

Drive Module Kit

Models: T300e, T300, T500e, T500, T600e, T600, Speed Scrub 300, Speed Scrub 500



This kit includes the necessary parts to replace a defective Drive Module. Kit installation is required by Tennant *True* Service or an authorized Tennant service provider.

NOTICE: This kit installation procedure requires access to the Tennant Service Application Software to program the new Drive Module. To access or download the software refer to page 3.

Authorized Tennant service providers:

If the Tennant Service Application Software is currently installed on your computer, ensure latest software version is installed for new firmware updates.

INSTALLATION INSTRUCTIONS:

Installation Time: 1 Hour

Kit Installation Requirements: Tennant ServiceLink computer or a computer with Wi-Fi connection to access the Tennant Service Application Software, and USB cable (supplied with kit).

Computer System Requirements: Windows[®] 7 OS, Microsoft .NET Framework 4.5 or later, USB Port.

Special Tool Required: T-25 torque screwdriver



INSTALL THE NEW DRIVE MODULE:

FOR SAFETY: Before servicing machine, stop on level surface, turn off machine, and set parking brake if equipped.

1. Disconnect battery cables from machine.

WARNING: Always disconnect battery cables from machine before working on electrical components.

- 2. Replace the defective drive module with new drive module. Some machine dis- assembly is required to access the drive module. If necessary, refer to the Service Manual for drive module removal instructions.
- 3. Program the new drive module as described in the following instructions.

PROGRAM THE DRIVE MODULE:

See **TENNANT SERVICE APPLICATION SOFTWARE** on page 3 to access or download software.

- 1. Reconnect the battery cables to machine.
- 2. Start the Service Software Application program "Service Diagnostics..."(Figure 1). Refer to Figure 9 for further details.





3. After software start up, the following screen will appear (Figure 2).





4. Connect the USB cable, supplied with kit, to computer and to the USB port on machine as shown. Turn the key switch to the on position (Figure 3).



Fig. 3

5. The application software will then connect to the machine (Figure 4). If the application remains on the "Connecting to Machine..." screen for an extended period, cycle key or reconnect USB cord. If it still fails to connect, restart software or computer.



Fig. 4

Once connected, the home screen will appear (Figure 5). Before programming the new drive module, first check if any firmware updates are required. The "Firmware" button will be highlighted in yellow if updates are required. Press button to update firmware (Figure 5).



Continue with the firmware update by pressing the yellow "Update" button as shown



Fig. 5

7. Click the "iDrive" button to enter the programming screen (Figure 6).



8. T600/e models: If transaxle is equipped with the electronic park lock option, select "Parking Brake". If not equipped, select "Default" (Figure 7).

For all other models: Select "Default".

Then press "Program" button to program iDrive (Figure 7).



Fig. 7

9. Programming may take several seconds to complete (Figure 8). Follow instructions on screen if prompted to cycle key to complete process.

NOTE: If the *"Writing iDrive Configuration"* process gets stuck for an extended period, make sure that:

- iDrive has power applied
- E- Stop button is released / not pressed in
- For model T300 only, does not apply to "e" model or Speed Scrub 300 model:

B+ is present at main control board pins J9-2 (E- Stop input) and J9-7 (iDrive B+ Detent)

 For models T500 & T600 only, does not apply to "e" models or Speed Scrub 500 model:

B+ is present at main control board pins J12-2 (E- Stop input) and J12-7 (iDrive B+ Detent)





- 10. Disconnect the USB cable.
- 11. Test machine to ensure the drive module is functioning properly. If a fault code appears check the wire harness connections at drive module and recycle key.

TENNANT SERVICE APPLICATION SOFTWARE:

The Tennant Service Application Software is required to program the new drive module. The software can be accessed or downloaded as described below.

Tennant True Service with ServiceLink computers:

The software is pre-installed on your computer as shown below. The software application is titled **"Service Diagnostics"** (Figure 9).

lcon on Desktop



From Start menu



From Start menu > All Programs > Tennant Company > Tennant Service Diagnostics



Authorized Tennant Service Providers:

The Service Application Software can be downloaded from the Tennant Public website as described below.

