

# One Control

## SETUP 1

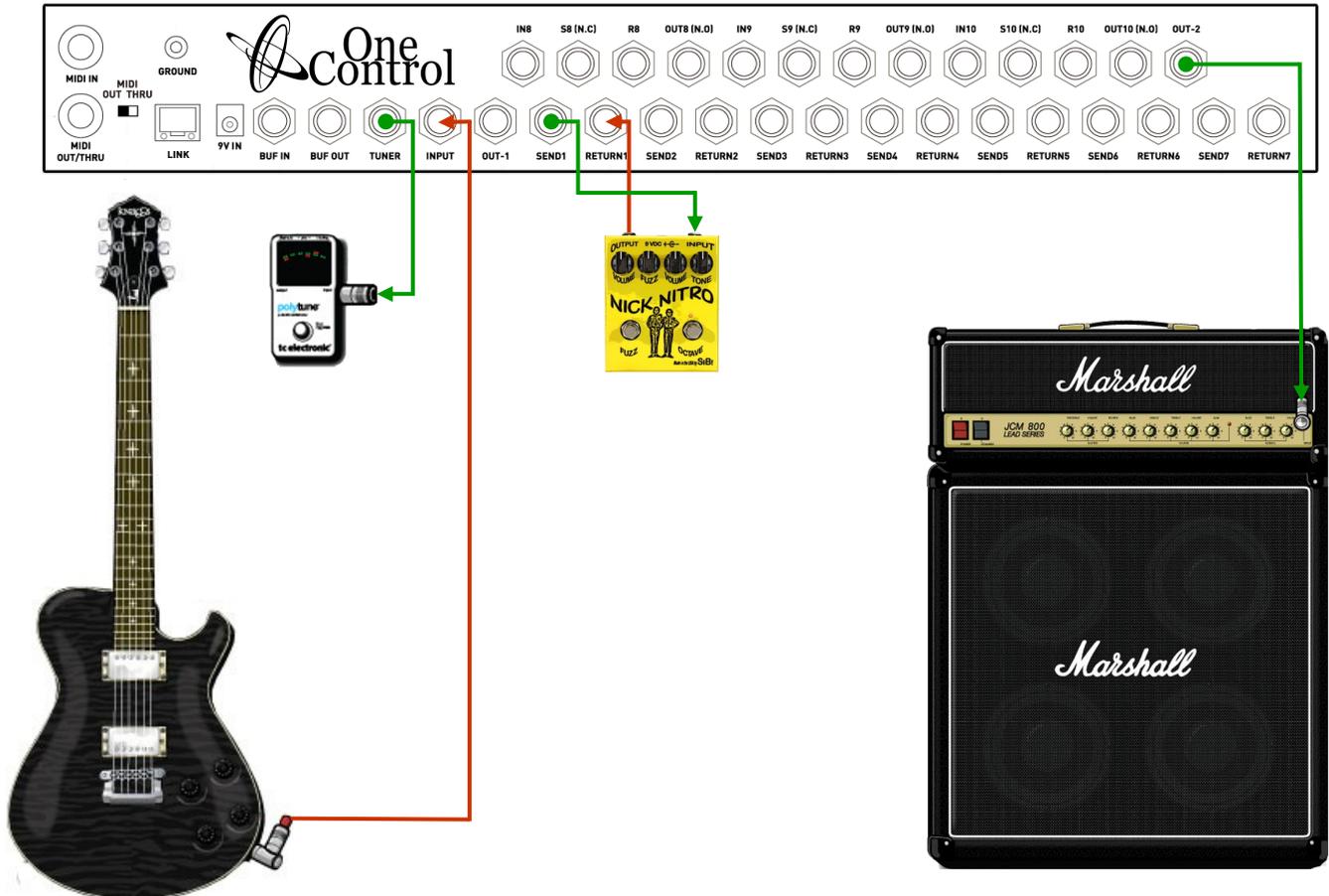
KEY  
All Red Lines Are Cables  
Taking Signal Into OC10



