

KATO

**SUPER
EXCEED®**

HD820Ⅲ HD820Ⅲ-LC

FULLY HYDRAULIC EXCAVATOR

Bucket capacity: 0.45m³ - 1.1m³ (ISO)

Engine output: 110kW/2,050min⁻¹ (ISO Net)

Operating weight: 19,500kg (HD820Ⅲ)/

20,300kg (HD820Ⅲ-LC)



Gentle with Nature, Gentle Try and Feel the New Ep



·Type K-version for demorishon work

·Type C-version with crane hook

tle with you och of Performance



Roomy and Comfortable Cabin

- Auto air conditioner
- UV cut glass
- Ideal layout of each controlling gear
- Mono piece big & wide side window
- Anti-static-electricity fabric seat
- Wide range adjustable seating position

Powerful Engine

Max Output: 110kW/2050min⁻¹(ISO Net)
with inter-cooler & turbo-charger

Low Noise Emission

99dB(A)*, sound power level

Low Engine Emission

Complying with the latest
emission control

Durable Cooling System

- High performance radiator and
aluminum oil cooler
- Easy access for cleaning.

Replacement Interval of Hydraulic Oil: 5,000 hours

*JIS Sound power level.

·Type H-version for heavy duty work

Technical Specifications

ENGINE

Model Mitsubishi 6D34-TLE2A, 4 cycle intercooler turbo charged diesel engine

Number of cylinders 6

Bore & Stroke 104mm X 115mm

Total displacement 5.86 L

Rated output 110kW/2,050min⁻¹ (ISO Net)

Max. torque 580N·m/1,400min⁻¹ (ISO Net)

Compression ratio 18.2:1

Combustion system Direct injection

Specific fuel consumption 225g/kW-hour

Cooling system Pressurized water circulated by a centrifugal pump with thermostat

Lubrication system Pressurized oil fed by a gear pump through full-flow and by-pass cartridge filter

Starter Electric, 24V-5kW

Generator Alternator, 24V-35A

Governor Mechanical

Air cleaner Dry type filter

HYDRAULIC SYSTEM

Pumps Double variable piston pump and gear pump

Max. discharge flow 2X235L/min

Max. discharge pressure 31.4MPa

Max. discharge pressure (travel circuit only) 32.9MPa

Oil filtration Full-flow filter with replaceable element, drain cartridge filter, pilot line filter and suction strainer

Control valves 5+4 section multiple control valves (with one free service circuit)

Pilot pump Gear type

Oil cooler Finned tube, forced ventilation

Pressure relief valves Primary and secondary on each circuit

CAB & CONTROLS

Type All weather sound suppressed, 1,000mm wide pressed steel cab mounted on 6 point viscourse mounting.

Right hand lever Controls the boom & bucket

Inner right hand lever (with foot pedal) Controls the right hand track

Inner left hand drive (with foot pedal) Controls the left hand track

Left hand lever Controls the arm & swing

Pilot control Travel, boom, arm, bucket and swing

Engine throttle Electric "Accel dial"

Meter & gauges Hour meter, water temperature and fuel level

Monitor display Engine oil pressure, engine oil filter, hydraulic oil filter, hydraulic oil temperature, water temperature, water level, fuel level, battery charge, APC monitor and air cleaner.

Indicator lamps Caution lamp & Engine preheater indicator lamp

Working lights Provided on the boom left side and mounted on the frame

Lubrication chart Inside the tool box



● Fire wall

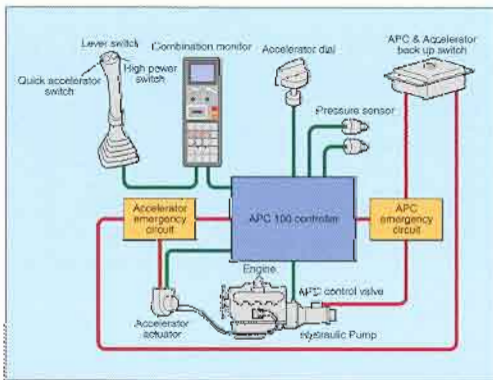


SWING SYSTEM

Drive	Axial piston motor with shockless valve and reduction gear.
Brake	A hydraulic brake that locks automatically when the swing control lever is in the neutral position and a mechanical parking brake which is applied when the safety lock lever is pulled backwards, the engine is turned off or the swing control lever is in the neutral position.
Lubrication	Completely housed and grease bathed
Max. swing speed	13.5min ⁻¹
Tail swing radius	2,750mm
Min. front swing radius	3,460mm

