

NOTE

It is the responsibility of the installer to ensure that the harnesses are protected from all sharp edges and sharp bends.

Kit Contents

- 1 - installation sheet
- 1- TND
- 1- Hydra Cable DTY20686
- 1- Device Cable DTY20682

Tools Required

- 1- roll electrical tape
- 1- wire cutter/stripper
- 1- Crimpers
- 1- #2 Phillips head
- 1- #12 Torx bit driver

## Volvo, TND “Hydra cable” Installation Guide

**To install TND: First, insure ignition is in the off position, lift fuse relay panel cover, top center of the dash. To lift fuse relay panel cover, remove the two screws behind cup holder just below panel cover.**

1. Find desired location on dash to Install TND. NOTE; cable wiring, remove one of the “dummy” or unused rocker switches to route cable to Fuse Relay panel.
2. Inside the fuse relay panel all of the connection points needed will be at hand.
3. To install the “**DTY20686**” Hydra cable: In the fuse relay panel upper right corner (nearest windshield) there is a connector block that includes power, ground and ignition. As seen in following page illustrations. Plug spider cable connectors into vehicle respective locations.
4. J1939 connection is shown with terminating resistor. Remove resistor and connect to “Y” cable mating connector, connect second “Y” cable connector where resistor was removed. J1939 connection complete.
5. Connect J1708/J1587 connector to vehicle wiring.
6. Insert power and ground connectors in connector block.
7. Connect DTY20686 Hydra cable to DTY 20682 device cable and route to device.
8. Refer to Figure 5 locate correct fuse locations. Insert correct fuses 10 amp power.
9. After all connections have been completed, turn ignition to “on position “insure TND powers-up, then insure J1939 JBus and J1708 are active.
10. Start truck, do a complete functionality test of TND. Replace fuse relay cover.

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## Volvo, TND Spider cable Installation Guide

Fuse panels for 12V power      J1708 Connector      J1939 Connector      Power, Ignition and Ground Connections

