



MIDNIGHT &
SOMETIMES LATER

OPERATIONS MANUAL

Revision 2
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1 General Rules of Operation

- 1.1 The most important rule is to have fun.
- 1.2 The Superintendent may change any of these rules at any time for any reason.
- 1.3 Engineers are responsible for the running, general care, and safety of the train under their control.
- 1.4 Have fun.
- 1.5 The NWX yardmaster controls all tracks within the NWX yard limits. Train crews require permission from the NWX Yardmaster before passing yard limit signs.
- 1.6 Speeds within yard limits must be slow enough to permit a train to come to a complete stop before running into another train, standing cars, or end of track. Engineers must run trains at prototypical speeds.
- 1.7 Have fun!!
- 1.8 Trains must not stop with the lead engine or the caboose in a tunnel, unless permitted by the Superintendent or Dispatcher.
- 1.9 Maximum train length is 4 cars and one engine, however when leaving of Peoria or going up the Hillside hill a helper engine may be used.
- 1.10 Cars must not be parked on the Leah Kay Dibble Bridge without the permission of the Dispatcher.
- 1.11 Train crews must not block grade crossings for more than 10 scale minutes. Split a cut of cars if train is to remain more then 10 scale minutes at the grade crossing.
- 1.12 Have fun!!!
- 1.13 Peoria
 - 1.13.1 Staging tracks are numbered from back to front. Track next to wall is Peoria track 6, track next to fascia is Peoria track 1.
 - 1.13.2 Only one train at a time is allowed on a Peoria staging yard track.
- 1.14 Hanley Falls
 - 1.14.1 Tracks are numbered from front to back.
 - 1.14.2 Track 1 is the inbound interchange track.
 - 1.14.3 Track 2 is the outbound interchange track.
 - 1.14.4 Track 3 is the track to and from Minneapolis
- 1.15 When stopping a locomotive at Ledgeville, the locomotive must stop between the white STOP sign and the grade crossing. The front edge of the locomotive must not pass the white STOP sign.

2 Direction of Travel

- 2.1 Main direction of travel on the MSL is east to west.
- 2.2 Determining Directions
 - 2.2.1 From NWX yard to Midnight is westbound
 - 2.2.2 From NWX yard to Sometimes Later is eastbound
- 2.3 Siding Names
 - 2.3.1 The passing siding between Charles Bridge and Jessica Crossing is Palermo Siding.
 - 2.3.2 The diverging track at Lords Depot is the mainline. The track immediately in front of Lord's Depot is the depot track.
 - 2.3.3 The Sometimes Later Depot track is in front of the depot. The passing siding is the Sometimes Later Siding

3 Mainline Operation

- 3.1 Through trains approaching the Hillside wye must stop at the yard limit signs and receive permission from the NWX Yardmaster to proceed.
- 3.2 Westbound trains traveling from Sometimes Later to NWX yard must stop at the Sometimes Later Depot prior to crossing the Leah Kay Dibble Bridge and receive permission for the NWX Yardmaster to proceed.
- 3.3 Prior to proceeding up the Hillside hill, the engineer may request helper service from the NWX Yardmaster.

4 Leah Kay Dibble Bridge

- 4.1 Only one engine is allowed on the bridge at a time.
- 4.2 All engineers must be aware of the bridge position and be sure bridge is completely down before entering bridge.
- 4.3 Cars can not be parked on bridge while doing working Sometimes Later.

5 NorthWest Crossing (NWX) Yard Limits

- 5.1 The NWX Yard includes the entire Hillside Wye.
- 5.2 Yard limits are indicated by yard limit signs
- 5.3 All train movement within the NWX Yard limits is controlled by the NWX Yardmaster.
- 5.4 All trains must request permission from the NWX Yardmaster before entering the Hillside Wye or NWX Yard Limits.

6 Scheduled Trains

- 6.1 Train 102 – Morning Transfer Run

This train departs Peoria delivering cars destined for the MSL to the NWX Yard. The train is runs westbound and does not stop between Peoria and NWX Yard.

6.2 Train 1 – Morning Commuter Train.

This train departs Minneapolis traveling east and stopping at Lords Depot, Midnight, Hillside, and Sometimes Later, picking-up commuters traveling to Minneapolis. The train backs into Minneapolis after picking up commuters in Sometimes Later.

6.3 Train 201 – Morning Midnight Way Freight

This train is built by the NWX yardmaster at the end of the prior day ready for departure the next morning. The train departs NWX yard westbound to Midnight. After working Midnight it continues traveling west working Ledgeville, Hanley Falls, and Sometimes Later then returning to NWX.

