

To Whom It May Concern:

**SUBJECT: CLASS II PERMISSIVE CHANGE TO 7720PLUS**

This is a request for a CLASS II Permissive Change for the Honeywell International Inc. 7720PLUS alarm transmitter. The 7720PLUS is certified by the FCC Grant of 3 / 7 /2000, **FCC ID CFS7720PLUS**.

The major component change is the Final PA ( Q4 ). The reason for the change is that the manufacture of the original component has been discontinued.

No changes have been made to basic frequency determining and stabilizing circuitry, modulation rate or modulation scheme.

No Changes have been to the following original grant exhibits:

- Schematic Page 2 of 2
- External Photos
- Internal Photo - Unit with cover removed
- Internal Photo - Unit with shield out of base
- FCC ID Label / Location
- Operational Description
- Block Diagram
- Test Setups
- Users Manual
- Operational Description
- Tuning Procedure

Please refer to the **INTERNAL PHOTO EXHIBIT - that shows Unit Without Shield Out of Base**. This shows the new Q4 with the associated component changes described below.

**Detailed Description of Component Changes**

Please refer to page 1 of the **Schematic Changes Exhibit**. The component changes are highlighted.

| CIRCUIT SYMBOL | ORIGINAL VALUE | CLASS CHANGE VALUE | REASON FOR CHANGE                                 |
|----------------|----------------|--------------------|---------------------------------------------------|
| Q4             | Phillips BLT94 | NEC NE5511279      | The BLT94 is no longer manufactured.              |
| C40            | 7.5pf          | 6.8pf              | Q4 input match                                    |
| C41            | 1.5pf          | deleted            | Q4 input match                                    |
| C35            | 3.3pf          | 7.5pf              | Q4 output match                                   |
| C39            | 3.0pf          | 1.0pf              | Q4 output match                                   |
| C30            | 1uf            | deleted            | replaced by R2                                    |
| R2             | -              | 1.2K ohm           | Q4 gate bias bleed                                |
| R37            | 5.1 ohm        | 3.9K ohm           | Q4 gate bias feed                                 |
| R38            | 10K ohm        | 1.5K ohm           | Q4 bias current range                             |
| R40            | 1.5K ohm       | 0 ohm              | Q4 bias current range                             |
| Q1             | mmbt3904       | deleted            | not needed for new Q4                             |
| R29 / R30      | 100K ohm       | 402K ohm           | increase U16A gain for correct Q4 bias adjustment |

PCB COPPER  
CHANGES

Q4 BLT94 PCB  
LAYOUT

Q4 NE5511279 PCB  
LAYOUT

The NE5511279 has a  
similar but smaller package

Please refer to page 2 of the **Schematic Changes Exhibit** for the filed schematic from which CLASS II permissive change equipments will be built.

#### **Characteristics Affected by Changes**

The changes made to the equipment involve final amplifier (Q4), Q4 biasing and Q4 tuning. The performance characteristics affected are: **RF Power Output**

**FCC Part 2.1046**

**Spurious Emissions at the Antenna Terminals**

**FCC Part 2.1051**

**Field Strength of Spurious Radiation**

**FCC Part 2.1053**

#### **Class II Permissive Change Testing Results**

**RF Power Output FCC Parts 2.1046, 101.147(b):** The RF output power was measured at the antenna terminals using the same method as for the original grant. No degradation in performance characteristic from the original grant data was measured.

**Spurious Emissions at the Antenna Terminals FCC Parts 2.1051, 101.111(a)(6):** The spectral response at the antenna terminals was measured from 30MHz to 10GHz using the same method as for the original grant. No degradation in performance characteristic from the original grant data was measured.

**Field Strength of Spurious Radiation:** Please refer to the **SPURIOUS EMISSIONS EXHIBIT**.

This testing was done at Underwriters Laboratories Inc. as noted in the **Test Equipment Exhibit**. The Field Strengths of Spurious Radiation were measured to be within FCC specification.

**Conclusion:** The changes to the HONEYWELL INTERNATIONAL INC. 7720PLUS have been presented. Test results and data have been presented where applicable. From the results, a Class II Permissive Change for the FCC ID CFS7720PLUS as per FCC Part 2.1043(b)(2) is requested.

If you have any questions concerning this application, please contact:

Thomas O. Mott  
RF Engineer  
Honeywell International Inc.  
Tel: 516 921 6704 ext. 1840  
Tom.Mott@Honeywell.com