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COMMITTED TO INDIA

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As India embarks on modernisation and expansion of its passenger and freight transportation network, Bombardier is a strong partner for delivering state-of-the-art rail technology. Our large manufacturing presence in India, local talent and engineering combined with our local and international experience, helps to bring India to the world stage in rail transportation. In recent years, Bombardier has consistently demonstrated and consolidated its commitment to the Indian market with several major investments.

Our various offices and production sites in India include:

- Railway Vehicle Manufacturing Site in Savli near Vadodara, Gujarat
- Propulsion and Control Centre in Manaja near Vadodara, Gujarat
- Engineering Centre in Hyderabad

- Dedicated RCS India office in Gurgaon
- Registered and Corporate office in New Delhi
- Project sites: New Delhi, Chennai, Chittaranjan Locomotive Works (CLW), Mumbai

Corporate Social Responsibility

Bombardier is committed to Corporate Social Responsibility (CSR) and has a proud record of supporting Indian communities.

Bombardier has supported various initiatives in accordance with its Corporate Social Responsibility (CSR) strategy focusing on the areas of education, environment and entrepreneurship in communities in which it operates.

Learn more about our CSR projects:
www.csr.bombardier.com

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About Bombardier

Bombardier is the world's largest manufacturer of both planes and trains. Looking far ahead while delivering today, Bombardier is evolving mobility worldwide by answering the call for more efficient, sustainable, and enjoyable transportation everywhere. Our vehicles, services and, most of all, our employees are what make us a global leader in transportation.

Bombardier is headquartered in Montréal, Canada. Our shares are traded on the Toronto Stock Exchange (BBD) and we are listed on the Dow Jones Sustainability World and North America Indices. In the fiscal year ended December 31, 2014, we posted revenues of \$20.1 billion.

Online Resources

We encourage eco-friendly practices and we are pleased to direct you to our online information sites and social media channels. If you would like to receive information about a specific product or service, please do not hesitate to contact us by email:

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Watch us on YouTube:
www.youtube.co/bombardierrail



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BOMBARDIER
the evolution of mobility

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ADVANCED SIGNALLING SOLUTIONS

For Rail Control Excellence in India

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Optimising the Flow of Trains

Rail Control Solutions

BOMBARDIER
the evolution of mobility

WORLD CLASS SIGNALLING

State of the art rail control solutions are at the heart of today's railway operations. Efficient, reliable railway networks require optimised availability, line capacity and speed, without compromise to safety. Bombardier's innovative and advanced rail control solutions provide the key to this successful combination.

Optimising the Flow of Trains

Bombardier's proven signalling solutions have been deployed in more than 60 countries over five continents. From high density mass transit systems to long distance and high speed passenger and freight operations, and cross-border solutions to advanced rapid transit systems, Bombardier's highly proven rail control solutions are adaptable to suit all needs.

Our signalling portfolio covers the whole range of *BOMBARDIER* CITYFLO** mass transit and *BOMBARDIER* INTERFLO** mainline solutions. Bombardier solutions encompass a complete palette of wayside and onboard products.

As the signalling arm of Bombardier Transportation, world leader in rail equipment and services, the Rail Control Solutions division draws on an unparalleled breadth of expertise. We combine over 100 years of rail signalling experience with an implicit understanding of our customer base and its challenges.



INTERFLO for main lines

Bombardier's *INTERFLO* offers comprehensive mainline solutions, from conventional to ERTMS Level 2 and beyond. Based on proven technology *INTERFLO* provides major enhancements to capacity flexibility and availability.

Our systems encompass integrated operations control and computerised interlocking systems, plus Automatic Train Protection (ATP) and wayside equipment. All products are interoperable and can be easily upgraded or modified, and are suitable for new or existing applications.

CITYFLO for mass transit

The Bombardier *CITYFLO* portfolio offers a wide range of solutions for mass transit. From high capacity metro to tram and airport people mover systems.

From *CITYFLO* 150 to *CITYFLO* 650, our systems encompass all requirements from cab signalling to Communications-Based Train Control (CBTC), from manual to fully automatic and driverless train operation. The advanced *CITYFLO* 650 solution is in delivery or operation on almost 30 lines around the globe.

INNOVATIVE SOLUTIONS

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Bombardier Rail Control Solutions has been a driving force within Indian rail signalling for over 25 years. We continue to pioneer advanced rail control technology in partnership with our customers.
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During this time, Bombardier has introduced the first ever jointless audio frequency track circuits, *BOMBARDIER* EBI** Track 200, in numerous automatic signalling projects for Indian Railways. We are currently delivering a contract to implement the latest mass transit CBTC technology for the first fully driverless system in India for Delhi Metro.

Bombardier has also provided traffic management systems for Mumbai's Western and Central Railways. Managed by Indian Railways, these two networks, covering nearly 800 km of track, are among the world's most densely used train operations. Every day 2,500 trains run on time, safely, accommodating approximately 7.6 million passengers.

India's First Driverless Signalling System

In 2013, Bombardier was awarded the contract to deliver the first driverless signalling solution for Delhi Metro's new Line 7, the latest part of Delhi's metro expansion plan. This ground breaking *CITYFLO 650* CBTC system will provide optimal capacity and safety levels on the 58.4km line.

In addition, Bombardier recently commissioned Delhi Metro's lines 5 and 6 operating with *CITYFLO 350*, with extension projects underway.

Reflecting the quality of its technology and the strength of the partnership, Bombardier is now the largest contractor for signalling and train control solutions for Delhi Metro Rail Corporation.



Our Products and Services

- Integrated control systems optimise line operation and traffic capacity. *EBI* Screen includes traction control, passenger information and station automation.
- Automatic Train Protection (ATP), and Operation (ATO) systems supervise train speeds. *EBI* Com radio block centres increase safety and shorten headways. *EBI* Cab onboard operates at varying levels of automation.
- *EBI* Lock Computer-Based Interlocking (CBI) systems establish the lock and release of train routes, designed for quick installation and flexibility.
- Bombardier's full range of wayside equipment includes point machines, signals, level crossing protection, detectors, track circuits and signalling relays.

