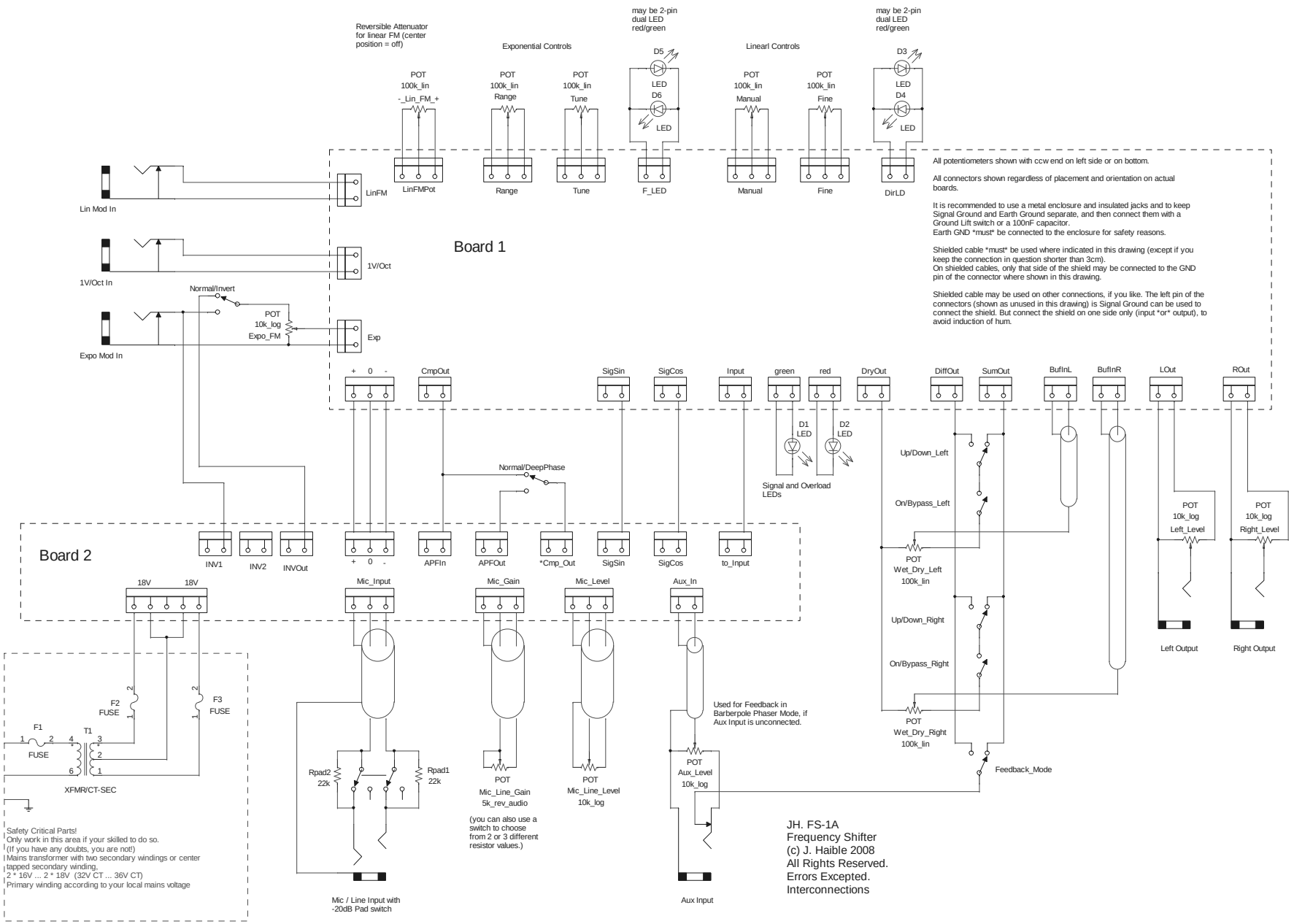
Reversible Attenuator for linear FM (center position = off)
Exponential Controls
Linearl Controls
may be 2-pin dual LED red/green
may be 2-pin dual LED red/green
POT 100k_lin -_Lin_FM_+
POT 100k_lin Range
POT 100k_lin Tune
POT 100k_lin Manual
POT 100k_lin Fine
D5 LED
D6 LED
D3 LED
D4 LED
LinFM
LinFMPot
Range
Tune
F_LED
Manual
Fine
DirLD
Lin Mod In
1V/Oct In
Expo Mod In
1V/Oct
Exp
Normal/Invert
POT 10k_log Expo_FM
Board 1
All potentiometers shown with ccw end on left side or on bottom.
All connectors shown regardless of placement and orientation on actual boards.
It is recommended to use a metal enclosure and insulated jacks and to keep Signal Ground and Earth Ground separate, and then connect them with a Ground Lift switch or a 100nF capacitor.
Earth GND *must* be connected to the enclosure for safety reasons.
Shielded cable *must* be used where indicated in this drawing (except if you keep the connection in question shorter than 3cm).
On shielded cables, only that side of the shield may be connected to the GND pin of the connector where shown in this drawing.
Shielded cable may be used on other connections, if you like. The left pin of the connectors (shown as unused in this drawing) is Signal Ground can be used to connect the shield. But connect the shield on one side only (input *or* output), to avoid induction of hum.
+ 0 -
CmpOut
SigSin
SigCos
Input
green
red
DryOut
DiffOut
SumOut
BufInL
BufInR
LOut
ROut
D1 LED
D2 LED
Signal and Overload LEDs
Normal/DeepPhase
Up/Down_Left
On/Bypass_Left
POT Wet_Dry_Left 100k_lin
POT 10k_log Left_Level
POT 10k_log Right_Level
Left Output
Right Output
Board 2
INV1
INV2
INVOut
+ 0 -
APFIn
APFOut
*Cmp_Out
SigSin
SigCos
to_Input
18V
18V
Mic_Input
Mic_Gain
Mic_Level
Aux_In
Up/Down_Right
On/Bypass_Right
POT Wet_Dry_Right 100k_lin
Feedback_Mode
Used for Feedback in Barberpole Phaser Mode, if Aux Input is unconnected.
F2 FUSE
F3 FUSE
F1 FUSE
T1
XFMR/CT-SEC
Rpad2 22k
Rpad1 22k
POT Mic_Line_Gain 5k_rev_audio
(you can also use a switch to choose from 2 or 3 different resistor values.)
POT Mic_Line_Level 10k_log
POT Aux_Level 10k_log
Safety Critical Parts!
Only work in this area if your skilled to do so.
(If you have any doubts, you are not!)
Mains transformer with two secondary windings or center tapped secondary winding,
2 * 16V ... 2 * 18V (32V CT ... 36V CT)
Primary winding according to your local mains voltage
Mic / Line Input with -20dB Pad switch
Aux Input
JH. FS-1A
Frequency Shifter
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Errors Excepted.
Interconnections