All Green Lines Are Cables  
Taking Signal Out Of OC10



OC 10 Crocodile Tail Loop Setup Utilising Tuner Out And One Loop



- The above setup is using the OC10 in it's most basic form were the guitar signal is run directly into the rear main input jack.
- The tuner output is selected when the OC10 is in program mode via the top row left hand footswitch labelled "TUNER/L10", when selected this mutes all output from unit except signal running from tuner jack output.
- Loop 1 is being utilised in this example. loops 1 thru 7 are internally connected so signal from main input will always be running to OUT 1 and OUT 2 whether pedals are connected or not.
- OUT 2 is being utilised in this example to run directly to amp input, OUT 1 and OUT 2 are in parallel and are both supplied signal from the input jacks through loops 1 to 7, OUT 1 would be utilised if signal was required to run directly into IN 8 which is the start of the second run of loops (8,9,10)

# One Control

## SETUP 2

OC10 Setup Utilising Buffer Circuit, 1 Loop from Loops 1 thru 7 and Loop 8

### KEY

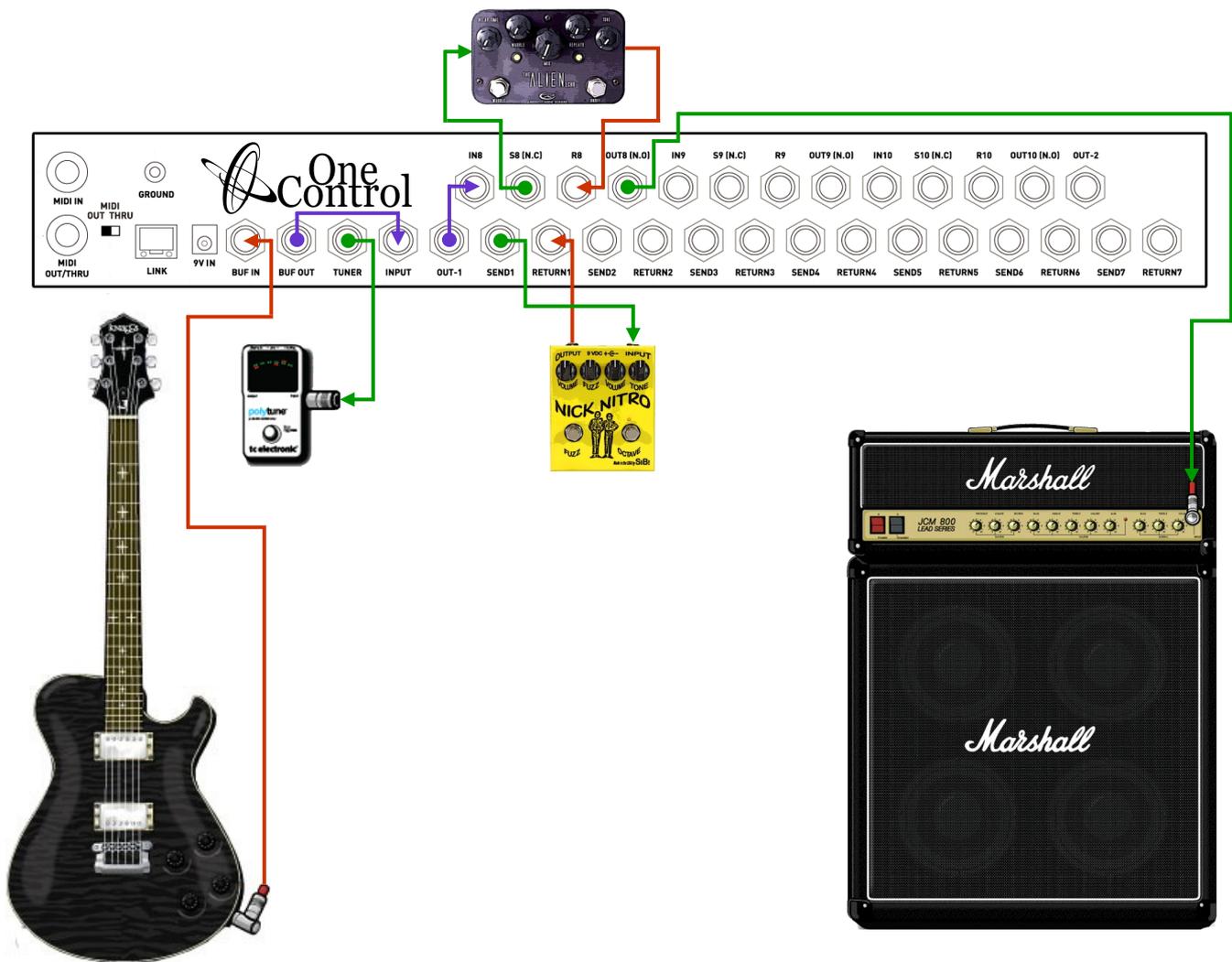
All Red Lines Are Cables Taking Signal Into OC10



