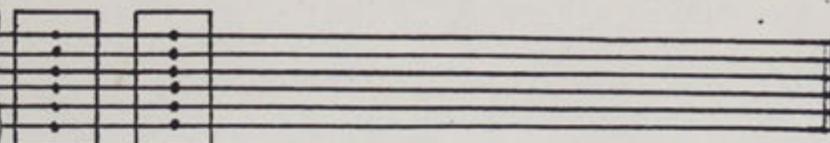




# HETATRONICS<sup>®</sup>



## ADVANCED TONAL NETWORK (ATN)<sup>®</sup> (STRAT MODEL)

### Background :

Over the past few years quite a number of active circuits have been introduced onto the market, and as a repairman I have at one time or another fitted most of these units. However, I could not help noticing, such obvious points, as high noise level, unsubtlety (typical emphasis of high mids, eg. playing inside a packet of Kelloggs Cornflakes effect) unreliability and, of course, a high price tag. This coupled with the fact that in many cases the guitar itself had to be physically altered, (e.g. routing battery compartments mini switches etc.) and the musicians complete antipathy to changing batteries, led me to believe in the necessity for a really flexible no nonsense passive circuit.

Five years later after a lot of experimentation, countless failures and half results both over here and in Australia, that goal has been realised. A reliable, inexpensive, fully flexible tone circuit that leaves the instruments appearance alone, and never needs a battery changing.

### What it does :

The ATN Circuit works basically through the guitars tone controls, the settings seem at first quite complex, but most musicians have grasped its workings within an hour of first using it.

Essentially tone one acts as a couple~~r~~ introducing pick up variations as well as putting the pick ups into a Humbucking mode.

Tone two on the other hand, works as variable frequency control going from sweet mids to normal, to jangly highs.

The combining effect of these controls produces many variations and reliable "facimile" sounds of other instruments.



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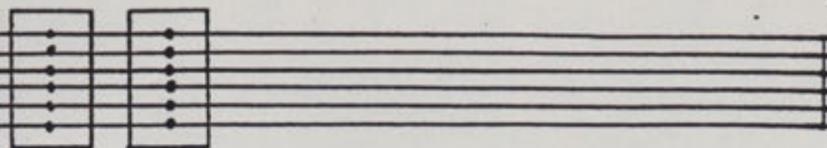
- 2 -

## Typical Selections :

- (1) Neck and Center P.U.'s Standard Strat.  
Tone one fully clockwise. Tone two around halfway,  
Selector fully forward.
- (2) Neck, Center and Bridge P.U.'s Standard Strat.  
Tone one fully clockwise, Tone two around halfway,  
selector center.  
(Note\*) for a real "Dire Straits" sound use this  
selection with Tone two fully clockwise).
- (3) Bridge and Centre P.U.'s Standard Strat.  
Tone ~~one~~ fully clockwise. Tone two around halfway  
selector to back.
- (4) Neck P.U. only Standard Strat.  
Tone one around halfway, Tone two around halfway,  
Selector forward.
- (5) Neck and Bridge P.U.'s  
Tone one around halfway, Tone two around halfway,  
selector center.
- (6) Bridge P.U. only.  
Tone one around halfway, Tone two around halfway.  
Selector to back.
- (7) Center P.U.'s only  
Tone one fully clockwise Volume control back one  
notch, Tone two around halfway selector any position.  
\* Note now try using Tone two with all the above  
variations sweeping from anticlockwise to clockwise  
you will get alot of new sounds.



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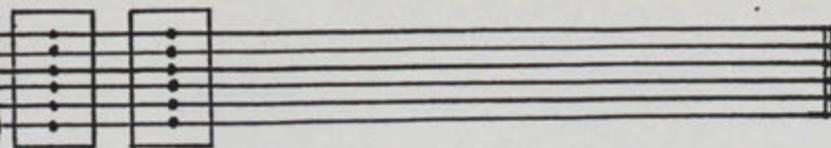
- (8) Typical Humbucking Les Paul sound.  
Tone one fully anticlockwise. Tone two around halfway selector as desired.
- (9) Topy Humbucker (eg Gretsch)  
Tone one fully anticlockwise. Tone two fully clockwise. Selector as desired.
- 10) Early sixties Rick type sound.  
Volume back one notch, Tone one around halfway, Tone two fully clockwise selector to rear.
- (11) Acoustic type sound.  
Volume back one notch, Tone one anticlockwise. Tone two anticlockwise, selector forward or center.
- (12) Jazz Acoustic type sound.  
Volume full Tone one anticlockwise, Tone two anticlockwise.
- (13) For a real easy violining technique try this:  
Tone one fully clockwise, Tone two fully clockwise, now take the volume right off and with the little finger introduce it. You find in this setting the volume controls rate's climb is very dramatic, thus making less finger movement.

