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Work On Track using X, Y and Z keys

This information has been prepared to reinforce the requirements for the use of X, Y and Z keys when protecting Work on Track.

X, Y and Z keys are available in some bidirectional areas. Removing an X, Y and Z key from its lock allows signals to clear only in the normal running-direction. It prevents bidirectional signalling in the applicable section.

There may be up to three cabinets at a location. Removing any key is sufficient to prevent bidirectional signalling.



FIGURE 1: Example of X, Y and Z key cabinets

In accordance with the Network Rules and Procedures, Protection Officers may use X, Y and X keys as part of protecting Work on Track in bidirectional areas where the keys are fitted.

X, Y and Z Keys with a Track Work Authority (TWA)

NWT 306 Track Work Authority allows Protection Officers to prevent bidirectional running by removing an X, Y or Z key.

If an X, Y or Z key is removed, TWA protection is needed only in the normal running direction.

If an X, Y or Z key cannot be removed, the worksite must be protected for both directions.

X, Y and Z Keys in conjunction with Automatic Track Warning Systems (ATWS)

Protection Officers prevent opposite direction running rail traffic by removing an X, Y or Z key.

If an X, Y or Z key is removed, a first **train test** is only required for ATWS sensors placed in the normal running-direction on a bidirectional line.

All other requirements of *NWT 310 Lookout Working* applying to ATWS, and *NPR 752 Using Wireless Automatic Warning Systems* must be followed.

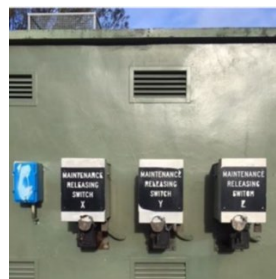


FIGURE 2: X, Y and Z key cabinets at Sutherland

X Y and Z Keys as an additional safety measure

In addition to the use of X, Y and Z keys in with a TWA or ATWS. Protection Officers trained in using X, Y and Z keys may remove a key as an additional safety measure for other Work on Track methods or authorities, so long as:

- The Signaller permits the removal of the X, Y or Z key.
- All of requirements of the Work on Track method or Authority are met.

For example, when implementing Lookout Working on bidirectional portions of line, an X, Y or Z key may be removed as an additional safety measure.

However, all of the requirements of *NWT 310 Lookout Working* and *NPR 711 Using Lookouts* must be met.



FIGURE 3: Example of an X, Y or Z key removed from the cabinet