BOOM, ARM AND BUCKET

Boom cylinders	Two, double acting
Bore & Stroke	125mm X 1,315mm
Arm cylinder	One, double acting
Bore & Stroke	135mm X 1,630mm
Bucket cylinder	One, double acting
Bore & Stroke	120mm X 1,090mm
Lubrication	Grease nipples, with centralized greasing for remote points
Bucket digging force	136kN
(High power)	144kN
Arm digging force	99kN
(High power)	104kN
Note: High power can be used with STD arm and short arm	



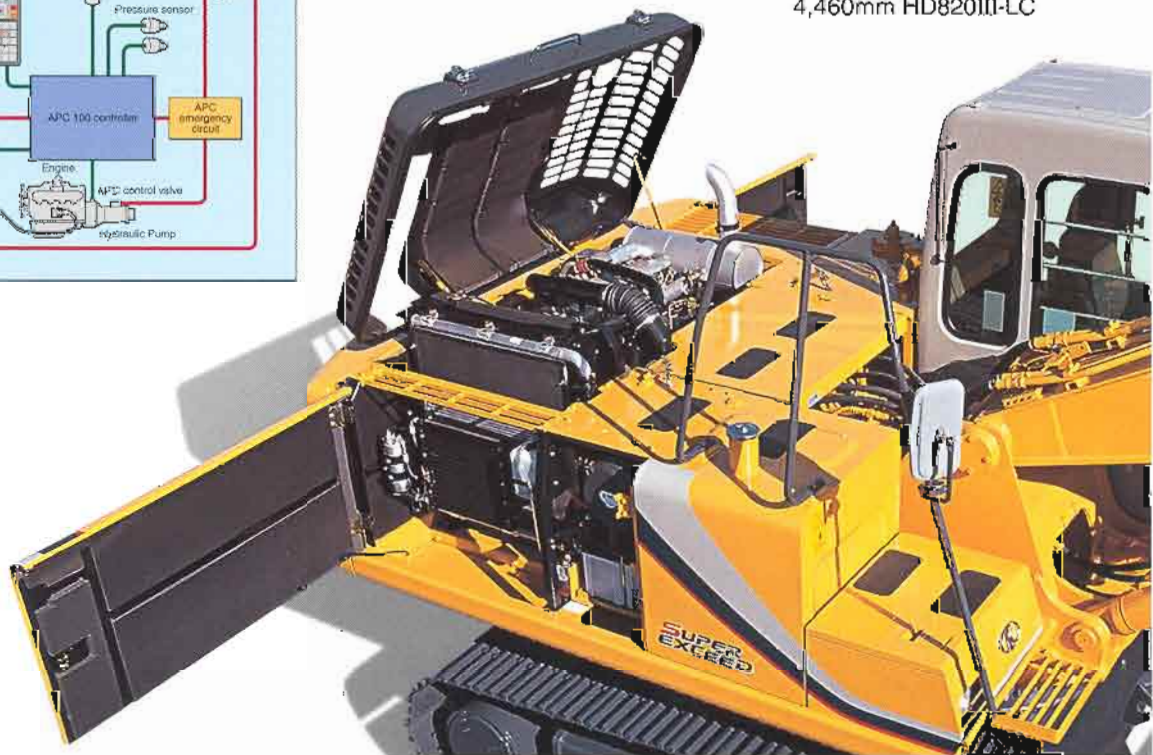
●Combination monitor ●"APC" system

SERVICE DATA

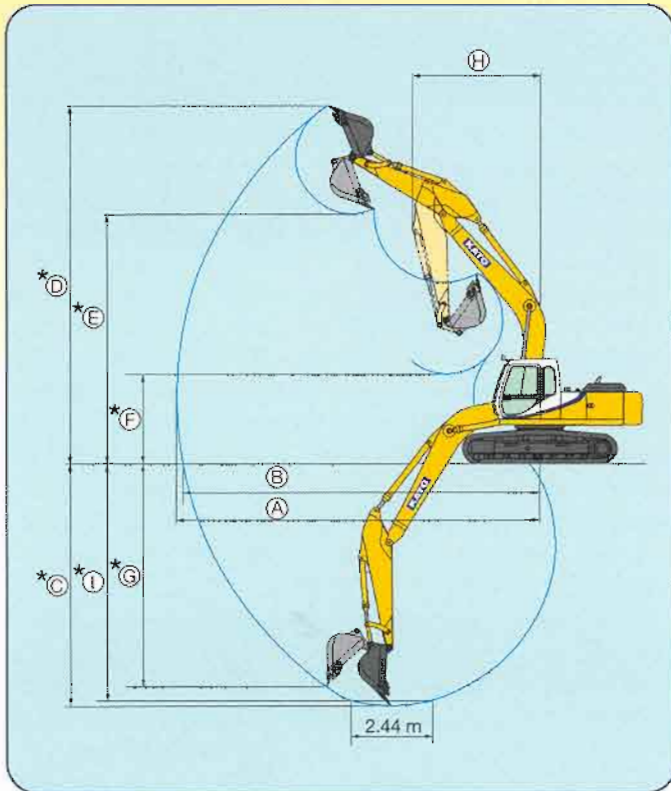
Fuel tank	320 L
Cooling system	23 L
Engine oil	22 L
Track drives	2X5 L
Swing drive	5 L
Hydraulic oil tank	
(level)	165 L
(system)	260 L
In standard figure, with the 2.93m arm, 600mm grouser shoes and 0.8m ³ ISO bucket.	
Operating weight	19,500kg: HD820III
	20,300kg: HD820III-LC
Ground pressure	43kPa: HD820III
	42kPa: HD820III-LC

TRAVEL SYSTEM

Drive	Independent axial piston motor with reduction for each side
Brakes	Independent disk parking brake for each side, applied automatically when the travel levers are in the neutral position.
Track shoes	46 each side HD820III
	49 each side HD820III-LC
Track adjustment	Grease cylinders with recoil springs
Lubrication	Sealed-for-life rollers and front idlers with floating seals
Travel speed	High 0~5.5km/h
	Medium 0~3.6km/h
	Low 0~2.5km/h
Gradeability	70% (35°)
Max. drawbar pull	174.6kN
Ground clearance (less grouser bar)	465mm
