Egret

OPERATOR'S MANUAL

Version 1.1 first data
20190206

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Egret is a highly flexible workstation back end. It contains 8 channels of high quality D/A converters and a stereo line level mixer with color options to help bring analog summed digital mixes to life.

The stereo mixer has a level control, a aux send which is post level control, a color control, and a pan control on each channel. Each channel also contains an analog / digital source button, and solo - mute buttons.

The color function is adjustable from a transparent sound to a complex mix of second and third harmonic content. Creating the possibility of having clean modern sounds mixed with vintage sounds.

By using the balanced direct outputs and the balanced analog inputs you can insert analog processing into individual channels.

The built in Aux bus with its master level control can be used as an effects send. A balanced stereo effects return is built into the system.

The master stereo bus level control, which is a stepped attenuator, has 1 db steps for most of its range, This allows for accurate gain control, repeatability, and stereo gain matching to better than .05 db.

The headphone system allows a monitor mix to be created when Egret is being used in multi channel location recording. Thus allowing the monitoring of all channels.

The D/A converters support sample rates up to 192K and have sample rate converters on each channel for jitter reduction. There is a front panel switch to disable the SRC for cases where lower latency is required. The system is built so that the converters and the interface can be upgraded as the technology changes.

The standard interface supports AES single wire to 192KHz, ADAT, and S/MUX to 96K. The converters can also be independently operated, even at different sample rates.

Egret is built so that the stereo, and cue buses can be chained together to create a many input system. With a special cable Egret's stereo bus can also be tied to a Crane Song SPIDER as a way to sum additional analog inputs while working in a mix mode.

COLOR THE COLOR KNOB PROVIDES AN ADJUSTABLE TAPE - LIKE COLOR THAT SOFTENS TRANSITS AND ADDS SECOND AND THIRD ORDER HARMONICS

PAN POSITIONS THE CHANNEL OUTPUT THROUGH THE LEFT - RIGHT STEREO BUS

LEVEL
THE CHANNEL LEVEL OR FADER

SOLO BUTTON BY PRESSING THIS IN THE CHANNEL IS SOLOED THE RED LED LIGHTS ON ALL MUTED CHANNELS

MUTE BUTTON BY PRESSING THIS IN THE CHANNEL IS MUTED. THE RED LED LIGHTS ON ALL MUTED CHANNELS

AUX LEVEL THIS IS FOR USE AS AN EFFECTS SEND IT IS POST LEVEL

SOURCE BUTTON BY PRESSING THIS IN THE EXTERNAL ANALOG SOURCE IS SELECTED. WITH IT OUT THE CHANNELS D/A CONVERTER IS SELECTED

PHONES THIS IS THE LEVEL OF THE HEADPHONES. THIS IS TO MONITOR THE STEREO BUS AND IS DESIGNED FOR 1 HEAD PHONE

AUX MASTER THIS IS THE AUX BUS OF EFFECTS SEND BUS MASTER LEVEL

SOURCE THIS IS DIGITAL INPUT SELECTION. IT HAS 3 CHOICES. THE LEFT MOST IS AES/EBU THE MIDDLE POSITION IS ADAT INPUT. THE RIGHT POSITION IS FOR FUTURE EXPANSION. SEE NEXT PAGE

MASTER THIS IS THE STEREO BUS LEVEL. AND IS A STEPPED ATTENUATOR. THE GREEN LED SHOWES THE LEVEL SETTING

SRC THIS DISABLES THE SAMPLE RATE CONVERTER. THE SRC WILL REDUCE THE JITTER OF THE INCOMMING DIGITAL AUDIO. THIS ALSO ALLOWS THE USE OF BETTER FILTERS IN AUDIO RECONSTRUCTION

