

HEPTATONIC MODAL CATALOG

W-TYPE MODES (5W/2H - 3 Series, 21 Modes)

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2022 Edition

SERIES 1 (i = 0, e = 6, f = 6, o = 12, Shape 1, Iso 1, SELF-INVERSE)

1 - DORIAN (DOR) s = 36, d = 0 (Iso, Pal)	2 - PHRYGIAN (PHR) s = 34, d = -2 (Iso)	3 - LYDIAN (LYD) s = 39, d = +3 (Iso)	4 - MIXOLYDIAN (MIX) s = 37, d = +1 (Iso)	5 - AEOLIAN (AEO) s = 35, d = -1 (Iso)	6 - LOCRIAN (LOC) s = 33, d = -3 (Iso)	7 - IONIAN (ION) s = 38, d = +2 (Iso)
WHWWWWH 023579T ABBAB +2,+3,+5,-5,-3,-2	HWWWWWW 013578T BBBABB +1,+3,+5,-5,-4,-2	WWWWWWW 024679E AAAAA +2,+4,+6,-5,-3,-1	WWWWWWW 024579T AABAAB +2,+4,+5,-5,-3,-2	WWWWWWW 023578T ABBABB +2,+3,+5,-5,-4,-2	HWWWWWW 013568T BBBBBB +1,+3,+5,-6,-4,-2	WWWWWWW 024579E AABAAA +2,+4,+5,-5,-3,-1

SERIES 2 (i = 0, e = 8, f = 8, o = 14, Shape 2, Iso 2, SELF-INVERSE)

8 - CORINTHIAN (COR) s = 36, d = 0 (Iso, Pal)	9 - PHOCIAN (PHO) s = 34, d = -2 (Iso)	10 - LACONIAN (LAC) s = 32, d = -4 (2nd)	11 - MELIAN (MEL) s = 37, d = +1 (Iso)	12 - DARDANIAN (DAR) s = 35, d = -1 (Iso)	13 - LEUCADIAN (LEU) s = 40, d = +4 (2nd)	14 - THRACIAN (THR) s = 38, d = +2 (Iso)
WWWWWWW 024578T AABABB +2,+4,+5,-5,-4,-2	WWWWWWW 024568T ABBBBB +2,+4,+5,-6,-4,-2	HWWWWWW 013468T BBDDBB +1,+3,+4,-6,-4,-2	WWWWWWW 023579E ABBAAB +2,+3,+5,-5,-3,-1	HWWWWWW 013579T BBBAAB +1,+3,+5,-5,-3,-2	WWWWWWW 024689E AAAGAA +2,+4,+6,-4,-3,-1	WWWWWWW 024679T AAAAAB +2,+4,+6,-5,-3,-2

SERIES 3 (i = 0, e = 10, f = 10, o = 16, Shape 3, Iso 3, SELF-INVERSE)

15 - RHODIAN (RHO) s = 36, d = 0 (Iso, Pal)	16 - ANDRIAN (AND) s = 41, d = +5 (2nd)	17 - EORDEAN (EOR) s = 39, d = +3 (2nd)	18 - LEMNIAN (LEM) s = 37, d = +1 (Iso)	19 - PIERIAN (PIE) s = 35, d = -1 (Iso)	20 - TRIPHYLIAN (TRI) s = 33, d = -3 (2nd)	21 - PHTHIOTIAN (PHT) s = 31, d = -5 (2nd)
HWWWWWW 013579E BBBAAA +1,+3,+5,-5,-3,-1	WWWWWWW 02468TE AAAGGA +2,+4,+6,-4,-2,-1	WWWWWWW 024689T AAAGAB +2,+4,+6,-4,-3,-2	WWWWWWW 024678T AAAABB +2,+4,+6,-5,-4,-2	WWWWWWW 024568T AABBBB +2,+4,+5,-6,-4,-2	WWWWWWW 023468T ABDBBB +2,+3,+4,-6,-4,-2	HWWWWWW 012468T BDDBBB +1,+2,+4,-6,-4,-2

A-TYPE MODES (3W/3H/1A - 20 Series, 140 Modes)

HAH-SUBTYPE (4 Series, 28 Modes)

SERIES 4 (i = -1, e = 10, f = 12, o = 18, Shape 4, Iso 4, INVERSE Series 7)

22 - DELIAN (DEL) s = 35, d = -1 (Iso)	23 - TEMPEAN (TEM) s = 40, d = +4 (2nd)	24 - ATINITANIAN (ATI) s = 38, d = +2 (2nd)	25 - ORESTIAN (ORE) s = 36, d = 0 (Iso)	26 - LYNKESTIAN (LYN) s = 34, d = -2 (Iso)	27 - ALMOPIAN (ALM) s = 39, d = +3 (2nd)	28 - PEPARETHIAN (PEP) s = 30, d = -6 (2nd)
HWWHWAH 013578E BBBABA +1,+3,+5,-5,-4,-1	WWHHAHH 02467TE AAAAGA +2,+4,+6,-5,-2,-1	WWHAHHW 024589T AABGAB +2,+4,+5,-4,-3,-2	WHAHHWW 023678T ABABBB +2,+3,+6,-5,-4,-2	HAHHWWW 014568T BABBBB +1,+4,+5,-6,-4,-2	AHHWWWH 034579E GABAAA +3,+4,+5,-5,-3,-1	HHWWHWA 0124689 BDDBBB +1,+2,+4,-6,-4,-3

SERIES 5 (i = 0, e = 9, f = 10, o = 16, Shape 5, Iso 5, INVERSE Series 6)

29 - AITOLIAN (AIT) s = 36, d = 0 (Iso)	30 - EUBOEAN (EUB) s = 34, d = -2 (Iso)	31 - CHALCIDICEAN (CHL) s = 39, d = +3 (2nd)	32 - ATTICAN (ATT) s = 37, d = +1 (Iso)	33 - CYNTHIAN (CYN) s = 35, d = -1 (Iso)	34 - ACARNANIAN (ACA) s = 40, d = +4 (2nd)	35 - SAPAEAN (SAP) s = 31, d = -5 (2nd)
WWHWAH 023578E ABBABA +2,+3,+5,-5,-4,-1	HWWHAHW 013569T BBBAB +1,+3,+5,-6,-3,-2	WWHAHHW 024589E AABGAA +2,+4,+5,-4,-3,-1	WHAHHWW 023679T ABAAAB +2,+3,+6,-5,-3,-2	HAHHWWW 014578T BABABB +1,+4,+5,-5,-4,-2	AHHWWWH 034679E GAAAAA +3,+4,+6,-5,-3,-1	HWWHWAH 0134689 BDDBBB +1,+3,+4,-6,-4,-3

SERIES 6 (i = +1, e = 9, f = 10, o = 16, Shape 5, Iso 6, INVERSE Series 5)

