

BECKER

AVIONIC SYSTEMS

Audio Selector and Intercom Units

AS 3100 - (41)

AS 3100 - (42)

Installation and Operation

Manual DV 278101.03

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Section 1 GENERAL DESCRIPTION

1.1 Introduction

The manual describes the Audio Selector and Intercom Units AS 3100 - (41) and AS 3100 - (42) of the BECKER Audio Selector and Intercom System ASI 3100.

The manuals DV 278101.03 "Installation and Operation" and DV 278101.04 "Maintenance and Repair" contain the following sections :

	Section	DV 278101.03	DV 278101.04
1	General Information	X	X
2	Installation	X	X
3	Operation	X	X
4	Theory of Operation		X
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1.2 Application

The Audio Selector and Intercom Unit AS 3100 - (41) and AS 3100 - (42) is a part of the Audio Selector and Intercom System ASI 3100 and suitable for installation in aircraft. It is used for radio communication, for monitoring call and warning signals and for communications of the crew amongst themselves.

1.3 General description

The Audio Selector Units are constructed as single module units and designed for installation in the operating panels of aircraft. The dimensions correspond to the ARINC standard for operating units and mounting is by means of four quick-release fasteners (DZUS FASTENERS).

All controls and indicators of the unit are mounted on the front panel. The rear of the unit holds the 50-pin unit connector.

The AF Selector Units contain the following plug-in modules :

- | 2 microphone amplifier modules for standard mikes (for AS 3100 - (41) only)
- | 2 microphone amplifier modules for dynamic mikes (for AS 3100 - (42) only)
- | 1 speaker amplifier module (for cockpit speaker, replaces headphone amplifier during emergency operation)
- | 1 HOT MIKE module (for VOX mode)

These modules are mounted on the interwiring board, which mainly contains the voltage regulator and headphone amplifier.

The AF Selector Units enable the following modes to be used:

1. Control of the connected RT transmitters (maximum of four transceiver units) in positions 1 to 4 of the transmitter selector switch with the PTT (press to transmit button) with simultaneous IC muting (priority transmission). The transmit mode is indicated by the TX lamps on the front panel.
2. Receiver selection, monitoring of the connected receivers by means of push-button switches.
3. HOT MIKE (VOX) mode, threshold-controlled aircraft IC without operating a control in positions 1 to 4 of the transmitter selector switch.
4. IC mode, aircraft IC with the IC button in all positions of the transmitter selector switch. In the IC position IC mode is also possible with the PTT.
5. Operation of a public address amplifier for PA announcements with the transmitter selector switch in the PA position using the PTT.
6. Additional reproduction of the audio selections via a cockpit speaker using push-button switches.
7. Switchable EMERGENCY mode on failure of the power supply I or of an module or part of the circuit in the normal operating branch of the unit, by means of a push-button switch.

Additional indicating and warning signals (e.g. MASTER CAUTION or ANNUNCIATOR PANEL) can also be selected via five fixed inputs. It is also possible to connect a cockpit voice recorder.

The AS 3100 - (41) Audio Selector Unit is designed for connecting to headsets with standard 150 Ω mikes and the AS 3100 - (42) is designed for 5 to 200 Ω dynamic mikes. Both units enable headsets with 8 Ω or 300 Ω headphones to be connected.

1.4 Technical data

1.4.1 General data

Supply voltage I and II	27.5 V DC upper limit 30.3 V lower limit 24.8 V (16 V with reduced power)
Internal fuse protection I and II	5 A/F
Current consumption in normal operation or in emergency operation	≤ 0.7 A (without panel lighting)
Panel lighting	≤ 500 mA at 27.5 V DC
Altitude max.	50000 ft
Operating temperature range	- 20° . . . + 55° C (short-time + 70° C)
Vibration	RTCA DO - 160 A Cat. M + N
Environmental conditions	RTCA DO - 160 A Env. Cat. D1/A/MN/XXXXXXABABA
Dimensions	
- Front panel	38.1 x 146 mm
- Casing depth	170 mm incl. unit connector (without cable socket)
Weight	approx. 0.73 kg

1.4.2 AF inputs

T/R units 1 and 2 (VHF 1, VHF 2)	6.0 V ± 10 % at 5 kΩ ± 30 %
T/R units 3 and 4	7.75 V ± 10 % at 5 kΩ (adjustable from outside with R 2020 and R 2082)
NAV receiver 1 and 2	6.0 V ± 10 % at 5 kΩ ± 30 %
ADF receiver	6.0 V ± 10 % at 5 kΩ ± 30 %
MKR receiver	6.0 V ± 10 % at 5 kΩ ± 30 %
DME receiver	5.5 V ± 10 % at 5 kΩ ± 30 %
Fixed input I (ANNUNCIATOR PANEL)	1 V ± 10 % at 1.2 kΩ ± 20 %
Fixed input II	3 V ± 10 % at 1.2 kΩ ± 20 % (Muting)
Fixed input III (MASTER CAUTION)	1 V ± 10 % at 1.2 kΩ (adjustable from outside with R 2053)

Fixed input IV (Auxiliary)	3 V ± 10 % at 1.2 kΩ ± 20 %
Fixed input V (Expander)	120 mV ± 10 % at 1.2 kΩ ± 20 %

