

# Avocet



## VERSION 7 FIRMWARE

NEW FUNCTIONS

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# THE CHANGES

1. Output #3 can work in parallel with outputs 1 or 2. This is for those who need only 2 outputs and have the desire to turn a sub woofer on or off, the OUT 3 button can be programmed to allow this type of operation. Note that when setting up the type of speaker system, stereo or surround, the system switches to non sub woofer mode. You will then need to reset this mode if you desire it. At this time, there is not any writing on the front panel for this function
2. The remote talk input is now non latching. This is available on the db 25 connector. The talk button on the remote will latch if pushed for less than 0.5 seconds, if it is held for more than 0.5 seconds it will be non latching. The remote input and the button on the remote can override each other.
3. A digital meter output has been added. This is an AES output on a DB-9 connector which also allows of meter sync in surround mode. It requires a specially made cable

# Headphone / Shift Mode

With this button selected in the shift mode. OUT 3 is converted to work as a Sub Woofer output. It is full range unfiltered audio that can be turned ON or OFF with OUT 3. Thus allowing outputs 1 and 3, or 2 and 3 to be on at the same time. If this is not selected, OUT 3 works as a normal third speaker system output

Headphones / shift to select phones control

Dim Button over rides Headphone mode

Headphone Level

Selects direct AUX analog output  
The headphone source is selected by the main input buttons. It's level does not change with the main system level

The headphone source is selected by the main input buttons. It's level changes with the main system level

## Avocet alignment

The alignment should not be changed unless you are 100 % positive that you know how to do this and have very good equipment. If not you could mess up the alignment, and the left - right channel balance. The gain trims will provide a plus or minus 3 db range, which can allow for different configurations. Do not attempt to adjust this as a way to reduce the output level. If you do you will mess it up. If you need to reduce the output level use the provided pads. There is 5 db of analog headroom above the zero or red led on the remote's meter.

If the rom has surround firmware set it to stereo operation before power up

Jumper JP1 must be installed on power up

This jumper should not be changed with out power down and power up

With Att at max level, 1khz sine wave

Put the signal into analog 1 and mono the unit

adjust the generator for 1.000V at the (MONO TEST POINT IC7 PIN 1)  
ch1 and ch2 should be equal

R166, R167 are the gain trims (CHANNEL GAIN MATCHING)

adjust the output for 1.783 volts in both channels  
use 5.1k ohm load on the output, measure the output balanced  
turn mono off

**ANALOG INPUT TRIMS** 1.000v in = 1.000v out

adjust the trims for ANA1, ANA2, and AUX inputs they can be reached by small holes next to the xlr connectors on the back

**DIGITAL INPUT TRIMS**

select DAW feed a 1khz sine wave at digital full scale  
gain Att. still at max  
adjust for 7.70 volts output this is 20db above 0dbm

Jumpers to select input level metering should be installed

REMOTE METER ADJUST with max digital input adjust the meter trims for meter full scale

**DIGITAL METER OUTPUT WITH ANALOG INPUT**

Apply an 1KHz analog input and adjust it for 7.70 volts out with the att. at max  
(this is the same level as digital zero on the digital input)

With a digital meter connected to the metering output adjust the meter level trims for digital zero

CK the stepped attenuator  
analog input 1 apply a square wave 5V p-p, 1KHz  
look at the output starting at max output  
check for level change in proper sequence and correct wave shape  
If there is a problem at the max setting the other adjustments  
may have to be redone

With 1 volt on ANA1 check, both inputs, the phones, main and mono outputs on the aux connector  
With PHONES MAIN selected and the phones gain at max

