



WI-FI DCS USER'S GUIDE



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Throughout the manual, you will notice large bold text in either purple, black, or red color. The color of the text indicates what it applies to in order to keep things simple.

PURPLE TEXT Refers to the WIU. Everything in purple is part of the WIU itself.

BLACK TEXT Refers to important text. Examples are passwords, search terms, network name, etc.

RED TEXT Refers to the DCS app. Everything in red is in the app itself.

DCS WI-FI INTERFACE UNIT

PRODUCT OVERVIEW



Wi-Fi
Blue when
Wi-Fi available

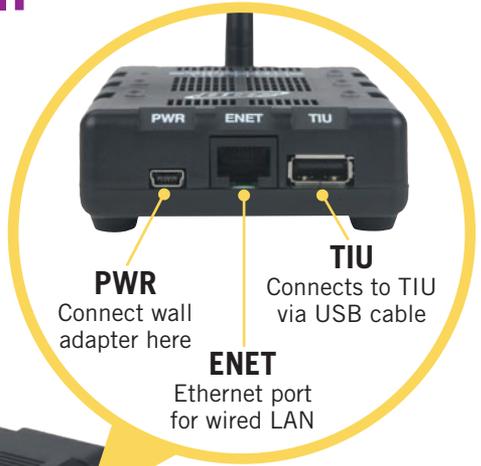
RESET
Resets module to
factory settings

POWER
Green when
plugged in

LAN
Blue when ENET
is connected

TIU
Purple when TIU
is connected

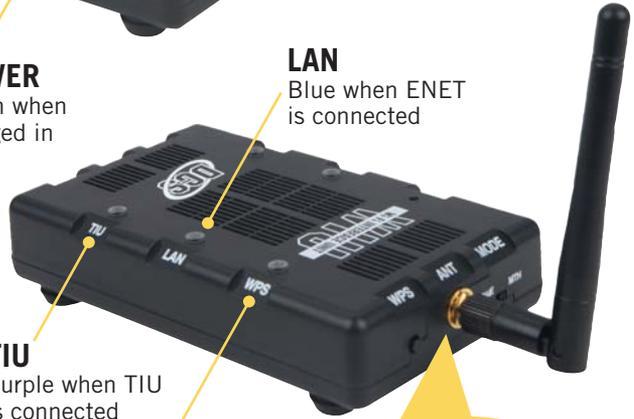
WPS
White when
WPS initiated



PWR
Connect wall
adapter here

TIU
Connects to TIU
via USB cable

ENET
Ethernet port
for wired LAN



HOME/MTH
Selects between HOME
and MTH networks

WPS
"Wi-Fi Protected Set Up"
Press to connect to your
WPS capable router

USING THE MTH NETWORK

In MTH network mode, your WIU creates its own unique Wi-Fi network. In this mode, you simply connect your smart device to the MTH network, open your app, and run your trains! Please note, your smart device will not be connected to the internet while operating in MTH network mode.

1. Attach the antenna to the WIU.
2. Set the **MTH/HOME** selector switch to **MTH**.
3. Connect the WIU to your TIU with a USB cable (included*).
4. Apply track power through the TIU.
5. Plug the WIU into an AC wall outlet.
6. Wait 1 minute for the WIU to initialize. When ready, the **PWR**, **WI-FI**, and **TIU LEDS** will be lit.
7. If you haven't already, go to the iOS App Store or Google Play Store and install the app on your smart device. Search for **MTH DCS** to quickly find the app in either app store.
8. In your smart device, navigate to Wi-Fi settings and connect to the **MTH DCS** network. The network name (SSID) and network key are printed on the label affixed to the bottom of the WIU.
9. Open the app and tap **RUN MY TRAINS**.
10. Tap **CHOOSE OR ADD AND ENGINE** near the top of the screen and follow the prompts.
11. After adding an engine(s), tap **START UP** and enjoy running your trains in Wi-Fi DCS.

** Older TIUs do not have a USB connector and require a USB to Serial adapter. For example, you can use Sabrent CB-DB9P available at Amazon or Best Buy.*

USING THE MTH NETWORK WITH MULTIPLE WIU/TIUS

In MTH network mode, one of modules will act as a router and allow your smart device to connect to multiple modules. In this mode, the “master” module, that will act as a router, must be put in MTH mode. Then, as many as 4 additional TIUs can be connected. The additional modules must be put in HOME mode. See below.

1. Select the module that will act as the router for the MTH network. Any module is fine. This will be the WIU connected to your smart device in order to run your trains.
2. Set the **MTH/HOME** selector switch to **MTH**. Take note of the **SSID** shown on the bottom of this module. You will need this later.
3. Plug the master WIU into an AC outlet. Wait 1 minute for the WIU to initialize.
4. Select a module to be connected to the master WIU described above.
5. Set the **MTH/HOME** selector switch to **HOME**.
6. Plug the “slave” WIU into an AC outlet. Wait 1 minute for the WIU to initialize.
7. Press the **WPS BUTTON** on the master WIU. The white **WPS LED** will begin flashing.
8. Immediately press the **WPS BUTTON** on the slave WIU. The slave **WPS BUTTON** must be pressed within 1 minute. The white **WPS LED** will begin flashing.
9. When the connection between the WIUs is complete, the white **WPS LED** will turn on continuously for approximately 30 seconds. After both white **WPS LEDS** have gone out, the WIUs are ready to run trains.

USING YOUR HOME WI-FI NETWORK

In HOME network mode, your WIU connects with your existing home Wi-Fi network. Just make sure your device is connected as usual, open your app, and run your trains! In this mode, you can choose the links within the app to check out our online catalogs, newsletters, or search for products.

For Routers with WPS (Wi-Fi Protected Setup)

1. Attach the antenna to the WIU.
2. Set the **MTH/HOME** selector switch to **HOME**.
3. Connect the WIU to your TIU with a USB cable (included*).
4. Apply track power through the TIU.
5. Plug the WIU into an AC wall outlet.
6. Wait 1 minute for the WIU to initialize. When ready, the **PWR**, **WI-FI**, and **TIU LEDS** will be lit.
7. Press the **WPS BUTTON** on your home Wi-Fi router and then press and release. **WPS BUTTON** on your WIU. Note, some routers may require you to press and hold the **WPS BUTTON** for several seconds. Check the manual for your specific router.
8. Wait until the white **WPS LED** on the WIU is on steadily. It will go off after a few minutes.
9. If you haven't already, go to the iOS App Store or Google Play Store and install the app on your smart device. Search for **MTH DCS** to quickly find the app in either app store.
10. Open the app and tap **RUN MY TRAINS**.
11. Tap **CHOOSE OR ADD AN ENGINE** the tap **ADD MTH ENGINE** and follow the prompts.
12. Tap **START UP** and enjoy running your trains in Wi-Fi DCS!

