



CAT cables

for ACOM S-series amplifiers

Technical Information

Wiring diagrams

OUTSTANDING HF POWER PRODUCTS



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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.

Record of Revisions

Description	Release Date	Notes
CAT cables for ACOM S-series amplifiers	-	First edition
CAT cables for ACOM S-series amplifiers	-	Second edition
CAT cables for ACOM S-series amplifiers	-	Third edition, R01
CAT cables for ACOM S-series amplifiers	04.10.2021	Third edition, RO2
CAT cables for ACOM S-series amplifiers	09.11.2021	Fourth edition, R01
CAT cables for ACOM S-series amplifiers	23.11.2022	Fourth edition, RO2

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Published by ACOM Ltd.

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Note This document has been printed on chlorine-free bleached paper.



Contents

ARC	אלו וטכ	COMEN	NTATION	3					
1.	GENE	RAL INF	ORMATION	7					
	1.1.	Introdu	uction and Description	7					
	1.2.	Docum	nentation Validity	7					
	1.3.	To the	Reader of this Manual	8					
	1.4.	Additio	onal Documentation	9					
	1.5.	Owner	- Assistance	9					
2.	USED	CONNE	ECTING ELEMENTS	10					
3.	CAT	CABLES \	WIRING DIAGRAMS	12					
	3.1.	For ELE	ECRAFT Transceivers	12					
		3.1.1.	ACOM S-series to ELECRAFT K3 RS-232 CAT connection cable	12					
		3.1.2.	ACOM S-series to ELECRAFT K3 BCD Band Data + Keying + Power On connection cable	13					
	3.2.	For ICC	For ICOM Trasceivers						
		3.2.1.	ACOM S-series to ICOM CI-V CAT connection cable	15					
		3.2.2.	ACOM S-series to ICOM CI-V CAT + Keying + Power On connection cable	16					
	3.3.	For KEI	NWOOD Transceivers	17					
		3.3.1.	ACOM S-series to KENWOOD TS-480 RS-232 CAT connection cable	17					
	3.4.	For YA	ESU Transceivers	18					
		3.4.1.	ACOM S-series to YAESU FT-920 RS-232 CAT connection cable	18					
		3.4.2.	ACOM S-series to YAESU FT-1000 RS-232 CAT connection cable	19					
		3.4.3.	ACOM S-series to YAESU FT-1000 BCD Band Data + Keying + Power On CAT connection cable	20					
		3.4.4.	ACOM S-series to YAESU FT-897 TTL CAT + Keying connection cable	21					
		3.4.5.	ACOM S-series to YAESU FT-897 BCD Band Data + Keying CAT connection cable	22					



		3.4.6.	ACOM S-series to YAESU FT-817 Analog Band Data CAT + Keying connection cable	23
		3.4.7.	ACOM S-series to YAESU FTDX-101 BCD Band Data + Keying + Power On connection cable	24
		3.4.8.	ACOM S-series to YAESU FTDX-10 BCD Band Data + Keying + Power On connection cable	25
	3.5.	For ACC	OM S-series to USB–RS-232 Adapter CAT connection cable	26
NOTE	-ς			7



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/doer.

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
Orange bold text	Identifies all internal links in the document between <i>Sections, Figures, Tables</i> , etc. for your convenience.
BOLD TEXT IN CAPITAL LETTERS	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.

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:

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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.

