

```

|||||2222222|5555555|0000000|9999999|||111||9999999||| | | | | | |
|||||22|55|||00||00|99||99|11111||99||99|||
|||||2222222|5555555|00||00|9999999||111||9999999|||
|||||22|||55|00||00|||99||111|||99|||
|||||2222222|5555555|0000000|9999999|1111111|9999999|||
|||||

```

```

||| BLOCCO D ||||| [ 1920 mA ]

```

/Steady State Gate

```

DACAY <-- OUT(U)2 Rnd Step (TipTop Giallo)
          SUB LVL Mutant BD9 (Doepfer Giallo)
          PITCH Mutant Clap (TipTop Verde)
FREQ <-- PITCH Mutant BD9 (Doepfer Giallo)
          FREQ MF-107B [D] (TipTop Rosso)
          OUT Slew Limiter (Doepfer Giallo)
EXCITE <-- OUT-2 uGrids (Doepfer Grigio)
TIMBRE <--
Q-FCTR <--
          IN <-- AUDIO MF-107B [D] (TipTop Giallo)
          ENV --> AMP DEC Mutant BD9 (TipTop Verde)
          OUT --> M-1 Vortices (Doepfer Rosso)

```

/Mutant BD9

```

TRIG <-- OUT-1 uGrids (TipTop Giallo)
ACC <-- ACC-1 uGrids (Doepfer Grigio)
SUB LVL <-- DACAY Steady State Gate (Doepfer Giallo)
          PITCH Mutant BD9 (Doepfer Giallo)
PITCH <-- FREQ Steady State Gate (Doepfer Giallo)
          FREQ MF-107B [D] (TipTop Giallo)
          OUT Slew Limiter (Doepfer Giallo)
AMP DEC <-- ENV Steady State Gate (TipTop Verde)
          OUT --> 4 Unity [D] (TipTop Rosso)

```

/Mutant Rimshot

```

TRIG <-- OR Eas (TipTop Giallo)
PITCH <-- ACC Mutant Clap (Doepfer Giallo)
          OUT(B)2 Rnd Step (TipTop Rosso)
CUTOFF <-- LFO-7 Ochd (TipTop Rosso)
          ACC <-- OUT(U)3 Rnd Step (TipTop Rosso)
          VCF <-- NOISE Mutant Clap (Koma Att.)
          OUT --> IN Delay (TipTop Rosso)

```

/Mutant Clap

```

REV DEC <-- OUT(B)1 Rnd Step (Doepfer Grigio)

```

```
TRIG <-- XNOR Eas (TipTop Rosso)
PITCH <-- SUB LVL Mutant BD9 (TipTop Verde)
          DECAY Steady State Gate (Doepfer Giallo)
          OUT(U)2 Rnd Step (TipTop Giallo)
ACC <-- PITCH Mutant Rimshot (Doepfer Giallo)
          OUT(B)2 Rnd Step (TipTop Rosso)
OUT --> 6 Unity [D] (TipTop Verde)
NOISE --> VCF Mutant Rimshot (Koma Att.)
FILTER -->
```

/Dial-Up

```
BANG! <-- RESET Arp (Doepfer Giallo)
          AND Eas (TipTop Rosso)
GLITCH <--
OUT --> M-4 Vortices (Doepfer Blu)
```

/Trace

```
SCAN <--
OUT --> AUDIO MF-105M (TipTop Rosso)
3 <--
4 <--
1 <-- VCO MF-107A [D] (TipTop Rosso)
2 <-- SUM VCRadio-B (Doepfer Blu)
```

/Unity [D]

```
1 <--
2 <--
3 <--
A -->
4 <-- OUT Mutant BD9 (TipTop Rosso)
5 <-- OUT Delay (TipTop Verde)
6 <-- OUT Mutant Clap (TipTop Verde)
B --> M-2 Vortices (Doepfer Rosso)
```

