

No.1020 DAY-NIGHT DELUXE INSTRUMENT

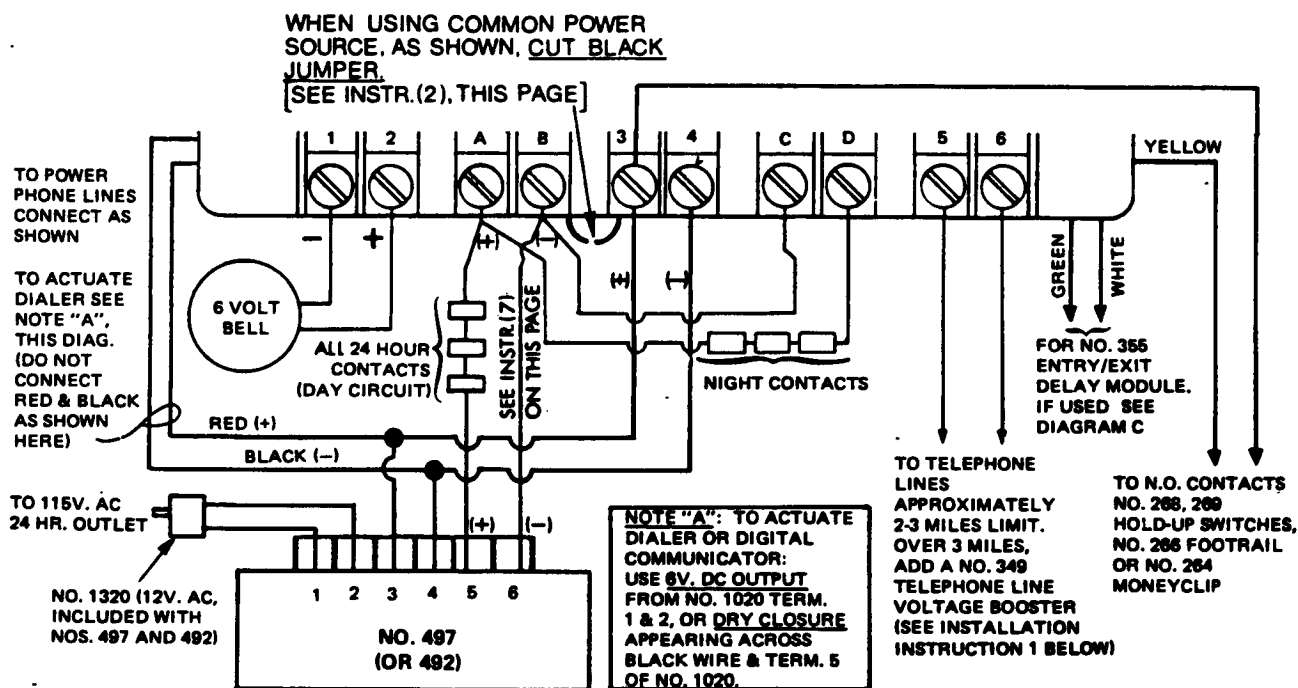


DIAGRAM A: Using No. 497 Recharge-A-Pack (or No. 492 Battery Pack)

INSTALLATION INSTRUCTIONS (See Diagrams A, B and C):

- (1) The No. 497 Recharge-A-Pack (or No. 492 Battery Pack for greater standby capacity) may be used for all central office connections where telephone line resistance does not exceed 1250 ohms (See Diagram A). If resistance exceeds 1250 ohms a No. 349 Telephone Line Voltage Booster should be connected between Diagram A's No. 497 (or 492) terminals 3 and 4 and the red and black wires. Alternatively, the No. 89-24 Energy Pack and dry batteries may be used as shown in Diagram B.
- (2) Observe polarity on all power source connections. Cut BLACK jumper at control's terminal B if common power source is used (Diagrams A and C). This insures that any disturbance during the night in any part of the 24 hour or night protective circuits will be detected. Do not cut BLACK jumper if separate power sources are used. (Diagram B).
- (3) Polarity on terminals 1 and 2 must be observed when electronic sirens are used (eg: Ademco No. 711).
- (4) Hold-up Switches wired as shown provide a silent signal over the telephone lease lines, when the control is in DAY position. At NIGHT, both bell and telephone signals are present.
- (5) To eliminate BELL TEST, cut the white jumper wire on the rear of the wafer switch on the key lock.
- (6) If entry/exit time delay is required, see Diagram C and special instructions on Page 3.

