

General Instructions by Craft

Instructions for Dispatcher

Track Board Descriptions

The screen panel titled '*ATSF RAILWAY KANSAS DIVISION*' (JMRI title 'Panel') is the dispatcher's main 'track board'. It depicts main track across the division from Dodge City on the west (left side of panel) to Walton on the east (right side). All main track on the Kansas Division is under Traffic Control System (TCS) controlled by one dispatcher located at Division Offices in Newton, KS. Note that contrary to popular nomenclature used by many operators, track on the Kansas Division is not designated as main track and passing siding. All track under dispatcher control is main track. Where there are two tracks they are referred to as North Track and South Track. All other track not under control by the dispatcher can be referred to as siding or industry track.

The panel is patterned after CTC panels produced by the Union Switch & Signal company for many different railroads. Operation is fairly typical of the essential elements found on most boards.

Occupied track is shown as lighted red lamps in line on the track diagram. The larger red lamps are used for those tracks which are normally expected to hold stopped trains. Smaller red lamps are used for other tracks such as single track between control points and control point interlockings.

The lower portion of the panel contains three rows of control elements. The top row are two position selector switches which control the corresponding track switch. On the number plate for each switch is the switch number which is also located on the track diagram near the corresponding track switch. Note that these numbers are for panel purposes only and do not reflect any field numbering. The selector switches are set using the computer mouse. Clicking anywhere on the lever itself will flip the lever to the other position. Immediately above the levers are the indicator lights for the track switch, green for closed or normal and yellow for thrown or reverse. To change the track switch state, first align the switch lever as desired either closed or thrown and then click on the code button (described below). If conditions allow, the track switch will be operated. This will cause both indicator lamps to go out and then after a short delay, the lamp corresponding to the track switch state will come on.

The middle row are three position selector switches which control the track side signals around each control point (often referred to as an OS section). The levers operate like the track switch levers in that the mouse is

used to click on or near the lever to change its position. There is one difference as the levers are three position. To move the lever left one must click somewhere slightly left of the imaginary vertical line running through the middle of the lever. Likewise to move the lever to the right one must click slightly to the right of that line.

As with the track switches, setting the signals require two steps. First set the signal lever in the desired position (left, stop, or right) and then click on the code button. "Left" means signals are desired to be such that traffic is allowed to proceed to the "left" through the OS. And "Right" means just the opposite, traffic can proceed right. "Stop" means signal are placed at Stop. Note that Left and Right actions do not control the actual aspect shown on any signal.

There are three lamps above each signal lever indicating the state of the signals protecting the OS section. The left and right lamps are green and when lit indicate the signals are displaying some aspect other than Stop. The center lamp is a red lamp and when lit indicates the signals to be displaying Stop.

The next row contains momentary buttons referred to as code buttons. Nothing happens on the layout until a code button is clicked. Note that a track switch and a signal can not both be changed at the same time from a single click on the code button. When the code button is clicked, the track switch will be checked for being in correspondence with the lever on the panel. Only then will the signals change as called for by the signal lever.

Below the code buttons are the Switch Lock toggles. All main line switches (turnouts) are both physically and electrically locked preventing unauthorized operation in the field. (Switches need not be unlocked to be operated from the Dispatcher Panel.) The physical lock is unlocked via a key used by trainmen in the field. The electric lock is unlocked by operating the lock toggle on the Dispatcher Panel for the particular switch.

At the bottom of the panel there are three toggle switches. The Fleeting ON toggle switch is used to enable fleeting. Fleeting allows following movements in the same direction to be automatically established as track clears without having to click on the code button(s). Normally, once an OS section becomes occupied the signals will be held at Stop until the dispatcher sets the needed alignment and clicks the code button.

The Quiet toggle enables audio feedback when clicking on the levers and code buttons with the mouse.

The Direct Turnout toggle enables main line turnouts to be controlled via throttles. Normally this is not allowed.

The Fast Clock time is displayed in the lower left hand corner of the track diagram. The clock face shows the AM/PM and the current fast time ratio.

