b>BOLD TEXT IN CAPITAL LETTERS</b>	Identifies the connectors, switches, and button names and labels.
TEXT IN CAPITAL LETTERS	Identifies the amplifier operating modes, menu names, etc.

### 1.4. Additional Documentation

For further important information, please, refer to the following documentation:



- *ACOM 700S User's Manual;*
- *ACOM 1200S User's Manual;*
- *ACOM 2020S User's Manual;*
- *Your transceiver/equipment Manuals.*

The ACOM documentation is available for download at [www.acom-bg.com](http://www.acom-bg.com).

### 1.5. Owner Assistance

If assistance is needed, you should contact your local dealer first. If necessary, your dealer will contact ACOM for additional guidance.

If you still have an issue you need to discuss with one of ACOM's specialists, the contact information is as follows:

ACOM Ltd.

E-mail: [support@acom-bg.com](mailto:support@acom-bg.com)

Bulgaria | Bozhurishte 2227

Sofia-Bozhurishte Industrial Park | 6 Valeri Petrov Str.

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## 2. USED CONNECTING ELEMENTS



ACOM doesn't offer unassembled cable material or connectors. If you need these parts, please, contact your dealer or local electronic store.

D-sub connectors		
15-pin, 3-row (high density), male		
<p>Front view</p>	<p>Solder (rear) view</p>	
9-pin, 2-row, male		
<p>Front view</p>	<p>Solder (rear) view</p>	
9-pin, 2-row, female		
<p>Front view</p>	<p>Solder (rear) view</p>	
15-pin, 2-row, male		
<p>Front view</p>	<p>Solder (rear) view</p>	
Phone plug, male connector		
<p>Side view</p>	<p>Side view</p>	

Table 2-1 | Overview of the connectors used  
(Continued on the next page)







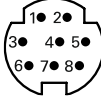


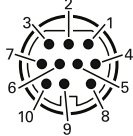
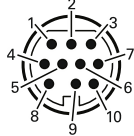

Circular connectors		
7 or 8 pin, male		
 Front view	 Solder (rear) view	
Horseshoe DIN plug, 8-pin, male		
 Front view	 Solder (rear) view	
Mini DIN plug, 8-pin, male		
 Front view	 Solder (rear) view	
Mini DIN plug, 10-pin, male		
 Front view	 Solder (rear) view	

Table 2-1 | Overview of the connectors used



The D-sub connectors (15-pin, 3-row (high density), male) used for connection to CAT connector on ACOM S-series amplifiers correspond to IEC 60 807 / DIN 41652 standards.

### 3. CAT CABLES WIRING DIAGRAMS

#### 3.1. For ELECRAFT Transceivers

##### 3.1.1. ACOM S-series to ELECRAFT K3 RS-232 CAT connection cable



This connection (interface) cable is applicable with other compatible transceivers.

#### NOTICE

The connection cable must be shielded.

ACOM S-series amplifier Rear panel		Connecting cable						ELECRAFT K3 transceiver / Rear panel	
CAT/AUX connector								RS-232 connector	
<p>D-sub connector, 15-pin, 3-row, female (Rear panel front view)</p>	1   RxD / RxTTL (IN)	<p>D-sub connector, 15-pin, 3-row, male (Solder view)</p>	1	Not connected	1	<p>D-sub connector, 9-pin, male (Solder view)</p>	1   Not used	<p>D-sub connector, 9-pin, female (Rear panel front view)</p>	
	2   RxD / RxRS (IN)		2		2		2   RXD IN (OUT)		
	3   TxD / TxRS (OUT)		3		3		3   TXD OUT (IN)		
	4   TxD / TxTTL (OUT)		4	Not connected	4		4   DTR		
	5   GND		5		5		5   Ground		
	6   BAND voltage (IN)		6	Not connected	6		6   Not used		
	7   Band data 0 (IN)		7	Not connected	7		7   RTS		
	8   Band data 1 (IN)		8	Not connected	8		8   Not used		
	9   Band data 2 (IN)		9	Not connected	9		9   Not used		
	10   Band data 3 (IN)		10	Not connected	-		Housing		
	11   ON RMT (IN)		11	Not connected	-				
	12   Debug mode		12	Not connected	-				
	13   KEY-IN		13	Not connected	-				
	14   KEY-OUT		14	Not connected	-				
	15   GND		15	Not connected	-				
Housing		Housing		Cable shield		Housing			

Table 3-1 | Connection cable wiring



### 3.1.2. ACOM S-series to ELECRAFT K3 BCD Band Data + Keying + Power On connection cable



This connection (interface) cable is applicable with other compatible transceivers.