Track length	4,170mm HD820III
	4,460mm HD820III-LC



Working Ranges

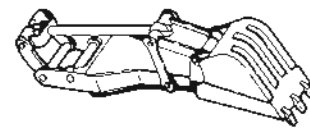


(Unit : m)

Range	Arm	Super short Arm	Short Arm	STD Arm	Long Arm
A - Max. digging radius		1.90	2.43	2.93	3.92
B - Max. digging reach at ground level		9.00	9.47	9.91	10.81
* C - Max. digging depth		5.68	6.21	6.70	7.70
* D - Max. digging height		9.29	9.55	9.76	10.21
* E - Max. dumping height		6.38	6.62	6.83	7.26
* F - Min. dumping height		3.40	2.87	2.37	1.37
* G - Max. vertical wall		4.85	5.64	6.12	7.17
H - Min. swing radius		3.66	3.59	3.46	3.41
* I - Max. digging depth (2.44m level bottom)		5.45	6.00	6.53	7.56

* Less grouser bar.

Extension Arm



1,500mm

Bucket

Type of bucket		Backhoe bucket						Dredging bucket	Slope forming bucket
Bucket capacity	m ³ , ISO	0.45	0.55	0.80	0.90	1.0	1.1	0.65 2,400mm 45° 350mm	2,000mm × 1,250mm
Bucket width	W/O side cutters, mm	650	800	1,020	1,190	1,270	1,400		
	with side cutters, mm	785	915	1,135	1,305	1,385	—		
Bucket weight	kg	520	570	640	710	760	760	770	980
Number of bucket teeth		4	4	5	5	5	6	2	—
Shapes of bucket									
Standard boom +	Super short arm	●	●	●	●	▲ (●)	□	●	○
	Short arm	●	●	●	●	▲ (●)	□	●	○
	Standard arm	●	●	●	●	▲ (●)	□	●	○
	Long arm	●	●	▲	▲	×	×	▲	○
Extension arm		●	×	×	×	×	×	×	×

● General purpose ▲ Light work □ Loading ○ Usable × Unusable
● Yellow colored area means standard

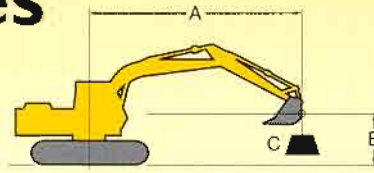
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Track Shoes