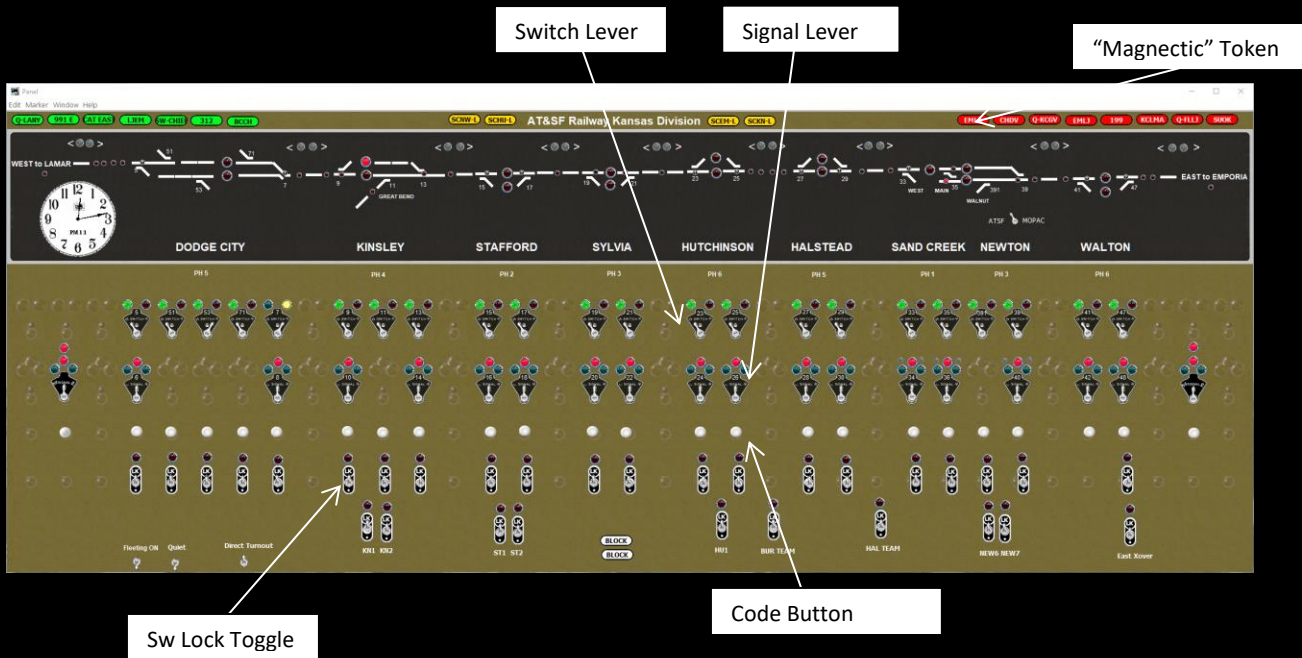


Figure 1. Dispatcher's CTC Panel

Entering and Exiting the Yard

Sand Creek

Sand Creek Yard (Newton) has three connections to dispatcher-controlled track (main track). There is one on the west end of the yard referred to as 'West', one on the east end referred to as 'Main St', and one further east referred to as 'Walnut St'. Trains entering and leaving via these connections must be coordinated by the Sand Creek Yard Master, the train's C&E, and the dispatcher.

This is the procedure for departure from the yard. When the train is ready for departure the Yard Master should set the appropriate Yard A/D switch to the Departure setting. There is one Yard A/D switch for each of the yard connections. This will light the corresponding small white flashing light on the CTC panel. Either the Yard Master or the C&E will contact the dispatcher with the train's symbol. The dispatcher then can set signals for the movement out of the yard.

Entrance to the yard is simply an authorization via signals at the desired connection to the yard. The final Interlocking Signal at the entrance will remain at Stop until such time that the Yard Master clears a route into the desired A/D track and sets the Yard A/D switch to the Arrival setting at which time the governing signal will display proceed.

Instructions for Train Handling

These instructions apply to any craft responsible for operation and / or movements of rolling stock including all engines, MOW, freight cars, and passenger cars. Maximum speed limits should never be exceeded for any reason. Any movement must be made by way of powered equipment. Fingers, uncoupling sticks, pencils, and the like are NOT powered equipment. Do not leave any equipment standing in such a way as to foul any adjacent track, as to do so tempts one to violate the aforementioned instruction. Derailments and / or other mishaps that are not attributable to human error should be reported on the Bad Order or Incident form.

