

# POWER LINE FILTER KIT

Model TLN5277E

## Installation Instructions

### 1.0 DESCRIPTION

- 1.1 The TLN5277E Power Line Filter is for negative ground installation. The kit is intended to reduce one of the several sources of alternator- induced modulation of the transmitter. The kit filters the battery power applied to the transmitter rf power amplifiers.
- 1.2 The filter circuit consists of a hash choke, capacitor, and transient protection diodes. Diodes are connected in parallel to provide a fail- safe feature.

### 2.0 KIT COMPLEMENT

After unpacking the kit, refer to the parts list for identification of the kit piece parts.

### 3.0 INSTALLATION

#### 3.1 GENERAL

While performing the installation, refer to the radio set instruction manual for information on

the radio installation. The filter may be installed either in the trunk or on the firewall, or in any other convenient location, and it will be connected in series with the red lead between the radio and the fuse.

#### 3.2 SELECTION OF MOUNTING LOCATION

The filter must be mounted to (no less than 0.03 inch thick) metal. When mounting the unit under the hood, be sure to choose a location that will allow the 3- foot red filter lead to be connected to the fuse. Be sure the selected mounting location will not allow the mounting screw to penetrate the fuel tank, fuel lines, or any other vital part.

#### 3.3 FILTER MOUNTING

**Step 1.** Using the filter, or the mounting hole drilling template provided (Mounting Dimensions), use a center punch to mark the location of the four mounting holes.

**Step 2.** Drill four 9/64- inch mounting holes.

CONNECT BLACK WIRE TO GROUND

POWER LINE FILTER

PREPARE RED LEAD  
PER SECTION 3.4

FILTER JACK:  
SEE SECTION 3.4



**Figure 1 Filter Kit Connections**

**Step 3.** Secure the filter chassis in position with the four mounting screws and lock washers provided.

### 3.4 CONNECTING THE FILTER TO THE RADIO

The red lead attached to the filter must be cut to length for connection to the fused power cable. The fused power cable and the main power cable must be connected using the attached connectors (2) and (3) (see Figure 2). Read the following procedure before cutting the main power cable and connecting the filter in series with the red lead between the radio and the fuse block.

**Step 1.** Cut the red lead attached to the filter to length for connection to the fused power cable.

**Step 2.** Cut a 1- 1/2 – inch length of the head shrink tubing and slip it onto the red filter lead.

**Step 3.** Carefully cut back 3/8- inch insulation on the end of the red filter lead.

**Step 4.** Cut the red lead from the main power cable to the fused power cable to the length required to connect the vehicle battery to the red filter lead.

**Step 5.** Strip back 3/8- inch of insulation from the fused power cable red lead.

**Step 6.** Solder the red lead from the fused power cable securely into one side of the splicing connector.

**Step 7.** Solder the red filter lead securely in the other side of the splicing connector.

**Step 8.** Slide the head shrink tubing over the splicing connector and use a heated air source to shrink the tubing in place.

**Step 9.** Cut the red lead from the main power cable to the length required to connect it to the filter jack.

**Step 10.** Slide the remaining 1- inch length of the heat shrink tubing onto the red main power cable.

**Step 11.** Strip back 3/8- inch of insulation from the main power cable red lead.

**Step 12.** Solder the red main power cable lead securely inside the filter jack (see Figure 1).

**Step 13.** Slide the head shrink tubing over the filter jack up to the filter body, and use a source of heated air to shrink the tubing in place.

**Step 14.** Connect the black lead from the filter to the battery negative post, or to the vehicle chassis. Make sure there is a good electrical connection, and insulate the connection with electrical tape.

### Parts List

MOTOROLA PART NUMBER	DESCRIPTION
TLN5277E	FILTER, power line (negative ground)
0300400465	SCREW, tapping: 10- 12 X 3/4"; 4 used
0400007658	LOCK WASHER: # 10 internal; 4 used
0983386F01	CONNECTOR, splicing
--	TUBING, heat shrink: 3" used

### Legend for Figure 2

1	Fuse block
2	Female connector
3	Male connector
4	Red wire (part of main power cable)
5	Black wire (part of main power cable)
6	Power Plug (part of main power cable)