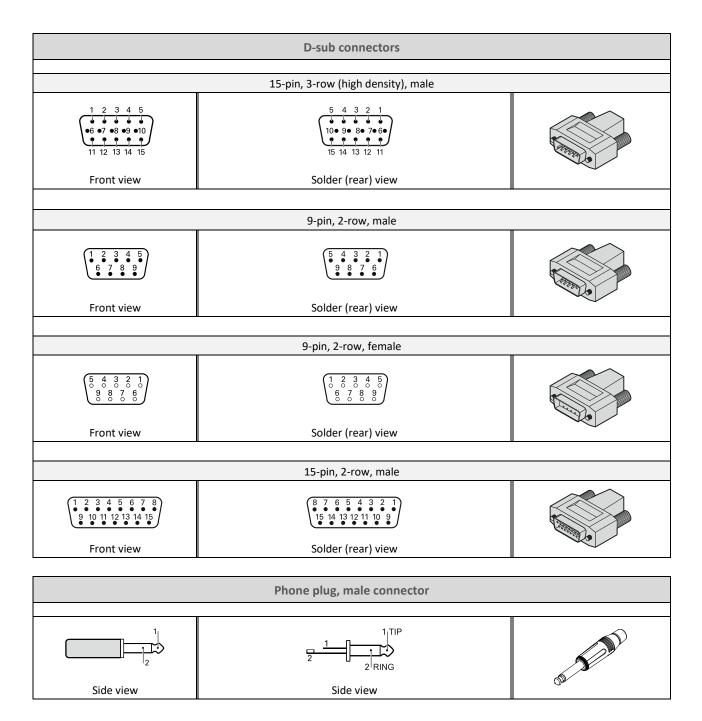


Table 2-1 | Overview of the connectors used (Continued on the next page)



	Circular connectors								
	7 or 8 pin, male								
	TO SO								
Front view	Solder (rear) view								
_									
	Horseshoe DIN plug, 8-pin, male								
	TO OF THE PARTY OF								
Front view	Solder (rear) view								
	Mini DIN plug, 8-pin, male	1							
30 40 50 60 70 80	20 10 50 40 30 80 70 60								
Front view	Solder (rear) view								
2	Mini DIN plug, 10-pin, male								
3 7 4 6 10 9 5 5	4 5 8 9 10								
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

ACOM S-series amplifier				ELECRAFT K3				
Rear panel			Co	transceiver / Rear panel				
CAT/A	UX connector			RS-232 con	nector			
	1 RxD / RxTTL (IN)	_	1	Not connected	1		1 Not used	
5 0 0 5	2 RxD / RxRS (IN)	15 0 5	2		2	• 9 • 4	2 RXD IN (OUT)	05 09 04
90 80	3 TxD / TxRS (OUT)	4 3 9 8 14 13	3		3	• ω ω ω	3 TXD OUT (IN)	08 03 0 7
1 2 1 2 1 2	4 TxD / TxTTL (OUT)	12 7	4	Not connected	4	• 6 • 1	4 DTR	06 01
36.9-	5 GND	11 66 61	5		5		5 Ground	
D-sub	6 BAND voltage (IN)	D-sub	6	Not connected	6	D-sub	6 Not used	D-sub
connector,	7 Band data 0 (IN)	connector,	7	Not connected	7	connector, 9-pin, male (Solder view)	7 RTS	9-pin, female (Rear panel front view)
15-pin,	8 Band data 1 (IN)	15-pin, 3-row, male (Solder view)	8	Not connected	8		8 Not used	
3-row, female	9 Band data 2 (IN)		9	Not connected	9		9 Not used	
(Rear	10 Band data 3 (IN)		10	Not connected	-		Housing	
panel	11 ON RMT (IN)		11	Not connected	-			
front view)	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 3-1 | 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			ELECRAFT K3				
Re	ear panel		Co	transceiver / Rear panel				
CAT/A	UX connector			ACC connector				
	1 RxD / RxTTL (IN)		1	Not connected	1		1 FSK IN	_
5 0 0 5	2 RxD / RxRS (IN)	15 0 5	2	Not connected	2	5 10 € 5	2 AUXBUS IN/OUT	5 0 0 5
5 4 3 100 90 80 15 14 13 1	3 TxD / TxRS (OUT)	4 3 9 8 14 13	3	Not connected	4	4 3 9 8 4 3	3 BAND1 OUT	90 80
1250	4 TxD / TxTTL (OUT)	2 1 7 6 7 6	4	Not connected	7	2 1 7 6 1 12 1	4 PTT IN	12107012
36.9-	5 GND		5		5	- (*)	5 Ground	= 60 -
D-sub	6 BAND voltage (IN)	D-sub	6	Not connected	8	D-sub	6 DIGOUTO	D-sub
connector,	7 Band data 0 (IN)	connector,	7		13*	connector,	7 K3 ON / TX INH	connector, 15-pin, 3-row, female (Rear panel front view)
15-pin,	8 Band data 1 (IN)	15-pin, 3-row, male (Solder view)	8		3*	15-pin, 3-row, male (Solder view)	8 POWER ON	
3-row, female	9 Band data 2 (IN)		9		9*		9 BAND2 OUT	
(Rear	10 Band data 3 (IN)		10		14*		10 KEYOUT-LP	
panel	11 ON RMT (IN)		11		6		11 DIGOUT1	
front view)	12 Debug mode		12	Not connected	11		12 Ground	
	13 KEY-IN		13		10		13 BANDO 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	
		0 10 0 0 0		Cable shield	(o)	5		

Table 3-2 | Connection cable wiring



3.2. For ICOM Trasceivers

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.