For Routers that Require Manual Setup (no WPS feature)

1. Attach the antenna to the WIU.
2. Set the **MTH/HOME** selector switch to **MTH**.
3. Plug the WIU into an AC wall outlet.
4. Wait 1 minute for the WIU to initialize. When ready, the **PWR** and **WI-FI LEDS** will be lit.
5. Using A PC with Wi-Fi, navigate to see the available wireless networks and connect to the **MTH_DCS-XXXX**. The network name is printed on the bottom of your module.
6. When prompted, enter the network key **MTHDCSWIFI** all lower case. The network key is also printed on the bottom of your module.
7. Open your web browser and enter the IP address **192.168.143.1** in the url address line. This is usually the top text box in your browser. This will open LuCI, the MTH DCS web interface.
8. Enter the password **MTHDCS** and hit enter. Do not change the username from **ROOT**.

9. Select the **STATION MODE** tab along the top of the screen. Then, select **WIRELESS** from within that tab. Wireless is the only option under Station Mode.
10. In the **ESSID** field, enter the network name (SSID) you want to connect the module to. This is probably the same network you connect your phone or other devices to.
11. If your network is secured (requires a password) then select the encryption type from the drop down menu. If you don't know your encryption type, try the last choice which is mixed mode. If that doesn't work, you will need to obtain your specific encryption type from your router.
12. Enter your home network password in the **KEY** field. This is also known as your **NETWORK KEY**.
13. Click the **SAVE AND APPLY** button in the lower right part of the screen.
14. Remove power from the WIU and close your browser.
15. Set the **MTH/HOME** selector switch to **HOME**.
16. Follow the instructions for connection to your home network using WPS in the previous section, however, ignore steps 7 and 8. The WIU will now automatically connect to your home network each time it is powered up.

USING A WIRED ETHERNET NETWORK

If you prefer, the WIU(s) can be hard wired to your network router using standard Ethernet cables. In this configuration, a network router is required. The smart device typically connects to the router via Wi-Fi, so there is limited benefit to using this configuration. It may improve overall performance in an environment with unreliable Wi-Fi network signaling.

1. Attach the antenna to the WIU (It isn't necessary of course but, it's a great place to store it!).
2. Set the **MTH/HOME** selector switch to **MTH** (I know, it seems odd but, trust us).
3. Connect the WIU to your TIU with a USB cable (included).
4. Connect the WIU to your network router using a standard Ethernet cable.
5. Plug the WIU into an AC wall outlet.
6. Wait 1 minute for the WIU to initialize. When ready, the **PWR**, **WLAN**, and **TIU LEDS** will be lit.
7. If you haven't already, go to the iOS App Store or Google Play Store and install the app on your smart device. Search for **MTH DCS** to quickly find the app in either app store.
8. Make sure your smart device has Wi-Fi turned on and is connected to the Wi-Fi Network of the router.
9. Open the app and tap **RUN MY TRAINS**.
10. Tap **CHOOSE OR ADD AN ENGINE** then tap **ADD MTH ENGINE** and follow the prompts.
11. Tap **START UP** and enjoy running your trains in Wi-Fi DCS!

LuCI is a web interface for your module. Think of it as a custom web page used exclusively for accessing advanced set up and features in your WIU unit. To operate Wi-Fi DCS, most people will not need to access LuCI. However, if MTH releases an update to your WIU firmware, you will want to meet her.

Accessing LuCI

1. Disconnect all cables from your WIU (power, TIU, ENET).
2. Set the **MTH/HOME** selector switch to **MTH**.
3. Plug the WIU into an AC wall outlet.
4. Using a smart device or Wi-Fi capable laptop/PC, navigate to see the available wireless networks and connect to the **MTH_DCS-XXXX**. The network name is printed on the bottom of your module.
5. When prompted, enter the network key **mthdcswifi** all lower case. The network key is also printed on the bottom of your module.
6. Open your web browser and enter the IP address **192.168.143.1** in the url address line. This is usually the top text box in your browser. This will open LuCI, the MTH DCS web interface.

Note: If your laptop is connected to the internet via your home network, it will attempt to load your home page and timeout. After the timeout, delete the url in the address line and type in 192.168.143.1 and hit enter.

mthdcs-F938

Authorization Required

Please enter your username and password.

Username

Password

Powered by LuCI candidate Branch (git-15.205.28457-77acf0) / MTH WIFI DCS 20150727-2244

7. Enter the password **mthdcs** and hit enter. Do not change the username from **ROOT**.

Note: The password is case-sensitive.

8. The home page of LuCI will be displayed.

mithdcs-F938 Status - AP Mode - Station Mode - System - Logout **LuCI REFRESH**

Status

System

Hostname	mithdcs-F938
Model	MTHDCS
Firmware Version	MTH WIFI DCS 20150727-2244 / LuCI candidate Branch (gl-15.205.28457-77ack60)
Kernel Version	3.18.19
Local Time	-
Uptime	-
Load Average	-

Memory

Total Available	<div style="width: 26%;"><div style="width: 26%;"></div></div> 7736 kB / 29196 kB (26%)
Free	<div style="width: 15%;"><div style="width: 15%;"></div></div> 4628 kB / 29196 kB (15%)
Buffered	<div style="width: 10%;"><div style="width: 10%;"></div></div> 3108 kB / 29196 kB (10%)

Network

IPv4 WAN Status	Not connected
IPv6 WAN Status	Not connected
Active Connections	<div style="width: 0%;"><div style="width: 0%;"></div></div> 37 / 16384 (0%)

DHCP Leases

Hostname	IPv4-Address	MAC-Address	Leasetime remaining
Andy_850g2	192.168.143.127	34.02.86.58:b8	11h 48m 5s
Andys-iPad	192.168.143.126	64.20.0c:5e:19:fc	11h 47m 34s

DHCPv6 Leases

Hostname	IPv6-Address	DUID	Leasetime remaining
There are no active leases.			