All Green Lines Are Cables Taking Signal Out Of OC10



All Purple Lines Are Cables Taking Signal Out of OC10 and Immediately Back Into OC10



- The above setup is using the OC10 with the guitar running into the Buffer circuit, Tuner out, loop 1 and loop 8
- Utilising the Buffer circuit will give the signal increased strength and retention of clarity, primarily this circuit is designed for running longer cable runs and running through multiple effects units which ultimately can lower signal strength and dull the top end of the signal.
- Loop 1 is being utilised in this example. loops 1 thru 7 are internally connected so signal from main input will always be running to OUT 1 and OUT 2 whether pedals are connected or not.

- In this example you can see that the echo unit in Loop 8 is connected via the S8 (Send 8) and R8 (Return 8) sockets, unlike Loops 1 thru 7 which are all internally connected, Loops 8 Thru 10 are not and must be linked together using the Out and In sockets from each loop to run the signal into the next loop.
- The output of Loop 8 in this example is being used as the main out to run to the amplifier input, if you needed to use more loops for effects in the second section of loops (8, 9, 10) then simply connect the output from the previous loop into the input of the next loop. For example if you desired to run a reverb unit in loop 9 you would need to link the out socket of Loop 8 to the input socket of loop 9, Loop 9 Out would then become your main output.

# One Control

## SETUP 3

OC10 setup utilising BJT buffer Circuit, 4 loops from Loops 1 Thru 7, Loops 8 And 9 for effects and Loop 10, S10 (N.C) socket for amp channel switching.