Sidetone and audio monitoring
 of the T/R units

- T/R units 1 and 2	6.0 V ± 10 % at 5 kΩ ± 30 %
- T/R units 3 and 4	7.75 V ± 10 % at 5 kΩ ± 30 % (sidetone preselection for COM or internal sidetone)

1.4.3 AF outputs

Mike lines 1 and 2	150 mV nominal at 150 Ω
Mike lines 3, 4 and PA	250 mV nominal at 150 Ω
IC audio line	0.65 . . . 0.72 V at 200 Ω (termination) (adjustable from outside with of R 5003)
Cockpit speaker (SPKR)	5 W at 8 Ω
Voice recording (CVR)	
- Mike	230 . . . 250 mV at 10 kΩ
- Headphone	180 . . . 400 mV at 10 kΩ

1.4.4 Mike amplifier module for dynamic mikes

Input impedance	5 . . . 200 Ω
Input voltage	500 μV . . . 20 mV
Common mode rejection	≥ 50 dB (weighted)
AGC threshold	4.5 . . . 6 mV EMF / Ri = 200 Ω
Output voltage	≤ 0.7 V at 150 Ω (regulated)
Frequency response	350 Hz . . . 6 kHz (- 3 dB)
Distortion	≤ 10 % for 0.25 V at 150 Ω
Signal-to-noise-ratio S + N / N	≥ 50 dB

1.4.5 Mike amplifier module for standard mikes

Input impedance	150 Ω
Input voltage	≤ 250 mV
Output voltage	≤ 0.7 V at 150 Ω
Frequency response	350 Hz . . . 6 kHz (- 3 dB)
Distortion	≤ 10 %
Signal-to-noise-ratio S + N / N	≥ 50 dB

1.4.6 Headphone amplifier

AF output impedance	8 Ω and 300 Ω
Output power (rated power)	≥ 0.4 W at 8 Ω or 300 Ω
Sidetone attenuation in transmission	0 dB (or - 6 dB, adjustable from outside with R 2042)
Audio monitoring in receive mode	0 dB
IC control range	- 30 dB (- 3 dB)
Frequency response	350 Hz . . . 6 kHz (- 3 dB)
Distortion	≤ 10 % for 0.5 W at 8 Ω
Signal-to-noise-ratio S + N / N	≥ 50 dB

1.4.7 Speaker amplifier module

Output power	typ. 6 W at 8 Ω (adjustable from outside with R 10)
Frequency response	350 Hz . . . 6 kHz (- 3 dB)
Distortion	≤ 10 %
Signal-to-noise-ratio S + N / N	≥ 50 dB

1.4.8 HOT MIKE module

Threshold switch

- Switch-on threshold for AS 3100 - (41)
 -standard mike input- 25 . . . 55 mV, f = 500 Hz
 (adjustable from outside with 5023)
- Switch-on threshold for AS 3100 - (42)
 -dyn. mike input- 0.55 . . . 0.8 mV EMF / $R_i = 200 \Omega$,
 f = 500 Hz (adjustable from outside with
 R 5023)
- Holding time 0.5 . . . 1.5 s (adjustable from outside
 with R 5035)

IC audio line amplifier

- AF output voltage 0.65 . . . 0.72 V at 200Ω minimum load
 resistance
 (adjustable from outside with R 5003)
- Frequency response 350 Hz . . . 6 kHz (- 4 dB)
- Distortion $\leq 10 \%$ for 0.7 V at 200Ω minimum load
 resistance
- Signal-to-noise-ratio S + N / N ≥ 50 dB

IC sidetone attenuation 0 dB

1.4.9 Emergency operation

AF inputs as for 1.4.2 (selection is by operating
 the receiver push-buttons in emergency
 operation also)

AF outputs

- Mike lines as for 1.4.3
- Headphone ≥ 0.25 W at 8Ω or 300Ω (adjustable
 from outside with R 10)

1.5 Accessories

50-pin cable connector Part No.: 358.800-954

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Section 2 INSTALLATION

2.1 General

Installation of the audio selector and intercom unit depends on the aircraft type and its equipment. Therefore, only general information can be given in this section.

2.2 Checks prior to installation

Before the audio selector and intercom unit is installed in an aircraft, a visual inspection for possible transport damages shall be performed. Please look out for the following defects:

1. Dirt, dents, scratches, corrosion, broken fastening elements on casing and casing parts.
2. Dirt and scratches on nameplate, front panel and markings.
3. Dirt, bent or broken pins, cracked unit connector insert.
4. Dirt, stiffness and mechanical damage to the push-buttons switches, of the rotary switch and the potentiometer.
5. Missing screws.

2.3 Exchanging the push-button inscription

1. Pull off cover cap of the volume control and loosen the two rotary knobs using a screwdriver and a socket wrench. Remove knobs and felt ring.
2. Pull off cover cap of the transmitter selector switch and loosen the rotary knob using a socket wrench. Remove rotary knob with nut cover and felt ring.
3. Loosen the two fillister head screws on the panel front and remove with the washers. Carefully remove the panel from the front plate.
4. Using a small screwdriver, lift the respective grey key housing in the existing groove and pull off the key insert (plexiglass part). Exchange the inscription plate.
5. Push the key housing onto the key insert (plexiglass part) until it locks.
6. Further assembly in the reverse order of removal.

2.4 Mechanical installation

The audio selector and intercom unit shall be installed in a suitable place in the aircraft. Generally, this would be the operating panel. The dimensions required for installation can be seen in Fig. 2-1. The audio selector and intercom unit is fastened by means of four DZUS fasteners.