Wireless

Generic 802.11bgn Wireless Controller (radio) **SSID: MTH_DCS-F938**
81% **Mode: Master**
Channel: 11 (2.482 GHz)
Bitrate: 61.7 Mbit/s
BSSID: 00:0A:52:25:F9:38
Encryption: WPA2 PSK (CCMP)

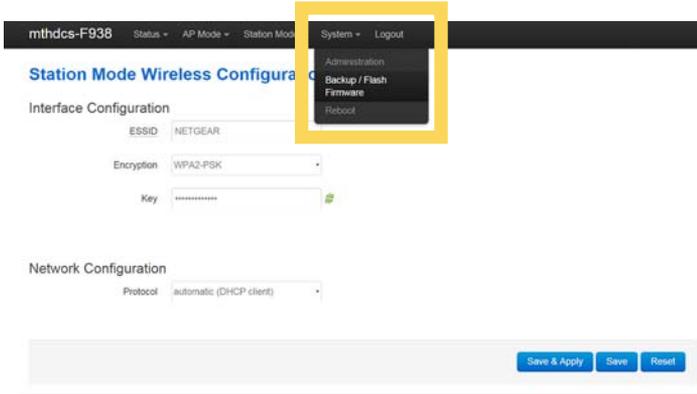
Associated Stations

MAC-Address	Network	Signal	Noise	RX Rate	TX Rate
64.20.0C:5A:19:FC	Master "MTH_DCS-F938"	-56 dBm	0 dBm	65.0 Mbit/s, MCS 7, 20MHz	58.5 Mbit/s, MCS 6, 20MHz
34.02.86.58:F8:B8	Master "MTH_DCS-F938"	-50 dBm	0 dBm	48.0 Mbit/s, MCS 0, 20MHz	65.0 Mbit/s, MCS 7, 20MHz

Powered by LuCI candidate Branch (gl-15.205.28457-77ack60) / MTH WIFI DCS 20150727-2244

Updating WIU Firmware

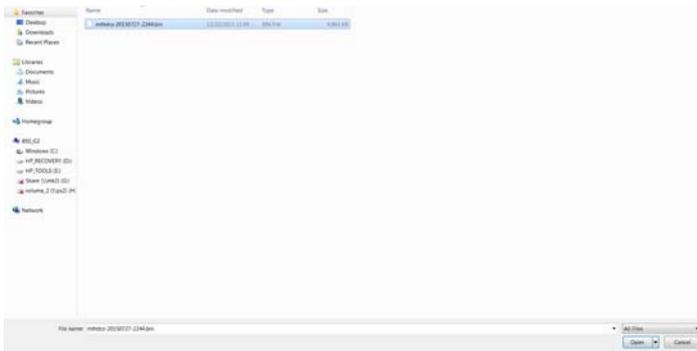
1. Access LuCI (see instructions above in this section).
2. Select the **SYSTEM** tab near the top of the page.



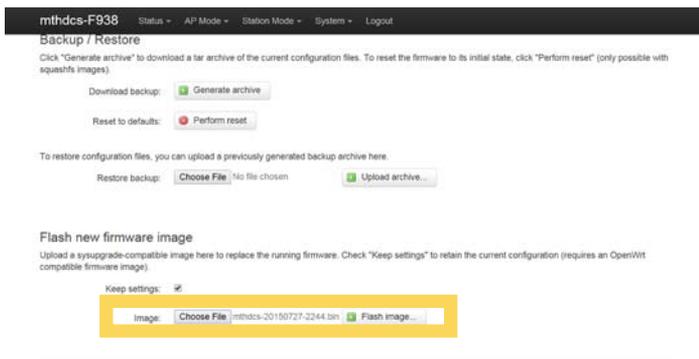
3. Select **BACK-UP/FLASH FIRMWARE** from the drop down list.
4. Scroll down the page until you see **FLASH NEW FIRMWARE IMAGE** near the bottom of the page.



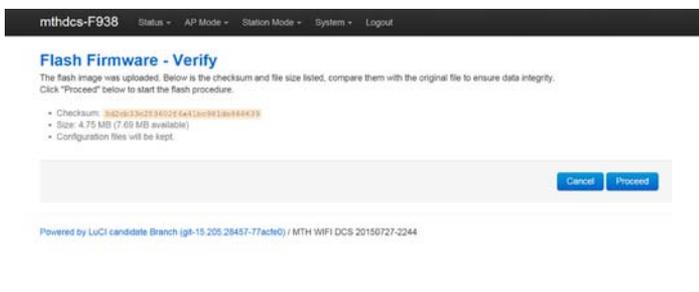
5. Leave the **KEEP SETTINGS** box checked. This saves your network settings.
6. Select **CHOOSE FILE** and navigate to the new firmware filename, select the file, and click **OPEN**.



7. Wait until the file window closes (up to 15 seconds). Verify the filename selected is displayed next to the **CHOOSE FILE** button.



8. Select **FLASH IMAGE...**
9. When the **FLASH FIRMWARE - VERIFY** page is displayed, select the blue **PROCEED** button.



10. You should now see the **SYSTEM FLASHING SCREEN**.

System - Flashing...

The system is flashing now.
DO NOT POWER OFF THE DEVICE!
Wait a few minutes before you try to reconnect. It might be necessary to renew the address of your computer to reach the device again, depending on your settings.

 Loading: Waiting for changes to be applied...

Note: While the firmware image is being flashed, DO NOT TOUCH THE DEVICE (tablet, phone, PC, laptop) OR THE MODULE! WAIT A FULL 3 MINUTES. IF YOU DO NOT, THE MODULE COULD BE DAMAGED AND REQUIRE SERVICE!

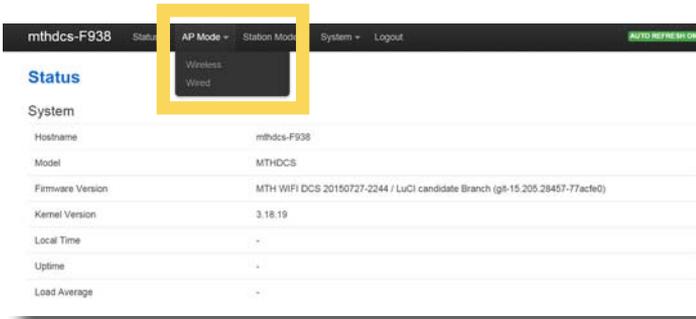
11. After waiting a full 3 minutes, it is now safe to remove power from the module and reconnect it to your layout.

Note: LuCI will never tell you that the step is complete. It will remain on the system flashing screen indefinitely. This is why you must wait 3 minutes.