#### **NOTICE**

The connection cable must be shielded.

Be careful not to swap the connectors, because they are of the same type.

#### **NOTICE**

The Band Data cables (either BCD or Voltage) must not be used if ACOM 04AT or 06AT automatic antenna tuner and switch are part of the system.

Only serial CAT cables (either RS-232 or TTL) can be used in such a case.



\* Earlier K3 may require external Pull-up resistors to 5 V on lines 3, 9, 13, and 14 (transceiver connector side), typically 2.2÷10 kOhm (before Ser.N. 2370), after Dec. 10, 2008, Rev B KIO3 Digital Board.

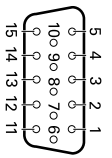
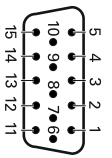
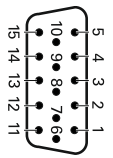
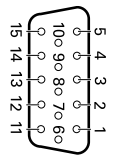
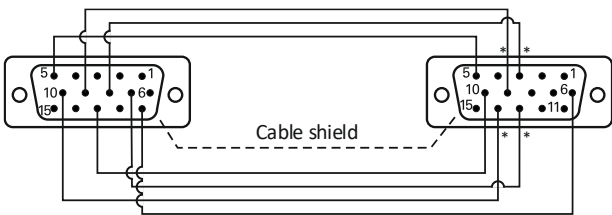
ACOM S-series amplifier Rear panel		Connecting cable					ELECRAFT K3 transceiver / Rear panel	
CAT/AUX connector							ACC connector	
 D-sub connector, 15-pin, 3-row, female (Rear panel front view)	1   RxD / RxTTL (IN)	 D-sub connector, 15-pin, 3-row, male (Solder view)	1	Not connected	1	 D-sub connector, 15-pin, 3-row, male (Solder view)	1   FSK IN	 D-sub connector, 15-pin, 3-row, female (Rear panel front view)
	2   RxD / RxRS (IN)		2	Not connected	2		2   AUXBUS IN/OUT	
	3   TxD / TxRS (OUT)		3	Not connected	4		3   BAND1 OUT	
	4   TxD / TxTTL (OUT)		4	Not connected	7		4   PTT IN	
	5   GND		5	————	5		5   Ground	
	6   BAND voltage (IN)		6	Not connected	8		6   DIGOUT0	
	7   Band data 0 (IN)		7	————	13*		7   K3 ON / TX INH	
	8   Band data 1 (IN)		8	————	3*		8   POWER ON	
	9   Band data 2 (IN)		9	————	9*		9   BAND2 OUT	
	10   Band data 3 (IN)		10	————	14*		10   KEYOUT-LP	
	11   ON RMT (IN)		11	————	6		11   DIGOUT1	
	12   Debug mode		12	Not connected	11		12   Ground	
	13   KEY-IN		13	————	10		13   BAND0 OUT	
	14   KEY-OUT		14	Not connected	12		14   BAND3 OUT	
	15   GND		15	Not connected	15		15   EXT ALC input	
	Housing		Housing	Cable shield	Housing		Housing	
								

Table 3-2 | Connection cable wiring

## 3.2. For ICOM Transceivers

### 3.2.1. ACOM S-series to ICOM CI-V CAT connection cable



This connection (interface) cable is applicable with other compatible transceivers.

#### NOTICE

The connection cable must be shielded.

\* The pins 1 and 4 on ACOM's side 15-pin male connector must be connected.

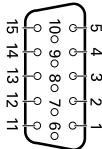
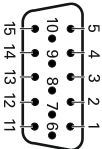
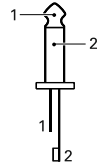

