## World's Largest TV Makes Stadium Just Like Home

LOS ANGELES — The world's largest TV screen was unveiled at Dodger Stadium July 8 to show instant replays and close-ups of action in the 1980 All Star baseball game. The 20-foot-high × 28-foot-wide screen atop the left-field seats of the stadium cost \$3 million and was installed by Mitsubishi Electric Corp. of Japan. The company completed the screen in its Nagasaki Works in May and airlifted it to Los Angeles in sections.

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"At present, Mitsubishi Electric is the only company that offers a full-color, outdoor, video display system capable of presenting sharp images in full daylight with the fidelity and flexibility of a TV screen, though there are some monochrome or even colored matrix boards in use," says Masatsugu Mizuno, Mitsubishi vice chairman. Mizuno visited Dodger Stadium to watch the unveiling.

The system, called "Diamond Vision," consists of a huge screen containing tens of thousands of lighting tubes that are computer-controlled on the same principle as color TVs. It displays images and alphanumerics from sources like VTRs, TV cameras, commercial broadcasts and light pens.

light pens.
The Dodgers plan to enlarge the

## Specifications Of The Full-Color Outdoor Video Display System

Screen size	Height	25-50 ft.
	Width	50-70 ft,
Display tubes	Type	3-color lighting tubes
	Number	38,000-150,000 (dependent
a se en rest e V	1 .	upon desired screen size
		and resolution)
the second of	Power	2 W per tube
	Life	Typically 8000 hr
Color-image quality	G.	Comparable with TV screen
Viewlng distance		As close as 150 ft.
Image animation		60 frames/s
Image brightness		Adjustable to sult amblent
	-17	brightness
the second of		Satisfactory for full daylight
Peripheral equipment for display generation		
Video recordings		VTR for motion pictures
		VDR (disc) for stop motion
Live sequences .	100	CCTV camera, commercial
A.A		broadcasts
Alphanumerics		Standard char, set includes
		numerals and alphabet
7 g 1 m / 1		Special char. sets available
		Light pen plus CRT display fo
		instant selection and editing
Special-pattern generation image-display capability		Card reader Motion pictures, stills, trailer
		captions and still captions
(4) Y.		superimposed on the picture

Recorded Medium Video Input Unit Super-Imposition Full-Color Outdoor Video

The world's largest TV screen benefits from a highly flexible control system. The control system approximates a small TV studio.

screen to 25 × 33 ft. for the 1981 season by increasing the number of tubes, which currently total 24,576. Each lighting tube consumes 2 W—only one-tenth the electric consumption of a comparable incandescent bulb.

The technological breakthrough that made possible this large outdoordisplay screen was the development of a high-performance lighting tube

of a high-performance lighting tube with the following features:

- High brightness that makes images visible in the full light of
- day.

  High purity in colors of red, blue and green, which enables natural color rendition;
  Quick response, which is required in reproducing fast-moving
- images.

images.

Three lighting tubes, each representing one primary color, are put together to form a lighting unit or an image element. Thousands of lighting units are arrayed to form a screen, which is available in various sizes depending on the number of units. Brightness of each lighting tube is controlled by 5-bit digital signals.

The tubes high brightness (green color-level of above 1500 ftL as against 1000 ftL required for normal visibility in daylight) facilitates clear vision. Each primary color is controlled in 32 halftone gradations and a system was developed whereby the change in brightness does not cause a change in halftone gradations. Thus, a clear picture is offered both in daylight and at night.

Each lighting tube has a life of 6000 to 8000 hours compared with 2000 to 3000 hours for normal incandescent lamps.