NEWSLETTER

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Digital Consultants
Rick Sinclair
Curtis Jeung

Current Central Station 3 Version – 2.0.0 (1)
Current Central Station 2 Version – 4.2.9 (0)
Current Mobile Station 2 Version – 3.112

Wow, who knew this virus would last so long. Our appearances at train shows have been cancelled through the end of the year, so we are keeping busy with questions and our new Zoom training sessions for the Central Station. People are tuning up, repairing and re-discovering their old layouts. In a way, it is a wonderful thing, but I for one miss the face to face and cannot wait to attend a train show again. Let's hope for good things next year!

Our first article is on locomotive sliders. It may seem a little mundane, but there is a lot you should know about keeping them working. Our second article is a request to re-visit the "Primary/Secondary" relationship of the Central Station 3.

Sliders

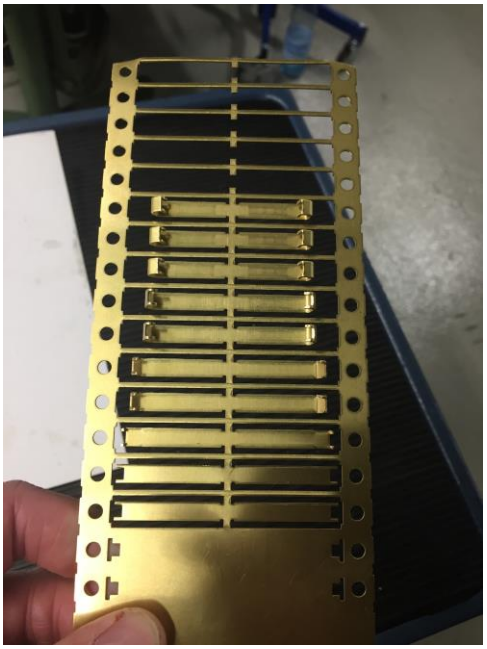
What can I say, no matter how much I sugar coat it, sliders are a boring topic. I have been doing Märklin repairs for years and have made some personal observations about sliders and the locomotive owners. Most collectors want the slider to match the locomotive and be shiny and new. What I say to that is, "electricity doesn't care." From here on out, this will be comment #1. Also, you can tell how "loved" a locomotive is by the wear and view potential problems by looking at the wear pattern. The main problem with a mis-aligned slider is it could cause the locomotive to stall in spots, particularly on turnouts.

Last September, I had the opportunity to tour the Märklin factory during the IMA and Märklin Days. There, I saw how a slider is made. The brass coil is fed into the stamping press (Fig. 1). Sequential die cutting and stamping processes are done by one machine (Fig. 2). Then they are sent off to plating and final assembly.

Fig. 1 - Brass coils

For slider wear, I have a threshold as to when a slider should be replaced, but there are a few factors that need to be considered.

Fig. 2 - Freshly stamped sliders



Factor 1

Short story, they are made from brass, Usually the first thing to wear off is the plating. This does not mean the slider is worn out, just well used (Fig. 3). Just because brass is showing, there is no reason to change it (refer to comment #1).

Factor 2

The most important thing is the slider should be smooth and flat. This will ensure that as many center rail studs as possible are always in contact with the slider. If there is a deep groove worn into the slider then it needs to be replaced (Fig. 4). If it is just a slight dip, it can still be used if adjusted properly (but again, refer to comment #1). In some cases, the spring arm is adjusted with too much pressure and the wear pattern has a “snakeskin” look to it (Fig. 5). Depending on the groove pattern, it could point to another problem. A slider should be adjusted correctly so it doesn’t need to be changed prematurely.

If a slider has a wear pattern that is on the ends or the center, it will continue to wear unevenly (Fig. 6). The slider should be adjusted. I will cover this later.

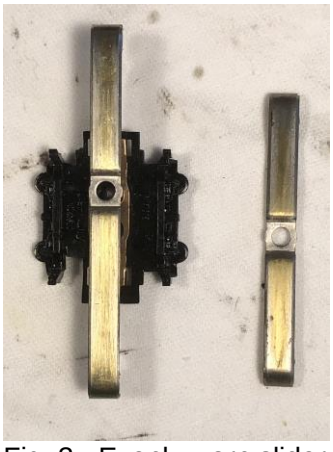


Fig. 3 - Evenly worn slider

Fig. 4 - Groove wear

Fig. 5 - “Snakeskin” wear

Fig. 6 - Uneven wear

Factor 3

The wear pattern should be even from side to side. If a locomotive is run only in a left circle the slider will show that pattern, the same goes for a right or straight wear pattern. A well-adjusted slider will have a sort of an hourglass pattern in it.