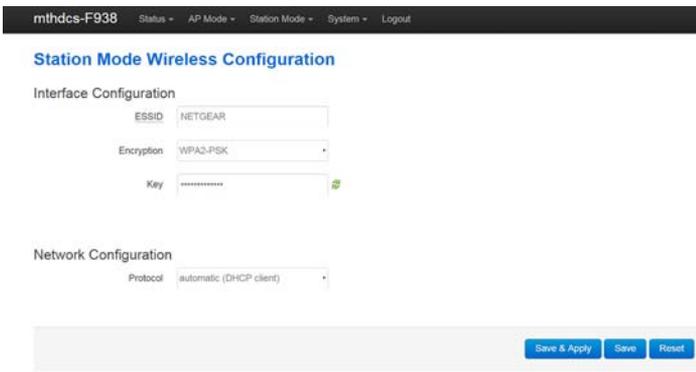
Changing the SSID and Network Key for MTH Wi-Fi Network Mode

For security purposes, like operating in a public setting, you may want to change the SSID and Network Key. These are also known as the Network Name and Password for those of us who are less technical. Either way, it's easy.

1. Access LuCI (see instructions above in this section).
2. Select the **AP MODE** tab at the top of the page.



3. Select **WIRELESS** from the drop down menu.
4. Scroll to the top of the page.
5. In the **ESSID** box, delete the contents and enter the new **SSID** or network name.

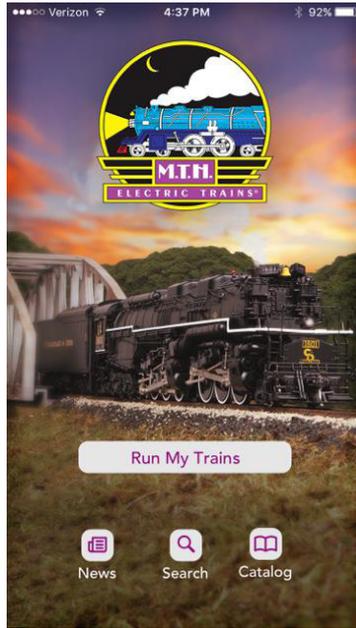


6. In the **KEY** box, delete the contents and enter the new **NETWORK KEY** or password.
7. Scroll down to the bottom of the page and select **SAVE & APPLY**.
8. Close LuCI.
9. Remove power from the WIU.
10. When power is reapplied, the **SSID** and **NETWORK KEY** (Network name and password) will be changed.

Note: The Encryption box should be left on WPA2-PSK.

TITLE SCREEN

When you first open the MTH DCS app, this is the screen you will see. You have several options described below.



Run My Trains

Run My Trains: Tap here to take you to the **MAIN ENGINE CONTROL SCREEN**



News: While connected to the internet, tap here to sign up for our newsletter or find out the latest happenings at MTH.

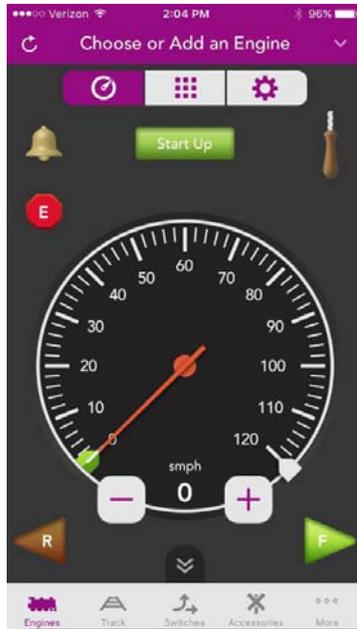


Search: While connected to the internet, tap here to search for products.



Catalog: While connected to the internet, tap here to browse through all of our catalogs.

MAIN CONTROL SCREEN



Refresh: Tap here to read the track and refresh your app to the current state of your layout

Choose or Add an Engine

'Choose or Add an Engine': Tap here to add your engines to the app and run them!



Down Arrow: Tap here to pull down your engine list



Bell: Tapping here turns the bell on and off

Start Up

Start Up: Tapping here starts up the engine currently displayed



Whistle: Touch, hold, and drag downward to play the whistle. For engines with playable whistles, see **Whistle Settings** in the **Setting Screen** section.

Note: For diesel and electric engines, the whistle pull is replaced by a horn icon. Tap and hold the horn icon to blow the horn.



E-Stop: Tap and hold here to shut down all power to the layout.



Speedometer: There are several ways to control the speed of your locomotives.

Tap once anywhere around the circular bezel once to set the speed. The engine will accelerate or decelerate at the default rate. (See Page 53 in the DCS Manual)

Tap twice anywhere around the circular bezel to set the speed at faster rate.

Touch, hold, and drag from the tip of the speed indicator needle around the circular bezel in either direction to select the desired speed.

Regardless of how you set the speed, the digital speed is displayed between the “-” and “+” icons. Incidentally, speeds are in actual scale miles per hour (smph) in DCS!



- icon: Tapping here decreases speed in increments of 1 smph.



+ icon: Tapping here increases speed in increments of 1 smph.



Reverse: Tapping here sets the direction of the engine to reverse.

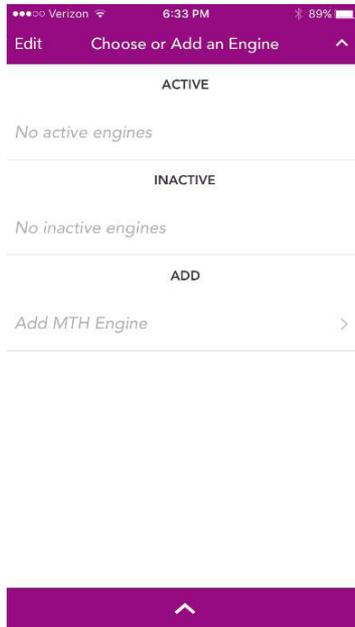


Forward: Tapping here sets the direction of the engine to forward.

Note: If you are moving in forward, tapping reverse is a good way to bring the engine to a stop. The same is true if you tap forward while moving in reverse. Go ahead. Try it.

ENGINE LIST SCREEN

On the **MAIN CONTROL SCREEN**, tapping **CHOOSE OR ADD AN ENGINE** or the down arrow, takes you to the **ENGINE LIST SCREEN**. This screen is used to manage your engine roster. From here, engines can be added or deleted. You can also see the list of currently active and inactive engines.



Up arrow: Tapping here closes the **ENGINE LIST**

ACTIVE

Active: This section displays the currently active engines. These engines are available to run!

INACTIVE

Inactive: This section displays the currently inactive engines. These engines exist in your roster but currently, are not active and ready to run.

