REG INNHOLD.

1 Totalt spill i perioden (siden siste nullstilling)
2 Cred.Inn
3 Cred.Ut
4 ——
5 Refylling
6 Totalt inntak av penger
7 Antall spilte spill
8 Antall spill vunnet
9 Antall vinnere i prosent
10 Totalt spill i perioden (siden siste nullstilling)
11 Cred.Inn
12 Cred.Ut
13 ----
14 Refylling
15 Totalt inntak av penger
16 Antall spilte spill
17 Antall spill vunnet
18 Antall vinnere i prosent
19 Åpne bakdøren på maskinen
20 Valg av spilleversjon.
21 Test-tid
22 Valg av prosentvis utbetaling (1-4)
23 Tømming av hopper
24 Antall sedler (f.eks. 50-lapper)
25 Antall sedler (f.eks. 100-lapper)
26 Antall sedler (f.eks. 200-lapper)
27 Antall sedler (f.eks. 500-lapper)
28, 29, 30 og 31 er uaktuelle i Norge
32 Totalt antall sedler

Myntverdier:

1. 10 - kroner som også er hopper-mynter
2. 1 - krone
3. 5-krone
4. 20-kroner

Sedler:

1. 50-kroner
2. 100-kroner
3. 200-kroner
4 500- kroner

Wiener Straße 158, 2352 Gumpoldskirchen, Austria, Europe
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All technical information contained in this manual has been compiled with the utmost care and has been carefully checked before reproduction. However, errors may still occur. NOVOMATIC Industries therefore emphasizes that it shall not give any guarantees nor shall it take legal responsibility or liability for any consequences resulting from incorrect information. The manufacturer shall be grateful to be advised of any errors.

NOVOMATIC
International Casino Systems Technology

IMPORTANT INFORMATION!

MAINS SUPPLY: IF MACHINE IS CONNECTED TO A PLUG, THE DEVICE WILL AUTOMATICALLY BE SUPPLIED WITH VOLTAGE. TO OPERATE THE MACHINE, TURN THE MAINS SWITCH ON.

CONNECTED LOAD: 230 V / 50 HZ
POWER DRAW: 150 W
TYPE: SC 035

CAUTION!
AS ALL ADMIRAL MACHINES ARE PROVIDED WITH AN EARTHING BOX, IT IS VERY IMPORTANT THAT THE MAINS SUPPLY, TOO, IS EQUIPPED WITH AN EARTHING BOX.

WARNING:

1. DO NOT TRY TO OPEN THE MACHINE BY FORCE. NONE OF THE COMPONENTS CAN BE REPAIRED BY A LAY PERSON. CONSULT A SPECIALLY TRAINED PERSON IF ANY REPAIR WORK BECOMES NECESSARY.

2. ANY SLOTS AND OTHER APERTURES ON THE TOP, BOTTOM AS WELL AS FRONT SIDES SERVE AS MEANS OF VENTILATION. TO ENSURE CORRECT FUNCTIONING OF THE MACHINE AND PREVENT ANY OVERHEATING, DO NOT OBSTRUCT OR COVER THESE APERTURES.

3. DO NOT INSERT ANY POINTED OBJECTS THROUGH THE SLOTS INTO THE MACHINE. YOU MAY TOUCH CURRENT-CARRYING ELEMENTS AND PROVOKE A SHORT CIRCUIT AND CONSEQUENTLY EVEN A FIRE.

4. DO NOT POUR ANY LIQUIDS (COFFEE, WINE, etc.) OVER THE MACHINE. IF IT DOES HAPPEN, YOU MUST HAVE THE MACHINE CHECKED BY AN EXPERT.

5. DO NOT UNDER ANY CIRCUMSTANCES EXPOSE THE MACHINE TO RAIN OR CONSIDERABLE HUMIDITY. DO NOT INSTALL IT EITHER NEAR RADIANT HEATERS.

6. IF THE MACHINE HAS BEEN EXPOSED TO LOWER TEMPERATURE, DO NOT START IT IMMEDIATELY AFTERWARDS BUT WAIT FOR SOME TIME.

NOVOMATIC
International Casino Systems Technology

POWER UP

1. PLUG IN THE MAINS PLUG CORRECTLY.

2. OPEN THE MACHINE DOOR.

3. TURN THE MAINS SWITCH ON.

4. CLOSE THE DOOR AGAIN.

5. THE MACHINE IS NOW READY FOR OPERATION.

6. YOU CAN NOW INSERT COINS.

7. YOU CAN NOW START A GAME (SEE GAME DESCRIPTION).

ALL MACHINES MEET THE GUIDELINES SET FORTH BY THE ÖVE (AUSTRIAN ASSOCIATION OF ELECTRICAL ENGINEERS), THUS FULFILLING THE LEGAL PREREQUISITS FOR CARRYING THE OFFICIAL AUSTRIAN QUALITY SIGN.

IF THESE INSTRUCTIONS ARE FOLLOWED CLOSELY AND THE MACHINES ARE HANDLED AND MAINTAINED PROPERLY, THEY ARE SUBJECT TO THE ORDINARY SECURITY PROVISIONS.

WE HERBY DISCLAIM ANY WARRANTIES FOR IMPROPER HANDLING OF MACHINES!

WARNING

THE FOLLOWING SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED OR TRAINED PERSONNEL ONLY. TO AVOID PERSONAL INJURY OR DAMAGE TO THE EQUIPMENT, DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THIS MANUAL.

TECHNICAL SPECIFICATIONS

1. ELECTRONICS:

processor:	Z80
memory:	RAM 8k x 8
	2 x Eprom 27 C 256 k
sound:	two channel with potentiometer
outputs:	148 outputs opencollector
inputs:	280 inputs

2. COIN COMPARATOR: NRI G13 - 6 channels, 1 of which is suitable optional for sorting out procedures

COIN COMPARITOR - 1 channel reference coin
By means of diverters, coin comparitor directs coins either to the hopper or to the cashbox.

CASH FLOW - 6 channels, two of which are suitable for sorting out procedures.

3. HOPPER: Universal Hopper

4. BILL ACCEPTOR: can be programmed to accept all currencies
optional feature only done at the factory
Armatic or NV1

5. METERS: 8 mechanical ones

6. POWER SUPPLY:

Linear	230V AC 50 Hz	15V/5A 15V/10A	24V/2A 24V/3A	115V AC
GE-009B	230V AC 50 Hz	5V/15A	-5V/1A	12V/2A

AUDIT SYSTEM EXPLANATIONS

PAGE 0.0.: INIT PAGE

If an error occurs in the machine (e.g. through losses of RAM contents), the machine will report E-0. Now open the door and handle the service register key. This enables you to get to page 0.0 (initialization page).
The values of the registers can be adjusted. All the registers are described below:

REGISTER 01 ==> ADJUSTING OF PLAYER RETURN
In this register you can adjust the player return. Possible adjustments are 1 or 2, with 2 standing for a higher **payout percentage.**

Register 02 ==> HOPPER EMPTYING
In this register you can activate and deactivate the function **hopper emptying.**

Register 03 ==> DELETING DAY REGISTER
In this register you can activate and deactivate the function **deleting day register.**
0 and 1 = Use either day or service register key to perform deleting function
2 = Use only service register key to perform deleting function
3 = Use only service register key while door is open to perform deleting function

Register 04 ==> REMOTE
In this register you can activate and deactivate the **remote** function.
If activated, each handling of a certain key will increment the Credit.
Possible remote values and key functions vary according to the program version.

Register 05 ==> HANDPAID
In this register you can activate and deactivate the function **handpaid.**

Register 06 ==> BILL ACCEPTOR
In this register you can activate and deactivate the **bill acceptor.**

Register 07 ==> COIN CHANGE
In this register you can activate and deactivate the function **coin change.**
If activated, coins will be changed upon handling the attendant key and pressing the test key (on top of the machine). The coins that have been paid out are shown on the PAID display. Values depend on the program version.

Register 08 ==> CREDIT MEMORY
In this register you can determine whether or not there should be a **credit memory** function.

Register 09 ==> AUTOMATIC START
In this register you can activate and deactivate the function **automatic start.**

Register 10 ==> PAYOUT VIA HOPPER
In this register you can activate and deactivate the function payout via hopper.

Register 11 ==> ACCUMULATION OF WINS
In this register you can activate and deactivate the function **win accumulation.**

Register 12 ==> HOPPER PAYOUT LIMIT
In this register you can determine the **hopper payout limit.**
The default value is 400 coins. You can fix the limit though at any value ranging from 0 coins to 1000 coins, incrementation being possible only by hundreds. If the value is 0, there is no hopper limit at all.

Register 13 ==> CREDIT LIMIT
This register indicates the **credit limit.** The default value being predetermined, it cannot be changed.

Register 14 ==> MAXIMUM CREDIT
This register indicates the **maximum credit.** It cannot be changed.

Register 15 ==> HANDPAID LIMIT
In this register you can adjust the **handpaid limit.**

Register 16 ==> BILL TRANSFER TO CREDIT OR COIN CHANGE
In this register you can determine what to do with a bill that has to be changed.
At display 1 the amount of the inserted bill will be booked to credit.
At display 0 the amount of the inserted bill will be changed into coins.

Register 17 ==> TEST TIME
In this register you can adjust the **test time** (1 - 6 .... 30sec-3min).
The default value being 6.

Register 18 ==> ADJUSTING MAX BET
This register indicates the **maximum bet.** Optional between 2 and 40 times the stake.
Values vary according to program version.

Register 19 ==> ADJUSTING SOUND VOLUME OF REELS
In this register you can adjust the **volume of the reel spinning melody.** Possible values range from 0-7. 7 indicates the maximum volume. The default value being 5.

Register 99 ==> E-0 debugging
After E-0 has been shown on the display, this register will hold the value 1. In order to start a new game, the value has to be reset from 1 to 0. Close the door, take off the service register key. After the programmed test period is over, a new game can be started.

PAGE 0.1. STATUS PAGE

On this page the latest game stati are recorded.
See STATUS REGISTER

Register 01 ==> STATUS
In this register the latest game status is recorded.

Register 02 ==> LATEST CREDIT BEFORE START OF THE GAME
In this register the latest credit before the start of the game is recorded.

Register 03 ==> LATEST STAKE
In this register the latest stake is recorded.

REGISTER 04 ==> LATEST WIN
In this register the latest win is recorded.

Register 05 ==> LATEST GAMBLE PLAY
In this register the amount of the latest gamble play is recorded.

Register 06 ==> LATEST PAYOUT
In this register the latest amount paid out is recorded. If a bill has been changed, this register holds the amount of the equivalent coins.

PAGE 0.2. ERROR PAGE

THIS PAGE IS RESERVED FOR RECORDINGS OF SEVERAL ERRORS. AFTER DEBUGGING THE REGISTERS OF THIS PAGE HAVE TO BE DELETED IN ORDER TO BE ABLE TO START A NEW GAME.

Register 01 ==> NUMBER OF TEST TIMES
In this register the number of test times having been activated is recorded.

Register 10 ==> ERRORS IN BILL AMOUNTS
In this register the number of wrong pulses sent out by the bill acceptor is recorded.

PAGE 0.5. CALCULATION PAGE

On this page the individual money input and output calculations are recorded.

Register 01 ==> SUM OF REMOTE AND COIN CHANGE
The value of this register is the sum of remote points and those points that have been changed.

Register 10 ==> SUM OF HANDPAID AND REFILL functions
The value of this register is the sum of the points of handpaid and the points of the functions HOPPER REFILL DIRECT and HOPPER REFILL INDIRECT.

PAGE 1.0. PAGE OF COUNTERS

This page is an exact reproduction of the 8 counters. See counters.

Register 01 ==> COUNTER IN RECORDINGS
The value of this register contains all the points that have been recorded in the mechanical counter.

Register 02 ==> COUNTER OUT RECORDINGS
The value of this register contains all the points that have been recorded in the mechanical counter.

Register 03 ==> COUNTER REMOTE RECORDINGS
The value of this register contains all the points that have been recorded in the mechanical counter.

Register 04 ==> COUNTER HANDPAID RECORDINGS
The value of this register contains all the points that have been recorded in the mechanical counter.

Register 05 ==> COUNTER BILLS RECORDINGS
The value of this register contains all the points that have been recorded in the mechanical counter.

Register 06 ==> COUNTER CASH BOX RECORDINGS
The value of this register contains all the points that have been recorded in the mechanical counter.

Register 07 ==> COUNTER GAMES RECORDINGS
The value of this register contains all the points that have been recorded in the mechanical counter.

Register 08 ==> COUNTER TOKEN RECORDINGS
The value of this register contains all the points that have been recorded in the mechanical counter.

PAGE 1.1. DAY REGISTER

This page is for daily calculations.

Register 01 ==> TOTAL REGISTER
The value of this register represents the sum of the points inserted and the points remote controlled MINUS
the sum of the points paid out and the points handpaid.

Register 02 ==> TOTAL IN
The value of this register represents the sum of the coins inserted (without HOPPER REFILL INDIRECT) and the remote amounts.

Register 03 ==> TOTAL OUT
The value of this register represents the sum of the points paid out via the hopper (without the CHANGE function) and the handpaid amounts.

Register 04 ==> REMOTE
The value of this register represents the sum of all the points that have been remote controlled.

Register 05 ==> HANDPAID
The value of this register represents the sum of all the points that have been handpaid.

Register 06 ==> COINS TO CASH BOX
The value of this register represents the total of all the coins that are in the cash box.

Register 07 ==> COIN CHANGE
The value of this register represents the total of all the coins that have been changed.

Register 08 ==> DIRECT HOPPER REFILL
The value of this register represents the total of all the coins with which the hopper has been refilled directly.

Register 09 ==> INDIRECT HOPPER REFILL VIA COIN COMPARATOR
The value of this register represents the total of all coins with which the hopper has been filled via the coin comparator.

Register 10 ==> TURNOVER PERCENTAGE
This register indicates the percentage of internal payout.

Register 11 ==> VERSION NUMBER
This register indicates the program version.

Register 12 ==> TOKENS IN TOKEN BOX
The value of this register represents the total of the tokens to be found in the token box.

PAGE 2.2. ERROR PAGE

This page is an exact reproduction of page 0.2.

PAGE 2.5. CALCULATION PAGE

This page is an exact reproduction of page 0.5.

PAGE 3.0. PAGE OF COUNTERS

This page is an exact reproduction of page 1.0.

PAGE 3.1. SERVICE REGISTER

This page is especially reserved to engineers and is an exact reproduction of page 1.1. However, the data of this page will still be preserved even if page 1.1. is deleted.

PAGE 4.1. ADJUSTING WINS

This page refers to the adjustment of wins in the machine.

Register 01 ==> ADJUSTING WINS
In this register you can determine the height of the main win. Optional values range from 1 to 4. In case of 4, the largest payout will be effected.

PAGE 5.0. STATISTICS

This page is reserved for statistics.

Register 01 ==> DOOR OPENINGS
This register counts the number of door openings.

Register 02 ==> HOPPER EMPTYING FIGURE
This register indicates the number of coins thrown out by means of the function hopper emptying.

Register 03 ==> DIRECT HOPPER REFILL
When activating hopper refill and by pressing the automatic start key, the number of coins refilled will be recorded in steps of hundreds. Maximum possible value being 5000.

PAGE 5.1. STATISTICS FOR BILLS AND ARMATIC BILL ACCEPTOR

This page is reserved for bill statistics.

Register 01 ==> BILL A
The indicated value represents the total of the bills A that have been changed.

Register 02 ==> BILL B
The indicated value represents the total of the bills B that have been changed.

Register 03 ==> BILL C
The indicated value represents the total of the bills C that have been changed.

Register 04 ==> BILL D
The indicated value represents the total of the bills D that have been changed.

Register 05 ==> BILL E
The indicated value represents the total of the bills E that have been changed.

Register 06 ==> TOTAL OF BILLS A-E
The value of this register represents the total of the bill registers A-E.

Register 07 ==> TOTAL OF BILLS TRANSFERRED TO CREDIT
The value of this register represents the total of bills that have been transferred to credit.

Register 08 ==> TOTAL OF BILLS CHANGED
The value of this register represents the total of bills that have been changed.

Register 09 ==> ERRORS IN BILL AMOUNTS
In this register the number of wrong pulses sent out by the bill acceptor is recorded.

PAGE 5.1. STATISTICS FOR BILLS AND NV 1 BILL ACCEPTOR

This page is reserved for bill statistics.

Register 01 ==> BILL A
The indicated value represents the total of the bills A that have been changed.

Register 02 ==> BILL B
The indicated value represents the total of the bills B that have been changed.

Register 03 ==> BILL C
The indicated value represents the total of the bills C that have been changed.

Register 04 ==> BILL D
The indicated value represents the total of the bills D that have been changed.

Register 05 ==> BILL E
The indicated value represents the total of the bills E that have been changed.

Register 06 ==> BILL F
The indicated value represents the total of the bills F that have been changed.

Register 07 ==> BILL G
The indicated value represents the total of the bills G that have been changed.

Register 08 ==> BILL H
The indicated value represents the total of the bills H that have been changed.

Register 09 ==> TOTAL OF BILLS A-H
The value of this register represents the total of the bill registers A-H.

Register 10 ==> TOTAL OF BILLS TRANSFERRED TO CREDIT
The value of this register represents the total of bills that have been transferred to credit.

Register 11 ==> TOTAL OF BILLS CHANGED
The value of this register represents the total of bills that have been changed.

PAGE 5.2. STATISTICS FOR CALCULATIONS

This page is reserved for statistics for calculations.

Register 01 ==> TOTAL REGISTER
The value of this register represents the total of points inserted and remote-controlled
MINUS
the total of the points paid out and handpaid.

Register 02 ==> TOTAL IN
The value of this register represents the total of coins inserted (without indirect hopper refill) and the remote amounts.

Register 03 ==> TOTAL OUT
The value of this register represents the total of the points paid out via the hopper (without the coin change function) and the handpaid amounts.

Register 04 ==> SUM OF ALL BETS
The indicated value represents the sum of all bets placed.

Register 05 ==> SUM OF ALL WINS
The indicated value represents the sum of all wins.

Register 06 ==> TURNOVER PERCENTAGE
This register indicates the percentage of internal payout.

PAGE 7.2. GAME STATISTICS

This page is reserved for game statistics.

Register 01 ==> NUMBER OF WIN GAMES COMPARED TO TOTAL GAMES
This register indicates the percentage of win games compared to the total games.

Register 02 ==> NUMBER OF GAMES
This register indicates the number of all games played.

Register 03 ==> NUMBER OF WIN GAMES EXCEEDING THE STAKE
This register indicates the number of games whose wins exceed the stake.

PRIORITIES OF EACH OF THE KEYS

SERVICE REGISTER KEY

ENTRY INTO DAY REGISTER

PAGE 0.1. STATUS PAGE	
01	STATUS
02	LATEST CREDIT BEFORE START OF GAME
03	LATEST STAKE
04	LATEST WIN
05	LATEST RISIKO PLAY
06	LATEST PAYOUT

	NUMBER OF TEST TIMES
10	ERRORS IN BILL AMOUNTS

PAGE 0.5. CALCULATION PAGE	
01	SUM OF REMOTE + COIN CHANGE
10	SUM OF HANDPAID + REFILL FUNCTIONS

PAGE 1.0. PAGE FOR COUNTERS	
01	COUNTER IN RECORDINGS
02	COUNTER OUT RECORDINGS
03	COUNTER REMOTE RECORDINGS
04	COUNTER HANDPAID RECORDINGS
05	COUNTER BILL RECORDINGS
06	COUNTER CASHBOX RECORDINGS
07	COUNTER GAMES RECORDINGS
08	COUNTER TOKEN RECORDINGS

PAGE 1.1. DAY REGISTER	
01	TOTAL REGISTER
02	TOTAL IN
03	TOTAL OUT
04	REMOTE
05	HANDPAID
06	COINS TO CASH-BOX
07	COIN CHANGE
08	DIRECT HOPPER REFILL
09	INDIRECT HOPPER REFILL (COIN COMPARATOR)
10	TURNOVER PERCENTAGE
11	VERSION NUMBER
12	TOKEN IN TOKEN-BOX

ENTRY INTO SERVICE REGISTER

PAGE 2.2. ERROR PAGE	
01	NUMBER OF TEST TIMES
10	ERRORS IN BILL AMOUNTS

PAGE 2.5. CALCULATION PAGE	
01	SUM OF REMOTE + COIN CHANGE
10	SUM OF HANDPAID + REFILL FUNCTIONS

PAGE 3.0. PAGE FOR COUNTERS	
01	COUNTER IN RECORDINGS
02	COUNTER OUT RECORDINGS
03	COUNTER REMOTE RECORDINGS
04	COUNTER HANDPAID RECORDINGS
05	COUNTER BILL RECORDINGS
06	COUNTER CASHBOX RECORDINGS
07	COUNTER GAMES RECORDINGS
08	COUNTER TOKEN RECORDINGS

PAGE 3.1. SERVICE REGISTER	
01	TOTAL REGISTER
02	TOTAL IN
03	TOTAL OUT
04	REMOTE
05	HANDPAID
06	COINS TO CASH-BOX
07	COIN CHANGE
08	DIRECT HOPPER REFILL
09	INDIRECT HOPPER REFILL (COIN COMPARATOR)
10	TURNOVER PERCENTAGE
11	VERSION NUMBER
12	TOKEN IN TOKEN-BOX

PAGE 4.1. ADJUSTING WINS	
01	ADJUSTING WINS

HOW TO DEBUG SOFTWARE ERRORS

Error codes:

	DEFINITION		DEBUGGING PROCEDURE
E0 -	Init Machine	-	initialize the machine
E1 -	RAM Error	-	electronic is defective (not indicated)
E2 -	RAM Error	-	electronic is defective (- " -)
E3 -	Tilt	-	do it yourself
E4 -	I/0 test		day or service register key - entry into test
E5 -	hopper error (hopper empty)	-	key switch, door - refill hopper
H5 -	hopper error (coin is stuck)	-	turn machine off
E6 -	reel error	-	do it yourself, or defective electronic
E7 -	black box error	-	turn machine off
E8 -	bill error	-	attendant key switch
E9 -	unexpected channel of multi I/O interface	-	attendant key switch

Hopper error debugging in case of alternate use of NV1
The display indicates the amount of coins that have not anymore been paid out.
The machine reports "Call Attendant".

Hopper empty

Refill hopper via coin comparator

Press TEST key and fill in coins via the coin comparator. When a sufficient amount of coins have been inserted release the TEST key.
After the reset, the machine will pay out the remaining coins.

Direct hopper refill

Turn around the service register key.
Open the door.
The machine has swapped to the audit system, register 3, page 50.
Now by pressing the auto-start key, choose the preferred amount of coins (in steps of hundred)
Fill the chosen amount of coins into the hopper.
Close the door.
Take off the service register key.

Direct payout of remaining amount

Turn around the attendant key switch.
Pay amount directly to the player.
Press the CASH key.
Take off the attendant key.

Coin is stuck

Open the door.
Remove stuck coins.
Close the door again.
After the reset, payout will continue.

A stuck coin may prompt the appeareance of error code "H5". Then the machine will be ready for operation only if it has been turned off and on again after the stuck coin was removed. This procedure might involve the swallowing of coins.

