

## **Consumer Response Group**

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## TECHNICAL SERVICE BULLETIN 10011

**MODEL(S):** All versions of the 29LTD, including models with weather, Soundtracker, and

Nightwatch.

**DESCRIPTION:** We have switched to a different PLL chip (IC1). The older chip is the "2816",

and the new chip now says "29LTD" on it.

**ACTION:** If IC1 is a 29LTD, then it must be replaced with another 29LTD. Do not try to

use a 2816. If IC1 is a 2816, then you can use the 29LTD provided you install

the modifications detailed in the following pages.

**ADJUSTMENTS:** It is recommended to realign the PLL section after replacing IC1.

**NOTES:** Parts required:

• 680Ω 1/8W resistor, Cobra p/n 002-001

• 100µH choke, Cobra p/n 041-001

• 120pF capacitor, Cobra p/n 020-005

180pF capacitor, Cobra p/n 020-006

Sleeving for the resistor

## Replacing a 2816 PLL chip with a 29LTD PLL chip:

- 1. Add the 180pF ceramic capacitor between pins 21-22 of IC1.
- 2. Cut the circuit trace between C93 and pin 22 of IC1.
- 3. Add the 100µH choke between C93 and pin 22 of IC1.
- 4. Add the  $680\Omega$  resistor between pin 6 of IC2 and the collector of TR20. Use the sleeving on the resistor to prevent its leads from touching any circuit traces.
- 5. Change C86 from 330pF to 120pF.
- 6. Remove R85.

The diagrams on page 3 provide additional details.