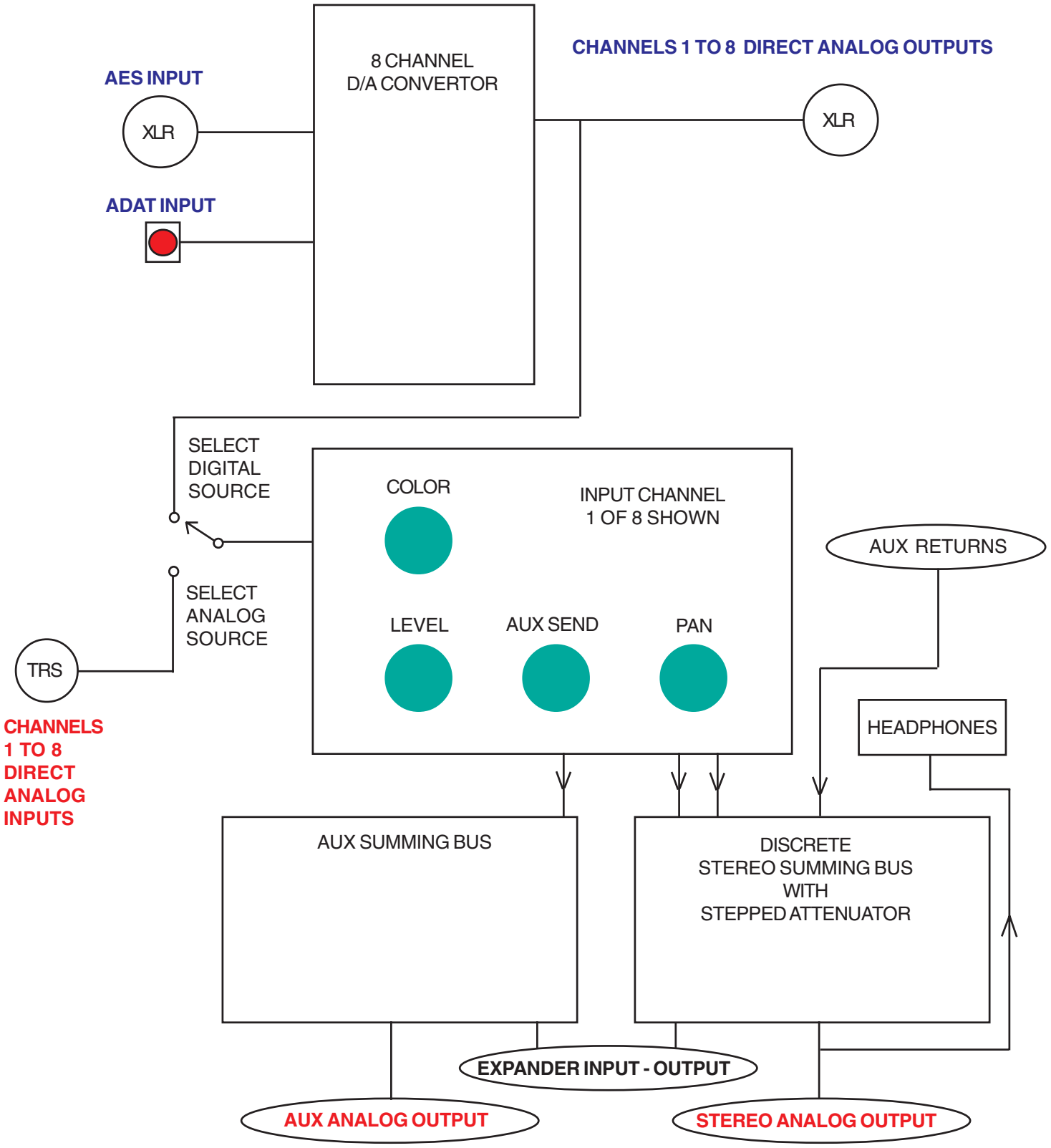
METER THE METER IS PEAK READING WITH THE OVER LOAD LED (RED) COMMING ON AT +25DBU.