/Arp

```
TRIG <-- ACC-2 uGrids (Doepfer Grigio)
RESET <-- BANG! Dial-Up (Doepfer Giallo)
ROOT <--
CHORD <--
OUT --> IN Slew Limiter (Doepfer Giallo)
```

/Delay

```
IN <-- OUT Mutant Rimshot (TipTop Rosso)
TIME <-- OUT(U)2 Rnd Step (Doepfer Grigio)
FDBK <-- LFO-6 Ochd (TipTop Verde)
```

MIX <--
OUT --> 5 Unity [D] (TipTop Verde)

/Hat

CLOSED <-- OUT-3 uGrids (Doepfer Grigio)
OPEN <-- ACC-3 uGrids (Doepfer Grigio)
DECAY <-- OUT(U)3 Rnd Step (Doepfer Giallo)
SIZZLE <-- WAVE-5 Ochd Expander (TipTop Verde)
OUT --> M-3 Vortices (Doepfer Rosso)

/Ochd

RATE <-- OUT-1 uGrids (Doepfer Giallo)
LFO-1 -->
LFO-2 -->
LFO-3 -->
LFO-4 -->
LFO-5 -->
LFO-6 --> FDBK Delay (TipTop Verde)
LFO-7 --> CUTOFF Mutant Rimshot (TipTop Rosso)
LFO-8 --> FM MF-107B [D] (TipTop Verde)

/Ochd Expander

WAVE-1 --> WAVE MF-107B [D] (TipTop Verde)
WAVE-3 --> CV-3 uGrids (TipTop Verde)
WAVE-5 --> SIZZLE Hat (TipTop Verde)
WAVE-7 -->
OR-2&3 -->
AND-2&3 -->
OR-6&7 --> CV-1 uGrids (TipTop Verde)
AND-6&7 --> ENV MF-105M (TipTop Verde)
TRIG-2 --> 2 Patch-bay [D] (Doepfer Nero)
TRIG-4 --> 3 Patch-bay [D] (Doepfer Nero)
TRIG-6 -->
TRIG-8 -->
DAC-1234 -->
DAC-5678 -->
DAC-1357 -->
DAC-2468 --> CLOCK uGrids (TipTop Verde)

/Eas

AND-1 <-- OUT-2 uGrids (TipTop Verde)
AND-2 <-- OUT(B)1 Rnd Step (TipTop Verde)
CV VCRadio-A (Doepfer Verde)
AND --> BANG! Dial-Up (TipTop Rosso)
NAND --> A-TRIG S&H (Doepfer Blu)
L-RETRIG Lubadh (TipTop Verde)

```

OR-1 <-- OUT-3 uGrids (TipTop Verde)
OR-2 <-- OUT(B)3 Rnd Step (TipTop Verde)
  OR --> TRIG Mutant Rimshot (TipTop Giallo)
  NOR -->
XOR-1 <--
XOR-2 <-- OUT(U)1 Rnd Step (TipTop Verde)
  MIX Verb (Doepfer Blu)
  XOR --> B-TRIG S&H (Doepfer Blu)
  R-RETRIG Lubadh (TipTop Verde)
XNOR --> TRIG Mutant Clap (TipTop Rosso)
NOT <--
NOT -->

```

/Rnd Step

```

TRIG-1 <-- ACC-1 uGrids (TipTop Verde)
  1 Patch-bay [D] (Doepfer Grigio)
SAMPLE-1 <--
OUT(U)1 --> XOR-2 Eas (TipTop Verde)
  CV-2 uGrids (Doepfer Giallo)
  MIX Verb (Doepfer Verde)
OUT(B)1 --> AND-2 Eas (TipTop Verde)
  REV DEC Mutant Clap (Doepfer Grigio)
  CV VCRadio-A (Doepfer Verde)
TRIG-2 <-- ACC-2 uGrids (TipTop Verde)
SAMPLE-2 <--
OUT(U)2 --> DECAY Steady State Gate (TipTop Giallo)
  SUB LVL Mutant BD9 (Doepfer Giallo)
  PITCH Mutant Clap (TipTop Verde)
  TIME Delay (Doepfer Grigio)
OUT(B)2 --> ACC Mutant Clap (TipTop Rosso)
  PITCH Mutant Rimshot (Doepfer Giallo)
TRIG-3 <-- ACC-3 uGrids (TipTop Verde)
SAMPLE-3 <--
OUT(U)3 --> ACC Mutant Rimshot (TipTop Rosso)
  DECAY Delay (Doepfer Giallo)
OUT(B)3 --> OR-2 Eas (TipTop Verde)