NOTE: If the Service Application Software is currently installed on your computer, confirm or re-install the software to ensure latest software version is installed.

To access the Service Application Software, go to www.tennantco.com. Depending on your geographical location, the website may have a "My Account Log In/Sign Up" button at the upper right or a "My Tennant Customer Sign In" tab at the upper right of the Tennant website as shown below (Figure 10).

Proceed with the software download instructions as described on the following pages.

Website with "My Account Log In/Sign Up" button (Access to "My Account")

OR



Fig. 10

Website with "My Account Log In/Sign Up" button:

1. Press "My Account Log In/Sign Up" to open or create an account (Figure 11).



Fig. 11

 Once logged in to the "My Account" website, click on the "DISTRIBUTOR RESOURCES" link as shown below (Figure 12).

NOTE: For internal customers, the link will be titled "INTERNAL RESOURCES".



Fig. 12

3. Click on the "SERVICE APPLICATION SOFTWARE" link as shown below (Figure 13).



 Within the Service Application Software page, click on the link titled "Service Diagnostics LE version x.x.xx" (Figure 14).



Fig. 14

5. To download the service software continue to click as instructed then click the Save button (Figure 15).



Fig. 15

 Open the "Downloads" folder and locate the "LE_Setup_xxxx" zip file. Open the zip file and double click on the "LE_Setup_xxx" file to install the application software on your computer (Figure 16). Follow instructions on screen to install.



Fig. 16

7. After the service application software is installed on your computer, refer to figure 9 to access the program.

Website with "My Tennant Customer Sign in" tab:

1. Log in to the "My Tennant" website or register as a new user (Figure 17).



Fig. 17

2. Once logged on to the "My Tennant" website, click on the "Service Application Software" link under the "Product Support & Solution" section as shown below (Figure 18).



 Within the Service Application Software page, click on the link titled "Service Diagnostics LE version x.x.xx" to download the application installer then click the Save button (Figure 19).

