



Concord Control Systems Limited



An ISO 9001:2015 Company

Accreditations

We are an Indian Railway/Research, Designs & Standards Organization (RDSO) approved source for manufacturing various Electric & Electronic range of products and also many more products are under development. Also, we are an ISO: 9001:2015 certified organization by TUV-SUD South Asia Pvt. Ltd..



- ▶ Brushless DC (BLDC) Railway Carriage Fan
- ▶ Emergency Light Unit for Rolling Stock Applications
- ▶ Emergency Light Unit for LHB Coaches
- ▶ Battery Chargers
- ▶ LT Distribution Panels
- ▶ Control & Distribution Panels for Colour light signaling supply
- ▶ Tensile Load Testing Machine for Insulators
- ▶ Cable Protection System
- ▶ IV Coupler
- ▶ Terminal Board
- ▶ Fuse-Box



Make in India = making India the go-to destination for manufacturing



Business Opportunities

Sector	Sector brief and recent measures	Likely growth
Indian Railway	<p>With a network spanning more than 65,000 kms, the sector at present employs 1.4 million people.</p> <p>The government has recently allowed 100 per cent FDI under automatic approval route for railway infrastructure.</p>	<p>Railways offer investment opportunities in infrastructure modernisation and high speed rail networks. The government aims to award projects worth USD1,000 billion through the PPP model.</p> <p>The railway ministry envisages an investment of USD132.4 billion by 2020.</p> <p>The government's proposal to expand the rail network — increasing the track length by 20 per cent, increasing the passenger and freight carrying capacities — would present multi-billion opportunities for investors. Also, increased manufacturing activity would entail the need of transporting commodities and coal within the country.</p>



Zero Defect, Zero Effect

“Our manufacturing should have zero defect so that our product should not be rejected in the global market. Besides, we should also keep in mind that manufacturing should not have any negative impact on our environment”

About Us

Concord Control Systems Limited ., is a Lucknow based leading manufacturer of Electrical & Electronics Products for Indian Railways.

The company was Established in 2011 by Mr. Gaurav Lath (MBA) from Narsee Monjee Institute of Management Studies, Mumbai and Mr. Nitin Jain (B.E.-Mechanical Engineering) graduate from Siddhaganga Institute of Technology, Tumkur, with a vision to supply quality and innovative products to Indian Railways.

Being an eminent manufacturer and supplier in this domain, we ensure these products are of sturdy design, robust construction, durability and can easily withstand extreme working conditions. To suit the specific requirements of our clients, we offer these equipments in as per the Railways Specifications.

Bring innovation and improvisation in the products is one of our prime concern. Accordingly, we have empowered ourselves with experienced engineers and technicians. Besides, we possess state-of-the-art-infrastructure, which allows us to adopt advanced manufacturing and quality testing methodologies. Further, we aim at maintaining complete timeliness. Adhering to our ethics, the team members make sure that no compromise is made with the quality of products.

With our true-to-the-end endeavors, we have successfully become the preferred choice of our clients. Listed below are some of the other highlighting points that inspires the client to put their trust on us:

- ▶ **Quality range of products**
- ▶ **Experienced professionals**
- ▶ **Adherence to quality standards**
- ▶ **Spacious warehouse**
- ▶ **Wide distribution network**
- ▶ **On-time delivery of consignments**



Product Range

We are engaged in manufacturing and supplying a wide range of products for Indian Railways and other Railway Electrification (RE) Contractors. The complete range includes:

Coach Items

- Brushless DC Railway Carriage Fan (BLDC Fans)
- Emergency Light Unit for Rolling Stock Applications
- Emergency Light Unit for LHB Coaches
- LED Based Tail Lamp
- I.V. Coupler
- Wheel Set Earthing Equipment

Railway Electrification Items

- Battery Chargers for 110 V, 200 Ah Lead Acid Batteries
- Battery Chargers for 110 V, 40 Ah Lead Acid Batteries
- Control & Distribution Panels for Colour Light Signaling Supply (CLS Panels)
- L.T. Distribution Panels
- Tensile Load Testing Machine for Insulators
- Terminal Board
- Fuse Boxes

Quality Assurance

Our prime concern is to produce quality products so that customers can get the complete value of their money. Henceforth, we use standard raw material and use advanced production methodologies. Further, we test the products against various quality parameters. Besides, our concern towards quality improvisation is apparent from the following:

- Use of top grade raw material
- Bringing more innovative products
- Checking the products on various standards
- Providing utmost customer satisfaction
- Training our personnel

Infrastructure

Banking on our modern and updated infrastructure, we are efficiently manufacturing high quality Products. The facilities and amenities included in the infrastructure, have increased our production capacity, thereby we are delivering the consignments within the given time span. A team of competent and expert team members are managing this infrastructure and making the best use of the available facilities. The infrastructure includes:

- Manufacturing unit
- Quality Control
- Warehouse & Packaging
- Designing

All the units are fabricated with necessary machines and equipment. Our quality testing lab includes advance arrangement to test the Online Monitoring against various parameters. After manufacturing and testing the product, we store in our well-maintained warehouse.