```

/uGrids

```

CLOCK <-- DAC-2468 Ochd Expander (TipTop Verde)
RESET <--
CHAOS <--
  Y <--
  X <--
CV-1 <-- OR-6&7 Ochd Expander (TipTop Verde)
OUT-1 --> TRIG Mutand BD9 (TipTop Giallo)
  RATE Ochd (Doepfer Giallo)
ACC-1 --> TRIG-1 Rnd Step (TipTop Verde)
  ACC Mutand BD9 (TipTop Grigio)

```

```

        1 Patch-bay [D] (Doepfer Grigio)
CV-2 <-- OUT(U)2 Rnd Step (Doepfer Giallo)
OUT-2 --> AND-1 Ochd (TipTop Verde)
        EXCITE Steady State Gate (Doepfer Grigio)
ACC-2 --> TRIG-2 Rnd Step (TipTop Verde)
        TRIG Arp (Doepfer Grigio)
CV-3 <-- WAVE-3 Ochd Expander (TipTop Verde)
OUT-3 --> OR-1 Eas (TipTop Verde)
        CLOSED Hat (Doepfer Grigio)
ACC-3 --> TRIG-3 Rnd Step (TipTop Verde)
        OPEN Hat (Doepfer Grigio)

```

/Patch-bay [D]

```

1 <-- TRIG-1 Rnd Step (Doepfer Grigio)
2 <-- TRIG-2 Ochd Expander (Doepfer Nero)
3 <-- TRIG-4 Ochd Expander (Doepfer Nero)
4 --> RATE MF-105M (Doepfer Giallo)
5 --> STEP MF-105M (Doepfer Giallo)
6 --> CLK Seq2 (Doepfer Verde)

```

/MF-107A [D]

```

AUDIO <--
FREQ <--
WAVE <-- PAN Stereo Strip (Doepfer Blu)
        LFO MF-102 (TipTop Giallo)
ENV <--
FM <--
MIX <--
ENV -->
VCO --> 1 Trace (TipTop Rosso)
AUDIO --> AUDIO MF-107B [D] (TipTop Rosso)

```

/MF-105M

```

AUDIO <-- OUT Trace (TipTop Rosso)
LFO <--
RATE <-- 4 Patch-bay [D] (Doepfer Giallo)
STEP <-- 5 Patch-bay [D] (Doepfer Giallo)
ENV <-- AND-6&7 Ochd Expander (TipTop Verde)
LEFT --> L-3 Vortices (Doepfer Blu)
RIGHT --> R-3 Vortices (Doepfer Blu)

```

/MF-107B [D]

```

AUDIO <-- AUDIO MF-107A [D] (TipTop Rosso)
FREQ <-- OUT Slew Limiter (Doepfer Giallo)
        PITCH Mutant BD9 (TipTop Giallo)
        FREQ Steady State Gate (Doepfer Giallo)

```

```
WAVE <-- WAVE-1 Ochd Expander (TipTop Verde)
ENV <--
FM <-- LFO-8 Ochd (TipTop Verde)
MIX <--
ENV -->
VCO -->
AUDIO --> IN Steady State Gate (TipTop Giallo)
```

```
||| O-BOARD ||||| [ 0 mA ]
```

/Slew Limiter

```
IN <-- OUT Arp (Doepfer Giallo)
OUT --> FREQ MF-107B [D] (Doepfer Giallo)
      PITCH Mutant BD9 (TipTop Giallo)
      FREQ Steady State Gate (Doepfer Giallo)
```

```
||| BLOCCO C ||||| [ 1820 mA ]
```