6.4 Train 202 – Morning Sometimes Later Way Freight

This train is built by the NWX yardmaster at the end of the prior day ready for departure the next morning. The train departs NWX yard eastbound to Sometimes Later. After working Sometimes Later it continues traveling east working Hanley Falls, Ledgeville, and Sometimes Later then returning to NWX.

6.5 Train 301 – Afternoon Westbound Turn

This train is composed of cars received from Peoria and/or cars left in the yard after 201 and 202 depart. The train departs the NWX yard westbound to Midnight. After working Midnight it continues west, working all locations to Sometimes Later. Upon completion of work in Sometimes Later, the train turns and works all locations eastbound to Midnight. After completing work in Midnight, the train returns to NWX Yard and terminates.

6.6 Train 302 – Afternoon Eastbound Turn train.

This train is composed of cars received from Peoria and/or cars left in the yard after 201 and 202 depart. The train departs the NWX yard east bound to Sometimes Later. After working Sometimes Later it continues east, working all locations to Midnight. Upon completion of work in Midnight, the train turns and works all locations westbound to Sometimes Later. After completing work in Sometimes Later it returns to NWX Yard and terminates.

6.7 Train 2 – Afternoon Commuter Train.

This train departs Minneapolis traveling eastbound stopping at the depots in Lords Depot, Midnight, Hillside, and Sometimes Later. The train backs into Minneapolis.

6.8 Train 403 – Transfer train to Peoria

This train departs westbound in the late afternoon from the NWX Yard with cars destined for Peoria. The train backs into Peoria.

6.9 XPE 1 – (Optional) Excursion and/or Midnight & Sometimes Later Business train

This train is called by the General Superintendent. The train originates in Peoria and travels eastbound to either the NWX yard or returns to Peoria.

- 6.10 JOB 31 This train runs at the discretion of the NWX Yardmaster. It takes cars or picks-up cars from the Hanley Falls Interchange. If delivering cars to the interchange it returns the engine to the NWX yard.

7 Train Priorities

- 7.1 Train XPE 1 has priority over all other trains.
7.2 Trains 1, and 2 have priority over all other trains except XPE1
7.3 Job 31 train has the lowest priority.

8 Industries on the M&SL

- 8.1 Ledgeville
8.1.1 Hardwood Lumber Company
8.1.2 Red Wing Milling
8.2 Sometimes Later
8.2.1 Scott Industries
8.2.2 Team Track
8.2.3 MSL Freight House
8.2.4 Central Gas
8.2.5 Ed's Lumber Company
8.2.6 Grain Farmers Elevator
8.2.7 Sometimes Later Passenger Depot
8.3 Lord's Chapel
8.3.1 Lord's Chapel Passenger Depot
8.4 Hillside
8.4.1 Hillside Passenger Depot
8.5 Midnight
8.5.1 Bryan Industries
8.5.2 Mark's Better Bread
8.5.3 Doug's Feed Mill
8.5.4 Bradley Manufacturing
8.5.5 Midnight Ethanol Tank Rack
8.5.6 Midnight Ethanol Grain Dump
8.5.7 Midnight Depot

9 Positions and Responsibilities

- 9.1 General Superintendent
9.1.1 The General Superintendent is responsible for all activity on the railroad and is the final authority on all questions.
9.1.2 Duties prior to operating session:
 - Run track cleaning car over all track
 - Ensure all throttles are in proper working order

- Run Rail Op and print current manifests
- Contact and invite guest operators for each session

9.1.3 Duties during an operation session:

- Train all operators in operation of railroad and throttles.
- Be available to answer any question arising during a session

9.1.4 Duties after an operation session:

- Turn off all equipment and shut down the Digitrax DDC system

9.2 NWX Yardmaster

- Receive all incoming cars into the Midnight Yard
- Assembles all trains operating during an operating session
- Assigns locomotive and crews to all trains

9.3 Dispatcher

- Schedules all trains during an operating session
- Advises train crews in operation of their trains
- Schedules all train meets and grants trains permission to use mainline track
- Serves as dispatcher when no dispatcher is present In the absence of a dispatcher the NWX Yardmaster becomes the dispatcher for the entire railroad

9.4 Train Crew See Section 8.6 — Train Crew Duties

- Receive train from Midnight Yardmaster
- Deliver and pick-up cars in their train according to instructions on the train card received from Yardmaster
- Operate train in a safe and reasonable manner

10 Digital Command Control

10.1 The MSL uses the Digitrax Empire Builder DCC system for train control.

10.2 Only locomotives equipped with DCC decoders may operate on MSL property.

10.3 Before allowing a guest's locomotive on the MSL, the General Superintendent shall ensure that guest locomotive addresses do not conflict with other locomotives currently on the tracks.