The overall purpose is to simulate the prototype. If they could push a car that is fouling the track out of the way using a big stick, they certainly would have but they cannot! (No remarks about polling please.) Putting equipment on the ground was costly and time consuming, maybe even costing them their job. If one individual is acting both as engineer and conductor / switchman, then bring the engine to a complete stop before throwing any turnouts. If two individuals are handling the train, give consideration as to how the man on the ground gets to and from where he needs to be to make any movements. Before coupling, the engine should come to a stop just prior to the couplers touching so the conductor / switchman can verify the couplers are lined up correctly. Uncoupling sticks (and possibly fingers) may be used to aid coupling / uncoupling. For instance, a lightweight car may need to be held in place to make the couplers mate. Also, a cut may need to be held back slightly with the stick to prevent re-coupling.

Instructions for Yard Master

Sand Creek Yard

Description

At Sand Creek there are three entry / exit points into the yard. Eastbound trains enter the yard at the west switching lead interlocking (Cow Palace). Westbound trains enter either at the Walnut Street interlocking or at the Main Street interlocking. Departing eastbound trains leave either via Main Street or Walnut Street and departing westbound trains leave via the west switching lead interlocking. The yard is physically divided by Main Street into two sections. The western section handles all freight traffic and includes the engine facilities. The eastern section handles passenger traffic.

Because all main track through Newton including the interlocking is TCS controlled, track yard limits are established at the entry signals governing each of the interlockings. This means then that all yard tracks are governed by Rule 93. Eastbound switching movements in the eastern section (passenger) will most likely require Track and Time warrants to be issued by the Newton dispatcher.

Arrival Procedure

Follow this procedure to accept each train into the yard:

1. Determine identification of train by communication with either engineer or dispatcher.
2. Determine entry point of train by communication with yard master and dispatcher.
3. Align all turnouts required from entry point into track being used to accept the train.
4. Move the proper Yard Selector Switch to the ARRIVAL position.
5. After complete train has entered yard, move the entry point Yard Selector Switch to the upright position.



Yard Toggles

Departure Procedure

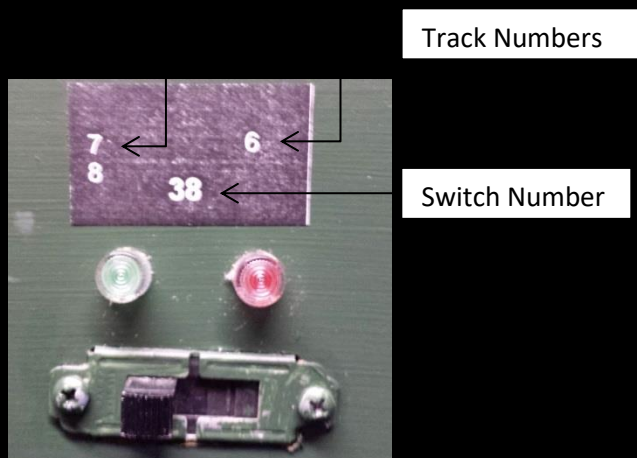
Follow this procedure to discharge each train out of the yard:

1. Determine the exit interlocking to be used and set the appropriate Departure Yard Toggle.

2. Communicate to the dispatcher the train identification and exit point of the departing train. Note that the dispatcher cannot do anything with the train before the Yard Toggle is set to Departure.
3. Release the train. This involves a couple of actions that are not necessarily performed in any sequence. One, the CTC entrance signal must be other than STOP, indicating the dispatcher has allocated the train movement. Two, all turnouts involved in moving the train out must be aligned properly. Probably the best sequence is to hold the exiting train somewhere in the clear, wait for the clear signal, align the turnouts, and release the train.
4. After complete train has exited yard, move the exit point Yard Selector Switch to the upright position.