- (7) Diagrams A and C: Install all 24 hour contacts in the positive (+) loop of the day circuit. The negative (-) loop of the day circuit is not supervised against opens during the day.

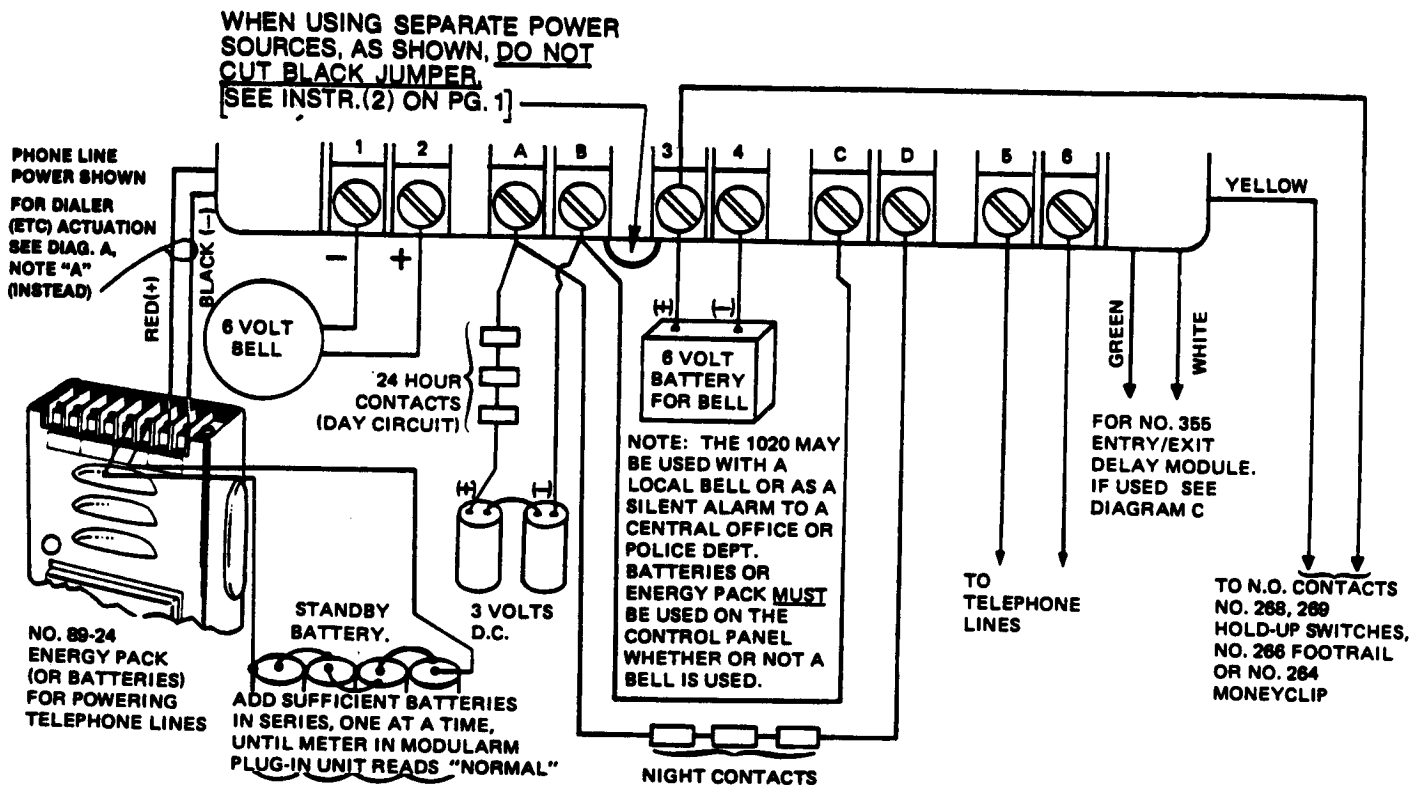


DIAGRAM B: Using No. 89-24 Energy Pack and Dry Cells

OPERATING INSTRUCTIONS, Without Entry/Exit Delay (Diagrams A or B):

- DAY:** When opening in the morning, rotate the key in the instrument box to the DAY position. All openings wired into the night circuit can now be opened without danger of sounding an alarm. If a protected area (day circuit) is disturbed during the day, only the built-in trouble buzzer will sound. No signal will be sent to the police headquarters.
- BELL TEST:** The bell and bell battery are tested. No signal is transmitted to police headquarters.
- CIRCUIT TEST:** The meter tests the operation of the batteries and all openings. DO NOT TURN SYSTEM TO NIGHT IF METER READS ZERO, AS A FALSE ALARM WILL BE SENT TO THE POLICE STATION. The meter should read approx. 6 ma. with Recharge-A-Pack or 3-4 ma. with dry cells.
- NIGHT:** The day and night circuits are combined, giving complete protection on all wired openings.

ENTRY/EXIT TIME DELAY (Optional):

The No. 355 Commercial Control Entry/Exit Time Delay Module is designed for use with Ademco "1000 Series" Control Instruments, using No. 497 or No. 492 Power Packs. Two separate adjustable time delays of approximately 10-40 seconds are provided; one for entry delay and one for exit delay. Its installation and operation are described on the following pages.

WHEN USING COMMON POWER SOURCE, AS SHOWN, CUT BLACK JUMPER.

[SEE INSTR. (2) ON PG. 1]