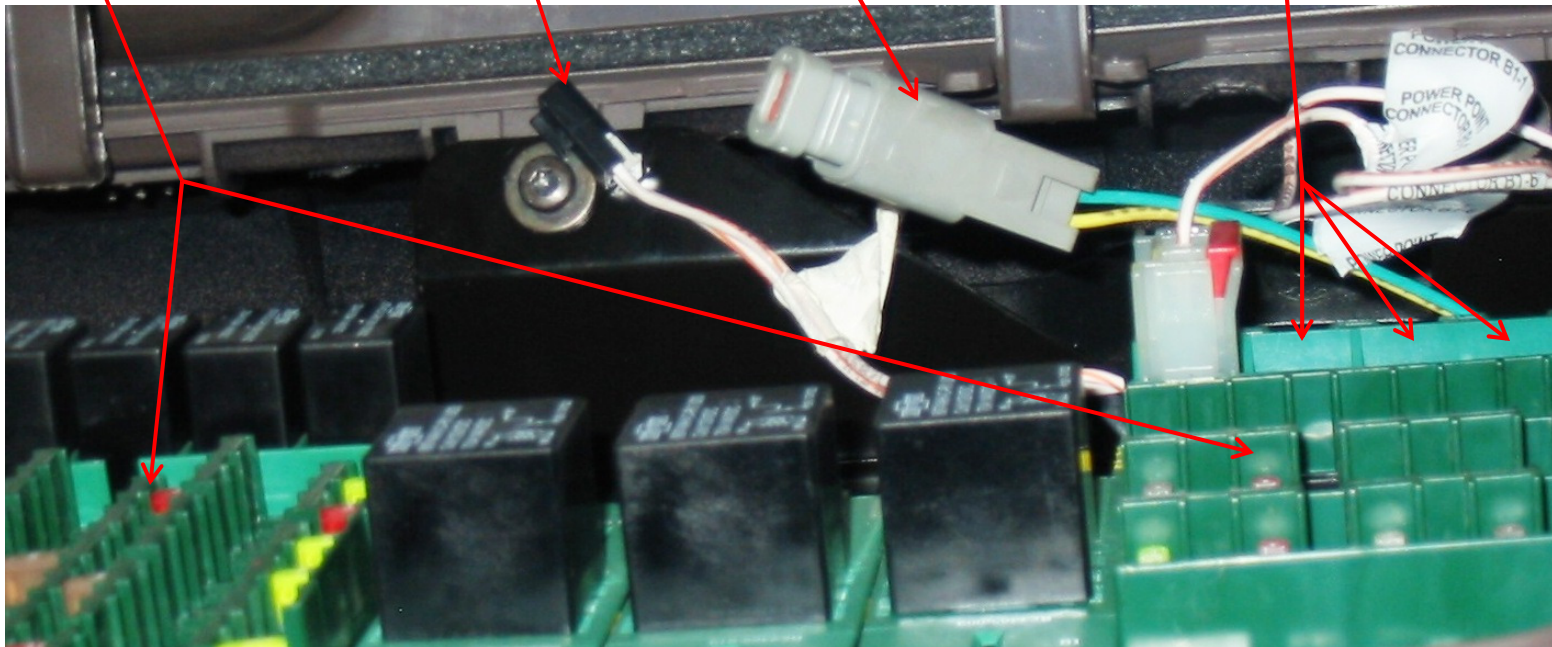


Figure 1

Within the Volvo fuse relay panel shown in Figure 1, J1939, J1708, power, ground and ignition connections are accessible. Vehicles being installed for the first time the J1939 and J1708 are bundled together with zip ties. Remove the ties to access the J1939 wiring and terminating resistor, along with J1708 connectors, shown in (Figure 2).

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### J1939 Terminating Resistor

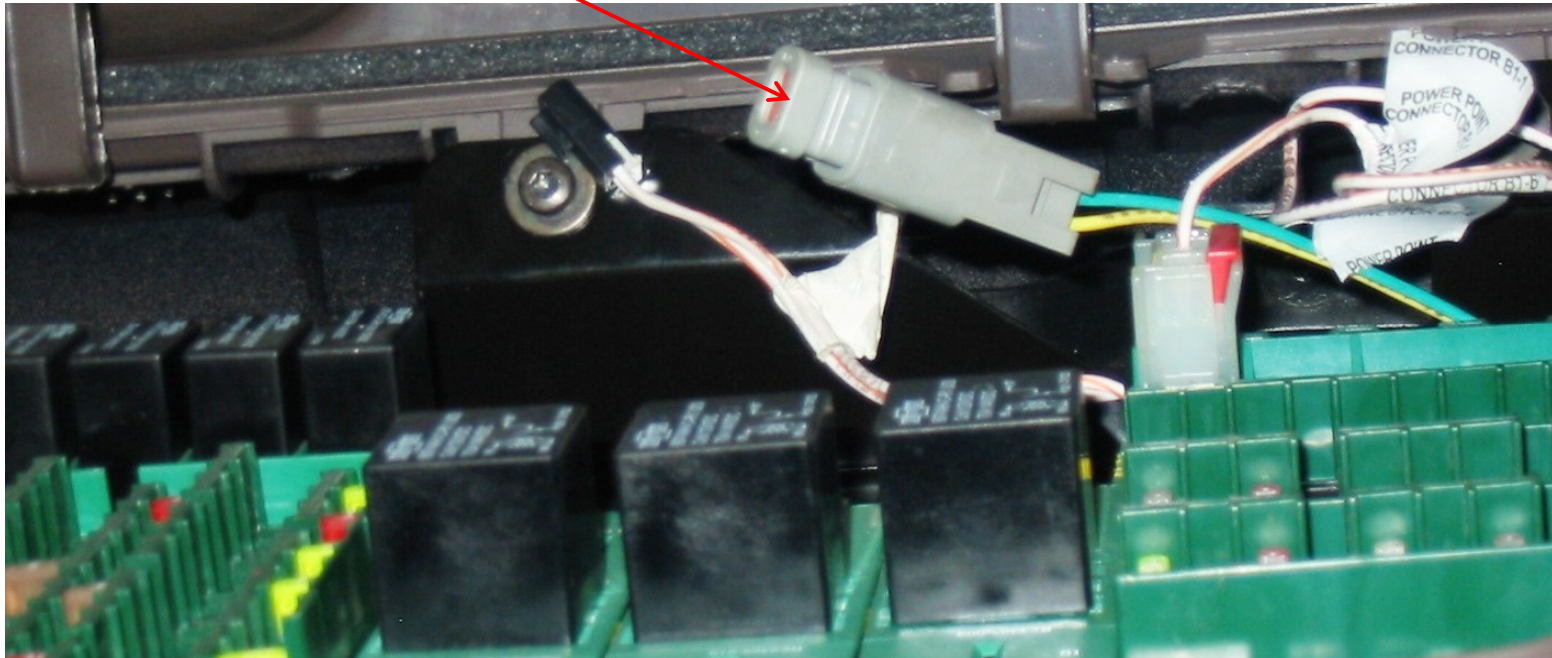


Figure 2

The J1939 connector is equipped with the Terminating Resistor. **To install cable DTU 20600 the resistor must be removed and re-installed in the female “Y” connector of DTY 20600.** The male end of the “Y” connector will reconnect into the connector from where the terminating resistor was removed. This completes the J1939 data link connection. J1708 will also plug directly into the vehicle connectors.