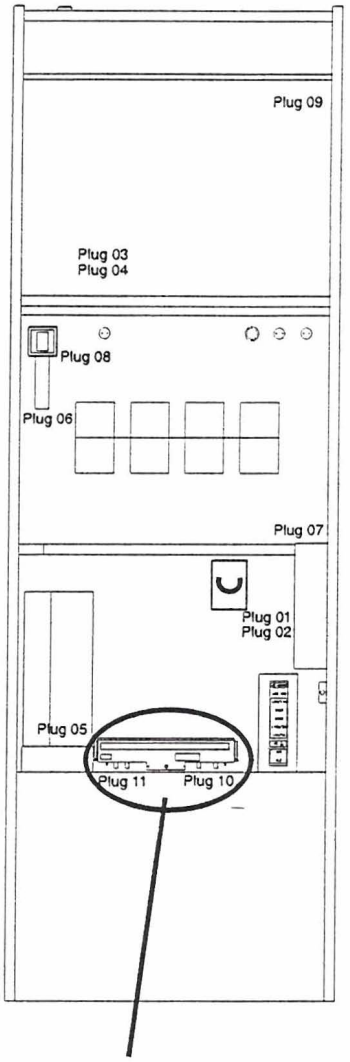
STATUS REGISTER
REEL MACHINES

0	-	STATUS UNDEFINED
1	-	REEL IS SPINNING
2	-	RENOUNCING WIN
3	-	GAMBLE
4	-	HOPPER PAYOUT AFTER PRESSING THE CASH KEY
5	-	CHANGE OF BILLS
6	-	END OF GAME
7	-	AUTOMATIC HOPPER PAYOUT AFTER WIN

GAMBLE STATUS

0	-	STATUS UNDEFINED
1	-	WIN TAKEN (COLLECT KEY)
2	-	GAMBLE LOOSE
3	-	GAMBLE WIN
4		WIN TAKEN

POSITION IN THE SLOT MACHINE



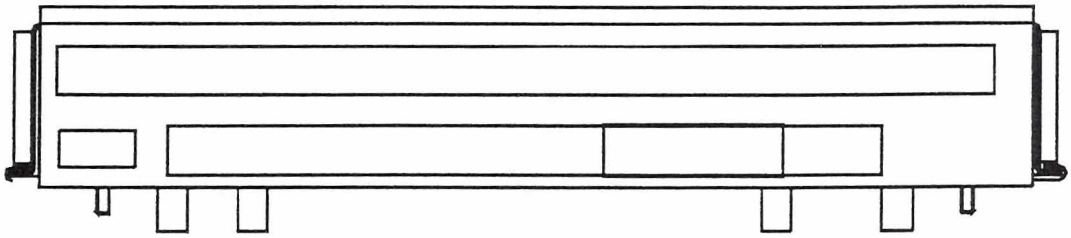
COUNTERS

ARRANGEMENT OF METERS

Front view
Meters will only be visible after day or service register key has been turned.

meter 3	meter 2	meter 1	meter 5	meter 4	meter 6	meter 7	meter 8
0000000	0000000	0000000	0000000	0000000	0000000	0000000	0000000
IN	OUT	REMOTE	HANDPAID	BILLS	CASHBOX	GAMES	TOKEN

PIN ASSIGNMENT FOR COUNTERS



plug 11 plug 10

Plug 10 : 15pin SUB-female connector

Pin	colour	name/function	
01	red/green (0.5)	Remote (3rd from left)	
02	pink/green (0.5)	meter 2	Out (2nd from left)
03	green (0.5)	meter 3	In (1st from left)
04	yellow/violet (0.5)	meter 4	Bills (5th from left)
05	blue/violet (0.5)	meter 5	Jackpot (4th from left)
06	brown/violet (0.5)	meter 6	Cashbox (6th from left)
07	nc	--------	
08	green/grey (0.5)	meters return line	
09	orange/black (0.5)	GND-switches	
10	orange/black (0.5)	GND-switches	
11	nc	--------	
12	blue (0.5)	meter 7	Games (7th from left)
13	orange/red (0.5)	meter 8	Token (8th from left)
14	white (0.5)	VCC 3	
15	white (0.5)	VCC 3	

Plug 11 : 6pin Molex female connector

Pin	colour	name/function
01	nc	--------
02	nc	--------
03	orange/green (0.5)	meter lamps
04	white (0.5)	VCC 3
05	nc	--------
06	nc	--------

FUNCTIONS OF METERS

IN
The IN meter deducts all bets made from the credit after a game has been started => The IN meter is not active when coins are inserted.

OUT
The OUT meter counts all wins incremented to credit. => All COLLECTS are counted by the OUT meter!!
When coins are paid out, the OUT meter is not active.

REMOTE
The remote meter records all those amounts involved in key switch operations have been operated or the handling of any keys.
The IN meter is not activated!!

HANDPAID
The handpaid meter records all credit amounts paid by hand (CASH)!!
a) in the event of Credit clear function
b) in the event of machine malfunction or empty hopper
c) in the event of hopper limit
The OUT meter is not active

BILL ACCEPTED
The BILL ACCEPTED meter records all amounts of bills in the moment they are accepted!!!
The IN meter is not active.

CASHBOX
The CASHBOX meter records all coins entered into the cashbox via diverter -> directly at insertion
The IN meter is not active!!

GAMES
The GAMES meter records all game starts irrespective of the bet placed!!

TOKEN

EXAMPLES

Example 1
Coin inserted100 -> Credit 100 -> no meter is activated, as coins drop into hopper directly.
Bet is 5 points -> game is started => IN meter records 5 points and GAMES meter records one point.
A win of e.g. 20 points has been made:
The player takes his win to Credit -> OUT meter counts 20 steps.
The credit of 115 points is paid out -> no meter is activated.

Example 2
Bill 100 is credited -> the bill accepted meter records 100 points.
Bet 10 points -> game is started => IN meter records 10 points and GAMES meter records one point.
A win of e.g. 100 points has been made:
The player gambles successfully to 200 points and collects -> OUT meter records 200 points.
The credit of 290 is paid out -> no meter is activated.

Example 3
100 remote points are credited -> the remote meter counts 100 points.
Bet 20 points -> game is started => IN meter records 20 points and GAMES meter records one point.
A win of 1000 points has been made:
The player collects -> OUT meter records 1000 points.

a) Versions with hopper limit: CASH key is pressed ALARM -> Attendant must handpay credit via key switch (key) -> HANDPAID -> Meter indicates 1080 points

b) No hopper limit -> credit is paid out from the hopper -> no meter is activated

c) No hopper limit -> credit is paid out from the hopper -> the hopper becomes empty, 2 x hopper refill

Example 4
100 points are remoted -> the REMOTE meter records 100 points.
Bet is 5 points -> game is started => IN meter records 5 points and GAMES meter records one point.
The available credit of 95 is paid out:
a) Handpaid => the HAND PAID meter records 95 points
b) Hopper => no meter is activated.

ACCOUNTING EXAMPLES

The following general relationship applies:
IN - OUT =
BILL + CASH BOX + REMOTE + HOPPER CONTENTS - (HOP.FILL + HAND-PAID)

The hopper relationship is:

HOPPER-CONTENTS =
IN + HANDPAID + HOP. FILL - (OUT + BILL ACCEPTED + CASHBOX + REMOTE)

Explanations of the examples:

Example 1

Hopper fill level 400 coins
Coins inserted 100

IN	OUT	GAMES	HANDPAID	CASH BOX	BILL ACCEPTED
Meters when coins are inserted					
0	0	0	0	0	0
Meters after game has been started					
5	0	1	0	0	0
Meters after win has been made					
5	20	1	0	0	0
Meters after payout					
5	20	1	0	0	0

Hopper contents: 500 - 115 = 385

According to the hopper formula:

Hopper contents = 5 + HANDPAID(0) + 400 - (20 + BILL(0) + CASH BOX(0) + REMOTE (0))
Hopper contents = 5 + 400 - (20)
Hopper contents = 385

IN-OUT Relationship:

IN - OUT =
BILL + CASH BOX + REMOTE + HOP.CONTENTS - (HOP.FILL + HANDPAID)

5 - 20 = Bill (0) + Cashbox (0) + 385 - (400 + handpaid (0))
5 - 20 = 385 - (400)
- 15 = - 15

Example 2

Hopper fill level 400 coins

Bill 100

IN	OUT	GAMES	HANDPAID	REMOTE	CASH BOX	BILL ACCEPTED
Meters when bill is accepted						
0	0	0	0	0	0	100
Meters after game has been started						
10	0	1	0	0	0	100
Meters after win has been made						
10	200	1	0	0	0	100
Meters after payout						
10	200	1	0	0	0	100

Hopper contains 400 coins

According to hopper formula:

HOPPER CONTENTS =
IN + HANDPAID + HOP.FILL - (OUT + BILL ACCEPTED + CASH BOX + REMOTE)

Hop. Contents = 10 + Handpaid (0) + 400 - (200 + 100 + Cash box (0) + Remote (0))
Hop. Contents = 10 + 400 - (200 + 100)
Hop. Contents = 410 - 300
Hop. Contents = 110

Compare:

IN - OUT =
BILL + CASH BOX + REMOTE + HOP.CONTENTS - (HOP-FILL + HANDPAID)

10 -200 = 100 + Cash box (0) + Remote (0) + 110 - (400 + Handpaid (0))
- 110 = 100 + 110 - (400)
- 110 = 210 - 400
- 110 = -110

Example 3

Hopper fill level 400 coins

Remote 100

IN	OUT	GAMES	HANDPAID	REMOTE	CASH BOX	BILL ACCEPTED
Meters when key is turned						
0	0	0	0	100	0	0
Meters after game has been started						
20	0	1	0	100	0	0
Meters after win has been made						
20	1000	1	0	100	0	0
Meter after payout example a)						
20	1000	1	1080	100	0	0
Meter after payout example b)						
20	1000	1	680	100	0	0
Meter after payout example c)						
20	1000	1	0	100	0	0

Example a)
Hopper contains 400 Coins

According to the hopper formula:

HOPPER_CONTENTS =
IN + HANDPAID + HOP:FILL - (OUT + BILL_ACCEPTED + CASHBOX + REMOTE)

Hopper_Contents = 20 + 1080 + 400 -(1000 + Bill (0) + Cashbox(0) + 100)
Hopper_Contents = 20 + 1080 +400 - (1000 + 100)
Hopper_Contents = 1500 - 1100
Hopper_Contents = 400

IN-OUT Relationship:
IN - OUT =
BILL + CASHBOX + REMOTE + HOP._CONTENTS - (HOP.FILL + HANDPAID)

20 - 1000 = Bill (0) + Cashbox (0) + 100 + 400 - (400 + 1080)
- 980 = 100 + 400 - (400 + 1080)
- 980 = 500 - 1480
- 980 = - 980

Example b)

Hopper contains: 400 - 1080 = Payout 400 => alarm signal => Remaining amount of 680 handpaid

According to the hopper formula:

HOPPER_CONTENTS =
IN + HANDPAID + HOP.FILL - (OUT + BILL_ACCEPTED + CASHBOX + REMOTE)

Hopper_Contents = 20 + 680 + 400 - (1000 + Bill (0) + Cashbox (0) + 100)
Hopper_Contents = 20 + 680 + 400 - (1000 + 100)
Hopper_Contents = 1100-1100
Hopper_Contents = 0

IN-OUT Relationship:

IN -OUT =
BILL + CASHBOX + REMOTE + HOP._CONTENTS - (HOPPER FILL + HANDPAID)

20 - 1000 = Bill (0) + Cashbox (0) + 100 + 0 - (400 + 680)
- 980 = 100 + 0 - (400 + 680)
- 980 = 100 - 1080
- 980 = -980

Example c)

Hopper contains: 400 - 1080 = Payout 400 => Alarm signal => 2 x Hopper refill

Hopper level after two refills: 1200 - 1080 = 120

According to the Hopper formula:

Hopper_Contents =
IN + HANDPAID + HOP.FILL - (OUT + BILL_ACCEPTED + CASHBOX + REMOTE)

Hopper_Contents =20 + Handpaid (0) + 1200 - (1000 + Bill(0) + Cashbox (0) + 100)
Hopper_Contents =20 + 1200 - (1000 + 100)
Hopper_Contents = 1220 - 1100
Hopper_Contents = 120

IN-OUT Relationship:

IN - OUT =
BILL + CASHBOX + REMOTE + HOP._CONTENTS - (HOP.FILL + HANDPAID)
20 - 1000 = Bill (0) -+ Cashbox (0) + 100 + 120 - (1200 + Handpaid (0))
- 980 = 100 + 120 - (1200)
- 980 = 100 + 120 -1200
- 980 = -980

Example 4

Hopper fill level: 400 coins

Remote: 100

IN	OUT	GAMES	HANDPAID	REMOTE	CASH BOX	BILL ACCEPTED
Meters when key is turned						
0	0	0	0	100	0	0
Meters after game has been started						
5	0	1	0	100	0	0
Meter after payout a)						
5	0	1	95	100	0	0
Meter after payout example b)						
5	0	1	0	100	0	0

Example a)

Hopper contains: 400 coins

According to the hopper formula:

Hopper_Contents =
IN + HANDPAID + HOP.FILL - (OUT + BILL_ACCEPTED + CASHBOX + REMOTE)

Hopper_Contents = 5 + 95 + 400 - (Out (0) + Bill (0) + Cashbox (0) + 100)
Hopper_Contents = 5 + 95 + 400 - (100)
Hopper_Contents = 500 - 100
Hopper_Contents = 400

IN-OUT Relationship:

IN - OUT =
BILL + CASHBOX + REMOTE + HOP._CONTENTS - (HOP.FILL + HANDPAID)

5 - Out (0) = Bill (0) + Cashbox (0) + 100 + 400 - (400 + 95)
5 = 100 + 400 - (495)
5 = 100 + 400 - 495
5 = 5

Example b)

Hopper contains 400 coins.

According to hopper formula:

Hopper_Contents =
IN + HANDPAID + HOP.FILL - (OUT + BILL_ACCEPTED + CASHBOX + REMOTE)

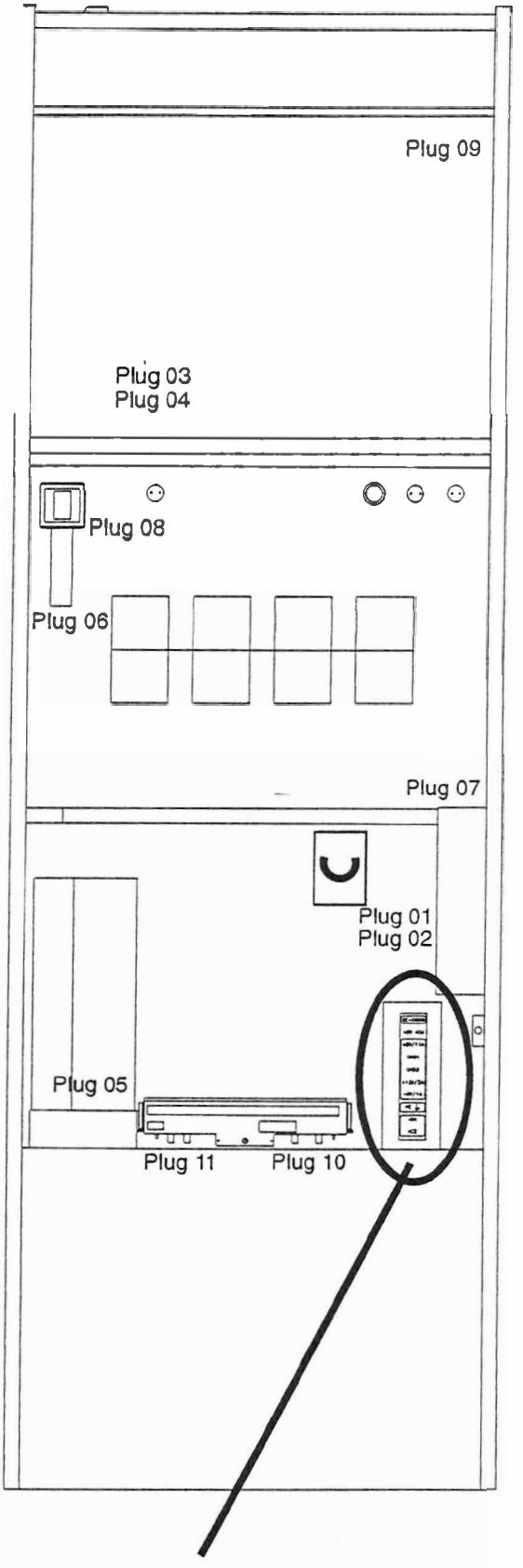
Hopper_Contents = 5 + Handpaid (0) + 400 - (Out (0) + Bill (0) + Cashbox (0) + 100)
Hopper_Contents = 5 + 400 - (100)
Hopper_Contents = 405 - 100
Hopper_Contents = 305

IN-OUT Relationship:

IN - OUT =
BILL + CASHBOX + REMOTE + HOP._CONTENTS - (HOP.FILL + HANDPAID)

5 - Out (0) = Bill (0) + Cashbox (0) + 100 + 305 - (400 + Handpaid (0))
5 = 100 + 305 - (400)
5 = 5

POSITION IN THE SLOT MACHINE

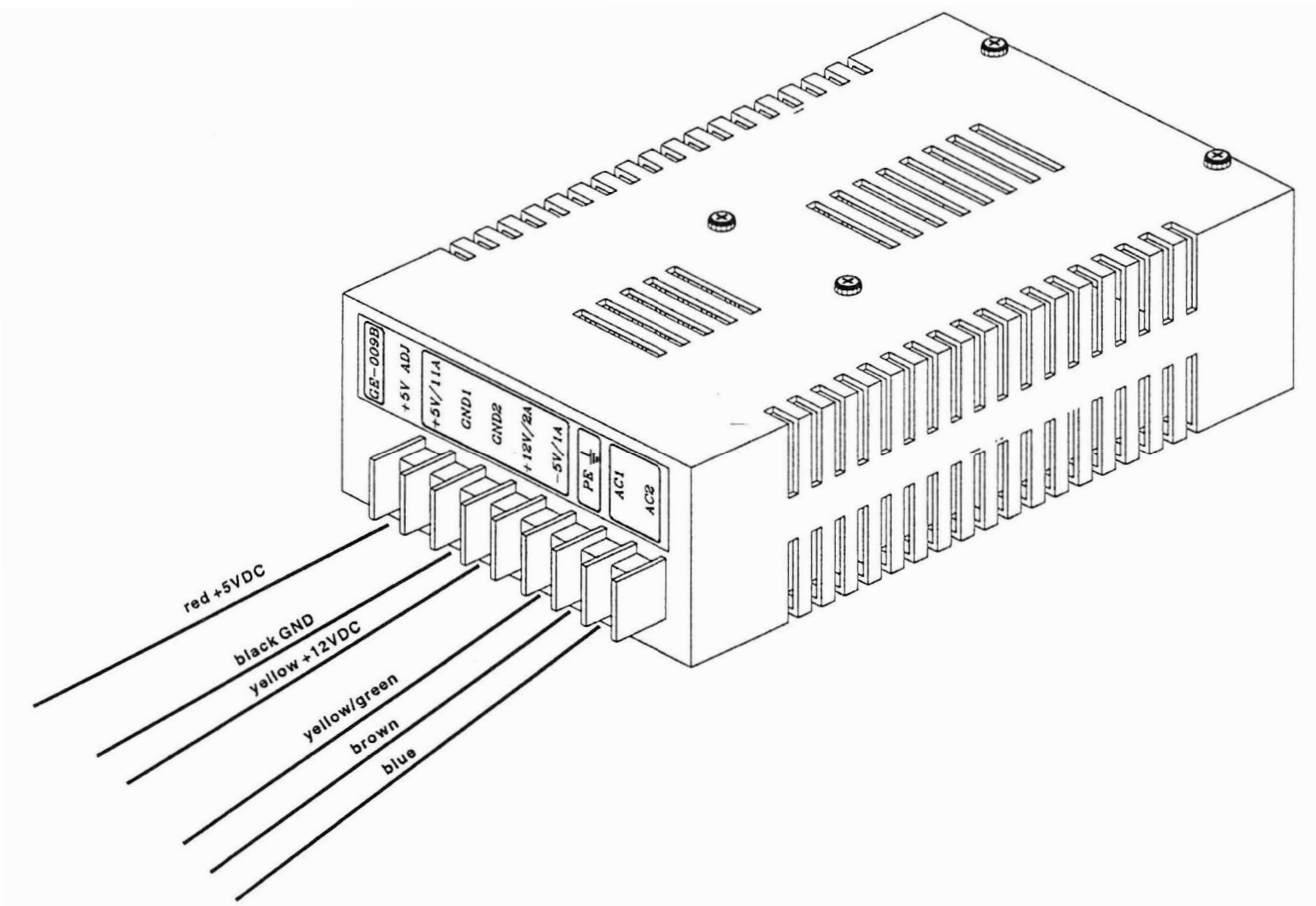


POWERSUPPLY GLENDALE

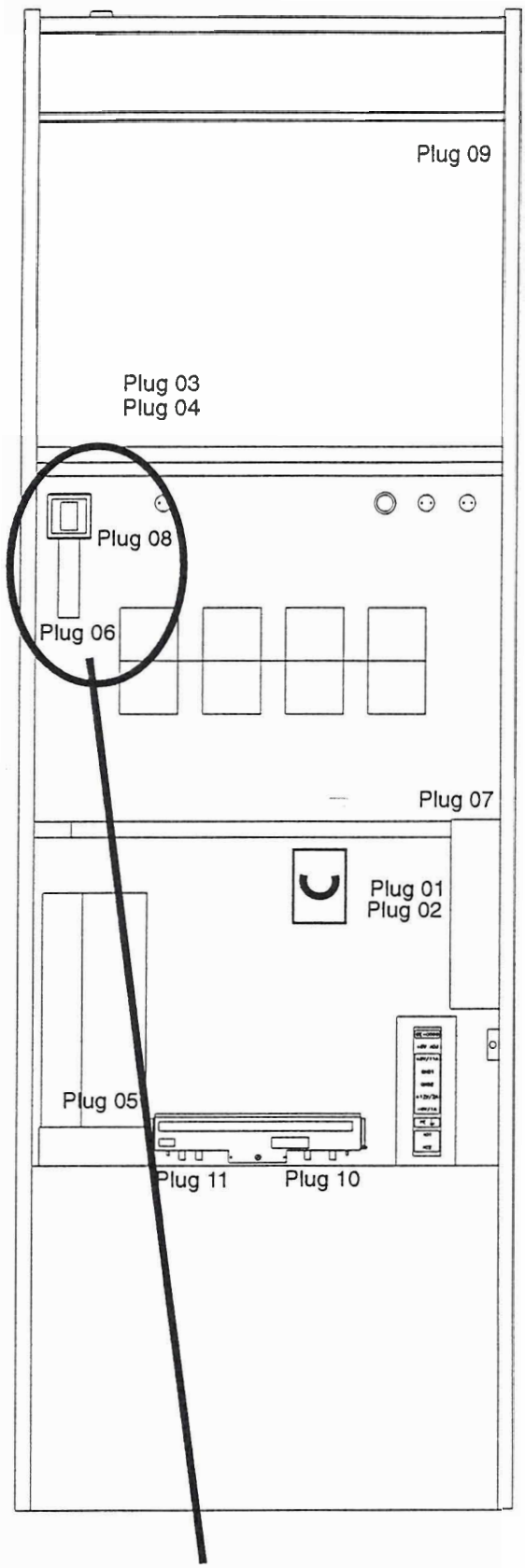
TECHNICAL SPECIFICATIONS

DC OUTPUT VOLTAGE	5V	12 V	-5 V
OUTPUTV. TOLERANCE	± 2%	± 8%	± 8%
OUTPUT RATED CURRENT	11 A	2 A	1 A
OUTPUT CURRENT RANGE	3-15 A	0,2-2 A	0,1-1 A
MAX. OUTPUT POWER	100 W		
DC VOLTAGE ADJUSTMENT	4,6 - 5,6 VDC		
INPUT VOLTAGE RANGE	95-130 VAC OR 190-260 VAC CAN BE SELECTED		
INPUT FREQUENCY	47-63 Hz		
AC CURRENT	2,0 A / 110VAC	0,9A / 220VAC	
SHORT PROTECTION	TYPE: DC POWER OFF		
DIMENSION	180 x 110 x 50 mm	203 x 115 x 50 mm	
WEIGHT	0,95 Kg		

PLUG PINNING



POSITION IN THE SLOT MACHINE



COIN ACCEPTOR NRI

TECHNICAL SPECIFICATIONS

Blocking the coin acceptance mechanism - pin 6

External voltage controls the acceptance of coins.
Blocking: >2V
Accepting: <1.2 V

Blocking individual coins

Via dip switch at the coin comparator.