2.5 Aircraft wiring

2.5.1 General

The aircraft wiring of the AF Selector Unit differs depending on the aircraft type and equipment. Therefore, only general rules can be given.

NOTES

- | The signal lines should be screened or twisted if necessary and where the EMC conditions are unclear they should be provided with a common screen.
- | Particular care should be taken to ensure a good ground connection (supply voltage ground, AF ground) from a central ground point. Ground loops must be absolutely avoided.

2.5.2 Fuse protection and wiring of the power supply

The fuse protection and wiring of the power supply for one or more AF Selector Units shall be in accordance with the recommendation in Fig 2-2.

2.5.3 Matching of the IC audio line

The IC audio line of the AF Selector Unit leads to the corresponding intercom units (e.g. AS 3100 or IC 3100 etc.). Up to a maximum of three units with an input impedance of 600 Ω can be connected.

The IC audio line level is factory set to 0.7 V at a 600 Ω load. If two units are connected, the IC audio line shall be terminated by a 600 Ω load resistor and if there is only one unit connected a 300 Ω load resistor shall be used (refer also to Fig. 2-3).

2.5.4 Setting the level of the IC audio line

Where necessary, the factory setting of the IC audio line level can be readjusted as follows.

1. Prepare the test setup shown in Fig. 2-4.
2. Set the AF generator (resistance 200 Ω) to 150 mV, 1 kHz for the AS 3100 - (41) or to 10 mV EMF, 1 kHz for the AS 3100 - (42).
3. Using a load resistor whose value depends on the number of units connected, set the level of the IC audio line to 0.7 V by means of resistor R 5003 (accessible from outside, refer to Fig. 2.5).

2.5.5 Sidetone preselection for COM 3 and 4 transceiver units

When the COM 3 and 4 transceiver units are connected, either COM sidetone (from the AF output of a particular transceiver unit) or internal sidetone (from the mike line of the AF Selector Unit) can be selected. To do this, change over jumpers J5 or J6 on the interwiring board of the AF Selector Unit as shown in Fig. 2-6. The jumpers are accessible after removal of the speaker amplifier module.

2.5.6 Sidetone attenuation during transmission

The sidetone attenuation of the unit during transmission can be set to 0 dB or - 6 dB as required using adjustable resistor R 2042 (refer to Fig. 2-5).

2.5.7 Connection of a voice recorder

A voice recorder can be connected to Pin 4 (microphone) and Pin 5 (headphone) of unit connector P 1001. The microphone output is designed for 230 to 250 mV at 10 k Ω and the headphone output for 180 to 400 mV.

2.5.8 Connection of panel lighting

The panel lighting of the AF Selector Units is operated on +27.5 V. Pins 28 and 32 (ground) of unit connector P 1001 are available for this purpose. The transmission indicators (TX LED's) D 201 to D 204 are also operated from the lighting power supply.

2.5.9 Pin connections of unit connector

Plug : P 1001

<u>Pin :</u>	<u>Connection :</u>
1	Mike input (LO)
2	Mike input (HI)
3	Mike ground
4	Voice recording output (Mike)
5	Voice recording output (Headphone)
6	Transmit button (PTT)
7	IC button
8	Headphone output 300 Ω (HI)
9	Headphone output 8 Ω (HI)

<u>Pin :</u>	<u>Connection :</u>
10	Headphone output (LO)
11	Supply voltage ground
12	Supply voltage I + 27.5 V
13	AF ground
14	IC audio line
15	AF ground
16	Cockpit speaker output 8 Ω
17	Fixed input III (MASTER CAUTION)
18	COM key line 4
19	PA key line
20	Key line (spare)
21	COM mike line 1
22	COM mike line 2
23	COM mike line 3
24	Fixed input V (Expander)
25	Spare
26	Fixed input IV (Auxiliary)
27	AF input T/R unit 1 (VHF 1)
28	Illumination and TX indicators + 27.5 V
29	AF input T/R unit 2 (VHF 2)
30	Muting control line
31	AF input T/R unit 3 (spare)
32	Illumination ground
33	AF input T/R unit 4 (spare)
34	COM key line 1
35	COM key line 2

<u>Pin :</u>	<u>Connection :</u>
36	COM key line 3
37	COM mike line 4
38	Mike line (spare)
39	PA mike line
40	Supply voltage II + 27.5 V (emergency)
41	AF input receiver 2 (NAV 2)
42	Fixed input II
43	AF input receiver 3 (ADF)
44	AF input receiver 1 (NAV 1)
45	AF input receiver 4 (MKR)
46	AF ground
47	AF input receiver 5 (DME)
48	AF ground
49	Fixed input I (ANNUNCIATOR PANEL)
50	Chassis ground

2.5.10 Technical requirements for matching

Matching of the connected units to the audio selector and intercom unit is to be performed as follows :

Mike lines 1 and 2	150 mV nominal at 150 Ω
Mike lines 3, 4 and PA	250 mV nominal at 150 Ω
Receiver monitoring COM 1 and 2	6,0 V \pm 10 % at 5 k Ω
Receiver monitoring COM 3 and 4	7,75 V \pm 10 % at 5 k Ω
Receiver monitoring NAV 1 and 2	6,0 V \pm 10 % at 5 k Ω
Receiver monitoring ADF	6,0 V \pm 10 % at 5 k Ω
Receiver monitoring MKR	6,0 V \pm 10 % at 5 k Ω
Receiver monitoring DME	5,5 V \pm 10 % at 5 k Ω

