# Film-Tech

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These manual s are designed to facil itate the exchange of information rel ated to cinema projection and film handling, with no warranties nor obligations from the authors, for qualified field service engineers.

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## EPRAD Drive In Speakers

## PARTS LIST

4

EPRAD, INC. 2541 Tracy Road Northwood, Ohio 43619 (419) 666-3266 Fax: 419-666-6534



	MATERIAL LIST		D	VOLUME CONTROL 50 OHMS	10288
LETTER &	DESCRIPTION	PART NO.	E	HEX NUT 3/8-32 NC	10013
A-1	FRONT CASTING- ALUMINUM	20160	F	CONE JACKET	20670
A-2	FRONT CASTING - ALUMINUM PAINTED HAMMERTONE	20786	G	GRILL	20126
B-1	BACK CASTING-ALUMINUM	20161	H-I	DRIVER 4" 1.47 0Z. MAG. 6-8 SUPER	21321
B-2	BACK CASTING-ALUMINUM PAINTED BLUE HAMMERTONE	20787	H-2	DRIVER 4" IOZ. MAG. 6-8 BLAZER	20628
C-1	STRAIGHT CORD WITH AUTO CLIPS	20805	H-3	DRIVER 4" 1.47 02. MAG. 6-8 . MERIT	20146
C-2	STRAIGHT CORD WITH SPADE LUGS	20802	J	SPEAKER PAD - FIBERGLASS	20121
C-3	COLLED CORD WITH AUTO CLIPS	20803	к	HANGER PLATE	20125
C-4	COLED CORD WITH SPADE LUGS	20804	L	HOOK UP WIRE	20417
C-5	THEFTPROOF CORD WITH AUTO CLIPS	21314	M	GULMITE SCREWS NO 10-24NC. To LONG	10632
C-6	THEFTPROOF CORD WITH SPADE LUGS	21313	N	GULMITE SCREWS- NO IO SELF TAP 56 LONG	10520

## ORDER FROM YOUR EPRAD THEATRE EQUIPMENT DEALER



MATERIAL LIST		MATERIAL LIST			
NUMBER	DESCRIPTION	PART Nº	NUMBER	DESCRIPTION	PART NO
A	FRONT CASTING-ALUMINUM	21410	D	VOLUME CONTROL 50 OHMS	10288
			Ε	HEX NUT 3/8-32 NC	10013
8	BACK CASTING-ALUMINUM	21416	F	CONE JACKET	20670
			G	GRILL	20126
C-1	STRAIGHT CORD WITH AUTO CLIPS	20805	Н	DRIVER 4" 1.47 OZ. MAG. 6-8 .	20146
C-2	STRAIGHT CORD WITH SPADE LUGS.	20802	J	TONE PAD	20121
C-3	COILED CORD WITH AUTO CLIPS	20803	K	HANGER PLATE	20125
C-4	COILED CORD WITH SPADE LUGS	20804	L	HOOK UP WIRE	20144
C-5	THEFTPROOF CORD WITH AUTO CLIPS	21314	M	GULMITE SCREWS NO.10-24 NC. 3/8L	60701
C-6	THEFTPROOF CORD WITH SPADE LUGS	21313	N	GULMITE SCREWS-NO. 10 SELF TAP. 5/8L	10520

#### **DESCRIPTION:**

The EPRAD MERIT DRIVE-IN THEATRE SPEAKER is actually a 'legend in its own time'. Superbly designed and engineered, the Merit has many unusual features: cones are fashioned of an exclusive animal fibre known for long life; a heavy cork gasket (full 360 degrees for perfect contact), prevents rattling, and treated sealed spiders provide extra protection against dust, dirt, fungus or troublesome insects that can clog up magnetic gap area. Alnico V Magnets assure better and longer performance, while silver-plated terminals prevent corrosiop. The anchored pole-piece cap, soldered firmly in place, prevents pole-piece from shifting and binding the voice coll, which is moisture-proofed for added protection. The baskets are double plated heavy zinc-plated steel. The die-cast Merit Drive-In speaker case



#### **APPLICATION:**

The EPRAD MERIT DRIVE-IN THEATRE SPEAKER was developed especially with the needs of Drive-In Theatre owners in mind by exhaustive field tests conducted in all kinds of weather. MERIT speakers are recommended for outdoor theatres of all sizes.