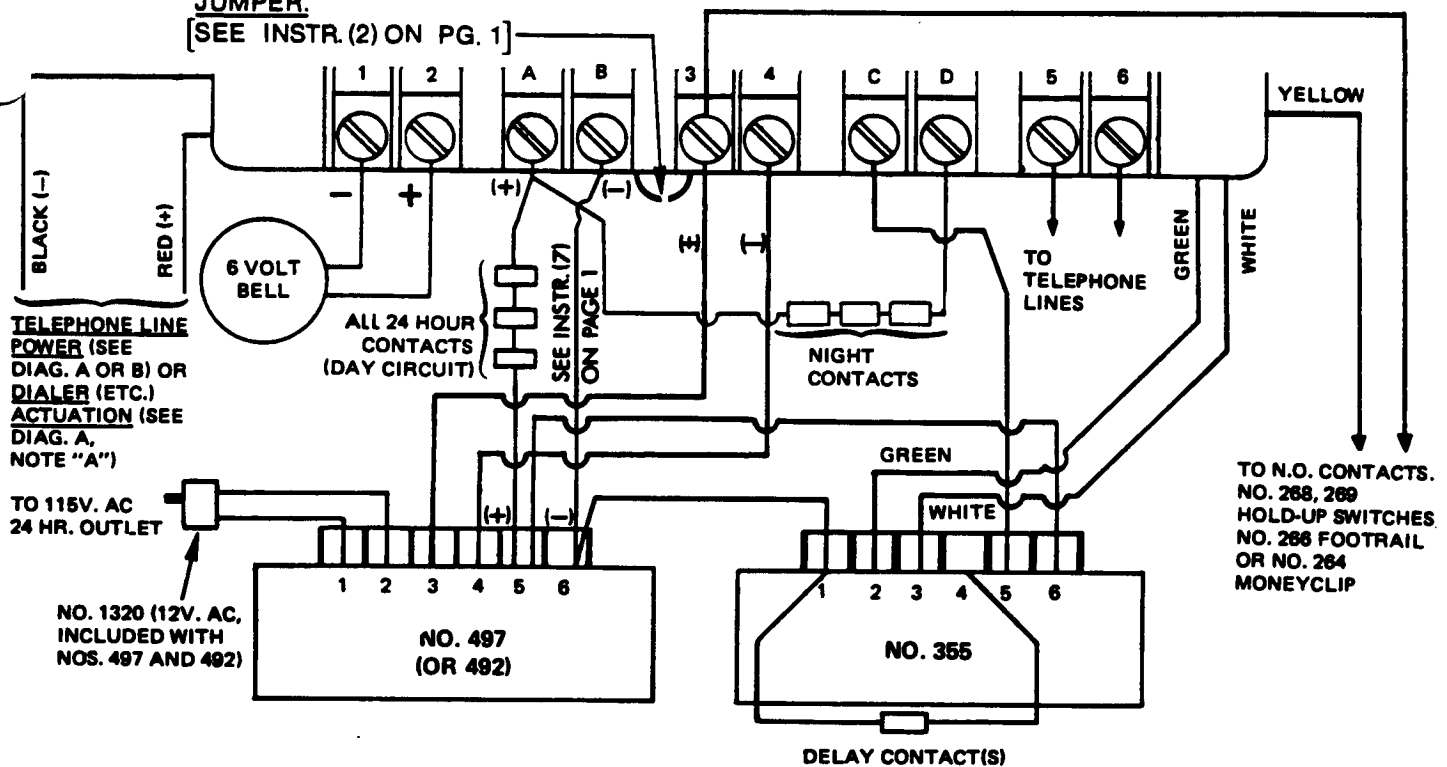


DIAGRAM C: Connection Of (Optional) No. 355 Commercial Entry/Exit Delay Module

INSTALLATION INSTRUCTIONS, With Entry/Exit Delay (Diagram C):

- (1) The No. 355 Commercial Entry/Exit Time Delay Module should be used in connection with a No. 497 Recharge-A-Pack (or No. 492). Diagram C (above) shows the connections required by the No. 355.
- (2) Delay Circuit: Closed circuit contacts wired between terminals 1 and 4 of the Entry/Exit Delay Module constitute a "Delay Circuit". Usually only the exit and entry doors are connected into this circuit. Any devices that might be actuated when the subscriber leaves or enters, such as ultrasonics or photocells, can also be wired into the delay circuit.
- (3) No-delay: The remaining contacts, shown in Diagram C are not delayed, and give their appropriate signal (trouble, alarm or hold-up) immediately upon actuation.
- (4) The green and white wires from the 1020 Control should be connected to the No. 355 as shown.
- (5) To set time delays, refer to the Installation Instructions included with the No. 355.

OPERATING INSTRUCTIONS, With Entry/Exit Delay (Diagram C):

DAY: (Note: To prevent an alarm when opening, follow the special procedure described at the end of this section). In the DAY position the control's

TROUBLESHOOTING No.1020 (AND 1006)

TROUBLE: 1. EXCESSIVE DRAIN OF PROTECTIVE CIRCUIT POWER SUPPLY OR REPEATED REPLACEMENT OF PROTECTIVE CIRCUIT BATTERY. (See also Part I, Section H).

<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
A. <u>Short circuit in protective circuit wiring</u> (remove wires from terminals A and B and from terminals C and D; remove wires from protective circuit power source; see Part I, Section H for finding short circuits).	A. <u>Repair or replace defective wiring</u> (check for pierced insulation in protective circuit wiring caused by tacks, staples or pinching. Check where wires go through walls or around pipes).
B. <u>Short circuit in sensitive relay coil</u> (located uppermost above terminals 5 and 6).	B. <u>Replace sensitive relay if resistance check indicates too low a value</u> (see Part I, Section H).