Fixed input I (ANNUNCIATOR PANEL)	1 V ± 10 % at 1.2 kΩ
Fixed input II	3 V ± 10 % at 1.2 kΩ
Fixed input III (MASTER CAUTION)	1 V ± 10 % at 1.2 kΩ
Fixed input IV (AUXILIARY)	3 V ± 10 % at 1.2 kΩ
Fixed input V (EXPANDER)	120 mV ± 10 % at 1.2 kΩ
IC audio line	0.7 V at 200 Ω minimum load resistance

The source impedance of the receivers may be substantially lower provided it is ensured that their output voltages do not vary by more than 10%.

2.6 Testing, measuring and setting after installation

2.6.1 General

After installation of the audio selector and aircraft IC system, functional tests, and adjustments as necessary, are to be carried out in the aircraft. This enables any faults in the aircraft wiring or in the matching to be detected and rectified.

2.6.2 Functional test after installation

The functional test shall be performed on all components of the audio selector and aircraft IC system.

2.6.2.1 HOT MIKE (VOX) operation

1. Set transmitter selector switch on the AF Selector Unit to any position 1 to 4. Set the IC volume control to the mid position.
2. Speak into the microphone at all units in turn connected to the IC audio line.
3. The output information shall be audible at all units. No extraneous noise shall be transmitted during the pauses in speech (threshold switch).

2.6.2.2 IC operation using the IC button or the PTT button

1. Press the IC button and speak into the microphone. The output information shall be audible at all units.
2. Set the transmitter selector to IC. Check that speech connection is only possible with the IC or PTT button pressed.

2.6.2.3 Transmitter activation

1. Switch on all corresponding or selected equipment.
2. Select the various transmitters in turn using the transmitter selector switch, press the PTT button and speak into the microphone.
3. The sidetone shall be audible in the headphone.

2.6.2.4 Receiver monitoring

1. Select the various receivers in turn using the receiver push-button switches.
2. The receiver noise shall be audible in each case.

2.6.3 Measurements and setting after installation

After successful performance of the functional test, carry out check measurements and adjust as necessary to ensure that the selector and aircraft IC system are correctly cabled and matched to the avionic equipment.

2.6.3.1 IC audio line level

1. Set the IC volume control to maximum.
2. Set the transmitter selector to position 1 and press the IC button or switch to position IC and press the PTT.
3. Apply 150 mV, 1 kHz to the microphone input of AS 3100 - (41) or 10 mV EMF, 1 kHz in the case of AS 3100 - (42), with a resistance of 200 Ω (ensure correct microphone sockets are used).
4. Measure the voltage on the IC audio line at Pin 14 of the unit connector with all the equipment connected. This shall be 0.7 V. If necessary, use resistor R5003 (accessible from outside, refer to Fig. 2-5) to set the voltage to 0.7 V.

2.6.3.2 IC/HOT MIKE switch-on threshold

Set the frequency of the microphone input voltage to 500 Hz and slowly reduce the level until speech communication is interrupted. Then slowly increase the microphone voltage until the switch-on threshold is reached. The switch-on threshold is factory-set to two 700 μ V EMF for AS 3100 - (42) respectively to 30 mV for AS 3100 - (41). If necessary (depending on the noise level of the aircraft), it can be adjusted using variable resistor R5023 (accessible from outside, refer to Fig. 2-5). It may be necessary to establish the final setting after a test flight to take account of engine noise.

2.6.3.3 IC/HOT MIKE holding time

Don the headset and speak briefly and loudly into the microphone. Measure the time up to which speech communication is interrupted (reduced noise in the headphone). If necessary, adjust the standard setting of approximately 1 s using variable resistor R 5035 (accessible from outside, refer to Fig. 2-5).

