

HUNTER-PRO

Installation Manual

Supplement

ZONE DOUBLING



P/N 4410084 Rev. A (Jan-2003)



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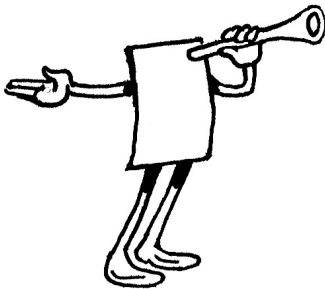


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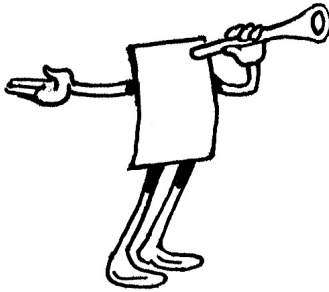
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Introduction

Introduction

Zone Doubling is a cost-effective way to expand the eight-zone HUNTER-PRO control panel up to 16 zones. The zone doubling is done without any hardware add-on. Zone doubling uses the same HUNTER-PRO panel, the smoke input and adding a resistor and diode to each of the doubled zones.

While using the Zone Doubling feature, the doubled zones cannot be protected with two EOL resistors. More detailed description of different connecting options, can be found in this HUNTER-PRO Installation Supplement.

Upgrading an Existing HUNTER-PRO

The Zone Doubling feature is supported with HUNTER-PRO version 2k and up. Also required is a 16Kb E²PROM (i.e., the U2 CHIP should be 24C16).

When upgrading an earlier version of HUNTER-PRO, both the EPROM and the E²PROM should be replaced (see Figure 1).

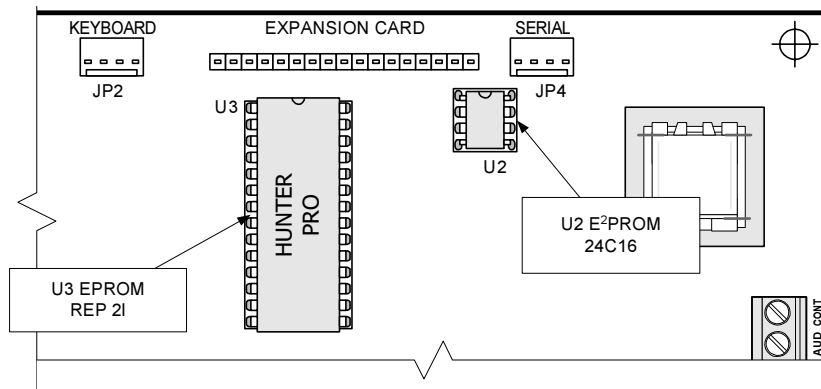


Figure 1 - Replacing the EPROM and the E²PROM



IMPORTANT!

Before attempting to replace the memory chips, the control panel **MUST** be **DISCONNECTED** from all power sources (i.e., AC and DC).

Upgrade Kit Contents

The upgrade kit includes the following items:

- ◆ HUNTER-PRO EPROM with version 2I
- ◆ 16Kb E²PROM
- ◆ 8 Diodes
- ◆ 8 Resistors

Zones Connection Options

The Zones can be connected in one of the configurations described in Table 1.

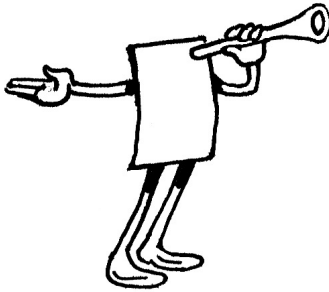
Table 1 - Zones Connection Options

Option	Number of Zones	EOL Configuration	Detector Type
No Zone Doubling	Up to 8	None, 1, or 2 EOL resistors on all eight zones	NC or NO on all eight zones
Zone Doubling	Up to 16	<p>When all zones are doubled:</p> <ul style="list-style-type: none"> • None or 1 EOL resistor <p>When some of the zones are doubled:</p> <ul style="list-style-type: none"> • None, 1, or 2 EOL resistors on <u>un-doubled zones</u> • None or 1 EOL resistor on all <u>other zones</u> 	<p>For zones 1 through 8:</p> <ul style="list-style-type: none"> • NC type ONLY <p>For zones 9 through 16:</p> <ul style="list-style-type: none"> • NC or NO type detectors

NOTE:



If two EOL resistors are required for all 16 zones, an eight zones expansion card (EXP-1001) should be used instead.