The Deluxe Volume Control has a completely enclosed, phenolic insulated case, 50 ohm wire-wound resistance winding, full 'off' to full 'on' 340 degree rotation, double self-cleaning silver-plated wipers, silver-plated contact ring and brass bushing with knurled brass shaft.

#### **ADVANTAGES:**

The long range efficiency of the MERIT SPEAKER has been enhanced by an exclusive EPRAD feature: the entire Driver Unit is twice dipped into a special compound and a wax, which adds weight to the animal-fibre cone (and also protects the voice coil). This special treatment, while it inhibits the cone motion for the first few days, adds years to the life of the speaker as the compound is absorbed into the cone fibres. EPRAD Speakers thus operate at 100% efficiency for many years.

The acoustically designed case provides, rich melodeous sound; the hanger plate, built of heavy duty aluminum, saves on speaker back replacement and prevent damage to car windows. Gulmite theftproof screws discourage driver unit theft, and yet the terminals disconnect easily for maintenance because no soldering is necessary. The exclusive cone jackets prevent direct effects of weather from reaching the cone itself and filters out most Ultra-Violet rays which often cause premature failure of cones. The exclusive fiberglass tone pad contributes to the mellow tone of the speaker.

#### **ORDERING INFORMATION:**

#### MERIT — Unpainted (Aluminum Case)

Order 22012, Straight Cord w/Auto Clips Order 22013, Straight Cord w/Spade Lugs Order 23538, Theftproof Cord w/Auto Clips Order 23539, Theftproof Cord w/Spade Lugs Order 23586, Speaker Cut-Off NOTE: Junction Box must also be equipped with Sound Cut-Off (23587).

TECHNICAL DATA:

- CASE: Die-Cast aluminum; tone pad: fiberglass: cone: 4 inch animal fibre, double weather-proofed; 1.47 ox. Alnico V magnet; gasket: full face heavy cork; spider: sealed and treated; screws: gulmite, theftproof; pole piece: mechanically secured.
- VOLUME CONTROL (Deluxe): Wire-wound, silver plated for outdoor use; Phenolic insulated case: heavy plated steel; double wipers, silver plated; contact ring, silver plated; rotation, exclusive full 'on' and 'off' 340°.

WEIGHT: Speaker packed 16 per case, with straight cords — 41 lbs; with coiled cords — 45 lbs.

DIMENSIONS OF CASE: 20" x 161/2" x 103/4".

#### ACCESSORIES: (Not Included)

23586 SOUND CUT-OFF for Speaker. Junction Box must also be equipped with Sound Cut-Off (23587).

20792 SPEAKER BASKETS — Post Type for 2" Pipe (Holds 2 speakers — Galvanized finish).

NOTE: Speaker Baskets packed 25 pair per case: 38 lbs.

EPRAD, INC. 2541 TRACY ROAD NORTHWOOD, OHIO 43619 (419) 666-3266 FAX: (419) 666-6534



## SUPER SOUND DRIVE-IN SPEAKER



#### SUPER SOUND DRIVE-IN SPEAKER

MATERIAL LIST			MATERIAL LIST		
NUMBER	DESCRIPTION	PART Nº	LETTER &	DESCRIPTION	PART Nº
A	FRONT CASTING-ALUMINUM	21410	D	VOLUME CONTROL 50 OHMS	10288
			Ε	HEX NUT 3/8-32 NC	10013
B	BACK CASTING-ALUMINUM	21412			
			G	GRILL	20126
C-1	STRAIGHT CORD WITH AUTO CLIPS	20805	H-2	DRIVER 4" 1.47 OZ. MAG. 6-8	21321
C-2	STRAIGHT CORD WITH SPADE LUGS.	20802			
C-3	COILED CORD WITH AUTO CLIPS	20803	к	HANGER PLATE	20125
C-4	COILED CORD WITH SPADE LUGS	20804	L	HOOK UP WIRE	20144
C-5	THEFTPROOF CORD WITH AUTO CLIPS	21314	1		20144
C-6	THEFTPROOF CORD WITH SPADELUGS	21313	N	GULMITE SCREWS-NO. 10 SELF TAP. 5/8L	10520