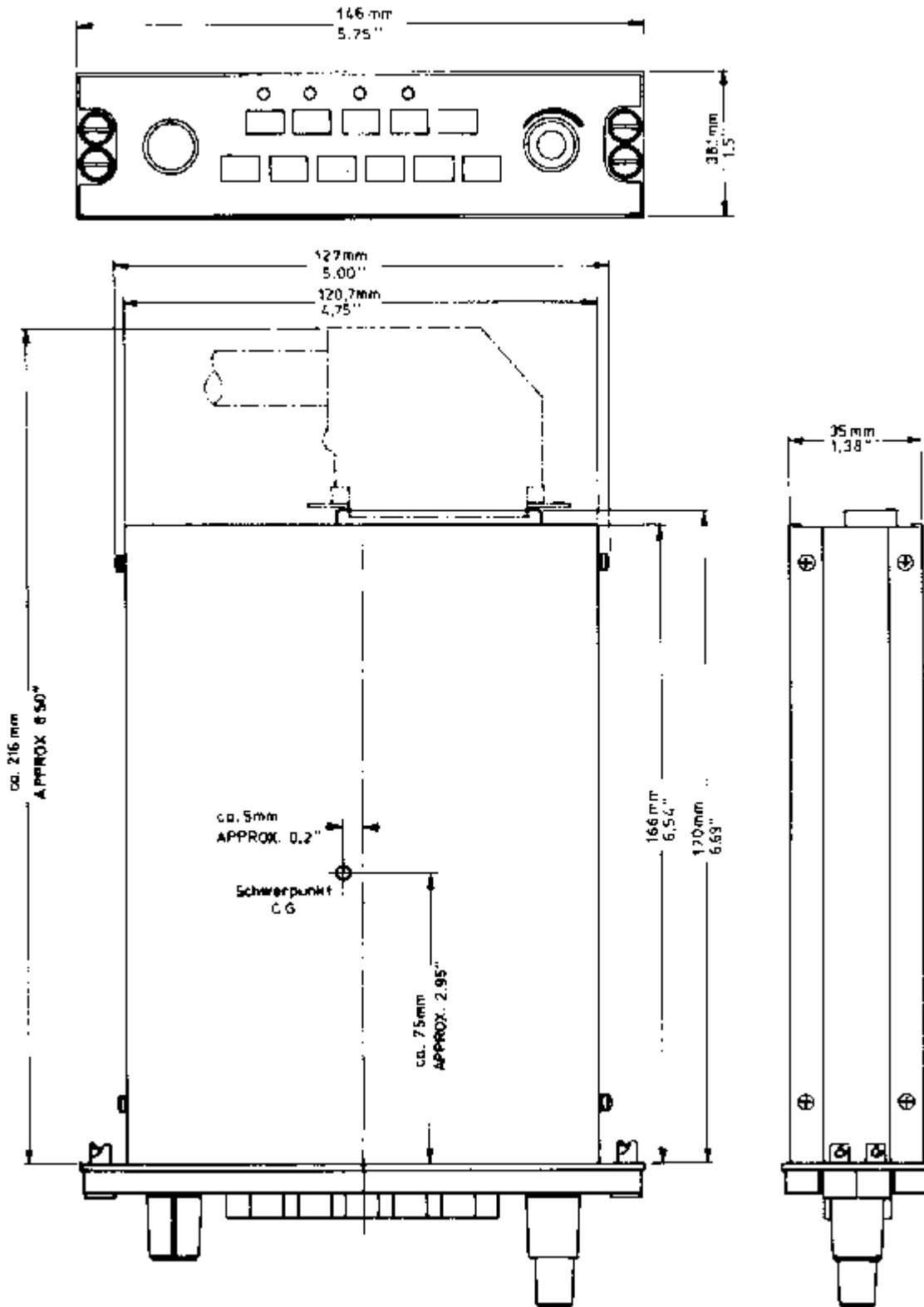


Fig. 2-1 Installation dimensions of the audio selector and intercom unit AS 3100 - (41) / - (42)