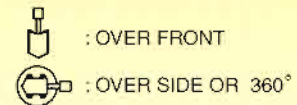
Type of shoes		Grouser shoe				Flat shoe	Triangle shoe	
Shoe width	mm	HD820II	600	700	800	900	600	800
		HD820III-LC	600	700	800	900	600	800
Overall width	mm	HD820II	2,820	2,920	3,020	3,120	2,820	3,020
		HD820III-LC	2,990	3,090	3,190	3,290	2,990	3,190
Ground pressure	(kPa)	HD820II	43	38	34	31	45	35
		HD820III-LC	42	37	33	29	44	34
Net weight change	kg	HD820II	S.T.D	410	670	950	860	1,440
		HD820III-LC	S.T.D	440	720	1,010	920	1,530

● Yellow colored area means standard

Lifting Capacities



A : REACH FROM SWING CENTERLINE
 B : BUCKET HOOK HEIGHT
 C : LIFTING CAPACITIES



HD820III 600mm Shoe, 5.63m Boom, 2.93m Arm, 0.8m³ Bucket (640kg)

Unit: 1,000kg

LOAD POINT HEIGHT B(m)	LIFT POINT RADIUS A(m)														AT MAXIMUM LIFT POINT RADIUS			
	2.00		3.00		4.00		5.00		6.00		7.00		8.00		RADIUS (m)			
	OVER FRONT	OVER SIDE OR 360°	OVER FRONT	OVER SIDE OR 360°	OVER FRONT	OVER SIDE OR 360°	OVER FRONT	OVER SIDE OR 360°	OVER FRONT	OVER SIDE OR 360°	OVER FRONT	OVER SIDE OR 360°	OVER FRONT	OVER SIDE OR 360°				
7.00										* 3.55	* 3.55					* 2.84	* 2.94	6.72
6.00										* 3.62	* 3.62	* 3.65	3.08			* 2.85	2.75	7.40
5.00										* 3.92	* 3.92	* 3.90	3.03			* 2.83	2.38	7.89
4.00								* 4.74	* 4.74	* 4.39	3.86	* 4.18	2.94	3.51	2.27	* 2.88	2.14	8.22
3.00			* 4.95	* 4.95	* 6.42	* 6.42	* 5.69	4.96	* 4.98	3.68	4.35	2.83	3.45	2.21	* 2.99	1.99	8.43	
2.00			* 4.39	* 4.39	* 4.95	* 4.95	* 6.40	4.65	5.45	3.49	4.23	2.71	3.37	2.14	3.02	1.90	8.51	
1.00			* 4.58	* 4.58	* 4.51	* 4.51	* 5.36	4.40	5.27	3.33	4.11	2.60	3.30	2.07	3.00	1.87	8.48	
0.00	* 3.00	* 3.00	* 4.70	* 4.70	* 4.41	* 4.41	* 4.95	4.22	5.13	3.20	4.02	2.52	3.25	2.02	3.05	1.89	8.32	
-1.00	* 5.44	* 5.44	* 4.64	* 4.64	* 4.40	* 4.40	* 4.81	4.12	5.04	3.12	3.96	2.46	3.22	2.00	3.20	1.99	8.03	
-2.00	* 5.30	* 5.30	* 4.53	* 4.53	* 4.41	* 4.41	* 4.82	4.08	5.01	3.09	3.94	2.45			3.48	2.17	7.61	
-3.00	* 4.80	* 4.80	* 4.42	* 4.42	* 4.46	* 4.46	* 4.97	4.11	5.03	3.12	3.99	2.49			3.98	2.48	7.01	
-4.00	* 4.50	* 4.50	* 4.39	* 4.39	* 4.60	* 4.60	* 5.36	4.21	5.13	3.21					4.90	3.07	6.19	
-5.00			* 4.50	* 4.50	* 5.00	* 5.00	* 6.51	4.40							* 6.62	4.34	5.05	

HD820III-LC 600mm Shoe, 5.63m Boom, 2.93m Arm, 0.9m³ Bucket (710kg)