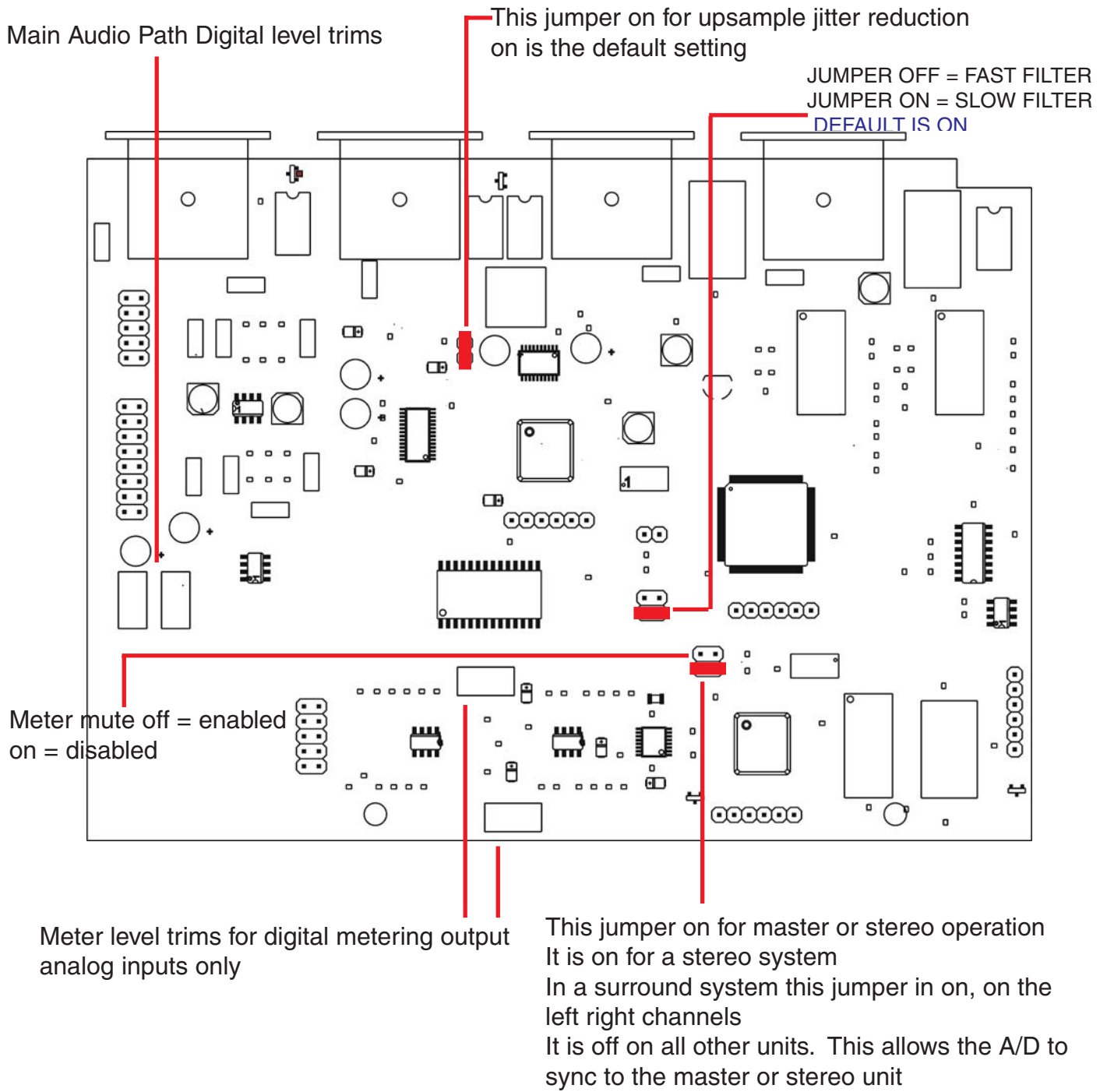
mono = 1.5Vp-p on the scope  
If you hit the phase button the mono output should cancel to 0

Phones = 2Vp-p  
Phones = jack 3.1 Vp-p  
L,R channel output = 1.5Vp-p

.005V rms on the talk mic input should result in 15Vp-p at the phones output on the accessory  
connector. Adjust talk mic gain

Test direct control inputs  
talk  
mute  
solo

## Rev 7 D/A jumpers and Trims



## Rev4 main pcb

## Surround Remote

The Rev 4 main boards will work for front or surround channels only. This version should have 2 relays changed and the firmware updated for surround operation. The D/A converter should also be checked for the Rev 6 D/A or later. In surround operation all the D/A's must be the same. Surround operation is then enables by installing the proper jumpers to configure the system This is units with serial numbers starting with A682881

## Rev5 main pcb

## Surround Remote

This version is required for center channel and LFE operation. The Rev 4 main boards will work for front or surround channels only. This version is shipping with the latest firmware and the latest D/A converter, Rev 6 D/A or later and is ready for surround operation by selection the proper jumpers to configure the system. The Accessory connector has a small pin out change from the rev 4 pcb. This is units starting with serial numbers A682941.

## Firmware

As of December 5, 2005 the firmware revesion that is being shipped has a blue dot on the remote and on the main unit. This firmware will not work correctlly with non blue dot firmware. There will be a firmware update in early 2006 for the non surround remotes that will allow some additional operations. Starting with the rev 4 main unit and with either the surround remote on the rev 4 pcb of the non surround remote, an upgrade in firmware will allow the remote inputs on the accessory connector to change the display on the remote when activated.

## **REV7 FIRMWARE, REV7 D/A**

Sarting with the rev 7 D/A board rev 7 firm ware is installed in both the main unit and the remote. **both units must contain the same rev.**

If a rev4 or later system has this frimware installed it should be fine.