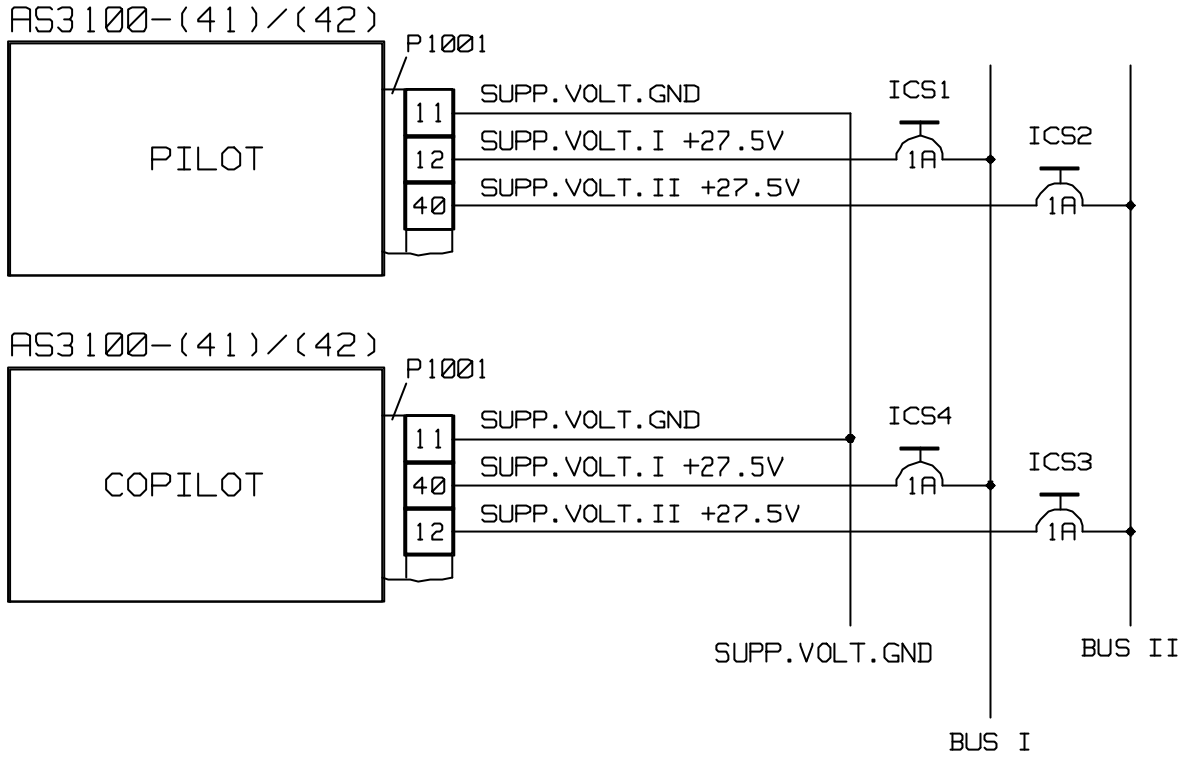


Fig. 2-2 Fuse protection and wiring of power supply

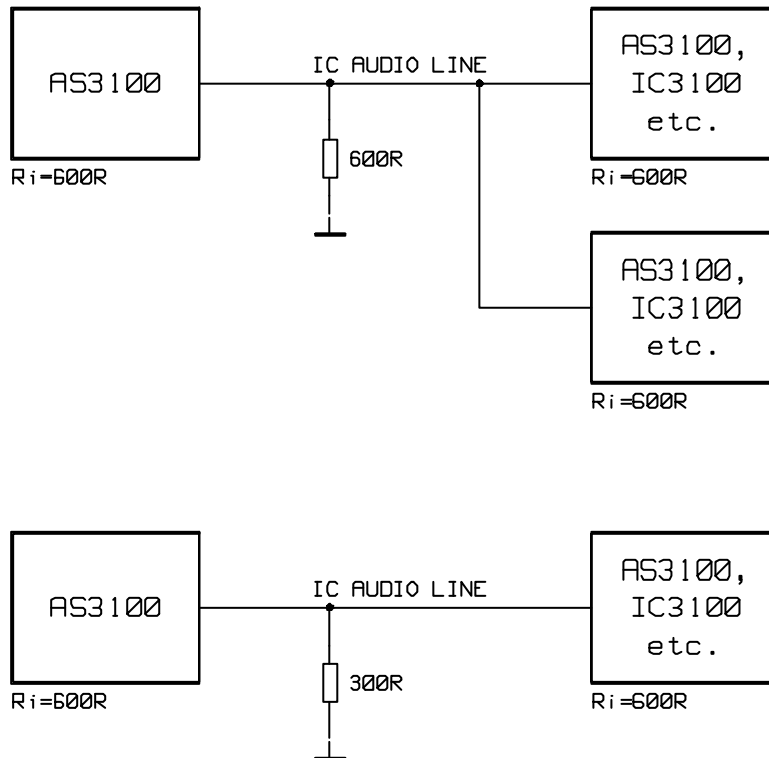
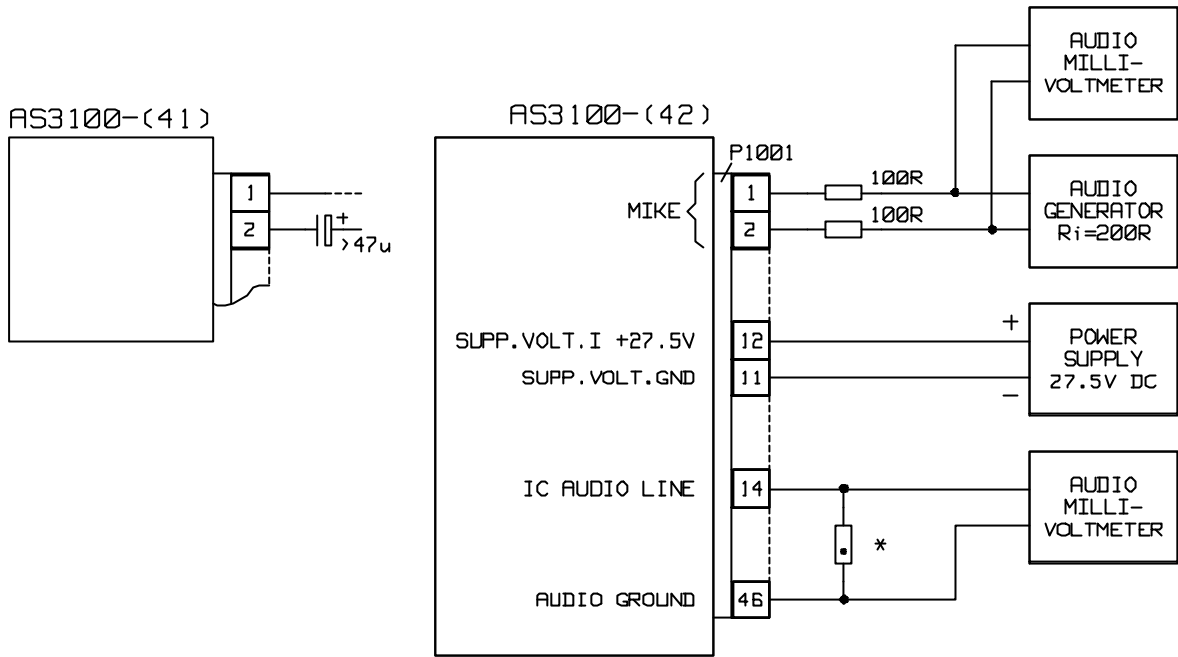


Fig. 2-3 Examples of IC audio line matching



* VALUE DEPENDS FROM ACCOUNT OF EQUIPMENTS.