Factor 4

Obviously, a dirty slider has the same effect as dirty track or wheels. While you should clean your track and wheels, I feel that there is not much need to clean the center rail of the track. The slider is basically a wiper and should be self-cleaning and keep the center rail clean. Of course, this works best if the slider is adjusted correctly.

I have seen some sliders where there has been a lot of arcing and this burn spot gets a carbon build up. This is usually on an analog layout. Also, this is usually on a slider that is not adjusted properly and may cause stalls. Usually the slider can be adjusted, and the carbon build-up stops.

Adjusting a slider

Over the years, I have developed an ear for the sounds a locomotive makes, good ones and bad ones. I can hear the motor if it needs oil or if there is a click in the drive rods. One of the easiest things to hear is a slider that is not flat. It reminds me of the sound of a card in bicycle spokes when we played Evil Knievel as kids (look him up!).

Basically, a slider should be flat and square to the track in all three axes. You can see back in Fig. 4 that this slider was not adjusted properly, and a deep groove is worn into it.

In Fig. 7 you can see a slider that is slightly rounded. This is more than enough to hear Evil Knievel. The same goes for a concave slider shown in Fig. 8.

Fig. 7 - Noisy rounded slider

Fig. 8 – Noisy concave slider

To fix this, all you need to do is slightly bend the slider until it is as flat as it will get (Fig. 9). I use a brass bar that is nice and straight to check the sliders. This bar allows for light to show through, so you know where a slider adjustment is needed.

If there is more pressure on the tips or the middle it can he heard. If it is nice and flat, the pressure of the center rail studs is evened out and it will be much quieter.

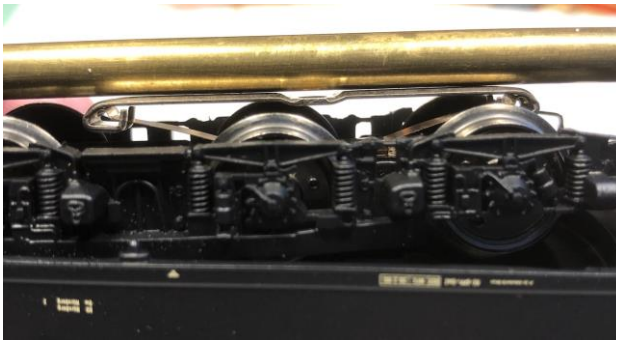


Fig. 9 - Quiet adjusted slider

Enjoy your Hobbies
Rick Sinclair

Connecting a Central Station 3 and a Central Station 3+ to a Single Layout

In this article, I will take you through a step by step setup guide to setting the Primary/Secondary (referred to as “master/slave” in the Central Station) configuration of the two devices. In this combination of controllers, the Central Station 3 (#60226 / CS3) will be connected as the Secondary controller. If the primary development of your layout was done on a CS3 and you are adding a Central Station 3plus (#60216 / CS3+), you will want to back up your data onto a USB stick as you will need to transfer the layout data to the CS3+. Once you have set up the Primary/Secondary operation, you will not be able to transfer data directly from the CS3 to the CS3+ (from the Secondary to the Primary device).

The equipment you need to get started will be: a CS3 and a CS3+, or two CS3+ (and a power source for each), a #60123 Connecting Cable, a network router or wireless network router and two RJ45 network cables long enough to reach the router.

The network router that you choose does not need to be connected to the internet but having the internet connection is always handy for being notified of updates to the Central Stations. The router does not need to be wireless, however, wireless is a better option because you can access and control your CS through any web browser on a mobile device or PC.

Pre-Setup Connections

To setup the Primary/Secondary relationship of the CS3s, you will be more successful with a pre-setup procedure before powering up your CS3s. Connect all the equipment listed, except for the 60123 cable. Do NOT connect the 60123 cable at this point. More importantly, SAVE YOUR DATA! (Preferably on a USB memory stick, which is explained at the end of this article, so you might want to read through this before starting the project.)

The RJ45 network cables will be connected to the port on the back side of the CS3, all the way to the right (when looking at the screen). Fig. 1 indicates the proper port. Do not use the port on the underside of the CS3+ for this connection.

Fig. 1: The network connection port for the CS3/3+

The other end of the RJ45 cable should be plugged into one of the LAN ports of the router. A typical home router will have 4 LAN ports and will be grouped together. An example of this is shown in Fig. 2 and they are usually labeled LAN. The router should be powered on and connected to the CS3. The CS3 is still off at this point.