/Autodub

```
L-IN <-- AUDIO MF-102 (TipTop Giallo)
R-IN <--
GATE -->
CV <--
L-SEND --> AUDIO MF-104Z-A (TipTop Verde)
R-SEND --> AUDIO MF-104Z-B (TipTop Giallo)
L-RETURN <-- L-OUT Stereo Strip (TipTop Verde)
R-RETURN <-- R-OUT Stereo Strip (TipTop Verde)
L-OUT --> 2 Unity [C] (TipTop Giallo)
R-OUT --> 5 Unity [C] (TipTop Giallo)
```

/Stereo Strip

```
L-IN <-- MIX MF-104Z-A (TipTop Rosso)
R-IN <-- MIX MF-104Z-B (TipTop Azzurro)
LVL <--
PAN <-- LFO MF-102 (TipTop Giallo)
      WAVE MF-107A (Doepfer Blu)
L-OUT --> L-RETURN Autodub (TipTop Verde)
R-OUT --> R-RETURN Autodub (TipTop Verde)
```

/VCRadio-A

```
CV <-- AND-2 Ear (Doepfer Verde)
      OUT(B)1 Rnd Step (TipTop Verde)
LEFT -->
RIGHT -->
SUM --> IN I-Interface-A (Doepfer Nero)
      IN I-Interface-B (TipTop Giallo)
```

/I-Interface-A

```
IN <-- SUM VCRadio-A (Doepfer Nero)
      IN I-Interface-B (TipTop Giallo)
OUT --> L-IN Lubadh (TipTop Verde)
TRIG -->
GATE --> L-REC Lubadh (TipTop Verde)
ENV (-) --> L-LENGTH Lubadh (TipTop Rosso)
ENV (+) --> TIME MF-104Z-A (TipTop Verde)
```

/Avert

```
A <-- A-OUT S+H (TipTop Verde)
A --> 1 Patch-bay [C] (Doepfer Nero)
B <-- B-OUT S+H (TipTop Verde)
B --> 2 Patch-bay [C] (Doepfer Giallo)
```

/S+H

```
A-IN <-- B-IN S+H (TipTop Verde)
      2 Trace (Doepfer Blu)
A-TRIG <-- NAND Eas (Doepfer Blu)
      L-RETRIG Lubadh (TipTop Verde)
A-OUT --> A Avert (TipTop Verde)
B-IN <-- A-IN S+H (TipTop Verde)
      SUM VCRadio-B (Doepfer Nero)
B-TRIG <-- XOR Eas (Doepfer Blu)
      R-RETRIG Lubadh (TipTop Verde)
B-OUT --> B Avert (TipTop Verde)
```

/Quad Inverter [C]

```
1 (+) <-- 3 Patch-bay [C] (Doepfer Nero)
      FB MF-104Z-A (TipTop Verde)
1 (-) --> L-TIME Lubadh (TipTop Rosso)
2 (+) <-- 4 Patch-bay [C] (Doepfer Nero)
      FB MF-104Z-B (TipTop Rosso)
2 (-) --> R-TIME Lubadh (TipTop Verde)
3 (+) <-- CV Seq2 (TipTop Rosso)
      RATE MF-102 (Doepfer Giallo)
3 (-) --> FREQ MF-102 (TipTop Verde)
4 (+) <--
4 (-) -->
```