Unit 1,000kg

LOAD POINT HEIGHT B(m)	LIFT POINT RADIUS A(m)														AT MAXIMUM LIFT POINT RADIUS			
	2.00		3.00		4.00		5.00		6.00		7.00		8.00		RADIUS (m)			
	OVER FRONT	OVER SIDE OR 360°	OVER FRONT	OVER SIDE OR 360°	OVER FRONT	OVER SIDE OR 360°	OVER FRONT	OVER SIDE OR 360°	OVER FRONT	OVER SIDE OR 360°	OVER FRONT	OVER SIDE OR 360°	OVER FRONT	OVER SIDE OR 360°				
7.00										* 3.49	* 3.49					* 2.88	* 2.88	6.72
6.00										* 3.56	* 3.56	* 3.60	3.36			* 2.80	* 2.80	7.40
5.00										* 3.86	* 3.86	* 3.85	3.30			* 2.78	2.61	7.89
4.00							* 4.69	* 4.69	* 4.33	4.22	* 4.13	3.21	* 3.50	2.49	* 2.83	2.35	8.22	
3.00			* 4.88	* 4.88	* 6.32	* 6.32	* 5.63	5.45	* 4.92	4.04	* 4.50	3.10	3.90	2.43	* 2.94	2.19	8.43	
2.00			* 4.34	* 4.34	* 4.87	* 4.87	* 6.30	5.14	* 5.55	3.85	4.80	2.98	3.82	2.35	* 3.11	2.10	8.51	
1.00			* 4.55	* 4.55	* 4.45	* 4.45	* 5.28	4.88	6.02	3.68	4.68	2.87	3.75	2.29	* 3.35	2.06	8.48	
0.00	* 2.95	* 2.95	* 4.67	* 4.67	* 4.36	* 4.36	* 4.88	4.69	5.88	3.55	4.58	2.78	3.70	2.24	3.47	2.10	8.32	
-1.00	* 5.39	* 5.39	* 4.61	* 4.61	* 4.34	* 4.34	* 4.74	4.59	5.79	3.47	4.52	2.73	3.67	2.21	3.65	2.20	8.03	
-2.00	* 5.28	* 5.28	* 4.49	* 4.49	* 4.35	* 4.35	* 4.75	4.56	5.75	3.44	4.51	2.72			3.97	2.40	7.61	
-3.00	* 4.77	* 4.77	* 4.38	* 4.38	* 4.40	* 4.40	* 4.90	4.58	5.78	3.46	4.55	2.76			4.54	2.75	7.01	
-4.00	* 4.46	* 4.46	* 4.34	* 4.34	* 4.54	* 4.54	* 5.28	4.68	5.89	3.56					5.61	3.40	6.19	
-5.00			* 4.44	* 4.44	* 4.92	* 4.92	* 6.41	4.88							* 6.55	4.81	5.05	

- NOTE : 1 Lifting capacities are based on ISO 10567.
 2 Lifting capacities shown do not exceed 87% of machine hydraulic capacity or 75% of minimum tipping load.
 3 Capacities marked with an asterisk (*) are limited by hydraulic capacities.
 4 Lifting capacities are based on machine standing on firm, uniform supporting surface.
 User must make allowances for job conditions such as soft or uneven ground
 5 Lifting capacities shown should not be exceeded. Weight of all lifting accessories must be deducted from the above lifting capacities
 6 Capacities apply only to the machine as originally manufactured and equipped by KATO WORKS CO., LTD.
 7 The operator should be fully acquainted with the operation manual before operating the machine

Standard Equipment

- New APC mode
- New auto-slow - One-touch-slow
- Multi-mode display monitor
- Adjustable monitor alarm
- 2 service hour meter
- 3 traveling mode
- Automatic travel speed change
- Spring assisted pull-up front window
- 6 points viscous damping cab suspension
- Multi position operator's seat
- Adjustable seat suspension
- Adjustable speed window wiper
- Rear emergency escape window
- Cabin light connected to cabin door
- 2 working lights (Upper front right side & Boom left side)
- Boom holding valve
- Arm holding valve
- Digging force booster (High power)
- Swing shockless valve
- Automatic slew parking brake
- Automatic travel parking brake
- One free service circuit for attachments
- Rear view mirror (right side)
- Track guard, 1 pc each side
- Front window washer (2 sprays)

