



# EMD DDA40X for Train Simulator 2014 Owner's Manual





## A little bit of history

The EMD DDA40X was a 6,600 hp (4.9 MW) D-D diesel-electric locomotive built by the General Motors EMD division of La Grange, Illinois for the Union Pacific Railroad. Nicknamed “Centennial” and “Big Jack”, it uses two diesel engines (each providing 3,300 hp (2.5 MW)), and although recent locomotive designs such as the AC6000CW, SD90MAC and the China Railway DF8C have come close, the DDA40X remains the most powerful single-unit diesel locomotive type ever built. It is also the longest single-unit diesel locomotive ever built.

In 1969 Union Pacific began retiring their gas turbine-electric locomotives, and a more fuel-efficient replacement was needed. Union Pacific had previously ordered EMD DD35s and DD35As to replace the turbines, and the DDA40X was a further development of the concept. Forty seven locomotives of this type were built between June 1969 and September 1971, except the first one delivered in April in time to participate in the celebrations of the centennial anniversary of the completion of the Transcontinental Railroad driving the “Gold Spike Limited” and arriving in Salt Lake City, Utah, on the morning of May 10, 1969. The units were numbered from 6900 to 6946, with 6936 still in service.

The DDA40X is 98 ft (30 m) long. The frames were fabricated by an outside contractor, the John Mohr Company of Chicago, since the locomotive frame length exceeded the abilities of EMD’s plant. The concept of using more than one prime mover in a single locomotive was not new. The EMD E-series was one of the more popular dual-engine locomotives, and Baldwin had produced (but not sold) a locomotive with four diesel engines.

The ‘X’ in the designation stood for Experimental, as the DDA40X locomotives were used as the testbeds for technology that would go into future EMD products. The modular electronic control systems later used on EMD’s Dash-2 line of locomotives were first used on the DDA40X. The locomotive was the first to be able to load-test itself using its dynamic braking resistors as an electrical load so that external equipment was not required. The DDA40X used the wide-nosed cab from the FP45 cowl units. This design was superficially similar to the Canadian comfort cab introduced by Canadian National soon afterwards in 1973, but it lacked the structural reinforcements introduced in the CN design that were carried over to future wide-nosed cabs.

As the DDA40X program was deemed a testbed, a number of experiments were conducted during the service life of these locomotives. One such test included fitting a few of the units with air raid sirens in order to warn trackside personnel when away from grade crossings, but the results were inconclusive.

Source: [http://en.wikipedia.org/wiki/EMD\\_DDA40X](http://en.wikipedia.org/wiki/EMD_DDA40X)



## Cab Controls

Cab Controls are identical to the default locomotives with some extra ones.

