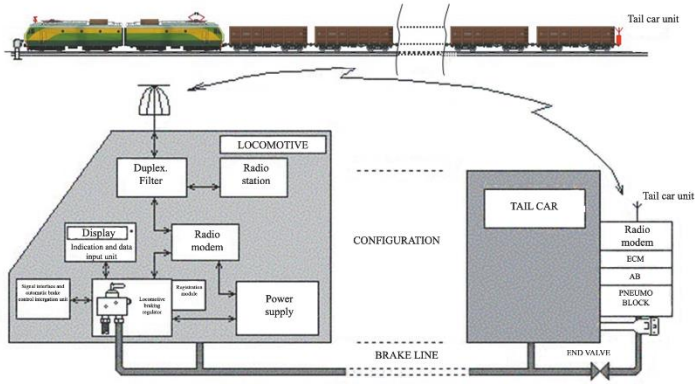
Operating principle



The system's operating principle is based on the transmission of a radio signal from head to tail of the train to perform braking or brake release by the tail car unit and to prevent accidents such as a breakage of a brake line or a leakage exceeding the allowable

Locomotive Engineering Design Bureau – a Branch of Russian Railways

SYSTEM FOR HIGH WEIGHT AND LENGTH TRAIN BRAKE CONTROL (STBC)

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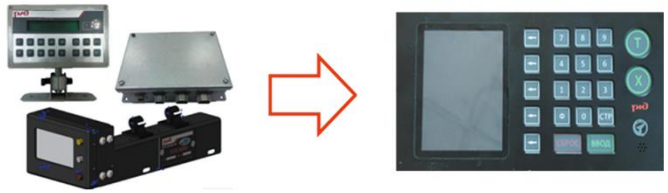
SYSTEM FOR HIGH WEIGHT AND LENGTH TRAIN BRAKE CONTROL (STBC)

STBC is designated for synchronous or asynchronous control of automatic brakes from the head and tail parts of the train

Currently, STBC is **successfully implemented** on 470 locomotive and 760 car sets. STBC is installed on 276 locomotives (463 sections)

The system is certified both for compliance with technical specifications and TR CU 001/2011

In 2017, within the framework of the **New Link** competition, a project of the system's modernization of called Intelligent System for High Weight and Length Train Brake Control (ISTBS) was presented, which was approved by the expert commission to be implemented



ISTBS is able to carry out the flushing of the brake line and reduced testing of the car brakes in a semi-automatic mode. The system also allows to control the pressure of the brake line in the tail car, which will help to create favorable conditions for the development of driving freight trains without a driver's assistant

ISTBS retained the functionality and compatibility with previous STBS versions, and has expanded it towards integration with the automatic driving systems and driver's electronic brake valves

ISTBC advantages:

1. Monitoring of the brake line sustainability and condition
2. Reducing the cost of maintaining the locomotive fleet
3. Integration with autostudy systems and electronic brake valves
4. Improving the automation of driving process
5. Simplified installation, operation and maintenance of the system

At the moment, the project is at the final stage, by the end of 2019 it is planned to conduct preliminary and acceptance tests on the braking station and on electric locomotives series 2ЭС6(10) and 3ЭС4К, measures on agreement and approval of the new system and start of its serial production