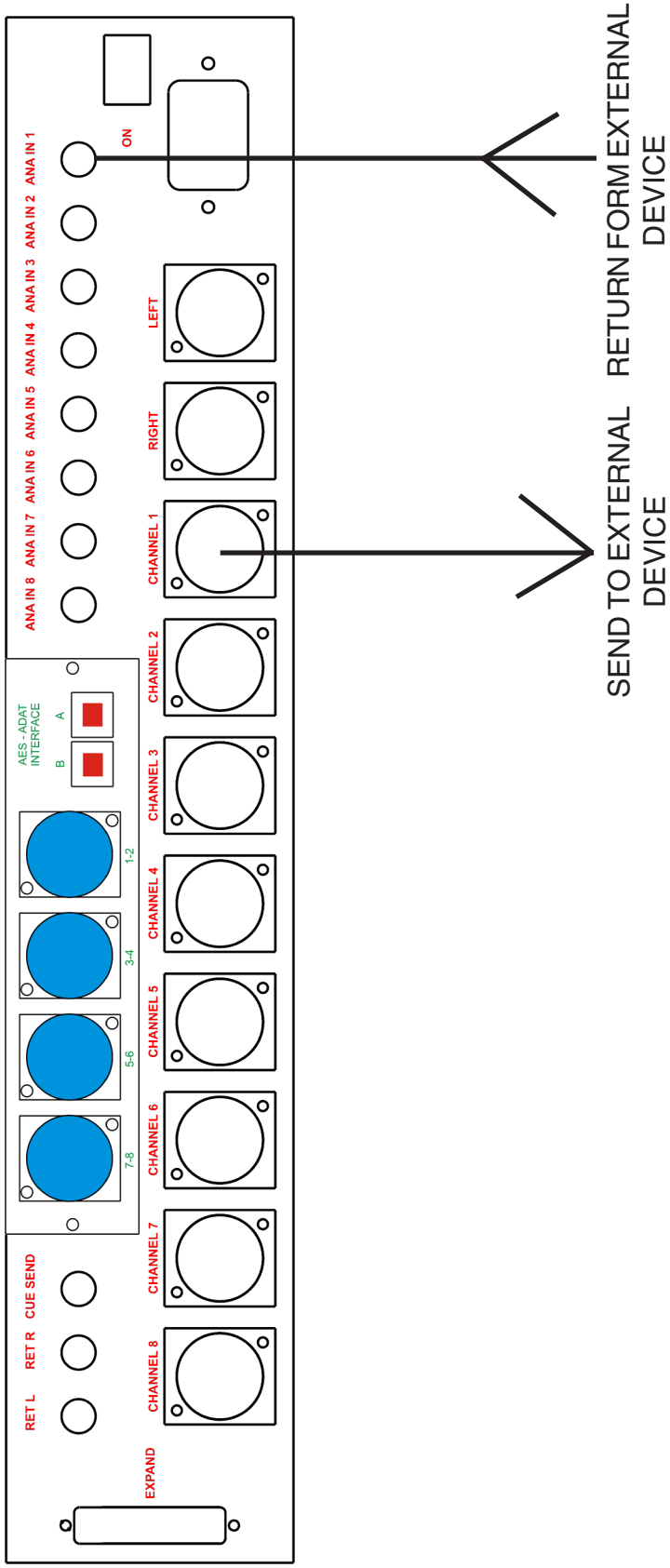
PHONES HEADPHONE MONITORING OF THE STEREO BUS

Due to a number of interfaces not correctly setting the SMUX status bit at 96K on the ADAT light pipe, Egret's digital input selection is to work as follows.

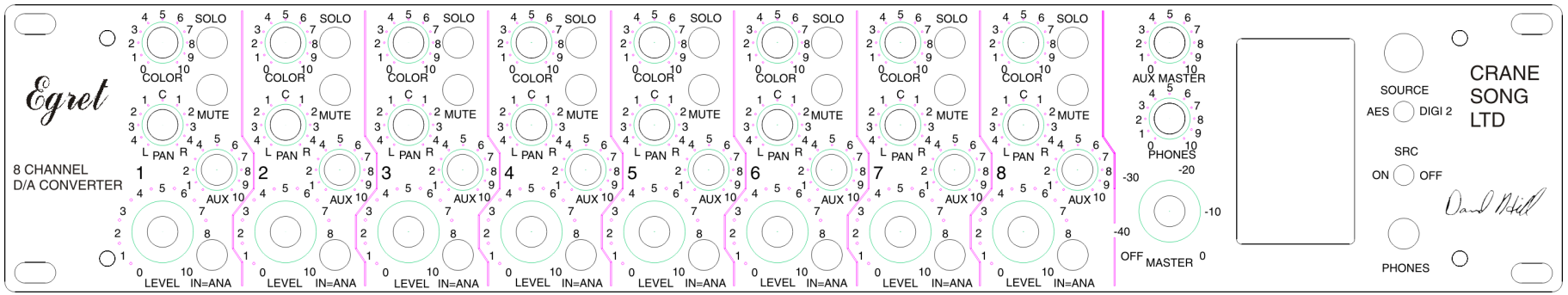
AES is the AES input
The Center position is for ADAT to 48K
The DIGI 2 position will be for DAT - SMUX at 96K

