4200 RESCUE ASSISTANCE INSTALLATION GUIDE-OVERVIEW

IMPORTANT: THE FOLLOWING FIELD MODIFICATIONS MUST BE COMPLETED AT THE TIME OF INSTALLATION.

THE 4200 RESCUE ASSISTANCE SYSTEM REQUIRES THE FOLLOWING SETTINGS FOR PROPER OPERATION. ADDITIONAL INFO & DIAGRAMS ARE AVAILABLE IN THE INSTALL PACKET AT WWW.CORNELL.COM

1. RECOMMENDED CALL STATION WIRING - HOME-RUN BETWEEN EACH STATION & ANNUNCIATOR:
   (1) CORNELL CB-4200 CABLE - OR THE FOLLOWING:
   TWO SEPARATE CABLES TO EACH STATION:
   (1) 4-CONDUCTOR 22 GAUGE CABLE [+24V, SWITCH, LED, & GROUND]
   (1) 22 GAUGE SHIELDED PAIR [AUDIO]

2. ADJUST THE POWER SUPPLY VOLTAGE (SEE FIGURE 1)

3. SET "USED / NOT-USED" ZONE JUMPERS (SEE FIGURE 2)
   8010-300 CONTROL BOARDS ARE LOCATED ON THE REAR OF THE ANNUNCIATOR FACEPLATE. EACH CONTAINS (4) JUMPERS (ONE PER ZONE). THE "USED" POSITION ENABLES SUPERVISION, SUCH THAT A USED ZONE WILL REPORT A LINE FAULT IF THE CALL STATION BECOMES DISCONNECTED, OR IF NO STATION IS CONNECTED. THE "NOT USED" POSITION DISABLES THIS SUPERVISION.

4. ADJUST THE VOLUME CONTROLS (SEE FIGURE 3)
   VOLUME CONTROLS ARE LOCATED ON THE AMPLIFIER BOARD, WHICH MOUNTS IN THE ANNUNCIATOR BACK BOX.
   START WITH THE CONTROLS FOR THE "OUTGOING" (TALK) AND "INCOMING" (LISTEN) VOLUME SET AT NO GREATER THAN \( \frac{3}{4} \) TURN FROM THE FULLY CLOCKWISE POSITION. ANY HIGHER INITIAL SETTING MAY CAUSE FEEDBACK.
   ADJUST THE VOLUME LEVELS WHILE COMMUNICATING WITH THE CALL STATION THAT IS THE FAIREST AWAY FROM THE ANNUNCIATOR. ADJUST BOTH IN-COMING AND OUT-GOING LEVELS, IN SMALL INCREMENTS, FOR CLEAR AUDIO / THE BEST PERFORMANCE.
   THE CALL STATION PRE-TONE ("BEEPS" PRODUCED AT THE CALL STATIONS) SHOULD INITIALLY BE SET TO APPROXIMATELY HALFWAY - THEN ADJUST AS NEEDED, TO COMPENSATE FOR AMBIENT NOISE.

5. AUDIO SHIELD (DRAIN WIRE) MUST ONLY BE GROUNDED AT THE ANNUNCIATOR END.
   AT THE ANNUNCIATOR, CONNECT THE SHIELD (DRAIN WIRE) TO THE SPEAKER MOUNTING STUD, AS SHOWN ON DRAWING # 90022-12.
   AT THE CALL STATION, CONNECT THE WHITE CALL STATION LEAD WIRES TO THE SUPPLIED TWISTED PAIR.
   THE AUDIO SHIELD SHOULD BE TRIMMED-OFF FLUSH WITH THE CABLE JACKET AND/OR TAPE BACK TO THE CABLE, SUCH THAT THE SHIELD CAN NOT TOUCH ANY GROUNDED METAL AT THIS END.
   WRAP WITH TAPE, SO THAT DRAIN & SHIELD DO NOT CONTACT GROUND AT THIS END
   FOLD DRAIN WIRE BACK AGAINST CABLE JACKET
   WIRE NUTS

