CLAIMS

1. A method for resetting a piece of trackside detection equipment (30) of a secondary system for the detection of the occupancy of a zone (14B) of a railroad network, said secondary system belonging to a CBTC architecture, said CBTC architecture further comprising a primary system for the detection of the occupancy of said zone, based on a transmission of an instantaneous position of each train by computers (26) onboard trains (16) traveling on the network, comprising the following steps:

- using the piece of trackside detection equipment (30) of the secondary detection system to detect the trains entering and/or leaving the zone (14B) and periodically sending a second piece of occupancy information of the zone to a zone controller (50);
- using the zone controller (50) to send (140) a reset request for the piece of trackside detection equipment following reception of a second piece of occupancy information of the zone by said piece of trackside detection equipment indicating that the zone (14B) is in a second "occupied" state (E2), while a first piece of occupancy information of the zone by the primary detection system for occupancy of the zone indicates, at the same time, that the zone is in a first "free" state (E1);
- receiving (160) the reset request by the piece of trackside detection equipment (30); and
- resetting (170) the piece of trackside detection equipment,

characterized in that, at the end of the reset step for the piece of trackside detection equipment, the piece of trackside detection equipment verifies (180) that no train has been detected entering and/or leaving the zone (14B) between a moment of sending (t1), by the zone controller, of the reset request and a moment (t3) of conclusion of the reset of the piece of detection equipment; and the piece of trackside detection equipment sends, in the affirmative, a successful reset message (M2) to the zone controller (50), and, in the negative, a failed reset message (M4) to the zone controller.

2. The method according to claim 1, characterized in that, following the step of receiving (160) the reset request by the piece of trackside detection equipment (30), the piece of trackside detection equipment (30) verifies that no train has been detected entering and/or leaving the zone between a moment (t1) when the zone controller (50) has sent the reset request and a moment (t2) when the piece of trackside detection equipment has received the reset request; and, in the affirmative, the piece of trackside detection equipment carries out the step of resetting (170); and, in the negative, the piece of trackside

detection equipment does not carry out the step of resetting and sends a failed reset message (M4) to the zone controller (50).

3. The method according to claim 1 or claim 2, characterized in that the uplink communications from the piece of trackside detection equipment (30) to the zone controller (50) and downlink communications from the zone controller (50) to the piece of trackside detection equipment (30) are realized through an interlocking computer (40) acting as a communication relay.

4. The method according to any one of claims 1 to 3, characterized in that the piece of trackside detection equipment (30) being connected to two axle sensors (28A, 28B), an entry sensor situated at an entry border of the zone (14B) and an exit sensor situated at an exit border of the zone, the resetting of the piece of trackside detection equipment (30) consists of resetting an axle counter (C).

5. The method according to any one of claims 1 to 4, characterized in that the piece of trackside detection equipment (30) is able to keep a variation counter (CV) up to date for the variation of the number of axles detected over the zone during a sliding window, whose time depth (D) relative to the current moment is greater than the time separating the moment (t1) of sending, by the zone controller, of a reset request and the moment (t3) of conclusion of the reset step that follows the reception of said reset request by the piece of trackside detection equipment.

6. The method according to any one of claims 1 to 5, characterized in that, after a predefined number of reset attempts of the piece of trackside detection equipment (30) by the zone controller (50), when a failed reset message (M4) is received, the zone controller (50) sends an alarm message (MA) to an ATC system of the CBTC architecture for the validation, by an operator, of the reset of the detection equipment.