/Lubadh

```
L-IN <-- OUT I-Interface-A (TipTop Verde)
L-SPEED <-- 5 Patch-bay [C] (Doepfer Nero)
L-LENGTH <-- ENV (-) I-Interface-A (TipTop Rosso)
```

```

L-START <--
  L-TIME <-- 1 (-) Quad Inverter [C] (TipTop Rosso)
  L-CLK -->
L-RETRIG <-- A-TRIG S+H (TipTop Verde)
              NAND Eas (Doepfer Blu)
  L-REC <-- GATE I-Interface-A (TipTop Verde)
L-ERASE <--
  L-OUT --> L-IN Ikarie (TipTop Rosso)
  R-IN <-- OUT I-Interface-B (TipTop Verde)
  R-SPEED <-- 5 Patch-bay [C] (Doepfer Nero)
R-LENGTH <-- ENV (-) I-Interface-B (TipTop Verde)
R-START <--
  R-TIME <-- 2 (-) Quad Inverter [C] (TipTop Verde)
  R-CLK -->
R-RETRIG <-- B-TRIG S+H (TipTop Verde)
              XOR Eas (Doepfer Blu)
  R-REC <-- GATE I-Interface-B (TipTop Verde)
R-ERASE <--
  R-OUT --> R-IN Ikarie (TipTop Verde)
  AUX-I <--
AUX-I CV <--
  AUX-O --> CARRIER MF-102 (TipTop Verde)
AUX-O CV <--

```

/Unity [C]

```

1 <--
2 <-- L-OUT Autodub (TipTop Giallo)
3 <-- L-OUT Ikarie (TipTop Rosso)
A --> L-1 Vortices (Doepfer Blu)
4 <--
5 <-- R-OUT Autodub (TipTop Giallo)
6 <-- L-OUT Ikarie (TipTop Verde)
B --> R-1 Vortices (Doepfer Blu)

```

/I-Interface-B

```

IN <--
OUT --> R-IN Lubadh (TipTop Verde)
TRIG -->
GATE --> R-REC Lubadh (TipTop Verde)
ENV (-) --> R-LENGTH Lubadh (TipTop Verde)
ENV (+) --> TIME MF-104Z-B (TipTop Verde)

```

/VCRadio-B

```

CV <--
LEFT -->
RIGHT -->
SUM --> B-IN S+H (Doepfer Nero)

```

/Seq2

```
CLK <-- 6 Patch-bay [D] (Doepfer Nero)
CV --> 3 (+) Quad Inverter [C] (TipTop Rosso)
      RATE MF-102 (Doepfer Giallo)
```

/Ikarie

```
VCA <--
PAN <-- FOLLOW Ikarie (TipTop Verde)
RESO <--
L-IN <-- L-OUT Lubadh (TipTop Rosso)
R-IN <-- R-OUT Lubadh (TipTop Verde)
V/OCT <-- LFO MF-102 (Doepfer Nero)
MOD <--
L-OUT --> 3 Unity [C] (TipTop Rosso)
R-OUT --> 6 Unity [C] (TipTop Verde)
BEYOND -->
FOLLOW --> PAN Ikarie (TipTop Verde)
```

/MF-104Z-A

```
AUDIO <-- L-SEND Autodub (TipTop Verde)
TIME <-- ENV (+) I-Interface-A (TipTop Verde)
MIX <--
      FB <-- 3 Patch-bay [C] (TipTop Verde)
            1 (+) Quad Inverter [C] (Doepfer Nero)
DELAY -->
MIX --> L-IN Stereo Strip (TipTop Rosso)
```

/MF-102

```
AUDIO <-- MONO-L Vortices (Koma Att. + Doepfer Verde)
LFO <--
RATE <-- 3 (+) Quad Inverter [C] (Doepfer Giallo)
      CV Seq2 (TipTop Rosso)
MIX <--
FREQ <-- 3 (-) Quad Inverter [C] (TipTop Verde)
CARRIER <-- AUX-O Lubadh (TipTop Verde)
CARRIER -->
      LFO --> PAN Stereo Strip (TipTop Giallo)
            WAVE MF-107A (Doepfer Blu)
            V/OCT Ikarie (Doepfer Nero)
AUDIO --> L-IN Stereo Strip (TipTop Giallo)
```

/MF-104Z-B

```
AUDIO <-- L-SEND Autodub (TipTop Giallo)
TIME <-- ENV (+) I-Interface-B (TipTop Verde)
```

```

MIX <--
  FB <-- 4 Patch-bay [C] (TipTop Verde)
        2 (+) Quad Inverter [C] (Doepfer Nero)
DELAY -->
MIX --> L-IN Stereo Strip (TipTop Azzurro)