36 - IMBRIAN (IMB) s = 37, d = +1 (Iso)	37 - TENEDIAN (TEN) s = 35, d = -1 (Iso)	38 - SKYRIAN (SKY) s = 33, d = -3 (2nd)	39 - CARPATHIAN (CAR) s = 38, d = +2 (Iso)	40 - NAXIAN (NAX) s = 36, d = 0 (Iso)	41 - KYTHERIAN (KYT) s = 41, d = +5 (2nd)	42 - ARCADIAN (ARC) s = 32, d = -4 (2nd)
WWHWAH 024578E AABABA +2,+4,+5,-5,-4,-1	WWHWAHW 023569T ABBBAB +2,+3,+5,-6,-3,-2	HWAHHWW 013478T BBDABB +1,+3,+4,-5,-4,-2	WHAHHWW 023679E ABAAAA +2,+3,+6,-5,-3,-1	HAHHWWW 014579T BABAAB +1,+4,+5,-5,-3,-2	AHHWWWH 034689E GAAGAA +3,+4,+6,-4,-3,-1	HWWHWAH 0135689 BBBBBB +1,+3,+5,-6,-4,-3

SERIES 7 (i = +2, e = 10, f = 12, o = 18, Shape 4, Iso 7, INVERSE Series 4)

43 - SAMOTHRACIAN (SAM) s = 38, d = +2 (Iso)	44 - CRETAN (CRE) s = 36, d = 0 (Iso)	45 - CYPRIOT (CYP) s = 34, d = -2 (2nd)	46 - NICOPOLITAN (NIC) s = 32, d = -4 (2nd)	47 - PROPONTIAN (PRO) s = 37, d = +1 (Iso)	48 - CILICIAN (CIL) s = 42, d = +6 (2nd)	49 - BOSPORAN (BOS) s = 33, d = -3 (2nd)
WWHWAH 024678E AAAABA +2,+4,+6,-5,-4,-1	WWHWAHW 024569T AABBAB +2,+4,+5,-6,-3,-2	WWHAHHW 023479T ABDABB +2,+3,+4,-5,-4,-2	HWAHHWW 012568T BDBBBB +1,+2,+5,-6,-4,-2	HAHHWWW 014579E BABAAA +1,+4,+5,-5,-3,-1	AHHWWWH 03468TE GAAGGA +3,+4,+6,-4,-2,-1	HWWHWAH 0135789 BBBABD +1,+3,+5,-5,-4,-3

WAH-SUBTYPE (6 Series, 42 Modes)

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SERIES 8 (i = -4, e = 15, f = 18, o = 24, Shape 8, Non-Iso/2nd-Order, INVERSE Series 19)

50 - GALLIAN (GAL) s = 32, d = -4 (2nd)	51 - LERIAN (LER) s = 37, d = +1 (2nd)	52 - CHAUCIAN (CHA) s = 42, d = +6 (3rd)	53 - FRISIAN (FRI) s = 40, d = +4 (3rd)	54 - BATAVIAN (BAT) s = 38, d = +2 (2nd)	55 - TREVIRIAN (TRE) s = 36, d = 0 (2nd)	56 - TENCTERIAN (TNC) s = 27, d = -9 (3rd)
HHWWWAH 012468E BDDDBA +1,+2,+4,-6,-4,-1	HHWWWAH 01357TE BBBAGA +1,+3,+5,-5,-2,-1	WWWAAHH 02469TE AAAEGA +2,+4,+6,-3,-2,-1	WWAAHHW 024789T AAGGAB +2,+4,+7,-4,-3,-2	WAHHHWW 025678T AGAABB +2,+5,+6,-5,-4,-2	AHHHWWW 034568T GABBBB +3,+4,+5,-6,-4,-2	HHHWWWA 0123579 BDZDDD +1,+2,+3,-7,-5,-3

SERIES 9 (i = -3, e = 13, f = 16, o = 22, shape 9, Non-Iso/2nd-Order, INVERSE Series 18)

57 - BAETICAN (BAE) s = 33, d = -3 (2nd)	58 - NORICAN (NOR) s = 38, d = +2 (2nd)	59 - MARCOMANNIAN (MRC) s = 36, d = 0 (2nd)	60 - HERMUNDURIAN (HRM) s = 41, d = +5 (3rd)	61 - LUGIAN (LUG) s = 39, d = +3 (2nd)	62 - GOTONIAN (GOT) s = 37, d = +1 (2nd)	63 - HERCYNIAN (HER) s = 28, d = -8 (3rd)
HWHWWAH 013468E BDBBBA +1,+3,+4,-6,-4,-1	WHWWAHH 02357TE ABBAGA +2,+3,+5,-5,-2,-1	HWWAAHHW 013589T BBBGAB +1,+3,+5,-4,-3,-2	WWAAHHW 024789E AAGGAA +2,+4,+7,-4,-3,-1	WAHHHWW 025679T AGAAAB +2,+5,+6,-5,-3,-2	AHHHWWW 034578T GABABB +3,+4,+5,-5,-4,-2	HHHWWWA 0124579 BDDDDD +1,+2,+4,-7,-5,-3

SERIES 10 (i = -2, e = 11, f = 14, o = 20, shape 10, Iso 8, INVERSE Series 16)

64 - KALYMNIAN (KAL) s = 34, d = -2 (Iso)	65 - ACHAEAN (ACH) s = 39, d = +3 (2nd)	66 - CORCYREAN (CRC) s = 37, d = +1 (2nd)	67 - SPARTAN (SPA) s = 35, d = -1 (Iso)	68 - DOLOPIAN (DOL) s = 40, d = +4 (2nd)	69 - CEPHALLENIAN (CEP) s = 38, d = +2 (2nd)	70 - EPIROTE (EPI) s = 29, d = -7 (2nd)
HWHWWAH 013568E BBBBA +1,+3,+5,-6,-4,-1	WHWWAHH 02457TE AABAGA +2,+4,+5,-5,-2,-1	WHWAAHHW 023589T ABBGAB +2,+3,+5,-4,-3,-2	HWAHHWW 013678T BBAABB +1,+3,+6,-5,-4,-2	WAHHHWW 025679E AGAAAA +2,+5,+6,-5,-3,-1	AHHHWWW 034579T GABAAB +3,+4,+5,-5,-3,-2	HHHWWWA 0124679 BDBBDD +1,+2,+4,-6,-5,-3

SERIES 11 (i = -2, e = 13, f = 14, o = 22, shape 9, Non-Iso/2nd-Order, INVERSE Series 17)

