# **Locobox Spaceship Effects Pedal**

#### http://www.locobox.com/info.html

Information about the origin of the Locobox effects pedals is few and far between...posting on a website in Japan from a man who claims to have designed and worked at the small factory in Japan responsible for Locobox and many other small brands of pedals. Other brands included Aria and Volz (and it appears that Electra pedals from this era are the same as well). According to the post, all the pedals were handmade in a small factory in the city of Urawa, in Saitama, Japan. There were virtually only three men (the president, the designer and his boss) as well as six or seven women part-time jobbers. They did all the R&D, construction, testing, and even the silkscreening themselves. They started out selling their pedals to Arai Boueki (Aria), and these had the brand name "Locobox."

Spaceship "made in the mid 70's. In the early 80's their production was built by the same people(ARIA?) that built the Cutec/Gig/Studioseries/Electra/washburn/etc units."



Purchased eBay June 2009, \$26. Case condition poor – knobs poor – battery cover missing – input socket broken.

# **Other FL-01 flangers:**

•Cutec FL-01 Flanger (same circuit as Electra 505F, but LM339)
•Gig FL-01 Flanger
•PowerVoice FL-01 Flanger
•Studio Series FL-01 Flanger
•Volz FL-01 Flanger
Electronika Flanger FL01 (Russian)

# Other close company associations:

GUYATONE MOVING FLANGER (4 pots) Redson flanger 12 (<u>http://www.pedalarea.com/flangers.htm</u>) (4 pots) has LM339, MN3102, MN3209, TL4558P.

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Electra 505F flanger (4 pots) – see photos – same vintage parts and general layout – minor circuit changes. (50882A pcb) has CA339E, MN3102, MN3209, TI4558P. Battery cover different. MN3102 maybe a MN3101 and the MN3209 maybe a MN3009.

# **Circuit description:**

Input stage amplifier with high resistance input and 2SC185 npn emitter follower biased around lowest NF. Dry signal taken direct to output stage 4558 opamp. Wet signal gated by 2SK30A, with bandpass filter to high impedance input emitter follower which feeds mixer/output stage 4558 opamp as well as returning feedback signal via COLOR pot and phase compensation to wet input stage. Wet input stage opamp includes signal clipping diodes, followed by low pass filter stage using 2SC185 npn emitter follower to drive BBD, with BBD driving high impedance input low pass filter stage using 2SC185 npn emitter follower, with set signal then fed to 2SK30A gate through a level trimpot. A trimpot is used to set the half-supply bias 'Z' level. The LFO has RATE, INTENSITY, and MANUAL control pots, and feeds a MN3101 (?) via a comparator working with a high speed npn 2SC829 and the MN3101 inverters to provide the high frequency switching signal set by a trimpot – max settings give ~50kHz – modulation signal varies from 0V to almost rail. LFO waveshape is triangular.

#### **Modifications:**

Bypass caps added to MN300x; V'Y'; input DC. Replaced input socket. Boss 9V power.



2009 TIM ROBBINS