FIGURE 1 - POWER SUPPLY

FIGURE 2 - 8010-300 BOARD

FIGURE 3 - 2009 AMPLIFIER BOARD

FIGURE 4 - TYPICAL CALL STATION

4201A, 4201B, 4201B/V, OR 4201B/VM

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90046–13 REV: MAY 22, 2013
TYPICAL 4200 SERIES ANNUNCIATOR
(A-4204 SHOWN HERE)

BATTERY BACK-UP POWER SUPPLY 24VDC @ 3.5A

NOTE:
NO CONDUIT OR WIRE INTO BOTTOM OF CABINET BECAUSE OF BATTERIES.
SYSTEM:
DRAWING #
TITLE:
DATE:
SYSTEM:
NOTES:

AUX1, AUX2, AUX3 AND AUX4 ARE OPEN COLLECTOR OUTPUTS FOR ZONES 1 THROUGH 4, RESPECTIVELY. EACH CAN SINK UP TO 100 mA AND IS ACTIVE DURING BOTH ALARM AND ACKNOWLEDGE CONDITIONS.

IF A ZONE ON AN 8010-300 CONTROL BOARD IS NOT BEING USED (SEE ZONES 1 THRU 3), THE JUMPER FOR EACH SUCH ZONE MUST BE SET TO THE "NOT USED" POSITION. IF THIS IS NOT DONE, A FAULT WILL BE INDICATED.

OLD STYLE 8010-300 BOARDS HAVE SCREW TERMINALS IN PLACE OF THE PIN-HEADER SHOWN HERE. WHEN ORDERING REPLACEMENT BOARDS, BE SURE TO SPECIFY "OLD STYLE / SCREW TERMINALS" IN THIS CASE.

JUMPER BETWEEN "GND" AND "S-COM" (PART OF FACTORY WIRE HARNESS) ENABLES ZONE SWITCHES ON PANEL FACEPLATE TO ENABLE / DISABLE THE SWITCHES FROM AN EXTERNAL SOURCE (FIRE ALARM PANEL, ETC.), DISCONNECT THIS WIRING, AND REPLACE WITH CONTACTS THAT FAIL TO A NORMAL-CLOSED POSITION.

TYPICAL CALL STATION

TYPICAL A-42NN MASTER PANEL:
<NN = TOTAL NUMBER OF ZONES>

NOTES:

"AUX" TERMINALS, ON THE POWER BOARD, PROVIDE 2 AMP NORMALLY OPEN CONTACTS THAT CLOSE DURING ANY CALL FOR ASSISTANCE.

BE SURE TO SET THIS SWITCH FOR 24 VDC

DC POWER SUPPLY: MODEL B-5243A SHOWN 24 VDC @ 3.5 AMPS

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DATE: MAY 22, 2013
SYSTEM: 4200 RESCUE ASSISTANCE
DRAWING #: 90022-13
D4200W-D

4201A
4201B
4201B/V
4201B/VM
A-4200 SERIES RESCUE ASSISTANCE ANNUNCIATOR (MODEL A-4204 SHOWN AS TYPICAL)

BOARD STACKED ON TOP OF BOARD FOR FIRST (4) ZONES

ZONE 4
ZONE 3
ZONE 2
ZONE 1

(AUX) OUTPUTS (1) PER ZONE

BOND TO PANEL BACK BOX

FROM 24 VDC POWER SUPPLY

(3) #18 AWG POWER WIRES (TYPICAL)

#22 AWG ZONE WIRES (TYPICAL)

TYPICAL LED BOARD(S)

TYPICAL 4000 SERIES SINGLE-STATUS ANNUNCIATOR PANEL (MODEL A-4010/TG [10-POINTS] SHOWN)

GREEN GROUND LEAD

SOUNDER BOARD (TYP.)
FACTORY WIRING HARNESS

4200 RESCUE ASSISTANCE

90027-13
D4200W-E

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DATE: JANUARY 11, 2013
SYSTEM: 4200 RESCUE ASSISTANCE

TITLE: FACTORY WIRING HARNESS
DRAWING #: 90027-13  D4200W-E