71 - CELTIBERIAN (CLT) s = 34, d = -2 (2nd)	72 - EDETANIAN (EDE) s = 32, d = -4 (2nd)	73 - SAGUNTIAN (SAG) s = 37, d = +1 (2nd)	74 - CARPETANIAN (CRP) s = 42, d = +6 (3rd)	75 - VACCAEAN (VAC) s = 40, d = +4 (2nd)	76 - BASTETANIAN (BST) s = 38, d = +2 (2nd)	77 - TARTESSIAN (TAR) s = 29, d = -7 (3rd)
WHHWWAH 023468E ABDBBA +2,+3,+4,-6,-4,-1	HHWWAHH 012469T BDDBAB +1,+2,+4,-6,-3,-2	HHWAAHHW 013589E BBBGAA +1,+3,+5,-4,-3,-1	WWAAHHW 02478TE AAGGGA +2,+4,+7,-4,-2,-1	WAHHHWW 025689T AGAGAB +2,+5,+6,-4,-3,-2	AHHHWWW 034678T GAAABB +3,+4,+6,-5,-4,-2	HHHWWWA 0134579 BDDDDD +1,+3,+4,-7,-5,-3

SERIES 12 (i = -1, e = 11, f = 12, o = 18, shape 12, Iso 9, INVERSE Series 15)

78 - BISALTIAN (BIS) s = 35, d = -1 (Iso)	79 - CENOMANIAN (CEN) s = 33, d = -3 (2nd)	80 - MOLOSSIAN (MOL) s = 38, d = +2 (2nd)	81 - SALASSIAN (SAL) s = 36, d = 0 (Iso)	82 - TRICORIAN (TRC) s = 41, d = +5 (2nd)	83 - ILLYRIAN (ILL) s = 39, d = +3 (2nd)	84 - INGAUNIAN (ING) s = 30, d = -6 (2nd)
WHHWWAH 023568E ABBBBA +2,+3,+5,-6,-4,-1	HHWWAHHW 013469T BDBBAB +1,+3,+4,-6,-3,-2	WHWAAHHW 023589E ABBGAA +2,+3,+5,-4,-3,-1	HWAHHWW 013679T BBAABB +1,+3,+6,-5,-3,-2	WAHHHWW 025689E AGAGAA +2,+5,+6,-4,-3,-1	AHHHWWW 034679T GAAAAB +3,+4,+6,-5,-3,-2	HHHWWWA 0134679 BDBBDD +1,+3,+4,-6,-5,-3

SERIES 13 (i = 0, e = 11, f = 12, o = 20, shape 10, Iso 10, INVERSE Series 14)

85 - PANNONIAN (PAN) s = 36, d = 0 (Iso)	86 - TRANSPADANIAN (TRA) s = 34, d = -2 (2nd)	87 - INSUBRIAN (INS) s = 32, d = -4 (2nd)	88 - RAETIAN (RAE) s = 37, d = -1 (Iso)	89 - QUADIAN (QUA) s = 42, d = +6 (2nd)	90 - NARBONESIAN (NAR) s = 40, d = +4 (2nd)	91 - AQUITANIAN (AQU) s = 31, d = -5 (2nd)
WHHWWAH 024568E AABBBA +2,+4,+5,-6,-4,-1	WHHWAHHW 023469T ABDBAB +2,+3,+4,-6,-3,-2	HHWAAHHW 012478T BDDABB +1,+2,+4,-5,-4,-2	HWAHHWW 013679E BBAAAA +1,+3,+6,-5,-3,-1	WAHHHWW 02568TE AGAGGA +2,+5,+6,-4,-2,-1	AHHHWWW 034689T GAAGAB +3,+4,+6,-4,-3,-2	HHHWWWA 0135679 BBBDD +1,+3,+5,-6,-5,-3

HAW-SUBTYPE (6 Series, 42 Modes)

3

SERIES 14 (i = -1, e = 11, f = 12, o = 20, shape 10, Iso 11, INVERSE Series 13)

92 - SERIPHIAN (SER) s = 30, d = -6 (2nd)	93 - EPHESIAN (EPH) s = 35, d = -1 (Iso)	94 - THEBAN (THE) s = 40, d = +4 (2nd)	95 - PERRHABIAN (PRR) s = 38, d = +2 (2nd)	96 - TORONEAN (TOR) s = 36, d = 0 (Iso)	97 - AEGEAN (AEG) s = 41, d = +5 (2nd)	98 - MESSENEAN (MES) s = 32, d = -4 (2nd)
HHWWHAW 012467T BDDDBD +1,+2,+4,-6,-5,-2	HHWWHAW 013569E BBBBA +1,+3,+5,-6,-3,-1	WWHAWHH 02458TE AABGGA +2,+4,-5,-4,-2,-1	WHAWHHW 023689T ABAGAB +2,+3,+6,-4,-3,-2	HAWHHWW 014678T BAAABB +1,+4,+6,-5,-4,-2	AWHHWWH 035679E GGAAAA +3,+5,+6,-5,-3,-1	WHWWHHA 0234689 ABDBBD +2,+3,+4,-6,-4,-3

SERIES 15 (i = 0, e = 11, f = 12, o = 18, shape 12, Iso 12, INVERSE Series 12)

99 - AMORGIAN (AMO) s = 31, d = -5 (2nd)	100 - PHILLIPIAN (PHI) s = 36, d = 0 (Iso)	101 - KNOSSIAN (KNO) s = 34, d = -2 (2nd)	102 - PHARSALIAN (PHA) s = 39, d = +3 (2nd)	103 - DELPHIAN (DEL) s = 37, d = +1 (Iso)	104 - ARGIVIAN (ARG) s = 42, d = +6 (2nd)	105 - DONOUSIAN (DON) s = 33, d = -3 (2nd)
HHWWHAW 013467T BBDBDB +1,+3,+4,-6,-5,-2	WHWWHAW 023569E ABBBAA +2,+3,+5,-6,-3,-1	HHWWHAW 013479T BBDAAB +1,+3,+4,-5,-3,-2	WHAWHHW 023689E ABAGAA +2,+3,+6,-4,-3,-1	HAWHHWW 014679T BAAABB +1,+4,+6,-5,-3,-2	AWHHWWH 035689E GGAGAA +3,+5,+6,-4,-3,-1	WHWWHHA 0235689 ABBBBD +2,+3,+5,-6,-4,-3

SERIES 16 (i = +1, e = 11, f = 14, o = 20, shape 10, Iso 13, INVERSE Series 10)

106 - CIMMERIAN (CIM) s = 32, d = -4 (2nd)	107 - BASTARNIAN (BAS) s = 37, d = +1 (Iso)	108 - JAZYGIAN (JAZ) s = 35, d = -1 (2nd)	109 - DANDARIDIAN (DAN) s = 33, d = -3 (2nd)	110 - TAURIAN (TAU) s = 38, d = +2 (Iso)	111 - COELALATIAN (COE) s = 43, d = +7 (2nd)	112 - SCYTHIAN (SCY) s = 34, d = -2 (2nd)
HHWWHAW 013567T BBDBDB +1,+3,+5,-6,-5,-2	WHWWHAW 024569E AABBA +2,+4,+5,-6,-3,-1	WHWWHAW 023479T ABDAAB +2,+3,+4,-5,-3,-2	HHAWHHW 012578T BDBABB +1,+2,+5,-5,-4,-2	HAWHHWW 014679E BAAAA +1,+4,+6,-5,-3,-1	AWHHWWH 03568TE GGAGGA +3,+5,+6,-4,-2,-1	WHWWHHA 0235789 ABABBD +2,+3,+5,-5,-4,-3

