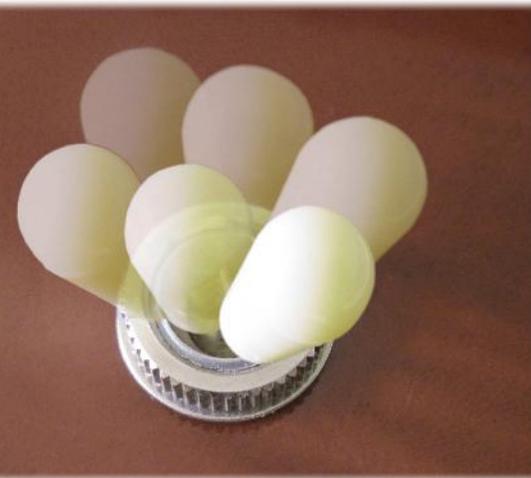


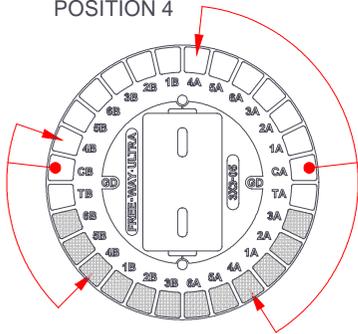
FREE-WAY SWITCH

www.froowayswitch.com

MANUFACTURED IN ENGLAND BY NSF CONTROLS LTD



POSITION 4

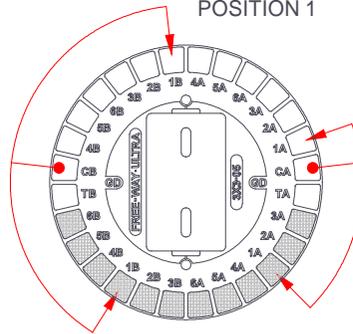


Reverse View of Switch

ELECTRICAL FUNCTION

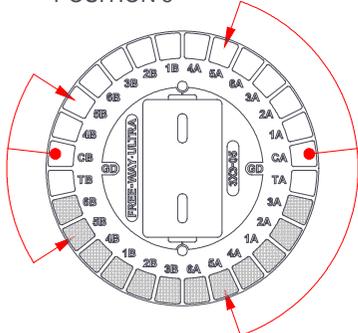
Comprising circuits 'A' & 'B'. Common 'CA' connects to 1A - 6A pairs. Common 'CB' connects to 1B - 6B pairs. All terminals correspond to switch position (i.e. 1-6). 'A' & 'B' switching logic is identical. 'TA' and 'TB' only come into circuit in between positions 4&5 and 5&6.

POSITION 1

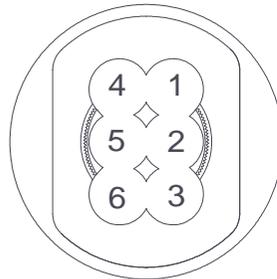


Reverse View of Switch

POSITION 5

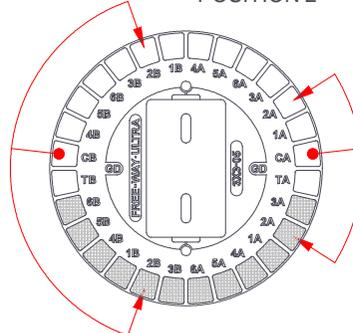


Reverse View of Switch



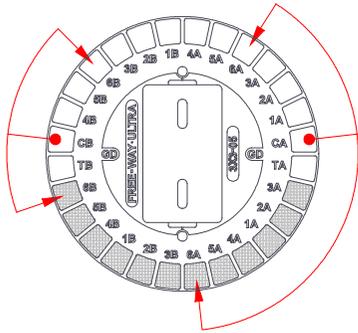
Top View of Switch

POSITION 2



Reverse View of Switch

POSITION 6

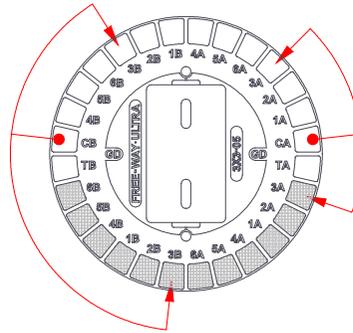


Reverse View of Switch

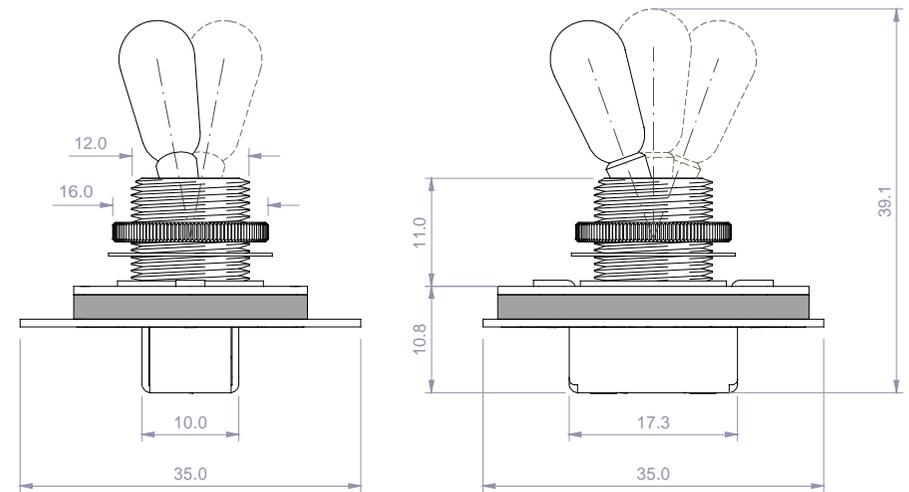
ELECTRICAL TRANSITION

Generally 'Make Before Break' except that: greyed pads are 'Break Before Make' in their transverse travel; (i.e. 1-4, 2-5 & 3-6) and transitions between greyed pads 4-5 & 5-6 go through TA or TB (momentarily connecting to CA or CB midway between these positions).

POSITION 3



Reverse View of Switch



3X3-05 Schematic : Last Updated Sept 2013

Model No:- **3X3-05 Free-Way Ultra**

Schematic

REVERSE VIEW OF PICKUPS, SWITCH AND POTENTIOMETERS.