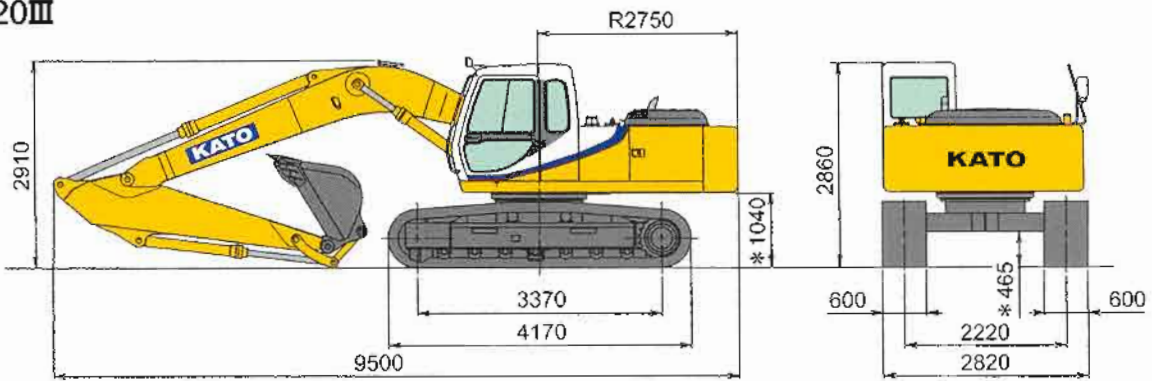
Optional Equipment

- Tinted transparent hatch
- Seat belt
- Automatic climate control air conditioner
- Hot & cool box contained with AC
- Cabin heater
- Auto tuning AM/FM radio with clock
- 2 speaker stereo
- Working light (Cab left side)
- Working light (Boom right side)
- Working light (Cab right side)
- Cab access step
- Optional piping
- Cab front half guard
- Cab front full guard
- Cab head guard
- Electronic horn
- Cabin fan
- Swing warning light
- Travel alarm
- Refueling pump
- Air cleaner, double element
- Low temperature spec
- Tool set
- Track guard, 3 pcs each side

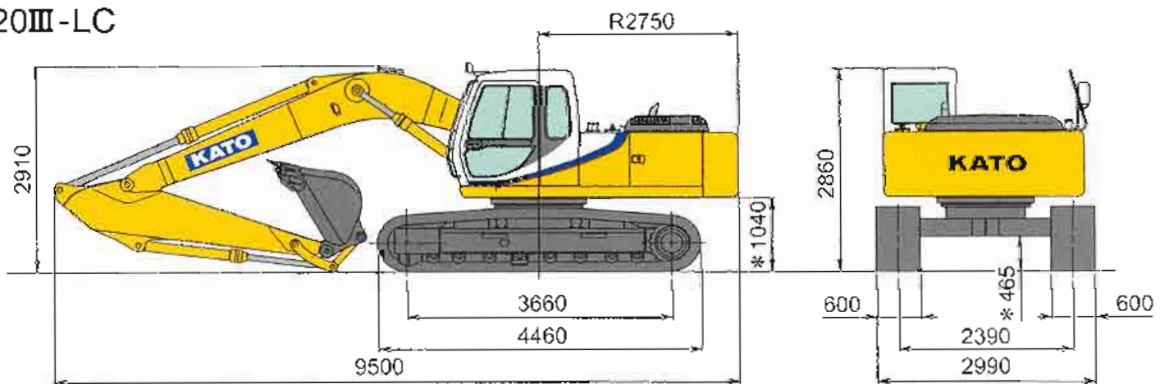
Dimensions

(Unit: mm)

HD820III



HD820III-LC



*Less grouser bar

Address inquiries to

NOTE: Illustrations may include optional equipment. KATO products and specifications are subject to improvements and changes without notice.



KATO WORKS CO., LTD.

Specifications subject to change without notice

(1300 65 8888)

Website: www.btequipment.com.au

BT
EQUIPMENT
BT Equipment Pty Ltd
ABN 89 094 476 141

BRISBANE	10-14 Ashover Road, Rocklea. Qld 4106
SYDNEY	6 Ferngrove Place, South Granville NSW 2142
MELBOURNE	80-86 Frankston-Dandenong Road, Dandenong. Vic 3175
ADELAIDE	908 Main North Road, Mawson Lakes. SA 5095
PERTH	50 Great Eastern Highway, South Guildford. WA 6055

Phone	Fax
(07) 3373 6400	(07) 3875 1680
(02) 9780 7200	(02) 9780 7290
(03) 9554 0300	(03) 9554 0398
(08) 8262 8292	(08) 8262 8320
(08) 9478 0600	(08) 9478 0688