In other words rev4 and later main boards with the surround remote will run rev7 firmware

The remote must be a surround version

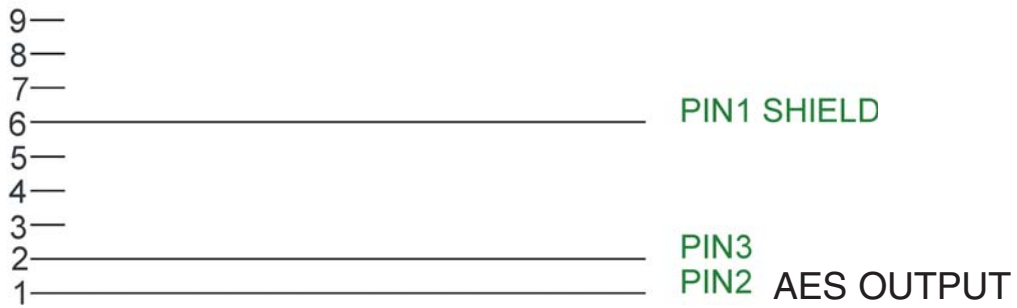
In order to use the rev7 D/A

the wrap need to change, the digital out requires an extra hole.

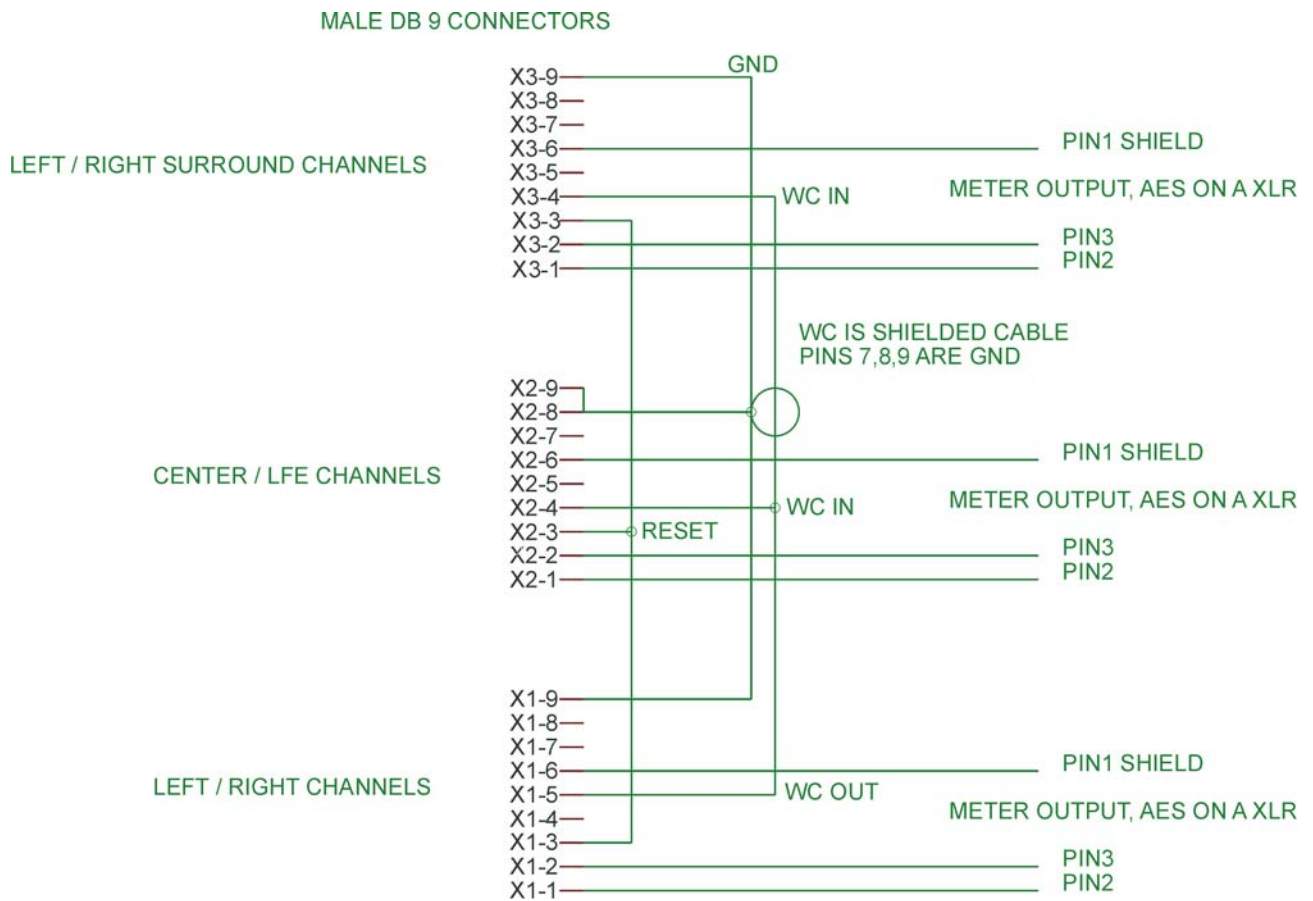
This D/A is in units starting with Sn. A683041. The rev7 D/A has the same time delay as as the rev6 and later D/A so they can be mixed in a surround system.

However only rev7 and later has the metering digital output.

PIN #



### STEREO DIGITAL METEER CABLE



### 5.1 DIGITAL METEER CABLE