COACH ITEMS

Brushless DC Railway Carriage Fan

- 400mm sweep Brushless DC Railway Carriage Fans for Rolling Stock Application
- Works on : Rated Voltage : 110V DC
Voltage Range : 90 – 140V DC
- Maximum input power : 28 W
- RPM: 1350
- Fan is light weight (max. 7 kgs.)
- Low noise (max. 55dB) and energy efficient
- FRP Fan Blade easily replaceable
- Motor Body is made up of Aluminum Alloy LM-6
- Fan's motor is of permanent magnet type, light weight and small size without field winding, brushes and commutator.



Emergency Light Units for Rolling Stock Application

- Switches ON automatically during extreme emergencies like derailment and accidents when the normal supply system fails below 75 Volts.
- The Emergency Light System delivers 30 Lux for an initial period of 02 Hours and with reduced 20 Lux for subsequently next 10 hours to ensure safe exit of the passengers during the time of emergency.
- Can work normally on an ambient temperature of -5°C to 55°C, with maximum train speed of 160 kmph.
- Consist of Battery Back Up System, Control circuit for charging the battery, sensing the battery charging current, voltage etc. and trip or cut off circuit for the unit to avoid over charging/deep discharge and give a visual indication.
- Facility provided for automatic charging/discharging of battery and automatic ON of LEDs as per voltages.
- Use of LEDs for efficient & high performance.
- Tested as per Indian Railway/RDSO Specification.



Emergency Light Units for LHB Coaches

- Used in LHB Coaches (AC Coaches)
- Works on 110 VAC, 110 VDC & 24 VDC Supply
- Switches ON automatically during extreme emergencies like derailments and accidents when the normal supply system fails.
- The Emergency Light System delivers full output for an initial period of 02 hours and with reduced power for subsequently next 04 hours to ensure safe exit of the passengers during the time of emergency.
- Can work normally on an ambient temperature of -5°C to 55°C, with maximum train speed of 160 kmph.
- Consist of Battery Back Up System, Control circuit for charging the battery, sensing the battery charging current, voltage etc. and trip or cut off circuit for the unit to avoid over charging/deep discharge and give a visual indication.
- Facility provided for automatic charging/discharging of battery and automatic ON of LEDs as per voltages.
- Use of LED's for efficient & high performance.
- Tested as per Indian Railway/RDSO Specification.



LED Based Tail Lamp

- Works on : SLR: 70V-140V DC (110V DC nominal) | Power Car: 18V-32V DC (24V DC nominal)
- View angle: 15° to 30°
- Radiating area (maximum): 3000 mm²
- Illumination at 1.0m in axial direction at 70V (minimum): 75 LUX
- It comprise of Red LED of high intensity provided in a suitable water proof enclosure (IP68 Std.) with fire retardant poly carbonate front glass.
- It is provided with over-current protection, reverse polarity protection and input fuse protection.



Inter-Vehicular Coupler

Inter Vehicular Coupler Rating 500 Amps are used in LHB Coaches to make electrical connection between the coaches. They are designed to work below service condition.

Ambient	-4 to 55 deg C
Average ambient	35 deg C
Train Speed	200 Km/h
Relative Humidity	Upto 98%
Altitude Max	1200 m above sea level
Atmosphere	Extremely Dusty and Desert weather. the dust content in the air may reach as high value as 1.6 mg/cubic meter.zz
Annual Rainfall	Very high in certain area : between 1750 to 6250 mm.
Coastal Area atmosphere. The	The equipment shall be design to work in humid salt laden and corrosive

maximum values of the condition shall be as under:

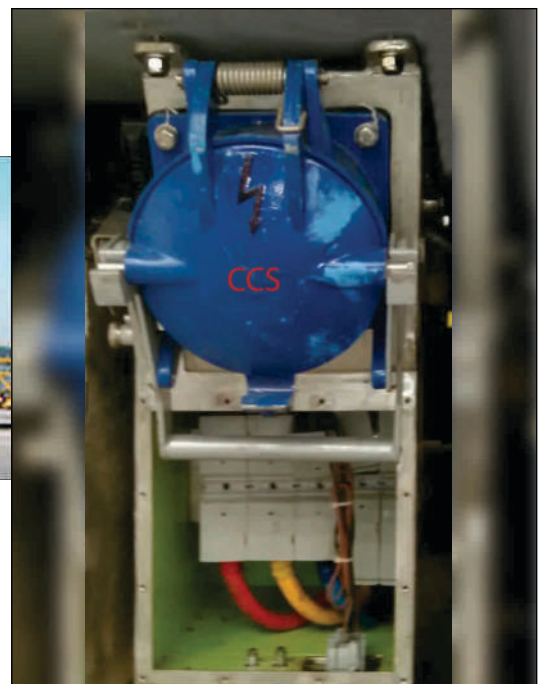
Maximum pH value	8.5
Sulphate	7 mg/liter
Max. concentration of chlorine	6 mg/liter
Max. Conductivity	130 micro Siemens/cm

Shock and Vibration The IV Coupler shall withstand satisfactorily vibrations and shocks normally encountered in

service as indicated below :

- a) Max. Vertical Acceleration – 3.0 g
 - b) Max. lateral Acceleration – 3.0 g
 - c) Max. longitudinal Acceleration – 3.0 g
- ('g' being the value of acceleration due to gravity)

The Coupler Socket, Plug Housing, Dummy Socket Housing & their covers are made of die cast aluminum making them anti corrosive & anti-rust.



Wheel Set Earthing Equipment

(RCF Specification No. EDTS101, REV.-'C')

This contact system acts as a current bridge that creates a connection by means of wiper contact (brush) from the stationary bogie frame to the rotating wheel set. This equipment is required for Earthing of bogie of LHB type coaches with wheel diameter up to 920mm and operational speed up to 160 km/Hr.

The system is required to provide alternative path for the return current of train supply in the electrified tracks, thus preventing flow of the return current through axle bearing by means of the Earthing contact and thus preventing the damage to the bearing due to electromechanical reaction in the presence of current in the bearing elements.

Resistance are provided to restrict the return current from certain bogie part and providing return current path through pre-determined low resistance path.



RAILWAY ELECTRIFICATION ITEMS

Battery Chargers for 110 V, 40 Ah Lead Acid Batteries

- Used for the charging of 55 x 2 Volt Batteries at the Railways 25 kV Traction Switching Substations.
- Suitable for operation on
 - AC INPUT: 190-50V/SINGLE PHASE/50 HZ
 - OUTPUT DC as -
 - TRICKLE : 115/135V/5 mA to 500 mA
 - BOOST : 110/150V/0.5 A to 5 A
- Controlled by 16 step manual control through rotary switches on secondary side of main transformer.
- Tested as per Indian Railway/RDSO Specification.



Battery Chargers for 110 V, 200 Ah Lead Acid Batteries

- Used for the charging of 55 x 2 Volt Batteries at the Railways 25 kV Traction Switching Substations.
- Suitable for operation on
- AC INPUT : 190-250V/SINGLE PHASE/50 HZ and gives the
- OUTPUT DC as -
 - TRICKLE : 115/135V/0.5 A to 5 A
 - BOOST : 110/160V/10 A to 30 A
- Controlled by 16 step manual control through rotary switches on secondary side of main transformer.
- Tested as per Indian Railway/RDSO Specification.



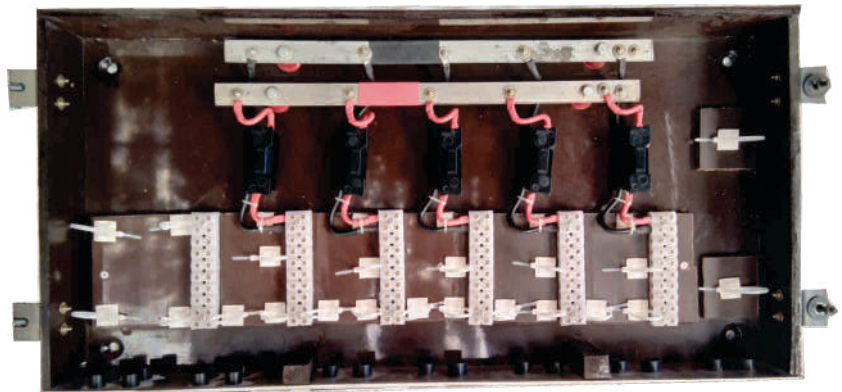
Control & Distribution Panels for Colour Light Signaling supply in 5, 10 & 25 KV AC Traction System

- Installed in the control room of an unattended 132/25 KV, 110/25KV or 66/25KV traction substation for control and distribution of 230V single phase AC supplies respectively.
- Installed either in the Station Master's room or signaling cabin at Railway stations will have provision for automatic changeover from main source of supply to either of the two stand by source in case of power failure and back to main supply after restoration.
- These panels are supplied in three ratings: 5kVA, 10kVA, 25kVA.
- Suitable for operation on
 - AC INPUT : 165-270V/SINGLE PHASE/50HZ and gives the
 - OUTPUT AC : 165-270V/SINGLE PHASE/50HZ.
- Tested as per Indian Railway/RDSO Specification.