Connecting and Configuring

Connecting the Doubled Zones

Connecting Without an EOL Resistor

Zones 1 through 8 are connected with a serial 10K Ω resistor to the zone inputs on the control panel (see Figure 2). Zones 9 to 16 are connected with a serial diode to the zone inputs (i.e., zone 9 is connected to zone input 1, 10 to 2, etc.) and uses the SMOKE input instead of the GND (see Figure 2).

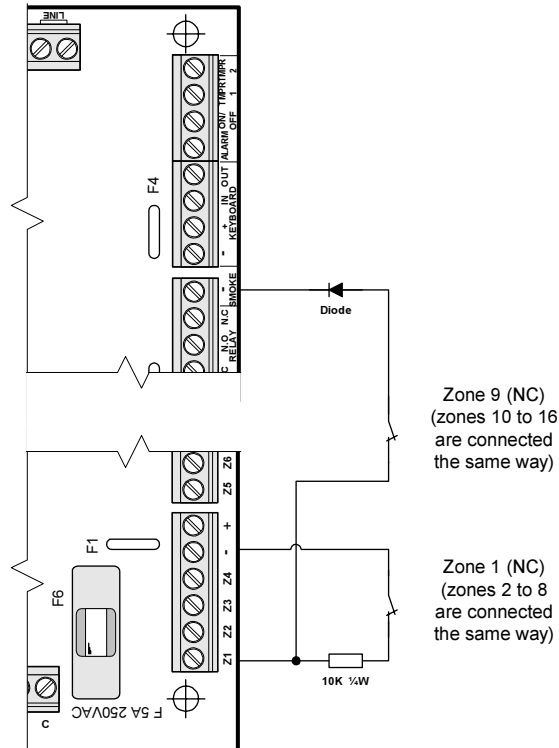


Figure 2 - Zone Doubling Without EOL Resistors

**IMPORTANT!**

Pay attention to the polarity (direction) of the diode when connecting it (see Figure 3).

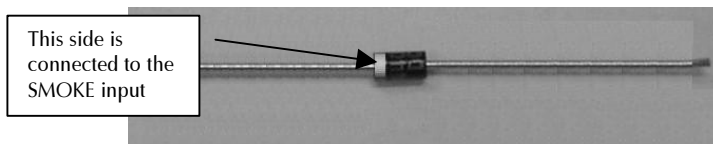


Figure 3 - Connecting the Diode

Connecting With an EOL Resistor

Zones 1 through 8 are connected as without an EOL resistor (i.e., a serial 10K Ω resistor to the zone inputs on the control panel; see Figure 4). Zones 9 to 16 are connected with a serial diode and resistor to the zone inputs (i.e., zone 9 is connected to zone input 1, 10 to 2, etc.) and uses the SMOKE input instead of the GND (see Figure 4).

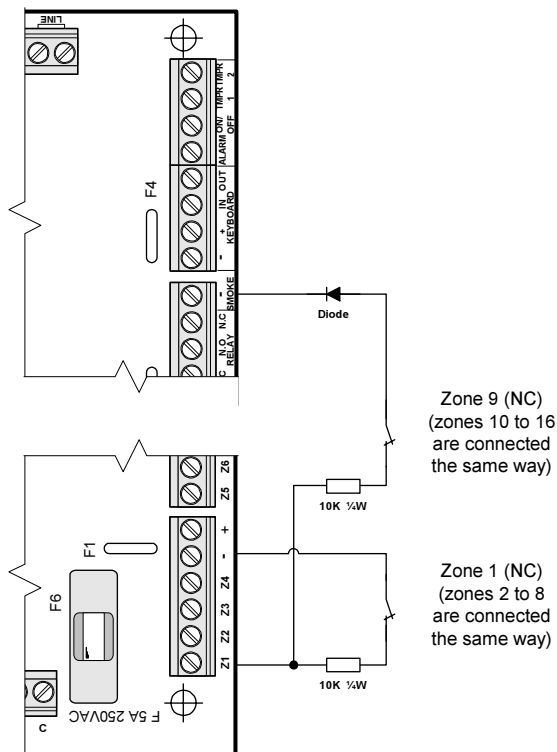


Figure 4 - Zone Doubling With EOL Resistors

**NOTE:**

Figure 4 illustrates how to connect NC (Normally Closed) type detectors; for NO (Normally Open) type read the following.