Obviously many more sounds can be obtained via the controls by individual experimentation.

The circuit itself negates the use of a five position switch as such is no longer necessary. However, it does no harm to use one, positions two and four merely become the same as the centre position.



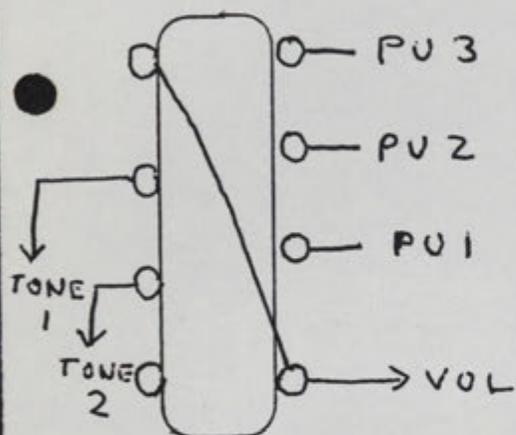
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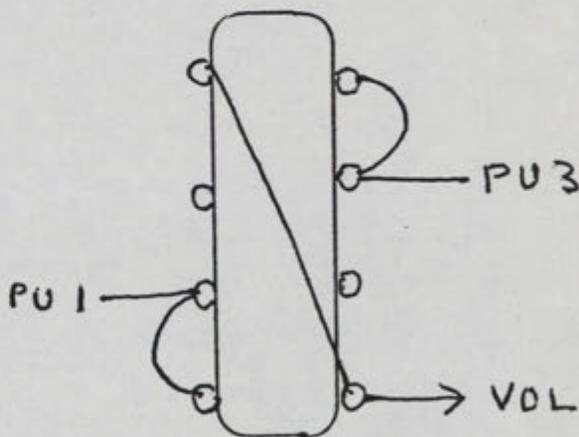
## ATN WIRING SYSTEM

FIG 1



YOUR STRAT 3 OR 5 POSITION SWITCH IS WIRED LIKE THIS  
 NOW REMOVE THE TWO TONE CONTROL WIRES AND PU 2 WIRE AND REWIRE YOUR SWITCH LIKE THIS

FIG II



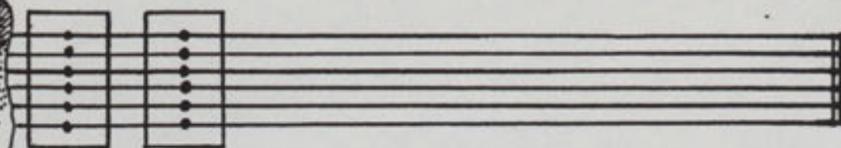
### NOTE

SOME JAPANESE SWITCHES WORK IN REVERSE TO THIS MERELY SWOP PU 3 AND PU 1 AROUND. SOME ALSO HAVE A DIFFERENT TAG SYSTEM (RARE) THE P.U. COMBINING