Fig. 2-4 Test setup for adjusting the IC audio line level

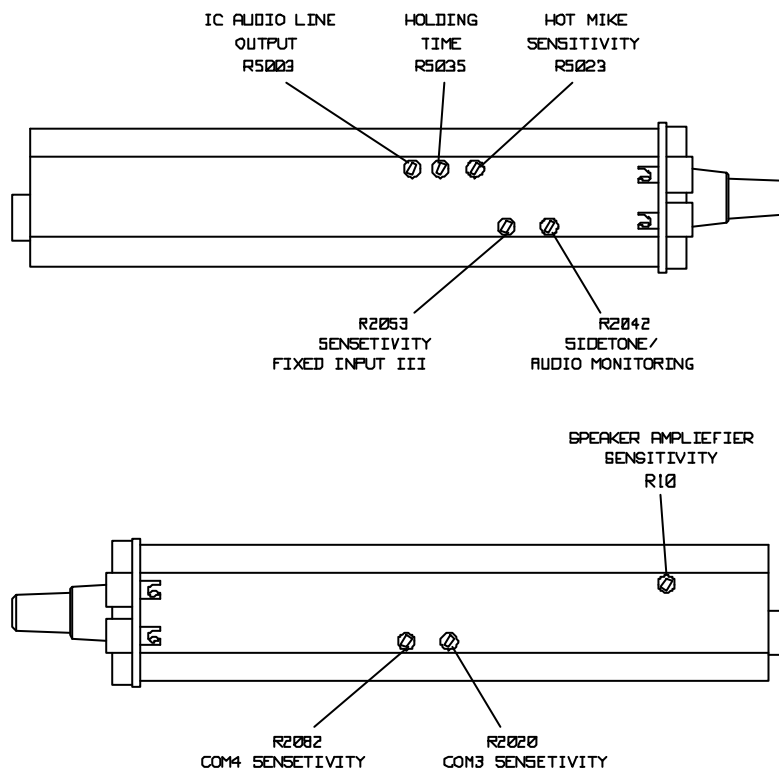
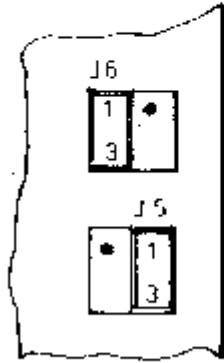


Fig. 2-5 Position of the variable resistors

Detail A
COM sidetone



Detail B
Internal sidetone

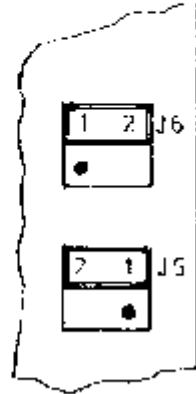


Fig. 2-6 Location and setting of jumpers for sidetone preselection (COM 3 and COM 4)

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Section 3 OPERATION

3.1 Operating controls

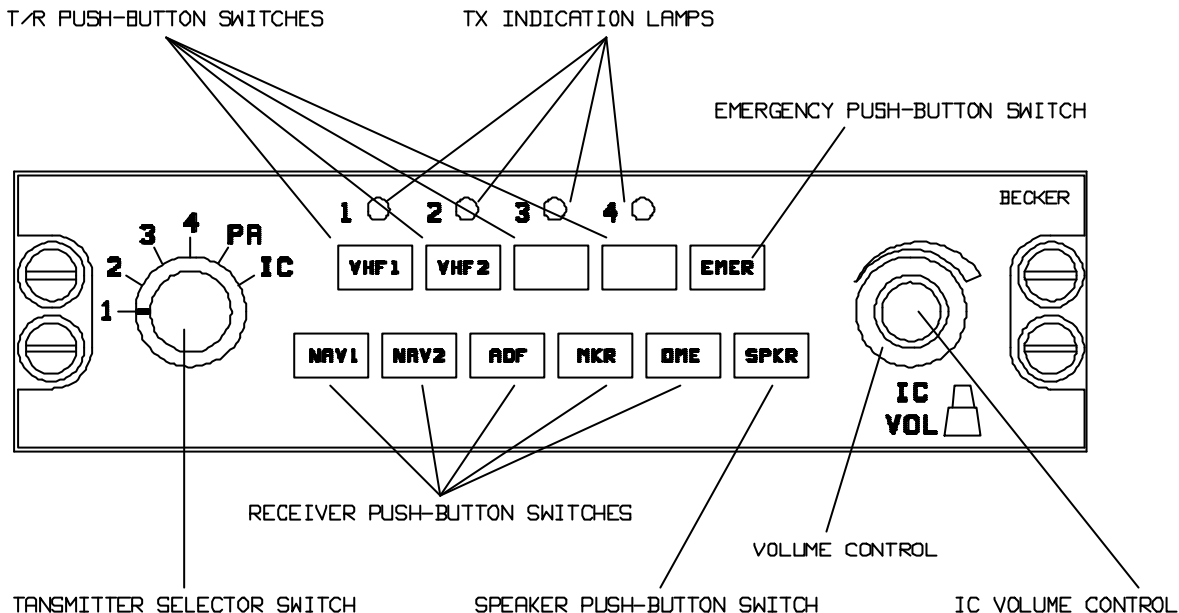


Fig. 3-1 Front panel of the audio selector and intercom units AS 3100 - (41)/- (42)

3.2 Description and function of the operating controls

Control	Description	Function
Transmitter selector switch with positions 1, 2, 3, 4, PA and IC	Rotary switch with 6 lock positions and 6 switch decks	<p>Position 1 to 4 : Transceiver operation with transmit key (PTT) and simultaneous monitoring of sidetone to headphone amplifier. In receive mode the relevant receiver AF is monitored.</p> <p>In addition, the position 1 to 4 activate the threshold control for HOT MIKE (VOX) operation.</p> <p>PA position : Controlling a remote PA amplifier for cabin address with PTT</p> <p>IC position : IC operation with IC button or PTT with threshold control disconnected.</p>

