



A Series of How-To Articles For DCS Operators

TIPS & TECHNIQUES

ARTICLE 7 ALL Engines

The following series of DCS tips & techniques has been created in the hopes that it will add to your enjoyment of the M.T.H. Digital Command System.

In these brief articles we'll try to point out and clarify DCS features that will make your Proto-Sound 2.0 (and TMCC) locomotives more fun, more realistic, and more interesting to operate. If you haven't yet tried DCS, we hope these articles will entice you to visit a DCS Demo Center, pickup up a handheld controller, and see what you're missing!

DCS

*Simply The Best
Way To Run A
Railroad*





ARTICLE 7

ALL Engines

As you already know, DCS allows you to operate several locomotives independently at the same time. By using the ENG key on the handheld to switch between active engines, you can issue commands to any one engine without affecting other engines. In contrast, the ALL Engines feature makes all active PS2 engines run at the same speed and respond to the same commands — speed changes, direction, bell, whistle, etc. — at the same time.

Why would you want to do this? It's an easy way to run two or more trains on the same loop of track and pay more attention to your guests than your trains. With all PS2 engines operating the same way and responding to the same DCS commands, the stress of managing several trains at once is greatly reduced, and there's more time to interact with visitors. ALL Engines is also a quick and easy way to have several engines pull a single train. Although the Lashup feature (which we'll describe in a future DCS Tips & Techniques) is more versatile, ALL Engines is a quick and easy way to create a lashup with just a few keystrokes. You can probably think of other situations where ALL Engines operation would come in handy.

Since ALL Engines operation only affects ***active*** engines, you don't need to include all engines on your layout when using the ALL command. Locomotives you don't want included in ALL Engines operation can simply be moved to the Inactive Engines list in the DCS handheld, and they'll sit quietly during ALL Engines operation. More on that in a moment.

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HOW TO DO IT

A. Setting Up ALL Engines Operation

- Prepare Engines:** Ensure that all of the PS2 engines you want to operate are powered up and in DCS mode. If you're using ALL to have several engines pull a single train, get them coupled together and coupled to the train.
- Press the READ key:** This will move engines that are drawing power to the Active Engines list in the DCS handheld, and engines not powered up will go to the Inactive Engines List.
- Press ENG to see the Active Engines List:** If any engines are on the list that you don't want included in ALL Engines operations, move them to the Inactive Engines list (located below the Active Engines list on the screen). To do this, use the thumbwheel to scroll to the engine, press the thumbwheel to select and highlight the engine, and press soft key S1 (INA).



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- **Press Soft Key S3 (ALL) to initiate ALL Engines operation:** This will take you to the normal engine control screen, showing “ALL” as the engine name.



B. Operating in ALL Engines Mode

An ALL Engines session is operated in the same manner as operating a single PS2 engine.

The only difference is that all engines will respond simultaneously to any command from the DCS handheld: all engines will run at the same speed, stop and start simultaneously, change direction together, turn smoke on or off at the same time, and sound their whistles, horns, and bells together.

There is, however, a way to blow a single engine’s whistle or horn during ALL operation:

- **Press ENG:** This brings up the Active Engines list without affecting ALL operation.
- **Scroll to an individual engine:** Use the thumbwheel to scroll to the engine whose whistle or horn you wish to sound, *but do not press the thumbwheel to select that engine.*
- **Press W/H to sound the whistle or horn:**
- **Press Soft Key S3 (ALL):** This returns you to ALL Engines operation





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C. Ending ALL Engines Operation

To end ALL Engines operation and return to individual engine control:

- **Press DIR:** Bring all engines to a stop by pressing Director
- **Press ENG:** This brings up the Active Engines list.
- **Scroll to any active engine and press the thumbwheel to select it for individual operation.**

Tech Notes

- Lashups, TMCC® (Lionel® TrainMaster® Command Control), and conventional engines cannot operate under the ALL Engines feature.
- Every engine in the Active Engines list must be powered up before using the ALL feature, or the DCS Remote will report error messages.
- TIUs must be in Normal mode, rather than Super mode, to use the ALL Engines feature (the upcoming Fall 2007 DCS software upgrade will, however, allow ALL operation in Super mode).