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Fuse Panels

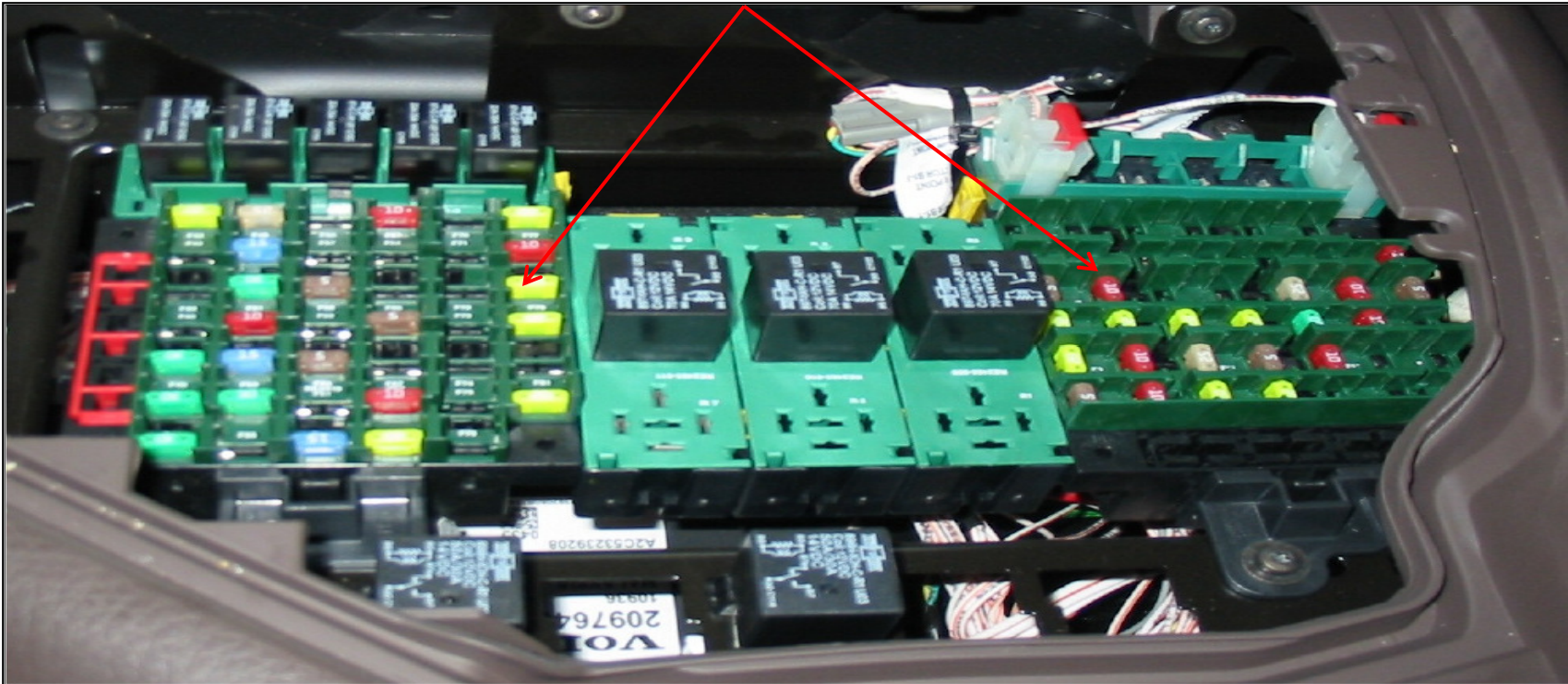


Figure 3

To select the correct fuse locations refer to (Figure 4).  
The auxiliary connection ports are un-fused.

