

Pristinesound, brutepower and no-fault reliability maketheDOM amps thepower amp of choice for pro audio. Designed for continuous operation. Massive Toroid power supplies with huge capacitors deliver the bass that kick drums demand -you will feel the deep, resonating beat.
Mechanically the DCM's are more rugged than the import amps that areso preva lent today. Each DOM is hand built at our San Diego factory featuring all steel construction, recessed controls and heavy-duty power components. The rocksolid, efficient design with its superb, testimonial-proven sound, makes the USA built DCM an amp you'll own for years.

## PURE-TRANSPARENT SOUND

Carvin considers the sound of an amp equally important as its reliability. To insure pure, uncolored sound, we designed one of the fastest power stages on the market today. High slew rates of $50 \mathrm{v} / \mu$ s deliver superb transient response. High frequencies aretransparent and open-even at extremelevels. Linear feedback circuits reduce distortion to near the theoretical zero limit, preventing any type of harshness which would lead to ear fatigue. The DAM Series amps deliver flat, transparent, unaltered sound-especially important to the studio user. And you can drive any type of reactive loads, including 70 V transformer distribution systems. These amps are designed to deliver non-stop, continuous RMSpower and are completely protected from heat and short circuits.

## ULTRA RUGGED FOR TOURING

Every chassis is made from heavy-duty 16 gauge steel that is plated before painted to prevent rust. All internal cabling is neatly tied and harnessed. Every circuit card is RR-4 MILITARY SPEC, double-sided, through-hole plated, fire retardant glass epoxy. This insures that the solder flows on the top, bottom and through each hole of every component, preventing components from shaking loose. Speakon ${ }^{\text {TM }}$ connectors, heavy-duty power switches, recessed knobs, all give the DCM amps a "tank-like" ruggedness.

## TOROID POWER SUPPLY

Toroids deliver massive amounts of "on demand" current for continuous operation. This gives the power supply a solid foundation, yielding more headroom for the large subwoofer applications. Not only do toroids deliver high current, but they are known for reducing stray magnetic fields eliminating hum \& noise. This is especially important for the recording industry.

## MODULAR CONSTRUCTION

With the DCM Series, Carvin brings you totally modular construction. If you ever need an I/O(input/output) connector card because a connector wore-out, just unplug it and re-install the replacement card in minutes. You don't have to de-solder anything. This applies to every aspect of the DCM Series amps including the power supply, power cards, heat sinks and fans. Everything is connected by heavy-duty AMPTM and MOLEX ${ }^{\top M}$ typeconnectors for easy replace-ment-even the Toroid transformer is a total plug-in.

## DISTORTION-FREE LIMITERS

The purpose of alimiter is to hold down peaks so the amp won't distort even with extra hot input signals (this protects your expensive speakers). In addition, a well designed limiter can increase your amp's average output as much as 3 db . Part of Carvin's design uses the more expensive, distortion-free linear "opto isolators". Unlikeamps that use FtT controlled limiters which can inject small amounts of distortion, the DCM Series limiters keep your sound pure and uncolored!

## FRONT PANELS \& CONNECTING UP

The DCM Series featurefront panel signal, peak and protect LEDs which let you monitor the status of the amp. All channels use precision level controls allow-
ing you to se your settings at aglance. Balanced 1/4" phone jacks are used to eliminate hum \& noise. Speaker outputs feature $1 / 4$ " jacks and high-current Twist-Lok connectors.
The rear professional accessory group offers a GROUND switch to remove the chassis ground from the $1 / 4^{\prime \prime}$ input. Two Parallel input switches connect the inputs of channels together eliminating Y connectors allowing amp patching in multiple amp systems. The accessory group also features abridge mode switch for delivering full power into a 70 V distribution system and a limiter ONOF switch that gives you the choice of using the internal limiter circuitry.

## RECEIVING INSPECTION-read before getting started

INSPECT YOUR UNIT FOR ANY DAMAGE which may have occurred during shipping. If any damage is found, please notify the shipping company and CARVIN immediately.
SAVE THECARTON \& ALL PACKINGMATBIALS. In the event you have to reship your unit, always use the original carton and packing material. This will provide the best possible protection during shipment. CARVIN and the shipping company are not liable for any damage caused by improper packing.
SAVE YOUR INVOCE It will be required for warranty service if needed in the future.
SHIPMENT SHORTAGE If you find items missing, they may have been shipped separately. Please allow several days for the rest of your order to arrive before inquiring.
REOORD THESERIAL NUMBER on the enclosed warranty card for your records. Keep your portion of the card and return the portion with your name and comments to us.

USA customers register online at: www. carvin. com/registration
All other countries register online at: www.carvinworld. com/registration

## POWER AMP SPECIFICATIONS:

 MODEL DCM1204Both Channels RMS Continuous

| Soth Channels RMS Continuous |  |
| :---: | :---: |
| $4 \Omega(20-20 \mathrm{kHz},<1.0 \%)$ | 300/300/300/300w |
| $8 \Omega(20-20 \mathrm{kHz},<1.0 \%)$ | 200/200/200/200w |
| Bridged RMS Continuous (ch 2-3) |  |
| $8 \Omega,(20-20 \mathrm{kHz},<1.0 \%)$ | 600w |
| THD (Typical-1/2 power): | 0.03\% |
| Damping Factor: | >350 |
| Slew Rate: bridged mode | >50v/ $/$ s |
| Sensitivity: ( $4 \Omega$, Vms) | 1.0 V |
| Signal to Noise Ratio: | Above 100dB |
| Frequency Response: | $\begin{gathered} \pm 0.5 \mathrm{~dB}, 20 \mathrm{~Hz} \text { to } 20 \mathrm{kHz} \\ ( \pm 1.5 \mathrm{~dB}, 10 \mathrm{~Hz} \& 40 \mathrm{kHz}) \end{gathered}$ |
| Input Impedance: | $>20 \mathrm{~K} \Omega$, balanced |
| Power Requirements: | 120VAC 15 Amp circuit minimum |
|  | 240VAC 8 Amp circuit minimum |
| Fuse Internal-above AC cord: 25AMP slow blow |  |
| Protection Circuits: Short Circuit • No Load Protection - SpeakerGuardTM. Thermal Shut-Off • Mute On/Off Control and Indicators: |  |
| Front: Power switch • Recessed attenuators • Signal LED - Clip LED Protect LED Power Indicator |  |
| Rear: Ground Lift (each channel) • Parallel Input Switches • Speaker Output Bridge Switch • Limiters IN/OUT Switch • Input Connectors: Four; Balanced 1/4" • Speaker Output Connectors: Three high current Twist-Lok (one bridged) \& four $1 / 4^{\prime \prime}$ connectors |  |
| Dimensions: $31 / 2^{\prime \prime}$ High x 19" Wide x 10" Depth (2-space) |  |
| Net Weight: 23 lbs . |  |

## FRONT \& REAR PANEL CONTROLS



## FRONT PANEL

## 1. MOUNTING

Sturdy one piece 12 gauge steel face plate accommodates standard 19 " rack installation. The rack mounting holes are designed on ISOstandard spacing. Four 10-32 x.5" phillips machine screws are normally used to secure the amp. Rear support brackets are not required.

## 2. POWER SWITCH

Check the power amp connections and verify the AC line power source before engaging the POWER switch. The yellow LED unmistakably indicates that all circuits are properly powered up. Yellow is used so the operator can see the red indicators (clipping or protect) from a distance.

## 3. CHANNEL LEVEL CONTROL

A precision input LEVE attenuate is used to adjust the volumelevels. To deliver theamps maximum power without reducing the headroom of the signal source, the level controls should be turned full on.

## 4. CHANNEL SIGNAL INDICATOR

The green SIGNAL LED indicators will flash when there is a signal passing to your speakers ( $-30 \mathrm{~dB} \mu$ ). This lets you know when the amp is passing a signal to your rear speaker connectors.

## 5. CHANNEL CLIP INDICATOR

The red CIP LED indicators will flash when each channel has reached its maximum output. Occasional flashing caused by lower bass frequencies is OK. However, consistent flashing caused from higher frequencies may damage high frequency drivers (excessive distortion). This does not cause damage to the amp.

## 6. COOLING VENTS/ FAN

Upon rack installation, the rear of the amp must be fully exposed to room temperature air. The surrounding air should not be warmer than $120^{\circ}$ or the thermal protection could active the PROTECT LED. The front cooling vents are not to be restricted from exhausting the warm air.

## 7. PROTECT LED INDICATOR

The red PROTECT LED provides the operator with information about the status of the amplifier. The PROTECT LED can come on under 3 different conditions (when this happens both channels are muted by disconnecting the output speaker relays protecting your speakers);

1) During power-up, the amplifier stays in a muted state for approx. 3 sec until it determines that everything is functioning normally (no output shorts or over temp conditions).
2) All four channels are muted when the output load draws excessive current or adirect short is detected caused by a shorted speaker cable or speaker system. Reset this condition by turning the amp off for two seconds and then on again. Check for shorted cables and the total speaker system impedance connected to each channel ( 4 ohms is the minimum per ch or 8 ohms BRIDGED).
3) Overheating is usually determined when the amp stops in the middle of a performance and the PROTECT LED comes on. If this is the cause, leave the amp on for the fan to cool the amp down. The amp will automatically reset within 1 to 3 minutes and the PROTECT LED will turn off when ready. Check for the following conditions; a) The rear intake air is restricted, b) The intake air is extremely warm, c) The front exhaust vents are restricted, or d) Excessive speaker load (try other speakers or remove speakers if you have more than one connected to each channel). Again, the minimum impedance is 4 ohms per ch or 8 ohms BRIDGED)

## REAR PANEL

8. Balanced $1 / 4$ " PHONE JACK INPUTs

This stereo $1 / 4$ " phone jack is designed to receive either balanced or unbalanced input signals. Balanced signals coming into this jack should be wired with the connector's tip going to signal + and the connector's ring to signal -. The connector's sleeve is tied to ground through the GROUND LIFT switch.

## 9. PARALLEL OR "Y" INPUT SWITCHES 1-2, 3-4

The rear PARALLE switches allow you to drive two channels from one input. All signals from ch 1 or ch 2 will be available on channels 1\&2, likewise channels 3\&4. This eliminates Y adapter. This feature is also used to "daisy chain" one piece of equipment to another. Just plug into the unused INPUT $1 / 4$ " and it will become an output for other equipment.

## 10. INPUT GROUND LIFT

Many times sound systems are connected in such a manner to cause a grounded loop with the inputs which result in audible hum. The input GND LIFT ( $1 / 4^{\prime \prime}$ ) switch on the rear panel will help eliminate this problem. If not, another way to eliminateground loops is to install Carvin's MTF55 "Ground Lifter" between the amplifier input and the signal source. This isolates the input ground from the AC power ground.

## 11. LIMITERS

To activatethe LIMITERS, engage the rear limiter switch. Thebuilt-in optio isolator limiters are recommended to hold down peaks that could cause early distortion. These limiters will help to rise the average power so that you can get more output from each channel. To check the effectiveness of the limiters when the channel starts to distort (under the amps full output), engage the limiters and hear the reduction of the distortion. If the distortion stops, you can turn the channel up for more power. The lower bass frequencies are most affected. WARNING: Do not check in an environment where the sound level could damage your ears!

## 12. SPEAKER 1/4" OUTPUTS

The standard $1 / 4^{\prime \prime}$ SPEAKER jacks are offered for lower power applications. Speakon ${ }^{T M}$ connectors are provided for high power application. Securethe Speakon ${ }^{\top M}$ connection by turning to the right. The center Speakon ${ }^{\text {TM }}$ is for Bridge only. Turn the amp off before connecting your speakers.

## 13. SPEAKER OUTPUTS SPEAKON ${ }^{\mathrm{mm}}$

Speakon ${ }^{T M}$ connectors are provided for high power application. Secure the Speakon ${ }^{T M}$ connection by turning to the right. The center Speakon ${ }^{\top}{ }^{\mathrm{M}}$ is for Bridge only. The wiring of the three Speakon ${ }^{\top \mathrm{TM}}$ connectors are:

$$
\begin{array}{ll}
\text { Frst connector from the left: } & \begin{array}{l}
\text { Channel 1 pin 1+ pos. Pin 1- neg. } \\
\text { Channel } 2 \text { pin 2+ pos. Pin 2- neg. }
\end{array} \\
\text { Center connector: (for bridging only) } & \begin{array}{l}
\text { CH2-3 bridge pin 1+ pos. Pin 1- neg. } \\
\text { not used pin 2+ Pin 2- }
\end{array} \\
\text { Third connector from the left: } & \begin{array}{l}
\text { Channel } 4 \text { pin 1+ pos. Pin 1- neg. } \\
\text { Channel 3 pin 2+ pos. Pin 2- neg. }
\end{array}
\end{array}
$$

This arrangement allows biamp connections with the out side Twist-Lokconnectors (see stereo biamping) and stereo plus a high power bridged subwoofer with all three Twist-Lok connectors (see stereo plus subwoofer).

## 14. BRIDGE MODE- $25 \mathrm{~V} / 70 \mathrm{~V}$ DISTRIBUTION SYSTEMS

The "DAM" Series can be operated in bridge mode if you require a $25 \mathrm{~V} / 70 \mathrm{~V}$ distribution speaker system or a high powered mono (single channel) amp. With your amp off, push "IN" the rear (recessed) BRIDGE switch after you have made your connections with the bridge Speakon ${ }^{\top}$. The $1 / 4^{\prime \prime}$ speaker jacks can not be used at the same time! Select carefully or damage may result to your speakers. This is why the switch has been recessed. The INPUT and LEVE is handled by channel 2 . Channel 3 is non-operational. The minimum speaker impedance is 8 ohms or a 25 V distribution line. CAUTION: The power developed by bridging your amp can destroy most speaker systems! Make sure your speaker(s) are of the proper impedance and power handling.

## 15. AC POWER

Your amp is designed to run on either 120 V 60 Hz or 230 V 50 Hz depending on the model purchased. The voltage range for 120 V model is 95 V to 132 V and for 230 V model it is 195 V to 253 V . The rear heavyduty $A C$ receptacle will accept a standard grounded $A C$ cord that is designed your country. Be sure to check your power source before plugging into a grounded (3 prong) outlet. Never defeat the grounded connection or electrocution may result! Frmly push the AC cord all the way into its receptacle. In the case of a blown fuse; unplug the amp, remove the lid and replace the 20 amp fuse located in the back corner above where the AC cord connects to the circuit board.
Note: Each amp will require a dedicated 20 amp circuit if you are driving the amp to its full output. There will be a sustained loss of power if the AC voltage is below the rated 120 V or $230 / 240 \mathrm{~V}$ so be sure you use a heavy gauge power cable (and source).

## TYPICAL STEREO SETUP WITH BRIDGED MONO SUBWOOFER



STEREO MAINS \& TWO MONITOR MIXES


25V OR 70V DISTRIBUTION SYSTEM


STEREO BIAMPING



## HELPFUL HINTS

1) NO SOUND FROM CH 3: The rear BRIDGE switch has been inadvertently pushed in.
2) STEREO CHANNELS SOUND THE SAME: The rear PARALLEL switch has been inadvertently pushed in.
3) NOHIGH FREQUENCIES: Tweeters or midrange drivers have been damaged or blown from feedback or overpowering.
4) SYSTEM HUM: Try switching the GND LIFT switch IN or OUT (depending on your use). If hum is not eliminated, then install Carvin's MTF55 "Ground Lifter" between the amplifier input and signal source. This isolates the input ground from the AC power ground.
5) POOR SOUND (BASS): The speaker systems are wired out of phase to each other. To correct, reverse the wires on one speaker connector only and your sound, especially bass response will improve.
6) Note: Each amp will require a dedicated 20 amp circuit if you are driving the amp to its full output. There will be a sustained loss of power if the AC voltage is below the rated 120 V or $230 / 240 \mathrm{~V}$ input.

MThis symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons. DO NOT OPEN

This symbol is intended to alert the user to the presence important operating and maintenance (servicing) instruc tions in the literature accompanying the appliance.

IMPORTANT! FOR YOUR PROTECTION, PLEASE READ THE FOLLOWING: WATER AND MOSTURE Appliance should not be used near water (near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc). Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
POWERSOURCES: The product should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
GROUNDINGOR POLARIZATION: Precautions should be taken so that the grounding or polarization is not defeated.
POWER OORD PROTECTION: Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
SERVICING: The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel. FUSING: If your unit is equipped with a fuse receptacle, replace only with the same type fuse. Refer to replacement text on the unit for correct fuse type.

## SAFETY INSTRUCTIONS (EUROPEAN)

The conductors in the AC power cord are colored in accordance with the following code. GREEN \& YELLOW-Earth BLUE—Neutral BROWN-Live
U.K. MAIN PLUG WARNING: A molded main plug that has been cut off from the cord is unsafe. NEVER UNDER ANY CIRCUMSTANCES SHOULD YOU INSERTA DAMAGED OR CUT MAIN PLUG INTO A POWER SOCKET.

## LIMITED WARRANTY

Your Carvin product is guaranteed against failurefor 3 YEARSunless otherwisestated. Carvin will serviceand supply all parts at no charge to the customer providing the unit is under warranty. Shipping costs are the responsibility of the customer. CARVINDOES NOT PAY FOR PARTS OR SERVICNGOTHER THAN OUROWN. AOOPY OFTHEORIGNAL INVOICEIS REQUIRED TOVERIFY YOUR WARRANTY. Carvin assumes no responsibility for horn drivers or speakers damaged by this unit. This warranty does not cover, and no liability is assumed, for damagedueto: natural disasters, accidents, abuse, loss of parts, lack of reasonable care, incorrect use, or failureto follow instructions. This warranty is in lieu of all other warranties, expressed or implied. No representative or person is authorized to represent or assume for Carvin any liability in connection with thesaleor servicing of Carvin products. CARVNSHALL NOT BELIABLEFOR INCIDENTAL ORCONSEQUENTAL DAMAGES.
When REIURNING merchandise to the factory, you may call for a return authorization number. Describein writing each problem. If your unit is out of warranty, you will becharged the current RLAT RATE for parts and labor to bring your unit up to factory specifications.

## MAINTAINING YOUR EQUIPMENT

Avoid spilling liquids or allowing any other foreign matter inside the unit. The panel of your unit can be wiped from time to time with a dry or slightly damp cloth in order to remove dust and bring back the new look. As with all pro gear, avoid prolonged use in caustic environments (salt air). When used in such an environment, be sure the amplifier is adequately protected by rack, covers, etc.

03-63294 1 EACH 03-63343 2 EACH 03-90080 1 EACH 05-01603 1 EACH 05-60420 1 EACH 05-60435 1 EACH 05-64410 1 EACH 05-64420 1 EACH 05-64430 1 EACH 05-68440 2 EACH 05-84628 1 EACH 05-84616 1 EACH 07-09012 4 EACH 10-15045 1 EACH 10-01204A 1 EACH 10-07504 1 EACH 0-07507A 1 EACH -82005 1 EACH 10-10008C 1 EACH 15-10172 1 EACH 20-32002 1 EACH 25-31350 1 EACH 76-01204A 1 EACH 77-12049A 1 EACH 77-07521 1 EACH 77-01204C 1 EACH 80-01204 1 EACH 80-01204 03-00220 4 EACH

03-00450C1 EACH 03-00451B 1 EACH 03-00503 13 EACH

03-50135 1 EACH 03-92521 10 EACH

06-10028 16 EACH 06-10032 4 EACH 07-01603 4 EACH

12-01200C 2 EACH 12-57462 2 EACH 15-00105 4 EACH 21-31100 1 EACH 21-45000 3 EACH 21-52345 4 EACH

21-51545 4 EACH

23-08604 5 EACH
23-08609 1 EACH 23-10002 5 EACH

23-11004 6 EACH

23-11008 4 EACH

STANDOFF ALUM 6-32x.25x. 94 STDOFF ALUM ROU \#6 L=.437" GUARD FAN PLASTIC $80 \times 80 \mathrm{~mm}$ PWR AC 3/16AWG 8' 2" W/PLUGS CABLE RIBBON 24A 10P/ 8" W/HDR CABLE RIBBON 24A 10P/14" W/HDR CABLE RIBBON 24A 4P/ 4" W/HDR CABLE RIBBON 24A 4P/ 8" W/HDR CABLE RIBBON 24A 4P/12" W/HDR CABLE RIBBON 24A 8P/16" W/HDR CABLE ASSY, 4C 280MM CABLE ASSY, 4C 160MM KNOB RECESSED MED 25.0 mm BLACK PLATE TOROID 4.5" DIA 14A GALV FRONT PANEL 2 SPACE DCM $2 / 4$ CH FRONT PANEL INSERT 2-RACK SPAC BRACKET FRONT CONTROL DCM/HT LID DCM POWER AMPS CHASSIS 2 SPACE UNIVERSAL TOROID 120V DCM1000 CONNECT THRU .100" 22AWG 2 PIN SWITCH DPST ROCKER BLACK POWER MANUAL DCM1204
LABEL FRONT DCM1204 LABEL TRIM FACE . $250 \times 7.720$ BLU LABEL REAR DCM1204 DCM1204 4 CH power amp

INSLTR MICA .0030".450'X .65" Q106, Q206, Q506, Q606 INSLTR HTSNK 12-01200 SNGL ADH INSLTR HTSNK 12-01200 DBL ADHV INSULATOR .36X .36X .20" 85deg On top of each TO-220 package STANDOFF LED . 500 X .135 T1 D36 STANDOFF LED $.925 \times .215$ T1 D26, D33, D34, D103, D203, D27, D29, D32, D35, D28
MS PPH 4-40X . 500 ZINC TYPE F MS PPH 4-40X 1.500 TYPE F ZINC KNOB "6L" 6x6x17.4mm GREY CAP S2, S3, S4, S5
HEATSINK 225.6MM SMT 1200W 12 HEATSINK VERT W/TABS T0-220 VR3, VR4 58-10035 32 EACH COIL AIR 1.5uH 14AWG L1, L2, L100, L200 RECEPTACLE AC W/FAST-ON CHASS SPEAKON 4-POLEPCMTG\#NL4MD-V J1, J2, J3 JACK . 250 PHONE MONO STEEL
J101, J201, J501, J601
JACK . 250"PHONE STEREO PLASTIC J102, J202, J502, J602
CONNECT HEADER .086" 4 PIN H5A, H5B, H9B (H9A, H10 SECONDARY BACK SIDE) CONNECT HEADER .086" 9 PIN H7 CONNECT HEADER . 100" 2 PIN H12, Hbias1, Hbias2, Hbias3, HBIAS4 CONNECT HEADER 4 PIN STRAIGHT H1A, H1B, H11A, H11B, H12A, H12B CONNECT HEADER 8 PIN STRAIGHT H2A, H2B, H13A, H13B

23-11010 2 EACH 25-02201 3 EACH 25-02201-1 EACH 25-042011 EACH 30-01204B 1 EACH 42-10381 4 EACH

45-56152 8 EACH

47-10235 3 EACH
47-22151 1 EACH 49-10212 1 EACH 49-10312 4 EACH

49-10451 17 EACH

49-12152 8 EACH

49-22035 18 EACH 49-27052 8 EACH

49-39052 9 EACH
49-47212 1 EACH 49-47312 4 EACH

49-82052 4 EACH
55-03300 16 EACH

56-10025 1 EACH 58-10025 22 EACH

R553, R554, R555, R652, R653, R654, R655 RES 100.00 OHM 10W 10\% SB SDOF R2 100.5 SMT .25W 1206 1\% R1, R114, R214, R514, R614, R405, R146, R149, R156, R159, R246, R249, R256, R259, R546, R549, R556, R559, R646, R649, R656, R659
1K SMT.25W 1206 1\% R118, R218, R518, 60-21194A 8 EACH R618, R637, R642, R643, R644, R645, R537, R542, R543, R544, R545, R137, R142,R143, R144, R145, R237, R242, R243, R244, R245, R318, R325, R135, R235, R535, R635, R31, R33 10K SMT .25W 1206 1\% R112, R113, R212, R213, R512, R513, R612, R613, R119, R120, R219, R220, R519, R520, R619, R620, R177, R277, R577, R677, R320, R324, R336, R337, R130, R131, R126, R226, R526, R626, R123, R124, R223, R224, R523, R524, R623, R624, 100K SMT .25W 1206 1\% R178, R179, R278, R279, R331, R578, R579, R678, R679, R32, R125, R225, R525, R625 CONNECT HEADER 10 PIN STRAIGTT H3A, H3B
SWITCH DPDT PUSH PC MTG LOCKNG S3, S4, S5 ASSEMBLED SWITCH AND CAP S1 SWITCH 4PDT PUSH PC MTG LOCKNG S2 PCB DCM1204
CAP ELEC 10,000 MFD $80 \mathrm{~V} 20 \%$ C501A, C502, C508, C509 CAP CERM 560PF 500VOLT 10\% C184, CAP ELEC 1,000 MFD $35 \mathrm{~V} 20 \%$ C503, C504, C507
CAP ELEC 220 MFD 50VOLT 10\% C9 0.001UF SMT 10\% FILM 0805 50V C403 0.01UF SMT 10\% FILM 080550V C181, C281, C581, C681 0.1 uF SMT 10\% FILM 120650 V C3, C4, C5, C6, C7, C8, C62, C63, C121 C221, C310, C219, C222, C114, C214, C514, C614 58-47025 4 EACH 120PF SMT 5\% CERAMIC 0805 C115, C116, C215, C216, C515, C516, C615, C616 SMT CAP 22uF 35v ELECTROLTIC C313, C318, C120, C220, C520, C620 C110, C111, C118, C210, C211, C218, C510, C511, C518, C610, C611, 0618 27 PF SMT 5\% CERAMIC 0805 C113, C213, C513, C613, C117, C217, C517, C617 39PF SMT 5\% CRAMIC 0805 C112, C212, C512, C612, C175, C176, C276, C576, ©676 0.0047uF SMT FILM 0805 50V C317 0.047UF SMT 10\% FILM 0805 50V C180, C280, C580, C680 82PF SMT 5\% CERAMIC 0805 C177, C277, C577, C677 RES . 33 OHM 5 W 5\% SB VERT R152, R153, R154, R155, R252, R253, R254, R255, R562, 58-92201 28 EACH

60-31000 4 EACH
60-21193A 8 EACH

- -3 -

60-15033 4 EACH

60-35041 1 EACH 60-50253 4 EACH

60-75320 6 EACH

60-75330 4 EACH

60-75340 1 EACH
60-78150-1 EACH

## CAUTION

RISK OF ELECTRIC SHOCK THIS SERVICING TO QUALIFIED SERVICE PERSONNEL! THIS UNIT CONTAINS HIGH VOLTAGE INSIDE!

150ohm SMT .50W 1206 1\%
R148, R248, R548, R648
1.5K SMT .25W 1206 1\% R312 15K SMT .25W 1206 1\% R121, R122,
R221, R222, R521, R522, R621, R622 150K SMT .25W 1206 1\% R102, R202, R502, R602, R132, R232, R532, R632 1.8K SMT .25W 1206 1\% R315 220.5 SMT .25W 1206 1\% R3 2.2K SMT .25W 1206 1\% R100, R101, R133, R233, R500, R533, R600, R633 22K SMT .25W 1206 1\% R319, R317, R327 220K SMT. 25W 1206 1\% R9 27K SMT .25W 1206 1\% R323 3.3K SMT .25W 1206 1\% R309, R329 33K SMT .25W 1206 1\%
R104, R204, R504, R604
470.5 SMT .25W 1206 1\%

R140, R240, R540, R640 4.7KSMT.25W 1206 1\% R134, R139, R141, R234, R239, R241, R326, R534, R539, R541, R634, R639, R641, R30, R200, R128, R228, R528, R628
47K SMT .25W 1206 1\% R176, R276, R576, R314, R311, R138, R238, R538, R676, R638
470K SMT.25W 1206 1\% R322, R10, R127, R227, R527, R627 R115, R116, R215, R216, R515, R516, R615, R616
5.6K SMT . 25W 1206 1\% R321 680 SMT . 25 W 1206 1\% R147, R247, R547, R647 68K SMT .25W 1206 1\% R330 22 SMT 1W 2512 20\% R5, R6, R11, R12, R13, R14, R15, R16, R550, R551, R23, R25, R26, R27, R650, R651, R136, R150, R151, R182, R332, R333, R334, R335, R250, R251, R419, R420 BIPOLAR PWR TIP31C NPN 3A 100V Q106, Q206, Q506, Q606 TRNS PWR MJW21193 PNP TO-247 Q114, Q116, Q214, Q216, Q514, Q516, Q614, Q616 TRNS PWR MJW21194 NPN TO-247 Q110, Q115, Q210, Q215, Q510, Q515, Q610, Q615 TRANS MJE15032 NPN T0-220 Q107, Q207, Q507, Q607 TRANS MJE15033 PNP T0-220 Q111, Q211, Q511, Q611 RECTIFIER BRIDGE 35AMP/400V PC OPTO ISOLATOR VACTROL AXIAL OP100, OP200, OP500, OP600 LED RED DIFFUSED 3MM T-1.00 D28, D33, D34, D103, D203 (ALL WITH STANDOFF) D36 WITH 03-50135 STANDOFF LED GREEN DIFFUSED 3MM T-1.00 D27, D29, D32, D35 (ALL WITH STANDOFF) LED YELLOW DIFFUSED 3MM T-1.00 D26(WITH STANDOFF)

## 60-79120-1 EACH

 60-79150-1 EACH 62-00014 1 EACH 62-06001 14 EACH62-19140 38 EACH
,

62-03500 4 EACH
62-20430 7 EACH
62-29010 2 EACH 62-45650 6 EACH

62-54001 10 EACH

62-55500 10 EACH
70-02408A 1 EACH 70-05710 5 EACH

70-22125 1 EACH
71-09221 4 EACH
71-24500 4 EACH

REGULATOR VOLTAGE 12 (PREPPED) Q7 REG VOLT 15-V 1A (PREPPED) VR4 MMBTA14 SOT-23 SMT Q4 DIODEULTRA FAST 600 V 1ASMA D108, D109, D208, D209, D501B, D502B, D503B, D504B, D505B, D506B, D508, D509, D608, D609 1N914 HI SPD SMT 250mW DIODE D2, D3, D5, D6, D7, D8, D9, D10, D11, D12, D13, D14, D15, D16, D17, D19, D106, D107, D111, D206, D207, D310, D311, D312, D506, D507, D606, D607, D1, D4, D25, D18, D20, D21, D22, D100, D30, D31 TRANSISTOR SMT MJD340 Q105, Q205, Q301, Q505, Q605 TRANSISTOR SMT PNP MJD350 Q104, Q204, Q504, Q604
NJM2043SMT(TESTED) DUAL HFREQ A100, A200, A500, A102, A202, A502, A602 NJM2901SMT QUAD COMP A1, A2 NJM4565 SMT DUAL HI FREQ A20, A21, A101, A201, A501, A601 MMBT5401LT1 PNP SOT-23 SMT