Connecting Normally Open Detectors

As a rule, when using Zone Doubling Feature, Zones 1 through 8 can include ONLY Normally Closed (NC) type detectors. The NO detectors (with the EOL resistor) should be installed as illustrated in Figure 5.

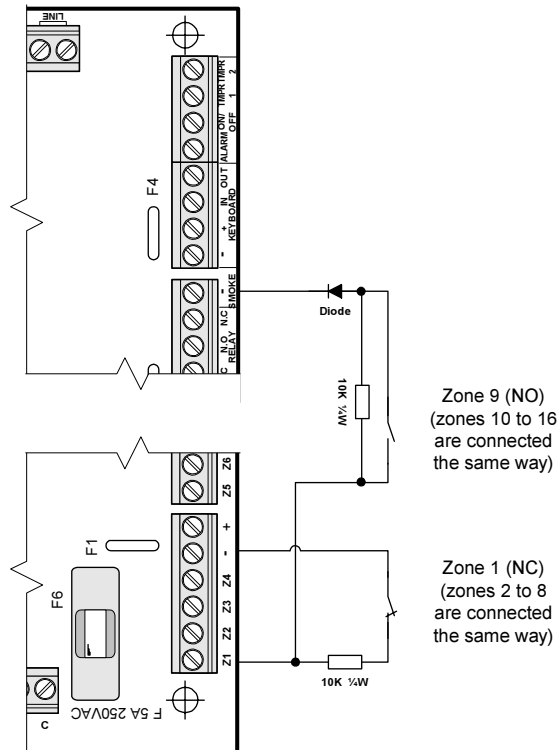


Figure 5 - Connecting NO Detectors (Zones 9 through 16)

When Doubling Some of the Zones

When not doubling all the zones, the following should be taken into consideration:

- ◆ The upper un-doubled zones should be permanently bypassed, as they are not present (e.g., if zones 7 and 8 are not doubled, zones 15 and 16 should be bypassed).
- ◆ Each lower zone has its upper doubled zone match (i.e., zone 1 is matched with zone 9, zone 2 with zone 10, etc.)

- ◆ When un-doubled zones are connected with two EOL resistors, all other (doubled and regular) zones should be programmed as NOT protected with EOL resistors; i.e., the EOL characteristic ("E") should be disabled ("-") in the Zone Characteristic menu.

**NOTE:**

If two EOL resistors are required for all 16 zones, an eight zones expansion card (EXP-1001) should be used instead.

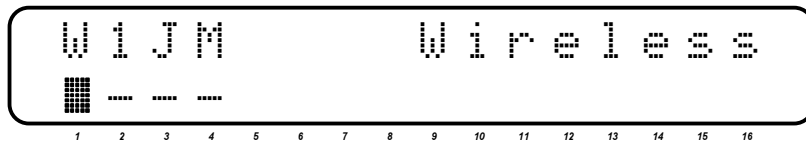
Configuring HUNTER-PRO for Zone Doubling

The new version has some additional screens in the System Configuration menu.

To enter the Zone Doubling configuration screen: Master Code

→ ^{SERVICE} **NEXT** → Technician Code → ^{HOME 2} **7** → **ENTR** (eight times)

System Configuration, Screen 8 (new) is displayed (see Figure).



W For future use.

1 For future use.

J For future use.

M Zone Doubling feature; when enabled (+), the zone-doubling feature is enabled and the HUNTER-PRO can support up to 16 zones without expanding the hardware.

After enabling the Zone Doubling, the 16 zones can be configured using the standard Zone Characteristics menus.