

Suggested Kroger Speaker Field Installation Cable Path Runs

1. Tap speaker to SPECIFIED TAP SETTINGS as noted on this design as well as on the attached scope of work.
2. Use 18gg Shielded (speaker cable preferred) single pair cable. If 18gg cable (as noted above) is not available, see "REDUCING GAUGE CHART".

Wire Gauge (AWG)	REDUCING GAUGE	
	GAUGE OF 2 PAIR	GAUGE OF 3 PAIR
26	24	22
24	22	20
22	20	18
20	18	16
18	16	14
16	14	12

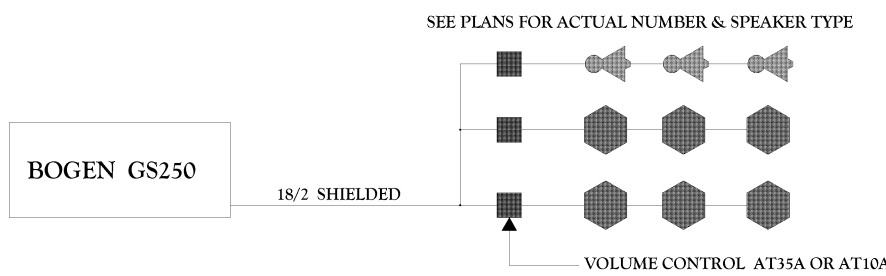
3. Using 18gg cable with a 40 watt load per individual speaker cable run, it is recommended to have 8 to 10 speakers per run. It is imperative that the field installer DOES NOT EXCEED total 18gg cable load limit as referenced in the below "WIRE LOSS CHART".

Wire Loss Chart (10% of Power Lost in Wire)

Wire Gauge	Load Power Per Wire Run (Watts)						
	5	10	15	30	50	100	200
16	10,000	7,000	4,600	2,300	1,400	700	350
18	9,000	4,500	2,800	1400	830	415	205
20	5,500	2,700	1,800	900	540	270	135
22	3,400	1,700	1,100	550	330	115	60
24	2,100	1,000	700	350	210	105	50
Maximum Wire Run Cable Length (ft.)							

4. Wiring Connectivity: Speakers are to be cabled in a parallel (daisy chain method) ensuring +/- (70v / common) continuity.

5. For best cable practices, see the SUGGESTED cable paths for the speakers on this layout.
NOTE: These are just suggestions; the installer of record maintains ultimate responsibility for correct cabling phases.
For assistance or inquiries, please call Al Gessman at Bogen Communications: 201-995-2048 Design Engineer, or Tom Bisanti 201-995-2039 VP Sales National Accounts.

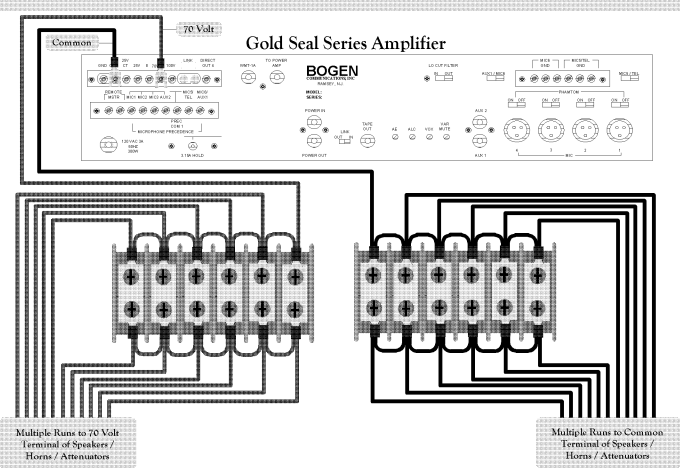


WIRING SCHEMATIC
NOT TO SCALE

ALL SPEAKER CABLING ORIGINATES IN THE ECR (MDP) ROOM.

Suggested Speaker Termination Drawing for Multiple Speaker Runs

This depicts a standard tap termination setup with each wire connected to a separate terminal. One making one block for the Common Lead and another block for the 10 Volt Lead. These terminal wires are capable of handling three and 18 mg speaker cable and their associated termination spades. 100' and 1' or 60' block punch down terminations are not recommended for speaker terminations.



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PROJECT
REFERENCE CODE:
15346B-MI.AG

DATE: 29 JUNE 2015
BY: A. GESSMAN

- LEGEND
- CSD2X2 SET TO 1 WATT
 - MB8TSL TAPPED TO 1 WATT
 - OPS1W SET TO 2 WATTS, MOUNTED 17 FEET ABOVE FINISHED FLOOR (AFF)
 - OPS1W SET TO 4 WATTS, MOUNTED 17 FEET ABOVE FINISHED FLOOR (AFF)
 - AT10A
 - AT35A
 - SPT5A SET TO TAP #2 (1.25 WATTS)
 - SPT15A SET TO TAP#3 (3.8 WATTS)
 - SUGGESTED SPEAKER CABLE RUNS

IN REGARD TO LONG DISTANCE RUNS AND/OR LARGE WATTAGE LOADS,
THE "WIRE LOSS CHART" NEEDS TO BE ADDRESSED.

- 1W
- 1W
- 1W
- 1W
- 1W
- 1.25W
- 3.8W



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CURRENT PLAN DATE:
7/10/2015

ORIGINAL PLAN DATE:
5/22/2015

DRAWN: J. EDWARDS
CHECKED: D. BUSMAN

REVISIONS:

STANDARD PLOTTED SCALE:
NONE

BUILDING STATS:

TOTAL SHELVING: 1007 LF

SALES AREA: 23,180 SF

BASE STORE: 45 SF

MEZZANINE: 33,000 SF

DOCK / UTILITY: 892 SF

DOCK / UTILITY: 2,388 SF

GROSS BUILDING: 36,397 SF

OVERALL STORE: PAGING

STBL. PACKAGE: Not Applicable

D-361

T1.5

CAD FILE:

THIS DRAWING IS INTENDED ONLY TO SHOW THE REQUIREMENTS OF THE DESIGN. IT IS NOT TO BE USED FOR CONSTRUCTION. THE FIELD INSTALLER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE FIELD INSTALLER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE FIELD INSTALLER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.

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