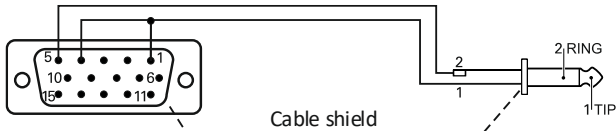
ACOM S-series amplifier Rear panel		Connecting cable						ICOM transceiver Rear panel	
CAT/AUX connector								CI-V Remote socket/jack	
  D-sub connector, 15-pin, 3-row, female (Rear panel front view)	1   Rx D / RxTTL (IN)	  D-sub connector, 15-pin, 3-row, male (Solder view)	1*	—	1	  Phone plug connector, d=3.5 mm (1/8"), male (Side view)	1   CI-V (IN/OUT)	  Phone socket, female (Rear panel front view)	
	2   Rx D / RxRS (IN)		2	Not connected	-		2   Ground		
	3   Tx D / TxRS (OUT)		3	Not connected	-		Housing		
	4   Tx D / TxTTL (OUT)		4*	Not connected	-				
	5   GND		5	—	2				
	6   BAND voltage (IN)		6	Not connected	-				
	7   Band data 0 (IN)		7	Not connected	-				
	8   Band data 1 (IN)		8	Not connected	-				
	9   Band data 2 (IN)		9	Not connected	-				
	10   Band data 3 (IN)		10	Not connected	-				
	11   ON RMT (IN)		11	Not connected	-				
	12   Debug mode		12	Not connected	-				
	13   KEY-IN		13	Not connected	-				
	14   KEY-OUT		14	Not connected	-				
	15   GND		15	Not connected	-				
Housing	Housing	Cable shield	Housing						
		 Cable shield							

Table 3-3 | Connection cable wiring

### 3.2.2. ACOM S-series to ICOM CI-V CAT + Keying + Power On connection cable



This connection (interface) cable uses two connectors in its transceiver side.

#### NOTICE

The connection cable must be shielded.

\* The pins 1 and 4 on ACOM's side 15-pin male connector must be connected.

\*\* The pin 2 on ICOM's side phone plug and pin 2 on ICOM's side 7(8)-pin male connector must be connected.

ACOM S-series amplifier Rear panel	Connecting cable					ICOM transceiver Rear panel
CAT/AUX connector						CI-V Remote socket/jack
<p>D-sub connector, 15-pin, 3-row, female (Rear panel front view)</p>	1   RxD / RxTTL (IN) 2   RxD / RxRS (IN) 3   TxD / TxRS (OUT) 4   TxD / TxTTL (OUT) 5   GND 6   BAND voltage (IN) 7   Band data 0 (IN) 8   Band data 1 (IN) 9   Band data 2 (IN) 10   Band data 3 (IN) 11   ON RMT (IN) 12   Debug mode 13   KEY-IN 14   KEY-OUT 15   GND Housing	<p>D-sub connector, 15-pin, 3-row, male (Solder view)</p>	1* 2 3 4* 5 6 7 8 9 10 11 12 13 14 15 - Housing	1 Not connected Not connected Not connected - - - - 1 Not connected 2** 7 4 3 5 6 8 Cable shield Housing	<p>Phone plug connector, d=3.5 mm (1/8"), male (Side view)</p>	1   CI-V (IN/OUT) 2   Ground Housing
					<p>Connector, 7 or 8 pin, male (Solder view)</p>	<b>ACC 1 or ACC 2 sockets</b> 1   2   Ground 3   SEND (OUT) 4   5   6   7   +13.8 V (OUT) 8   Housing
					<p>Phone socket, female (Rear panel front view)</p> <p>Socket, 7 or 8 pin, female (Rear panel front view)</p>	
					<p>Cable shield</p>	

Table 3-4 | Connection cable wiring

### 3.3. For KENWOOD Transceivers

#### 3.3.1. ACOM S-series to KENWOOD TS-480 RS-232 CAT connection cable



This connection (interface) cable is applicable with KENWOOD TS-480, TS-590, TS-890, TS-990, TS-2000, and other compatible transceivers.

#### NOTICE

Connection cable must be shielded.

\* The pins 7 and 8 on KENWOOD's side 9-pin female connector must be connected.