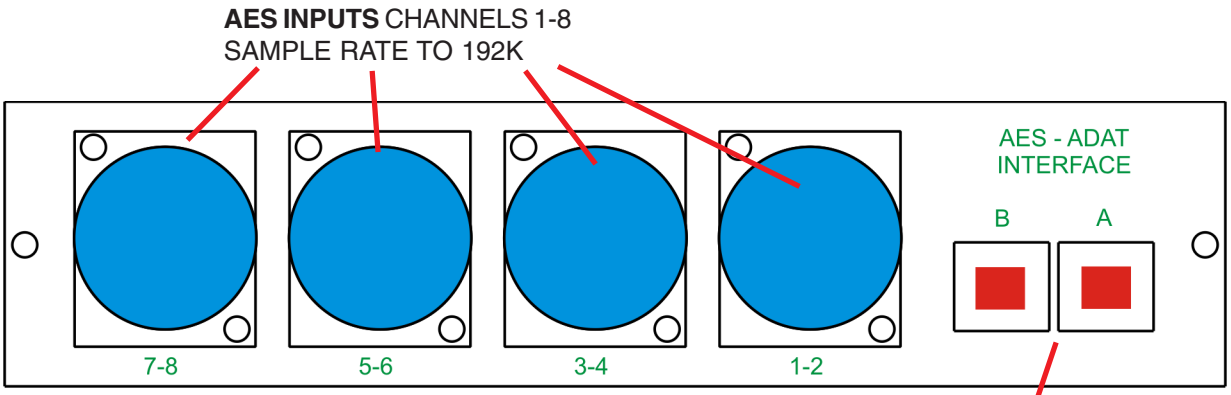
THE USER WILL BE REQUIRED TO SET THE SWITCH AS NEEDED


AES INPUT
XLR
ADAT INPUT
8 CHANNEL
D/A CONVERTOR
CHANNELS 1 TO 8 DIRECT ANALOG OUTPUTS
XLR
SELECT
DIGITAL
SOURCE
SELECT
ANALOG
SOURCE
TRS
CHANNELS
1 TO 8
DIRECT
ANALOG
INPUTS
COLOR
INPUT CHANNEL
1 OF 8 SHOWN
LEVEL
AUX SEND
PAN
AUX RETURNS
HEADPHONES
AUX SUMMING BUS
DISCRETE
STEREO SUMMING BUS
WITH
STEPPED ATTENUATOR
EXPANDER INPUT - OUTPUT
AUX ANALOG OUTPUT
STEREO ANALOG OUTPUT