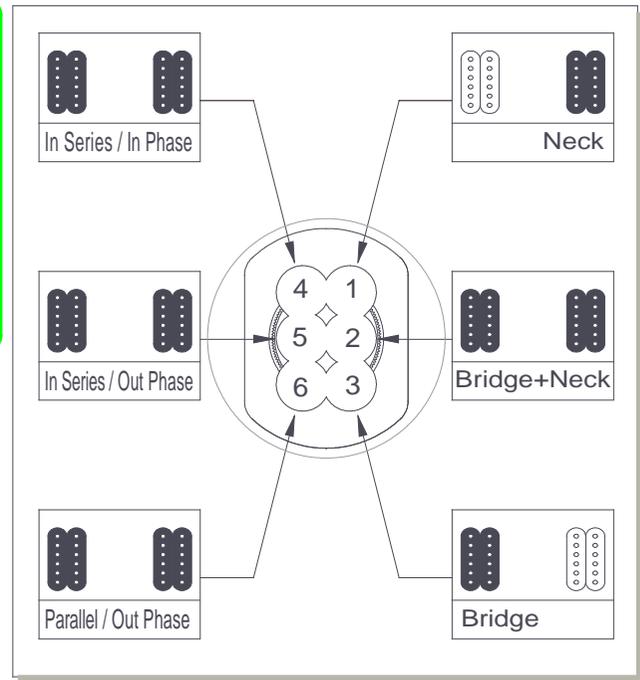


MANUFACTURED IN ENGLAND BY NSF CONTROLS LTD

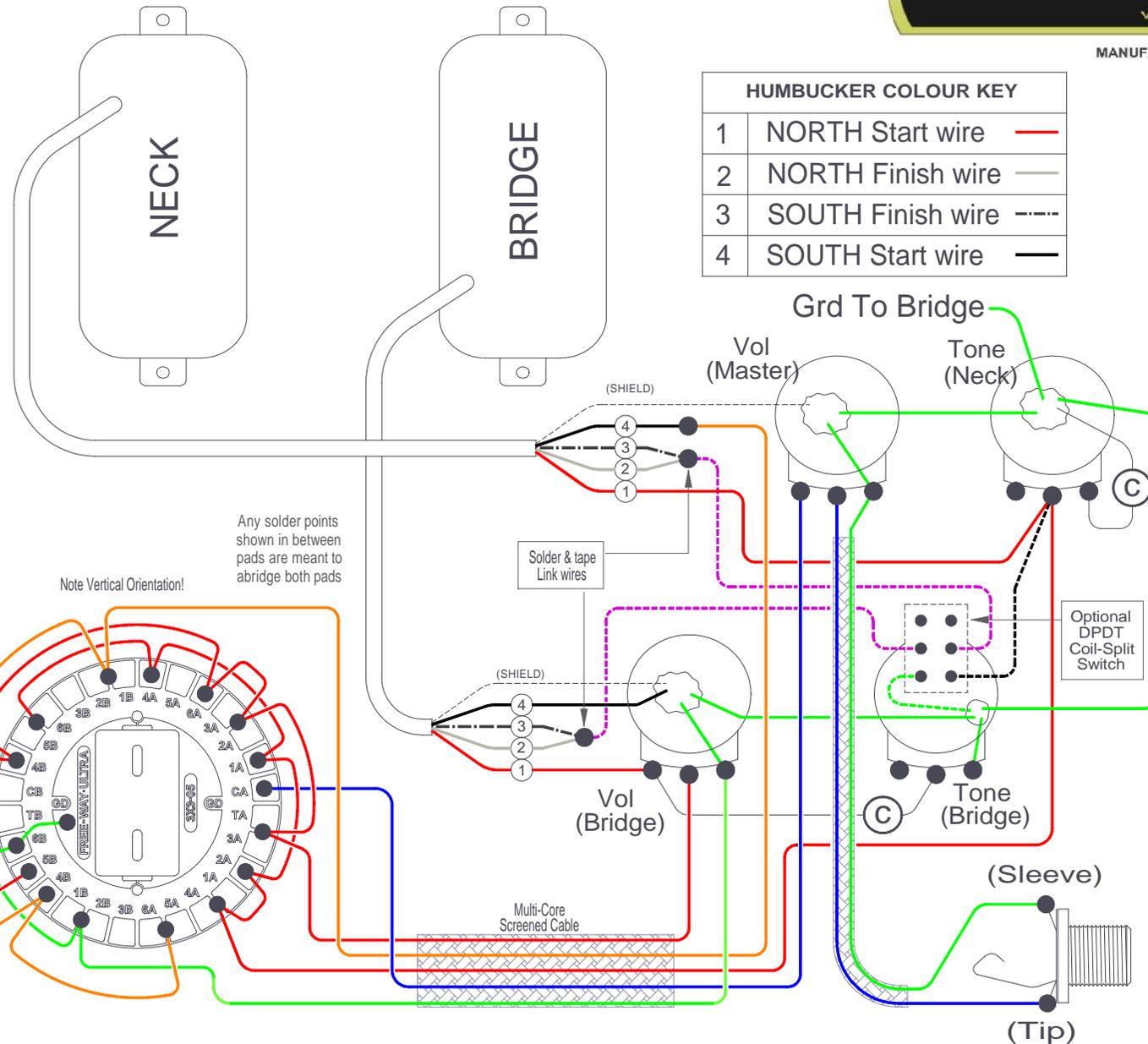
HUMBucker COLOUR KEY		
1	NORTH Start wire	— (Red)
2	NORTH Finish wire	— (Grey)
3	SOUTH Finish wire	- - - (Dotted)
4	SOUTH Start wire	— (Black)

Notes:-
 Positions 1, 2 & 3 are standard neck/both/bridge humbucker settings, positions 4, 5 & 6 offer Series, Series-O/O/P & Parallel O/O/P combinations of both pickups. An optional 'Coil-Split' switch (with extra wiring shown in dotted) affects all six positions.
 Master Volume works in all switch positions. Bridge Volume works in pos. 3 or adjusts the mix of Bridge Pickup in pos. 2, 4, 5 & 6.
 The pickup colour coding shown in this diagram does not represent any particular pickup manufacturer - please follow key.

FRONT VIEW OF PICKUPS AND SWITCH



Scheme No 016 : Last Updated Sept 2013



Note Vertical Orientation!

Any solder points shown in between pads are meant to abridge both pads

Solder & tape Link wires

Optional DPDT Coil-Split Switch

Multi-Core Screened Cable

(Sleeve)

(Tip)

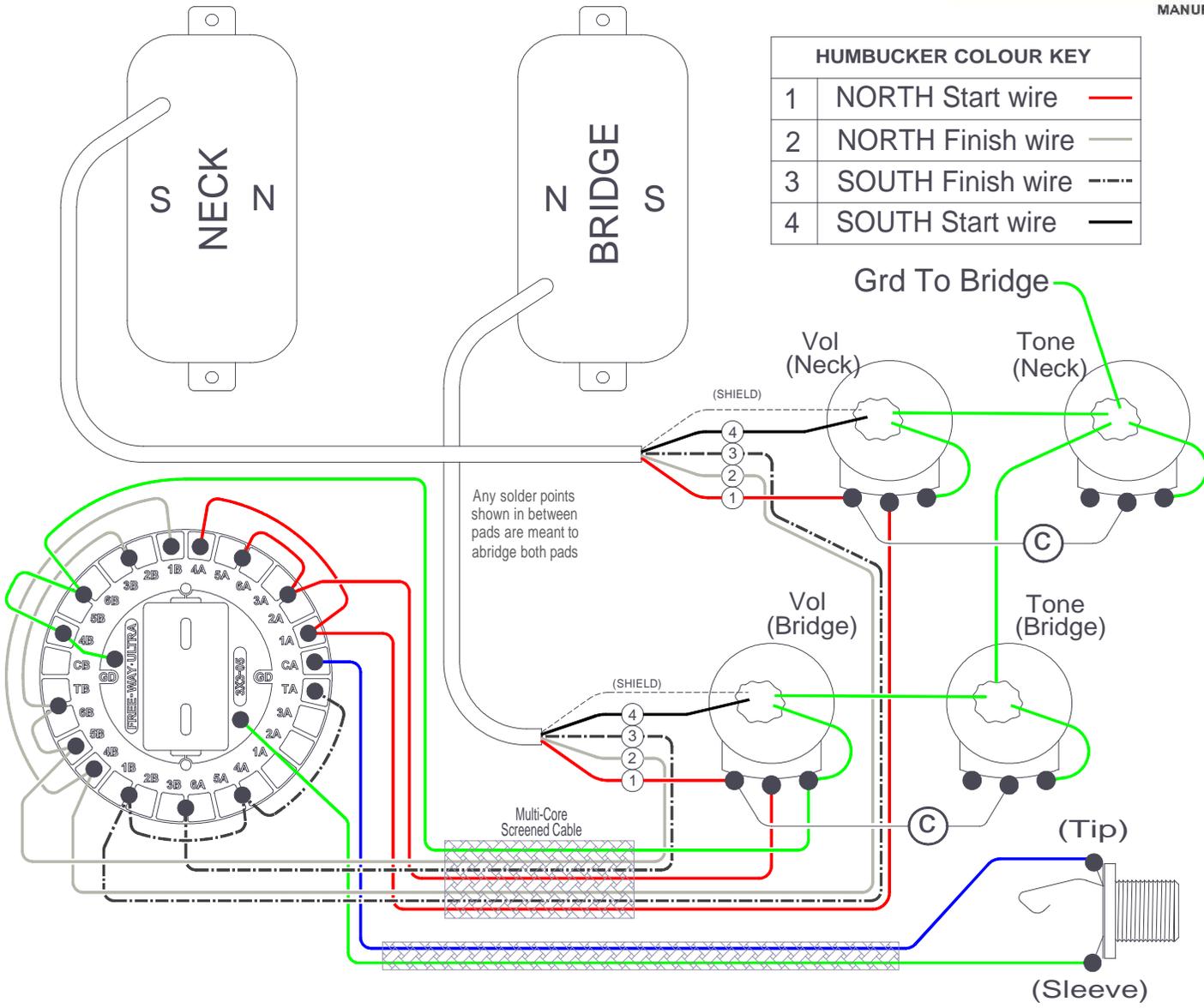
REVERSE VIEW OF PICKUPS, SWITCH AND POTENTIOMETERS.