Re	ACOM S-series amplifier Rear panel CAT/AUX connector		Connecting cable					ICOM transceiver Rear panel CI-V Remote socket/jack	
D-sub connector, 15-pin, 3-row, female (Rear panel front view)	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	D-sub connector, 15-pin, 3-row, male (Solder view)	1* • 2 3 4* • 5 6 7 8 9 10 11 12 13 14 15 Housing	Not connected Connected Not connected Not connected	1 Housing	Phone plug connector, d=3.5 mm (1/8"), male (Side view)	1 CI-V (IN/OUT) 2 Ground Housing	Phone socket, female (Rear panel front view)	
		5 0 0 0 100 0 0 0 1111		Cable shiel	d	2 RING			

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 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 CAT/AUX connector			Co	ICOM transceiver Rear panel				
	1 RxD / RxTTL (IN)		1* ₱		1	1—1	CI-V Remote so	cket/jack
5 0 0 5	2 RxD / RxRS (IN)	5 0 0 5	2	Not connected	-	2	1 CI-V (IN/OUT)	
14 13 1	3 TxD / TxRS (OUT)	4 3	3	Not connected	-]	2 Ground	Phone
240	4 TxD / TxTTL (OUT)	3 2 8 7 13 12	4*	Not connected	-	1		socket,
360-	5 GND	36661	5		2** •	[] 2		female
D-sub	6 BAND voltage (IN)	D-sub	6	Not connected	-	Phone plug		(Rear
connector,	7 Band data 0 (IN)	connector,	7	Not connected	-	connector, d=3.5 mm		panel
15-pin,	8 Band data 1 (IN)	15-pin,	8	Not connected	-	(1/8"), male		front view)
3-row,		3-row, male				(Side view)		
female	9 Band data 2 (IN)	(Solder view)	9	Not connected	1	Connector,	ACC 1 or ACC	2 sockets
(Rear	10 Band data 3 (IN)		10	Not connected	2**		1	() () () () () () () () () ()
panel front view)	11 ON RMT (IN)		11		7		2 Ground	(A) (B) (B) (B) (B) (B) (B) (B) (B) (B) (B
front view)	12 Debug mode		12	Not connected	4		3 SEND (OUT)	65-73
	13 KEY-IN		13		3		4	Socket, 7 or 8 pin, female (Rear panel front view)
	14 KEY-OUT		14	Not connected	5	7 or 8 pin, male	5	
	15 GND		15	Not connected	6	(Solder view)	6	
	Housing		-	Not connected	8	(00:00: 1:011)	7 +13.8 V (OUT)	
			Housing	Cable shield	Housing		8	
							Housing	none viewy
		5 0 110 0 0 111		Cable shiel	d	2 RING		

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.

Re	ACOM S-series amplifier Rear panel CAT/AUX connector		Col	KENWOOD transceiver / Rear panel COM connector				
D-sub connector, 15-pin, 3-row, female (Rear panel front view)	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	5 4 3 2 1 10 9 8 7 6 6 D-sub connector, 15-pin, 3-row, male (Solder view)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Housing	Not connected Connected Not connected Not connected Not connected Not connected Not connected	1 2 3 4 5 6 7* • 9 Housing	D-sub connector, 9-pin, female (Solder view)	1 Not used 2 TxD (OUT) 3 RxD (IN) 4 Not used 5 GND 6 Not used 7 RTS (IN) 8 CTS (OUT) 9 Not used Housing	D-sub connector, 9-pin, male (Rear panel front view)
	-	0 100 0 00		Cable shield		1 2 3 4 5 0 0 6 7 8 9 0 0		