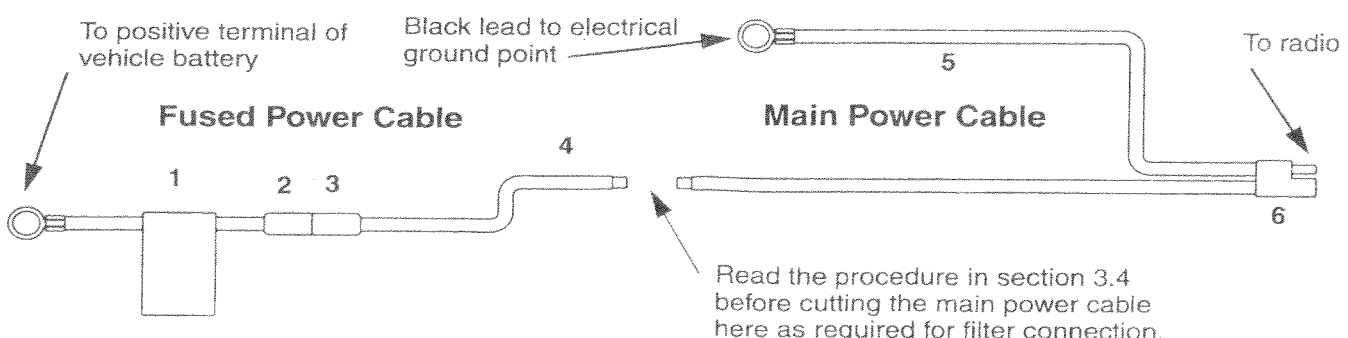
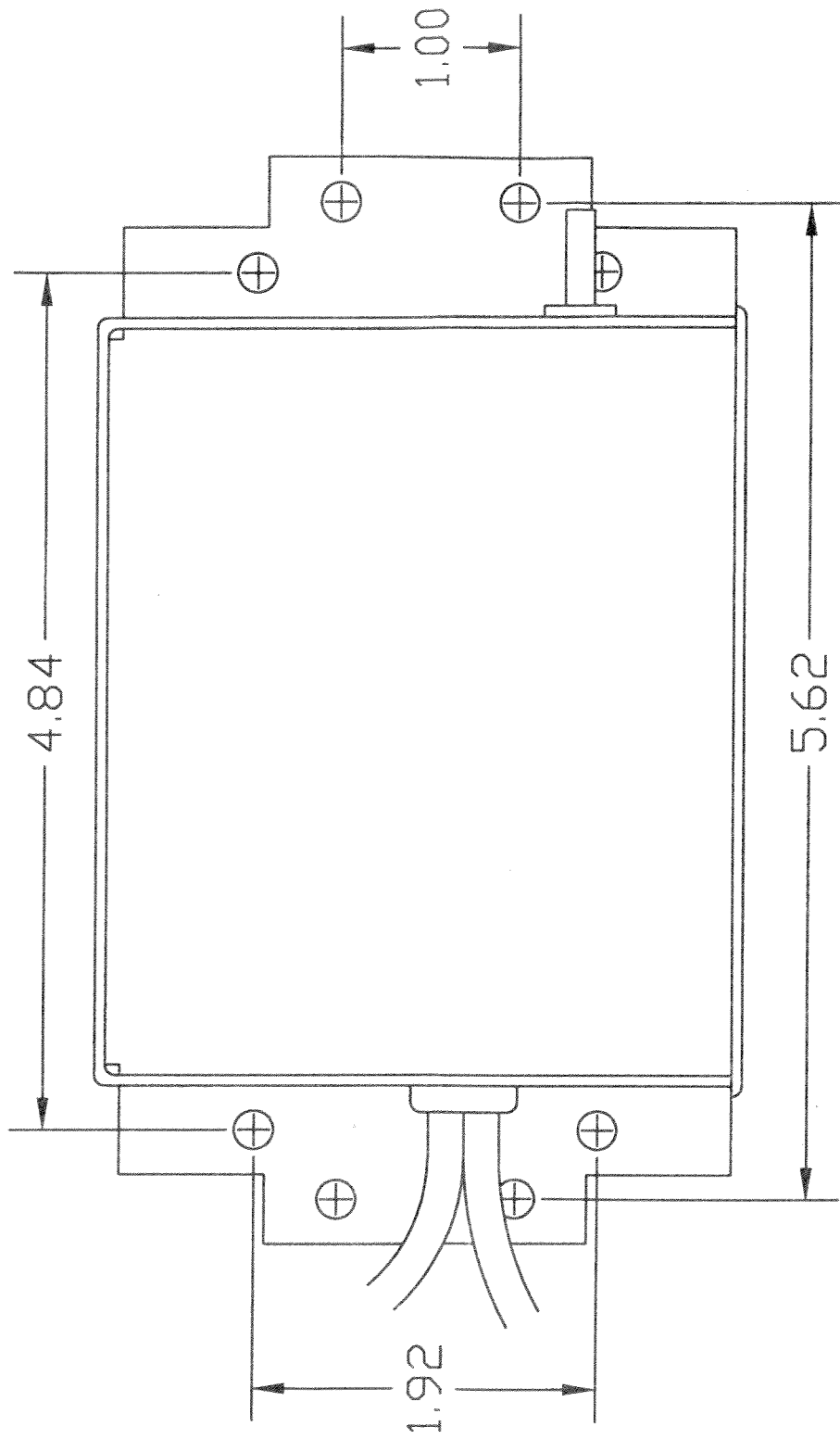