Coin return signal - pin 5

Return of coins: active low < 0,7V/150mA
Construction: open collector
NPN transistor

Coin signal - pin 3, 4, 7, 8, 9, 10

Coin signal: active low < 0,7V/150mA
Construction: active low
NPN transistor

Imax 150mA, Umax 35V
Impulse transmission time: 100msec +/- 10%

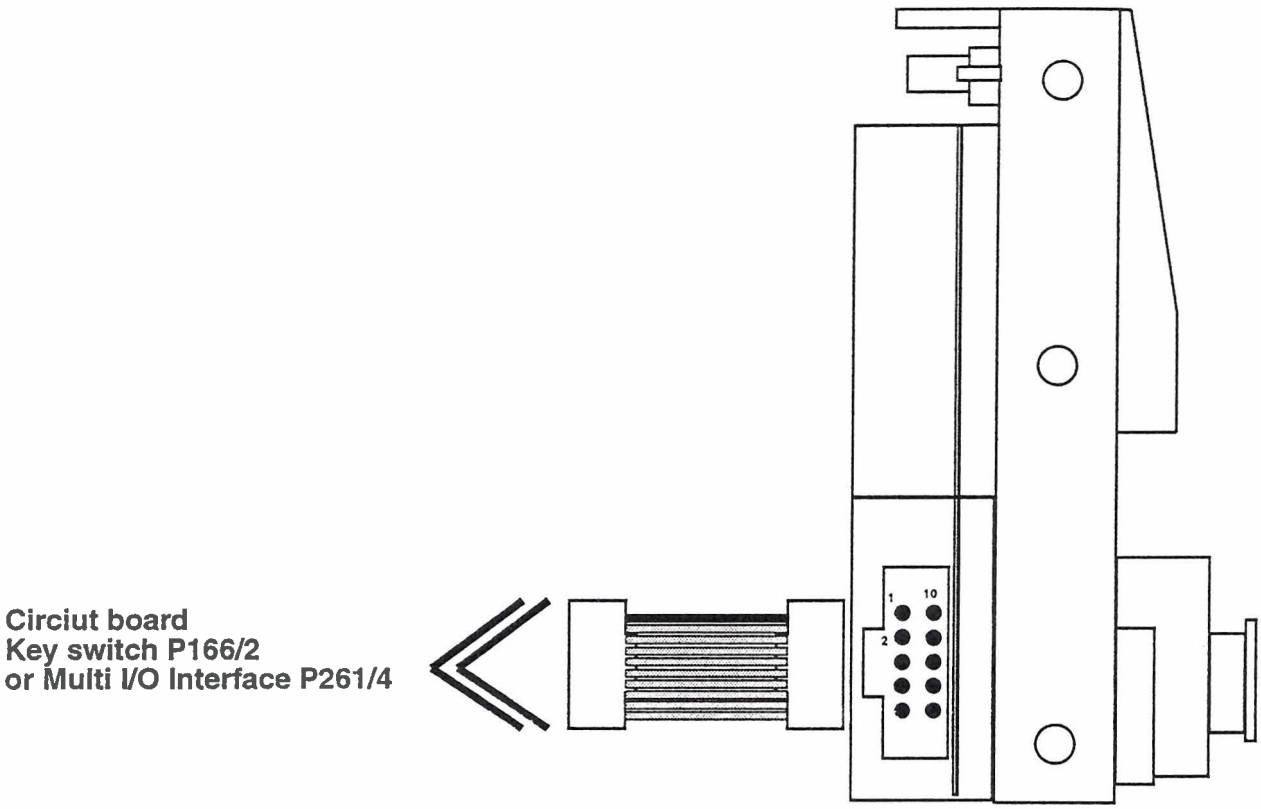
Distribution voltage 12 VDC - pin 1,2

Tolerance: +3V / -1V

Drawing of current

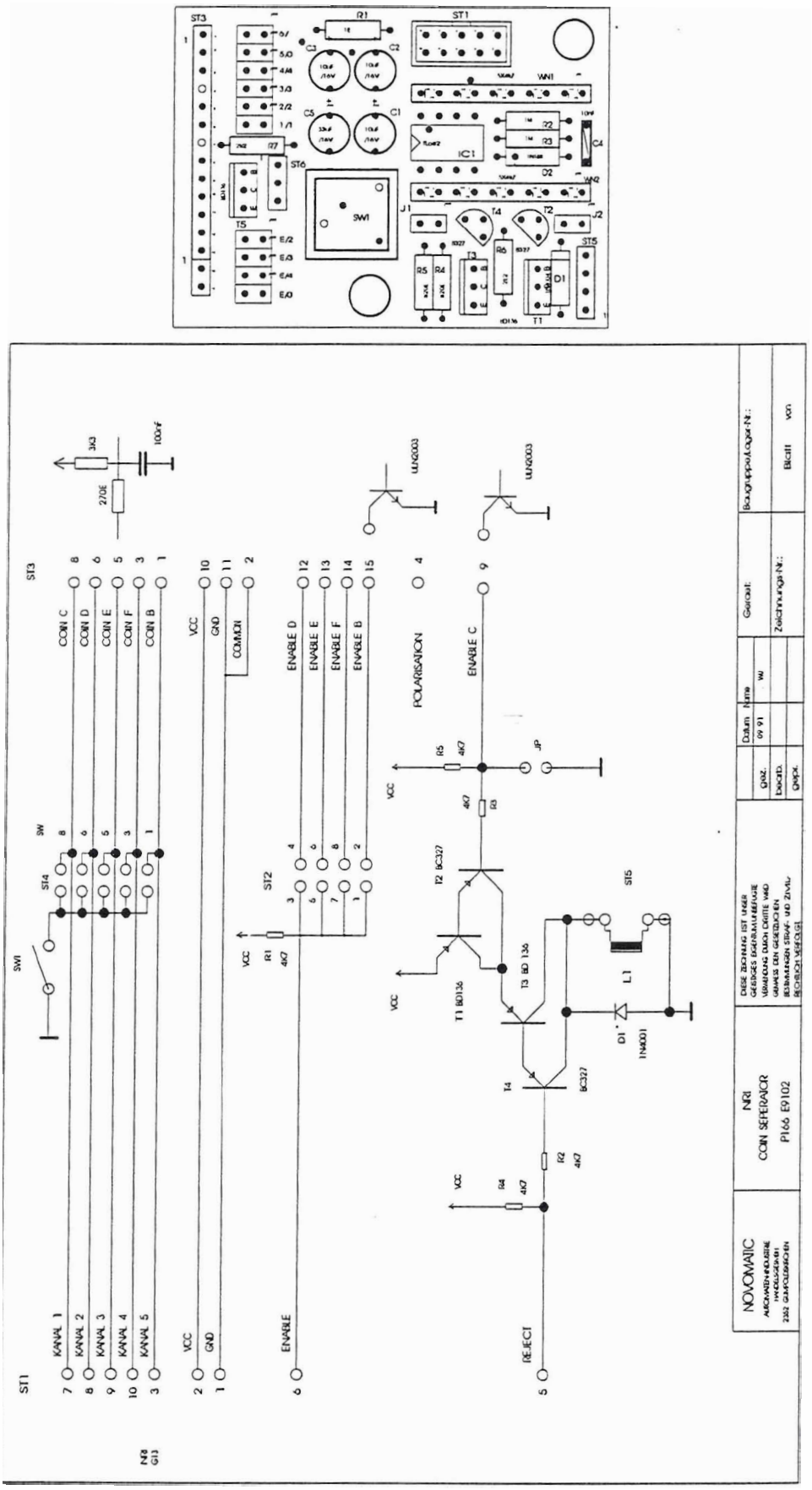
static current: approx. 150mA
while accepting coins: approx. 300mA

PLUG PINNING

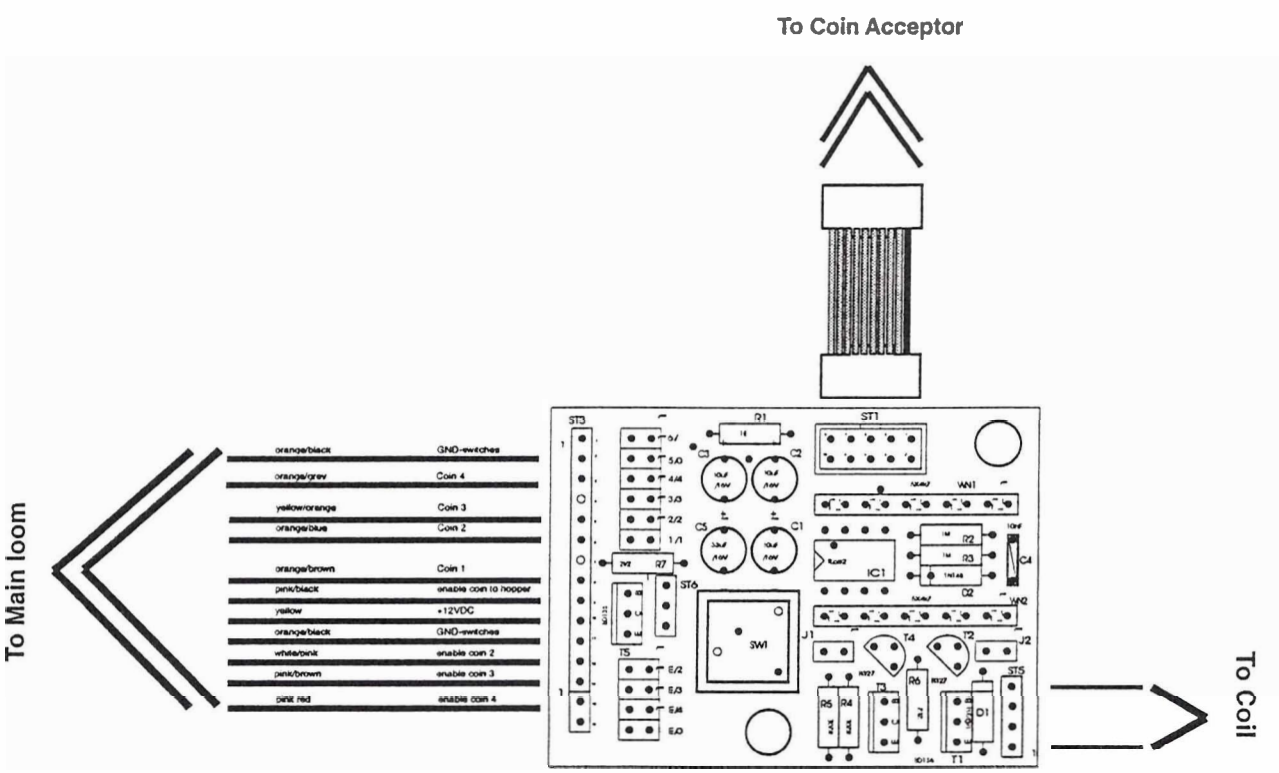


Pin 1	Distribution voltage 12 VDC
Pin 2	Distribution voltage 12 VDC
Pin 3	Coin signal
Pin 4	Coin signal
Pin 5	Coin return signal
Pin 6	Blocking the coin acceptance
Pin 7	Coin signal
Pin 8	Coin signal
Pin 9	Coin signal
Pin 10	Coin signal

CIRCUIT BOARD INTERFACE



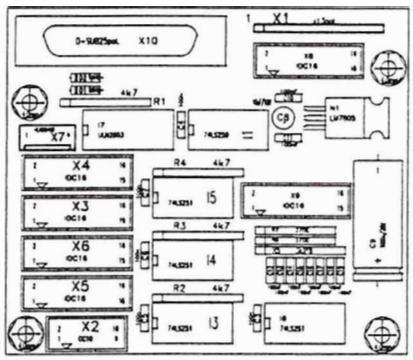
PLUG PINNING INTERFACE

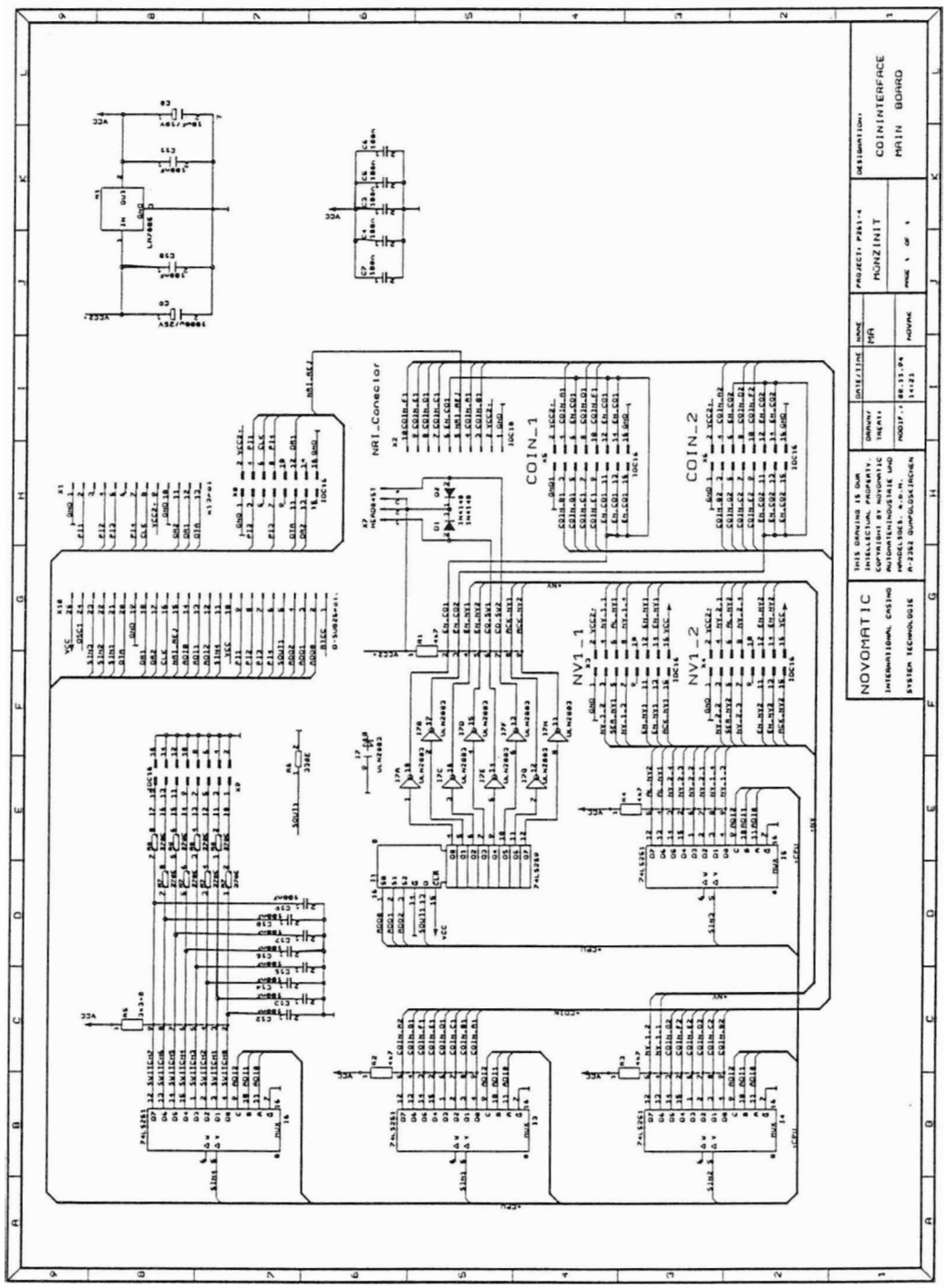


Plug 06 : 13pin Molex female connector

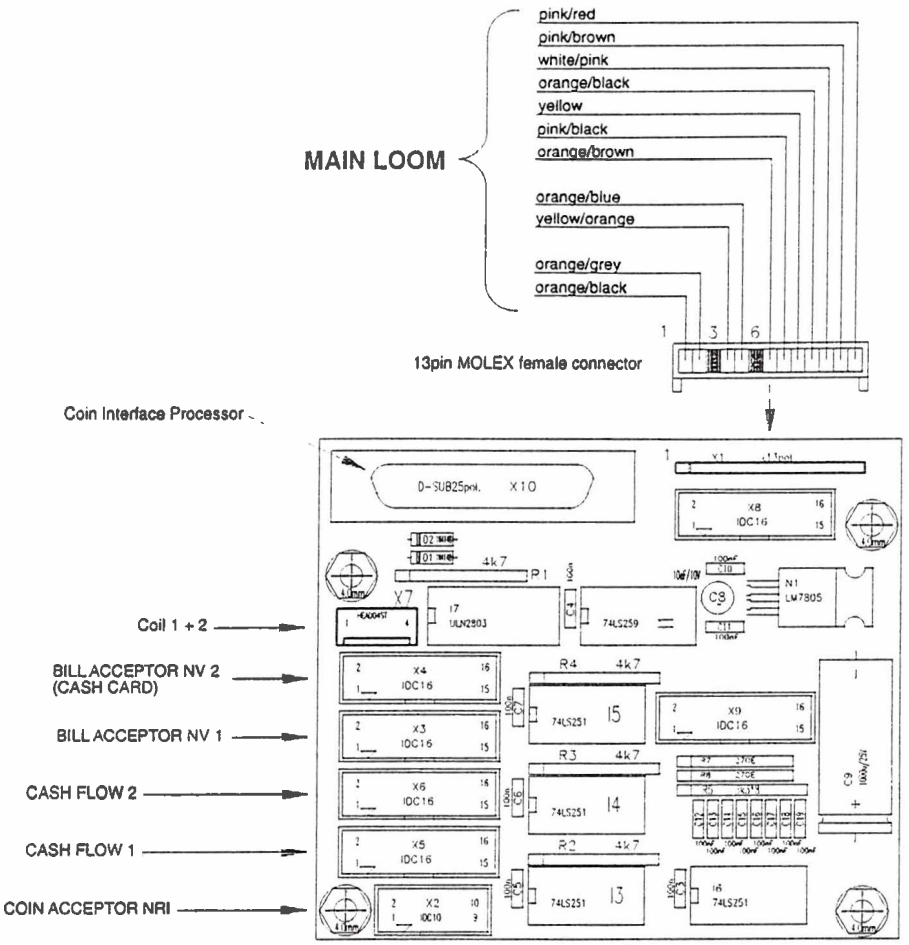
Pin	colour	name/function
01	orange/black (0.5)	GND-switches
02	orange/grey (0.5)	coin 4
03	nc	--------
04	yellow/orange (0.5)	coin 3
05	orange/blue (0.5)	coin 2
06	nc	--------
07	orange/brown (0.5)	coin 1
08	pink/black (0.5)	enable coin to hopper (en coin 1)
09	yellow (0.5)	+12V
10	orange/black (0.5)	GND-switches
11	white/pink (0.5)	enable coin 2
12	pink/brown (0.5)	enable coin 3
13	pink/red (0.5)	enable coin 4

MULTI I/O INTERFACE





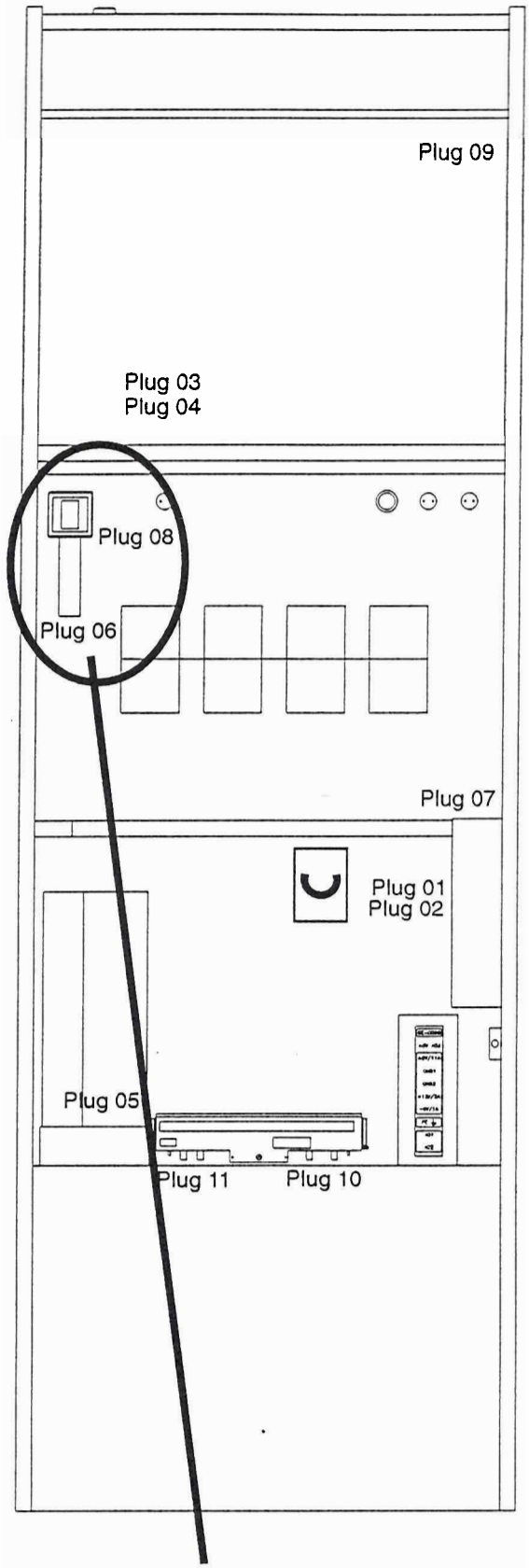
PLUG PINNING INTERFACE



Plug 06 : 13pin Molex female connector

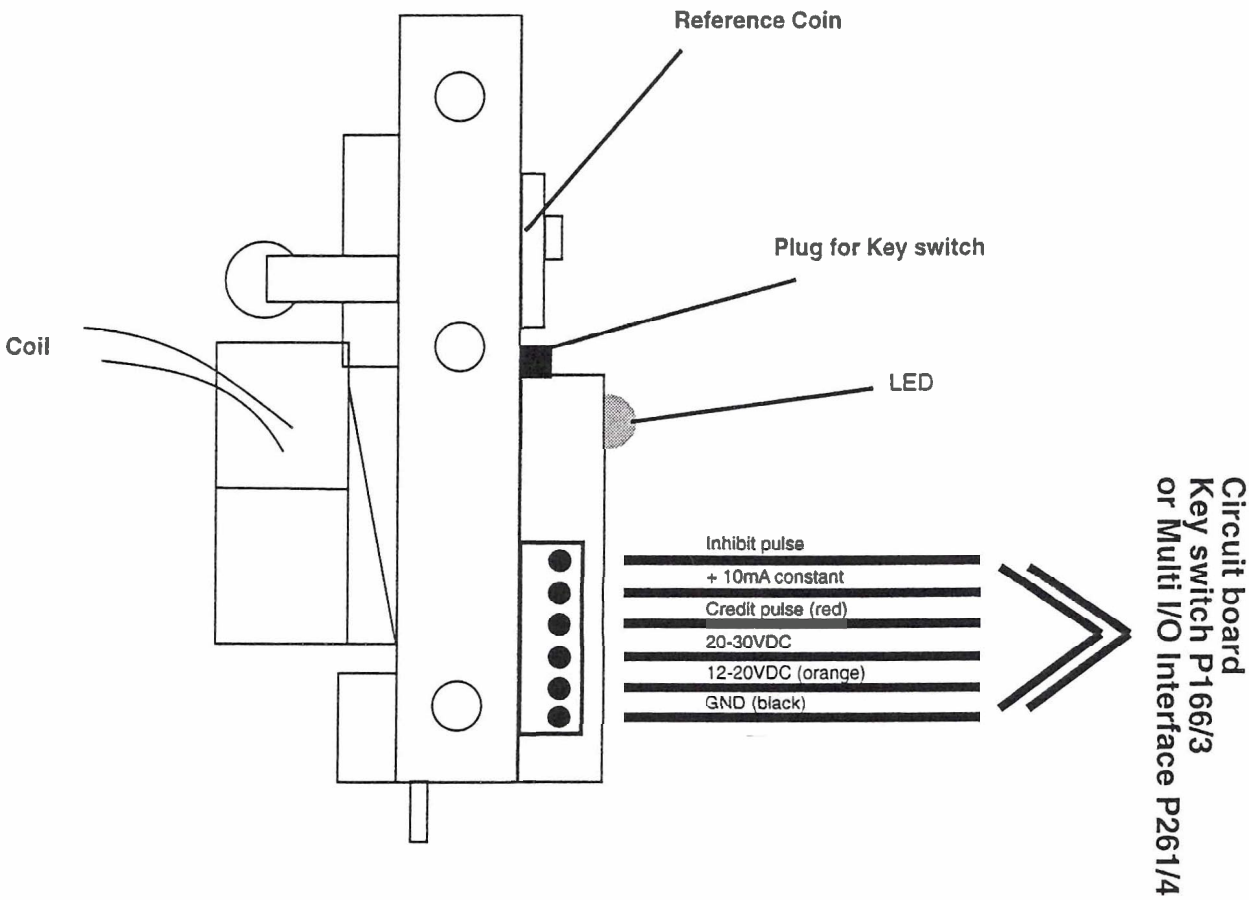
Pin	colour	name/function
01	orange/black (0.5)	GND-switches
02	orange/grey (0.5)	coin 4
03	nc	--------
04	yellow/orange (0.5)	coin 3
05	orange/blue (0.5)	coin 2
06	nc	--------
07	orange/brown (0.5)	coin 1
08	pink/black (0.5)	enable coin to hopper (en coin 1)
09	yellow (0.5)	+12V
10	orange/black (0.5)	GND-switches
11	white/pink (0.5)	enable coin 2
12	pink/brown (0.5)	enable coin 3
13	pink/red (0.5)	enable coin 4