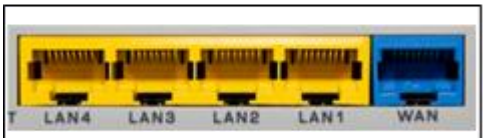


Fig. 2: LAN ports (in yellow) on a typical router

IP Lookup

Once the router connection is made, you can start-up both of your CS3s. Once booted, you will need to obtain the IP address from each machine. To do so you go to System > CS3 > IP panel on each CS3 and write down the IP Address. Make sure you note which IP Address belongs to which machine.

An example of what you are looking for is shown in Fig. 3. The IP Address for this example is 192.168.1.25. This is also the same number that will be used when connecting to your CS3 from a web browser, so having it written down will come in handy.
If you do not see any numbers in the IP Address field, you may have had the CS3s powered up before you connected the router. You should restart the CS3s to obtain an IP address.

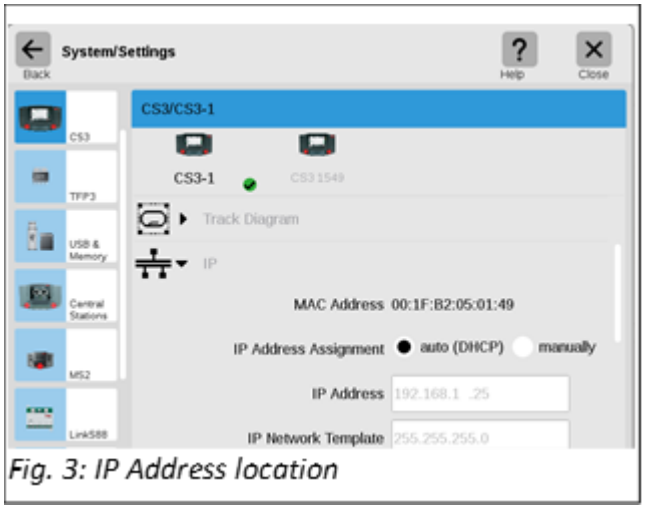


Fig. 3: IP Address location

Connecting the 60123 Connecting Cable

The 60123 Connecting Cable has two different plugs at each end, a 9-pin and a 6-pin plug. The 6-pin plug will be connected to the Primary controller and the 9-pin plug is connected to the Secondary controller. A good way to remember this is that the Secondary device has extra wiring to send data back to the Primary device and thus more pins. If you are using a CS3 with a CS3+, the CS3+ must be the Primary Controller, so always plug the 6-pin end of the connecting cable into the CS3+ unit.

Central Station 3 Dialog Boxes

At this point, you may start to see dialog boxes on each of your CS3s letting you know that multiple Primary (Master)-CS3s have been detected on the network (aka 'Maerklin-Bus' in Fig. 4). If you do not see the dialog boxes, then you may have to restart each of the CS3s. These dialog boxes will keep re-appearing after you close them until you properly set up the 'Primary/Secondary' configuration on the secondary unit. The 'Master Slave' panel is located below the panel where you found the IP Address (the 'IP' panel).

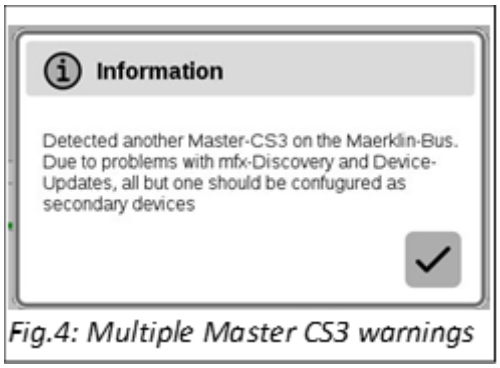


Fig.4: Multiple Master CS3 warnings

Configuring the Secondary Device

The 'Master Slave' panel on the Secondary Device will require two actions. First, you need to enter the IP Address of the Primary controller. Then, select the checkbox labeled 'Auxiliary Device.' This designates the unit as the Secondary controller. In Fig. 5, I have entered the IP Address from my Primary controller obtained in Fig. 3, NOTICE the checkbox is still unchecked. This is important, once you select the checkbox, the Secondary controller will restart, and the warning boxes will no longer re-appear. The CS3s will now be functioning as a Primary and Secondary controller.

