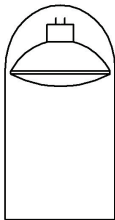
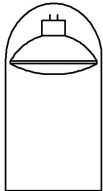




Parcans are a simple, common and cheap fixture that comes in a variety of configurations. Parcan is short for Parabolic Aluminised Reflector Can. The term 'Can' refers to their distinctive shape. A number after the word PAR indicates the size of the lamp in eighths of an inch. So a PAR64 fixture is designed for a lamp 8 inches in diameter.

Common PARCAN Fixture types

NAME:	PAR64	PAR56	PAR38	MR16 (BIRDIE)
				
LAMP DIAMETER:	8 in 204 mm	7 in 178 mm	4.75 in 120 mm	2 in 51 mm
WATTAGE: (TYPICAL*)	1000w	300w	120w	50w
LAMPBASE:	GX16D Terminal (ACL)	GX16D	E27 Edison Screw	GU5.3 (12v) GU10 (240v)
BEAM SHAPE:	Oval	Oval	Circle	Circle

Oval Beams?

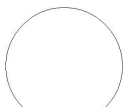
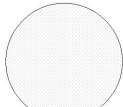
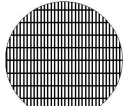
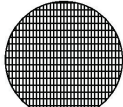
The parabolic reflector on PAR64 and PAR56 cans projects a beam which is an image of the filament. The filament is approximately twice as long as it is wide resulting in an oval shaped beam. The orientation of this beam can be changed by rotating the ceramic of the par lamp.

*In Australia each size of fixture is generally only associated with one wattage of lamp. This is not the case all over the world. Eg. 500W PAR64 and PAR56 lamps are available overseas.

Common PAR64 and PAR56 Lamp types

Use

In a classic parcan the lamp is a sealed unit including filament and lens. The only control available is rotation of the oval beam. To change beam size the entire lamp must be replaced. Different beam sizes can be identified by the appearance of the lens glass.

Short name:	Long name:	Code:	Beam angle:	Appearance:
VNSP <small>PAR64 Only</small>	Very Narrow Spotlight	CP60	6° x 12°	 Clear Lens
NSP	Narrow Spotlight	CP61	7° x 14°	 Cloudy Lens
MFL	Medium Floodlight	CP62	12° x 28°	 Segmented Lens
WFL <small>(XWFL) (VWFL)</small>	<small>(Extra) (Very)</small> Wide Floodlight	EXG CP95	24° x 48° <small>(Or more)</small>	 Heavily Segmented Lens

Each manufacturer handles WFL+ sizing differently. Ask your distributor for details.

Caution Rotating a PAR64 or 56 ceramic usually involves putting your hand inside the back of the fixture. Always look first. If there are cracks in the ceramic or loose/exposed wires DO NOT continue. If you are working outdoors and it is raining or there is high humidity DO NOT continue. Additionally you will need gloves if the lamp has been powered for more than a moment due to the heat buildup around the ceramic. The elimination of these hazards is one factor behind venues upgrading to Source 4 PARs and their derivatives. See below.

Variations

Short nose parcans - All par fixtures are available in long nose or short (stubby) versions. The main reason to use a stubby is it allows a WFL or XWFL to achieve its full beam spread, otherwise all they do is increase spill. They can be identified by their physically shorter barrel.

110V PAR64 - 110 volt parcans were originally brought to Australia in the 70s and remain popular due to their legendary durability. Their lamp life is 10x longer than their 240V counterparts and they can withstand rapid chasing and extended bumpy truck rides. 110V cans must be paired and wired in series so that they appear as a single 220V device. This is achieved via the use of a 110V splitter cable that wires them in series, however this means if one lamp blows both stop working. 110V cans are often wired with alternate 'round pin' plugs so they cannot accidentally be put straight into 240V outlets.

Source 4 PAR/MultiPar - In 1995 ETC introduced the Source 4 (S4) PAR, which uses a separate 575w lamp and interchangeable lenses to give similar performance to a 1000W PAR64. They were quickly followed up by a number of clone products from other manufacturers. They address many of the issues with classic parcans whilst using roughly half the power. They also come with four lenses giving venues more options with less stock. However they are heavier, more expensive, more exposed due to their 'stubby' lamphouse and some designers feel they just don't give the same look as PAR64s.

ACL - ACL Parcans or 'Air Craft Landing Lights' create a nearly parallel beam of light, ideal for use with haze or fog. They are usually 28V 250W meaning they must use a harness (similar to a 110V Parcan splitter) to wire them in series in groups of 8. If 1 blows all 8 will go out!

MR16 (Birdie) - Birdies are tiny 'below par' parcans. They are usually 50W 12V but pack a surprising punch. They use dichroic lamps normally found as domestic downlights that are available in a huge range of beam angles. The 12v version must have an accompanying external 240V>12V transformer.

Accessories Like most conventional lamps parcans should have runners for a gel frame, and can be equipped with colour scrollers. Barndoors are available for parcans and whilst they will reduce spill they cannot shape the beam as effectively as barndoors on a fresnel or PC.

Application PAR64s are great for big colour washes where the lack of control won't be missed. Additionally there are a number of rock and roll looks that can only be achieved with PAR64s or their variants. At just 300 watts 8 x PAR56 can be powered off a single 2400w circuit, making them an economical colour wash and a good choice for worklight/houselight. Birdies are the ideal tool for getting into tight spaces and providing controlled footlight. These features combined with their durability and low price tag make parcans a core fixture in any inventory.

Reference McGrath, Ian. 1991. *An approach to stage lighting*. Corrimal East, N.S.W. : I. McGrath.