

AR SERIES ORGAN
 HARMARK FOR
 #11351, SMITHWOOD BAPTIST CHURCH, KNOXVILLE, TENNESSEE
 SPECIFICATIONS FOR A SERIES 70 ORGAN

3/20

GENERAL

(1) ORGAN

Great Organ	Exposed & divided - provide enclosures
Positiv Organ	Unenclosed
Swell Organ	Enclosed - No cabinet
	Layout will be supplied
Wood & Finish <i>Great Organ</i>	To customer's <i>sample paint</i>
Action	Electro-Pneumatic
Wind Pressure	See Pipe Analysis
Pitch	A-440 @ 70°F

(2) CONSOLE

Cabinet	Special design with roll top
Wood & Finish <i>Buck Walnut</i>	To customer's <i>sample paint & stain</i>
Manuals	Three and Pedal
Manual Compass	CC to C4, 61 notes
Pedal Compass	CCC to G, 32 notes
Stop Controls	Draw Knobs & Tilting Tablets
Action	All Electric

(3) BLOWER (located in blower space)

Type	3-P-2724 - ^{1-1/2} 2 HP - 1150 RPM - 10" outlet
Wind	835 c.f.m. @ 4"
Current Specification	3 Ph - 60 Cy - 240 Volts - 5 Amperes
Overall Size	4'-10" x 2'-4" x 3'-1"

(4) POWER UNIT (located in organ)

Rating	DC Output - 10-15 Volts - 50 Amperes
Current Specification	AC Input: 1 Ph - 60 Cy - 220 Volts - 9 Amperes
Overall Size	14-1/2" x 10-3/4" x 7" high / 20

CONSOLE AND ORGAN

* GREAT ORGAN (Exposed & divided) 8

1	16	Bourdon-----	97 pipes
2	8	Principal-----	85 pipes
3	8	Gedeckt-----from #1-----	61 notes
4	8	Gemshorn-----from #13-----	61 notes
5	4	Octave-----from #2-----	61 notes
6	4	Gedeckt-----from #1-----	61 notes
7	2	Super Octave -----from #2-----	61 notes
8	2	Flute -----from #1-----	61 notes
9	II	Sesquialtera T.C.-----	98 pipes
10	III-IV	Mixture-----	183 pipes
11		Chimes-----Mayland tubes and electric actions with relay, transformer and volume control unit, A to F, #22 to 42--	21 tubes
12		Tremolo (flutes only)	26186

* Playable thru ~~relay~~ and switches and *divides in console*

POSITIV ORGAN (Unenclosed) 7

8	Gedeckt -----	61 pipes
8	Gemshorn -----from #22 -----	61 notes
8	Gemshorn Celeste TC -----from #23 -----	49 notes
4	Spitzflöte -----	61 pipes
2	Principal-----	61 pipes
II-III	Mixture -----	159 pipes
8	Krummhorn -----	61 pipes
	Tremolo	

* SWELL ORGAN (Enclosed) 5

8	Rohrflöte-----	73 pipes
8	Gemshorn-----	80 pipes
8	Gemshorn Celeste TC -----	49 pipes
4	Spitz Principal-----	73 pipes
4	Rohrflöte-----from #21-----	61 notes
2	Spitz Octave -----from #24-----	61 notes
1-1/3	Larigot -----from #22-----	61 notes
1	Zimbel -----from #24 (repeat 12 top notes) -----	61 notes
16	Contre Trompette -----	80 pipes
8	Trompette -----from #29 -----	61 notes
4	Clairon -----from #29 (repeat 5 top notes) -----	61 notes
	Tremolo	

* Playable thru ~~sliders~~ switches and diodes in Console

* PEDAL ORGAN

32	Resultant Bass-----from #1 -----	32 notes
16	Contrebasse-----12 pipes, 20 from #2 -----	32 notes
16	Bourdon -----from #1 -----	32 notes
8	Principal -----from #2 -----	32 notes
8	Gedeckt -----from #1 -----	32 notes
4	Octave -----from #2 -----	32 notes
4	Rohrflöte -----from #21-----	32 notes
III	Mixture -----from #10 & #7 -----	32 notes
16	Contre Trompette -----from #29 -----	32 notes
8	Trompette -----from #29 -----	32 notes
4	Clairon-----from #29 -----	32 notes