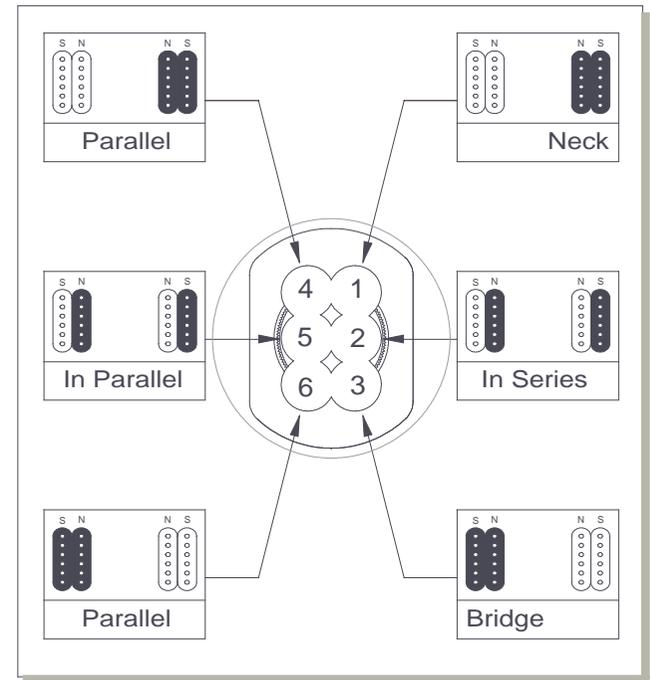
MANUFACTURED IN ENGLAND BY NSF CONTROLS LTD

HUMBUCKER COLOUR KEY	
1	NORTH Start wire —
2	NORTH Finish wire —
3	SOUTH Finish wire - - - -
4	SOUTH Start wire —

Notes:-
 Positions 1 & 3 provide standard Neck and Bridge Humbuckers.
 Position 2 provides Neck and Bridge coils in series.
 Positions 4 and 6 provide 'parallel' wired Neck and Bridge humbuckers and; position 5 provides Neck and Bridge single coils in parallel. All positions are hum-cancelling.
 Vol/Tone controls work as normal in positions 1-3, Neck Vol/Tone controls positions 4 & 5, Bridge Vol/Tone controls position 6.
 The pickup colour coding shown in this diagram does not represent any particular pickup manufacturer - please follow key.



FRONT VIEW OF PICKUPS AND SWITCH



Scheme No 017 : Last Updated Sept 2013

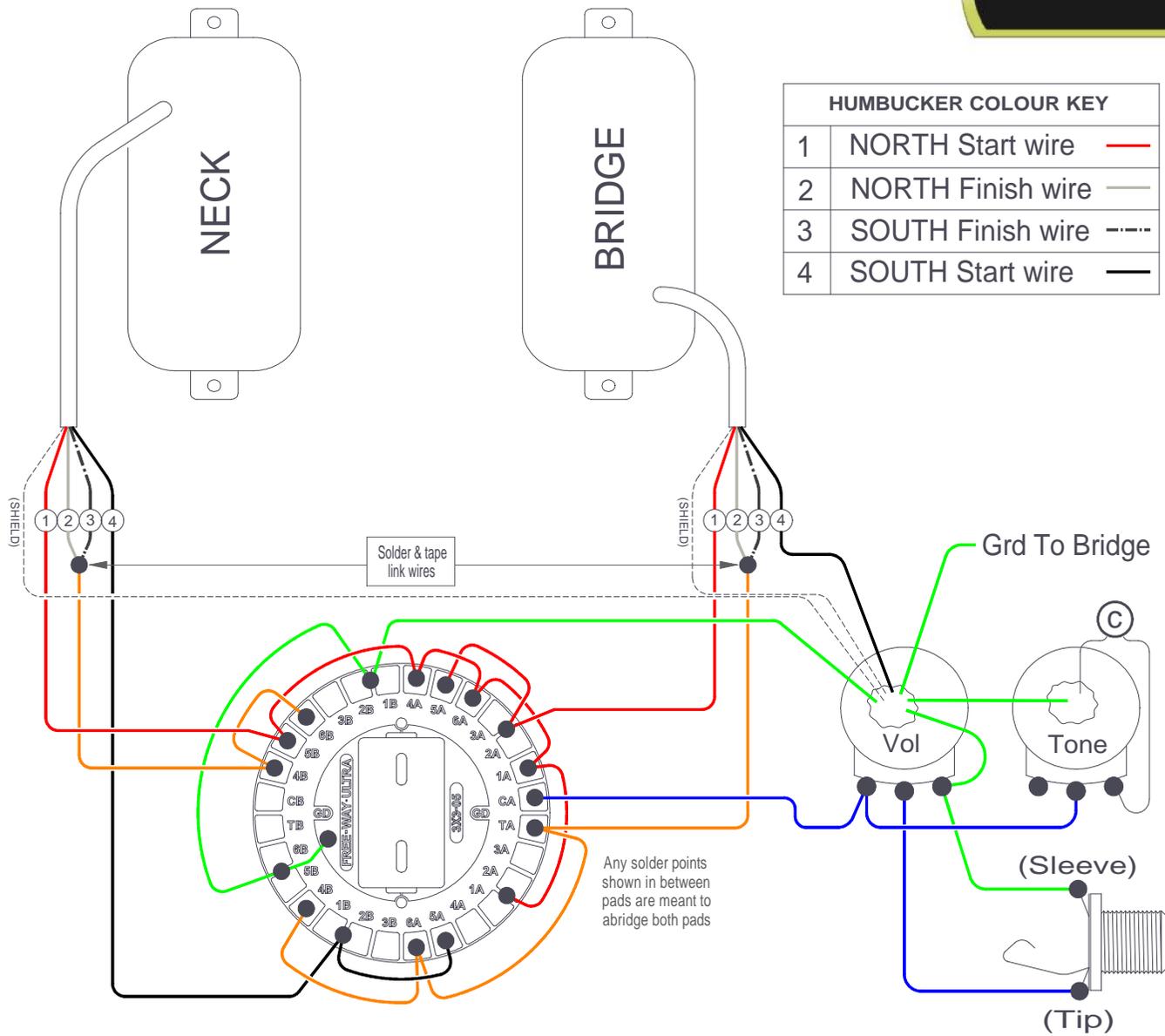
REVERSE VIEW OF PICKUPS, SWITCH AND POTENTIOMETERS.



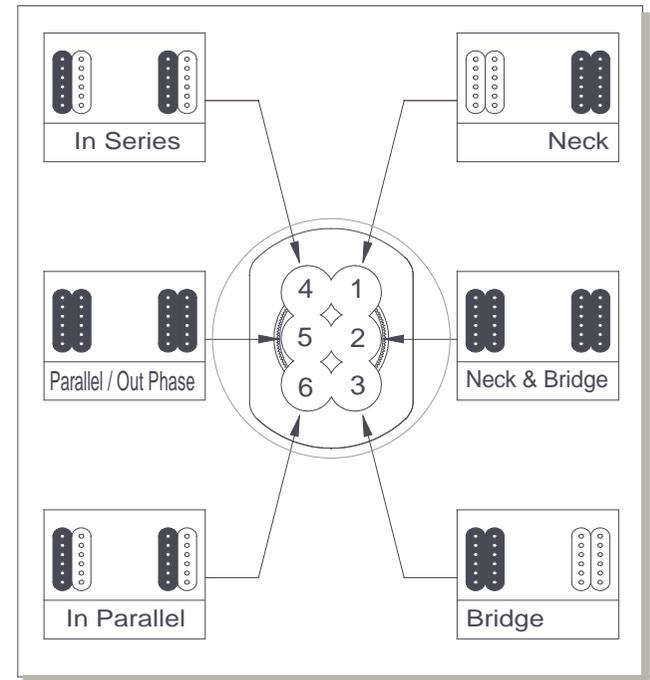
MANUFACTURED IN ENGLAND BY NSF CONTROLS LTD

HUMBUCKER COLOUR KEY	
1	NORTH Start wire —
2	NORTH Finish wire —
3	SOUTH Finish wire - - - -
4	SOUTH Start wire —

Notes:-
 All positions are hum-cancelling using a pair of standard polarity pickups (opposing coils are selected in positions 4 & 6).
 The pickup colour coding shown in this diagram does not represent any particular pickup manufacturer - please follow key.
 Keep unscreened wires as short as possible.