POSITION IN THE SLOT MACHINE



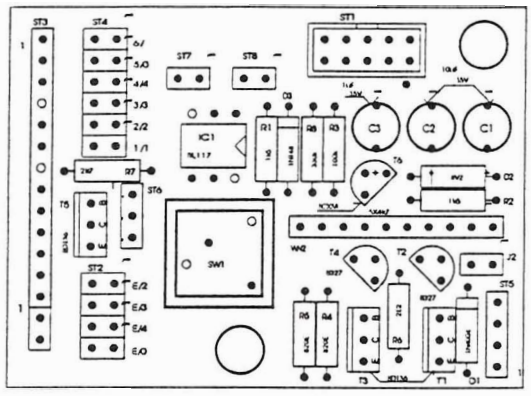
COIN ACCEPTOR COIN COMPARITOR

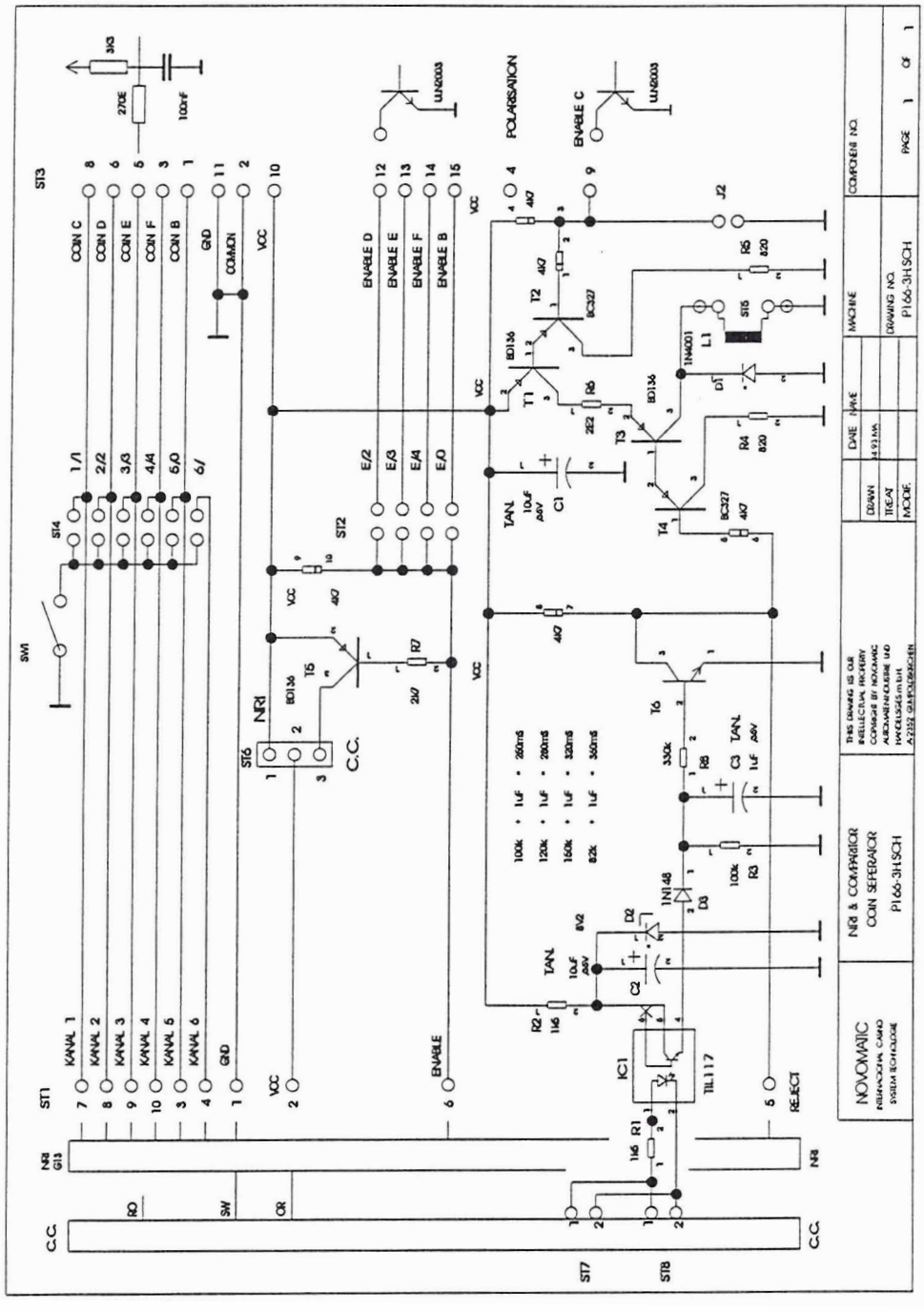
PLUG PINNING



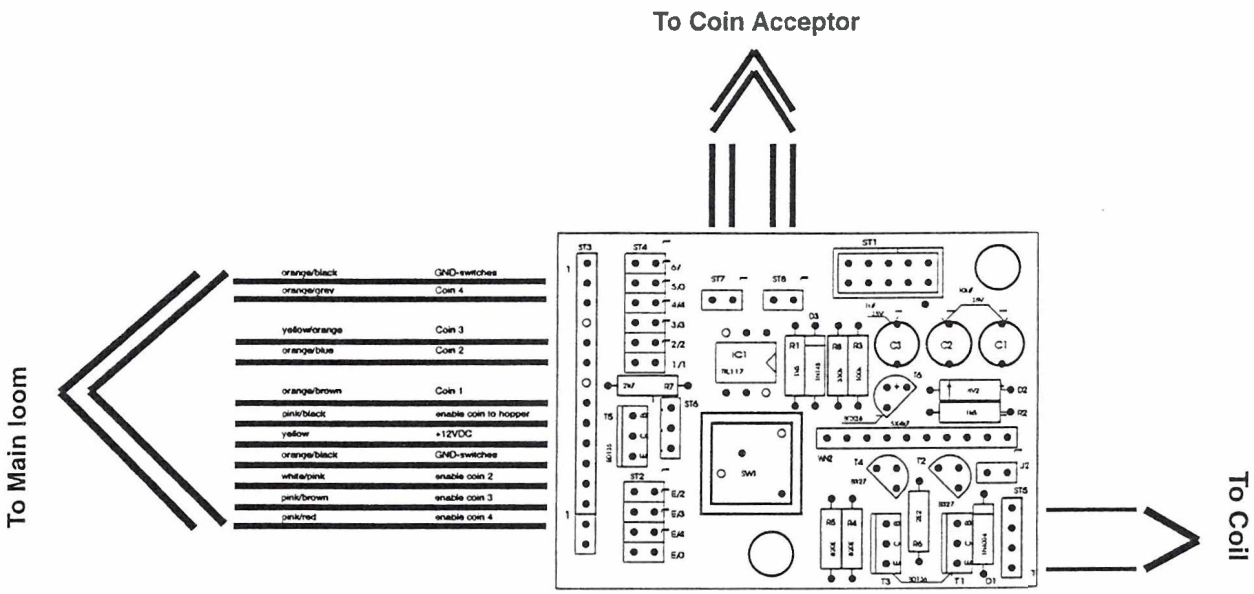
Pin 1	Inhibit pulse
Pin 2	+ 10mA constant
Pin 3	Credit pulse
Pin 4	20-30VDC
Pin 5	12-20 VDC
Pin 6	GND

CIRCUIT BOARD INTERFACE





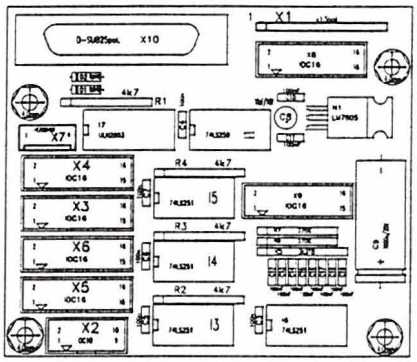
PLUG PINNING INTERFACE

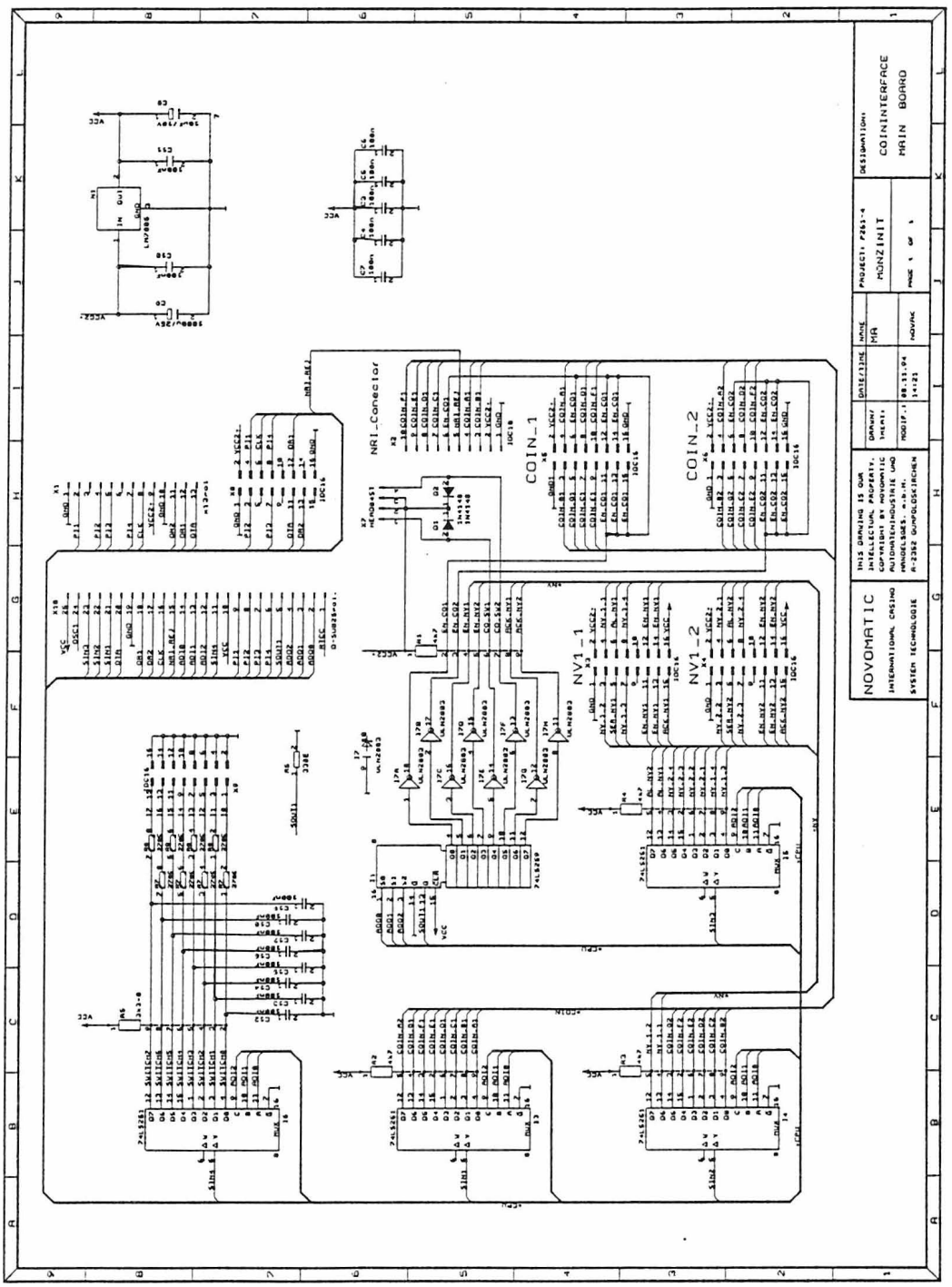


Plug 06 : 13pin Molex female connector

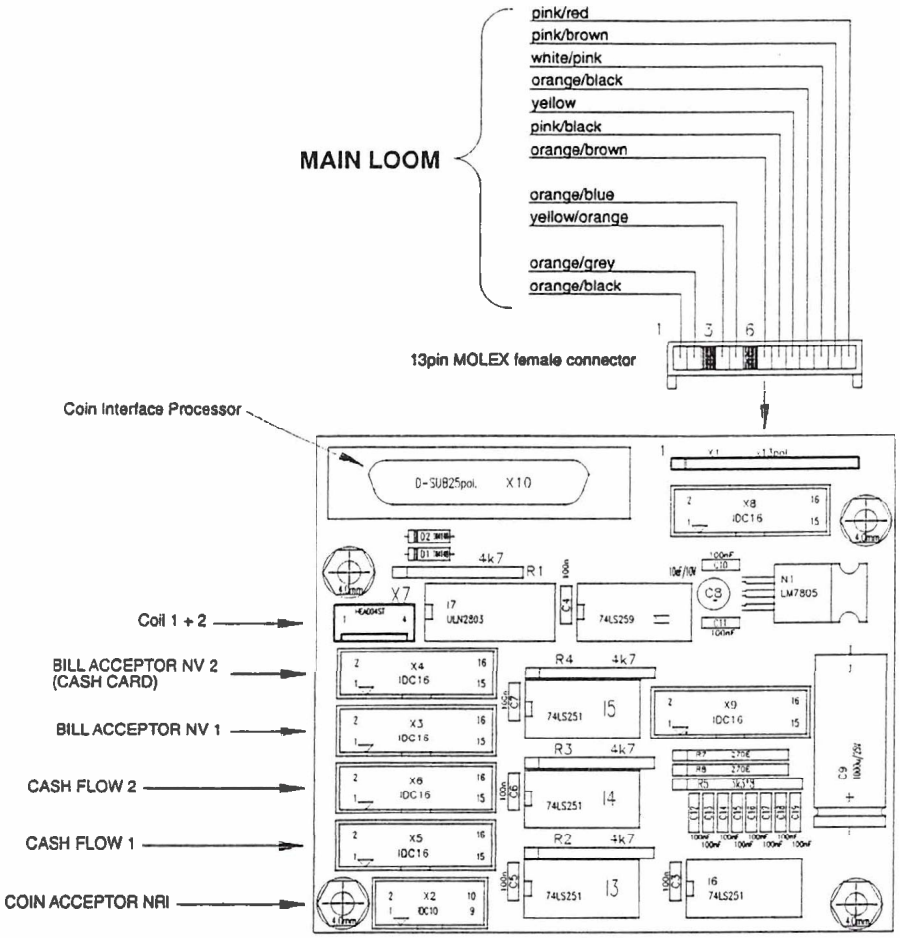
Pin	colour	name/function
01	orange/black (0.5)	GND-switches
02	orange/grey (0.5)	coin 4
03	nc	--------
04	yellow/orange (0.5)	coin 3
05	orange/blue (0.5)	coin 2
06	nc	--------
07	orange/brown (0.5)	coin 1
08	pink/black (0.5)	enable coin to hopper (en coin 1)
09	yellow (0.5)	+12V
10	orange/black (0.5)	GND-switches
11	white/pink (0.5)	enable coin 2
12	pink/brown (0.5)	enable coin 3
13	pink/red (0.5)	enable coin 4

MULTI I/O INTERFACE





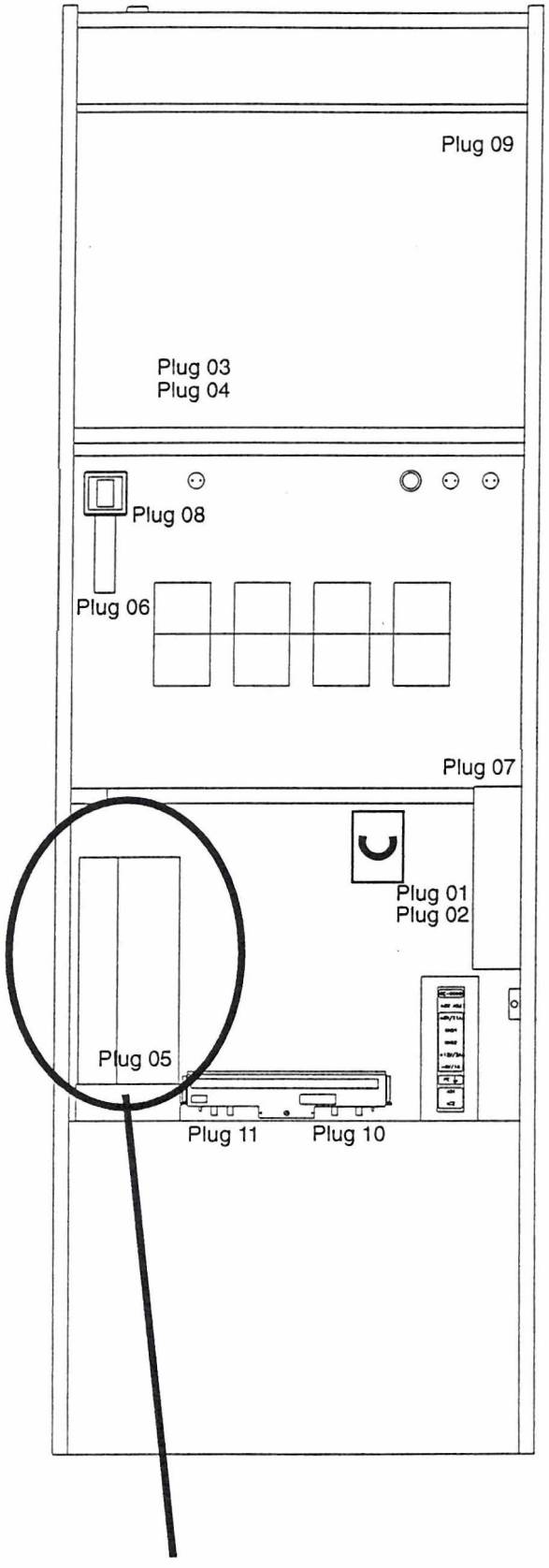
PLUG PINNING INTERFACE



Plug 06 : 13pin Molex female connector

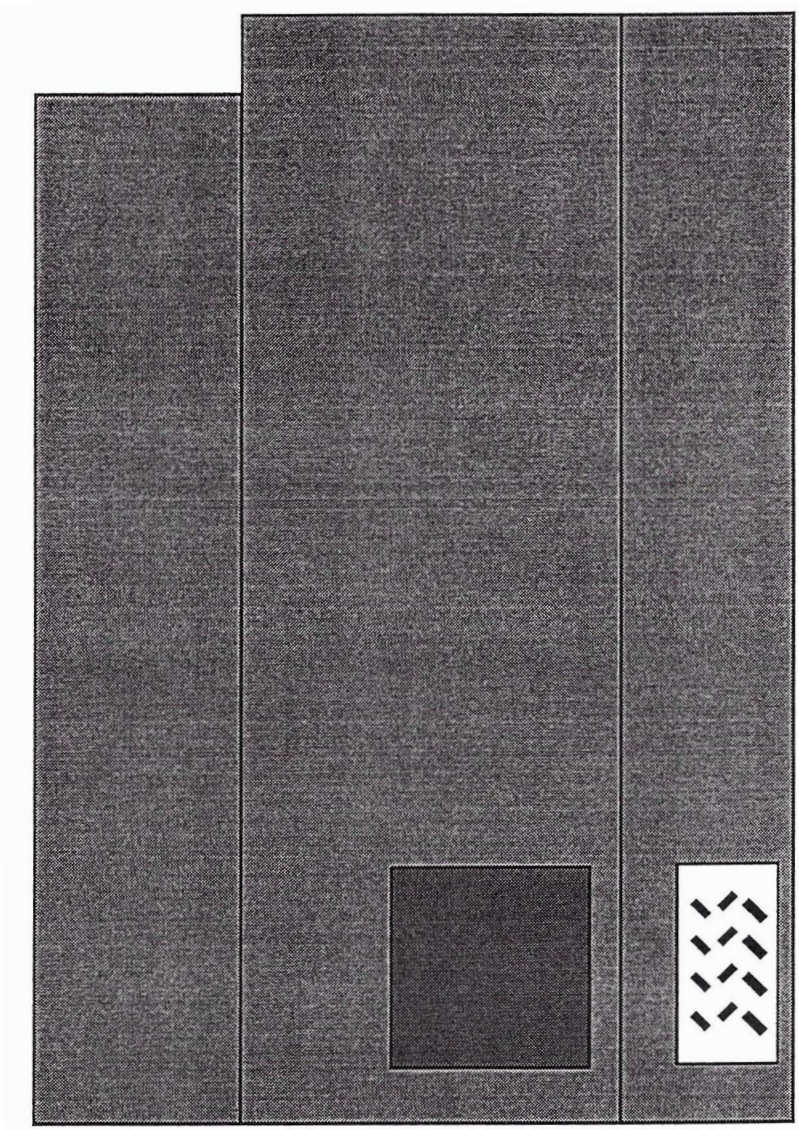
Pin	colour	name/function
01	orange/black (0.5)	GND-switches
02	orange/grey (0.5)	coin 4
03	nc	--------
04	yellow/orange (0.5)	coin 3
05	orange/blue (0.5)	coin 2
06	nc	--------
07	orange/brown (0.5)	coin 1
08	pink/black (0.5)	enable coin to hopper (en coin 1)
09	yellow (0.5)	+12V
10	orange/black (0.5)	GND-switches
11	white/pink (0.5)	enable coin 2
12	pink/brown (0.5)	enable coin 3
13	pink/red (0.5)	enable coin 4

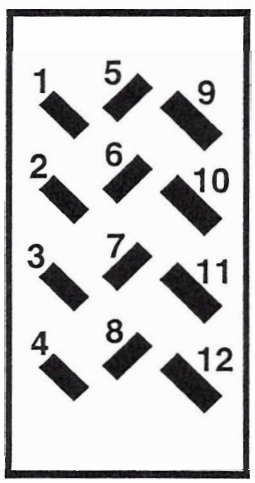
POSITION IN THE SLOT MACHINE



HOPPER

PLUG PINNING





PLUG PINNING

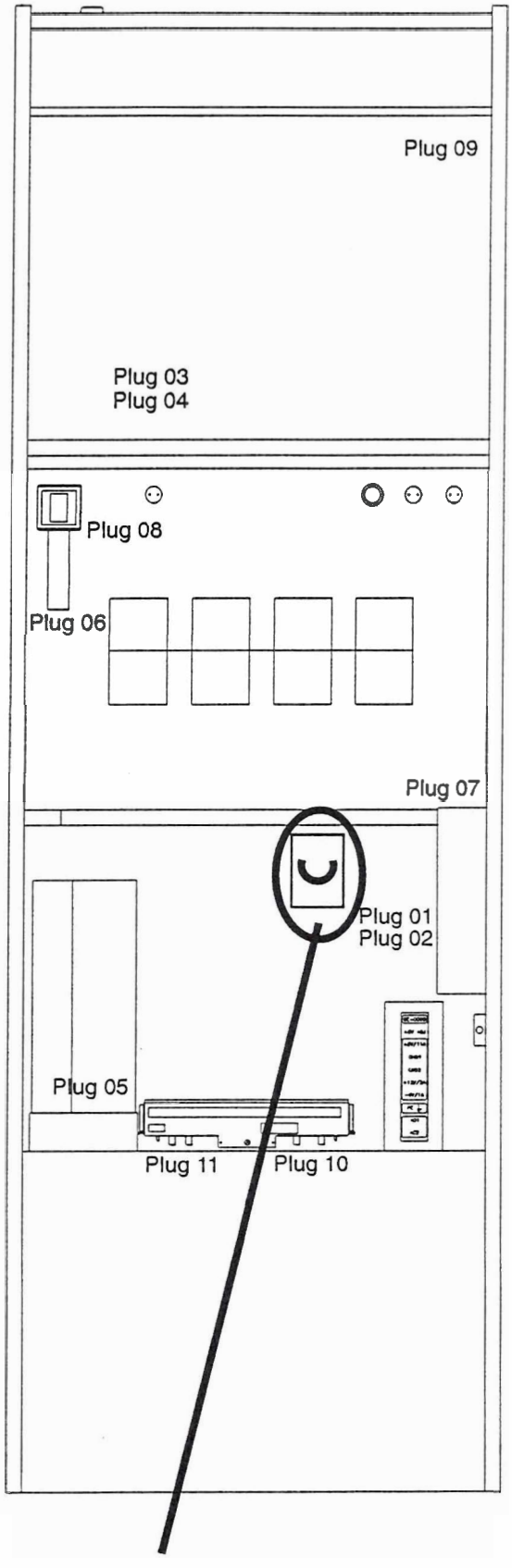
Hopper connector 12pin male

Pin	function
01	Motor 0 V
02	Motor 0 V
03	Output B
04	In 1
05	Security output
06	High level sense output
07	Low level sense output
08	In 2
09	Motor +24 V
10	Logic +VCC
11	Output A
12	In 3