* Playable thru ~~sliders~~ switches and diodes in Console

COUPLERS

44	Great to Pedal	49	Positiv to Great
45	Swell to Pedal	50	Positiv to Great 4
46	Positiv to Pedal	51	Swell to Positiv
47	Swell to Great	52	Swell 4
48	Swell to Great 4	53	Positiv 4

ADJUSTABLE COMBINATIONS

Pistons No. 1-2-3	Affecting Great Organ
Pistons No. 1-2-3	Affecting Swell Organ
Pistons No. 1-2-3	Affecting Positiv Organ
Toe Studs 1-2-3	Affecting Pedal Organ
Pistons No. 1-2-3-4-5-6	Affecting Full Organ (duplicated by toe studs)
General Cancel	

PEDAL MOVEMENTS

Sfozando reversible with indicator light (red jewel)
32 Resultant Bass reversible
Balanced Expression Pedal - Swell Organ (8 contacts, reverse system)
Balanced Crescendo Pedal with indicator light (green jewel)

ACCESSORIES

Motor starter switch with indicator light (amber jewel)
Concave & radiating pedal keyboard
Organ bench with music shelf
Music rack
Music rack light
Pedal light

PIPE ANALYSIS

STOP	PITCH	PIPES	SCALE	HALVING	MOUTH	METAL	WIND PRESSURE
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GREAT ORGAN

Bourdon	16	97	COC to BBB Reg. Man. Bourdon CC to BB Reg. Art. Tapered Bass TC 68 C 78 21-1/2 2/9			Wood Wood 5 Zinc C.M.	3-1/2"
Principal	8	85	48	18-1/2	1/4	19 Zinc S.M.	3-1/2"
Mixture	III-IV	183	See Formula Below			S.M.	3-1/2"
Sesquialtera	II TC	98	See Formula Below			S.M.	3-1/2"

POSITIV ORGAN

Gedeckt	8	61	Reg. Stopped Flute bass & treble			Wood	3-1/2"
Spitzflöte	4	61	57-1/2	17-1/2	2/9	5 Zinc C.M.	3-1/2"
Principal	2	61	72	17-1/2	1/4	S.M.	3-1/2"
Mixture	II-III	159	See Formula Below			S.M.	3-1/2"
Krummhorn	8	61	1" Reg. lifting lid			S.M. tube B(1/8) Esch.	3-1/2"

SWELL ORGAN

Rohrflöte	8	73	56	21-1/2	2/9	Sm. O.S. Chimneys (#19-62) 18 Zinc C.M.	3-1/2"
Gemshorn	8	80	CC 56 C 68-1/2 #56 98	19-1/2 19-1/2 17-1/2	2/9 2/9 1/6	17 Zinc S.M.	3-1/2"
Gemshorn Celeste	8 TC	49	56-1/2 @ 8 CC	19-1/2	2/9	5 Zinc S.M.	3-1/2"
Spitz Principal	4	73	60-2/3	18-1/2	1/4	7 Zinc S.M.	3-1/2"
Contre Trompette	16	80	3" CCC to FF half length FF# up Full length			D(F) Eschallots Zinc & S.M.	3-1/2"

PEDAL ORGAN

Contrebasse	16	12	36	18-1/2	1/4	Zinc	3-1/2"
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MIXTURE FORMULAS

GREAT III-IV MIXTURE FORMULA

	15	12	12	12	12
	19	15	15	15	
	22	19	19		
		22			
	1-24	25- 30 42	31 -49 43	50-55	56-61
Unison	47 Sc. @ 8	17-1/2	1/4 mouth	S.M.	
Quint	50 Sc. @ 8	17-1/2	1/4 mouth	S.M.	

GREAT II SESQUIALTERA TC MIXTURE FORMULA

		12	10		
		17	12		
		13-56	57-61		
2-2/3	74 Sc. @ 13	17-1/2	2/9 mouth	S.M.	
1-3/5	82 Sc. @ 13	17-1/2	1/5 mouth	S.M.	

POSITIV II-III MIXTURE FORMULA

	26	22	19	15	15	12
	29	26	22	19	19	15
		29	26	22		
	1-12	13-37	38-42	43-49	50-54	55-61
Unison	56 Sc. @ 8	17-1/2	1/4 mouth	S.M.		
Quint	56 Sc. @ 8	17-1/2	1/4 mouth	S.M.		

32 Resultant Bass wiring procedure

All from 16 Bourdon - CCCC plays CCC & GGG
 CCCC# plays CCC# & GGG#
 etc.