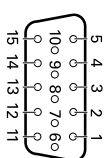
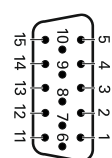
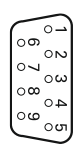
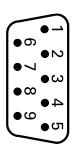
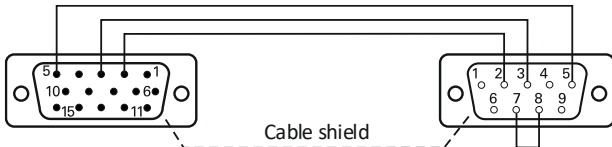
ACOM S-series amplifier Rear panel		Connecting cable					KENWOOD transceiver / Rear panel	
CAT/AUX connector							COM connector	
 D-sub connector, 15-pin, 3-row, female (Rear panel front view)	1   RxD / RxTTL (IN)	 D-sub connector, 15-pin, 3-row, male (Solder view)	1	Not connected	1	 D-sub connector, 9-pin, female (Solder view)	1   Not used	 D-sub connector, 9-pin, male (Rear panel front view)
	2   RxD / RxRS (IN)		2	—————	2		2   TxD (OUT)	
	3   TxD / TxRS (OUT)		3	—————	3		3   RxD (IN)	
	4   TxD / TxTTL (OUT)		4	Not connected	4		4   Not used	
	5   GND		5	—————	5		5   GND	
	6   BAND voltage (IN)		6	Not connected	6		6   Not used	
	7   Band data 0 (IN)		7	Not connected	7*		7   RTS (IN)	
	8   Band data 1 (IN)		8	Not connected	8*		8   CTS (OUT)	
	9   Band data 2 (IN)		9	Not connected	9		9   Not used	
	10   Band data 3 (IN)		10	Not connected	-		Housing	
	11   ON RMT (IN)		11	Not connected	-			
	12   Debug mode		12	Not connected	-			
	13   KEY-IN		13	Not connected	-			
	14   KEY-OUT		14	Not connected	-			
	15   GND		15	Not connected	-			
	Housing		Housing	Cable shield	Housing			
								

Table 3-5 | Connection cable wiring

### 3.4. For YAESU Transceivers

#### 3.4.1. ACOM S-series to YAESU FT-920 RS-232 CAT connection cable



This connection (interface) cable is applicable with other compatible transceivers.

#### NOTICE

The connection cable must be shielded.

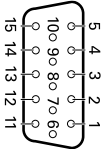
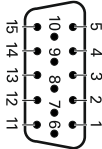
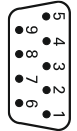
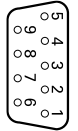
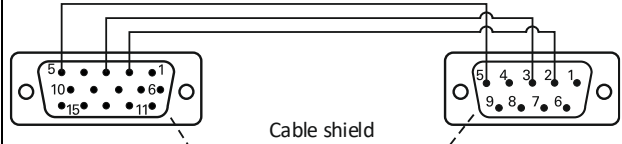
ACOM S-series amplifier Rear panel		Connecting cable							YAESU FT-920 transceiver / Rear panel	
CAT/AUX connector									CAT connector	
  D-sub connector, 15-pin, 3-row, female (Rear panel front view)	1   RxD / RxTTL (IN)	  D-sub connector, 15-pin, 3-row, male (Solder view)	1	Not connected	1	  D-sub connector, 9-pin, male (Solder view)	1   Not used	  D-sub connector, 9-pin, female (Rear panel front view)		
	2   RxD / RxRS (IN)		2		2		2   TxD (SERIAL OUT)			
	3   TxD / TxRS (OUT)		3		3		3   RxD (SERIAL IN)			
	4   TxD / TxTTL (OUT)		4	Not connected	4		4   Not used			
	5   GND		5		5		5   Ground			
	6   BAND voltage (IN)		6	Not connected	6		6   Not used			
	7   Band data 0 (IN)		7	Not connected	7		7   Not used			
	8   Band data 1 (IN)		8	Not connected	8		8   Not used			
	9   Band data 2 (IN)		9	Not connected	9		9   Not used			
	10   Band data 3 (IN)		10	Not connected	-		Housing			
	11   ON RMT (IN)		11	Not connected	-					
	12   Debug mode		12	Not connected	-					
	13   KEY-IN		13	Not connected	-					
	14   KEY-OUT		14	Not connected	-					
	15   GND		15	Not connected	-					
	Housing		Housing	Cable shield	Housing					
		 Cable shield								

Table 3-6 | Connection cable wiring

### 3.4.2. ACOM S-series to YAESU FT-1000 RS-232 CAT connection cable



This connection (interface) cable is applicable with YAESU FT-1000, FT-450, FT-2000, FTDX3000, FT5000, FTDX101, FTDX10, FT-991, and other compatible transceivers.

#### NOTICE

The connection cable must be shielded.