#### **DESCRIPTION:**

#### SUPER SOUND DRIVE-IN SPEAKERS

The SUPER SOUND DRIVE-IN THEATRE SPEAKER is superbly designed and engineered, with many unusual features: cones (dated for your protection) are fashioned of an exclusive animal fibre known for long life; a heavy rubber gasket(full 360 degrees for perfect contact) prevents rattling, and treated sealed spiders provide extra protection against dust, dirt, fungus or troublesome insects that can clog up magnetic gap area. Alnico V Magnets assure better and longer performance, while nickel-plated terminals prevent corrosion. The anchored pole-piece cap prevents pole-piece from shifting and binding the voice coil which is moisture-proofed for added protection. The baskets are double plated heavy zinc-plated steel. The die-cast SUPER SOUND Drive-In Speaker case is constructed of strong, but light-weight aluminum which provides easy patron handling.

#### **APPLICATION:**

The SUPER SOUND DRIVE-IN THEATRE SPEAKER was developed especially with the needs of Drive-In Theatre owners in mind by exhaustive field tests conducted in all kinds of weather by EPRAD engineers who are famous for the development of many innovations in the Drive-In Theatre equipment field. SUPER SOUND Speakers are recommended for outdoor theatres of all sizes.

The Deluxe Volume Control has a completely enclosed, phenolic insulated case, 50 ohm wire-wound resistance winding, full 'off' to full 'on' 340 degree rotation, double self-cleaning electro-plated wipers, electro-plated contact ring and brass bushing with knurled brass shaft.

#### **ADVANTAGES:**

Exclusive acoustical matching provides rich melodious sound; the hanger plates built of ductile heavy duty aluminum, save on speaker back replacement and prevent damage to car windows. Gulmite theftproof screws discourage driver unit theft, and yet the terminals disconnect easily for maintenance because no soldering is necessary.

#### **TECHNICAL DATA:**

- CASE: Die-Cast aluminum; cone: 4 inch animal fibre, weather-proofed; 1.47 oz. Alnico V magnet; gasket: rubber; spider: sealed and treated; screws: Gulmite, theftproof; pole piece: secured. VOLUME CONTROL (Deluxe): 50 ohm wire-wound, plated for outdoor use, Phenolic insulated; case:
- heavy plated steel; double wipers: silver plated; contact ring: silver plated; rotation: full 'on' and 'off' 340°.
- WEIGHT: Speaker packed 16 per case, with straight cords-41 lbs; with coiled cords-45 lbs; no cords-38 lbs.
- DIMENSIONS OF CASE: 20" x 161/2" x 103/4"

#### **ACCESSORIES:**

23586 SOUND CUT-OFF for Speaker. Junction Box must also be equipped with Sound Cut-Off. 20792 SPEAKER BASKETS— Post Type for 2'' Pipe (holds 2 speakers—Galvanized finish.) NOTE: Speaker Baskets packed 25 pair per case: 38 Lbs.

**ORDERING INFORMATION:** 

#### SUPER SOUND—Unpainted

(Aluminum Case)

Order: 23547, Straight Cord w / Auto Clips Order: 23548, Straight Cord w / Spade Lugs

Order: 23551, Theftproof Cord w/Auto Clips Order: 23552, Theftproof Cord w/Spade Lugs Order: 23546, No Cord Order 23586, Speaker Cut-Off NOTE: Junction Box must also be equipped with Sound Cut-Off (23587).

Form No: 1127



## EPRAD INCORPORATED / 123 W. Woodruff / P.O. Box 4712 / Toledo, Ohio 43620 / (419) 243-8106 / Cable Address: EPRAD

EPRAD, INC. 2541 TRACY ROAD, NORTHWOOD, OHIO 43619 : (414) 666-3266

FAX 419-666-6534

Prices Effective April 1, 1982

## DRIVE-IN THEATRE SPEAKER PRICES

LIST

0.15 per line net

1.50 each net

Super Sound Speaker - Unpainted

23547	Straight Cord w/auto clips	10.30
23548	Straight Cord w/spade clips	10.30
23551	Theftproof Cord w/auto clips	12.50
23552	Theftproof Cord w/spade lugs	12.50

## Merit Speaker - Unpainted

22012	Straight Cord w/auto clips	10.60
22013	Straight Cord w/spade lugs	10.60
23538	Theftproof Cord w/auto clips	12.80
23539	Theftproof Cord w/spade lugs	12.80

### Theatre Name Imprints

Permanently stamped on specially raised pad on back speaker casting. (Minimum order of 200 speakers.)