Plug 05 :12pin female Hopper connector

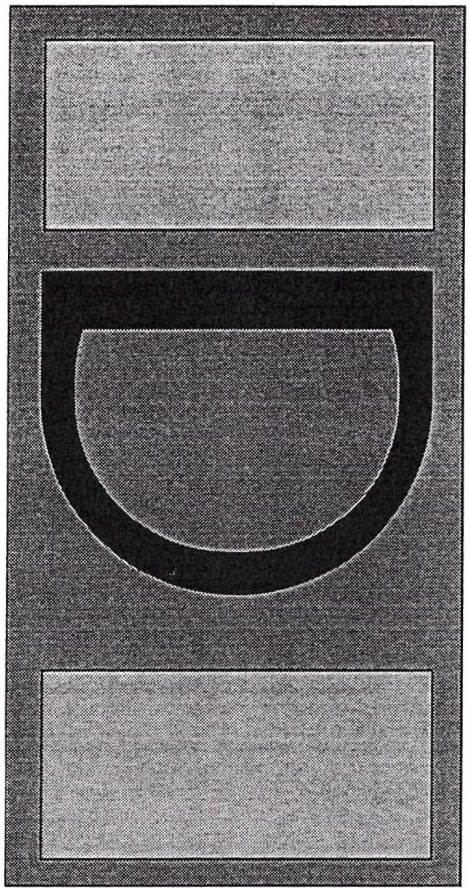
Pin	colour	name/function
01	orange/black (2x0.5)	GND1
02	orange/black	GND1
03	nc	--------
04	nc	--------
05	nc	--------
06	pink (2x0.5)	hopper 1 coin high-level
07	red/black (0.5)	hopper 1 coin low-level
08	nc	--------
09	green (0.5)	VCC1 (24V)
10	yellow (0.5)	+12V
11	blue/black (0.5)	hopper 1 coin payout
12	nc	--------

POSITION IN THE SLOT MACHINE



BILL ACCEPTOR NV 1

TECHNICAL SPECIFICATIONS

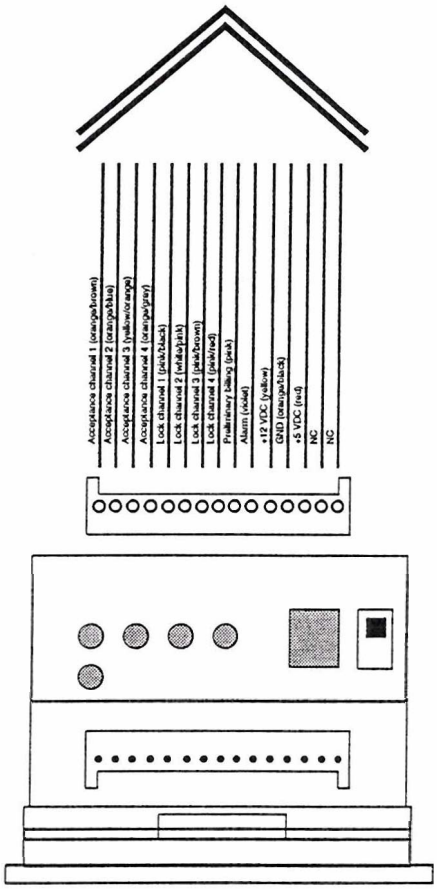


Power supply	12-15 VDC
Drawing of current	120 mA static current 280 mA while accepting bills 350 mA max when reader is blocked
Interface	Accepting bills channel 1-4 Blocking channel 1-4 Serial interface

CAN BE PROGRAMMED TO ACCEPT ALL CURRENCIES - ONLY DONE AT THE FACTORY

PLUG PINNING

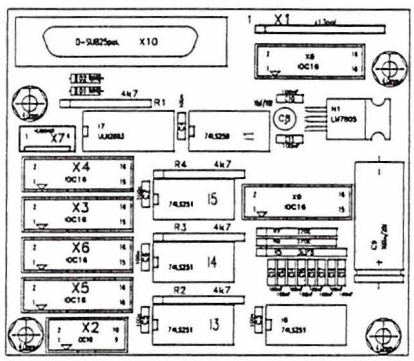
Circuit board
Multi I/O Interface

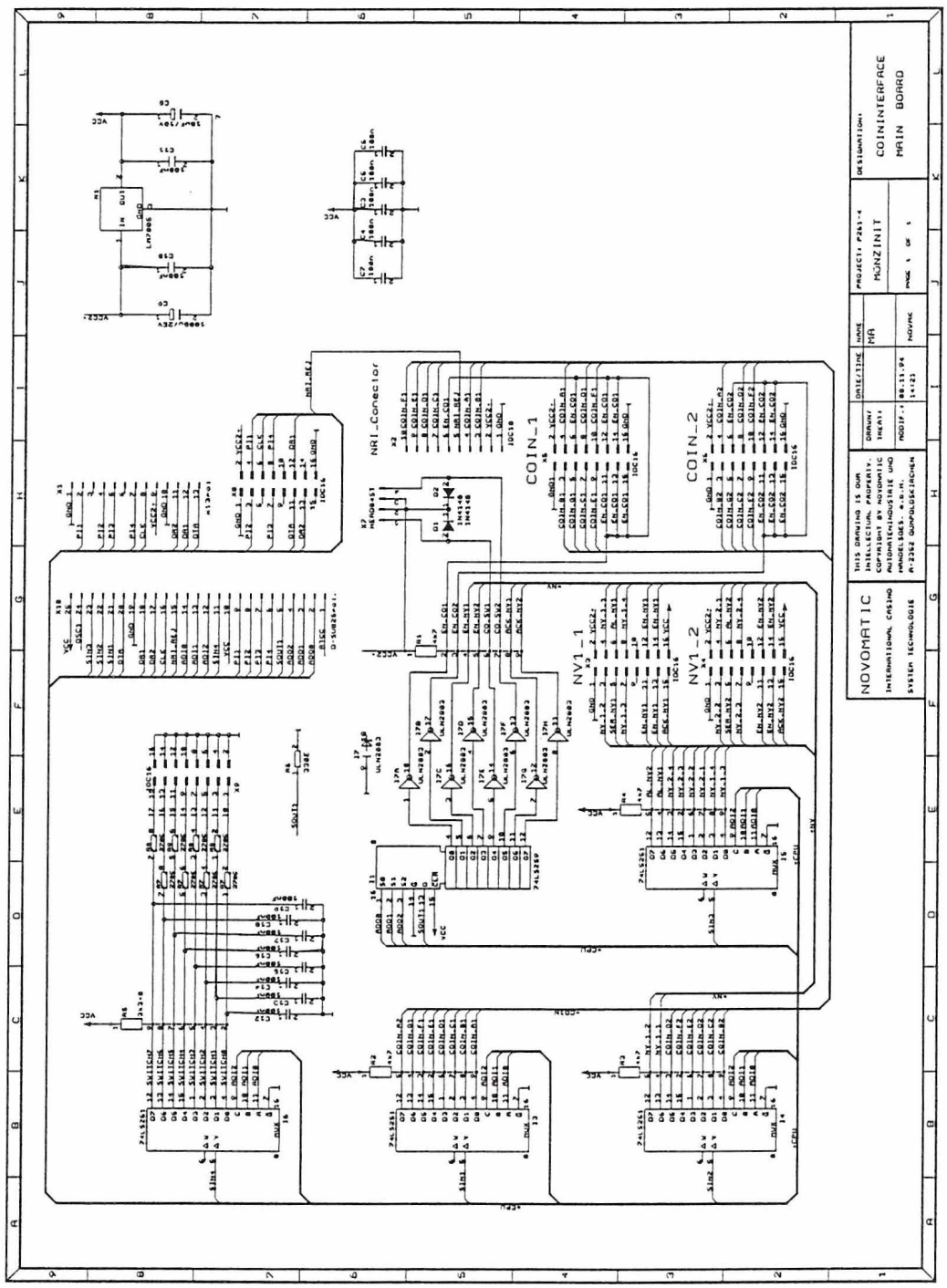


Plug 02: 13pol. MOLEX fem. RM2.54

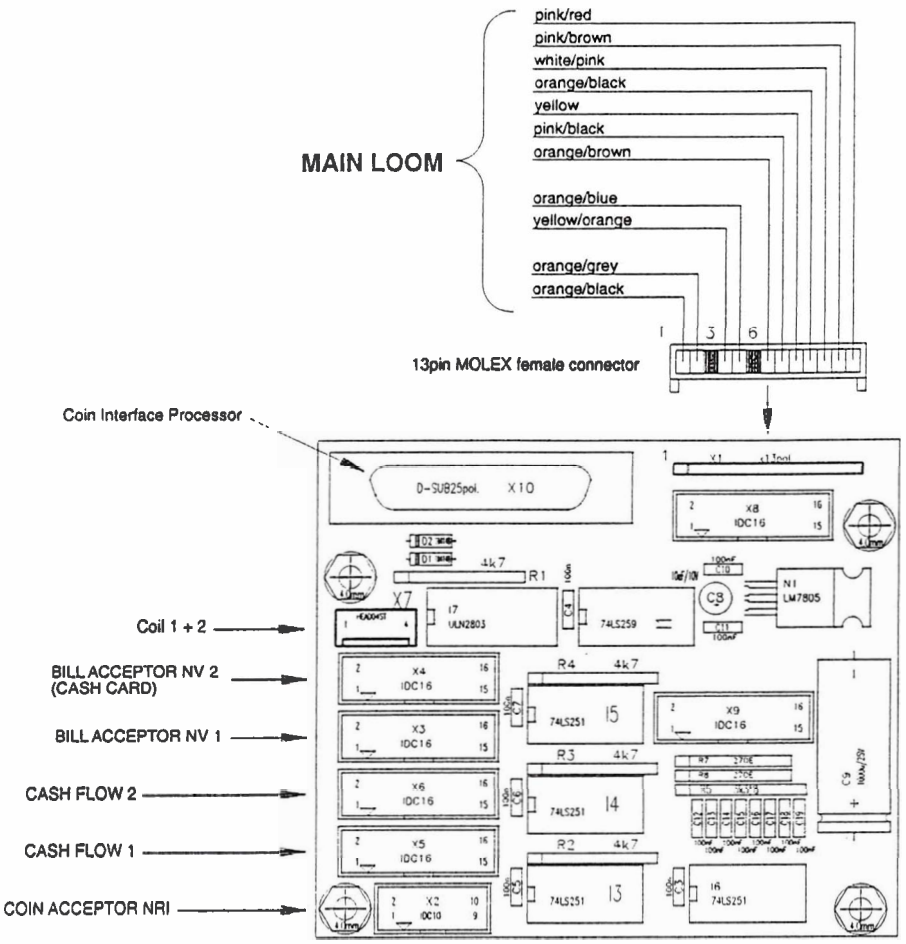
Pin	(colour / mm^2)	function
01	orange/brown (0.5)	acceptance channel 1
02	orange/blue (0.5)	acceptance channel 2
03	yellow/orange (0.5)	acceptance channel 3
04	orange/grey (0.5)	acceptance channel 4
05	pink/black (0.5)	lock channel 1 (enable)
06	white/pink (0.5)	lock channel 2 (enable)
07	pink/brown (0.5)	lock channel 3 (enable)
08	pink/red (0.5)	lock channel 4 (enable)
09	pink (0.5)	preliminary billing
10	violet (0.5)	alarm
11	yellow (0.5)	+12VDC
12	orange/black (0.5)	GND
13	red (0.5)	+5VDC

MULTI I/O INTERFACE





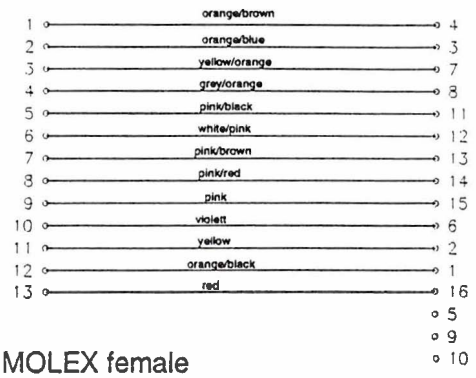
PLUG PINNING INTERFACE



Plug 06 : 13pin Molex female connector

Pin	colour	name/function
01	orange/black (0.5)	GND-switches
02	orange/grey (0.5)	coin 4
03	nc	--------
04	yellow/orange (0.5)	coin 3
05	orange/blue (0.5)	coin 2
06	nc	--------
07	orange/brown (0.5)	coin 1
08	pink/black (0.5)	enable coin to hopper (en coin 1)
09	yellow (0.5)	+12V
10	orange/black (0.5)	GND-switches
11	white/pink (0.5)	enable coin 2
12	pink/brown (0.5)	enable coin 3
13	pink/red (0.5)	enable coin 4

LOOM BILL ACCEPTOR



13pol. MOLEX female

16pol. MOLEX female

Plug 01: 16pol. MOLEX fem. RM2.54 vom Hauptkabelbaum

Pin	(colour / mm^2)	function
01	orange/black (0.5)	GND
02	yellow (0.5)	+12VDC
03	orange/blue (0.5)	acceptance channel 2
04	orange/brown (0.5)	acceptance channel 1
05	----------	----------
06	violet (0.5)	alarm
07	yellow/orange (0.5)	acceptance channel 3
08	orange/grey (0.5)	acceptance channel 4
09	----------	----------
10	----------	----------
11	pink/black (0.5)	lock channel 1 (enable)
12	white/pink (0.5)	lock channel 2 (enable)
13	pink/brown (0.5)	lock channel 3 (enable)
14	pink/red (0.5)	lock channel 4 (enable)
15	pink (0.5)	preliminary billing
16	red (0.5)	+5VDC

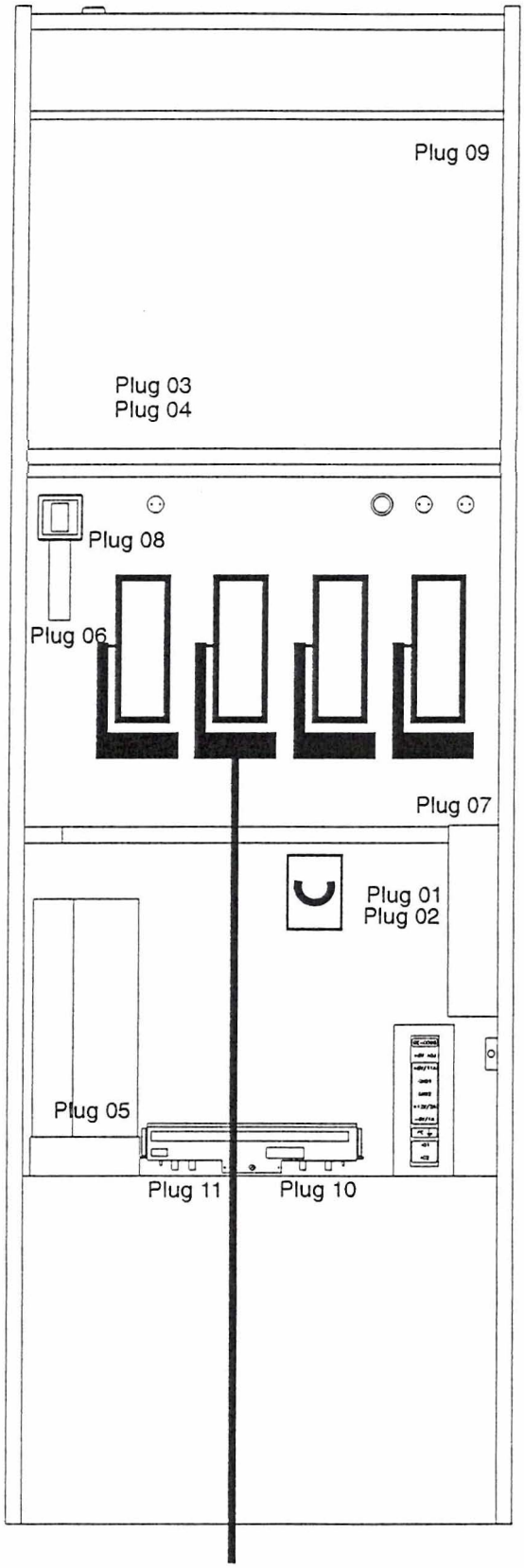
Plug 02: 13pol. MOLEX fem. RM2.54

Pin	(colour / mm^2)	function
01	orange/brown (0.5)	acceptance channel 1
02	orange/blue (0.5)	acceptance channel 2
03	yellow/orange (0.5)	acceptance channel 3
04	orange/grey (0.5)	acceptance channel 4
05	pink/black (0.5)	lock channel 1 (enable)
06	white/pink (0.5)	lock channel 2 (enable)
07	pink/brown (0.5)	lock channel 3 (enable)
08	pink/red (0.5)	lock channel 4 (enable)
09	pink (0.5)	preliminary billing
10	violet (0.5)	alarm
11	yellow (0.5)	+12VDC
12	orange/black (0.5)	GND
13	red (0.5)	+5VDC

Plug 03: 4pol. MOLEX fem.

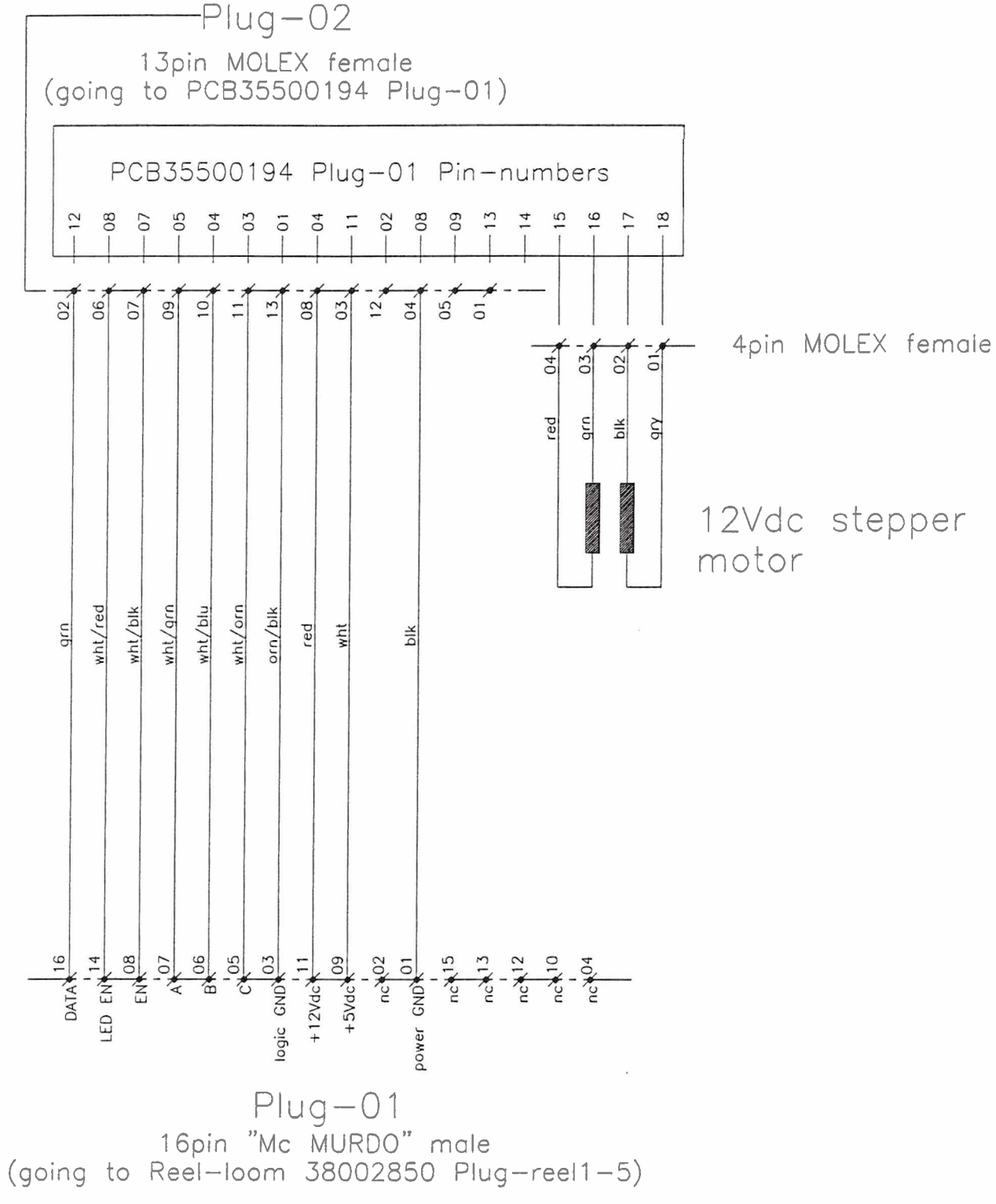
Pin	(colour / mm^2)	function
01	orange/black (2x0.5)	GND
02	yellow (2x0.5)	+12VDC
03	pink/red (2x0.5)	NV1- enable
04	----------	----------