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

Re	ACOM S-series amplifier Rear panel CAT/AUX connector		Со	YAESU FT-920 transceiver / Rear panel CAT connector				
	1 RxD / RxTTL (IN)		1	Not connected	1		1 Not used	
5 0 0 5	2 RxD / RxRS (IN)	5 0 0 5	2		2	• Ø	2 TxD (SERIAL OUT)	(°5)
4 3 9 8 9 8 114 13	3 TxD / TxRS (OUT)	4 3 9 8 14 13	3		3	-ω -ω	3 RxD (SERIAL IN)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 70	4 TxD / TxTTL (OUT)	12 7 2	4	Not connected	4	2 1	4 Not used	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
=669-	5 GND	1 6 6 1	5		5		5 Ground	
D-sub	6 BAND voltage (IN)	D-sub	6	Not connected	6	D-sub	6 Not used	D-sub
connector,	7 Band data 0 (IN)	connector,	7	Not connected	7	connector, 9-pin,	7 Not used	connector, 9-pin, female
15-pin,	8 Band data 1 (IN)	15-pin, 3-row, male (Solder view)	8	Not connected	8	male (Solder view)	8 Not used	
3-row, female	9 Band data 2 (IN)		9	Not connected	9		9 Not used	(Rear panel
(Rear	10 Band data 3 (IN)		10	Not connected	-		Housing	front view)
panel	11 ON RMT (IN)		11	Not connected	-			
front view)	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			
		0 10 0 0 0		Cable shield	[c	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		

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

ACOM S-series amplifier Rear panel CAT/AUX connector			Co	YAESU FT-1000 transceiver / Rear panel CAT connector				
D-sub connector, 15-pin, 3-row, female (Rear panel front view)	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	5 4 3 2 1 10 9 8 7 6 6 D-sub connector, 15-pin, 3-row, male (Solder view)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Housing	Not connected Connected Not connected Not connected Not connected Not connected Not connected	1 2 3 4 5 6 7 8 9 Housing	D-sub connector, 9-pin, female (Solder view)	1 Not used 2 TXD (SERIAL OUT) 3 RXD (SERIAL IN) 4 Not used 5 Ground 6 Not used 7 RTS 8 CTS 9 Not used Housing	D-sub connector, 9-pin, male (Rear panel front view)
		5 · · · · · · · · · · · · · · · · · · ·		Cable shield	c	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		

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.

ACOM S-series amplifier							YAESU FT-1000	
Rear panel		Connecting cable				transceiver / Rear panel		
CAT/A	CAT/AUX connector						Band Data connector	
	1 RxD / RxTTL (IN)		1	Not connected	8		1 +13.8 V (OUT)	
5 0 0 5	2 RxD / RxRS (IN)	15 0 5	2	Not connected	-	a o s	2 TX GND (OUT)	(A) (D) (B) (B) (B) (B) (B) (B) (B) (B) (B) (B
5 4 3 100 90 80 105 14 13 1	3 TxD / TxRS (OUT)	4 3 9 8 14 13	3	Not connected	-	10. 6 &	3 GND	(4) (5) (1) (1) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4
1 2 2 2 2	4 TxD / TxTTL (OUT)	2 7 7 1 12 1	4	Not connected	-		4 Band A (OUT)	
366-	5 GND	1	5		3	Horseshoe	5 Band B (OUT)	Horseshoe
D-sub	6 BAND voltage (IN)	D-sub	6	Not connected	-	DIN plug,	6 Band C (OUT)	DIN connector,
connector,	7 Band data 0 (IN)	connector,	7		4	8-pin,	7 Band D (OUT)	8-pin,
15-pin,	8 Band data 1 (IN)	15-pin,	8		5	male	8 LINEAR	female (Rear panel front view)
3-row, female	9 Band data 2 (IN)	3-row, male (Solder view)	9		6	(Solder view)	der view) Housing	
(Rear	10 Band data 3 (IN)		10		7			
panel	11 ON RMT (IN)		11		1			
front view)	12 Debug mode		12	Not connected	1			
	13 KEY-IN		13		2			
	14 KEY-OUT		14	Not connected	ı			
	15 GND		15	Not connected	-			
	Housing		Housing	Cable shield	Housing			
		5 0 0 0 0 110	••••••••••••••••••••••••••••••••••••••	Cable shiel	d			

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

ACOM S-series amplifier Rear panel CAT/AUX connector		Connecting cable					YAESU FT-897 transceiver / Rear panel CAT/Tun/Lin connector/jack	
D-sub connector, 15-pin, 3-row, female (Rear panel front view)	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	D-sub connector, 15-pin, 3-row, male (Solder view)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Housing	Not connected Connected Not connected Not connected	4 2 6 3 5 7 8 - - - - 1 - - - -	Mini DIN plug, 8-pin, male (Solder view)	1 TX GND (OUT) 2 +13.8 V 3 RX D (IN) 4 TX D (OUT) 5 GND 6 TX INH 7 Reset 8 Band C Housing	Mini DIN connector, 8-pin, female (Rear panel front view)
		0 10 0 0 11	(50 0 0 0 1)					

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.