Control	Description	Function
T/R push-buttons 1, 2, 3 and 4	4 push-button switches with 2 lock positions each Switch pressed : ON Switch not pressed : OFF	Audio monitoring of the T/R units 1 to 4
TX indicator lamps 1 to 4	4 LEDs, green LED lit : transmit mode	Transmit mode indication for T/R units 1 to 4
Emergency push-button	Push-button switch with 2 lock positions Switch pressed : ON Switch not pressed : OFF	ON / OFF switch for emergency operation
Receiver push-buttons	5 push-button switches with 2 lock positions each Switch pressed : ON Switch not depressed : OFF	Audio monitoring of the connected receivers
Speaker push-button SPKR	Push-button switch with 2 lock positions Switch pressed : ON Switch not depressed : OFF	Audio monitoring via the cockpit speaker
Volume control VOL	Potentiometer	Continuously volume adjustment of audio monitoring Left stop = min. volume Right stop = max. volume
IC volume control	Potentiometer	Continuously volume adjustment of intercom Left stop = min. volume Right stop = max. volume

3.3 Operating instructions

3.3.1 Preparation

Switch on the aircraft power supply (check that the circuit-breaker for the audio selector system is closed).

3.3.2 Transceiver operation

1. Set the transmitter selector switch to the required transceiver (1 to 4).
2. Press the PTT button, check that the appropriate TX indicator lamp comes on and speak into microphone.
3. The volume of the sidetone can be adjusted during transmission using the VOL control.

NOTE

The TX sidetone is generated by the transceiver unit and applied to the AF Selector Unit.

Exception: For transceiver units 3 and 4 an internal sidetone can be generated if the unit (e.g. FM transceiver) has no sidetone of its own (refer also to Section 2.5.5.)

4. Switch on the selected transceiver (1 to 4) using the appropriate push-button switch. The audio volume can be set using the VOL control.

NOTE

If the transmit button is not pressed, a forced AF monitoring takes place via the transmitter selector switch to the receiver allocated to the selected transceiver unit, in those cases where the relevant receiver push-button switch has not been operated.

NOTE

The volume of the AF forced selection can be set using a screwdriver (opening in the sidewall of the unit). A change in this setting also affects the volume of the sidetone during transmission.

3.3.3 Receiver operation

1. Switch on the required receiver using the appropriate push-button switch.
2. The audio volume is infinitely variable by means of the VOL control.

3.3.4 Monitoring the fixed inputs

Fixed input I:
(ANNUNCIATOR PANEL)

Audio monitoring can be adjusted using the VOL control.

Fixed input II:

Audio monitoring via muting, i.e. audio muting occurs when the transmit button is pressed. The audio volume can be set using the VOL control.

Fixed input III:
(MASTER CAUTION)

The audio volume can be set using a screwdriver (opening in the sidewall of the unit). No muting or VOL effect takes place.

Fixed input IV:
(AUXILIARY)

Audio monitoring via muting (i.e. audio muting occurs when the transmit button is pressed. The audio volume can be set using the VOL control.

Fixed input V:
(EXPANDER)

Audio monitoring can be set using the VOL control.

3.3.5 Monitoring the audio selections via the cockpit speaker

1. Switch on speaker push-button switch SPKR.
2. The volume of the particular audio monitoring is fixed.

CAUTION

No IC operation is possible with the cockpit speaker switched on.

3.3.6 Controlling a PA amplifier for cabin address

1. Set the transmitter selector switch to PA.
2. Press the PTT button and speak into the microphone. This enables a remote PA amplifier to be activated and addressed, the address is reproduced through a cabin speaker.
3. The volume of the PA sidetone can be set using the VOL control.

3.3.7 HOT MIKE (VOX) operation

1. Set the transmitter selector switch to any position, except PA or IC.
2. Speak into the microphone. This automatically switches on the VOX (speech control intercom) intrusion threshold without operating a control. To prevent cabin noises being transmitted, automatic switch off occurs during long pauses in speech.
3. The volume of the IC is infinitely variable using the IC volume control.

NOTE

The Hot Mike sensitivity and holding time can be adjusted using a screwdriver (opening in the sidewall of the unit).

3.3.8 IC operation with external IC button or PTT button

1. Option:

Press the IC button and speak into the microphone. This overrides the threshold control.

2. Option (if no IC button is fitted):

Set the transmitter selector switch to IC, press the PTT button and speak into the microphone. This switches off the VOX threshold control.

In both cases the volume of the IC can be infinitely varied using the IC volume control.

NOTE

Transmission takes precedence over the Hot Mike (VOX) and IC operation.

3.3.9 Emergency operation

1. If power supply I, an assembly or part of a circuit in the normal operating section of the AF Selector Unit fails, press in and lock the EMER push-button switch.
2. Emergency operation using power supply II is now possible, during which the transmitter activation (radio communication) operates as in the normal mode and the receiver operation is carried out at reduced volume.
3. In this case, it is not possible to set the audio volume using the VOL control of the AF Selector Unit but it can be set at the individual transceivers.

NOTE

Hot Mike (VOX) operation, speaker operation or IC are not possible in the emergency mode.

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