Manual Throw Turnouts

The manual turnouts in the Sand Creek yard are controlled via slide switches along the face of the fascia. The turnouts are numbered. There are also two sets of numbers on each slide switch, a set on the left and a set on the right. These numbers correspond to the track number in the yard. To align turnouts for a particular track, one needs to move each slide switch to the position that contains the desired track number. If the track number does not appear on the slide switch, that turnout is not involved. On the east end of the yard there are two parallel lead tracks. They are designated N and S meaning North and South. Since one is always looking south the closer of the two tracks is the N or north track and the farther away track is the S or south track. Some of the yard tracks (such as track 4) can be reached from either lead. So in some cases the slide switch will show (for track 4) either 4S or 4N. So for example, if the desired lead to be used for the 4 track is the North lead use the 4N positions.



Instructions for Engineer

The Engineer's responsibility is always to be in control of the train . The Engineer must fully understand all fixed signal aspects and indications and obey same. The Engineer should always be aware of the tonnage of his train and make speed adjustments that prototypically reflect momentum effects. The Engineer will need to communicate with the Conductor and or Brakeman using agreed upon terms and or hand signals. Switching speeds must be no greater than 15 MPH. Coupling speed must be no greater than 4 MPH. Generally, when coupling, the engine should be stopped short of the intended car to allow the Conductor or Brakeman to verify that the couplers are open and aligned properly.

Engineers of trains not scheduled by Timetable must always be aware movements that may affect a Timetable scheduled train. All non-scheduled trains must be in the clear 10 minutes ahead of the scheduled arrival time of any Timetable train.

The Engineer is responsible for communication with the Dispatcher on matters of train movements including the need for any Track & Time warrants. This includes clearance to enter TCS and any unusual events while running such as derailments or incorrect signals.

Engineers should take special care to dispatch their throttle when they will no longer be controlling the train or engines.

Instructions for Conductor

The Conductor's responsibility is the overall running of the train. The Conductor will handle any needed records such as the Manifest. He must be able to communicate effectively with the Engineer using agreed upon terms and or hand signals. The Conductor must observe fixed signals during train movements and verify same with the Engineer's observance.

The Conductor will contact the Dispatcher when the need for a Track & Time warrant arises. The Conductor is responsible for the observing the expiration of the Track & Time to either extend it or cancel it. Extensions should be made judiciously and as soon as it is known that an extension may be needed. Nevertheless, safety is of prime importance. Work should be done efficiently but not in haste.

Work decisions will be the ultimate responsibility of the Conductor, but the Engineer may participate in any work move planning. The Conductor or Brakeman will align couplers as needed for coupling movements and will pull uncoupling pins for setouts.

When performing switching duties other than within yard limits the conductor must be aware of any Timetable movements that might be affected by switching operations. Any switching movements must be in the clear 10 minutes ahead of the scheduled arrival time of any Timetable scheduled train.

Instructions for Hostler

The Hostler is responsible for all light movements within yard limits. This includes removing and adding road power to trains whether the train is in the yard or at the station.

The Hostler will service all motive power for fuel, sand, and turning on the turntable. He will assign power to trains in conjunction with instructions from the Train Master.

The Hostler will also be responsible for all caboose changes on all trains in the yard. He will make caboose assignments again in conjunction with instructions from the Train Master.

Turntable Operation

See [Method of Operating Turntable at Sand Creek and Dodge City Yards](#) for instructions.

Turntable Recalibration

Should the bridge not stop at the correct track, it may help to recalibrate the table. This is done via the controller box. Press the up arrow until the display reads CAL. Then press "Go/Set" two times. The bridge should move to the initial position. Finally press the up arrow one time. The bridge should now be recalibrated.

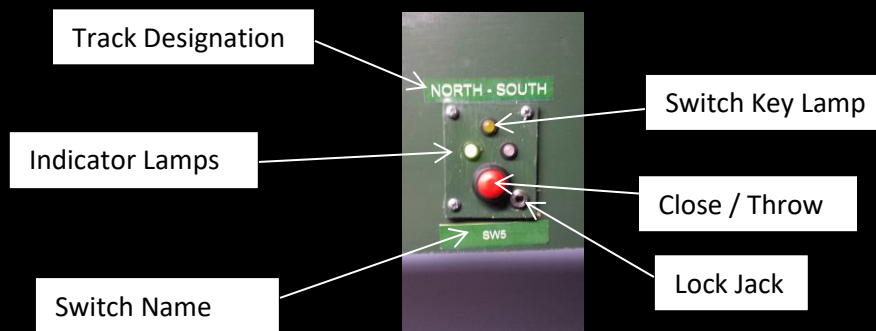
Instructions for Throwing Track Switches

There are several differing types of track switch controls in use on the Kansas Division. These instructions will cover each type except the yard switches in Sand Creek yard. Refer to the Instructions for Yard Master for the operation of those switches.