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FUSES		FUSE AND RELAY CENTER			
F1	5	DCP POWER/POWER MIRRORS/VOLVO LINK	F45	15	AUX SW 3
F2	10	RADIO IGN	F46	30	AUX SW 3 AND 4
F2	25	RADIO IGN WITH AMPLIFIER	F47	30	LECM 1 (F81-F82-F87) SLEEPER LIGHTING
F3	20	DRIVER WINDOW/HEATED MIRROR	F48	30	LECM 4 (F83-F86-F89-F91) SLEEPER FUNCTIONS
F4	20	PASSENGER WINDOW	F49	25	LECM 3 HVAC FAN
F5		NOT USED	F50	15	LIGHT CONTROL MODULE 4
F6		NOT USED	F51	30	LECM 2 (F85-F88)
F7		NOT USED	F52	15	CLIMATE CONTROL/AC BLOWER BATT
F8	20	LIGHT CONTROL MODULE 1	F53	15	LVD SENSE/QUAL/COMM
F9	10	CITY HORN/AIR HORN	F54	30	MOBILE MAX 2
F10	25	LIGHT CONTROL MODULE 2	F55	15	CENTRAL LOCKS BATTERY
F11	15	BATTERY EXPANSION (B1-1)	F56		ANTILOCK BRAKE SYSTEM 1 (ABS 1)
F11	5	SECONDARY INSTRUMENT CLUSTER (B1-1)	F57		NOT USED
F12	10	ROAD RELAY DIAGNOSTIC TOOL (B1-2)	F58	5	NOT USED
F13	5	VOLVO LINK	F59	5	LCM/CP IGNITION/CENTRAL LOCKS IGNITION
F14	10	ELECTRONIC CONTROL SUSPENSION	F59	5	DUAL/COMM IGN/MOBILE MAX 2
F14	15	BEACON LAMPS	F60	5	LIVING ENVIRONMENT CONTROL MODULE IGN
F15	20	KEY SWITCH BATTERY	F61	5	ROAD RELAY IGNITION (B1-5)
F16	20	LIGHT CONTROL MODULE 3	F62	15	BACKUP LAMPS
F17	20	LIGHT CONTROL MODULE 5	F63	10	CHASSIS SOLENOIDS
F18	20	LIGHT CONTROL MODULE 6	F64	15	BODY BUILDER IGN-Y
F19	30	I-SHIFT	F65	15	BODY BUILDER IGN-X
F20	10	RADIO/CLUSTER BATTERY	F66	15	IGNITION EXPANSION (B1-6)
F21	5	CLUMBS ENGINE DIRECT IGNITION	F68	5	SECONDARY INSTRUMENT CLUSTER (B1-6)
F22	5	EFRC IGNITION	F67	15	WORAD
F23	10	CLIMATE CONTROL IGNITION	F67	5	ECS/ADAPTIVE CRUISE CONTROL
F24		NOT USED	F68	10	I-SHIFT GEAR SHIFT ECU
F25	20	HEATED SEATS	F69	20	I-SHIFT TRANSMISSION ECU
F26	25	WINDSHIELD WIPER	F70		NOT USED
F27	10	INTER AXLE/INTER WHEEL DIFFERENTIAL LOCK	F71		NOT USED
F28	5	SUPPLEMENTAL RESTRAINT SYSTEM	F72		NOT USED
F29	15	CAMERA PREVIEW/BODY BUILDER IGN-Z	F73		NOT USED
F30	15	SNOW PLOW LAMPS LH	F74		NOT USED
F31	10	TOUCH LOCK/HEATED WINDSHIELD (B1-4)	F75		NOT USED
F32	15	SNOW PLOW LAMPS RH	F76		NOT USED
F33		NOT USED	F77	20	12V DASH POWER OUTLET
F34	5	POWER TAKE OFF/DUAL POWER TAKE OFF	F78	10	DOVE/DOOR LAMPS
F35	10	TRANSMISSION GEAR BOX IGNITION	F79	20	CB POWER STUD
F36		NOT USED	F80	20	12V SOCKET DRIVER SIDE SLEEPER
F37		NOT USED	F81	15	AUXILIARY SWITCH 1
F38		NOT USED	F81	30	AUXILIARY SWITCHES 1 & 2
F39		NOT USED	F82	20	12V OUTLET OVERHEAD
F40		NOT USED	F83		NOT USED
F41		NOT USED	F84		NOT USED
F42	20	12V SOCKET COOLER SLEEPER	F85		NOT USED
F43	10	ROOF SIGN (B1-3)	F86		NOT USED
F43	30	BODY BUILDER (B1-3)			
F44		NOT USED			

RELAYS		EXTERNAL RELAYS	
R1		R16	REMOTE THROTTLE INCREMENT
R2		R17	REMOTE THROTTLE DECREMENT
R3		R18	NOT USED
R4		R19	NOT USED
R5		R20	NOT USED
R6		R21	NOT USED
R7		R22	NOT USED
R8			
R9			
R10			
R11			
R12			
R13			
R14			
R15			

EXPANSION	
B1-1	F11 SEC INSTR CLUSTER BATT
B1-2	F12 DIAG ROAD RELAY BATTERY
B1-3	F43 ROOF SIGN BATTERY
B1-4	F31 TOUCH LOCK IGNITION/HEATED WINDSHIELD
B1-5	F61 ROAD RELAY IGNITION
B1-6	F66 SEC INSTR CLUSTER IGN

WARNING	
Always replace fuses and circuit breakers with the same type and current / amperage rating. Increasing fuse or circuit breaker rating or changing type of fuse may result in circuit overheating and possibly fire.	

ER9	ER10-ER14	ER15-ER19/ ER20-ER22	ER1-1-ER1-6
ER8	F42-F82	ER3 ER6 ER7	F1-F41
ER7		ER2 ER5 ER4	
ER6		ER8 ER9 ER3 ER2 ER1	

**VOLVO**  
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Figure 4

The above guide is located on the lid of the fuse, relay panel. Locate the appropriate power and ground connections then cross reference to install fuse in correct location.