ACOM S-series amplifier Rear panel		Connecting cable					YAESU FT-1000 transceiver / Rear panel	
CAT/AUX connector							CAT connector	
<div></div> <div>D-sub connector, 15-pin, 3-row, female (Rear panel front view)</div>	1   Rx/D / RxTTL (IN)	<div></div> <div>D-sub connector, 15-pin, 3-row, male (Solder view)</div>	1	Not connected	1	<div></div> <div>D-sub connector, 9-pin, female (Solder view)</div>	1   Not used	<div></div> <div>D-sub connector, 9-pin, male (Rear panel front view)</div>
	2   Rx/D / RxRS (IN)		2		2		2   Tx/D (SERIAL OUT)	
	3   Tx/D / TxRS (OUT)		3		3		3   Rx/D (SERIAL IN)	
	4   Tx/D / TxTTL (OUT)		4	Not connected	4		4   Not used	
	5   GND		5		5		5   Ground	
	6   BAND voltage (IN)		6	Not connected	6		6   Not used	
	7   Band data 0 (IN)		7	Not connected	7		7   RTS	
	8   Band data 1 (IN)		8	Not connected	8		8   CTS	
	9   Band data 2 (IN)		9	Not connected	9		9   Not used	
	10   Band data 3 (IN)		10	Not connected	-		Housing	
	11   ON RMT (IN)		11	Not connected	-			
	12   Debug mode		12	Not connected	-			
	13   KEY-IN		13	Not connected	-			
	14   KEY-OUT		14	Not connected	-			
	15   GND		15	Not connected	-			
Housing		Housing						
		<div></div> <div>Cable shield</div>						

Table 3-7 | Connection cable wiring

### 3.4.3. ACOM S-series to YAESU FT-1000

#### BCD Band Data + Keying + Power On CAT connection cable

#### NOTICE

The connection cable must be shielded.

#### NOTICE

The Band Data cables (either BCD or Voltage) must not be used if ACOM 04AT or 06AT automatic antenna tuner and switch are part of the system.

Only serial CAT cables (either RS-232 or TTL) can be used in such a case.

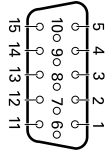
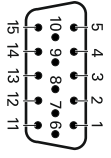


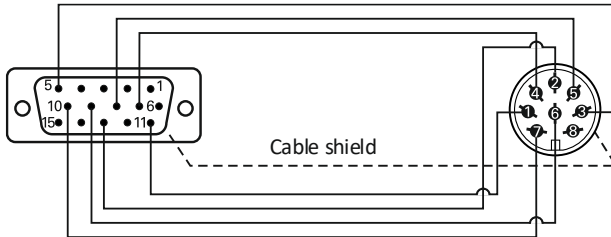
ACOM S-series amplifier Rear panel		Connecting cable							YAESU FT-1000 transceiver / Rear panel	
CAT/AUX connector									Band Data connector	
<div></div> <div>D-sub connector, 15-pin, 3-row, female (Rear panel front view)</div>	1   RxD / RxTTL (IN)	<div></div> <div>D-sub connector, 15-pin, 3-row, male (Solder view)</div>	1	Not connected	8	<div></div> <div>Horseshoe DIN plug, 8-pin, male (Solder view)</div>	1   +13.8 V (OUT)	<div></div> <div>Horseshoe DIN connector, 8-pin, female (Rear panel front view)</div>		
	2   RxD / RxRS (IN)		2	Not connected	-		2   TX GND (OUT)			
	3   TxD / TxRS (OUT)		3	Not connected	-		3   GND			
	4   TxD / TxTTL (OUT)		4	Not connected	-		4   Band A (OUT)			
	5   GND		5	—————	3		5   Band B (OUT)			
	6   BAND voltage (IN)		6	Not connected	-		6   Band C (OUT)			
	7   Band data 0 (IN)		7	—————	4		7   Band D (OUT)			
	8   Band data 1 (IN)		8	—————	5		8   LINEAR			
	9   Band data 2 (IN)		9	—————	6		Housing			
	10   Band data 3 (IN)		10	—————	7					
	11   ON RMT (IN)		11	—————	1					
	12   Debug mode		12	Not connected	-		Cable shield		Housing	Housing
	13   KEY-IN		13	—————	2					
	14   KEY-OUT		14	Not connected	-					
	15   GND		15	Not connected	-		Housing		Housing	Housing
	Housing		Housing	Cable shield	Housing					
		<div></div> <div>Cable shield</div>								

Table 3-8 | Connection cable wiring




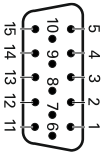
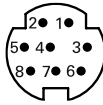

### 3.4.4. ACOM S-series to YAESU FT-897 TTL CAT + Keying connection cable

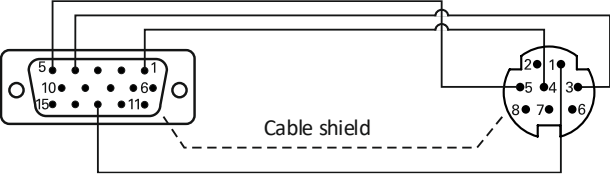


This connection (interface) cable is applicable with other compatible transceivers.