SERIES 17 (i = +1, e = 13, f = 14, o = 22, shape 9, Non-Iso/2nd-Order, INVERSE Series 11)

113 - GYTHIAN (GYT) s = 32, d = -4 (2nd)	114 - PAEONIAN (PAE) s = 30, d = -6 (3rd)	115 - ELIMIOTIAN (ELI) s = 35, d = -1 (2nd)	116 - SICYONIAN (SIC) s = 40, d = +4 (2nd)	117 - GYARIAN (GYA) s = 38, d = +2 (2nd)	118 - ACTIAN (ACT) s = 43, d = +7 (3rd)	119 - THERMAEAN (TMA) s = 34, d = -2 (2nd)
WHWWHAW 023467T ABDBDB +2,+3,+4,-6,-5,-2	HHWWHAW 012458T BDDDBB +1,+2,+4,-7,-4,-2	HHWWHAW 013479E BBDAAA +1,+3,+4,-5,-3,-1	WHAWHHW 02368TE ABAGGA +2,+3,+6,-4,-2,-1	HAWHHWW 014689T BAAGAB +1,+4,+6,-4,-3,-2	AWHHWWH 035789E GGGGAA +3,+5,+7,-4,-3,-1	WHWWHHA 0245689 AABBB +2,+4,+5,-6,-4,-3

SERIES 18 (i = +2, e = 13, f = 16, o = 22, shape 9, Non-Iso/2nd-Order, INVERSE Series 9)

120 - IBERIAN (IBE) s = 33, d = -3 (2nd)	121 - COLCHIAN (COL) s = 31, d = -5 (3rd)	122 - PONTIAN (PON) s = 36, d = 0 (2nd)	123 - CAPPADOCIAN (CAP) s = 34, d = -2 (2nd)	124 - AORSIAN (AOR) s = 39, d = +3 (2nd)	125 - SIRACIAN (SIR) s = 44, d = +8 (3rd)	126 - SINDIAN (SIN) s = 35, d = -1 (2nd)
WHWWHAW 023567T ABDBDB +2,+3,+5,-6,-5,-2	HHWWHAW 013458T BDDDBB +1,+3,+4,-7,-4,-2	WHWWHAW 023479E ABDAAA +2,+3,+4,-5,-3,-1	HHAWHHW 012579T BDBAAB +1,+2,+5,-5,-3,-2	HAWHHWW 014689E BAAGAA +1,+4,+6,-4,-3,-1	AWHHWWH 03578TE GGGGGA +3,+5,+7,-4,-2,-1	WHWWHHA 0245789 AABABD +2,+4,+5,-5,-4,-3

SERIES 19 (i = +3, e = 15, f = 18, o = 24, shape 8, Non-Iso/2nd-Order, INVERSE Series 8)

127 - DALMATIAN (DAL) s = 34, d = -2 (2nd)	128 - LUCANIAN (LUC) s = 32, d = -4 (3rd)	129 - BRUTTIAN (BRU) s = 30, d = -6 (3rd)	130 - CALABRIAN (CAL) s = 35, d = -1 (2nd)	131 - VENETIAN (VEN) s = 40, d = +4 (2nd)	132 - LIGURIAN (LIG) s = 45, d = +9 (3rd)	133 - ETRUSCAN (ETR) s = 36, d = 0 (2nd)
WHWWHAW 024567T AABDBD +2,+4,+5,-6,-5,-2	WHWWHAW 023458T ABDBDB +2,+3,+4,-7,-4,-2	HHAWHHW 012368T BDZBBB +1,+2,+3,-6,-4,-2	HHAWHHW 012579E BDBAAA +1,+2,+5,-5,-3,-1	HAWHHWW 01468TE BAAGGA +1,+4,+6,-4,-2,-1	AWHHWWH 03579TE GGGEGA +3,+5,+7,-3,-2,-1	WHWWHHA 0246789 AAAABD +2,+4,+6,-5,-4,-3

WAW-SUBTYPE (4 Series, 28 Modes)

4

SERIES 20 (i = -1, e = 15, f = 16, o = 24, shape 8, Non-Iso/2nd-Order, INVERSE Series 23)

134 - CERETANIAN (CER) s = 28, d = -8 (3rd)	135 - TRICASTINIAN (TCS) s = 33, d = -3 (2nd)	136 - AUSETANIAN (AUS) s = 38, d = +2 (2nd)	137 - LAETANIAN (LAE) s = 43, d = +7 (3rd)	138 - ILERGETIAN (ILE) s = 41, d = +5 (3rd)	139 - ALLOBROGIAN (ALL) s = 39, d = +3 (2nd)	140 - VOCONTIAN (VOC) s = 30, d = -6 (3rd)
HHHWWAW 012357T BDZDDDB +1,+2,+3,-7,-5,-2	HHWWAWH 012469E BDDBAAB +1,+2,+4,-6,-3,-1	HHWWAWH 01358TE BBBGGA +1,+3,+5,-4,-2,-1	WWAWHHH 02479TE AAGEGA +2,+4,+7,-3,-2,-1	WAWHHHW 025789T AGGGAB +2,+5,+7,-4,-3,-2	AWHHHHW 035678T GGAABB +3,+5,+6,-5,-4,-2	WHHHWWA 0234579 ABDDDD +2,+3,+4,-7,-5,-3

SERIES 21 (i = 0, e = 13, f = 14, o = 20, shape 21, Non-Iso/2nd-Order, INVERSE Series 22)

141 - VOLSCIAN (VOL) s = 29, d = -7 (3rd)	142 - SABINIAN (SAB) s = 34, d = -2 (2nd)	143 - FRENTANIAN (FRE) s = 39, d = +3 (2nd)	144 - MARRUCINIAN (MRR) s = 37, d = +1 (2nd)	145 - SAMNIAN (SMN) s = 42, d = +6 (3rd)	146 - APULIAN (APU) s = 40, d = +4 (2nd)	147 - AEQUIAN (AEQ) s = 31, d = -5 (2nd)
HHHWWAW 012457T BDDDDDB +1,+2,+4,-7,-5,-2	HHWWAWH 013469E BBDDBAA +1,+3,+4,-6,-3,-1	WHWWAWH 02358TE ABBGGA +2,+3,+5,-4,-2,-1	HWAWHHW 013689T BBAGAB +1,+3,+6,-4,-3,-2	WAWHHHW 025789E AGGGAA +2,+5,+7,-4,-3,-1	AWHHHHW 035679T GGAAB +3,+5,+6,-5,-3,-2	WHHHWWA 0234679 ABDBDD +2,+3,+4,-6,-5,-3