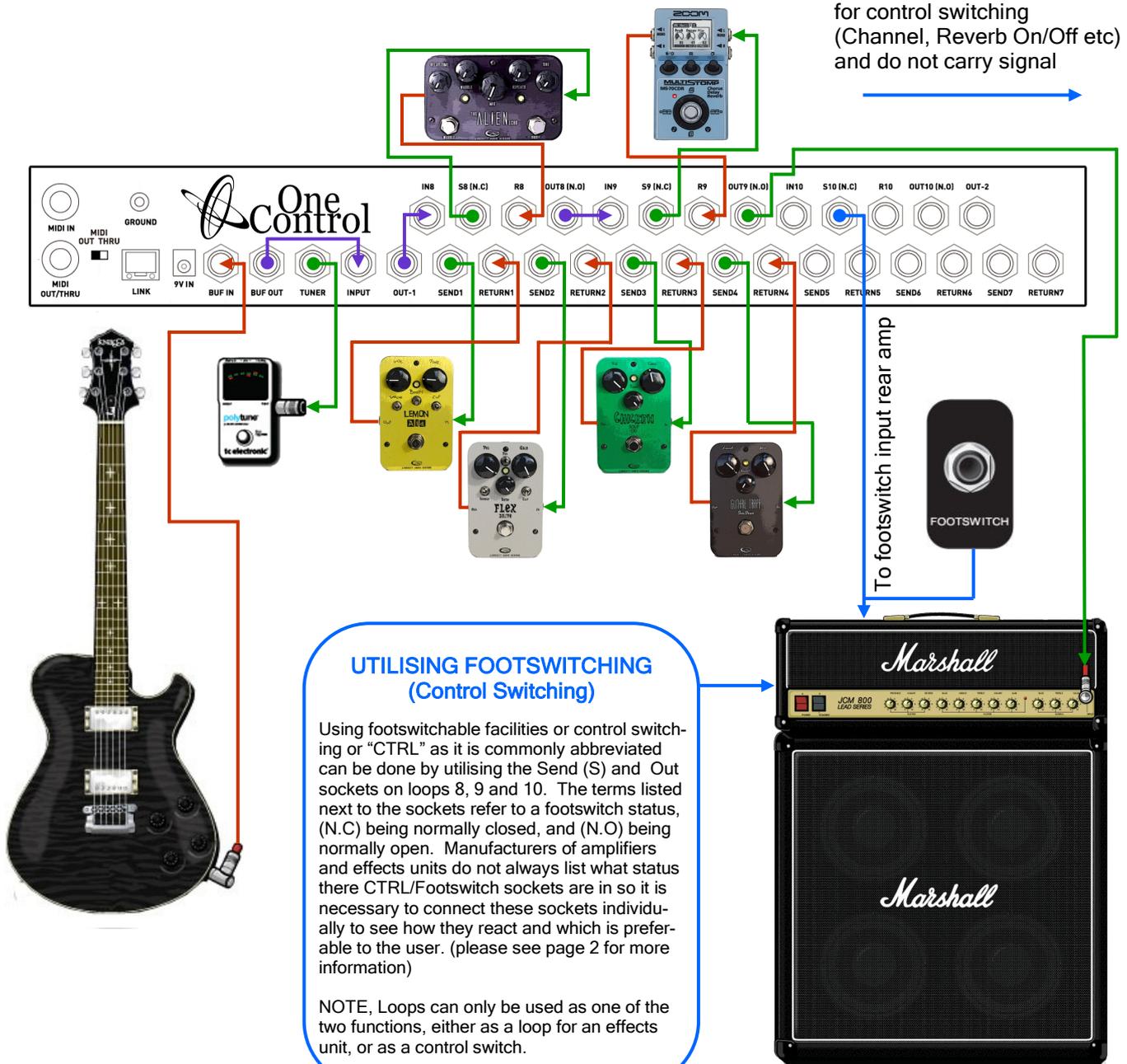
### KEY

All red lines are cables taking signal into OC10

All green lines are cables taking signal out of OC10

All purple lines are cables taking signal out of OC10 and immediately back into OC10 (Links)

All blue lines are cables used for control switching (Channel, Reverb On/Off etc) and do not carry signal



### UTILISING FOOTSWITCHING (Control Switching)

Using footswitchable facilities or control switching or "CTRL" as it is commonly abbreviated can be done by utilising the Send (S) and Out sockets on loops 8, 9 and 10. The terms listed next to the sockets refer to a footswitch status, (N.C) being normally closed, and (N.O) being normally open. Manufacturers of amplifiers and effects units do not always list what status there CTRL/Footswitch sockets are in so it is necessary to connect these sockets individually to see how they react and which is preferable to the user. (please see page 2 for more information)

NOTE, Loops can only be used as one of the two functions, either as a loop for an effects unit, or as a control switch.

- In setup 3 we utilise the buffer circuit, 4 loops from loops 1 to 7, loops 8 and 9 and loop 10 as a Ctrl switch to switch channels on our amplifier.
- Utilising the Buffer circuit will give the signal increased strength and retention of clarity, primarily this circuit is designed for running longer cable runs and running through multiple effects units which ultimately can lower signal strength and dull the top end of the signal.
- Loops 1,2,3 and 4 are being utilised in setup 3. loops 1 thru 7 are internally connected so signal from main input will always be running to OUT 1 and OUT 2 whether pedals are connected or not.
- Out 1 is utilised in setup 3 as it is the most conveniently placed to run signal into the input of Loop 8
- In setup 3 you can see that the echo unit in Loop 8 is connected via the S8 (Send 8) and R8 (Return 8) sockets, the signal is then sent via a short patch cable (Linked) from OUT8(N.O) to IN9, if this is not done no signal will be running into loop 9 as loops 8, 9 and 10 are not internally connected and do not pass signal through to the next loop unless they are connected together.
- Repeating the same method used to connect the echo, the reverb in setup 3 is connected via the S9 (Send 9) and R9 (Return 9) sockets, the signal is then sent via OUT9(N.O) to the amplifier input
- In setup 3 we are using loop 10 to switch our amplifier channel via S10(N.C) send socket, this we are doing with a mono cable (Standard Jack Cable or Speaker Cable will both work fine for this purpose), using S10(N.C) assumes that the Normally Closed (N.C) send socket is best suited for this amplifier meaning that when the relevant button on the OC10 panel for loop 10 is not lit the amplifier would be on the clean channel and when the button is pressed for Loop 10 and is lit then the amplifier would have switched to its drive channel, if this works in reverse when tried use the OUT10(N.O) Normally Open socket instead of the S10(N.C) socket.