POSITION IN THE SLOT MACHINE

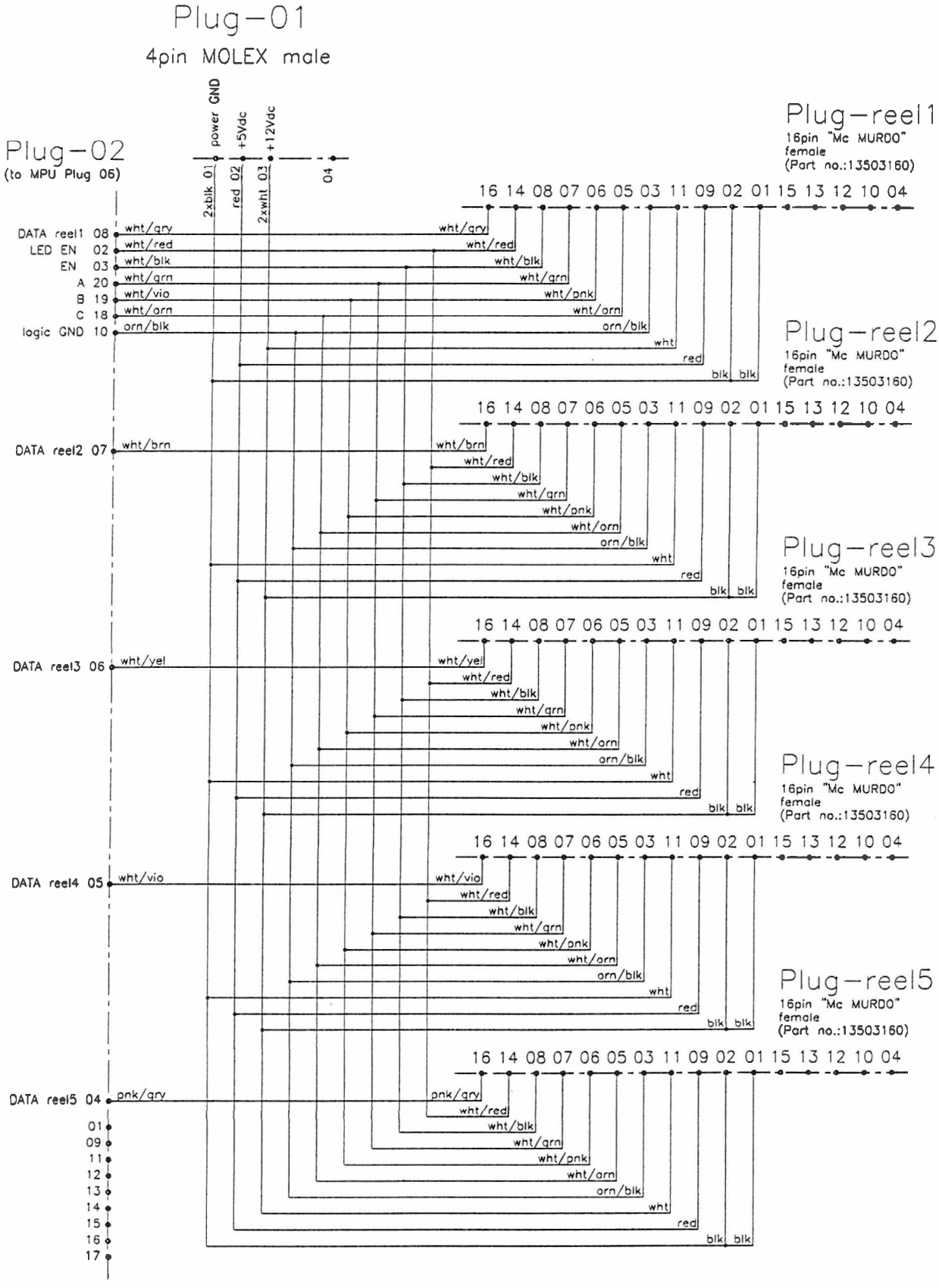


REELS

WIRE LOOM FOR REELS (within the reel module)



WIRE LOOM FOR REELS (connection to the main loom)



PIN ASSIGNMENT
for reels

Plug 01 : 16pin Mc MURDO male

Pin	colour	function
01	black	Power GND
02	nc	-----
03	orange/black	Logic GND
04	nc	-----
05	white/orange	C
06	white/blue	B
07	white/green	A
08	white/black	enable
09	white	+5 VDC
10	nc	-----
11	red	+12 VDC
12	nc	-----
13	nc	-----
14	white/red	LED enable
15	nc	-----
16	green	DATA

PIN ASSIGNMENT
for reels leading to the main loom

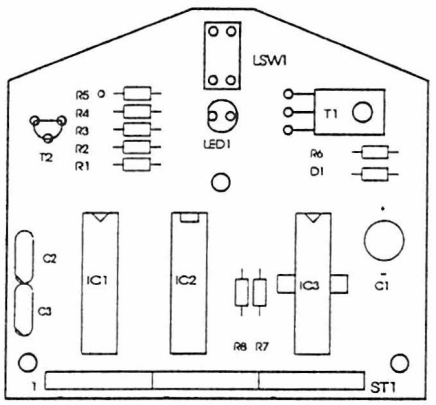
Plug 01 : 4pin MOLEX male

Pin	colour	function
01	2 x black	Power GND
02	red	+5 VDC
03	2 x white	+12 VDC
04	nc	-----

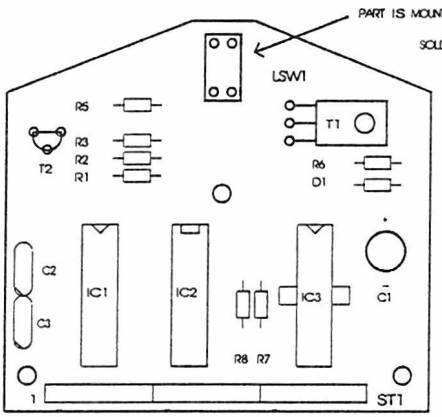
Plug 02 ==> MPU Plug 06 (Elektronik-Box)

Pin	colour	function
01	nc	-----
02	white/red	LED enable
03	white/black	enable
04	pink/grey	DATA reel 5
05	white/violet	DATA reel 4
06	white/yellow	DATA reel 3
07	white/brown	DATA reel 2
08	white/grey	DATA reel 1
09	nc	-----
10	orange/black	Logic GND
11-17	nc	-----
18	white/orange	C
19	white/violet	B
20	white/green	A

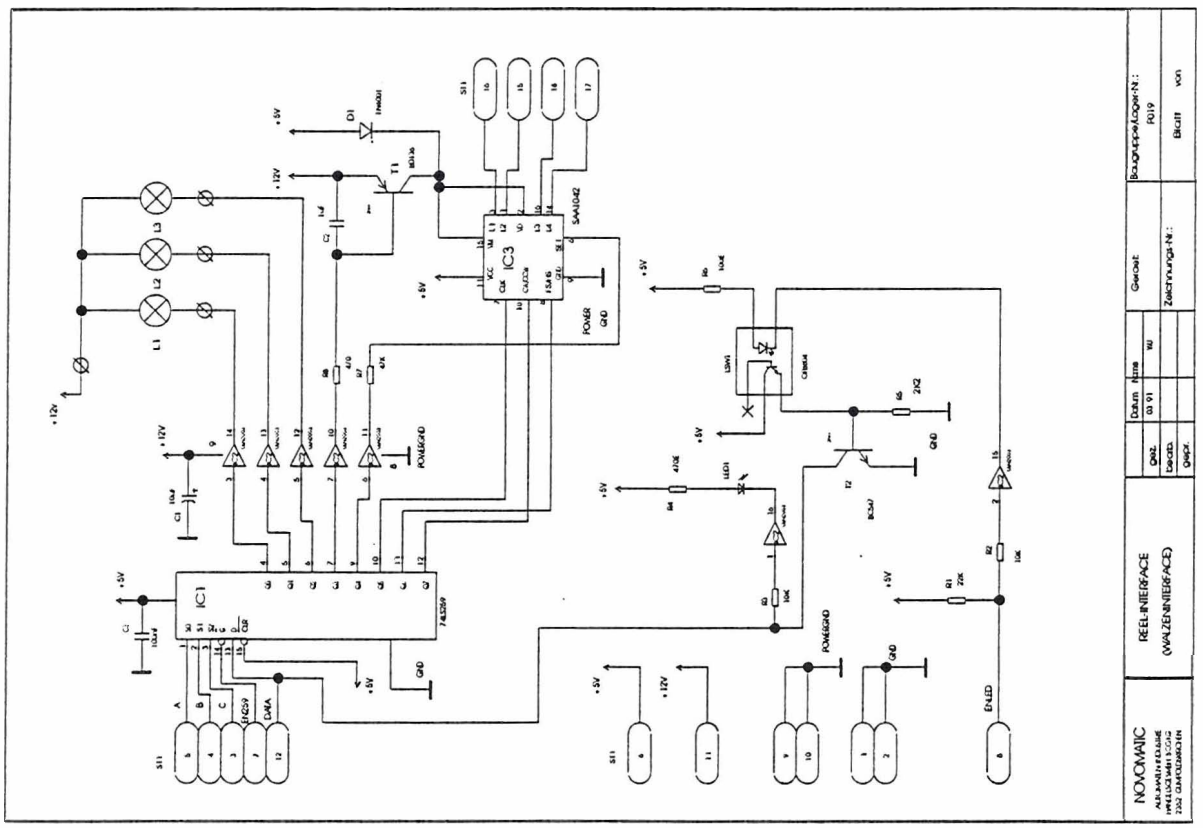
CIRCUIT BOARD FOR REEL DRIVE



RELEASE 3



RELEASE 4



HOW TO ADJUST THE REELS

1. Open the door.

2. Turn around the service register key.
The display then reports E-4.
While E-4 is active, press the test key.
The display will then show 8888.

3. Upon pressing the cash key or the 1BET key (depending on the program version), the reels will come to a halt at a certain win combination.
The first symbolic halt after activating this function will be the combination where the adjusting is performed.

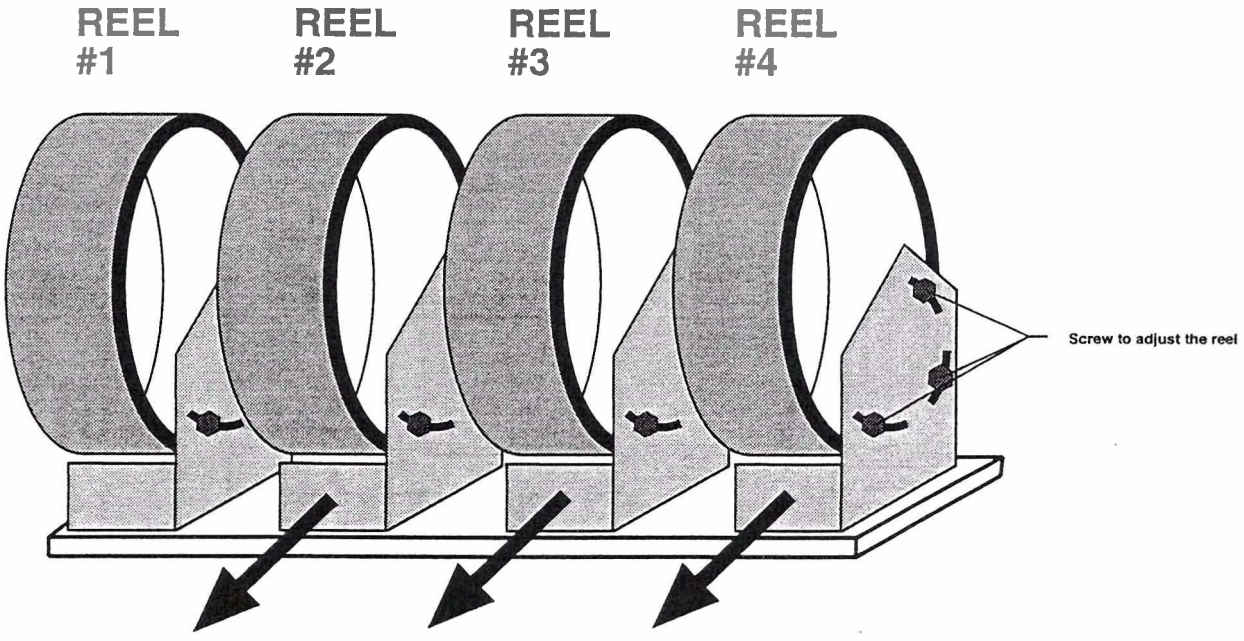
4. Adjust the reel board in the window.
The reels have to be positioned in a way that they will not graze and can be well seen in the window. (Check this when door is closed).

5.Take out all the reels (with the exception of reel # 1).

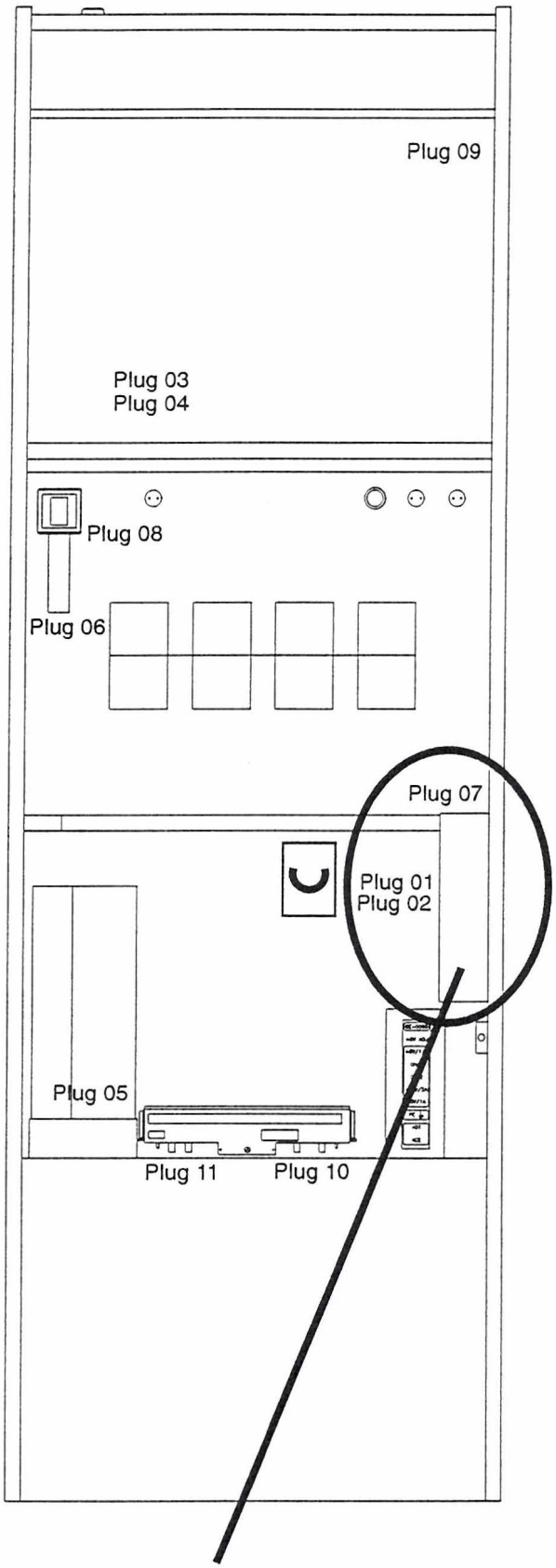
6. Loosen the adjusting screws on the side and adjust the symbol to the win line. Then tighten the screws again. Beware: Do not tighten them too strongly, they could break!

7. Take the next reel and put it on the reel board. To adjust the reel, follow instructions under 5. Beware: Do not mix up the order of the reels!

8. Once all the reels have been adjusted, take off the service register key and close the door again. Now the machine is ready for operation.