#### NOTICE

The connection cable must be shielded.

ACOM S-series amplifier Rear panel		Connecting cable						YAESU FT-897 transceiver / Rear panel	
CAT/AUX connector								CAT/Tun/Lin connector/jack	
  D-sub connector, 15-pin, 3-row, female (Rear panel front view)	1   Rx D / RxTTL (IN)	  D-sub connector, 15-pin, 3-row, male (Solder view)	1	—————	4	  Mini DIN plug, 8-pin, male (Solder view)	1   TX GND (OUT)	  Mini DIN connector, 8-pin, female (Rear panel front view)	
	2   Rx D / RxRS (IN)		2	Not connected	2		2   +13.8 V		
	3   Tx D / TxRS (OUT)		3	Not connected	6		3   RX D (IN)		
	4   Tx D / TxTTL (OUT)		4	—————	3		4   TX D (OUT)		
	5   GND		5	—————	5		5   GND		
	6   BAND voltage (IN)		6	Not connected	7		6   TX INH		
	7   Band data 0 (IN)		7	Not connected	8		7   Reset		
	8   Band data 1 (IN)		8	Not connected	-		8   Band C		
	9   Band data 2 (IN)		9	Not connected	-		Housing		
	10   Band data 3 (IN)		10	Not connected	-				
	11   ON RMT (IN)		11	Not connected	-				
	12   Debug mode		12	Not connected	-				
	13   KEY-IN		13	—————	1				
	14   KEY-OUT		14	Not connected	-		Housing		
	15   GND		15	Not connected	-				
Housing	Housing	Cable shield	Housing						



Cable shield

Table 3-9 | Connection cable wiring

### 3.4.5. ACOM S-series to YAESU FT-897 BCD Band Data + Keying CAT connection cable



This connection (interface) cable is applicable with YAESU FT-897, and FT-991.

#### NOTICE

The connection cable must be shielded.

#### NOTICE

The Band Data cables (either BCD or Voltage) must not be used if ACOM 04AT or 06AT automatic antenna tuner and switch are part of the system.

Only serial CAT cables (either RS-232 or TTL) can be used in such a case.

ACOM S-series amplifier Rear panel		Connecting cable				YAESU FT-897 transceiver / Rear panel	
CAT/AUX connector						CAT/Tun/Lin connector/jack	
 D-sub connector, 15-pin, 3-row, female (Rear panel front view)	1   RxD / RxTTL (IN)	 D-sub connector, 15-pin, 3-row, male (Solder view)	1	Not connected	6	1   TX GND (OUT)	 Mini DIN connector, 8-pin, female (Rear panel front view)
	2   RxD / RxRS (IN)		2	Not connected	-	2   +13.8 V	
	3   TxD / TxRS (OUT)		3	Not connected	-	3   Band B (OUT)	
	4   TxD / TxTTL (OUT)		4	Not connected	-	4   Band A (OUT)	
	5   GND		5	—————	5	5   GND	
	6   BAND voltage (IN)		6	Not connected		6   TX INH	
	7   Band data 0 (IN)		7	—————	4	7   Band D (OUT)	
	8   Band data 1 (IN)		8	—————	3	8   Band C (OUT)	
	9   Band data 2 (IN)		9	—————	8	Housing	
	10   Band data 3 (IN)		10	—————	7		
	11   ON RMT (IN)		11	—————	2		
	12   Debug mode		12	Not connected	-		
	13   KEY-IN		13	—————	1		
	14   KEY-OUT		14	Not connected	-		
	15   GND		15	Not connected	-		
	Housing		Housing	Cable shield	Housing		
		 Cable shield					

Table 3-10 | Connection cable wiring

### 3.4.6. ACOM S-series to YAESU FT-817 Analog Band Data CAT + Keying connection cable



This connection (interface) cable is applicable with other compatible transceivers.

#### NOTICE

The connection cable must be shielded.

#### NOTICE

The Band Data cables (either BCD or Voltage) must not be used if ACOM 04AT or 06AT automatic antenna tuner and switch are part of the system.