25 letters and spaces maximum per line

4 lines maximum

Speaker Painting

Speaker Baskets

20792 Post Type for 2" Pipe 6.88 DRIVE-IN THEATRE SPEAKER PRICES Prices Effective April 1, 1982 Page #2

## Miscellaneous Items

LIST

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10525	Gulmite Screwdriver for #10 Theftproof Screws	4,15
10533	Hexnut Screwdriver for Volume Control	4.40
20508	Cone Life for Weatherproofing Drivers (Quart)	6.04
20669	Cone Life for Weatherproofing Drivers (Gallon)	19.78
23586	Speaker Cut Off	1.12

## Speaker Junction Boxes

22100	GLO-TOP, No Downlites, Red Butyrate Covers	10.34
22104	GLO-TOP, W/Downlites, Red Butyrate Covers	13.94
22108	Aluma-Top, No Downlites, Unpainted	
	Aluminum Covers	13.94
22110	Aluma-Top, W/Downlites, Unpainted	
	Aluminum Covers	17.69
235 <b>8</b> 7	Sound Cut-Off for Junction Boxes	6.94

## Junction Box - Replacement Part List

20 <b>2</b> 16 20674 20675	Red Butyrate GLO-TOP Cover Aluma-Top Cover, Aluminum Unpainted Aluma-Top Cover, Aluminum Painted	2.25 8.10 10.00
NOTE:	GLO-TOP and Aluma-Top Covers are Interchangeable	
10524	Screws for Covers and Disconnects, PHILLIPS	.07
20214	Matching Sound Transformer, Leads W/Connectors	3.67
10025	Screws for Transformer	.07
20215	Downlite Socket Leads W/Connector	.07 2.43
10051	Downlite Bulb, Bayonet Base 28v	.96
20 <b>676</b>	Base, Without Components or Hardware	4.93
20220	Base Assy., Without Downlite Assy.	9.10
20221	Base Assy., Complete with Downlite	11.88
10020	Set Screws for Base	.13
10078	Two-Ear Disconnect	.31
10012	Auto Clips (Quick Disconnect)	.07
10505	Spade Lugs	.07
22350	Adaptor for 2" Post - Mtg. J.B.	1.85

DRIVE-IN THEATRE SPEAKER PRICES Prices Effective April 1, 1982 Page #3

LIST

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## Speakers - Replacement Parts List

20805	Straight Cord - All Connectors (EPRAD J.B.)	2.85
20802	Straight Cord - All Connectors (Other J.B.)	
21314	Theftproof Cords + All Correctors (Other J. D.)	2.85
	Theftproof Cords - All Connectors (EPRAD J.B.)	4.08
21313	Theftproof Cords - All Connectors (Other J.B.)	4.08
20417	Jumper Wire w/Two Auto Clips	.34
20126	Alum. Grill Guard (Merit, Super Sound)	
20670	Cone Guard - All Speakers	.59
20070	cone duard - All speakers	.25

### Speaker Castings

21412 21416 21410 21413 21411 20125 20121	Back Casting, Unpainted (Super Sound) Back Casting, Unpainted (Merit Front Casting, Unpainted (All Speakers) Back Casting, Painted (Merit) Front Casting, Painted (Merit) Hanger Plates - All Speakers	3.52 3.78 3.67 5.91 5.94 .35
20121	Fiberglass Tone Pad	• 35

## Hardware and Connectors

10520	No. 10 Gulmite Theftproof Screws	
	(Hanger Plates for All Speakers)	.07
10524	Phillips Screws, for Case and Hanger	• • •
	Plates for All Cases	.07
10012	Auto Clips (Quick Disconnects)	.07
10505	Spade Lugs	.07
10013	Hex Nut for Volume Control	.07

## Speaker Replacement Parts For:

EPRAD, RCA, Projected Sound, Ditmico, Koropp, Ballantyne, Simplex, Reed, Montay Speakers

## Speaker Cones - Driver Units

21321	4" 1.47 oz. Alnico V Magnet, Projected Sound, Ditmico, Koropp, Ballantyne (large case) EPRAD Super Sound	4.60
20146	4" 1.47 oz. Alnico V Magnet, Extra weather-proof, Projected Sound, Ditmico, Ballantyne, Reed (large case), EPRAD Merit	4.80

### Volume Control

10288 Montay Speakers - Knurled Shaft 1.85