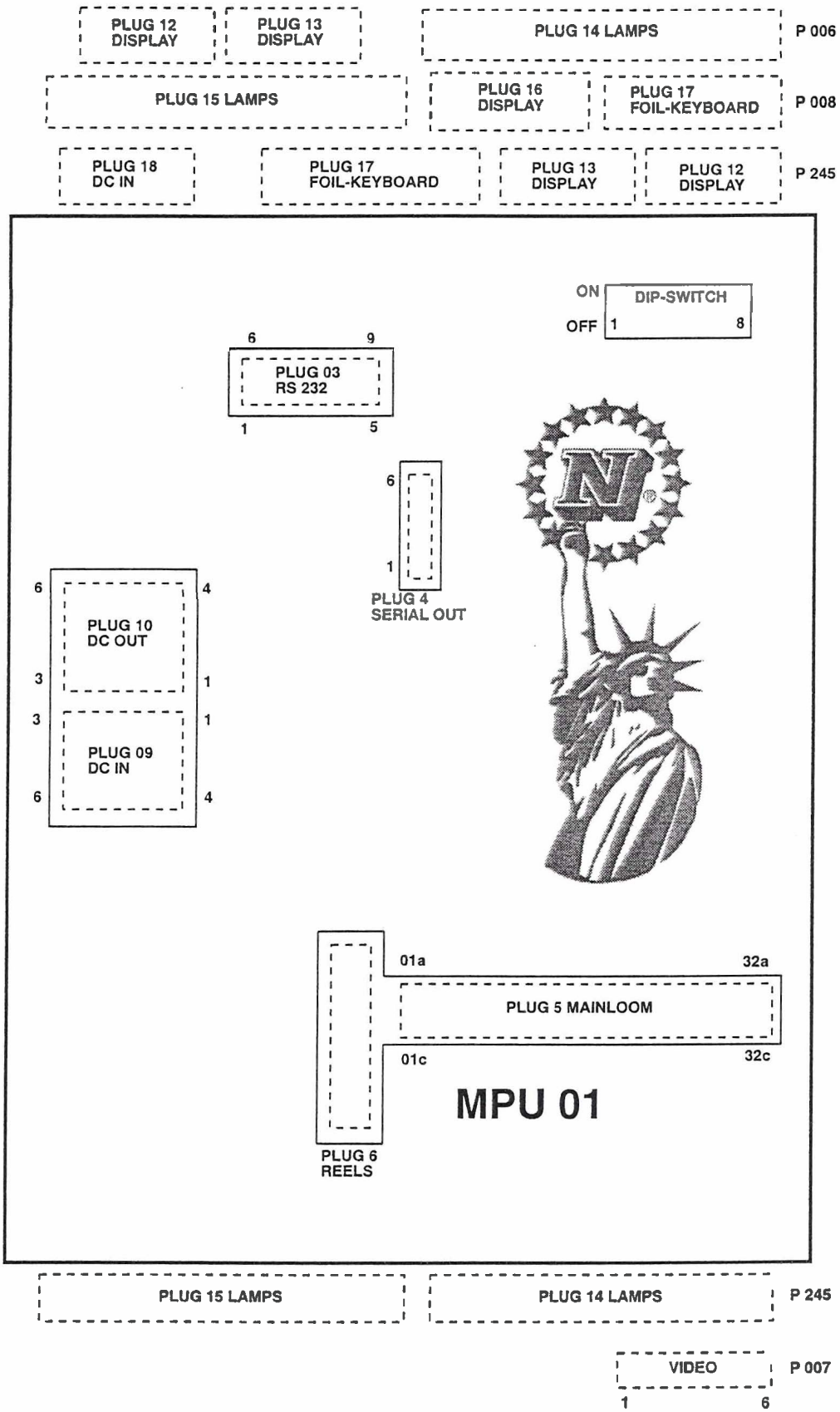


POSITION IN THE SLOT MACHINE

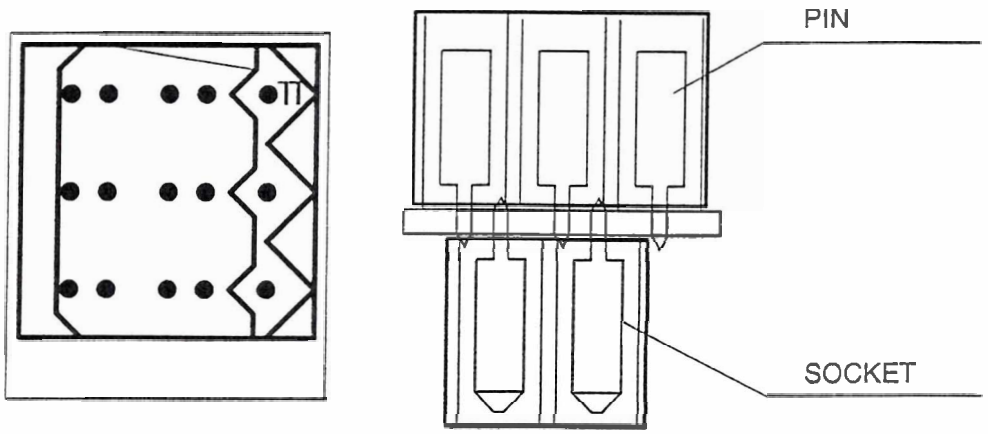


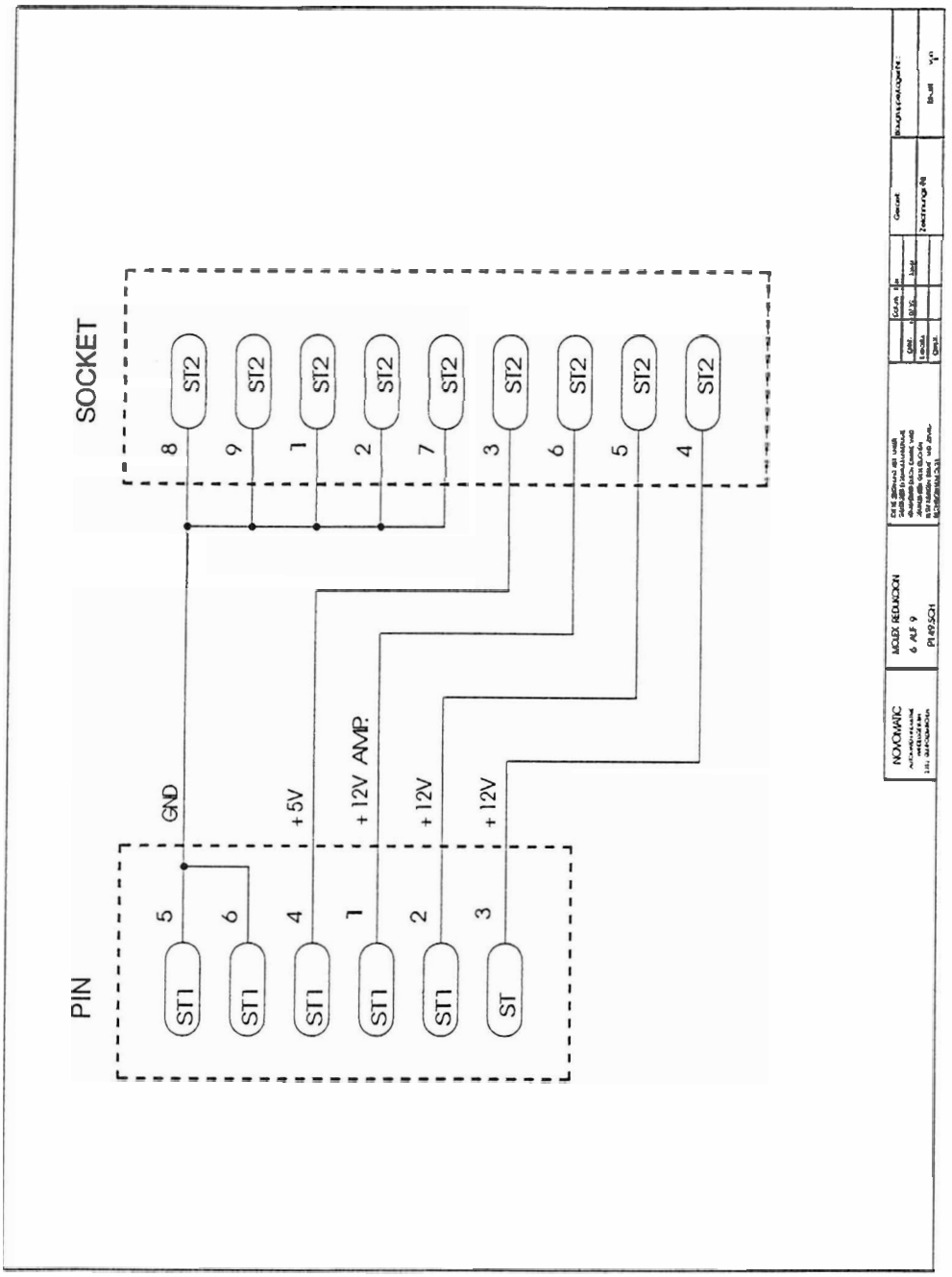
ELECTRONIC-BOX

ARRENGEMENT OF PLUGS ON ELECTRONICS BOX

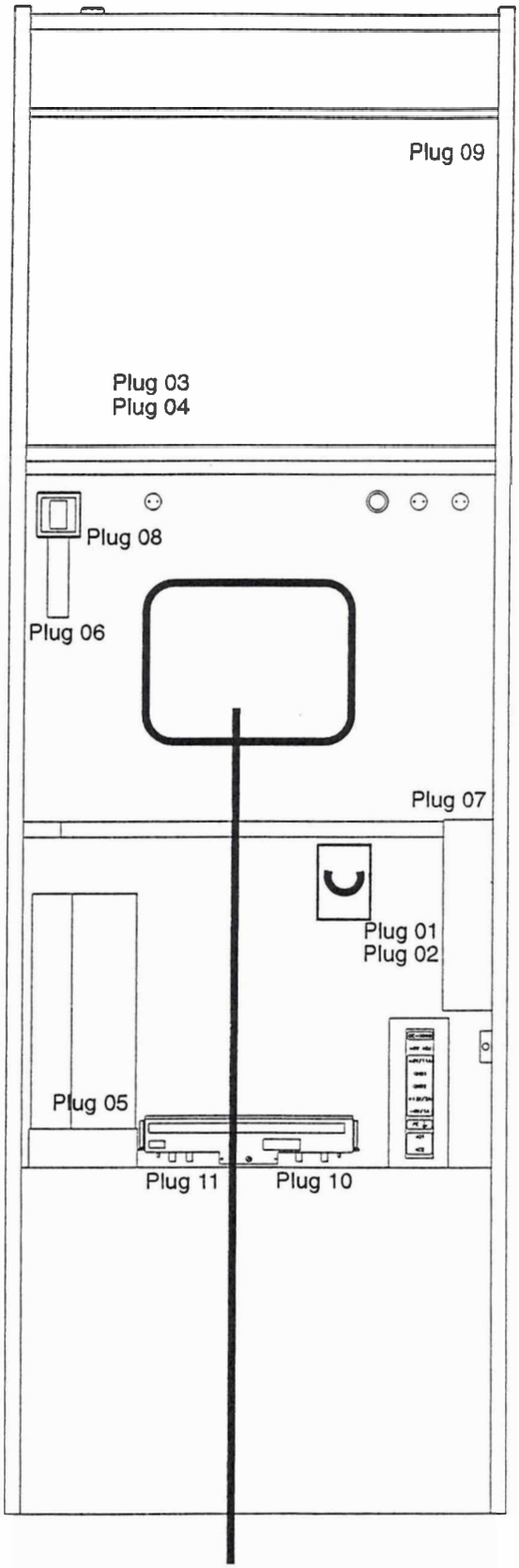


MOLEX REDUCTION 6 TO 9





POSITION IN THE SLOT MACHINE

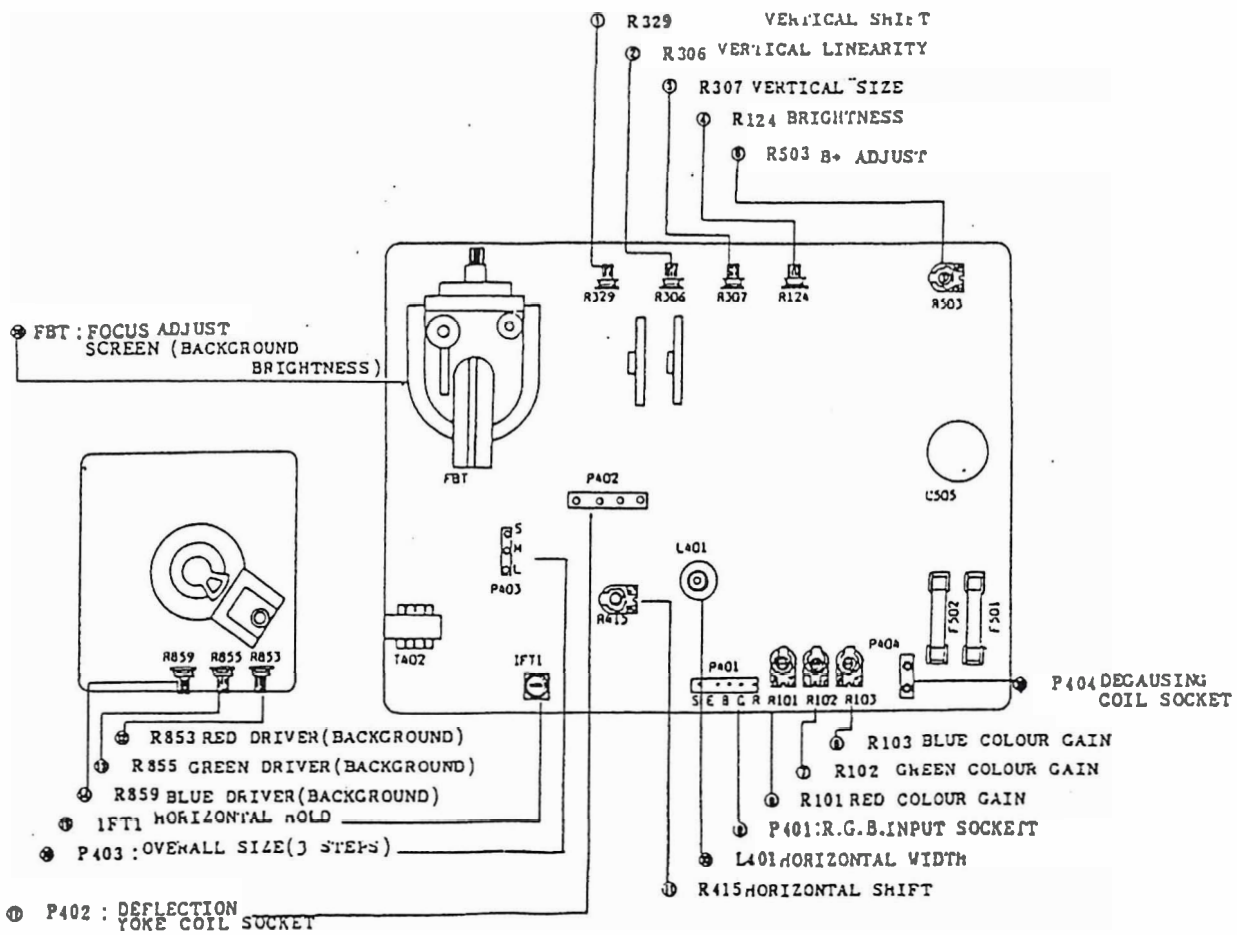


MONITOR

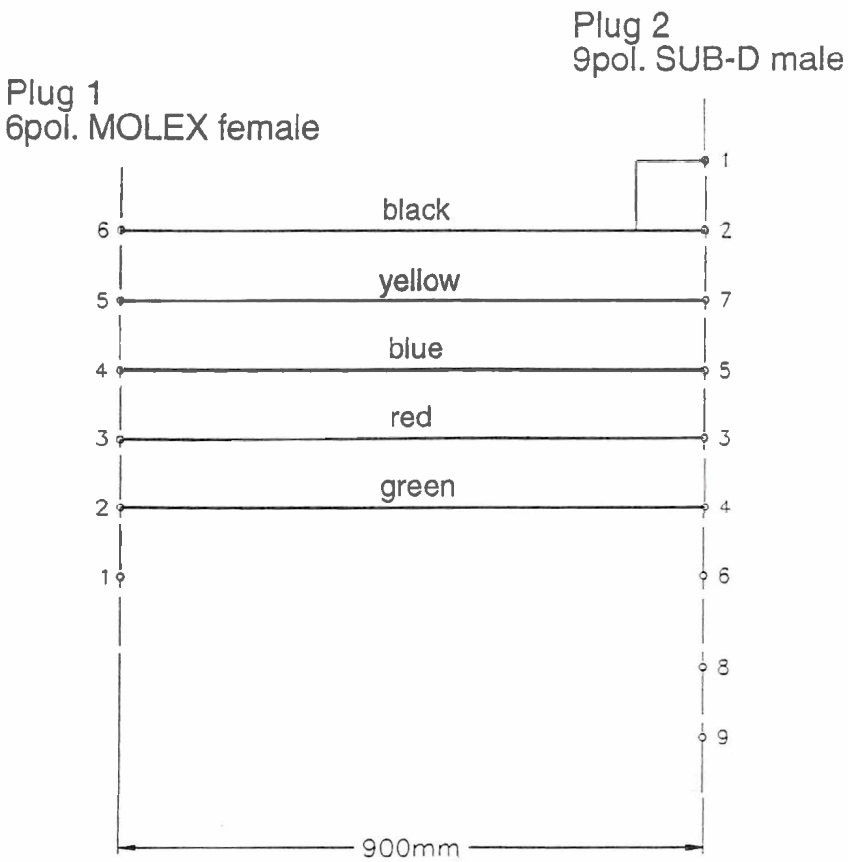
TECHNICAL SPECIFICATIONS

MODEL:	GE 620HR	GE 420H	GE 428H	GE 433H
COMPATIBLE	14". 20" & 21" CPT		25" & 28"CPT	33"CPT
REMOTE CONTROL	YES	NO	GE 728HR	NO
INPUT VOLTAGE	AC 110V. 50 / 60 Hz			
POWER CONSUMPTION	70 WATTS		85 WATTS	
INPUT SIGNAL	R.G.B. POSITIVE POLARITY 2.5V – 5V P.P.			
SYNC SIGNAL	H/V COMPOSITE NEGATIVE 2.5V – 5V P.P.			
DEFLECTION YOKE MATCHING IMPEDANCE	HORIZONTAL	LH1.9 MH RH2.2 OHM	LH1.5 MH RH1.27 OHM	LH0.68 MH RH0.78 OHM
	VERTICAL	LV116 MH RV54.4 OHM	LV24.6 MH RV9.6 OHM	LV18.5 MH RV6.95 OHM
SCANNING FREQUENCY	HORIZONTAL 15.750KHz : VERTICAL 50 / 60Hz			
DEGAUSSING	AUTOMATIC AT SWITCH-ON			
RESOLUTION	460 (H) X 240 (V) LINES			
EHT	APPROXIMATELY 24 KV			
EHT REGULATION	1 KV			
BANDWIDTH	14 MHz			
DOT PITCH	0.62 mm			
ENVIRONMENT TEMP.	5 TO 40 DEGREE CELSIUS (C)			
HUMDITY CONDITION	10% TO 80%			
DIMENSION	(L 295 X W 235 X H 185) mm			
WEIGHT	1.7 KG	1.6 KG	1.8 KG	1.6 KG
PACKING PER CARTON	12 PCS			

MONITOR ADJUSTMENT



LOOM FOR MONITOR



Plug 1 6pol. MOLEX female

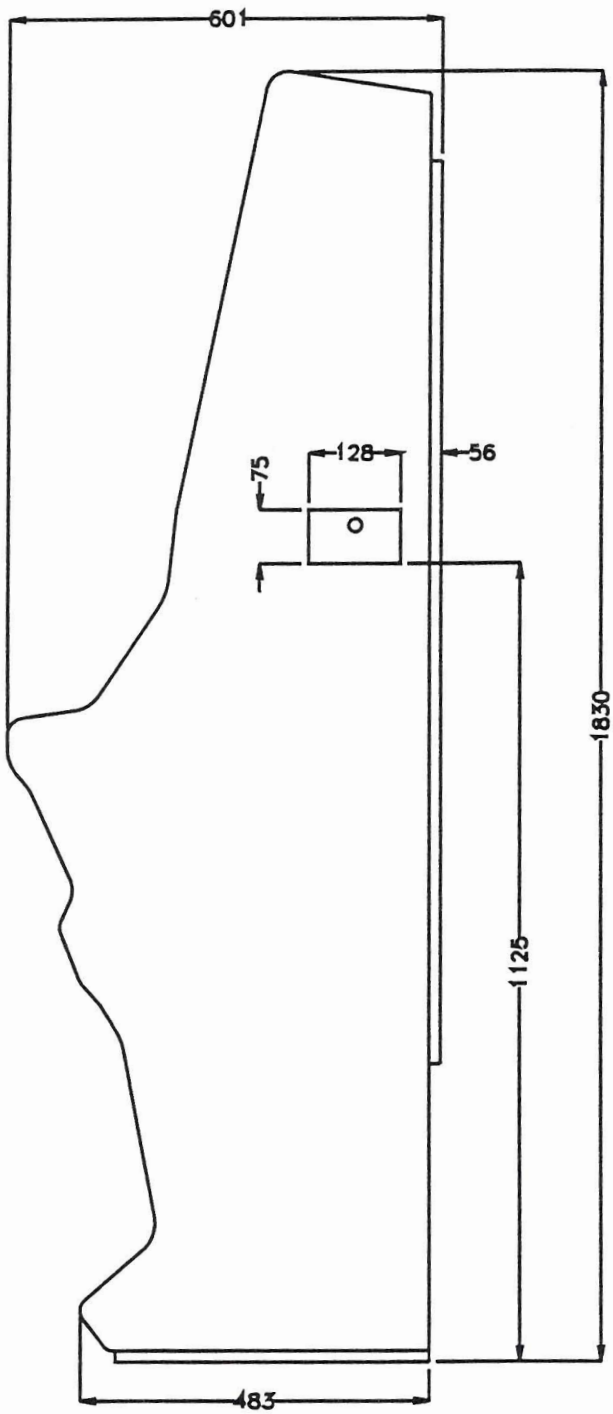
Pin	colour	function
01	nc	-----
02	green	Colour green
03	red	Colour red
04	blue	Colour blue
05	yellow	Sync.
06	black	GND

Plug 2 9pol. SUB-D male

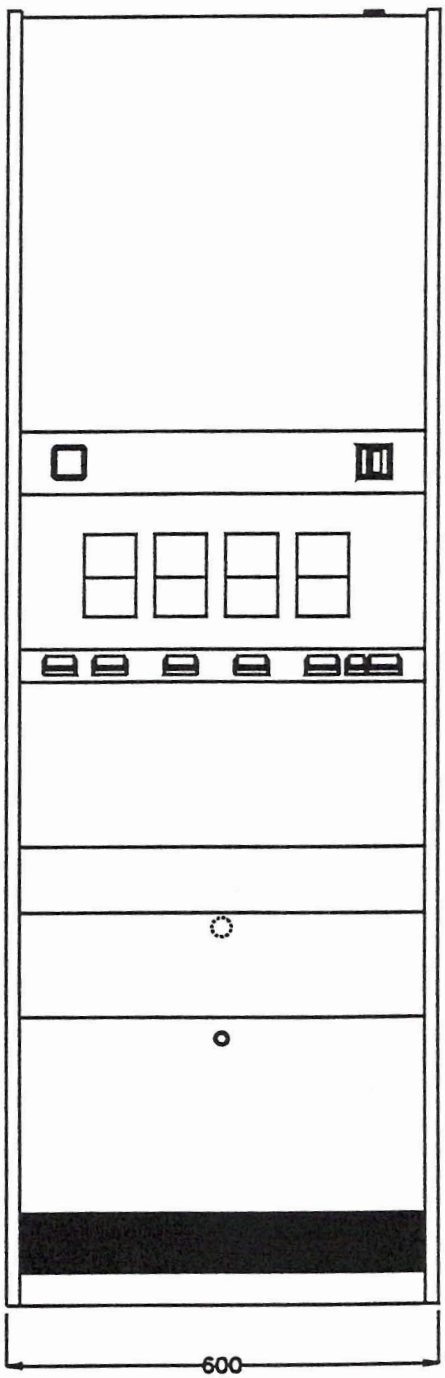
Pin	colour	function
01,02	black	GND
03	red	Colour red
04	green	Colour green
05	blue	Colour blue
06	nc	-----
07	yellow	Sync.
08	nc	-----
09	nc	-----

MAIN SPECIFICATIONS OF MACHINE

Right view

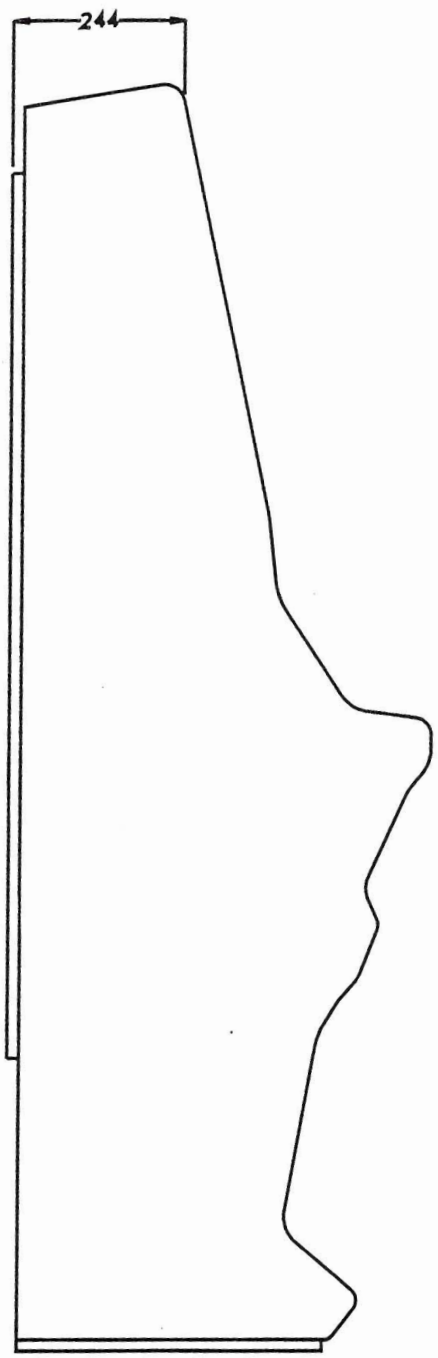


Front view

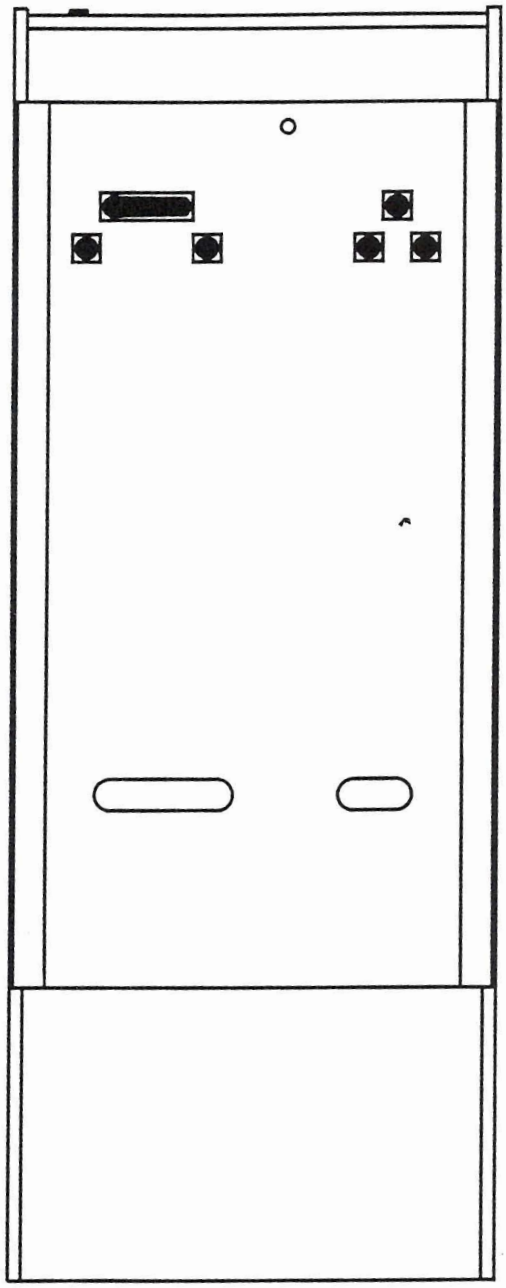


MAIN SPECIFICATIONS OF MACHINE

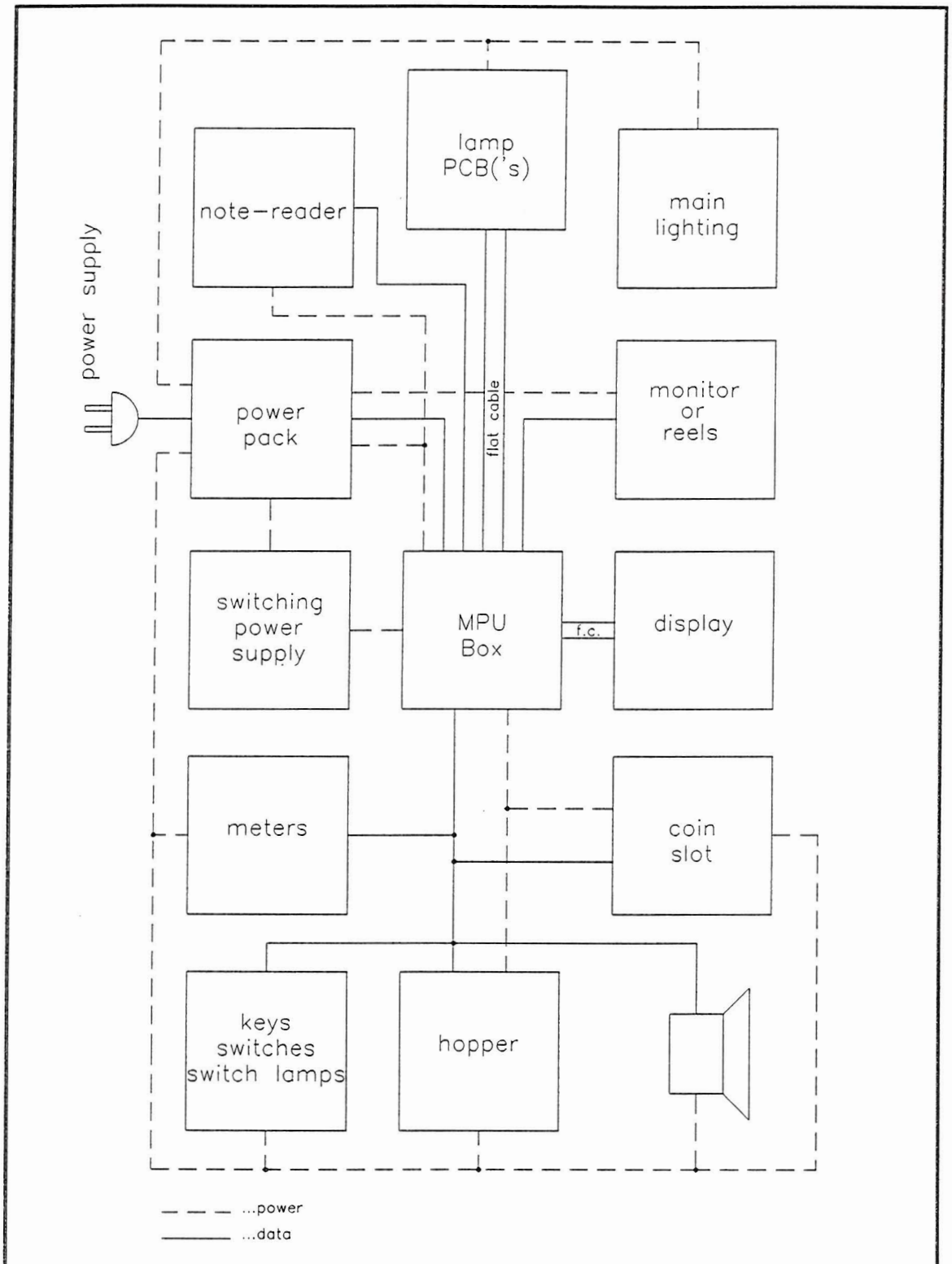
Left view



Rear view

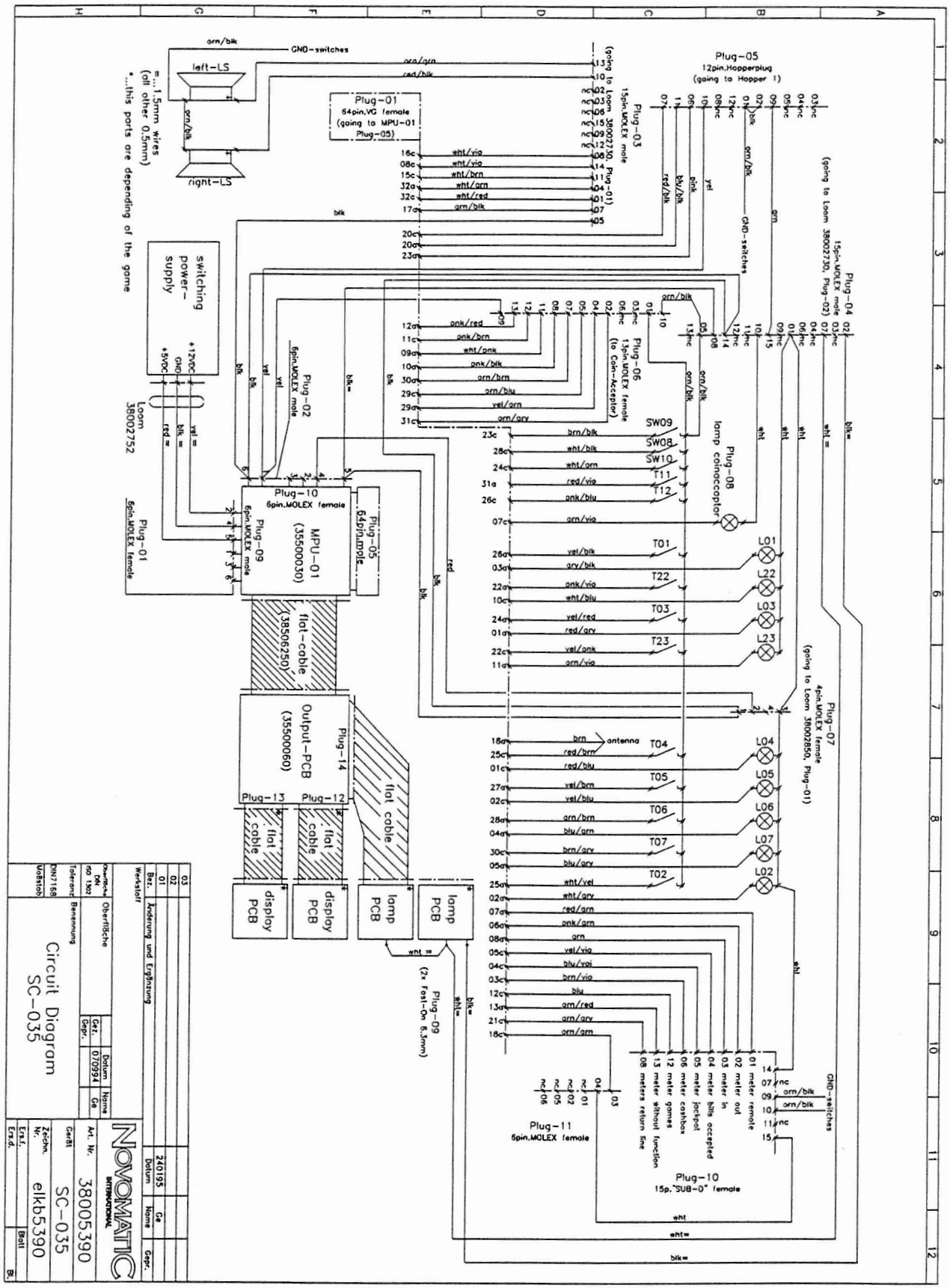


BLOCK DIAGRAM



NOVOMATIC INTERNATIONALE CASINO SYSTEM TECHNOLOGIE AUTOMATENINDUSTRIE UND HANDELSGES. m.b.H. 2352 Gumpoldskirchen Austria Tel.02252/62727 Fax.02252/62389 Telex 14203	designation	BLOCK DIAGRAM			part no..
This drawing is our intellectual property. Copyright by NOVOMATIC.	scale	material		date	name	machine VSC-035
			drawn	130295	Ge	drawing no. BD-VSC35
		surface	treat			
	units in mm	tolerances	modif.			page of