ADD

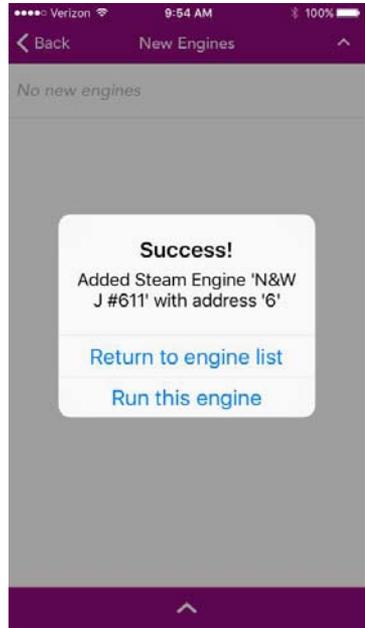
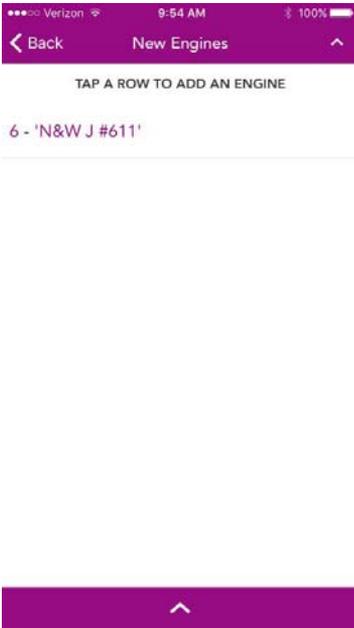
Add: Tap **ADD MTH ENGINE** and follow the prompts to add a new engine to your system.

Note: Engines should be added to your system one at a time. Never try to add multiple engines that have the same address!

ADDING NEW ENGINES

After tapping **ADD MTH ENGINE** from the **ENGINE LIST SCREEN**, a list of new engines found will be displayed.

From this screen, simply tap the engine name you would like to add. This will bring up the Confirmation screen.



From here, you can tap **RETURN TO ENGINE LIST** which will take you back to your **ENGINE LIST** or **RUN THIS ENGINE** which will take you to the **MAIN CONTROL SCREEN** for the newly added engine.

*Note: If you are adding multiple engines, the additional option of **ADD ANOTHER ENGINE** appears. Tap to go back to the list of new engines to add.*

ALTERNATE CONTROL SCREEN

The Alternate Control Screen provides quick access to features commonly used while running trains. This screen is common to all engines so, some features may not be present on all engines.



Rear Coupler: Tap to open the rear coupler (if so equipped)



Front Coupler: Tap to open the front coupler (if so equipped)



Headlight: Tap to turn the headlight on or off



Smoke: Tap to turn the smoke on or off



Engine Sound: Tap to turn the engine sounds on or off (mute)



Labor/Drift: Tap and hold the up or down arrow to activate labor or drift chuffing sounds in steam locomotives.

Note: Diesel engines will display Rev Up/Rev Down on this button. Tapping the up or down arrow will increase or decrease the sound of the engine rev level. (See Page 25 in the DCS Manual)

Protocast

Protocast: Tap to activate the Protocast feature. (See Page 29 in the DCS Manual)

PFA

PFA: Tap to activate the Passenger or Freight Announcements. (See Page 30 in the DCS Manual)

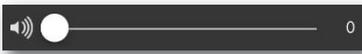
Doppler

Doppler: Tap to activate the “one shot” Doppler feature. (See Page 31 in the DCS Manual)



Boost/Brake: Tap and Hold to temporarily increase or decrease the speed. When released, the engine will return to the previously set speed.

Note: The Brake button can be held until the engine comes to a stop.



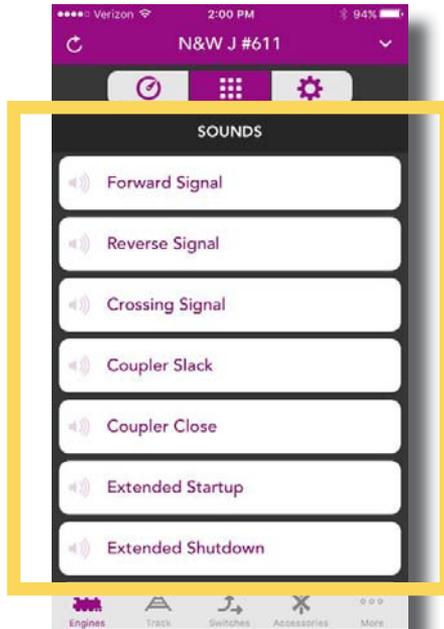
Master Volume Slider: Tap, Hold, and Drag the circle on the slider to set the master sound volume. The percentage is displayed on the right side of the slider.

SOFTKEY SCREEN

The Softkey Screen is a list additional sound, lighting, and functional features available in each particular engine. While some are common to all MTH engines, others may be unique. For example, steam engines generally do not include ditch lights while most modern diesel do. So, a ditch light control softkey is only found on diesel engines that include this feature.

Sounds

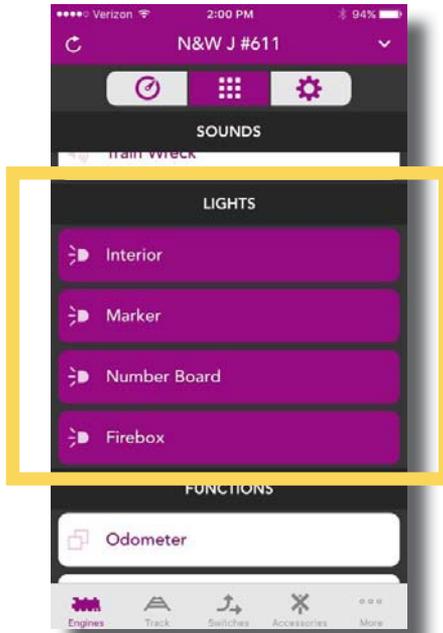
This group of softkey is pretty self-explanatory. Just tap the button and the corresponding sound will be played. If you aren't familiar with some of them, don't worry, just tap it to listen and find out!