FRONT VIEW OF PICKUPS AND SWITCH

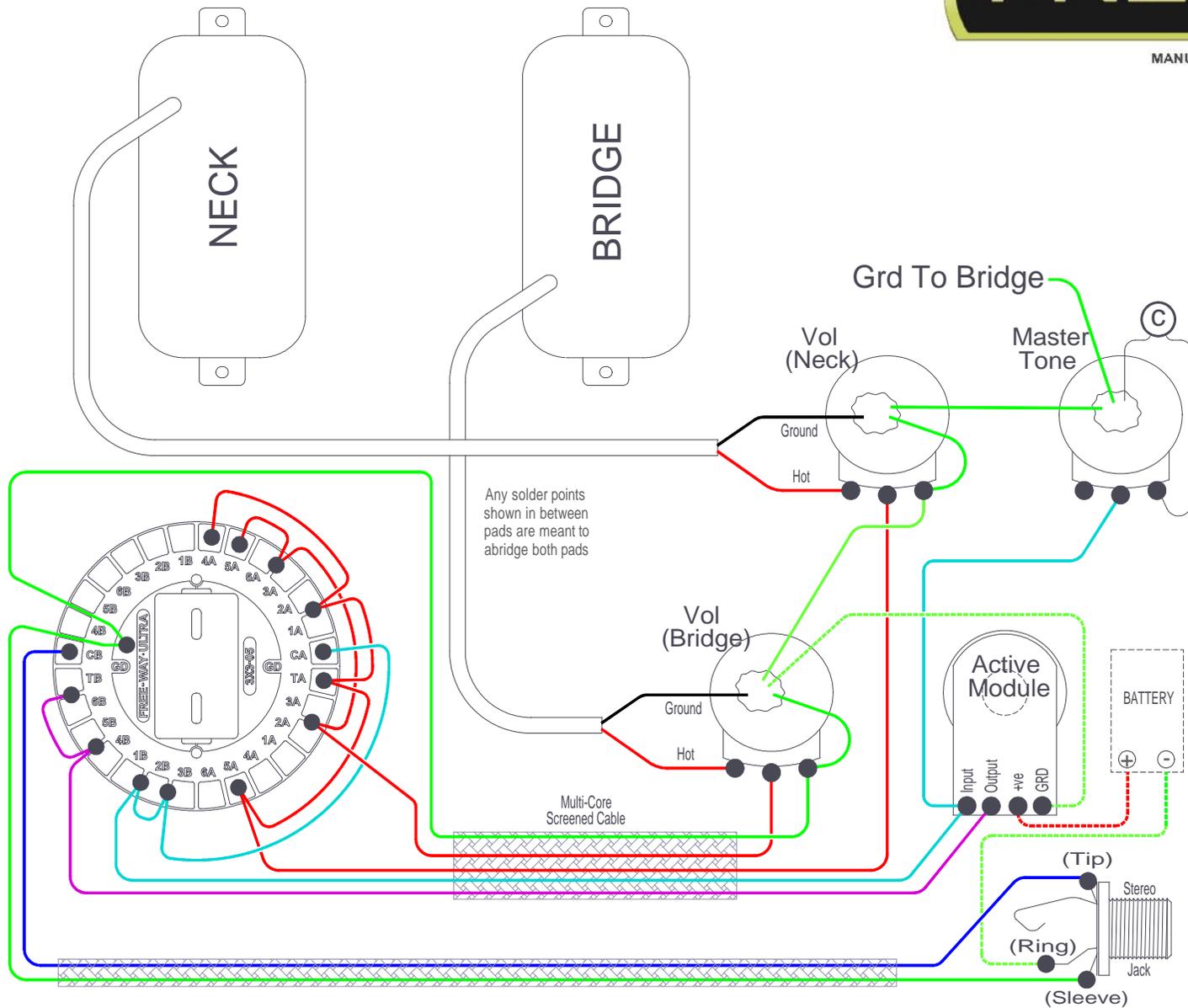


Scheme No 026 : Last Updated Mar 2014

REVERSE VIEW OF PICKUPS, SWITCH AND POTENTIOMETERS.



MANUFACTURED IN ENGLAND BY NSF CONTROLS LTD



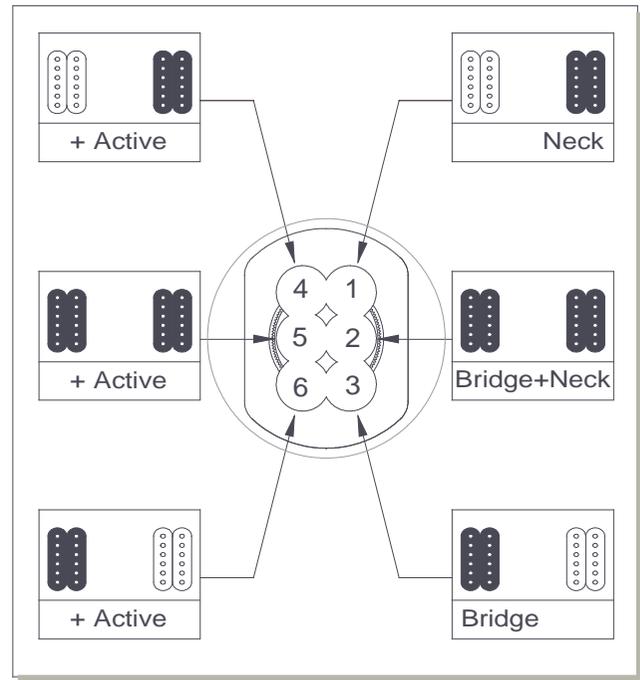
Notes:-

Active Module is assumed to be a pre-amp, booster, overdrive or EQ and is brought into the signal path in positions 4-6, and out of the signal path in positions 1-3. Follow specific Active Module instructions for correct install (dotted lines here are indication only).

Use multi-core screened cable between switch and controls on LP-style guitars.

The pickup colour coding shown in this diagram does not represent any particular pickup manufacturer - please follow designations.

FRONT VIEW OF PICKUPS AND SWITCH

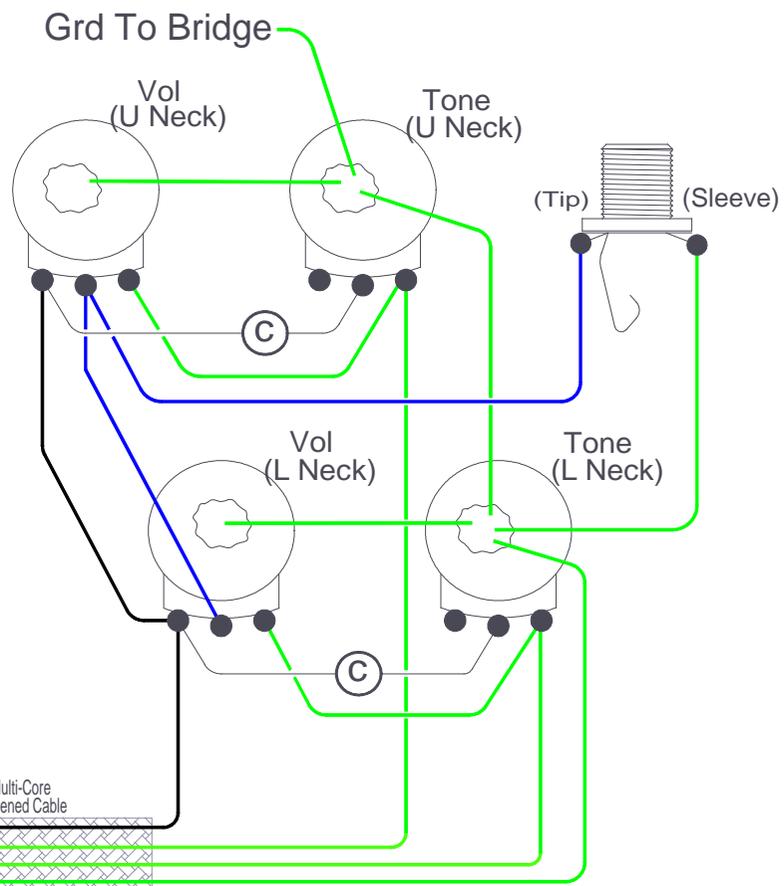
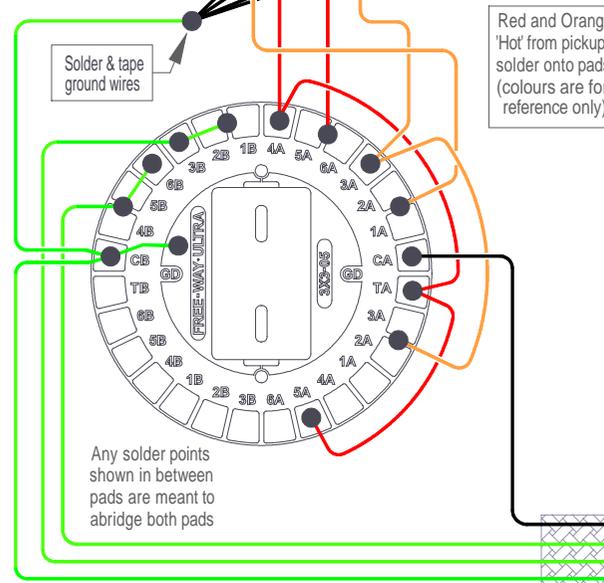
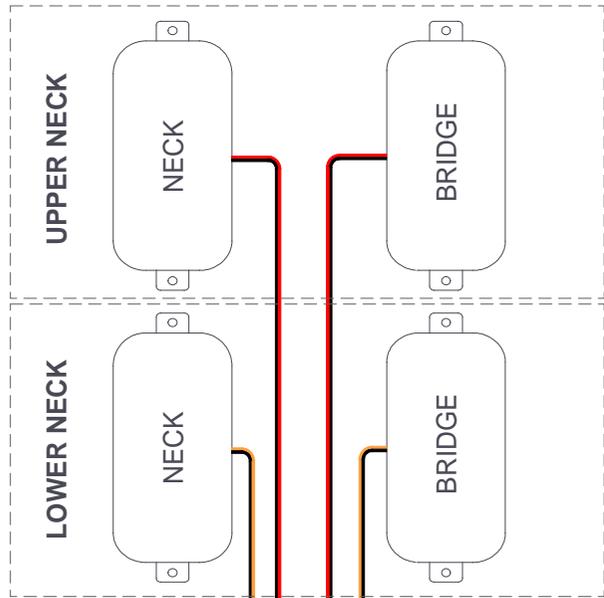


