



V-MAC III - Temp-A-Start System (TAS)

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1. INTRODUCTION

WIRING FOR LOCAL INSTALLATION ON CH MODELS

Mack Trucks has offered the Temp-A-Start (TAS) Wiring Only with Local Install to our CH model customers since V-MAC II. The wiring for this system was installed at Winnsboro and the Thermostat and the Control Center were installed by the dealer. Additionally, for the TAS system to function, the dealer was responsible for installing an additional TAS speed control switch harness or keying in the required V-MAC III Customer Data Programming.

WINNSBORO COMPLETE FACTORY INSTALLATION ON CX AND CHK MODELS

Mack Trucks is now offering a TAS system that is installed completely at the Winnsboro factory. This system requires special Customer Data programming to insure that the TAS system functions correctly.

2. GENERAL PRINCIPLES OF OPERATION

Temp-A-Start (TAS) is an engine and sleeper cab temperature monitoring and control system. In order to maintain the engine and sleeper cab temperature of a parked vehicle, TAS initiates the following actions:

MODE 1

With the TAS switch in the ON position, the system is on standby.

MODE 2

After the driver starts the engine, and the TAS indicator has changed from red to green, within 15 to 30 seconds TAS will call a 900 to 1000 RPM engine speed throttle advance. This throttle advance will be maintained for about 5 minutes or until the battery voltage is equal to 13.5 volts and the engine temperature is equal to 125 degree F. Additionally, if the AC blower fans were on when Mode 2 was initiated, the TAS will switch off the AC blower fans in approximately 2 to 3 minutes.

MODE 3

Once the battery voltage is equal to 13.5 volts and the engine temperature is equal to 125 degree F., TAS will call an engine shutdown. The throttle advance will dropout, the engine speed will return to low idle, then the engine will shutdown.

MODE 4



After the engine is shutdown and the ignition power is switched off, TAS

will initiate a standby.

MODE 5

If the battery voltage falls below 12.2 volts or if the engine temperature falls below 55 to 60 degrees F., TAS will call an engine start. The ignition power will be switched on and the engine starter will be activated. Once the engine starts, the TAS will resume to Mode 2.

If the thermostat is turned on by pushing the select button, and the environmental mode is selected for heating or cooling, TAS will call an engine start if the thermostat is not satisfied. The outside ambient temperature sensor will automatically select heating or cooling based on outside temperature. The ignition power will be switched on and the engine starter will be activated. Once the engine starts, TAS will resume to Mode 2.

Additionally, when Mode 2 is initiated by the thermostat, TAS will switch on the AC blower fans until the thermostat is satisfied.

MODE 6

If the any of the safety switches (Hood Tilt, Park Brake, Neutral Switch) are open circuited, or a vehicle speed signal is present during an active TAS MODE, TAS will call and abnormal abort. The conditional abnormal aborts can be summarized as follows:

- During the first time in Mode 2, the engine RPM will resume to low idle for 15 minutes and then V-MAC will call an Idle Shutdown.
- Any other modes of operation (including subsequent mode 2s), TAS will call an all stop system off operation.

3. V-MAC III STEP 5 CUSTOMER DATA PROGRAMMING REQUIREMENTS

For Step 5 trucks with dealer installed Temp-A-Start systems, the following parameters should be set using Customer Data Programming (See V-Mac Support Software User's Guide 8-329 for instructions):

Vocational Features:

Set/Resume switch state: Set/Decel Resume/Accel (Default)

Inhibit cruise with PTO on: Either YES or NO (Default)

Single press of resume to accel: Either YES or NO (Default)

Initial set using resume switch: YES

PTO 3 switch setting: Factory Setting (Default)

PTO 4 switch setting: Factory Setting (Default)

Control 1 switch setting: Factory Setting (Default)

Control 2 switch setting: Factory Setting (Default)

Idle Shutdown Settings:

Idle Shutdown: YES

If PTO active: YES

If single speed control active: Either Yes or NO (Default)

If power used higher than threshold: Either Yes or NO (Default)

If hand throttle control active: Either Yes or NO (Default)

Live UI eper mode: **NO**

If in sleeper mode with PTO 4 fast idle active: **NO**

Idle shutdown warning time: 30 secs (Default)

Idle shutdown time: 15 mins

Idle shutdown warmup time: 5 mins (Default)

Idle shutdown warmup temperature: 80 °F (Default)

Idle shutdown power threshold: 30 % (Default)

The V-MAC III PTO2 input (VJ2-10) is reserved for TAS use only. The V-MAC parameters for PTO2 must be maintained at the Standard Variable Speed Control default settings. For additional idle shutdown overrides or variations to the vocational feature settings, the parameters that are not in bold may be reconfigured.

4. V-MAC III STEP 6 OR HIGHER CUSTOMER DATA PROGRAMMING REQUIREMENTS

For Step 6 or higher trucks with complete factory installed Temp-A-Start systems, the following parameters should be set using Customer Data Programming, version 2.1.40 or later (See V-Mac Support Software User's Guide 8-329 for instructions):

Vocational Features:

Set/Resume switch state: Set/Decel Resume/Accel (Default)

Inhibit cruise with PTO on: Either YES or NO (Default)

Single press of resume to accel: Either YES or NO (Default)

Initial set using resume switch: Either YES or NO (Default)

PTO 3 switch setting: Factory Setting (Default)

PTO 4 switch setting: Factory Setting (Default)

Control 1 switch setting: Factory Setting (Default)

Control 2 switch setting: Factory Setting (Default)

Idle Shutdown Settings:

Idle Shutdown: YES

If PTO active: NO

If single speed control active: Either Yes or NO (Default)

If power used higher than threshold: Either Yes or NO (Default)

If hand throttle control active: Either Yes or NO (Default)

If in sleeper mode: **NO**

If in sleeper mode with PTO 4 fast idle active: **NO**

Idle shutdown warning time: 30 secs (Default)

Idle shutdown time: 15 mins

Idle shutdown warmup time: 5 mins (Default)

Idle shutdown warmup temperature: 80 °F (Default)

Idle shutdown power threshold: 30 % (Default)

The V-MAC III PTO2 input (VJ2-10) is reserved for TAS use only. The V-MAC parameters for PTO2 must be maintained at the Standard Variable Speed Control default settings. For additional idle shutdown overrides or variations to the vocational feature settings, the parameters that are not in bold may be reconfigured.

5. TEMP-A-START SUPPORT

 Live UI Partic PN# 8MR51332

Wiring System PN# 132MRS54

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