

Protection of bufferstops

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A well-documented way is by cutting one rail just over a loco's length from the bufferstops and bridging the gap with a diode. Diodes will only pass the power in one direction. Providing the diode has been wired the correct way round this works fine, because when the loco passes the rail gap the diode cuts the power to the loco. When the polarity is reversed, the diode passes power and the loco moves away from the bufferstops.

In my opinion, this technique is only suitable for use at goods yard headshunt bufferstops and for a spur for one loco as shown in fig.1 below.

I am sure that some readers will say that a diode can be used at the platform track bufferstops of a small branch line terminus that is operated strictly on a 'One engine in steam' principal. Yes it can, until some enterprising operator manages to get a second train into the station and some unexpected synchronous loco movements will complicate matters.

As usual, my jottings on wiring, assume a DC system with common return wiring (black triangle) and live frog turnouts giving power availability that follows the route set.

Larger stations will very likely have more than one loco present and a very different pattern of loco movements. Fig. 1 shows an island platform with a terminating track each side, and a short loco spur. I have not shown any sidings, loco shed etc because these items are irrelevant to the topic under discussion. Each short length of track next to the platform bufferstops is fed via a pushbutton (PB) when retrieval of the loco is required.

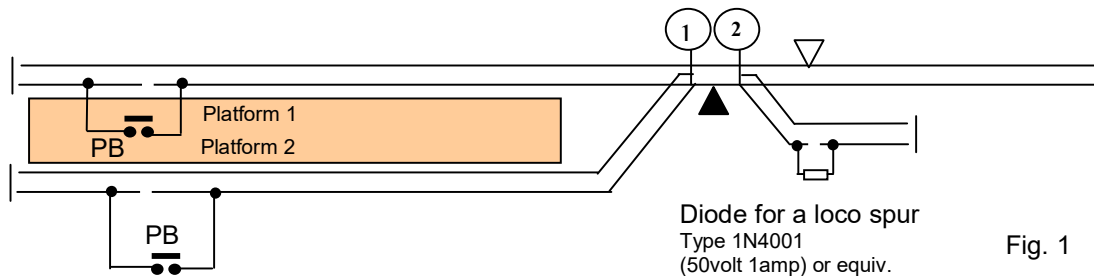


Fig. 1

At a station like this it is normal for a second loco to be attached to the rear of the train in readiness to take the stock away. A diode can be used cut power to the train's loco so it does not move when this second loco arrives. However, when the second loco does take the stock away, the diode will supply power to the train loco at the bufferstops, which will move off as well. Not really what the operator intended. The only way out of this mess is a bit of "Crane shunting".

My recommendation to solve the need to protect the bufferstops, (and the loco), is with a push button. This combines simplicity with the fact that no operator is likely to keep the push button pressed for more than a few seconds. The short loco spur can be equipped with a diode as indicated.

Just to be safe, don't install any push button close to the edge of a control panel or baseboard, where an operator might rest on his elbow.