# One Control

## SETUP 4

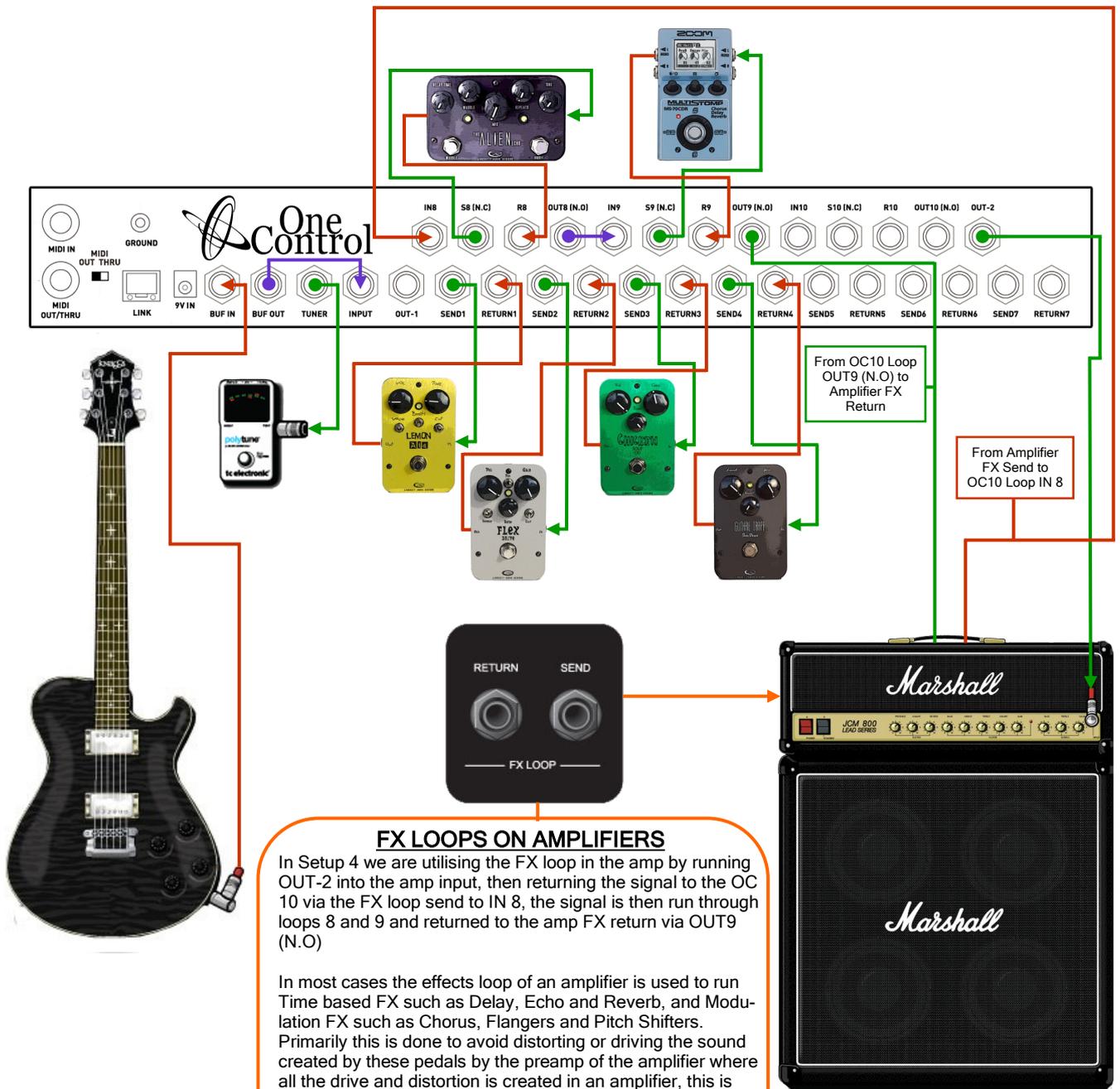
OC10 setup utilising BJT buffer Circuit, 4 loops from Loops 1 Thru 7 running to amplifier front input and Loops 8 and 9 running through amplifier FX loop