Only serial CAT cables (either RS-232 or TTL) can be used in such a case.

ACOM S-series amplifier Rear panel		Connecting cable						YAESU FT-817 transceiver / Rear panel	
CAT/AUX connector								ACC connector	
<p>D-sub connector, 15-pin, 3-row, female (Rear panel front view)</p>	1   Rx D / RxTTL (IN)	<p>D-sub connector, 15-pin, 3-row, male (Solder view)</p>	1	Not connected	2	<p>Mini DIN plug, 8-pin, male (Solder view)</p>	1   TX GND (OUT)	<p>Mini DIN connector, 8-pin, female (Rear panel front view)</p>	
	2   Rx D / RxRS (IN)		2	Not connected	3		2   +13.8 V		
	3   Tx D / TxRS (OUT)		3	Not connected	4		3   RXD		
	4   Tx D / TxTTL (OUT)		4	Not connected	6		4   TXD		
	5   GND		5		5		5   GND		
	6   BAND voltage (IN)		6		8		6   TX INH		
	7   Band data 0 (IN)		7	Not connected	7		7   ALC		
	8   Band data 1 (IN)		8	Not connected	-		8   Band Data (OUT)		
	9   Band data 2 (IN)		9	Not connected	-		Housing		
	10   Band data 3 (IN)		10	Not connected	-				
	11   ON RMT (IN)		11	Not connected	-				
	12   Debug mode		12	Not connected	-				
	13   KEY-IN		13		1				
	14   KEY-OUT		14	Not connected	-				
	15   GND		15	Not connected	-				
Housing		Housing	Cable shield	Housing					

Table 3-11 | Connection cable wiring

### 3.4.7. ACOM S-series to YAESU FTDX-101 BCD Band Data + Keying + Power On connection cable

#### NOTICE

The connection cable must be shielded.

#### NOTICE

The Band Data cables (either BCD or Voltage) must not be used if ACOM 04AT or 06AT automatic antenna tuner and switch are part of the system.

Only serial CAT cables (either RS-232 or TTL) can be used in such a case.

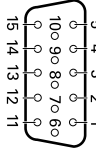
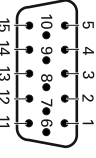
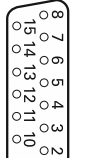
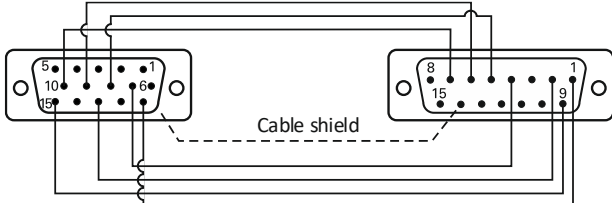
ACOM S-series amplifier Rear panel		Connecting cable			YAESU FTDX-101 transceiver / Rear panel	
CAT/AUX connector					LINEAR connector	
 D-sub connector, 15-pin, 3-row, female (Rear panel front view)	1   Rx/D / RxTTL (IN)	 D-sub connector, 15-pin, 3-row, male (Solder view)	1	Not connected	3	 D-sub connector, 15-pin, female (Rear panel front view)
	2   Rx/D / RxRS (IN)		2	Not connected	8	
	3   Tx/D / TxRS (OUT)		3	Not connected	-	
	4   Tx/D / TxTTL (OUT)		4	Not connected	-	
	5   GND		5	Not connected	-	
	6   BAND voltage (IN)		6	Not connected	-	
	7   Band data 0 (IN)		7	————	4	
	8   Band data 1 (IN)		8	————	5	
	9   Band data 2 (IN)		9	————	6	
	10   Band data 3 (IN)		10	————	7	
	11   ON RMT (IN)		11	————	1	
	12   Debug mode		12	Not connected	-	
	13   KEY-IN		13	————	2	
	14   KEY-OUT		14	Not connected	-	
	15   GND		15	————	9	
Housing			Housing	Cable shield	Housing	
						

Table 3-12 | Connection cable wiring

### 3.4.8. ACOM S-series to YAESU FTDX-10 BCD Band Data + Keying + Power On connection cable



This connection (interface) cable is applicable with YAESU FTDX-10, FT-950, and FT-450.

#### NOTICE

The connection cable must be shielded.

#### NOTICE

The Band Data cables (either BCD or Voltage) must not be used if ACOM 04AT or 06AT automatic antenna tuner and switch are part of the system.