Scheme No 019 : Last Updated Sept 2013

REVERSE VIEW OF PICKUPS, SWITCH AND POTENTIOMETERS.

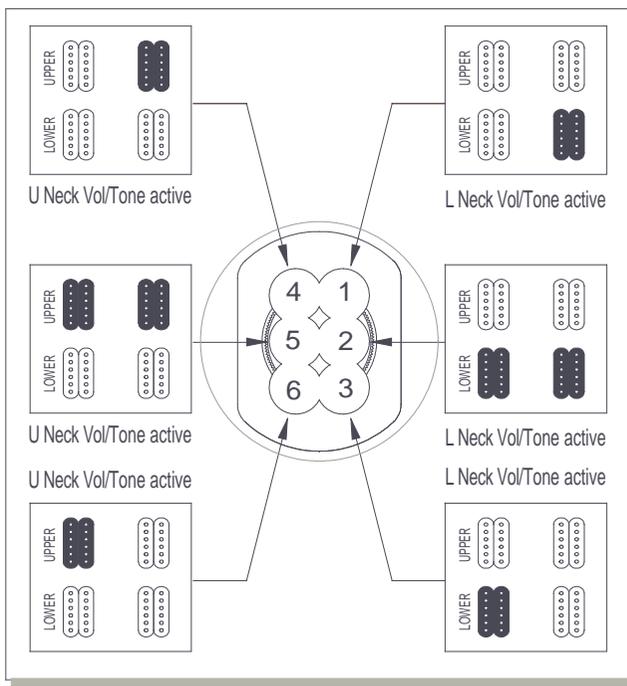


MANUFACTURED IN ENGLAND BY NSF CONTROLS LTD



Notes:-
 Intended for Double Neck guitars with two pickups per neck.
 Positions 1-3 select Neck/Neck+Bridge/Bridge pickups from the 'Lower' Neck. Positions 4-6 select Neck/Neck+Bridge/Bridge pickups from the 'Upper' Neck.
 If necessary, a push/pull DPDT switch can be added to so that both necks can be active simultaneously. DPDT switch should selectively link upper and lower Bridge pickup 'hots', and upper and lower pickups Neck pickup 'hots'.

FRONT VIEW OF PICKUPS AND SWITCH

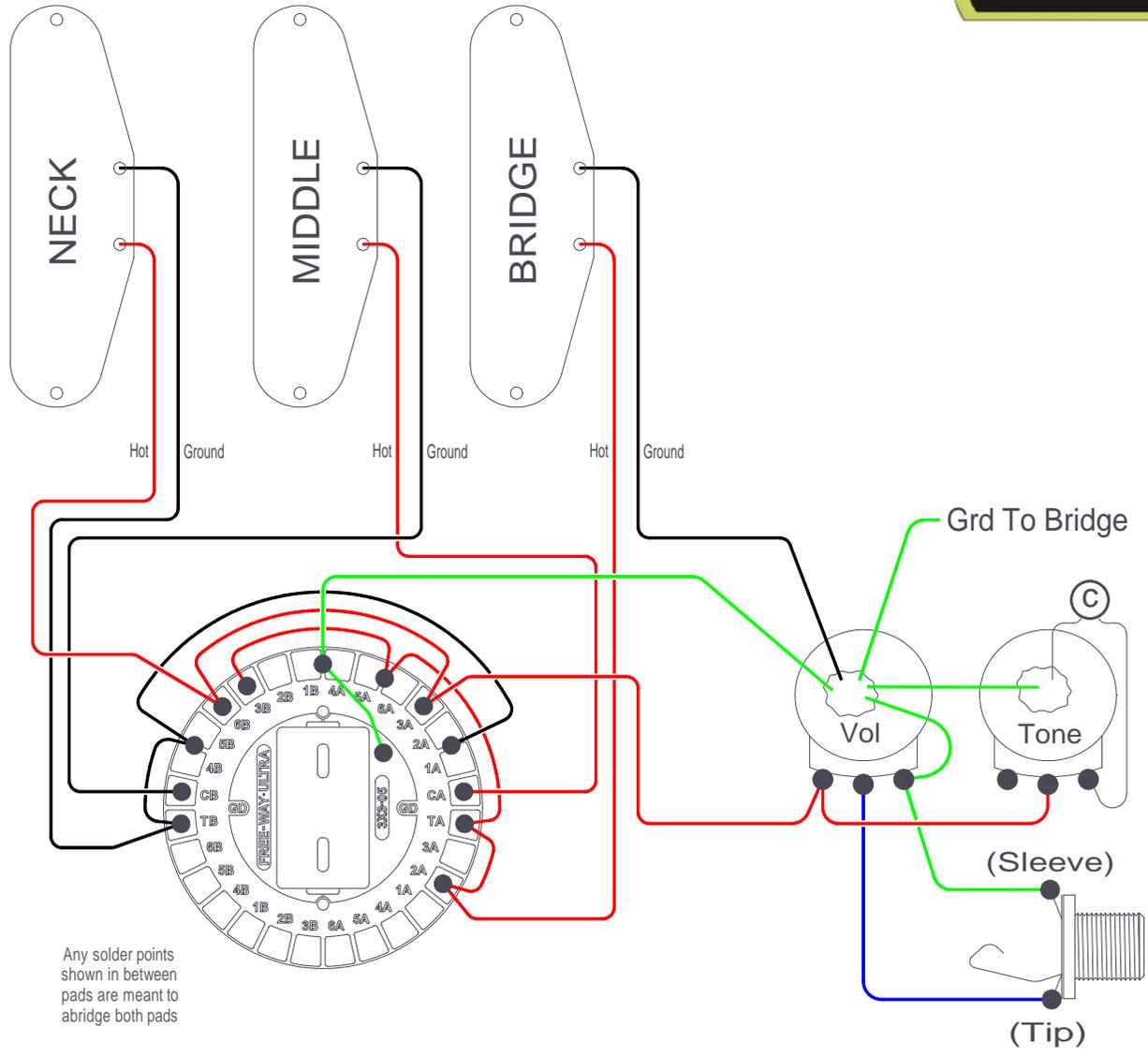


Scheme No 020 : Last Updated Sept 2013

REVERSE VIEW OF PICKUPS, SWITCH AND POTENTIOMETERS.