SERIES 22 (i = +1, e = 13, f = 14, o = 20, shape 21, Non-Iso/2nd-Order, INVERSE Series 21)

148 - PELEGNIAN (PEL) s = 30, d = -6 (3rd)	149 - MARSIAN (MRS) s = 35, d = -1 (2nd)	150 - HIRPINIAN (HIR) s = 33, d = -3 (2nd)	151 - CAMPANIAN (CAM) s = 38, d = +2 (2nd)	152 - PICENIAN (PIC) s = 43, d = +7 (3rd)	153 - OSCAN (OSC) s = 41, d = +5 (2nd)	154 - FALISCAN (FAL) s = 32, d = -4 (2nd)
HHHHWWA 013457T BDDDDDB +1,+3,+4,-7,-5,-2	WHWWAWH 023469E ABDBAA +2,+3,+4,-6,-3,-1	HHWWAWH 012479T BDDAAB +1,+2,+4,-5,-3,-2	HWAWHHW 013689E BBAGAA +1,+3,+6,-4,-3,-1	WAWHHHW 02578TE AGGGGA +2,+5,+7,-4,-2,-1	AWHHHHW 035689T GGAGAB +3,+5,+6,-4,-3,-2	WHHHWWA 0235679 ABBBDD +2,+3,+5,-6,-5,-3

SERIES 23 (i = +2, e = 15, f = 16, o = 24, shape 8, Non-Iso/2nd-Order, INVERSE Series 20)

155 - TARENTIAN (TRN) s = 31, d = -5 (3rd)	156 - RHEGIAN (RHE) s = 29, d = -7 (3rd)	157 - CUMAEAN (CMA) s = 34, d = -2 (2nd)	158 - POMPEIAN (POM) s = 39, d = +3 (2nd)	159 - CAPUAN (CPN) s = 44, d = +8 (3rd)	160 - TIBURIAN (TIB) s = 42, d = +6 (3rd)	161 - OSTIAN (OST) s = 33, d = -3 (2nd)
WHHHWWA 023457T ABDDDB +2,+3,+4,-7,-5,-2	HHHWWAW 012358T BDZDBB +1,+2,+3,-7,-4,-2	HHWWAWH 012479E BDDAAA +1,+2,+4,-5,-3,-1	HWAWHHW 01368TE BBAGGA +1,+3,+6,-4,-2,-1	WAWHHHW 02579TE AGGEA +2,+5,+7,-3,-2,-1	AWHHHHW 035789T GGGGAB +3,+5,+7,-4,-3,-2	WHHHWWA 0245679 AABBDD +2,+4,+5,-6,-5,-3

AA-TYPE MODES (4H/1W/2A - 15 Series, 105 Modes)

HWH-SUBTYPE (6 Series, 42 Modes)

5

SERIES 24 (i = 0, e = 18, f = 20, o = 24, shape 24, Non-Iso/2nd-Order, INVERSE Series 29)

162 - ANATOLIAN (ANA) s = 36, d = 0 (2nd)	163 - BITHYNIAN (BIT) s = 41, d = +5 (3rd)	164 - SELEUCIAN (SEL) s = 46, d = +10 (3rd)	165 - SMYRNIAN (SMY) s = 37, d = +1 (2nd)	166 - LYCIAN (LYC) s = 28, d = -8 (3rd)	167 - PAMPHYLIAN (PAM) s = 33, d = -3 (3rd)	168 - GALATIAN (GLT) s = 31, d = -5 (3rd)
HHAHHWH 012589E BDBGAA +1,+2,+5,-4,-3,-1	HAHHWHH 01478TE BAGGGA +1,+4,+7,-4,-2,-1	AAHWHHH 03679TE GEGEGA +3,+6,+7,-3,-2,-1	AHWHHHH 0346789 GAAABD +3,+4,+6,-5,-4,-3	HWHHHAA 0134569 BDDZDZ +1,+3,+4,-7,-6,-3	WHHHAAH 023458E ABDDBA +2,+3,+4,-7,-4,-1	HHHAAHW 012369T BDZBAB +1,+2,+3,-6,-3,-2

SERIES 25 (i = +2, e = 13, f = 14, o = 20, shape 25, Non-Iso/2nd-Order, INVERSE Series 28)

169 - PHOENICIAN (PHX) s = 38, d = +2 (2nd)	170 - BOEOTIAN (BOE) s = 43, d = +7 (3rd)	171 - HENIOCHIAN (HEN) s = 34, d = -2 (2nd)	172 - SOPHENIAN (SOP) s = 39, d = +3 (2nd)	173 - OSROENIAN (OSR) s = 30, d = -6 (3rd)	174 - CASPIAN (CAS) s = 35, d = -1 (2nd)	175 - ADIABENIAN (ADI) s = 33, d = -3 (2nd)
HAHAHWH 014589E BAGGAA +1,+4,+5,-4,-3,-1	AHAHWHH 03478TE GAGGGA +3,+4,+7,-4,-2,-1	HAHWHHA 0145789 BABABD +1,+4,+5,-5,-4,-3	AHWHHAH 034678E GAAABA +3,+4,+6,-5,-4,-1	HWHHAHA 0134589 BDDDBD +1,+3,+4,-7,-4,-3	WHHAHAH 023478E ABDABA +2,+3,+4,-5,-4,-1	HHAAHWH 012569T BDBBAB +1,+2,+5,-6,-3,-2

SERIES 26 (i = +4, e = 18, f = 18, o = 20, shape 26, Non-Iso/2nd-Order, SELF-INVERSE)

176 - MARDIAN (MRD) s = 40, d = +4 (3rd)	177 - LAODICEAN (LAO) s = 45, d = +9 (3rd)	178 - GALLILEAN (GLL) s = 36, d = 0 (2nd, Pal)	179 - JUDAEAN (JUD) s = 27, d = -9 (3rd)	180 - ITURAEAN (ITU) s = 32, d = -4 (3rd)	181 - NABATEAN (NAB) s = 37, d = +1 (2nd)	182 - ELYMAEAN (ELY) s = 35, d = -1 (2nd)
HAAHWHH 014789E BAGGAA +1,+4,+7,-4,-3,-1	AAHWHHH 03678TE GEGGGA +3,+6,+7,-4,-2,-1	AHWHHAH 0345789 GABABD +3,+4,+5,-5,-4,-3	HWHHAHA 0124569 BDDZDZ +1,+2,+4,-7,-6,-3	HWHHAHA 013458E BDDDBA +1,+3,+4,-7,-4,-1	WHHAHWH 02347TE ABDAGA +2,+3,+4,-5,-2,-1	HHAHWHH 012589T BDBGAB +1,+2,+5,-4,-3,-2

SERIES 27 (i = +4, e = 10, f = 10, o = 18, shape 4, Iso 14, SELF-INVERSE)