Lights

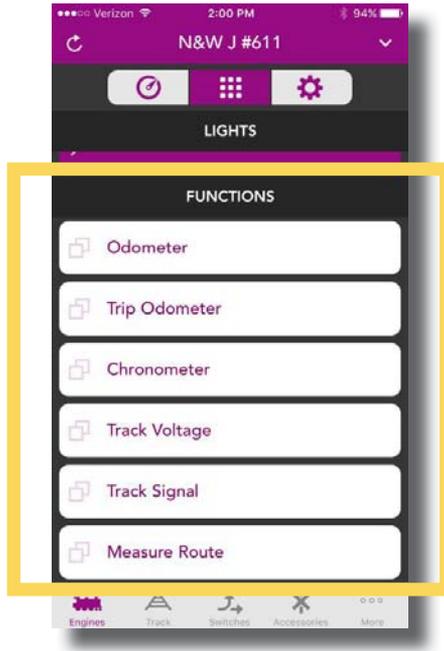
The lighting group of softkeys is probably the most unique as lighting features vary widely between engines. As with the sound group, the lighting buttons are self-explanatory. If you're not sure, go ahead and try them. You can't hurt anything!

Note: The lighting buttons turn purple when the light is on and white when it is off.



Functions

This group of softkeys is where you can find interesting functional type features available in your engine. Some brief explanation follows below however, for a more detailed understanding, you should refer to the DCS or engine manual.



Odometer: Tap to display the current odometer reading for your engine displayed in scale miles per hour.

Trip Odometer: Tap to display how far your engine has traveled since it was last powered up.

Chronometer: Tap to display the total time your engine has been powered up.

Track Voltage: Tap to display the track voltage as measured at the engines location. You can do this as the engine is moving around the track to check the power distribution on your layout.

Track Signal: Tap to display the quality of the DCS track signal on your layout. Like track voltage, this can be done with the engine moving to identify any areas of dirty track, etc. The signal quality is displayed as a number between 1 and 10 with 10 being the highest. Don't worry if your layout isn't all 10s. DCS works perfectly well with signals of 5 or higher.

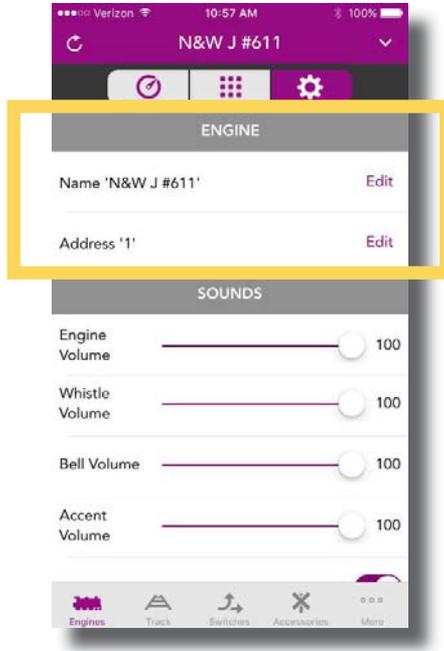
Measure Route: Tap to measure a specific route or distance on your layout in accurate scale miles. Have you ever wondered how long a route is in scale miles? Now you can find out!

SETTINGS SCREEN

The Settings Screen is where you can tailor your engine's behavior to fit your operating preferences. Like many things in DCS, the settings available are unique to your engine so, there will be differences between steam and diesel engines, for example. Most of these settings are saved in the engine and remain until you change them again. Don't worry, included in the Settings Screen is the ability to reset your engine or TIU to their original state.

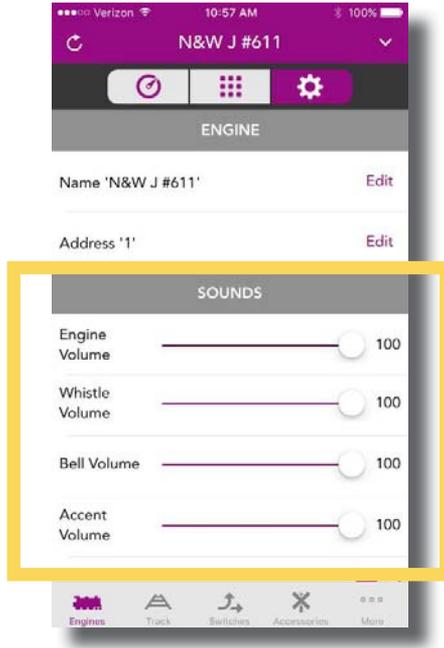
Engine Settings

You can edit the engine name or address by simply tapping **EDIT** shown to the right of both. You can name your engine whatever you like up to 16 characters. You can change your engine address to any available address that is not already assigned to another engine.



Sound Settings

You can edit a variety of sound features to optimize your experience with the DCS sound system. A little more detail follows below each screen shot.



Engine Volume: Tap, Hold, and Drag to adjust primary engine sound volume.

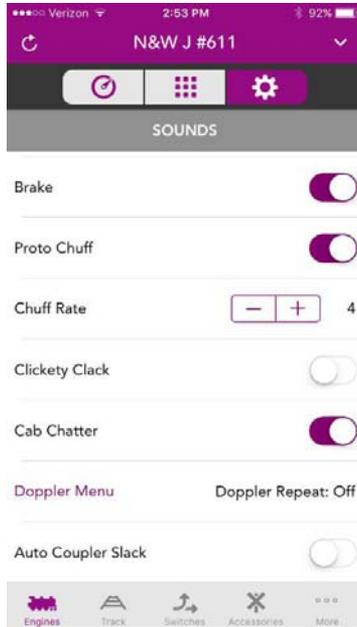
Whistle Volume: Tap, Hold, and Drag to adjust whistle (or horn) volume.

Bell Volume: Tap, Hold, and Drag to adjust the bell volume.

Accent Volume: Tap, Hold, and Drag to adjust the accent sounds volume. These are typically voices and other environmental sounds found in various sound features.

Note: The individual volume settings above remain relative to one another regardless of the overall master volume setting. Think of these settings as being able to customize how your engine's sound features are in relation to one another regardless of the overall master volume.

More Sound Settings



Brake: Tap to toggle the automatic brake sounds on or off.

Proto Chuff: Tap to toggle the Proto Chuff sounds on or off. Proto Chuff automatically plays labor of drift chuffing sounds if you are under heavy acceleration or deceleration (steam engines only).

Chuff Rate: Tap the “-” or “+” to increase or decrease the number of exhaust chuffing sound per revolution of the engines drive wheels (steam engines only).

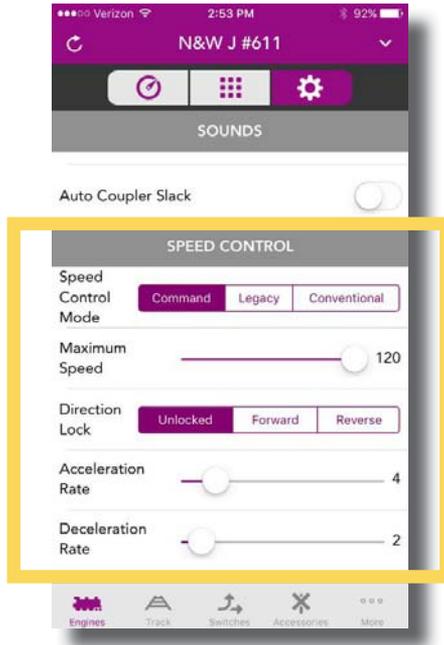
Cab Chatter: Tap to toggle the cab chatter sounds on or off. Cab chatter is voices typically heard when engines are stopped and idling.

Doppler Menu: Tap the Doppler Menu text to open a sub menu that allows you to set a Doppler Loop so the engine will sound as though it is coming from a distance and then traveling away again, off into the distance. For more information, try it or, refer to the DCS manual.

Auto Coupler Slack: Tap to toggle auto coupler slack sounds on or off. Auto coupler slack is the sound of loose couplers being pulled tightly together as the engine pulls away. Setting this to auto results in the sound playing each time the engine pulls away after being brought to a stop.

Speed Control Settings

How your engine moves around the rails can also be customized to your particular operating preferences.



Speed Control Mode: Tap to select Command, Legacy, or Conventional. Command mode is the default digital speed control mode. See the DCS manual for details of Legacy and Conventional.

Maximum Speed: Tap, Hold, and Drag to set the maximum speed for the current engine. The maximum speed will also be indicated on the speedometer on the **MAIN CONTROL SCREEN**.

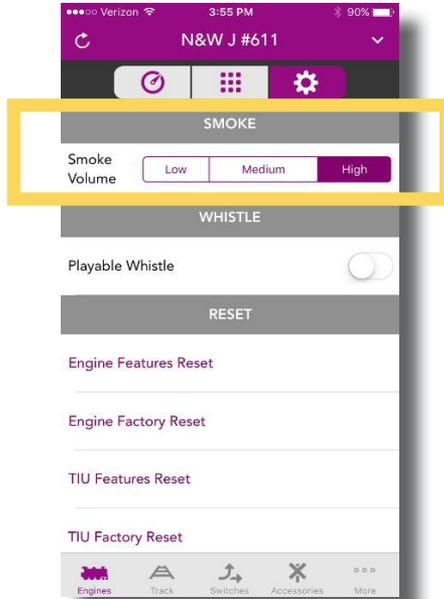
Direction Lock: Tap Forward or Reverse to lock your engine into one direction only. Tap Unlock to return to normal operation.

Acceleration Rate: Tap, Hold, and Drag to set the rate at which the engine accelerates.

Deceleration Rate: Tap, Hold, and Drag to set the rate at which the engine decelerates.

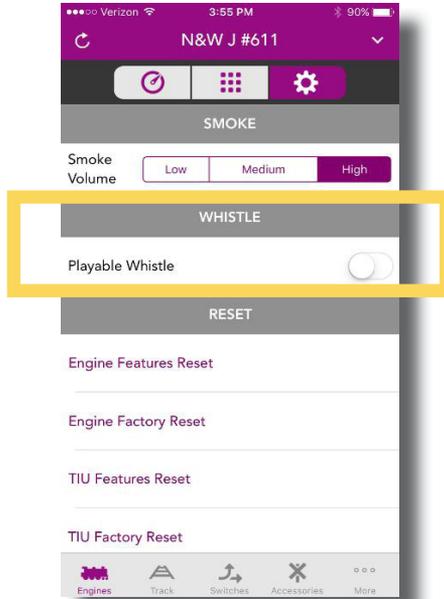
Note: Accel and Decel rates are in increments of scale miles per hour/second. So, the higher the number, the more responsive the engine will be to speed adjustments. Try setting these rates to a low number to simulate the momentum of a long train.

Smoke Settings



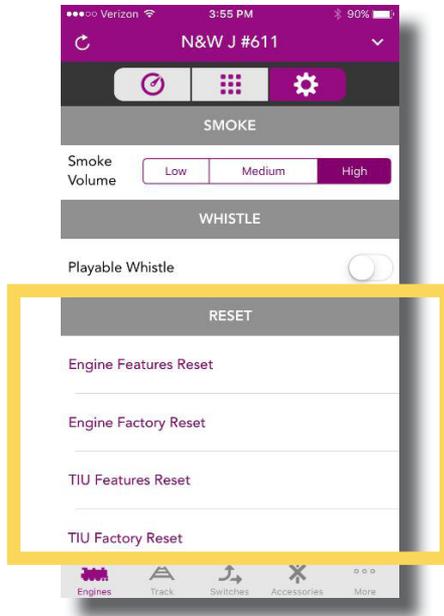
Tap Low, Medium, or High to select the desired amount of smoke output.

Whistle Settings



Tap to turn the playable whistle on or off (if so equipped). The Playable Whistle state is not stored when the engine is powered down so, you will need to turn it off and back on in the app each time you power up your engine. Your engine's whistle will not play if set to playable and is actually in the default whistle mode.

Reset Settings



Engine Features Reset: Tap to reset all features of your engine except the address and custom name.

Engine Factory Reset: Tap to reset the engine to factory defaults.

TIU Features Reset: Tap to reset the TIU without changing the TIU address.

TIU Factor Reset: Tap to factory reset the TIU.

NAVIGATIONAL TIPS

Like any app, once you know the general layout and how to move around, things get much easier. So, here are a few tips to help you find your way around.

Engine Selection

There are several ways to select engines. We've made this simple and intuitive for you.

1. Tapping the **ENGINE NAME** at the top of the screen will toggle between the current engine and the last engine ran.
*Note: If there is only one active engine, tapping the engine name will open the **ENGINE LIST**.*
2. Tapping the **DOWN ARROW ICON** in the upper right of the screen will pull down the **ENGINE LIST**.
3. From the **ENGINE LIST**, tapping any active engine will take you to the **MAIN CONTROL SCREEN** for that engine.
4. From the **ENGINE LIST**, tapping the **UP ARROW ICON** in the upper right of the screen or at the bottom center of the screen will return you to the previous screen.

Main Control, Softkey, and Settings Screens

From any of these screens, a one-finger swipe left or right will move you to the next screen over. If you notice, the three large icons at the top of these screens indicate which screen you are on by turning purple. You can also tap any one of these icons to jump immediately to that screen if you prefer.