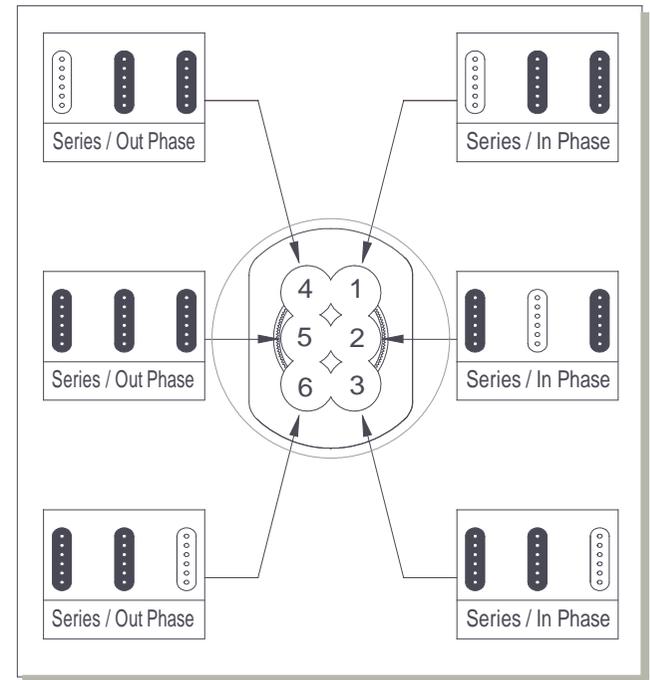


MANUFACTURED IN ENGLAND BY NSF CONTROLS LTD



Notes:-
 Delivers 'in series' combinations of pickups either: in phase (in positions 1-3) or; out of phase (in positions 4-6).
 Use of one RW/RP pickup will render certain pickup combinations hum-cancelling. For example, a RW/RP middle pickup will render positions 1 & 3 hum-cancelling but will have the opposite effect on positions 4 & 6.
 The pickup colour coding shown in this diagram does not represent any particular pickup manufacturer - please follow designations.

FRONT VIEW OF PICKUPS AND SWITCH

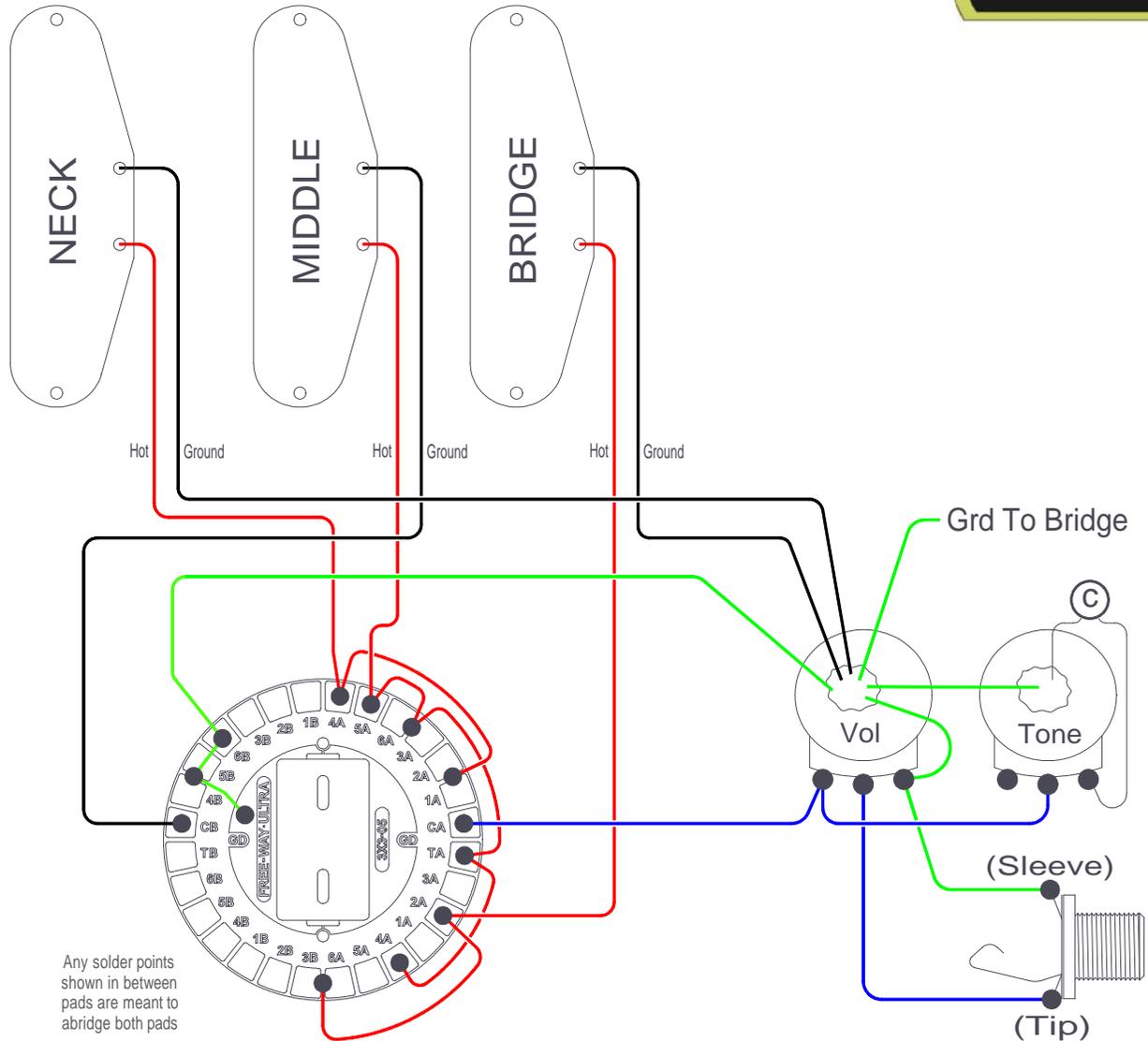


Scheme No 021 : Last Updated Sept 2013

REVERSE VIEW OF PICKUPS, SWITCH AND POTENTIOMETERS.



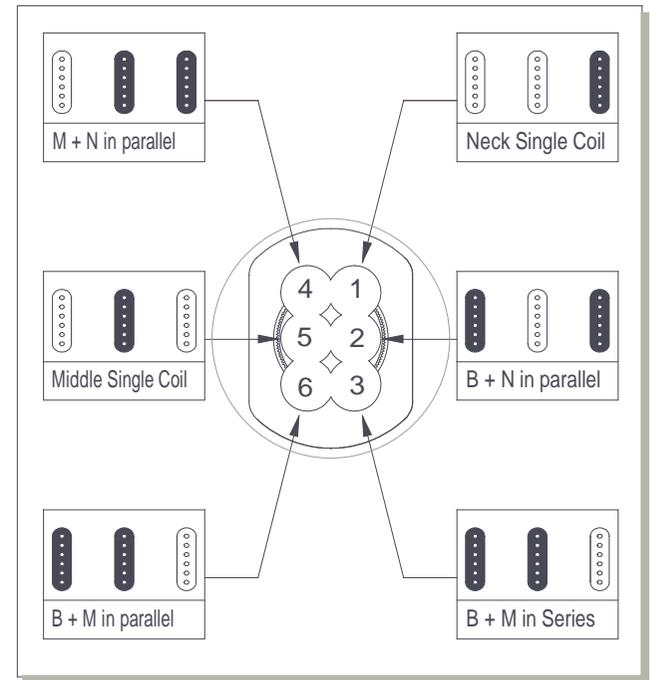
MANUFACTURED IN ENGLAND BY NSF CONTROLS LTD



Any solder points shown in between pads are meant to abridge both pads

Notes:-
 Delivers a 'bridge humbucker' configuration (using middle and bridge pickups in series) in position 3 but retains authentic parallel sounds in position 4 & 6, together with Bridge and Neck in parallel in position 2.
 Use a RW/RP middle pickup for hum-cancelling in positions 3, 4, & 6.
 The pickup colour coding shown in this diagram does not represent any particular pickup manufacturer - please follow designations.