### KEY

All red lines are cables taking signal into OC10

All green lines are cables taking signal out of OC10

All purple lines are cables taking signal out of OC10 and immediately back into OC10 (Links)



### FX LOOPS ON AMPLIFIERS

In Setup 4 we are utilising the FX loop in the amp by running OUT-2 into the amp input, then returning the signal to the OC 10 via the FX loop send to IN 8, the signal is then run through loops 8 and 9 and returned to the amp FX return via OUT9 (N.O)

In most cases the effects loop of an amplifier is used to run Time based FX such as Delay, Echo and Reverb, and Modulation FX such as Chorus, Flangers and Pitch Shifters. Primarily this is done to avoid distorting or driving the sound created by these pedals by the preamp of the amplifier where all the drive and distortion is created in an amplifier, this is achieved by running the FX loop after the preamp stage of any amplifier thus bypassing the drive stage and unwanted distortion.

- In setup 4 we utilise the buffer circuit, 4 loops from loops 1 to 7 which are then running directly into the amplifier input, using the FX send of the amp we are returning the signal into loop 8 through loop 9 and then back to the FX return of the amplifier.
- Utilising the Buffer circuit will give the signal increased strength and retention of clarity, primarily this circuit is designed for running longer cable runs and running through multiple effects units which ultimately can lower signal strength and dull the top end of the signal.
- Loops 1,2,3 and 4 are being utilised in setup 4. loops 1 thru 7 are internally connected so signal from main input will always be running to OUT 1 and OUT 2 whether pedals are connected or not.
- Out 2 is utilised in setup 4 as it is the most conveniently placed to run signal into the amplifier input.
- The signal is returned to the OC10 from the amplifier via the FX loop send into Loop IN 8 on the OC10
- In setup 4 you can see that the echo unit in Loop 8 is connected via the S8 (Send 8) and R8 (Return 8) sockets, the signal is then sent via a short patch cable (Linked) from OUT8(N.O) to IN9, if this is not done no signal will be running into loop 9 as loops 8, 9 and 10 are not internally connected and do not pass signal through to the next loop unless they are connected together.
- Repeating the same method used to connect the echo, the reverb in setup 4 is connected via the S9 (Send 9) and R9 (Return 9) sockets, the signal is then sent via OUT9(N.O) to the amplifier FX return

### More on FX Loops

FX loops fall into two categories those being Parallel and Series.

Parallel loops were primarily designed to combat signal degradation due to poor quality FX by not running the whole signal after the preamp through the FX, but by splitting the signal into two signals paths running in Parallel as the name suggests, one signal goes through the FX unit and is called the wet signal or effected signal, the other does not run through the effect and is called the dry signal or non effected signal. Parallel FX loops will always have a mix or FX level dial on the amp so if in doubt of which type your amp has look for this feature. Parallel loops can sometimes cause the effect and dry signal to be out of phase, this is most common on older Mesa Boogie amps.

Series FX loops have no FX loop level or mix dial as they are sending the full signal from the preamp through the FX in the loop, the mix is determined by the amount of mix of wet to dry signal you assign on the FX unit. As the quality of FX units has improved drastically over recent years more amps are featuring series FX loops.

There are a few models of amplifiers that feature switchable FX loops or similar and have the ability to run in either Series or Parallel mode, some Laney amps and newer Mesa Boogie amps have this feature.