SYSTEM YOU REQUIRE IS  
 POS ① = P.U. 1 POS ② = P.U. 1+3 POS ③ = P.U. 3



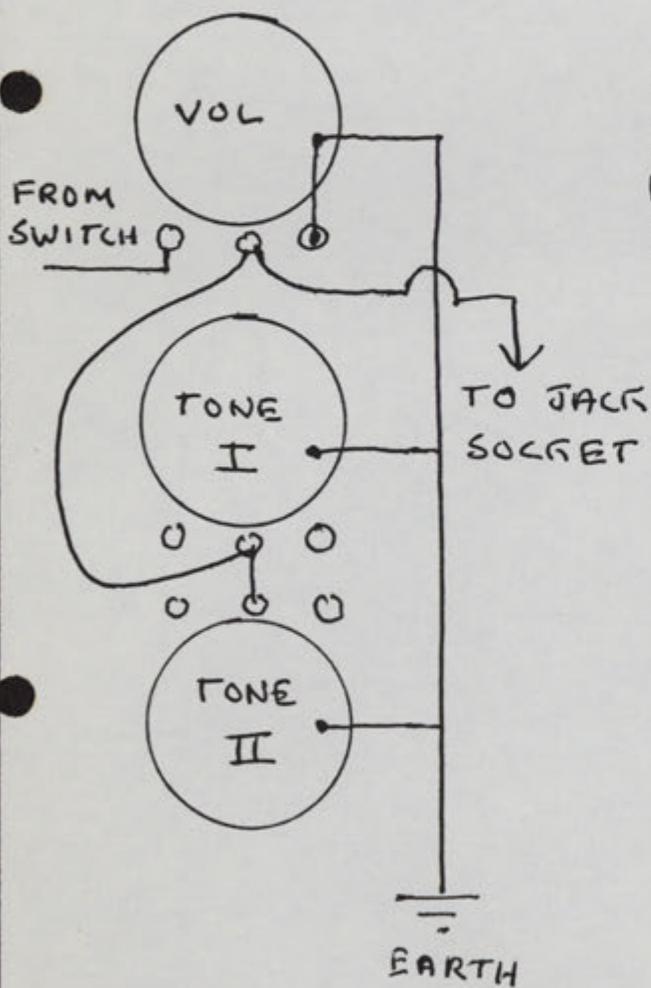
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## ATN WIRING SYSTEM

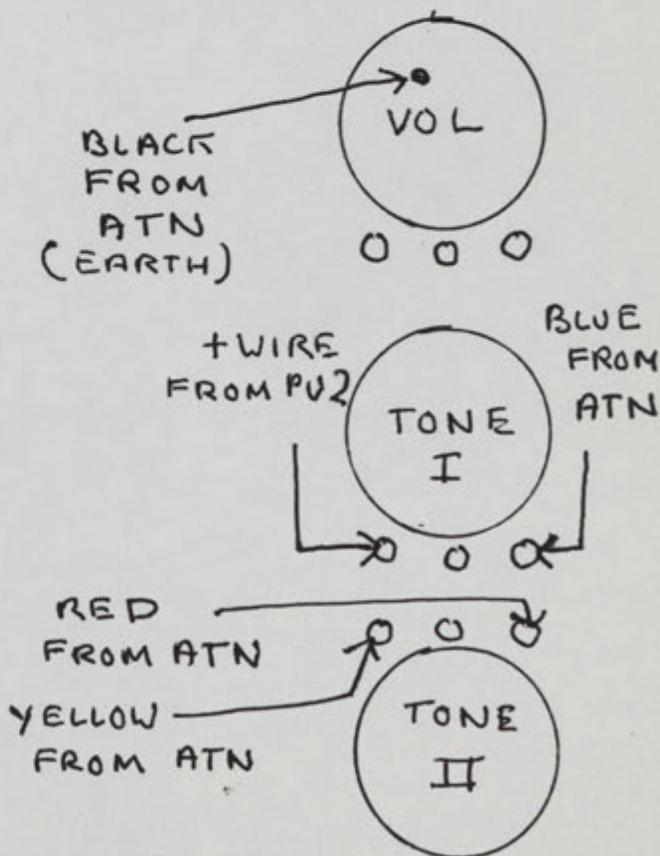
FIG III



STRIP YOUR OLD WIRING INCLUDING THE TONE CAPACITOR AND REWIRE AS ABOVE.

FIG IV

NOW PLACE THE ATN UNIT ON ITS SIDE AND POSITION BETWEEN THE SWITCH AND VOL USING BLUE TACK OR SIMILAR ADHESIVE. WIRE THE ATN UNIT AS FOLLOWS (NOTE - WE HAVE OMITTED FIG III WIRING TO AVOID CONFUSION)





# T HETATRONICS®

IMPORTANT

BEWARE OF IMITATIONS

This is the original and genuine ATN Tone Circuit Invented and developed by ALAN ENIWISTLE.

The Tonal quality and subtleness of this unit are due in the main to a Virtually undetectable technique employed in the ATN's Manufacture.

Whilst it is possible for others to copy the basics of this unit, it is not possible for them to duplicate the actual soul (eg, the warmth, clarity, subtlety and character) of the ATN.

If you want the ATN's amazing versatility, buy an ATN! not a shoddy imitation.

*Alan Eniwistle*