ENHANT					Contact Us	Search	
	Equipment	Coatings	Industries	Parts and Service	Company	My Tennant	
me » Product Si ervice Aj	opport & Solution	n Softwa	re			«° Share 🛆 Emai	-
lelcome to	Service Appl	ication Util	lity Downlos	d page			
ennant Company quipment to perfo omputer running \	has developed a P rm certain service Windows 7 or late	C software appli functions. The s r and a USB cabl	cation that communication that communication that communication of the second s	unicates with select quires a Windows-based lini-B is required.		TENNANT	
upported Equip	ment						
e following list o	of machines are su	pported with thi	s tool.				
Tennant	,	Nobles				LE	
• B5		. Canad Classe	-				
• B7		- Speedoleam	7				
• M17		 Speedgleam Speed Scrub ³ 	00				
* M20		(\$\$300)	882 				
o mou		 Speed Scrub 5 	00				
- 720							
• T20 • T300		(SS500)					
• T20 • T300 • T300e		(55500)					
 T20 T300 T300e T500 		(SS500)					
 T20 T300 T300e T500 T500e 		(SS500)					
• T20 • T300 • T300e • T500 • T500e		(SS500)			- 0000000		
 T20 T300 T300e T500 T500e Alfa		(SSSOO)	e Diao	nostics LE	E versio	on 1.5.22	
• T20 • T300 • T300e • T500 • T500e Alfa • A300		(SSSOO) Servic	e Diag	nostics LE	E versi	on 1.5.22	
 T20 T300 T300e T500 T500e Alfa A300 A500 		(SSSOO) Servic	e Diag	nostics LE	E versi	on 1.5.22	
 T20 T300 T300e T500 T500e Alfa A300 A500 Control Module I	Replacements	(SSSOO)	e Diag	nostics LE	E versi	on 1.5.22	
T20 T300 T300e T500 T500 T500e Atfa A300 A500 ontrol Module I	Replacements tain modules on 7	(SS500)		nostics LE	E versi	on 1.5.22	
T20 T300 T300e T300e T500e T500e Atfa A300 A500 ontrol Module I ben replacing cer complete the ins	Replacements tain modules on T tallation procedu	(SS500)	e Diag	nostics LE	E <mark>versi</mark> i	on 1.5.22	
• T20 • T300 • T300e • T300e • T500e • T500e • A1fa • A300 • A500 ontrol Module I /hen replacing cer ocmplete the ins pplication tool is in	Replacements tain modules on T tailation procedur needed.	(SS500)	e Diag	nostics LE	E VERSIO	on 1.5.22	
T20 T300 T300e T300e T500e T500e Alfa A300 A500 ontrol Module f rhen replacing cer complete the ins plication tool is in	Replacements tain modules on T tailation procedus needed.	(SS500) Servic	e Diag	nostics LE	E VERSIO	on 1.5.22	
- T20 - T300 - T300 - T300e - T500e - T500e - T500e - A300 - A500 - A500 - Ontrol Module I - complete the ins polication tool is is immware Update	Replacements tain modules on 1 tallation procedur needed.	(SS500) Servic	e Diag	nostics LE	E VERSIO	on 1.5.22	
T20 T300 T300e T300e T500 T500e Affa A300 A500 ontrol Module I then replacing cer complete the ins pplication tool is o immware Update a ensure your Ten	Replacements tain modules on 1 tallation procedur needed.	(SS500) Servic	e Diag	nostics LE the machine may be require llation kit to determine if the service utility is capable of	E <mark>versi</mark> i ^{red} this	on 1.5.22	
T20 T300 T300 T300 T500 T500e Atfa A300 A500 otrol Module I hen replacing cer complete the inis romware Update o ensure your Ten pdating the mach	Replacements tain modules on T tallation procedur needed. ts nant equipment or sie firmware for si	(SS500) Servic	e Diag	nostics LE the machine may be require lialation kit to determine if 1 service utility is capable of	E VERSIO	on 1.5.22	
T20 T300 T300e T300e T500e T500e Atfa A300 A500 ontrol Module I market the ins pplication tool is i immware Update o ensure your Ten ault Codes	Replacements tain modules on T tailation procedur needed. ss nant equipment o ne firmware for si	(SS500) Servic	e Diag	the machine may be required the machine may be required tillation kit to determine if the service utility is capable of	E version red this	on 1.5.22	
T20 T300 T300e T300e T500 T500 Afa A300 A500 ontrol Module I then replacing cer opplication tool is 1 immware Update o ensure your Tempdating the mach ault Codes	4 Replacements tain modules on 1 taintainton procedu needed. ts nant equipment or ine firmware for si	(SS500) Servic	e Diag	nostics LE the machine may be require lilation kit to determine if the service utility is capable of description to make	E VERSI red f	on 1.5.22	
- 120 - 7300 - 7300e - 7300e - 7500e - 7500	Replacements tain modules on 1 taliation procedures anant equipment of ine firmware for si can report the speritire easier.	(SS500) Servic	e Diag	nostics LE the machine may be require tiluation kit to determine if the service utility is capable of description to make	ed f	on 1.5.22	