FRONT VIEW OF PICKUPS AND SWITCH

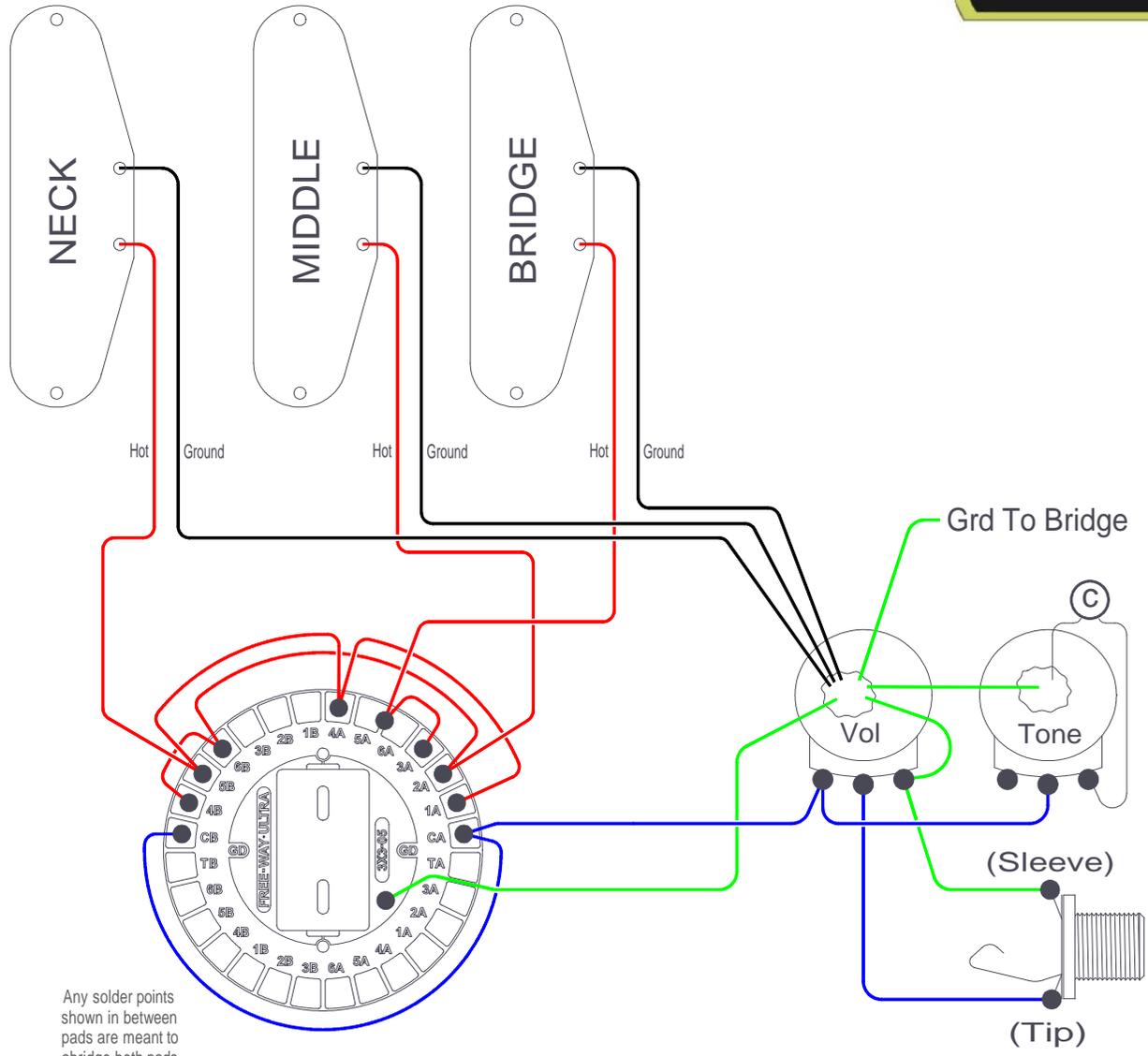


Scheme No 022 : Last Updated Sept 2013

REVERSE VIEW OF PICKUPS, SWITCH AND POTENTIOMETERS.



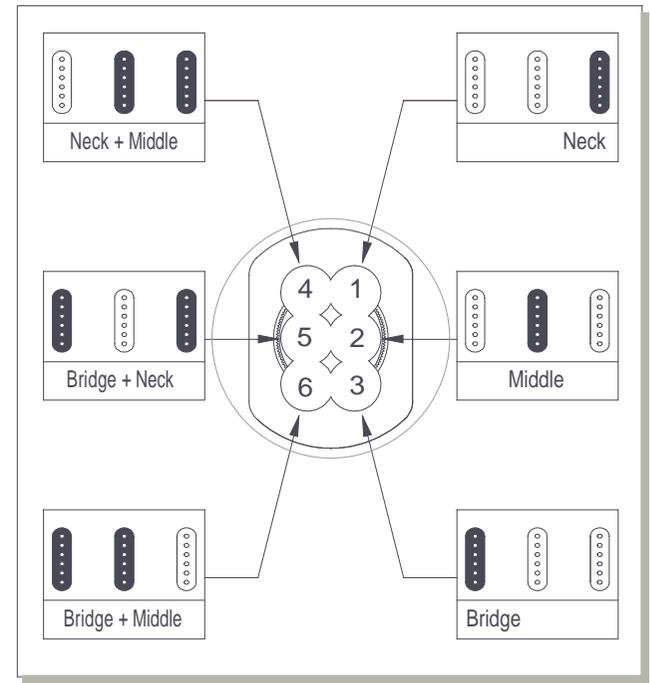
MANUFACTURED IN ENGLAND BY NSF CONTROLS LTD



Any solder points shown in between pads are meant to abridge both pads

Notes:-
 Delivers individual pickup selections in position 1-3, and parallel pickup combinations in positions 4-6.
 Use of a RW/RP middle pickup will render pickup combinations 4 & 6 hum-cancelling.
 The pickup colour coding shown in this diagram does not represent any particular pickup manufacturer - please follow designations.

FRONT VIEW OF PICKUPS AND SWITCH



Scheme No 025 : Last Updated Sept 2013

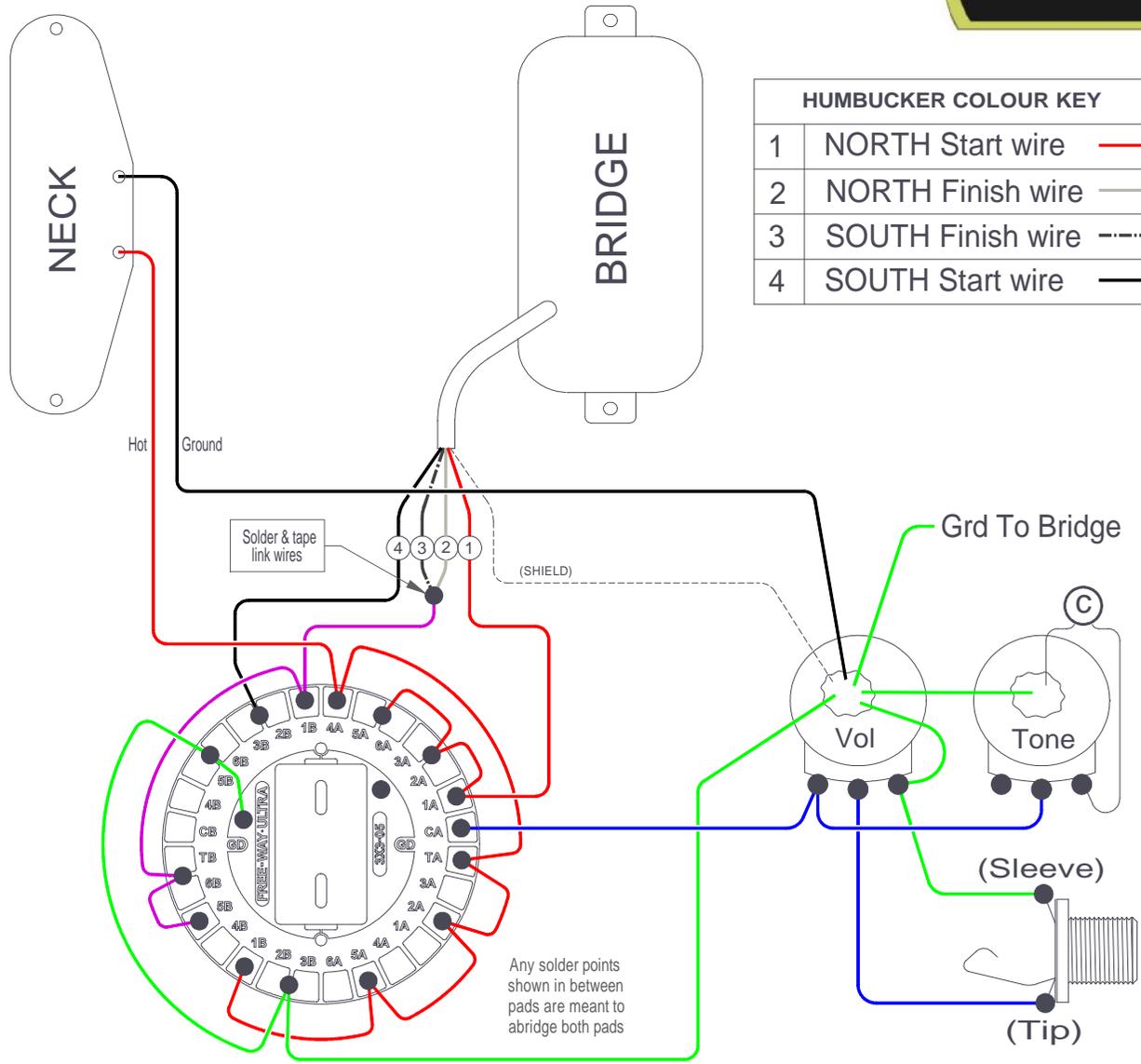
REVERSE VIEW OF PICKUPS, SWITCH AND POTENTIOMETERS.