Only serial CAT cables (either RS-232 or TTL) can be used in such a case.

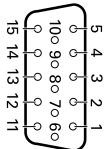
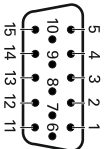
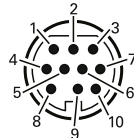
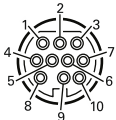
ACOM S-series amplifier Rear panel		Connecting cable						YAESU FTDX-10 transceiver / Rear panel	
CAT/AUX connector								LINEAR connector	
  D-sub connector, 15-pin, 3-row, female (Rear panel front view)	1   RxD / RxTTL (IN)	  D-sub connector, 15-pin, 3-row, male (Solder view)	1	Not connected	8	  Mini DIN plug, 10-pin, male (Solder view)	1   +13.8 V (OUT)	  Mini DIN connector, 10-pin, female (Rear panel front view)	
	2   RxD / RxRS (IN)		2	Not connected	9		2   TX GND (OUT)		
	3   TxD / TxRS (OUT)		3	Not connected	10		3   GND		
	4   TxD / TxTTL (OUT)		4	Not connected	-		4   Band A (OUT)		
	5   GND		5	—————	3		5   Band B (OUT)		
	6   BAND voltage (IN)		6	Not connected	-		6   Band C (OUT)		
	7   Band data 0 (IN)		7	—————	4		7   Band D (OUT)		
	8   Band data 1 (IN)		8	—————	5		8   TX INH		
	9   Band data 2 (IN)		9	—————	6		9   EXT ALC		
	10   Band data 3 (IN)		10	—————	7		10   TX REQ IN		
	11   ON RMT (IN)		11	—————	1		Housing		
	12   Debug mode		12	Not connected	-				
	13   KEY-IN		13	—————	2				
	14   KEY-OUT		14	Not connected	-				
	15   GND		15	Not connected	-				
Housing		Housing			Cable shield				

Table 3-13 | Connection cable wiring

### 3.5. For ACOM S-series to USB-RS-232 Adapter CAT connection cable



The USB-RS-232 adapter is used to connect ACOM S-series amplifier to PC's USB port, if your PC hasn't integrated RS-232 serial port.

#### NOTICE

The connection cable must be shielded.

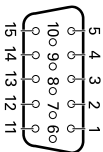
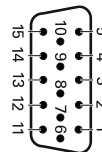
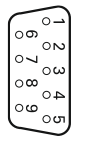
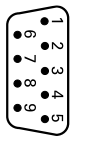
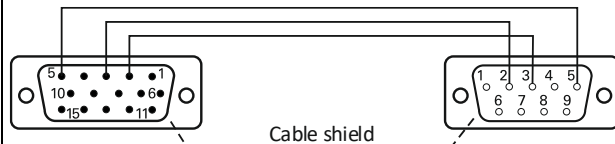
ACOM S-series amplifier Rear panel		Connecting cable							USB-RS-232 adapter	
CAT/AUX connector									RS-232 connector	
  D-sub connector, 15-pin, 3-row, female (Rear panel front view)	1   RxD / RxTTL (IN)	  D-sub connector, 15-pin, 3-row, male (Solder view)	1	Not connected	1	  D-sub connector, 9-pin, female (Solder view)	1   Not used	  D-sub connector, 9-pin, male (Rear panel front view)		
	2   RxD / RxRS (IN)		2		3		2   RxD (IN)			
	3   TxD / TxRS (OUT)		3		2		3   TxD (OUT)			
	4   TxD / TxTTL (OUT)		4	Not connected	4		4   Not used			
	5   GND		5		5		5   Ground			
	6   BAND voltage (IN)		6	Not connected	6		6   Not used			
	7   Band data 0 (IN)		7	Not connected	7		7   Not used			
	8   Band data 1 (IN)		8	Not connected	8		8   Not used			
	9   Band data 2 (IN)		9	Not connected	9		9   Not used			
	10   Band data 3 (IN)		10	Not connected	-		Housing			
	11   ON RMT (IN)		11	Not connected	-					
	12   Debug mode		12	Not connected	-					
	13   KEY-IN		13	Not connected	-					
	14   KEY-OUT		14	Not connected	-					
	15   GND		15	Not connected	-					
	Housing		Housing	Cable shield	Housing					
		 Cable shield								

Table 3-14 | Connection cable wiring







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