Terminal Board:-

- Terminal Board is used in control room building for controlling & indication of Necessary auxiliary contacts.
- Input supply :- 110 VDC.
- Output Supply :- 110 VDC 16 Amps.
- Cut-off supply over 16 Amps by Fuse Link from railway approved Vendor.
- Terminal Board Should Be as per RDSO Approved Drawing ETI/PSI/501.



230 V AC L.T. Distribution Panel (ACDB)

- Installed in the control room of an unattended 132/25 KV, 110/25KV or 66/25KV traction substation for control and distribution of 230V single phase AC supplies respectively.
- The distribution panels are intended for use in most tropical climate in India where the maximum ambient temperature may reach 45°C with relative humidity reaching upto 100%.
- Suitable for operation on AC INPUT: 230V/SINGLE PHASE/50HZ and gives the OUTPUT AC: 230V/SINGLE PHASE/50HZ.
- Tested as per Indian Railway/RDSO Specification.



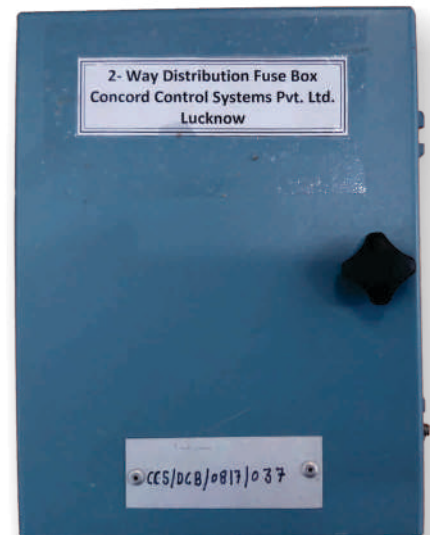
110V DC L.T. Distribution Panel (DCDB)

- Installed in the control room of an unattended 132/25 KV, 110/25KV or 66/25KV traction substation for control and distribution of 110V DC supplies respectively.
- The distribution panels are intended for use in most tropical climate in India where the maximum ambient temperature may reach 45°C with relative humidity reaching upto 100%.
- Suitable for operation on DC INPUT : 110V and gives the OUTPUT DC : 110V
- Tested as per Indian Railway/RDSO Specification.



Fuse Box:-

- Fuse boxes are used in traction substation to control overloading of power supply.
- Input supply :- 4 Way Fuse Box - 240 VAC, 2 Way Fuse Box- 110 VDC.
- Output Supply :- 4 Way Fuse Box - 240 VAC 16 Amps, 2 Way Fuse Box - 110 VDC 16 Amps
- Cut-Off Supply over 16 Amps by Fuse Link of Railways Approved vendor.



Open Fuse Box 2 way



Open Fuse Box 4 way

Tensile Load Testing Machine

- Used for Tensile, Breaking strength & Destructive test of 25kV Porcelain and Composite Insulator
- Chucknut provided at the center of top plate for adjustment of specimen under test
- Operator protection Safety Mesh provided
- Used for maximum load of about 15 Tonnes
- Used for more than 700 mm long insulators
- Testing Speed: 300 kgf/sec
- Movable, wheels provided along with brakes.
- Easy to operate, one operator is sufficient to perform the test
- Fixtures provided along with the machines for fitting the insulators in the machine
- No use of electricity, zero noise, non-polluting
- Tested as per Indian Railway/RDSO Specification.



Our Clients



BCPL
Railway Infrastructure Ltd.



FEDDERS LLOYD
CORPORATION LIMITED



Shyam Indus Power Solutions Pvt. Ltd.
ISO-9001:2000



दिल्ली मेट्रो रेल कॉर्पोरेशन लिमिटेड
Delhi Metro Rail Corporation Limited



ABENGOA
INABENSA





Concord Control Systems Limited

Office Address:

202, Garden View Apartments, 8 Rana Pratap Marg, Lucknow, U.P., INDIA - 226 001.

Work Address:

G-36, UPSIDC Industrial Estate, Chinhut, Lucknow, UP, INDIA- 226 019.

Mobile: +91-9919539555, +91-9415501553 | Telefax: +91-522-2818002

Email: railways@concordgroup.in, concord.nitin@gmail.com, concord.gaurav@gmail.com