10.4 The DCC address of a locomotive is on the train manifest, generally it is the same as the locomotive number

10.5 Using the Digitrax UT1 or UT2 throttles:

10.5.1 To select a locomotive:

- Turn the speed control all the way to the left.
- Using the selector dials dial the Loco Address.
- After dialing the loco address, press the ACQ button
- If the ST light is red, push the direction switch in the opposite direction then back to the original direction.

- If the ST light is green, the throttle and locomotive are in sync.

10.5.2 The direction switch is located on top of the throttle.

10.5.3 All locomotives on the MSL run short hood forward.

10.5.4 When engineer completes their run, they must dispatch their locomotive back to the system by:

1. Setting the speed to 00.
2. Press and hold SHIFT key, then press the DISP key.

10.6 The UT4 throttle

10.6.1 Selecting a locomotive when the throttle is unplugged from the LocoNet

10.6.2 Dial the locomotive address with the address selectors. The right knob dials tens and the left knob the hundreds.

- Plug throttle into the LocoNet port on the panel
- A **RED** status light means the locomotive is controlled by another throttle.
- A **GREEN** status light means you have control of the locomotive.

10.6.3 To select a locomotive when the throttle is plugged into the LocoNet.

- Dial the locomotive address with the address selectors. The right knob dials the tens and the left knob the hundreds.
- Press the SEL key
- A GREEN status light confirms you have control of the locomotive

10.6.4 Changing speed and direction with the UT4

- The large knob in the center of the throttle controls the Locomotive speed. Turning the knob to clockwise increases the locomotive's speed, turning the knob to counter-clockwise decreases the locomotive's speed.
- The small toggle switch located at the top of the throttle controls the locomotives direction.
- The center position of the toggle switch is the brake position and stops the locomotive's movement.
- Pushing the toggle switch to the right (F) moves the locomotive forward.
- Pushing the toggle switch to the left (R) moves the locomotive backwards.

10.6.5 To Steal a locomotive from another throttle

- Unplug the UT4 from the LocoNet jack
- Dial the address of the locomotive you want.
- Press and Hold the STEAL key and plug the throttle back into the panel's LocoNet jack.

10.6.6 To Dispatch or Release a locomotive from the UT4

- Set the locomotive speed to zero
- Set the direction lever to brake (center position)
- Select another locomotive address number
- or
- Unplug loco from LocoNet
- Press and Hold the DISP button

- While holding the DISP button, plug the throttle back into the LocoNet.

10.6.7 Function Keys

- For function F0 through F6 press the corresponding Function Key
- For functions F7 through F12 press and hold the Shift Key while pressing the desired function key.
- Function F2 is ON when held down and OFF when released.
- Function F0 turns locomotive lights on/off.

10.7 The DT300 throttle

The DT300 is two throttles in one, allowing the engineer to operate two locomotives on one throttle. One locomotive is controlled by the left knob or left throttle and another locomotive is controlled by the right knob or right throttle. The screen displays two icons of a steam locomotive, one for each throttle. The active throttle is indicated by the blinking smoke from the steam locomotive.

10.7.1 Selecting a locomotive

- Select the Left or Right throttle by pushing on the knob. The loco icon for the selected throttle flashes on the display screen.
- Press the SEL key. The last locomotive address used, and the current status of that locomotive displays on the screen.
- To select a different locomotive, dial the hundreds digits on the left throttle and the tens on the right throttle.
- When the correct address is displayed, press the SEL button to set the address.
- The throttle controlling the locomotive will have a blinking smoke on the displayed steam locomotive.

10.7.2 Recall a locomotive.

- The DT300 stores the last 8 locomotive addresses used.
- To Recall up to the last 8 locos used, press and hold the Right throttle knob. The word “Recall” displays in the text line on the screen.
- With the “Recall” displaying in the window, release the knob. “RE” then appears in the mode indicator on the bottom line on the LCD and the right side address display flashes prompting you to select a locomotive.
- Holding the Right throttle knob down for more than 6 six seconds the throttle times out and returns to LO (Loc0) mode.
- With “RE” appearing in the mode indication line, turn the Right throttle knob to browse through the 8 addresses selected in the system.
- With the address of the loco you want displays on the screen, press the SEL key.

10.7.3 Changing Speed and Direction

- Turn throttle knob to control speed or press the Y+ button to increase speed or N- button to decrease speed.
- The % of the full speed displays on the throttle side controlling the locomotive.

- To change locomotive direction, double click on the controlling throttle knob.
- Direction may also be changed by pressing once on the L button if you are using the Left throttle or R button if using the Right throttle.

10.7.4 Controlling Lights and Functions

- Pressing the FN/FO button turns lights on and off.
- To select functions F1 through F4, press the FN/FO button and the desired function button.
- To select functions F5 through F7, press and HOLD the FN/FO button and then press the desired function button.
- Active function numbers display at the top of the throttle screen.