# One Control

## SETUP 5

OC10 setup utilising BJB buffer Circuit, 4 loops from Loops 1 Thru 7 running to amplifier front input and Loops 8 and 9 running through amplifier FX loop with Midi control from OC10

### KEY

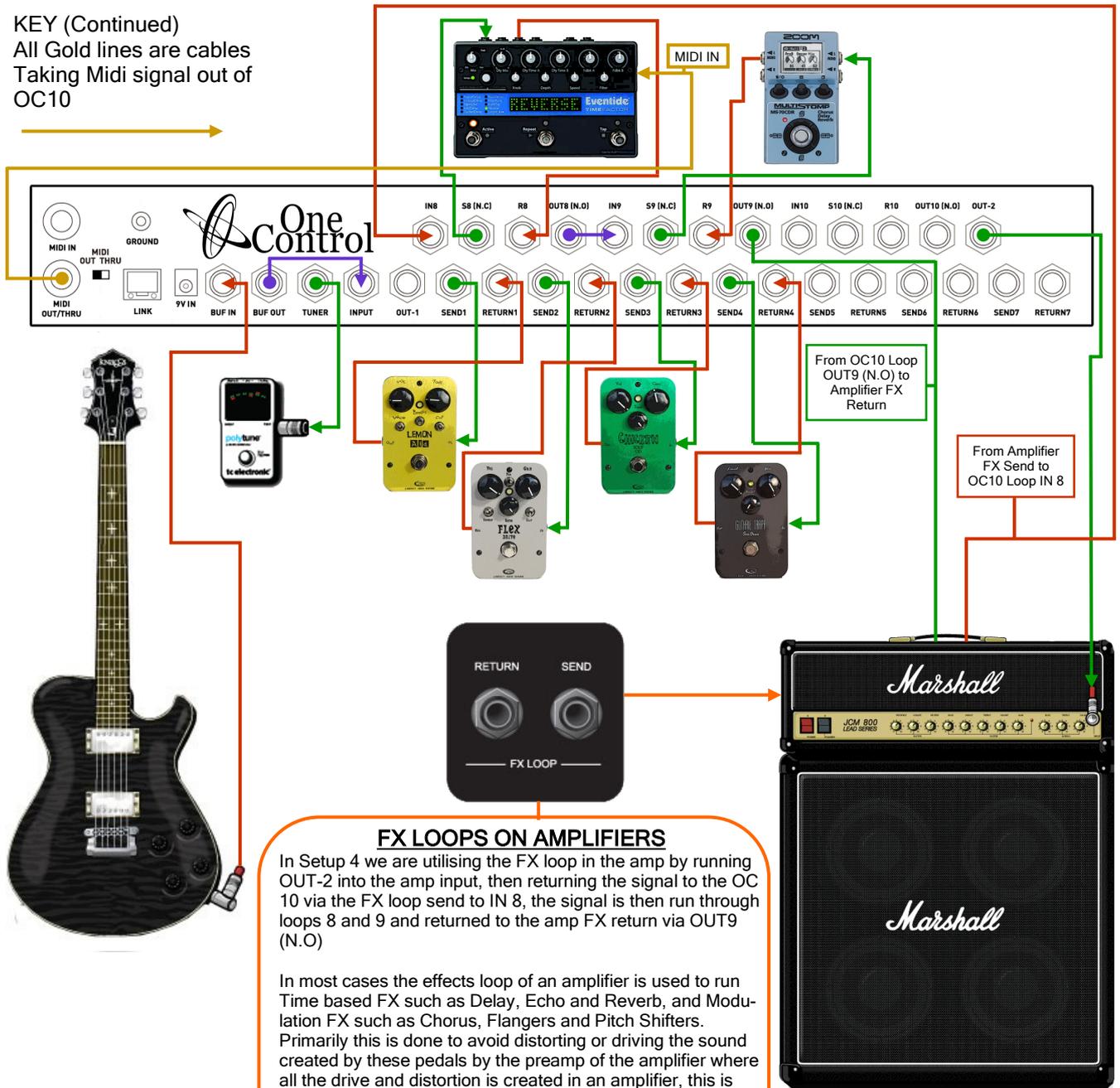
All red lines are cables taking signal into OC10