L: Cab Lights

Ctrl+Shift+H: Step Lights

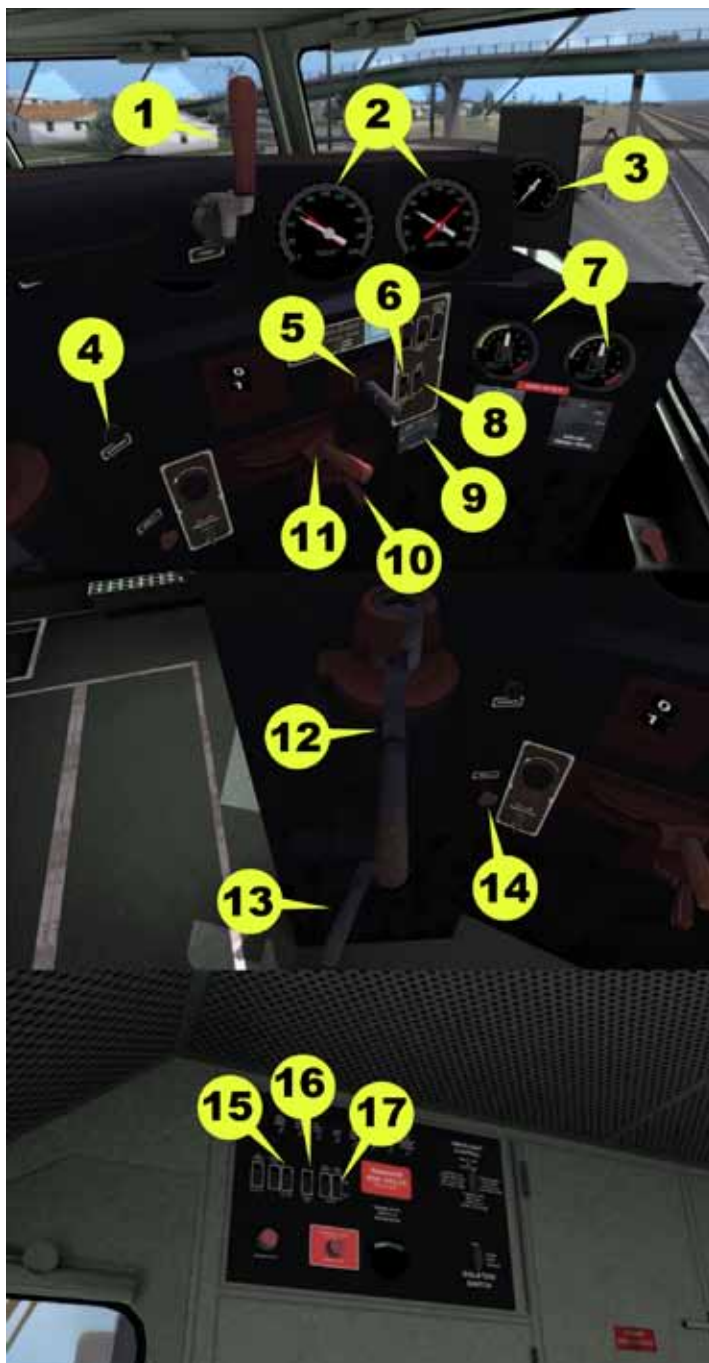
N: Strobe Light

Shift+N: Number boards Lights

M: Front mirrors

Shift+M: Rear mirrors

Cab doors and windows can be opened with the mouse.



- 1) Horn
- 2) Air gauges
- 3) Speed recorder
- 4) Sander
- 5) Selector
- 6) Instrument lights
- 7) Ammeter gauges
- 8) Cab lights
- 9) Headlights
- 10) Reverser
- 11) Throttle
- 12) Train brake
- 13) Independent brake
- 14) Bell
- 15) Numberboards lights
- 16) Class lights
- 17) Step lights.





## Screen Shots

DDA40X Type 01



DDA40X Type 02







DDA40X 6936





#### Note:

There are no "types" on the real DD40X, this designation is used only for distinguish between meshes than represent changes made with time.

## Included Scenarios

### 1) Business tour

Today you have to do a special journey from Cheyenne to Laramie. You have the right of way. There are some delays on the departure time due to some problems with the preparation of the train, but they have faith in your ability to get to Laramie before 9:00 for a very important meeting with the UP managers! You can reach 70mph in some areas. Good luck!

#### Tasks:

- Leave Cheyenne.
- Stop at Laramie Steam Track.

### 2) Entering slowly to Cheyenne

You have been driving this train from Denver to Cheyenne. Now you must wait for the yard to be cleared for you. When this is done, the signals will allow you to continue.

#### Tasks:

- Leave Speer.
- Stop at Cheyenne - North 7 West.

### 3) Orders at Granite

You are at Granite. You must couple to a few wagons behind the DDA40X and take them to Granite Loop Outer. You should also then turn the locomotive and get her ready to work with a couple of SD40-2.

#### Tasks:

- Couple wagons at Granite East Leg Wye.
- Drop off wagons at Granite Outer Loop.
- Couple engines at Granite Loop Avoid.

### 4) Test by ELECTRO - MOTIVE

Your job today is to test the brand new DDA40X at high speeds and with loaded wagons. You have two SD40-2 at the end of the train just as a precaution. You must turn the locomotive at the triangle, collect the the wagons and then go to Buford.

#### Tasks:

- Couple wagons at Laramie - Rip 3.
- Couple wagons at Laramie - Rip 2.
- Stop at Buford Center Siding East.



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