10.7.5 Dispatching/Releasing a Locomotive

- Turn locomotive speed to 00
- Press SEL and then press the MODE buttons
- The DT300 display shows SEL on the throttle controlling the loco.
- Always release/dispatch a locomotive when it is no longer used.

10.7.6 Consisting Locomotives

- Set the address of the lead locomotive on the Right Throttle. This becomes the “top” locomotive.
- Add the second locomotive with the Left throttle.
- Move the locomotives into position and have both locomotives set to travel in the SAME DIRECTION ON THE TRACK.
- Press the Mode key twice until MU displays on the screen. The locomotive on the left throttle blinks to show it is consisted with the Right locomotive.
- To add the locomotive to consist, press the Y+ key. CN displays above the left throttle showing it is consisted to right throttle.

10.7.7 Removing a Consisted Locomotive

- Select loco to remove on the Left throttle and press MODE
- Screen flashes action to take.
- To remove loco, press the N- key. The left throttle becomes active.

10.8 The DT400 Throttle

The DT400 is two throttles in one, allowing the operation of two locomotives at one time. One locomotive is controlled by the left knob or left throttle and another locomotive is controlled by the right knob or right throttle. The screen displays two icons of a steam locomotive, one for each throttle. The icon with the blinking smoke indicates the active throttle.

10.8.1 To select a locomotive

- Activate the Left or Right Throttle by turning the knob ¼ turn. The loco icon for the selected loco flashes.
- Press the LOCO key. SEL flashes on the screen for throttle selected.
- Use the key pad and type the Address of the desired locomotive.
- Press either ENTER or LOCO to set address.

- When selected FN displays on the screen.
- The active throttle is the one with the blinking smoke.

10.8.2 Changing the speed and direction.

- Turn throttle knob for active throttle or press the Y+ or N- key to either increase speed or reduce speed.
- The percent (%) of the full speed displays on the left or right side depending upon the throttle controlling the locomotive.
- To change loco direction, push the L button if using the Left throttle or R button if using the Right throttle
or
- Change loco direction by double clicking the throttle knob controlling the locomotive.

10.8.3 Controlling Lights and Function

- To turn the functions on while FN is displayed on the screen, press the desired function number on the key pad.
- Active function numbers display on top of throttle screen.

10.8.4 Dispatching/Releasing a Locomotive

- Locomotive speed must be set to zero
- Press LOCO and DISP keys at the same time.
- The throttle screen displays SEL.

10.8.5 Consisting Two Locomotives

- Select address of lead loco on the Right Throttle knob. This becomes the top locomotive. Add the second locomotive on the Left Throttle.
- Move the locomotives into position with both locomotives traveling in the same direction
- With the Right Throttle press the MU key. The word Consist displays on throttle screen and the Left throttle address blinks indicating that is the locomotive address to consist to the Right throttle.
- Add the locomotive to the Consist by pressing the Y+ key. CN is then displayed on the screen above the Left Throttle.

10.8.6 Releasing a locomotive from the consist.

- Select the locomotive to remove on the Left Throttle by pressing the MU key. The Screen flashes instructions on what action to take.
- To remove the locomotive, press the N- key. The Left throttle becomes active and that locomotive is released from consist.

10.8.7 To Recall The Last 16 Addresses Used On This Throttle.

- Press and hold the Right and Left throttle knob until the work RECALL displays in the test line of the throttle screen.
- With RECALL displayed RE appears in the center of the bottom line.
- Turn throttle knob to browse through the addresses in the system
- Press the throttle knob or LOCO key to select the desired locomotive address.

11 RAIL OP

The Midnight & Sometimes Later uses Rail Op for car scheduling and manifest printing. Rail Op is a computer program designed to manage cars, engines, trains, and track locations and create the necessary paperwork to move freight trains on the layout.

Prior to an operating session the General Superintendent uses Rail Op to print the manifests or switch lists for the trains running for the session.

11.1.1 Each manifest contains the following information

11.1.2 The train number.

11.1.3 The engine number assigned to the train and the DCC address for that engine.

11.1.4 Crew instructions'

11.1.5 The cars in the train when it leaves the NWX yard.

11.1.6 The towns and locations in the town where the train is to pick-up and set out cars.

11.1.7 Pick-ups, local moves, and set-outs are indicated by the following colors on the train manifest.

- Red — Car is to be picked up and delivered to another location before train returns to NWX Yard.
- Blue — Car is to be moved to another industry in this town. (Local Move)
- Green — Car is to be set-out at industry indicated.
- Black — Car is picked up from an industry and returned to the NWX yard.
- @ — indicates the engine may have to do a run around to switch car.

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