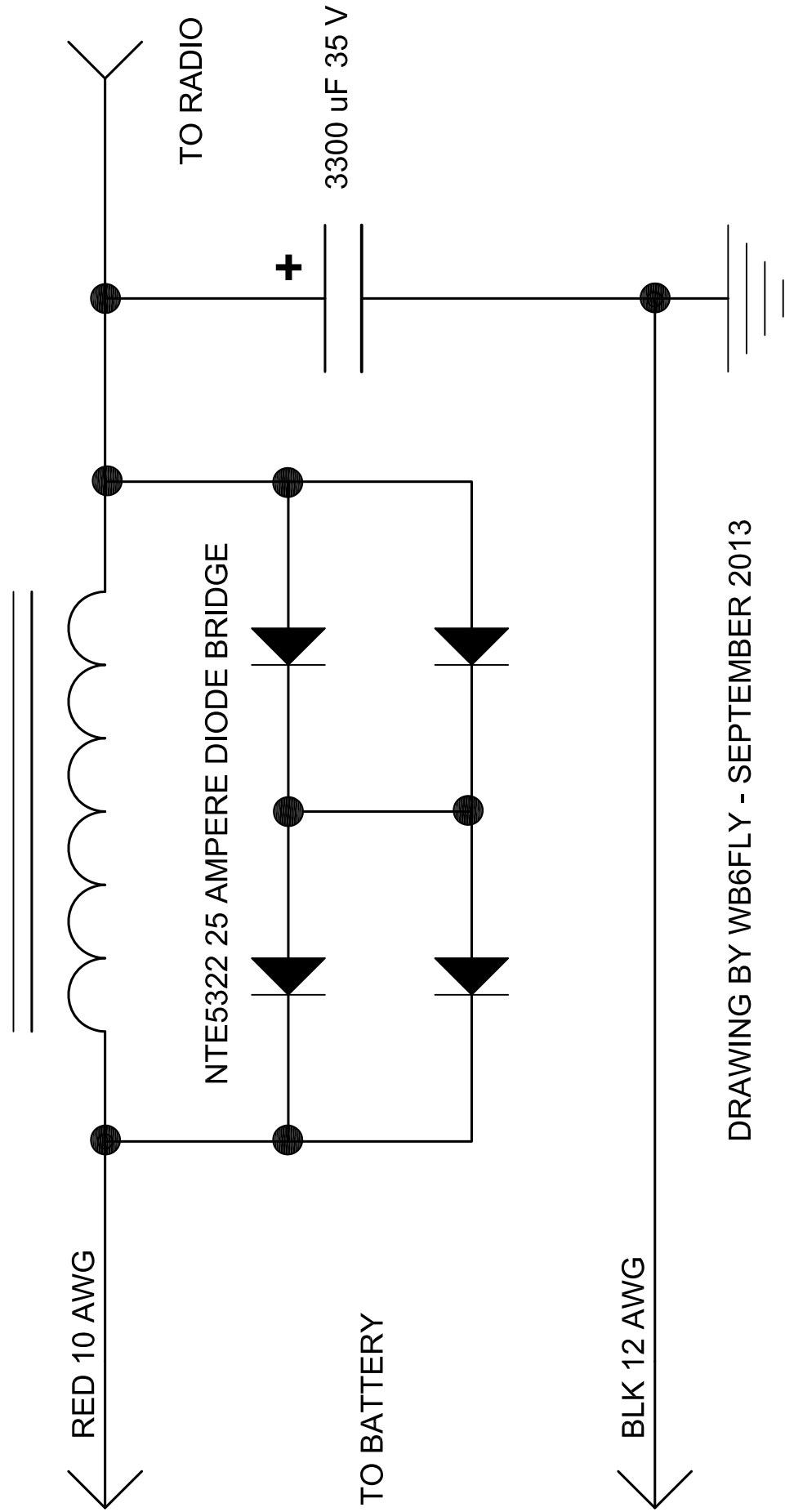
Figure 2. Power Cables Supplied with Radio

Figure 3



# TLN5277E POWER LINE FILTER KIT

2583149F01  
30 AMPERE HASH CHOKE



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