```

||| **REGIA** |||||||||||||||||||||||||||||||||| [352 mA]

/Vortices

```

M-1 <-- OUT Steady State Gate (Doepfer Rosso)
PAN-1 <--
M-2 <-- B Unity [D] (Doepfer Rosso)
X-FADE <--
M-3 <-- OUT Hat (Doepfer Rosso)
PAN-4 <--
M-4 <-- OUT Dial-Up (Doepfer Rosso)
L-1 <-- A Unity [C] (Doepfer Grigio)
R-1 <-- B Unity [C] (Doepfer Grigio)
L-2 <-- MIX Spring Reverb (TipTop Rosso)
R-2 <--
L-3 <-- LEFT MF-105M (Doepfer Blu)
R-3 <-- RIGHT MF-105M (Doepfer Blu)
AUX-1 <--
AUX-L <-- EQ Eq (YS Nero + Doepfer Nero)
STEREO-L --> L Verb (TipTop Verde)
              L Mscl-B (Doepfer Grigio)
STEREO-R --> R Verb (TipTop Verde)
              R Mscl-B (Doepfer Grigio)
AUX-R <-- EQ Eq (YS Rosso + Doepfer Nero)
AUX-2 <--
MASTER-L -->
MONO-L --> X-FADE Vortices (TipTop Verde)
X-FADE --> MONO-L Vortices (TipTop Verde)
              IN-1 Spring Reverb (Doepfer Nero)
              IN-2 Spring Reverb (TipTop Verde)
              SC Mscl-B (Doepfer Giallo)
MONO-R --> AUDIO MF-102 (Koma Att. + Doepfer Nero)
MASTER-R -->

```

/Verb

```

L <-- STEREO-L Vortices (TipTop Verde)
R <-- STEREO-R Vortices (TipTop Verde)
MIX <-- OUT(U)1 Rnd Step (Doepfer Blu)
L --> TILT Eq (YS Nero)
R --> TILT Eq (YS Rosso)

```

/Eq

```

EQ <-- L+R Mscl-B (YS Nero/Rosso)
EQ --> AUX [L+R] Vortices (YS Nero/Rosso + Doepfer Nero)
TILT <-- L+R Verb (YS Nero/Rosso)
TILT --> L+R Mscl-A (YS Nero/Rosso)

```

/Spring Reverb

```

IN-1 <-- MONO-L Vortices (Doepfer Nero)
      IN-2 Spring Reverb (TipTop Verde)
CV-1 <--
IN-2 <-- IN-2 Spring Reverb (TipTop Verde)
      SC Mscl-B (Doepfer Giallo)
CV-2 <--
MIX --> L-2 Vortices (TipTop Rosso)
MIX-CV <--
WET -->

```

/Mscl-A

```

SC <--
L <-- TILT Eq (YS Nero)
R <-- TILT Eq (YS Rosso)
L --> L-JACK Restyler (Jack/JACK)
R --> R-JACK Restyler (Jack/JACK)

```

/Mscl-B

```

SC <-- IN-2 Spring Reverb (Doepfer Giallo)
L <-- STEREO-L (TipTop Grigio)
R <-- STEREO-R (TipTop Grigio)
L --> EQ Eq (YS Nero)
R --> EQ Eq (YS Rosso)

```

/V-MUTES

```

S-1 <--
S-2 <--
S-3 <--
M-1 <--
M-2 <--
M-3 <--
M-4 <--

```

||| **CAVI** ||

#46	TipTop Verde	#14	Doepfer Giallo	#2	Koma Att.
#19	" " Rosso	#14	" " Nero	#0	Befaco Nero
#11	" " Giallo	#12	" " Grigio	#0	YM Rosso
#1	" " Azzurro	#4	" " Rosso	#4	YS Nero/Rosso
#0	" " Nero	#9	" " Blu	#2	Jack/JACK

```
#0      "      "      Viola      #2      "      "      Verde      #0 Jack/RCA
```

250919