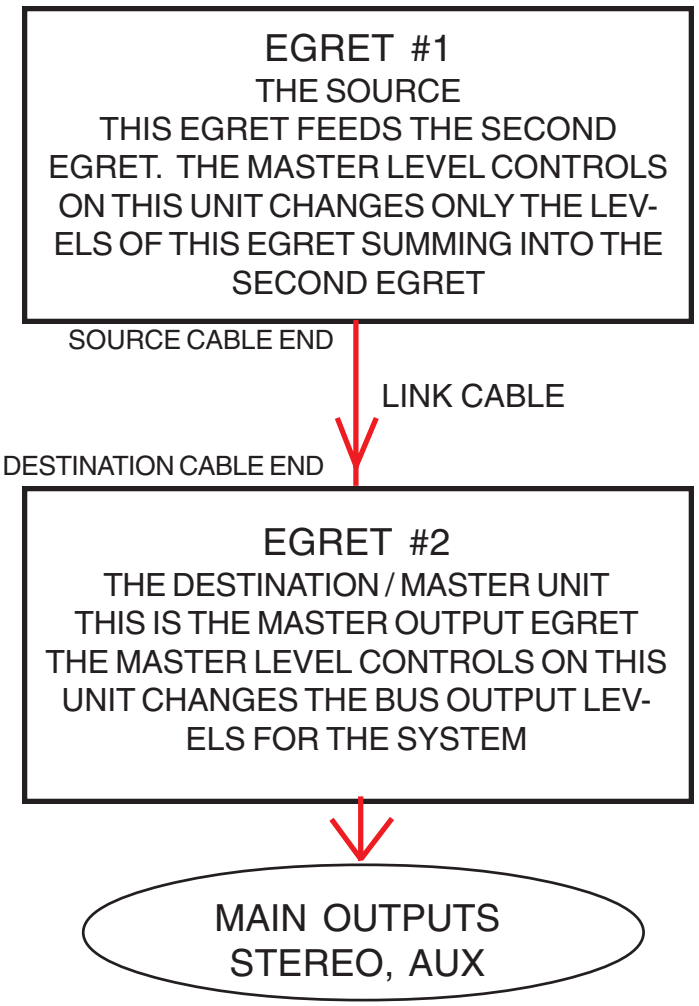
USING THE DIRECT ANALOG OUTPUT AND THE ANALOG INPUT AS AN INSERT POINT


Egret
8 CHANNEL
D/A CONVERTER
SOLO
COLOR
MUTE
L PAN R
AUX
LEVEL
IN=ANA
1
2
3
4
5
6
7
8
AUX MASTER
PHONES
-30
-20
-10
-40
OFF
MASTER
SOURCE
AES
DIGI 2
SRC
ON
OFF
PHONES
CRANE
SONG
LTD



