

Signalling Revision Questions: Relay's (with answers)

1. What is a neutral polar relay?
WILL WORK REGARDLESS OF WHICH TERM HAS POS OR NEG POWER APPLIED
2. When would you most commonly find R3 & R4 terminals used?
SPLIT RELAY
3. What is a 'remax' top, where would you find it & for what purpose?
ON 'PLUG-IN' SHELF TYPE RELAYS
4. What is a biased relay?
WILL ONLY WORK DEPENDING ON WHERE POS OR NEG IS APPLIED
5. What is a three position relay and where would you find one?
RELAY WITH THREE POSITIONS: NORMAL, REVERSE & CENTRAL, USUALLY FOUND IN BLOCK CIRCUITS
6. What are the most common relays known as? _____ series?
930 SERIES
7. What is the purpose of a pin code?
TO ENSURE THE SEPERATION OF CRITICAL & NON-CRITICAL RELAYS
8. The pin code comes in either 5 or 6 hole format, which format is the 'critical' one?
RELAYS WITH 5 PINS ARE SAFETY CRITICAL
9. Where would you find pin code configurations (which document)?
SIGNALLING INSTALLATION HANDBOOK
10. What is a latched relay?
A RELAY WHICH STORES ITS LAST POSITION, HAS TO BE UNLOCKED ELECTRICALLY FOR IT TO CHANGE POSITION
11. Which relay is the odd one out & why: Signal NLR, signal RLR, Points NLR, Points RLR?
THE SIGNAL RLR IS NOT A LATCHED RELAY, THE OTHERS ARE.
12. What MUST you make sure when changing a point NLR or RLR?
THAT THE REPLACEMENT RELAY IS LATCHED IN THE SAME POSITION AS THE RELAY IT IS GOING TO REPLACE, OTHERWISE IT COULD MOVE A SET OF POINTS WITHOUT INTERVENTION FROM ANYONE, INCLUDING UNDER A TRAIN
13. What is a thermal timer & why are they not the preferred method of timing?
THEY ARE CONTROLLED BY A HEATING ELEMENT, WHICH DETERIATES OVER YEARS AND IS LESS RELIABLE
14. What does a small tag (that you would find on the wiring at the back of a relay) with a white star indicate?
THAT THERE SHOULD BE TWO WIRES PRESENT IN THE SAME TERMINAL
15. What does the (unofficial) term 'chattering' mean?
A RELAY WHICH STRUGGLES TO ENERGISE CAUSED BY LACK OF REQUIRED POWER TO PICK IT (USUALLY 37 volts IS AROUND THE MINIMUM FOR A 50v RELAY)
16. Where would you find the coil resistance on a relay?
USUALLY ON THE SIDE OF THE COIL
17. What is double-cutting of circuits & what does it prevent?
A PAIR OF CONTACTS FROM THE SAME CIRCUIT IN THE POS & NEG FEED OF THE SAME CIRCUIT IT IS FEEDING TO STOP EARTH FAULTS/FALSE FEEDS
18. What is a 'slug', and in what relays would you find it?
TO MAKE A RELAY SLOW TO DROP OR SLOW TO PICK
19. Name two different types of slugging a relay.
METAL SLUGGING OR CAPACITOR

20. Do shelf type relays have pin codes, if so which?

YES, REMAX TOP RELAYS ONLY

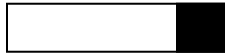
21. What is the serious condition known as that affects the plug board?

SILVER MIGRATION. A CHEMICAL REACTION WITH MATERIALS USED IN THE PLUGBOARD. SILVER SULPHIDE IS THEN EXTRACTED AND CAN MAKE A FALSE FEED THROUGH A CONTACT THAT SHOULD BE BROKEN. ONLY AFFECTS BLACK AND BLUE PLUGBOARDS AND IS MORE COMMON IN UNHEATED AREAS SUCH AS LOCS

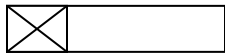
22. Relay saturation is meant by what?

WHEN THE COIL OF THE RELAY IS PERMANENTLY ENERGISED AND CAUSES THE COIL TO BECOME LESS MAGNETISED

23. What is the symbol for a slow-to-pick & slow-to-drop relay?



SLOW TO DROP



SLOW TO PICK

24. Name one relay where you would find 'butterfly' contacts.

IN THE LOCK RELAY ON A MECHANICAL LEVER FRAME