183 - COMMAGENEAN (COM) s = 40, d = +4 (2nd)	184 - PARTHINIAN (PAR) s = 31, d = -5 (2nd)	185 - ATHAMANIAN (ATH) s = 36, d = 0 (Iso, Pal)	186 - MEDIAN (MED) s = 41, d = +5 (2nd)	187 - THASIAN (THA) s = 32, d = -4 (2nd)	188 - DACIAN (DAC) s = 37, d = +1 (Iso)	189 - MELITIAN (MLT) s = 35, d = -1 (Iso)
AHHAHWH 034589T GABGAA +3,+4,+5,-4,-3,-1	HAHWHHA 0125689 BDBBBD +1,+2,+5,-6,-4,-3	HAHWHHA 014578E BABABA +1,+4,+5,-5,-4,-1	AHWHHAH 03467TE GAAAGA +3,+4,+6,-5,-2,-1	HWHHAHA 0134789 BBDABD +1,+3,+4,-5,-4,-3	WHHAHHA 023678E ABAABA +2,+3,+6,-5,-4,-1	HAHHAHW 014569T BABBAB +1,+4,+5,-6,-3,-2

SERIES 28 (i = -1, e = 13, f = 14, o = 20, shape 25, Non-Iso/2nd-Order, INVERSE Series 25)

190 - ALESIAN (ALE) s = 42, d = +6 (3rd)	191 - AMATHIAN (AMA) s = 33, d = -3 (2nd)	192 - FUNDIAN (FUN) s = 38, d = +2 (2nd)	193 - RAVENNIAN (RAV) s = 29, d = -7 (3rd)	194 - SARDIAN (SRD) s = 34, d = -2 (2nd)	195 - MAURIAN (MAU) s = 39, d = +3 (2nd)	196 - UMBRIAN (UMB) s = 37, d = +1 (2nd)
AHAHWHH 034789T GAGGAA +3,+4,+7,-4,-3,-1	HAHWHHA 0145689 BABBBB +1,+4,+5,-6,-4,-3	AHWHHAH 034578E GABABA +3,+4,+5,-5,-4,-1	HWHHAHA 0124589 BDDDBD +1,+2,+4,-7,-4,-3	HWHHAHA 013478E BBDABA +1,+3,+4,-5,-4,-1	WHHAHWH 02367TE ABAAGA +2,+3,+6,-5,-2,-1	HAHHAHW 014589T BAGBAB +1,+4,+5,-4,-3,-2

SERIES 29 (i = +1, e = 18, f = 20, o = 24, shape 24, Non-Iso/2nd-Order, INVERSE Series 24)

197 - THURIAN (THU) s = 44, d = +8 (3rd)	198 - MOSTENIAN (MOS) s = 35, d = -1 (2nd)	199 - ROXOLANIAN (ROX) s = 26, d = -10 (3rd)	200 - PLANASIAN (PLA) s = 31, d = -5 (3rd)	201 - ICENIAN (ICE) s = 36, d = 0 (2nd)	202 - BACTRIAN (BAC) s = 41, d = +5 (3rd)	203 - CHERUSCIAN (CHE) s = 39, d = +3 (3rd)
AAHHWHH 036789T GEGGAA +3,+6,+7,-4,-3,-1	AHHWHHA 0345689 BABBBB +3,+4,+5,-6,-4,-3	HHHWHAA 0123569 BDZDZD +1,+2,+3,-7,-6,-3	HHWHAAH 012458E BDDDBA +1,+2,+4,-7,-4,-1	HWHHAHH 01347TE BBDAGA +1,+3,+4,-5,-2,-1	WHHAHHH 02369TE ABAEGA +2,+3,+6,-3,-2,-1	HAHHHHW 014789T BAGGAB +1,+4,+7,-4,-3,-2

AWH-SUBTYPE (4 Series, 28 Modes)

SERIES 30 (i = -4, e = 20, f = 22, o = 28, shape 30, Non-Iso/2nd-Order, INVERSE Series 37)

204 - SCODRIAN (SCO) s = 32, d = -4 (3rd)	205 - NUBIAN (NUB) s = 37, d = +1 (2nd)	206 - EDESSAN (EDS) s = 42, d = +6 (3rd)	207 - BAROEAN (BAR) s = 47, d = +11 (3rd)	208 - PELLIAN (PLL) s = 38, d = +2 (2nd)	209 - EPIDAMNIAN (EPD) s = 29, d = -7 (3rd)	210 - OTTOLOBIAN (OTT) s = 27, d = -9 (3rd)
HHHAAWH 012369E BDZBAA +1,+2,+3,-6,-3,-1	HHAAWHH 01258TE BDBGGA +1,+2,+5,-4,-2,-1	HAAWHHH 01479TE BAGEGA +1,+4,+7,-3,-2,-1	AAWHHHH 03689TE GEEEGA +3,+6,+8,-3,-2,-1	AWHHHHA 0356789 GGAABD +3,+5,+6,-5,-4,-3	WHHHHAA 0234569 ABDDZD +2,+3,+4,-7,-6,-3	HHHHAAW 012347T BDZZDB +1,+2,+3,-8,-5,-2

SERIES 31 (i = -2, e = 15, f = 16, o = 24, shape 8, Non-Iso/2nd-Order, INVERSE Series 36)

211 - LYCHIDNIAN (LCH) s = 34, d = -2 (2nd)	212 - USCANIAN (USC) s = 39, d = +3 (2nd)	213 - STOBIAN (STO) s = 44, d = +8 (3rd)	214 - ACANTHIAN (ACN) s = 35, d = -1 (2nd)	215 - PYDNIAN (PYD) s = 40, d = +5 (2nd)	216 - BANITZIAN (BAN) s = 31, d = -5 (3rd)	217 - PETRIAN (PET) s = 29, d = -7 (3rd)
HHAHAWH 012569E BDBBAA +1,+2,+5,-6,-3,-1	HAHAWHH 01458TE BABGGA +1,+4,+5,-4,-2,-1	AHAWHHH 03479TE GAGEGA +3,+4,+7,-3,-2,-1	HAWHHHA 0146789 BAAABD +1,+4,+6,-5,-4,-3	AWHHHAH 035678E GGAABA +3,+5,+6,-5,-4,-1	WHHHAHA 0234589 ABDDBD +2,+3,+4,-7,-4,-3	HHHAHAW 012367T BDZBDB +1,+2,+4,-6,-5,-2

SERIES 32 (i = 0, e = 11, f = 12, o = 20, shape 10, Iso 15, INVERSE Series 35)