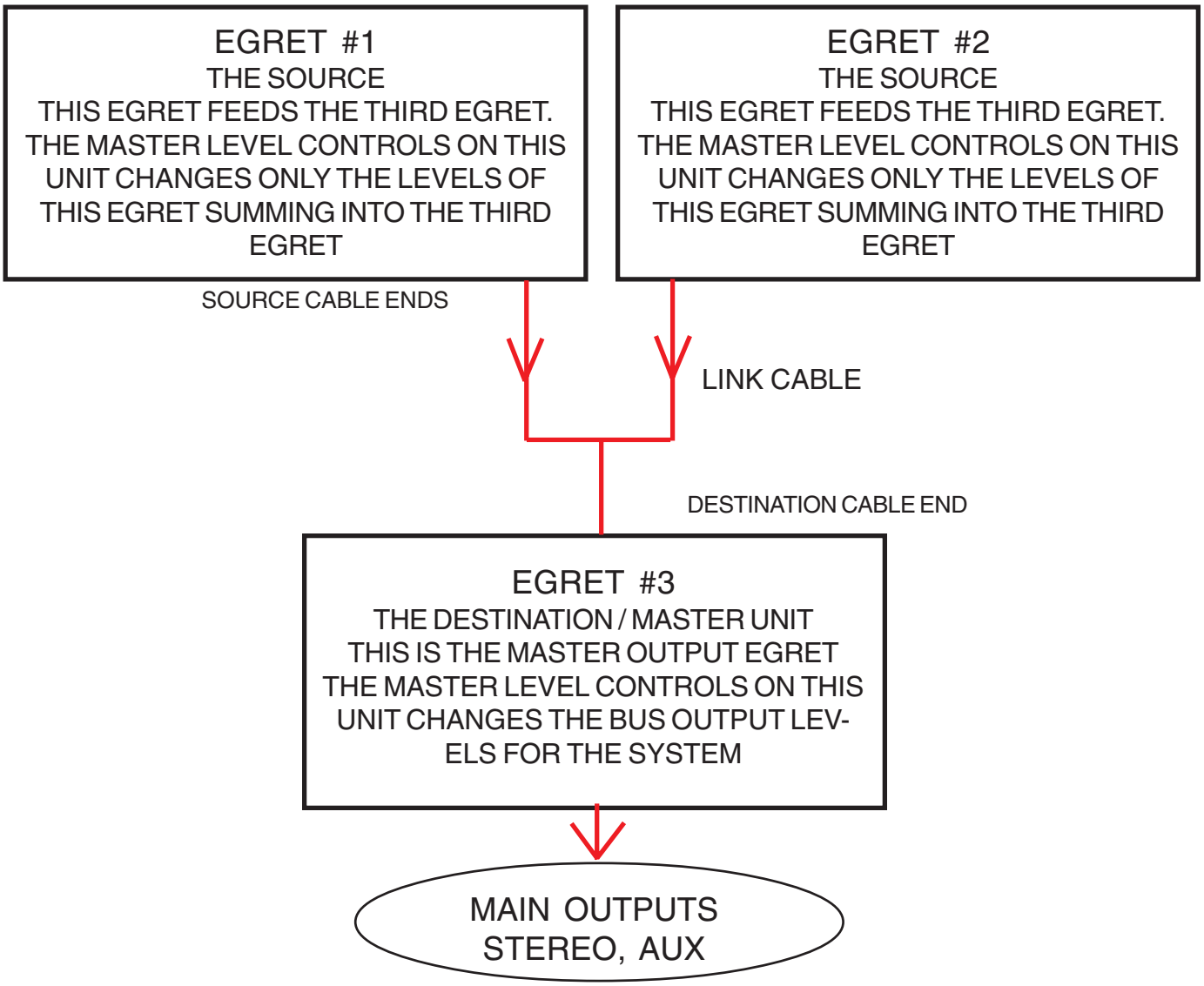
DIGITAL INTERFACE

16 CHANNEL SUMMING



In ths configuration each of the two Egrets has 8 digital / analog inputs for a total of 16 inputs.
Linking the units together works by tieing the summing bus inputs to the approate outputs.
The source and destination units are select by how the link cable is plugged in.