120 1300 1300 1300 1300 1300 1300 1300 1300 1300 1300 140 140 140 140 140 140 140 14 1 14	Applacements tain modules on Tail needed. Its nant equipment or nen firmware for si can report the spoe title easier.	(SS500) Servic rennant equipme re. See the instru- upported moc a crific fault c i e e	e Diag programming Jons in the insta performance, this ind the short text of	the machine may be require liter of the machine may be require service utility is capable of description to make	ed f	on 1.5.22	
T20 T300 T300 T300 T300 T300 T500 T500 Afa A300 A500 ontrol Module I ben replacing or the methal opplication tool is in immare Update benare your Ten deding to the methal out Codes aut Codes	Replacements tain modules on 1 tailation procedures tailation procedures	(SS500) Servic	e Diag	nostics LE the machine may be require illation kit to determine if the service utility is capable of description to make	red f	on 1.5.22	
120 1300 1300e 130e	4 Replacements tain modules on 1 talanton procedu needed. Is can report the spe title easier. To download the lotter the instance that other the instance that other the instance that to download the	(SS500) Servic	e Diag	nostics LE the machine may be require the machine may be require tillation kit to determine if the service utility is capable of description to make aller and follow the onscree	en E	on 1.5.22	
T20 T300 T300 T300 T300 T300 T300 T500 Afa A300 A500 Arrow Association of the second of the s	Applacements tain modules on Tailandon procedur needed. Its nant equipment or nan fermware for si trained the spectra of the spectra tittle easier. V to download the piete the installat	(SS500)	e Diag	nostics LE the machine may be require llation kit to determine if the service utility is capable of description to make aller and follow the onscre	red this f	on 1.5.22	
T20 T300 T300 T300 T300 T300 T500 Afa A300 A500 Mta A500 Mta A500 Mta A500 Mta A500 Mta A500 Mta Module I to may a set of the set of t	Replacements tain modules on 1 tain modules on 1 talaiton procedur needed. sc an report the sperior title easier. v to download the plete the installat es	(SS500) Servic	e Diag programming ions in the insta performance, this i und the short text	nostics LE the machine may be require that to determine if the service utility is capable of description to make aller and follow the onscree	red this f ren Re	efined Search	
T20 T300 T300 T300 T300 T500 T500 Afa A300 A500 Afa A300 ontrol Module I ben replacing cer complete the ins plication tool is r mawar Update onsure your Ten dading the mach ault Codes is service utility ubleshooting a I comold lick the link below structures too mow [25] ent mitte	Applacements tain modules on Tatalation procedu needed. scan report the spe tittle easier. v to download the plete the installat les	(SS500)	e Diag programming lons in the insta performance, this and the short text aller. Run the insta	nostics LE the machine may be require illation kit to determine if the service utility is capable of description to make aller and follow the onscree	red this f Re	efined Search:	
	Replacements tain modules on 1 tain modules on 1 talation procedu needed. Is can report the spe- titie easier. To download the pip- the the installat es s LE Change Log	(SS500) Servic rennant equipme re. See the instru- upported mod a applicat n inst- ion.	e Diag programming ins in the insta performance, this and the short text of aller. Run the insta	the machine may be required illation kit to determine if the service utility is capable of description to make aller and follow the onscree	red this f Ren Re	efried Search: Modified Date 4/6/2017	
T20 T300 T300 T300 T300 T300 T300 T300 T300 Afa A00 Afa Afa A00 Afa Afa A00 Afa Afa A00 Afa Afa Add Afa Add Add Afa Add A	Applacements tain modules on 1 tain modules on 1 headed. Its nant equipment of anant equipment of anant equipment of anant equipment of the easier. V to download the plete the installat les cs LE Change Log cs LE User Manua	(SS500) Servic	e Diag	the machine may be required the machine may be required that to determine if the service utility is capable of description to make aller and follow the onscree <u>description to make</u> aller and follow the onscree <u>description to make</u> aller and follow the onscree <u>the Literature Type</u> <u>Technical informatic</u>	red this f Ren Ren on	efined Search: Modified Date 4/s/2017 4/s/2017	

nternet Explorer	23
What do you want to do with LE_Setup_1522.zip?	
Size: 409 MB From: www.tennantco.com	
Open The file w n't automatically.	
→ Save	
→ Save as	



 Open the "Downloads" folder and locate the "LE_Setup_xxxx" zip file. Open the zip file and double click on the "LE_Setup_xxx" file to install the application software on your computer (Figure 20). Follow instructions on screen to install.



Fig. 20

5. After the software is installed on your computer, refer to figure 9 to access the program.