Ctrl Icon: Tapping here takes you to the **MAIN CONTROL SCREEN**



Softkey Icon: Tapping here takes you to the **SOFTKEY SCREEN**



Settings Icon: Tapping here takes you to the **SETTINGS SCREEN**

Main Control and Alternate Control Screens

These two screens are probably the most common screen you will use while operating your trains. You can easily switch back and forth between these screens in a couple of different ways.

1. From the **MAIN CONTROL SCREEN**, swipe upward or tap **DBL DOWN ARROW ICON** to move down to the **ALTERNATE CONTROL SCREEN**.
2. From the **ALTERNATE CONTROL SCREEN**, swipe upward or tap **DBL UP ARROW ICON** to move up to the **MAIN CONTROL SCREEN**.

Refresh (Read)

You can Refresh the app to reflect your current operating state in a couple of ways. If you are familiar with DCS, Refresh is essentially the same function as pressing Read on the DCS Remote. This updates the app with the current WIU/TIU combinations, AIUs, and Engines presently available in the system.

1. Tap the **REFRESH ICON** in the upper left of the screen to update the app with the current status of your layout.
2. From the **ENGINE LIST**, swipe down and release to update the app with the current status of your layout.

Tab Bar

Across the bottom of the screen is the tab bar. The icons on this bar allow you to navigate between major functionalities of the app.



	Engines: Tap here for primary engine controls where you can add, edit, operate, and customize your engines and control preferences.
	Track: Tap here for control of variable power to tracks and DCS signaling preferences. This feature is only available in the premium version of the MTH DCS app.
	Switches: Tap here for control of switches and routes. These features are only available in the premium version of the MTH DCS app.
	Accessories: Tap here for control of operating accessories. These features are only available in the premium version of the MTH DCS app.
	More: Tap here to upgrade your app, access app information, and find links to news, videos, product searches, catalogs, and more!

TROUBLESHOOTING

CONDITION	POSSIBLE CAUSE(S)
No TIUs Found	Make sure your smart device is connected to the same Wi-Fi Network as the WIU. In MTH mode, this is the MTH Wi-Fi Network. In HOME mode, this is your home network.
	Make sure the TIU has power applied. Confirm the red power LED is lit.
	Make sure the WIU is connected to the TIU with a USB cable or, USB adapter and serial cable.
Engine Inactive - will not move to active list	Make sure the engine is on the track and track power is applied.
Whistle does not work	Make sure the playable whistle switch position matches the state of the engine. Try again after tapping the switch.
The Forward, Reverse, and Crossing signal sounds do not play	Make sure the playable whistle switch position matches the state of the engine. Try again after tapping the switch.

Service & Warranty Information

How to Get Service Under the Terms of the Limited One-Year Warranty

When you suspect an item is defective, please check the operator's manual for standard operation and trouble-shooting techniques that may correct the problem. Additional information may be found on the M.T.H. Website. Should you still require service, follow the instructions below to obtain warranty service.

First, e-mail, write, call or fax a M.T.H. Authorized Service Center (ASC) in your area to obtain Repair Authorization. You can find the list of ASCs on the M.T.H. Website, www.mthtrains.com. Authorized Service Centers are required to make warranty repairs on items sold only from that store; all other repairs may-- or may not be done at the store's own discretion. If you did not purchase the item directly from the ASC, you will need to select a National Authorized Service Center (NASC). These centers are compensated by M.T.H. to perform warranty service for any customer whose repair qualifies for warranty service. A list of NASC retailers can be located on the M.T.H. Website or by calling 410-381-2580. Should the warranty no longer apply, you may choose either an ASC or NASC retailer to service your M.T.H. Product. A reasonable service fee will be charged.

CAUTION: Make sure the product is packed in its original factory packaging including its foam and plastic wrapping material to prevent damage to the merchandise. There is no need to return the entire set if only one of the components is in need of repair unless otherwise instructed by the Service Center. The shipment must be prepaid and we recommend that it be insured. A cover letter including your name, address, daytime phone number, e-mail address (if available), Return Authorization number (if required by the service center, a copy of your sales receipt and a full description of the problem must be included to facilitate the repairs. Please include the description regardless of whether you discussed the problem with a service technician when contacting the Service Center for your Return Authorization.

Please make sure you have followed the instructions carefully before returning any merchandise for service. Authorized M.T.H. Service Centers are independently owned and operated and are not agents or representatives of M.T.H. Electric Trains. M.T.H. assumes no responsibility, financial or otherwise, for material left in their possession, or work done, by privately owned M.T.H. Authorized Service Centers.

If you need assistance at any time email MTH Service at service@mth-railking.com, or call 410 381-2580.

Limited One-Year Warranty

All M.T.H. products purchased from an M.T.H. Authorized Retailer are covered by this warranty provided the product was manufactured within five years of the date of purchase. This warranty is for the original purchaser and is non-transferable.

See our website www.mthtrains.com to identify an M.T.H. Authorized Retailer near you.

M.T.H. products may be registered online in advance of warranty work at www.mthtrains.com/warranty. The original sales receipt and the conditions below must be met regardless of whether the product is registered on the M.T.H. website in order to obtain warranty service.

M.T.H. products manufactured within five years from the date of purchase are warranted for one year against defects in material or workmanship, excluding wear items such as light bulbs, pick-up rollers, batteries, smoke unit wicks, and traction tires. We will repair, replace, or credit (at our option) the defective part without charge for the parts or labor if the following conditions are met: (1) the item is returned to an M.T.H. Authorized Service Center* (ASC) or M.T.H. National Authorized Service Center (NASC) or M.T.H. Electric Trains Service Department, (2) was manufactured within the previous five years and (3) was purchased within one year of the original date of purchase from an M.T.H. Authorized Retailer. Products manufactured after the five year cutoff from the date of purchase are not covered under any warranty by M.T.H. Electric Trains. The manufacture date of an item can be verified on the item's detail page "shipping date field" on the M.T.H. website (www.mthtrains.com). This warranty does not cover damages caused by improper care, handling, or use. Transportation costs incurred by the customer are not covered under this warranty.

Items sent for repair must be accompanied by a return authorization number, a description of the problem, and a copy of the original sales receipt from an M.T.H. Authorized Retailer, which gives the date of purchase. If you are sending this product to an Authorized Service Center, contact that Center for their return authorization.

This warranty gives you specific legal rights, and you may have other rights that vary from state to state. Specific questions regarding the warranty may be forwarded to M.T.H. Directly.

*Authorized Service Centers (ASC) are only obligated to provide warranty service for any consumer who has purchased the specific M.T.H. item from them that requires service work.

Service Department:
M.T.H. Electric Trains
7020 Columbia Gateway Drive
Columbia MD 21046-1532