All green lines are cables taking signal out of OC10

All purple lines are cables taking signal out of OC10 and immediately back into OC10 (Links)

### KEY (Continued)

All Gold lines are cables Taking Midi signal out of OC10



### FX LOOPS ON AMPLIFIERS

In Setup 4 we are utilising the FX loop in the amp by running OUT-2 into the amp input, then returning the signal to the OC 10 via the FX loop send to IN 8, the signal is then run through loops 8 and 9 and returned to the amp FX return via OUT9 (N.O)

In most cases the effects loop of an amplifier is used to run Time based FX such as Delay, Echo and Reverb, and Modulation FX such as Chorus, Flangers and Pitch Shifters. Primarily this is done to avoid distorting or driving the sound created by these pedals by the preamp of the amplifier where all the drive and distortion is created in an amplifier, this is achieved by running the FX loop after the preamp stage of any amplifier thus bypassing the drive stage and unwanted distortion.

- In setup 5 we utilise the buffer circuit, 4 loops from loops 1 to 7 which are then running directly into the amplifier input, using the FX send of the amp we are returning the signal into loop 8 through loop 9 and then back to the FX return of the amplifier.
- Utilising the Buffer circuit will give the signal increased strength and retention of clarity, primarily this circuit is designed for running longer cable runs and running through multiple effects units which ultimately can lower signal strength and dull the top end of the signal.
- Loops 1,2,3 and 4 are being utilised in setup 5. loops 1 thru 7 are internally connected so signal from main input will always be running to OUT 1 and OUT 2 whether pedals are connected or not.
- Out 2 is utilised in setup 5 as it is the most conveniently placed to run signal into the amplifier input.
- The signal is returned to the OC10 from the amplifier via the FX loop send into Loop IN 8 on the OC10
- In setup 5 you can see that the echo unit in Loop 8 is connected via the S8 (Send 8) and R8 (Return 8) sockets, the signal is then sent via a short patch cable (Linked) from OUT8(N.O) to IN9, if this is not done no signal will be running into loop 9 as loops 8, 9 and 10 are not internally connected and do not pass signal through to the next loop unless they are connected together.
- Repeating the same method used to connect the echo, the reverb in setup 5 is connected via the S9 (Send 9) and R9 (Return 9) sockets, the signal is then sent via OUT9(N.O) to the amplifier FX return
- Setup 5 utilises the Midi facilities of the OC10 running the Midi out to the Midi in of the delay unit, Midi on the OC10 is only transmitted on Channel 1 and cannot be changed, Midi will work on presets 1 to 70, there is no Midi mapping on the OC10 so presets and midi numbers are exactly the same, for example, preset 1 = midi patch number 1, preset 2 = midi patch number 2, preset 10 = midi patch number 10
- Activating the Midi on the OC10 is similar to activating the loops on the OC10 and is done via the Midi On/Off switch, to transmit Midi the TX light must be lit on the preset you are storing otherwise Midi information will not be sent to the receiving unit on that preset. The RX light only needs to be lit when Midi is being received by the OC10.

## More on Amplifier FX Loops

FX loops fall into two categories those being Parallel and Series.

Parallel loops were primarily designed to combat signal degradation due to poor quality FX by not running the whole signal after the preamp through the FX, but by splitting the signal into two signals paths running in Parallel as the name suggests, one signal goes through the FX unit and is called the wet signal or effected signal, the other does not run through the effect and is called the dry signal or non effected signal. Parallel FX loops will always have a mix or FX level dial on the amp so if in doubt of which type your amp has look for this feature. Parallel loops can sometimes cause the effect and dry signal to be out of phase, this is most common on older Mesa Boogie amps.

Series FX loops have no FX loop level or mix dial as they are sending the full signal from the preamp through the FX in the loop, the mix is determined by the amount of mix of wet to dry signal you assign on the FX unit. As the quality of FX units has improved drastically over recent years more amps are featuring series FX loops.

There are a few models of amplifiers that feature switchable FX loops or similar and have the ability to run in either Series or Parallel mode, some Laney amps and newer Mesa Boogie amps have this feature.