24 CHANNEL SUMMING

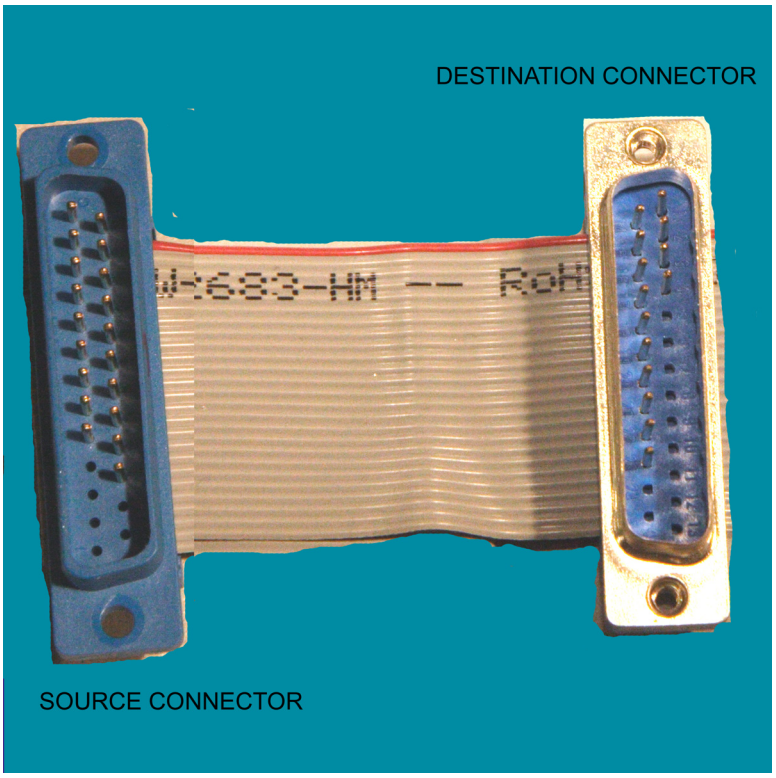


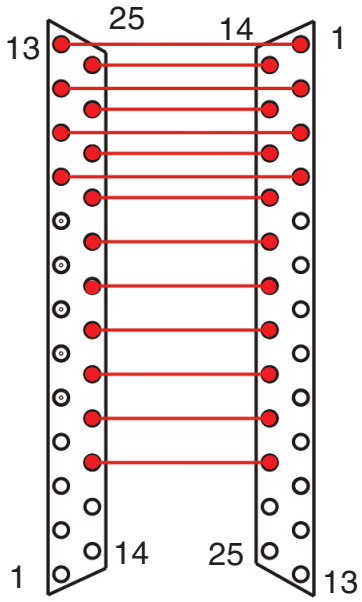
In ths configuration each of the three Egrets has 8 digital / analog inputs for a total of 24 inputs. Linking the units together works by tieing the summing bus inputs to the approate outputs.

For 56 inputs units one and two can have 2 Egrets feeding into each of them following the same pattern.

EGRET DB-25 EXPANDER CONNECTOR PIN OUT

RIGHT 1 RETURN -	1
RIGHT 1 RETURN +	2
LEFT 1 RETURN -	3
LEFT 1 RETURN +	4
RIGHT 2 RETURN -	5
RIGHT 2 RETURN +	6
LEFT 2 RETURN -	7
LEFT 2 RETURN +	8
GND	9
LEFT SEND + (MAIN OUT)	10
LEFT SEND - (MAIN OUT)	11
RIGHT SEND + (MAIN OUT)	12
RIGHT SEND - (MAIN OUT)	13
AUX RETURN 1 SIG -	14
AUX RETURN 1 SIG +	15
AUX RETURN 2 SIG -	16
AUX RETURN 2 SIG +	17
GND	18
SOLO BUS LOGIC	19
SOLO BUS LOGIC	20
GND	21
GND	22
GND	23
AUX SEND +	24
AUX SEND -	25





2 UNIT EXPANSION CONNECTOR

THIS END IS THE SOURCE UNIT			THIS END IS THE DESTINATION UNIT THE MASTER OUTPUT
	1	13	
	2	12	
	3	11	
	4	10	
RIGHT 2 RETURN -	5	6	
RIGHT 2 RETURN +	6	8	
LEFT 2 RETURN -	7	7	
LEFT 2 RETURN +	8	9	
GND	9	5	
LEFT SEND +	10	4	LEFT 1 RETURN +
LEFT SEND -	11	3	LEFT 1 RETURN -
RIGHT SEND +	12	2	RIGHT 1 RETURN +
RIGHT SEND -	13	1	RIGHT 1 RETURN -
	14	25	
	15	24	
AUX RETURN 2 SIG -	16	23	GND
AUX RETURN 2 SIG +	17	22	GND
GND	18	21	GND
SOLO BUS	19	20	SOLO BUS
SOLO BUS	20	19	SOLO BUS
GND	21	18	GND
GND	22	17	AUX RETURN 2 SIG +
GND	23	16	AUX RETURN 2 SIG -
AUX SEND +	24	15	AUX RETURN 1 SIG +
AUX SEND -	25	14	AUX RETURN 1 SIG -

A cable with a twist. By putting a twist in a ribbon cable and leaving some pins out it is possible the make a simple two Egret link cable to 16 channels of summing

Blue pins are removed for the connectors

INTERFACING - SPECIFICATIONS

Input and Output : Connections	Pin 2 is Sig + , Pin 3 is Sig- , Pin 1 is GND
Power:	100, 120, 230,240 volt; 50/60 Hz; 55 watts MDL 0.6A Fuse for 100V and 120V MDL 0.3A Fuse for 230V and 240V
Pilot Lamp:	# 7335
Shipping Weight:	19 lbs. (8.6 kg)
Depth Behind Panel:	12.5 inches (31.75 cm) plus cabling
Panel Height:	2 rack spaces