ACOM S-series amplifier							YAESU FT-897	
Rear panel		Connecting cable				transceiver / Rear panel		
CAT/A	UX connector						CAT/Tun/Lin connector/jack	
	1 RxD / RxTTL (IN)		1	Not connected	6		1 TX GND (OUT)	
5 0 0 5	2 RxD / RxRS (IN)	5 0 0 5	2	Not connected	-	20 10 L 50 40 30	2 +13.8 V	20 10 L 50 40 30
5 4 3 100 90 80 15 14 13 1	3 TxD / TxRS (OUT)	4 3 9 8 4 3 14 13	3	Not connected	-	8• 7• 6•	3 Band B (OUT)	80 70 60
1 2 5 2 6 2	4 TxD / TxTTL (OUT)	12 7 2	4	Not connected	-	\rangle \rangl	4 Band A (OUT)	7 0
3600-	5 GND	36.9	5		5	Mini DIN	5 GND	Mini DIN connector,
D-sub	6 BAND voltage (IN)	D-sub	6	Not connected		plug, 8-pin,	6 TX INH	8-pin,
connector,	7 Band data 0 (IN)	connector,	7		4	male	7 Band D (OUT)	female
15-pin,	8 Band data 1 (IN)	15-pin, 3-row, male (Solder view)	8		3	(Solder view)	8 Band C (OUT)	(Rear panel front view)
3-row, female	9 Band data 2 (IN)		9		8		Housing	
(Rear	10 Band data 3 (IN)		10		7			
panel	11 ON RMT (IN)		11		2			
front view)	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			
			1) O	Cable shield		92 10 95 94 30 98 97 96		

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.

ACOM S-series amplifier							YAESU FT-817	
	Rear panel		Connecting cable				transceiver / Rear panel	
CAT/A	UX connector				ACC conn	ACC connector		
	1 RxD / RxTTL (IN)		1	Not connected	2		1 TX GND (OUT)	
5 0 0 5	2 RxD / RxRS (IN)	5 0 0 5	2	Not connected	3	2• 1• L 5• 4• 3•	2 +13.8 V	20 10 10 50 40 30
5 4 3 2 0 0 0 0 100 90 80 70 15 14 13 12 1	3 TxD / TxRS (OUT)	4 3 9 8 14 13	3	Not connected	4	8 ● 7 ● 6 ●	3 RXD	80 70 60
2 0 70 1	4 TxD / TxTTL (OUT)	2 1 7 6 7 6 12 11 12 11	4	Not connected	6	7	4 TXD	Mini DIN
3669-	5 GND	3 1 1 1 1 1 1 1 1 1 1	5		5	Mini DIN	5 GND	Mini DIN connector,
D-sub	6 BAND voltage (IN)	D-sub	6		8	plug, 8-pin,	6 TX INH	8-pin,
connector,	7 Band data 0 (IN)	connector,	7	Not connected	7	male	7 ALC	female
15-pin,	8 Band data 1 (IN)	15-pin, 3-row, male (Solder view)	8	Not connected	-	(Solder view)	8 Band Data (OUT)	(Rear panel front view)
3-row, female	9 Band data 2 (IN)		9	Not connected	-		Housing	
(Rear	10 Band data 3 (IN)		10	Not connected	-			
panel	11 ON RMT (IN)		11	Not connected	-			
front view)	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			
		5 • • • • • • • • • • • • • • • • • • •	,	Cable shiel	d	•21• •5 •4 3• •8 •7 •6		

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.