218 - ORICAN (ORI) s = 36, d = 0 (Iso)	219 - APOLLONIAN (APO) s = 41, d = +5 (2nd)	220 - ANTIGONIAN (ATG) s = 32, d = -4 (2nd)	221 - CELETRIAN (CEL) s = 37, d = +1 (Iso)	222 - PHLIASIAN (PHL) s = 42, d = +6 (2nd)	223 - DODONIAN (DOD) s = 33, d = -3 (2nd)	224 - CHYRETIAN (CHY) s = 31, d = -5 (2nd)
HAHHAWH 014569E BABBAA +1,+4,+5,-6,-3,-1	AHHAWHH 03458TE GABGGA +3,+4,+5,-4,-2,-1	HHAWHHA 0125789 BDBABD +1,+2,+5,-5,-4,-3	HAWHHHA 014678E BAAABA +1,+4,+6,-5,-4,-1	AWHHHAH 03567TE GGAAGA +3,+5,+6,-5,-2,-1	WHHAHHA 0234789 ABDABD +2,+3,+4,-5,-4,-3	HHHAHAW 012567T BDBBDB +1,+2,+5,-6,-5,-2

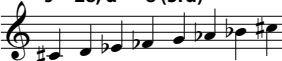
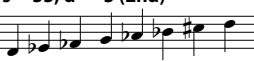
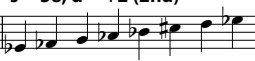
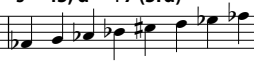
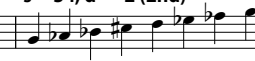
SERIES 33 (i = +2, e = 15, f = 16, o = 20, shape 33, Non-Iso/2nd-Order, INVERSE Series 34)

225 - ODRYSIAN (ODR) s = 38, d = +2 (2nd)	226 - ECHINIAN (ECH) s = 29, d = -7 (3rd)	227 - CARYSTIAN (CRS) s = 34, d = -2 (2nd)	228 - DEMETRIAN (DEM) s = 39, d = +3 (2nd)	229 - ATRAXIAN (ATX) s = 44, d = +8 (3rd)	230 - TRICCAN (TCC) s = 35, d = -1 (2nd)	231 - PHALORIAN (PHN) s = 33, d = -3 (2nd)
AHHHAWH 034569E GABBAA +3,+4,+5,-6,-3,-1	HHHAWHA 0123689 BDZBBD +1,+2,+3,-6,-4,-3	HHAWHAH 012578E BDBABA +1,+2,+5,-5,-4,-1	HAWHHHH 01467TE BAAAGA +1,+4,+6,-5,-2,-1	AWHAHHH 03569TE GGAEGA +3,+5,+6,-3,-2,-1	WHHAHHA 0236789 ABAABD +2,+3,+6,-5,-4,-3	HAHHHAW 014567T BABBD +1,+4,+5,-6,-5,-2

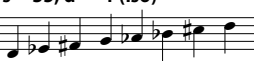
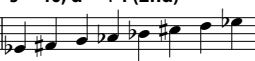
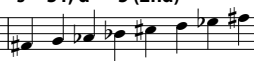
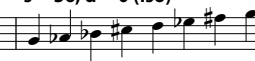
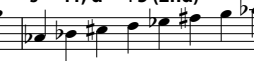
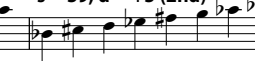
HWA-SUBTYPE (4 Series, 28 Modes)

7

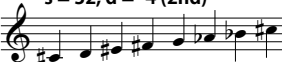
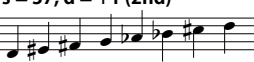
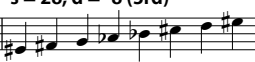
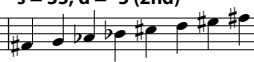
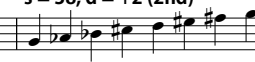
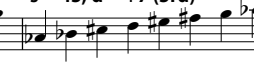
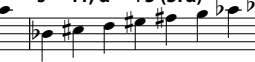
SERIES 34 (i = -3, e = 15, f = 16, o = 20, shape 33, Non-Iso/2nd-Order, INVERSE Series 33)

232 - MYSIAN (MYS) s = 28, d = -8 (3rd)	233 - PISIDIAN (PIS) s = 33, d = -3 (2nd)	234 - PAPHLYGONIAN (PPH) s = 38, d = +2 (2nd)	235 - ZAGRIAN (ZAG) s = 43, d = +7 (3rd)	236 - DRANGIAN (DRA) s = 34, d = -2 (2nd)	237 - GEDROSIAN (GED) s = 39, d = +3 (2nd)	238 - CYRENEAN (CYR) s = 37, d = +1 (2nd)
						
HHHAHWA 0123679 BDZBDD +1,+2,+3,-6,-5,-3	HHAHWAH 012568E BDBBBA +1,+2,+5,-6,-4,-1	HAHWAHH 01457TE BABAGA +1,+4,+5,-5,-2,-1	AHWAHHH 03469TE GAAEGA +3,+4,+6,-3,-2,-1	HWAHHHA 0136789 BBAABD +1,+3,+6,-5,-4,-3	WAHHHAH 025678E AGAABA +2,+5,+6,-5,-4,-1	AHHHAHW 034569T GABBAB +3,+4,+5,-6,-3,-2

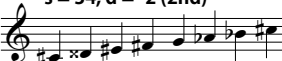
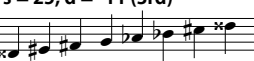
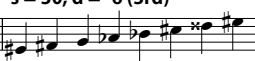
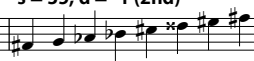
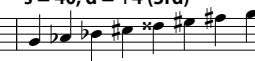
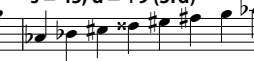
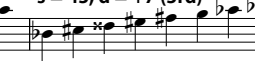
SERIES 35 (i = -1, e = 11, f = 12, o = 20, shape 10, Iso 16, INVERSE Series 32)

239 - CELENDRIAN (CND) s = 30, d = -6 (2nd)	240 - CYZICIAN (CYZ) s = 35, d = -1 (Iso)	241 - ILIAN (ILI) s = 40, d = +4 (2nd)	242 - MYTILINEAN (MYT) s = 31, d = -5 (2nd)	243 - PERGAMIAN (PER) s = 36, d = 0 (Iso)	244 - CYMEAN (CYM) s = 41, d = +5 (2nd)	245 - SYRACUSIAN (SYR) s = 39, d = +3 (2nd)
						
HHHAHWA 0125679 BDBBDD +1,+2,+5,-6,-5,-3	HHAHWAH 014568E BABBBA +1,+4,+5,-6,-4,-1	AHWAHHH 03457TE GABAGA +3,+4,+5,-5,-2,-1	HHWAHHA 0124789 BDDABD +1,+2,+4,-5,-4,-3	HWAHHHA 013678E BBAABA +1,+3,+6,-5,-4,-1	WAHHHAH 02567TE AGAAGA +2,+5,+6,-5,-2,-1	AHHHAHW 034589T GABGAB +3,+4,+5,-4,-3,-2

SERIES 36 (i = +1, e = 15, f = 16, o = 24, shape 8, Non-Iso/2nd-Order, INVERSE Series 31)