NOTE: 1. When using separate power sources as shown in Diagram B, DO NOT cut black jumper between terminals B and 3 on terminal board.

2. When using a common power source as shown in Diagrams A and C, CUT black jumper between terminals B and 3 on terminal board.

TROUBLE: 2. BELL(S) OR OTHER SOUNDING DEVICES DO NOT GIVE FULL SOUND.

<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
A. <u>Low bell battery or power supply voltage</u> (in the case of a rechargeable power supply, be sure that the batteries are fully charged - charge batteries for 24 hours without a load).	A. <u>Replace battery if voltage measures substantially less than 6 volts while the bell is operating.</u> Allow rechargeable batteries to charge fully.
B. <u>Bell line run does not conform to specified procedures</u> (see note at the end of this section; see also, Part I, Section G).	B. <u>Make changes in bell wiring.</u>
C. <u>Improper bell mounting</u> has caused clapper to jam.	C. <u>Inspect mounting and bell dome position.</u> Correct any binding or jamming.
D. <u>Short circuit in bell wires</u> (see Part I, Section G for troubleshooting bell connection).	D. <u>Replace wires to bell, being careful to avoid conditions that will cause short circuits.</u>
E. <u>Defective bell</u> (if possible, test system with new bell).	E. <u>Replace bell</u> if necessary.

PROBABLE CAUSE

REMEDY

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| F. <u>Short circuit in coil of latching (drop) relay</u> (located above terminals 1 and 2 on relay panel). Coil resistance should measure 50 ohms. | F. <u>Replace latching relay</u> if resistance check indicates substantially less than 50 ohms. |
| G. <u>Dirty or corroded keyswitch contacts.</u> | G. <u>Replace keyswitch</u> with proper type (see catalog). |
| H. <u>Dirty or corroded latching (drop) relay contacts</u> (located above terminals 1 and 2 of relay panel). | H. <u>Clean and/or burnish relay contacts</u> with burnishing tool and spray cleaner (catalog Nos. 316 and 317). |

TROUBLE: 3. BELL CIRCUIT DOES NOT LATCH ON ALARM. WHEN THE CONDITION CAUSING ALARM IS CORRECTED, THE BELL STOPS EVEN THOUGH THE KEYSWITCH REMAINS IN THE NIGHT POSITION.

PROBABLE CAUSE

REMEDY

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| A. <u>Dirty contacts on latching (drop) relay</u> (located above terminals 1 and 2 on relay panel). | A. <u>Clean relay contacts</u> with burnishing tool and/or spray (see catalog Nos. 316 and 317). |
| B. <u>Open circuit in coil of latching (drop) relay</u> (located above terminals 1 and 2 on relay panel. Look for approximately 50 ohms with an ohmmeter placed across coil winding). | B. <u>Replace latching relay</u> if ohmmeter check on coil reveals an open circuit. |

TROUBLE: 4. WITH SYSTEM ARMED (KEY IN NIGHT POSITION), BELL DOES NOT OPERATE WHEN PROTECTIVE CIRCUIT IS BROKEN. (See also Part I, Section H).

PROBABLE CAUSE

REMEDY

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| A. <u>Stuck contact in protective circuit</u> failing to release on entry. | A. <u>Check each contact for proper operation.</u> Replace as necessary. |
| B. <u>Disconnected or discharged bell battery or power supply</u> (be sure any rechargeable batteries in Recharge-A-Packs are fully charged; charge batteries for 24 hours without a load). | B. <u>Check connections of bell battery or power supply</u> to terminals 3 and 4 of control panel. <u>Replace defective batteries</u> if they do not measure substantially close to 6 volts when the bell or other sounding device is operating. |
| C. <u>Disconnected, broken, or shorted wires between relay panel and bell.</u> Check wiring between terminals 1 and 2 on control panel to the bell. | C. <u>Check wiring and repair or replace as needed</u> (see Part I, Section G). |