

Mechanical (Tracker) Action Organs

Making a pipe play from the keyboard without electricity

How did the organist cause the pipes to play if there was no electrical cable connecting the keys to the pipes to the pipes?

The *mechanical* a.k.a. *tracker* key action is the oldest type of key action still in use today. It is called tracker action because it features a mechanical connection from the key to the valve (or pallet) under the pipe, called a *tracker*. This



Mechanical/Tracker action in large tracker organs can be very complicated!



Looking behind the mechanical/tracker action keyboards of a two-manual tracker organ – no electrical cable

action requires lengths of wooden trackers and roller bars to distribute the action to the proper pipe. Because the organist is opening the pallet through

a truly mechanical connection, there is a small amount of control over the way the pipe begins to speak. The console of a tracker organ must be

connected close to the pipework for the key action to remain light, tight and responsive.

Many times, though not always, tracker organ consoles are built right into the organ casework and pipes! If the console is detached from the casework and pipes, it must be very close by in order for the mechanical action to work properly, without being too heavy. See next page.



Notice how the keyboards are recessed into the cabinetry of the organ case



Here is a different set up! Key desk on the side, but still very close to the pipes and their wind chests.

continued

Here is Mr. Cunningham at the console of a tracker organ in Augusta, Ga. before Mr. Cunningham's hair turned white. Notice the console is not built directly into the casework and pipes. In this instance, the trackers connect to the pipes from the rear of the console, under the floor.



If we zoom out, we see the organ console in relation to the organ casework and pipes.



continued

ASSIGNMENT FOR KICKS AND GIGGLES Mechanical Tracker Organs

1. Find on YouTube the *How an Organ makes Music* video (Duke Chapel). Go to 1:38 where the presenter begins talking about *couplers* on a mechanical organ.
 - Notice when one manual is coupled to another, keys move on whichever keyboard you have coupled, even though your hands are not physically touching the coupled keyboard.
 - Pay careful attention at 2:13 – 2:50.
2. Find on YouTube the *Olivier Latry plays Reger (24 May 2012)* video.
 - The organ in St. Sulpice Church (Paris) was built in 1862, by Aristide Cavallé-Coll.
 - The organist in the video is from Notre Dame Church (Paris). The man sitting next to him is organist at St. Sulpice. The two young men on the outer left and right are assistant organists from St. Sulpice.
 - Notice how many manuals are coupled to the manual on which the organist is playing. You can tell how many manuals are coupled to the manual on which the organist is playing by counting the number of manuals that have keys going up and down without the organist touching those manuals.
 - Now notice at :58 there is a small pause, and the organist does something with his left foot – watch and listen closely – you can hear the clunk, clunk sound – then the pipe sounds change when the organist begins playing again.
 - Notice starting at 1:08 that this time the organist nods to the registrant and the registrant uses his foot to change the organ instead of the organist. Once that registration change is made, watch the registrants kick into high gear setting up for the next registration change. The question is, what are these guys kicking with their feet that we cannot see in the video?
 - Below are pictures of the actual mechanical levers on this organ that the organist and registrant are using. Use your sleuth power and study the pictures below. See if you can figure out how they work. Pay attention to fine detail.



Here are two more angles of the same organ pedal board area with its various coupling actions. Notice the foot rest for the organist!



continued

When all systems of the organ are integrated into a whole, here is what we have:

