## **User Manual**

# CRH380A High Speed EMU



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## CRH380A HIGH SPEED EMU

## INTRODUCTION

The CRH380A is a Chinese high-speed EMU(electric multiple unit) developed by China South Locomotive & Rolling Stock Corporation Limited (CSR) and is currently manufactured by CSR Qingdao Sifang Locomotive & Rolling Stock Co., Ltd. As a continuation of the CRH2-350 program it both replaces foreign technology in the CRH2 with Chinese developments and increases the top speed. The CRH380A is designed to operate at a cruise speed of 350 km/h (217 mph) and a maximum of 380 km/h (236 mph) in commercial service. The original 8-car train-set recorded a top speed of 416.6 km/h (258.9 mph) during a trial run.

## **SPECIFICATIONS**

## CRH380A Specifications

Name CRH380A **Formation** 8-Car(2 Driver cars + 6 Carriages) Wheel Arrangement Bo'Bo' Axle Load <15t 203m Length Width 3380mm Height 3700mm Power at wheels 9600kW Max. Speed 380km/h Traction Motor Type Asynchronous 3-phase AC motors 25kV 50Hz **Voltages** Manufacturer CSR Qingdao Sifang Locomotive & Rolling Stock Co., Ltd.



## **FEATURES**

Highly detailed models

Full custom sounds

Detailed passenger view including 1st class coach and 2nd class coach

Adjustable wiper speed

Pantograph spark

Flat screen in-cab displays that show next signal aspect, distance to next signal, next speed limit and distance to it on suitably equipped routes, cruise control speed set, brake pressures, door status, pantograph operation and much more.

CTCS3 signalling system

Safety system

Train service number set and destination board

Quick drive mode

Containing two packs

Normal CRH380A

Comprehensive Inspection Train-CRH380AJ0203 (Original name is CIT400)



## CAB

## CAB CONTROLS







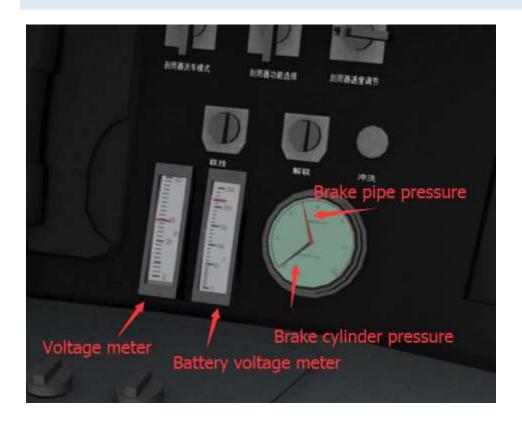
- CRH380A High Speed EMU V1.0 For TS2017
- 2. Wiper speed select (NORMAL-FAST)
- 3. Safety system switch
- 4. Master key

1. Wiper switch

- 5. Train brake
- 6. Emergency brake button
- 7. Pantograph button
- 8. Cruise button
- 9. Horn
- 10. Regulator
- 11. Reverser
- 12. Cab light switch
- 13. Headlights switch



#### CAB DISPLAY











The departure station and destination station are currently only avaiable for Chengdu East Chongqing North Nanchong Suining

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You can change the train service number, departure station and destination station by dragging the texts and numbers on the screen.

## CTCS3 SIGNALLING SYSTEM

CTCS level 3(CTCS3) signalling system is used on Chinese highspeed railways. It uses speed limit to control the train. The driver just controls the speed of the train under the track speed limit and does not need to care about the color light signals. Another important feature of CTCS2/3 system is using the continuous braking curve, which makes the braking of the train stable and comfortable.



If next speed limit is higher than current speed limit, the speed limit ring will jump to next speed limit immediately when your train enters next speed limit zone. There is no restriction for you to accelerate.

But if next speed limit is lower than current speed limit, the speed limit ring will guide you to slow down before you entering next speed limit zone. Firstly you will heard a sound alert "Beeeeeeeeee", which makes you get ready to brake. Then



the speed limit ring will jump to your current speed and begin to move continuously until it reaches next speed limit. In this duration, you need to control the brake of the train to make the speedometer be covered by the speed limit ring.

The color light signal is just used for driving tips.

Green	More than 5 or 5 signal blocks are clear. Train can run at
	track speed limit.
Double flash yellow	Track speed limit >230km/h, 4 signal blocks are clear.
	Track speed limit = 230km/h,≥5 signal blocks are clear
Flash yellow	Track speed limit >160km/h, 3 signal blocks are clear
	Track speed limit =160km/h, ≥4 signal blocks are clear
Double yellow	Track speed limit >90km/h, 2 signal blocks are clear
	Track speed limit =90km/h, ≥3 signal blocks are clear
Yellow	Track speed limit >45km/h, 1 signal blocks are clear
	Track speed limit =45km/h, ≥2 signal blocks are clear
Red	Stop before signal

## **CRUISE MODE**

When the brake is not applying, press the Cruise control button, the train will enter the cuise mode, which means the train will keep running at current speed.

Pressing the cruise control button again, or using the brake will cancel the cruise mode.



## **SCENARIOS**

The train contains 5 standard scenarios and 3 career scenarios for Southwest China High Speed Rail Network Route.

#### **Standard Scenarios**

#### 1. Tutorial

This scenario is to teach you how to drive CRH380A high speed EMU.

## 2. High Speed Test

Drive the comprehensive inspection train, CRH380AJ to reach 442km/h in a test.

## 3. Guang'an to Chongqing express

Drive the CRH380A on an eveing express from Guang'an to Chongqing.

#### 4. Non-stop Express

Drive the CRH380A from Chengdu to Chongqing in just 57 minutes.

## 5. Nanchong to Suining via Hechuan

Drive the CRH380A from Nanchong to Suining via Hechuan in poor weather conditions.

#### **Career Scenarios**

## 1. Chongqing to Chengdu via Suining

Drive the CRH380A from Chongqing to Chengdu via Suining on a fine day.

## 2. Nanchong to Guang'an

Drive the CRH380A from Nanchong to Guang'an in bad weather.

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#### 3. Non-stop Express

Drive the CRH380A from Chengdu to Chongqing in just 57 minutes.

How to use CRH380A in self-created scenarios

- 1. Create a scenario
- 2. Select the developer Simtech Vision
- 3. Tick CRH380Apack
- 4. In consist view, you will find CRH380A standard consist, CRH380A double consist or CIT400A- CRH380AJ0203
- 5. Choose any consist you want and put it on the track.
- 6. Assign driver on it
- 7. Add tasks on it
- 8. Save and play

## NOTE

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