ACOM S-series amplifier							YAESU FTDX-101		
Rear panel		Connecting cable					transceiver / Rear panel		
CAT/A	UX connector						LINEAR cor	LINEAR connector	
_	1 RxD / RxTTL (IN)		1	Not connected	3		1 +13.8 V (OUT)		
5 0 0 5	2 RxD / RxRS (IN)	15 6 5	2	Not connected	8	0 8 7 15 0 N	2 TX GND (OUT)	8 7 6 0 0 0 15 14 1	
5 4 3 100 90 80 10 90 80 15 14 13 1	3 TxD / TxRS (OUT)	4 3 9 8 9 8	3	Not connected	-	●4 0 5 14 13 0 5	3 GND	1 ο ω	
1 2 5 2 2 5	4 TxD / TxTTL (OUT)	2 7	4	Not connected	ı	•12 • 4 •11 • 11	4 Band A (OUT)	4020	
= 6 6 -	5 GND		5	Not connected	-	0 3 2 1 0 9 0 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 Band B (OUT)	l o≾°∞l l	
D-sub	6 BAND voltage (IN)	D-sub	6	Not connected	-		6 Band C (OUT)	2 1	
connector,	7 Band data 0 (IN)	connector,	7		4	D-sub	7 Band D (OUT)	D-sub connector, 15-pin, female (Rear panel front view)	
15-pin,	8 Band data 1 (IN)	15-pin, 3-row, male (Solder view)	8		5	connector, 15-pin, male (Solder view)	8 TX INH		
3-row, female	9 Band data 2 (IN)		9		6		9 GND		
(Rear	10 Band data 3 (IN)		10		7		10 Not used		
panel	11 ON RMT (IN)		11		1		11 TX REQ		
front view)	12 Debug mode		12	Not connected	-		12 Not used		
	13 KEY-IN		13		2		13 Not used		
	14 KEY-OUT		14	Not connected	-		14 EXT ALC		
	15 GND		15		9		15 GND		
	Housing		Housing	Cable shield	Housing		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.

ACOM S-series amplifier							YAESU FTDX-10	
Rear panel		Connecting cable					transceiver / Rear panel	
CAT/A	UX connector						LINEAR connector	
	1 RxD / RxTTL (IN)		1	Not connected	8	2	1 +13.8 V (OUT)	
5 0 0 0 5	2 RxD / RxRS (IN)	15 6 5	2	Not connected	9	1×2 = 3	2 TX GND (OUT)	
5 4 3 100 90 80 115 14 13 1	3 TxD / TxRS (OUT)	4 3 9 8 14 13	3	Not connected	10	4	3 GND	4 0000 7
1 2 6 7 6 7 8	4 TxD / TxTTL (OUT)	2 3 7 12 1	4	Not connected	-	5 6	4 Band A (OUT)	8 10
= = = = = = = = = = = = = = = = = = = =	5 GND		5		3	9 9	5 Band B (OUT)	Mini DIN
D-sub	6 BAND voltage (IN)	D-sub	6	Not connected	-	Mini DIN	6 Band C (OUT)	connector,
connector,	7 Band data 0 (IN)	connector,	7		4	plug,	7 Band D (OUT)	10-pin, female (Rear panel front view)
15-pin,	8 Band data 1 (IN)	15-pin, 3-row, male (Solder view)	8		5	10-pin, male (Solder view)	8 TX INH	
3-row, female	9 Band data 2 (IN)		9		6		9 EXT ALC	
(Rear	10 Band data 3 (IN)		10		7		10 TX REQ IN	
panel	11 ON RMT (IN)		11		1		Housing	
front view)	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	Housing			
		5 0 100		Cable shiel	d	4 5 8 9 10		

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

ACOM S-series amplifier							USB-RS-232		
Re	Rear panel		Connecting cable					adapter	
CAT/A	UX connector							nnector	
_	1 RxD / RxTTL (IN)		1	Not connected	1	_	1 Not used	•••	
5 0 0 5	2 RxD / RxRS (IN)	15 0 0 5 15 0 0 0 5	2		3	0000	2 RxD (IN)		
90 80	3 TxD / TxRS (OUT)	4 3 9 8 14 13	3		2	7 08	3 TxD (OUT)	•2 •7 •8	
0 70 0 72	4 TxD / TxTTL (OUT)	2 7 7 2	4	Not connected	4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 Not used	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
369-	5 GND	3 6 6 1	5		5		5 Ground		
D-sub	6 BAND voltage (IN)	D-sub	6	Not connected	6	D-sub	6 Not used	D-sub	
connector,	7 Band data 0 (IN)	connector,	7	Not connected	7	connector, 9-pin, female (Solder view)	7 Not used	connector, 9-pin, male (Rear panel front view)	
15-pin,	8 Band data 1 (IN)	15-pin, 3-row, male (Solder view)	8	Not connected	8		8 Not used		
3-row, female	9 Band data 2 (IN)		9	Not connected	9		9 Not used		
(Rear	10 Band data 3 (IN)		10	Not connected	-		Housing		
panel	11 ON RMT (IN)		11	Not connected	-				
front view)	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				
		0 10 • • • 6 • 11°		Cable shield	c	2 3 4 5 6 7 8 9 6 0 8 9		,	

Table 3-14 | Connection cable wiring



NOTES	







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