MAIN LOOM



PLUG PINNING
MAIN LOOM

Plug 01 : 64pin VG-female

Pin	colour	function	
01a	red/grey	lamp 3	T3-lamp
01c	red/blue	lamp 4	T4-lamp
02a	white/grey	lamp 2	T2-lamp
02c	yellow/blue	lamp 5	T5-lamp
03a	grey/black	lamp 1	T1-lamp
03c	brown/violet	meter 6	CASHBOX (6th from left)
04a	blue/green	lamp 6	T6-lamp
04c	blue/violet	meter 5	JACKPOT (4th from left)
05a	blue/grey	lamp 7	T7-lamp
05c	yellow/violet	meter 4	BILLS (5th from left)
06a	pink/green	meter 2	OUT (2nd from left)
06c	nc nc	--------	
07a	red/green	meter 1	REMOTE (3rd from left)
07c	green/violet	-------	lamp coinacceptor
08a	green grün		IN (1st from left)
08c	white/violet	--------	hopper 1+2 enable
09a	white/pink	--------	enable coin 2
09c	nc	--------	
10a	pink/black	--------	enable coin to hopper (en coin 1)
10c	white/blue	lamp 22	T22-lamp
11a	orange/violet	lamp 23	T23-lamp
11c	pink/brown	--------	enable coin 3
12a	pink/red	--------	enable coin 4
12c	blue	meter 7	GAMES (7th from left)
13a	orange/red	meter 8	TOKEN (8th from left)
13c	nc	--------	
14a	nc	--------	
14c	nc	--------	
15a	nc	--------	
15c	white/brown	--------	hopper 1 enable
16a	nc	--------	
16c	pink/grey	nf	nf (option hopper 2 enable)
17a	green/black	audio GND	audio GND
17c	nc	--------	
18a	brown	antenna	antenna
18c	orange/green	--------	meter lamps
19a	nc	--------	--------
19c	nc	--------	--------
20a	blue/black	switch 18	hopper 1 coin payout
20c	red/black	switch 19	hopper 1 coin low-level
21a	nc	--------	--------
21c	green/grey		meters return-line
22a	pink/violet	switch 22	T22-switch
22c	yellow/pink	switch 23	T23-switch
23a	pink	switch 24	hopper 1 coin high-level
23c	brown/black	switch 9	Attendant Key
24a	yellow/red	switch 3	T3-switch
24c	white/orange	switch 10	Service Register Key
25a	white/yellow	switch 2	T2-switch

25c	red/brown	switch 4	T4-switch
26a	yellow/black	switch 1	T1-switch
26c	pink/blue	switch 12	doorswitch
27a	yellow/brown	switch 5	T5-switch
27c	blue/brown	switch 17	tilt switch
28a	green/brown	switch 6	T6-switch
28c	white/black	switch 8	Day Register Key
29a	yellow/orange	switch 13	coin 3
29c	orange/blue	switch 16	coin 2
30a	orange/brown	switch 15	coin 1
30c	brown/grey	switch 7	T7-switch
31a	red/violet	switch 11	Test Key
31c	orange/grey	switch 14	coin 4
32a	white/green	audio left	(orange/green to LS left)
32c	white/red	audio right	(red/black to LS right)

Plug 02 : 6pin Molex male connector

Pin	colour	name/function
01	yellow (2x0.5)	+12V
02	nc	--------
03	nc	--------
04	red (0.5)	+5V
05	black (1.5 and 0.5)	GND
06	black (2x0.5)	GND

Plug 03 : 15pin MOLEX male connector

Pin	colour	name/function
01	white/red (0.5)	audio right
02	nc	--------
03	nc	--------
04	white/green (0.5)	audio left
05	black (0.5)	GND
06	nc	--------
07	green/black (0.5)	audio GND
08	pink/grey (0.5)	nf (option hopper 2 enable)
09	nc	--------
10	red/black (0.5)	to LS right
11	white/brown (0.5)	Hopper 1 enable
12	nc	--------
13	orange/green (0.5)	to LS left
14	white/violet (0.5)	Hopper 1+2 enable
15	nc	--------

Plug 04 : 15pin MOLEX male connector

Pin	colour	name/function
01	white (2x0.5)	VCC 3
02	black (1.5)	GND (lamps)
03	nc	--------
04	nc	--------
05	orange/black (0.5)	GND-switches
06	nc	--------

07	white (1.5)	VCC 2
08	black (1.5)	GND
09	nc	--------
10	white (0.5)	VCC 3
11	nc	--------
12	nc	--------
13	nc	--------
14	black (2x0.5)	GND
15	green (0.5)	VCC 1 (24V)

Plug 05 :12pin female Hopper connector

Pin	colour	name/function
01	orange/black (2x0.5)	GND1
02	orange/black	GND1
03	nc	--------
04	nc	--------
05	nc	--------
06	pink (2x0.5)	hopper 1 coin high-level
07	red/black (0.5)	hopper 1 coin low-level
08	nc	--------
09	green (0.5)	VCC1 (24V)
10	yellow (0.5)	+12V
11	blue/black (0.5)	hopper 1 coin payout
12	nc	--------

Plug 06 : 13pin Molex female connector

Pin	colour	name/function
01	orange/black (0.5)	GND-switches
02	orange/grey (0.5)	coin 4
03	nc	--------
04	yellow/orange (0.5)	coin 3
05	orange/blue (0.5)	coin 2
06	nc	--------
07	orange/brown (0.5)	coin 1
08	pink/black (0.5)	enable coin to hopper (en coin 1)
09	yellow (0.5)	+12V
10	orange/black (0.5)	GND-switches
11	white/pink (0.5)	enable coin 2
12	pink/brown (0.5)	enable coin 3
13	pink/red (0.5)	enable coin 4

Plug 07 : 4pin Molex female connector

Pin	colour	name/function
01	black (2x0.5)	GND
02	red (0.5)	+5V
03	white (2x0.5)	VCC 3
04	nc	--------

Plug 08 : 2pin Insert lamp

Pin	colour	name/function
01	white (0.5)	VCC 3
02	green/violet (0.5)	lamp coinacceptor

Plug 09 : 2xFast-ON 6.3mm

1x	white (1.5)	VCC 2
1x	black (1.5)	GND (lamps)

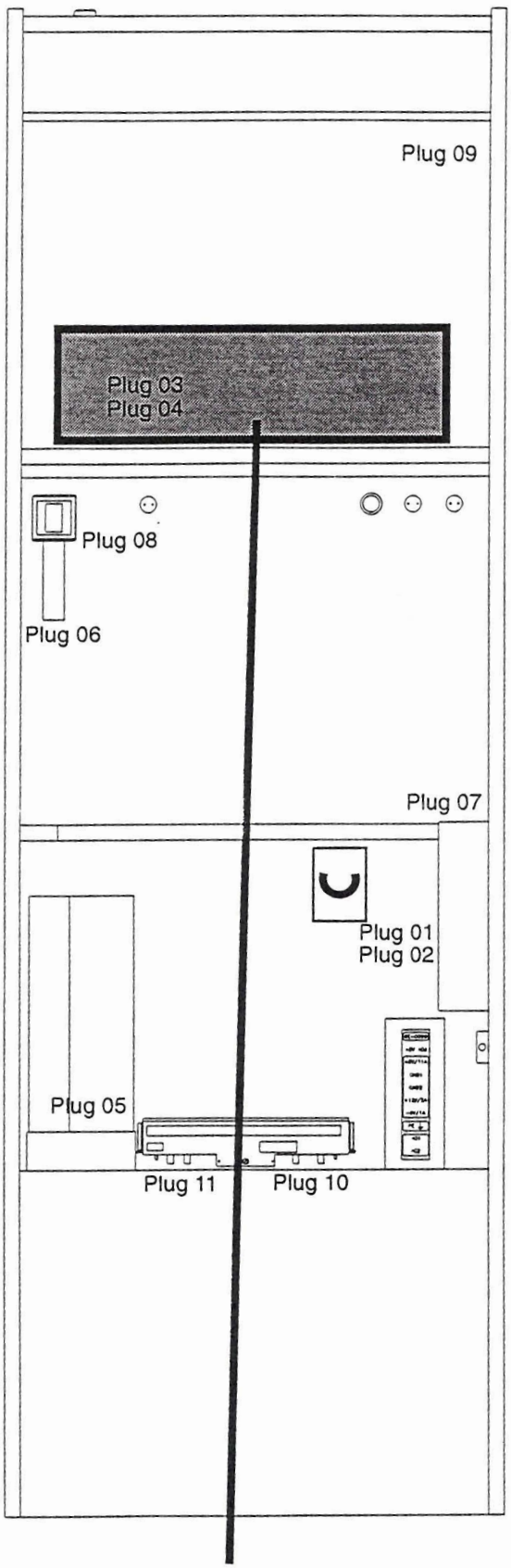
Plug 10 : 15pin SUB-female connector

Pin	colour	name/function	
01	red/green (0.5)	Remote (3rd from left)	
02	pink/green (0.5)	meter 2	Out (2nd from left)
03	green (0.5)	meter 3	In (1st from left)
04	yellow/violet (0.5)	meter 4	Bills (5th from left)
05	blue/violet (0.5)	meter 5	Jackpot (4th from left)
06	brown/violet (0.5)	meter 6	Cashbox (6th from left)
07	nc	--------	
08	green/grey (0.5)	meters return line	
09	orange/black (0.5)	GND-switches	
10	orange/black (0.5)	GND-switches	
11	nc	--------	
12	blue (0.5)	meter 7	Games (7th from left)
13	orange/red (0.5)	meter 8	Token (8th from left)
14	white (0.5)	VCC 3	
15	white (0.5)	VCC 3	

Plug 11 : 6pin Molex female connector

Pin	colour	name/function
01	nc	--------
02	nc	--------
03	orange/green (0.5)	meter lamps
04	white (0.5)	VCC 3
05	nc	--------
06	nc	--------

POSITION IN THE SLOT MACHINE



POWERSUPPLY SUPERCLUB

PLUG PINNING

Plug 01: 15pin MOLEX female connector

Pin	colour	name/function
01	white/red (0.5)	audio right
02	nc	------
03	nc	------
04	white/green (0.5)	audio left
05	black (0.5)	GND-switches
06	nc	------
07	green/black (0.5)	audio GND
08	pink/grey (0.5)	nf (option hopper 2 enable)
09	nc	------
10	red/black (0.5)	to LS right
11	white/brown (0.5)	hopper 1 enable
12	nc	------
13	orange/green (0.5)	to LS left
14	white/violet (0.5)	hopper 1+2 enable
15	nc	------

Plug 02: 15pin MOLEX female connector

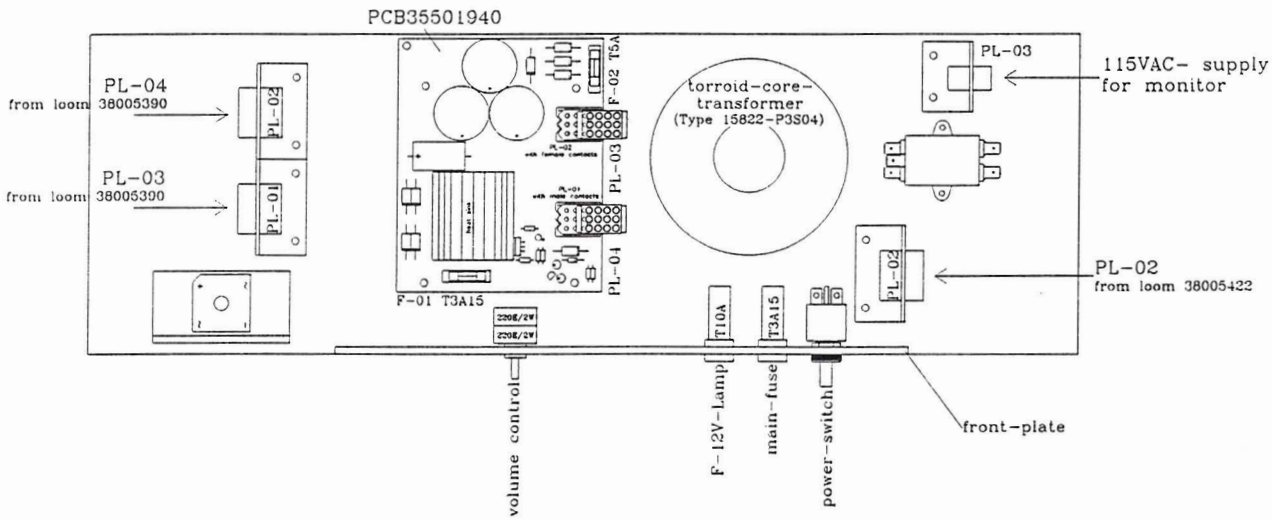
Pin	colour	name/function
01	white (0.5)	VCC 3
02	black (1.5)	GND (lamps)
03	nc	------
04	nc	------
05	black (0.5)	GND-switches
06	nc	------
07	white (1.5)	VCC 2
08	black (1.5)	GND (lamps)
09	nc	------
10	white (0.5)	VCC 3
11	black (0.5)	GND-switches
12	orange (0.5)	nf (option hopper 2: 24V)
13	white (1.5)	VCC 2
14	black (0.5)	GND-switches
15	green (0.5)	VCC 1 (24V)

Plug 03: 12pin MOLEX female connector (with male contacts)

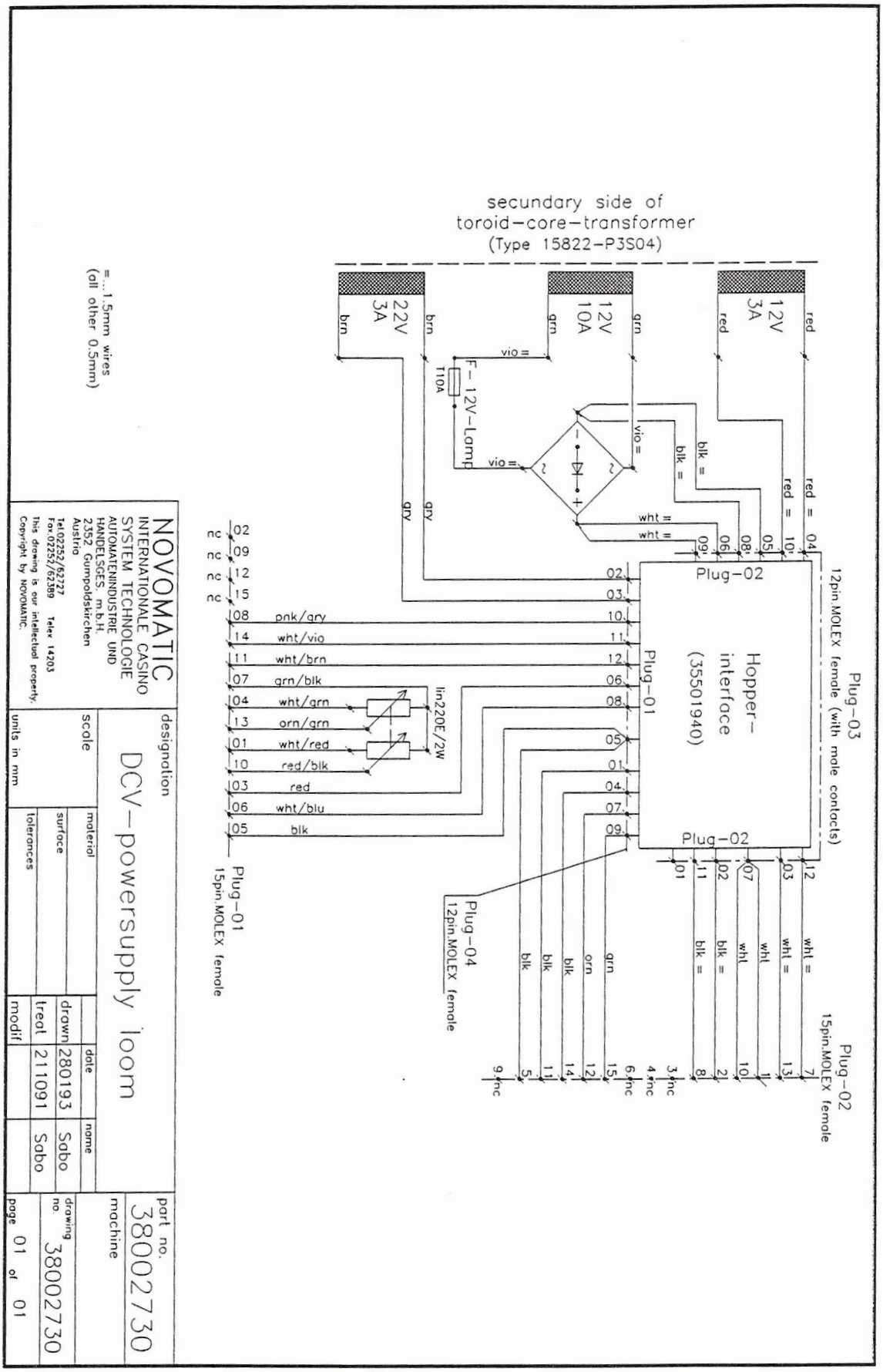
Pin	colour	name/function
01	nc	------
02	black (1.5)	GND (lamps)
03	white (1.5)	VCC 2
04	red (1.5)	12Vac 3A Input
05	black (1.5)	GND (lamps)
06	white (1.5)	VCC 2
07	white (2x 0.5)	VCC 3
08	black (1.5)	GND (lamps)
09	white (1.5)	VCC 2
10	red (1.5)	12Vac 3A Input
11	black (1.5)	GND (lamps)
12	white (1.5)	VCC 2

Plug 04: 12pin MOLEX female connector

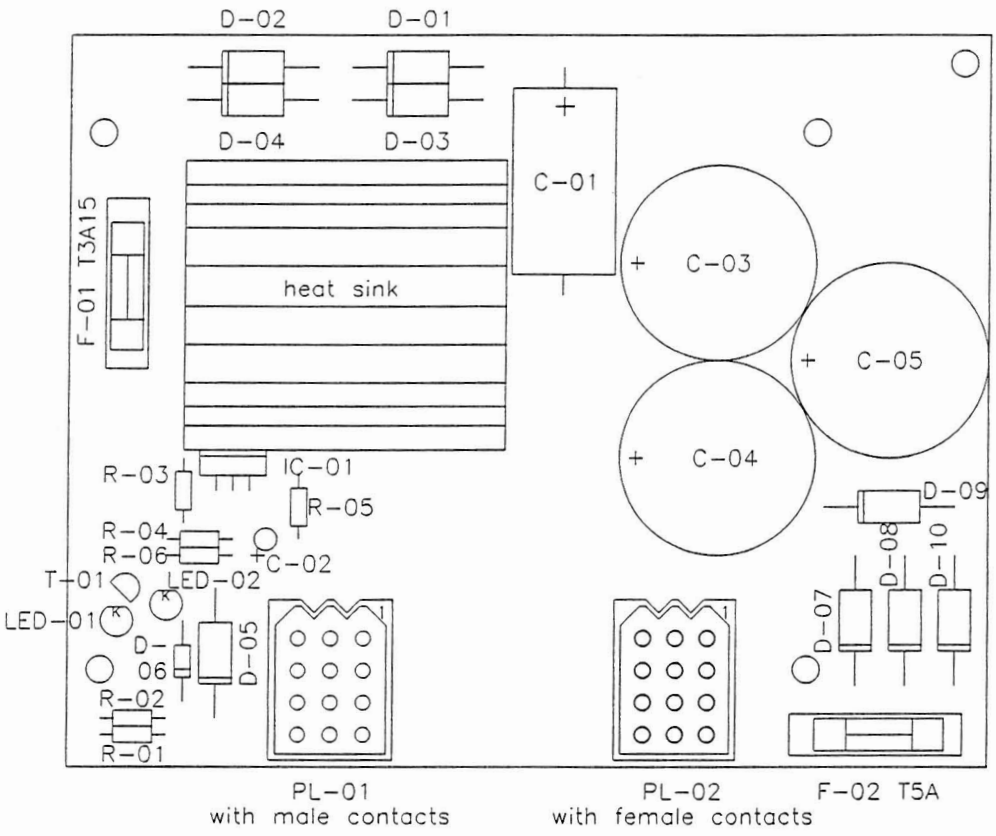
Pin	colour	name/function
01	black (0.5)	GND-switches
02	grey (0.5)	22Vac 3A Input
03	grey (0.5)	22Vac 3A Input
04	black (0.5)	GND-switches
05	black (2x 0.5)	GND-switches
06	nc	------
07	orange (0.5)	nf (option hopper 2: 24V)
08	nc	------
09	green (0.5)	VCC 1
10	pink/grey (0.5)	nf (option hopper 2 enable)
11	white/violet (0.5)	hopper 1+2 enable
12	white/brown (0.5)	hopper 1 enable



POWER SUPPLY SUPERCLUB



HOPPER INTERFACE



NOVOMATIC INTERNATIONALE CASINO SYSTEM TECHNOLOGIE AUTOMATENINDUSTRIE UND HANDELSGES. m.b.H. 2352 Gumpoldskirchen Austria Tel.02252/62727 Fax.02252/62389 Telex 14203 This drawing is our intellectual property. Copyright by NOVOMATIC.	designation Locations diagram Hopperinterface, for 1 Hopper				part no. 35501940
	scale	material			machine
		surface	drawn	16.10.91 Sabo	drawing no. 35501940
		tolerances	treat	16.10.91 Sabo	
	units in mm		modif		page 01 of 01

ACV LOOM CIRCUIT DIAGRAM