Mainline with Locks

With a couple of exceptions in Walton, all mainline switches are protected with switch locks and are normally operated by the Dispatcher. These switches should only be operated by train crews with the permission of the Dispatcher.

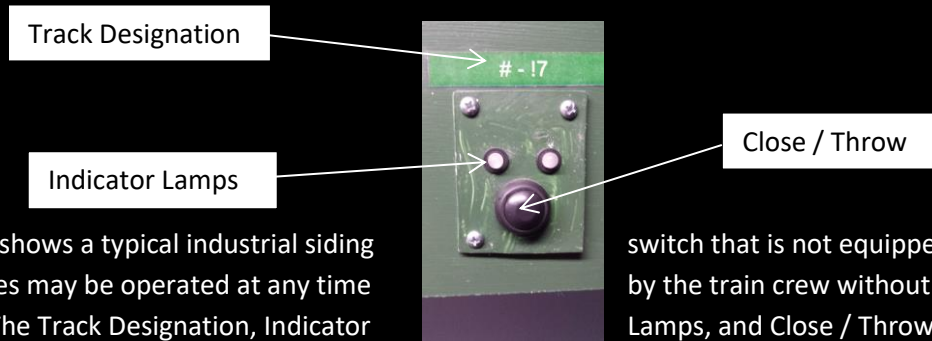
Operators will need first to contact Dispatcher and communicate which switches are desired to be unlocked. Switch IDs are located immediately under the Close / Throw button. Once the Dispatcher has unlocked a switch the indicator lamps will flash back and forth lingering on the status of the switch. Once the switch is unlocked a manual switch key must be inserted into the lock jack before operating of the switch. (These two actions may be performed in either order. Both must be done.)



This diagram shows a typical mainline switch control. There are two Indicator Lamps. There are also two Track Designations. One lamp is green, and one is red. In general, the green lamp lit indicates the switch to be closed and the red lamp lit indicates the switch to be thrown. The lamp that is lit also indicates which track of the two designations the switch currently favors. When operating the Close / Throw button, the response is not generally immediate as the lamps do not 'change' from one track to the other until the points on the track switch pass through the mid-point of travel. Push the button for half a second, then release and wait for the expected response. If the switch does not respond, push, and hold the Close / Throw button slightly longer.

Conductors or Brakemen of trains expecting to do switch work should obtain a switch key prior to departure from the trains origination point.

Industrial without Locks



This diagram shows a typical industrial siding. These switches may be operated at any time by the train crew without notifying the dispatcher. The Track Designation, Indicator Lamps, and Close / Throw all operate in the same manner as for a Mainline with Lock switch.

switch that is not equipped with any locks. by the train crew without notifying the Lamps, and Close / Throw all operate in the

Special Note concerning Track Designations: The designations are as shown in the CLIC except for any track show as a pound sign (#). Such a track is a crossing or connecting track between designated tracks. Thus, in the diagram above, if the Indicator Lamps show the switch to be thrown 'to the right', the switch is aligned for Track 17. But should the Lamps show the switch to be thrown 'to the left' as it were, the switch is not in direct alignment for any specific track but is aligned in a manner 'leading' to another track or tracks. In this case at least one more (most likely) track switch other than this one must be operated for a proper alignment.

Instructions for Telephone Use

Handsets

Communication on the division between train crews, yard crews, and the Chief Dispatcher are made via lineside telephones or locomotive cab radiotelephone, operations. For lineside telephones, phones are located on hooks along the fascia. There is a phone directory immediately above each radiotelephone, each engineer carries the phone on



whichever is to be used for on hooks along the fascia. phone location. For cab their person.

To make a call: press the middle black button (MENU), then press the left black button (INT), and then press the number of the station to be called.