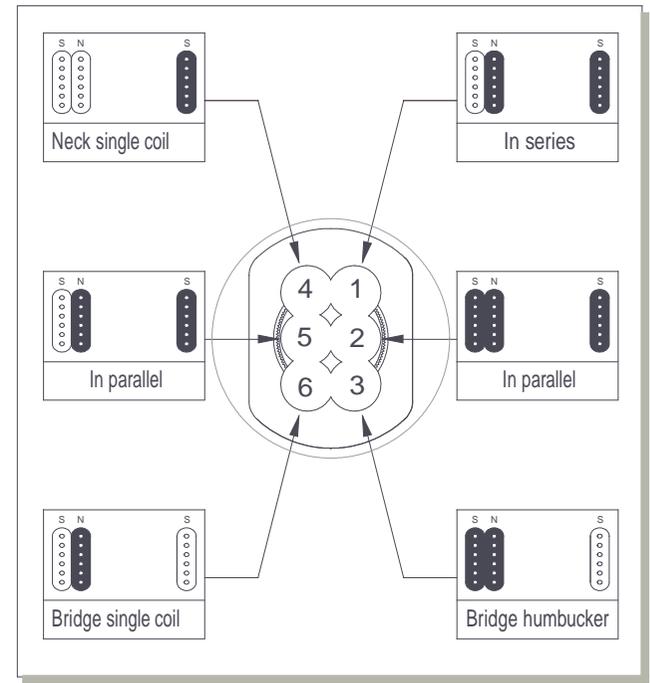
MANUFACTURED IN ENGLAND BY NSF CONTROLS LTD

HUMBUCKER COLOUR KEY	
1	NORTH Start wire —
2	NORTH Finish wire —
3	SOUTH Finish wire - - - -
4	SOUTH Start wire —

Notes:-
 Delivers a 'Neck humbucker' equivalent (using one coil from the humbucker in series with the Neck pickup) in position 1.
 Neck pickup should be same magnetic polarity as Humbucker's screw coil for hum-cancelling operation in positions 1 and 5. In this example, it would be South magnetic polarity.
 The pickup colour coding shown in this diagram does not represent any particular pickup manufacturer - please follow key.



FRONT VIEW OF PICKUPS AND SWITCH



Scheme No 023 : Last Updated Sept 2013

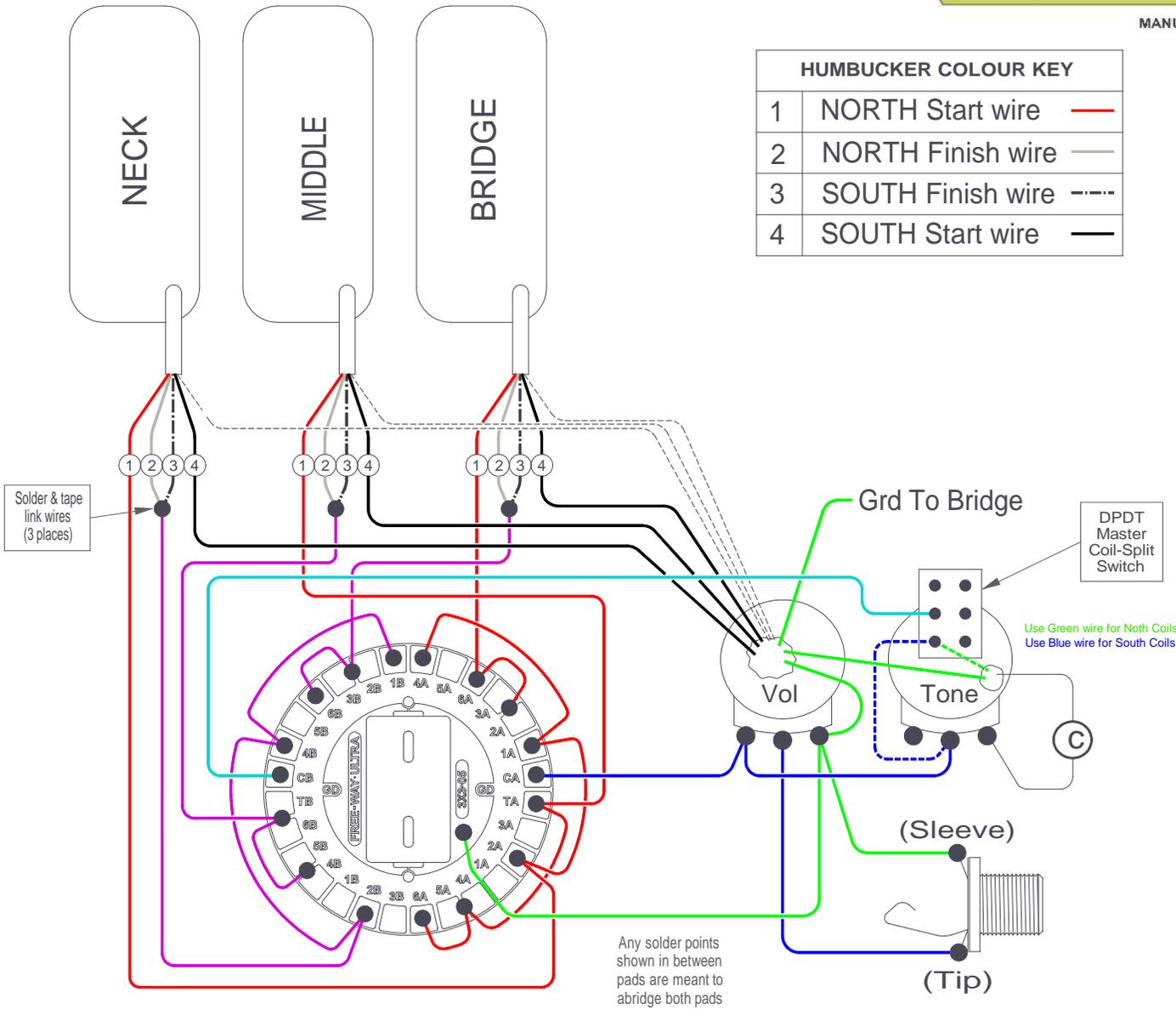
REVERSE VIEW OF PICKUPS, SWITCH AND POTENTIOMETERS.



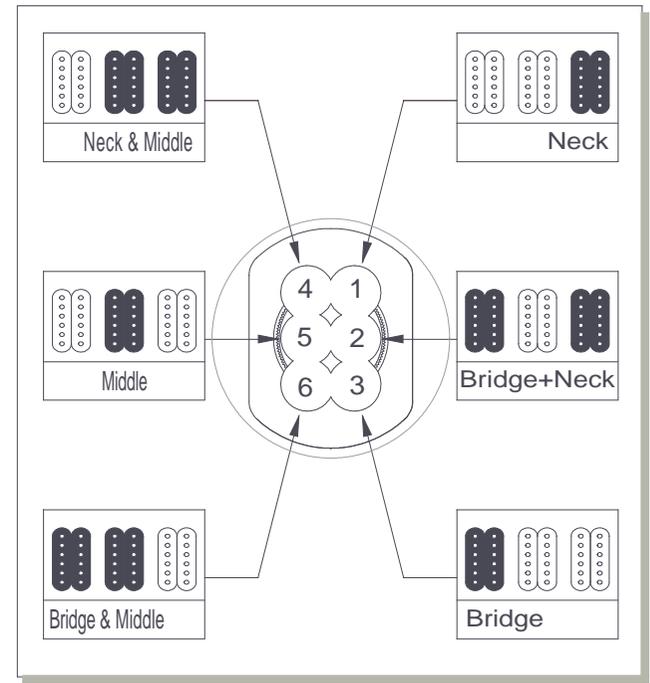
MANUFACTURED IN ENGLAND BY NSF CONTROLS LTD

HUMBUCKER COLOUR KEY	
1	NORTH Start wire —
2	NORTH Finish wire —
3	SOUTH Finish wire - - - -
4	SOUTH Start wire —

Notes:-
 Master Push/Pull Pot - pull out for single coils in all 6 positions.
 The DPDT switch shows two dotted wires - choose & solder only one!
 The Green wire will voice the North Coils (normally the slug coils).
 The Blue wire will voice the South Coils (normally the screw coils).
 Keep unscreened wires as short as possible.
 The pickup colour coding shown in this diagram does not represent any particular pickup manufacturer - please follow key.



FRONT VIEW OF PICKUPS AND SWITCH



Scheme No 024 : Last Updated Oct 2013