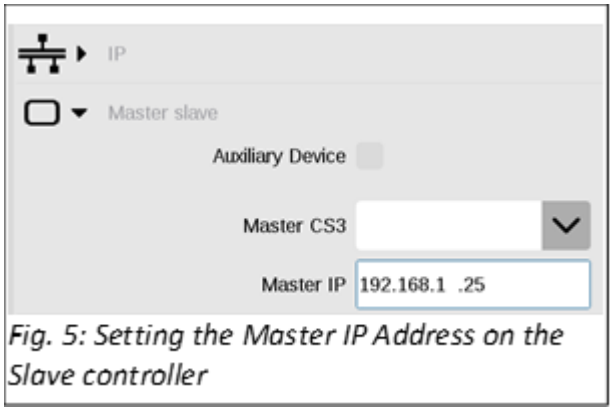


Fig. 5: Setting the Master IP Address on the Slave controller

What You May Need to Know

When your CS3s are set up to operate in a Primary/Secondary configuration, you need to be aware that any changes you make to your layout or inventory will only be kept within the memory of the Primary controller, including if you do a system save on the Secondary device.
This is because the Secondary device only pulls its operating data from the Primary device.

If you disconnect the 60123 cable between your two CS3s, each of the CS3s will revert to an individual controller status and will boot up using their own respective memory. You will see that the former Secondary device will not have any of the layout data in memory (when your two CS3s were connected).

My First Controller was a CS3 not a CS3+

If you are one of our readers who purchased the CS3 as their first unit, then added a CS3+ to their layout, it is likely that all your track data and setup have been done on the CS3. Connecting the two units properly will mean that the initial CS3 will now be a Secondary unit. The issue is, you will no longer have access to the layout and inventory information while connected as a Secondary device. And, as I stated earlier, you cannot transfer your layout data from the Secondary to the Primary device. To transfer the data, you will need to revert the CS3 to a Primary device (again, by disconnecting the 60123 cable), get a USB memory stick and save your backup files to the memory stick. When you reconnect the 60123 cable and establish the Primary/Secondary configuration, you can insert the USB stick into the Primary controller and do a 'Restore' function from the USB memory backup file.

How do I 'Save' (Backup), 'Restore', transfer My Central Station 3 Data?

From the System > CS3 > System panel, you should see the array of buttons that include 'Shutdown,' 'Save' and 'Restore.' If you have never seen this panel, then you have not been shutting down your CS3 properly. To save your data, you first must click on the 'Save' button. In Fig. 6, I show the 'Generate backup' window. Because I have a USB memory stick installed, the list displays two entries: 'CS3' and 'USB 0'.

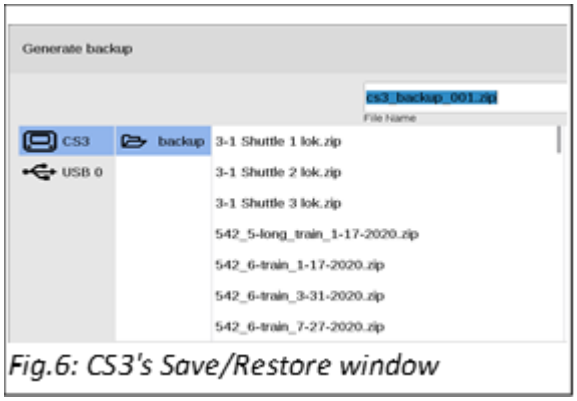


Fig.6: CS3's Save/Restore window

All Data will generally be found in the folder labeled 'backup.' You can only view the backup folder for the device selected. In this case the 'CS3' has been selected. To save your data, be sure the device and backup folder are in blue (as shown in Fig. 6). I would highly recommend you give a customized name to the backup file (upper right text in blue highlight). By default, the 'CS3_Backup_xxx.zip' name, is too generic and gives no indication of dates or differences between layout modifications. To restore your data, you just select the file from the backup list and click the 'OK' button. To transfer your data from one device to another, simply drag the file name from the backup folder and drop it on top of the device (which will place the file in the device's backup folder).

Enjoy,

Curtis Jeung

It's time for the next Märklin Digital webinar!

Topic: Adding Articles to an Article List
When: Wednesday, August 12th
Time: 11:00 AM Pacific / 12:00 noon Mountain / 1:00 PM Central / 2:00 PM Eastern

You will be able to view this webinar on either Zoom or Märklin Trains YouTube page. Please find the links below.

Topic: Marklin Digital Club Webinar
Click the link below to join the Zoom webinar:
https://zoom.us/j/95726626679?pwd=d0FYVzVaaVVXa2R3dXZ3ZHZJazh3dz09
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To contact Rick and Curtis for help with your Digital, technical and product related questions:

Phone: 650-569-1318 Hours: 6:00am – 9:00pm PST. Monday through Friday.

E-mail: digital@marklin.com