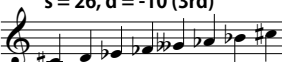
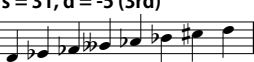
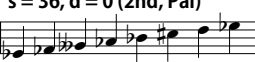
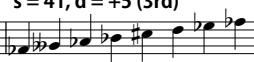
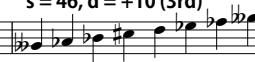
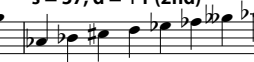
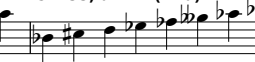
246 - TEGEAN (TEG) s = 32, d = -4 (2nd)	247 - BELBINIAN (BEL) s = 37, d = +1 (2nd)	248 - ALIPHEIRIAN (ALI) s = 28, d = -8 (3rd)	249 - MANTINEIAN (MAN) s = 33, d = -3 (2nd)	250 - BOTTIAEAN (BTT) s = 38, d = +2 (2nd)	251 - DASSARETIAN (DAS) s = 43, d = +7 (3rd)	252 - AEGIANIAN (AGI) s = 41, d = +5 (3rd)
						
HAHHHWA 0145679 BABDD +1,+4,+5,-6,-5,-3	AHHHWAH 034568E GABBBA +3,+4,+5,-6,-4,-1	HHHWAHA 0123589 BDZDBD +1,+2,+3,-7,-4,-3	HHWAHAH 012478E BDDABA +1,+2,+4,-5,-4,-1	HWAHAHH 01367TE BBAAGA +1,+3,+6,-5,-2,-1	WAHAHHH 02569TE AGAEGA +2,+5,+6,-3,-2,-1	AHAHHHW 034789T GAGGAB +3,+4,+7,-4,-3,-2

SERIES 37 (i = +3, e = 20, f = 22, o = 28, shape 30, Non-Iso/2nd-Order, INVERSE Series 30)

253 - LAMIAN (LAM) s = 34, d = -2 (2nd)	254 - THERMOPLYIAN (THO) s = 25, d = -11 (3rd)	255 - AMPHISSIAN (AMH) s = 30, d = -6 (3rd)	256 - AMBRACIAN (AMB) s = 35, d = -1 (2nd)	257 - DIAN (DIA) s = 40, d = +4 (3rd)	258 - THAUMACIAN (THM) s = 45, d = +9 (3rd)	259 - XYNIAEAN (XYN) s = 43, d = +7 (3rd)
						
AHHHHWA 0345679 GABBDD +3,+4,+5,-6,-5,-3	HHHHWAA 0123469 BDZZDD +1,+2,+4,-8,-6,-3	HHHWAHH 012358E BDZDBA +1,+2,+3,-7,-4,-1	HHWAHHH 01247TE BDDAGA +1,+2,+4,-5,-2,-1	HWAHHHH 01369TE BBAEGA +1,+3,+6,-3,-2,-1	WAAHHHH 02589TE AGEEGA +2,+5,+8,-3,-2,-1	AAHHHHW 036789T GEGGAB +3,+6,+7,-4,-3,-2

AWA-SUBTYPE (1 Series, 7 Modes)

SERIES 38 (i = -5, e = 20, f = 20, o = 20, shape 38, Non-Iso/2nd-Order, SELF-INVERSE)

260 - CHALCISIAN (CHS) s = 26, d = -10 (3rd)	261 - OROPUSIAN (ORO) s = 31, d = -5 (3rd)	262 - ANTICYRAN (ANY) s = 36, d = 0 (2nd, Pal)	263 - ELATEAN (ELA) s = 41, d = +5 (3rd)	264 - CORONEAN (CRN) s = 46, d = +10 (3rd)	265 - THISBEAN (THI) s = 37, d = +1 (2nd)	266 - MEGARAN (MEG) s = 35, d = -1 (2nd)
						
HHHHAWA 0123479 BDZZDD +1,+2,+3,-8,-5,-3	HHHAWAH 012368E BDZBBA +1,+2,+3,-6,-4,-1	HHAWAHH 01257TE BDBAGA +1,+2,+5,-5,-2,-1	HAWAHHH 01469TE BAAEGA +1,+4,+6,-3,-2,-1	AWAHHHH 03489TE GAEEGA +3,+4,+8,-3,-2,-1	WAHHHHA 0256789 AGAABD +2,+5,+6,-5,-4,-3	AHHHHAW 034567T GABBDB +3,+4,+5,-6,-5,-2

D-TYPE MODES (4H/2W/1D - 15 Series, 105 Modes)

HDH-SUBTYPE (6 Series, 42 Modes)

SERIES 39 (i = -2, e = 16, f = 20, o = 24, shape 39, Non-Iso/2nd-Order, INVERSE Series 44)

267 - AXIAN (AXI) s = 31, d = -5 (2nd)	268 - MARONEAN (MRN) s = 36, d = 0 (2nd)	269 - ABDERAN (ABD) s = 41, d = +5 (3rd)	270 - NESTIAN (NES) s = 39, d = +3 (3rd)	271 - AMPHIPOLITAN (API) s = 37, d = +1 (2nd)	272 - SINTICAN (SNT) s = 42, d = +6 (3rd)	273 - STRYMONIAN (STM) s = 26, d = -10 (3rd)
HHWWHDH 012467E BDBBDA +1,+2,+4,-6,-5,-1	HWWHDHH 01356TE BBBGBA +1,+3,+5,-6,-2,-1	WWHDHHH 02459TE AABEGA +2,+4,+5,-3,-2,-1	WHDHHHH 023789T ABGGAB +2,+3,+7,-4,-3,-2	HDHHWWH 015678T BGAAAB +1,+5,+6,-5,-4,-2	DHHWWHH 045679E EGAAAA +4,+5,+6,-5,-3,-1	HHWWHDH 0123578 BDZDDZ +1,+2,+3,-7,-5,-4

SERIES 40 (i = -1, e = 16, f = 18, o = 20, shape 40, Non-Iso/2nd-Order, INVERSE Series 43)

274 - SPERCHEAN (SPE) s = 32, d = -4 (2nd)	275 - BORIAN (BOR) s = 37, d = +1 (2nd)	276 - ERIGONIAN (ERI) s = 35, d = -1 (2nd)	277 - DRILOAN (DRI) s = 40, d = +4 (3rd)	278 - APSIAN (APN) s = 38, d = +2 (2nd)	279 - DRINIAN (DRN) s = 43, d = +7 (3rd)	280 - HALICARNASSIAN (HAL) s = 27, d = -9 (3rd)
HWWHDH 013467E BDBBDA +1,+3,+4,-6,-5,-1	HWWHDHH 02356TE ABBBGA +2,+3,+5,-6,-2,-1	HWWHDHH 013489T BBDGAB +1,+3,+4,-4,-3,-2	WHDHHWH 023789E ABGGAA +2,+3,+7,-4,-3,-1	HDHHWWH 015679T BGAAAB +1,+5,+6,-5,-3,-2	DHHWWHH 045689E EGAGAA +4,+5,+6,-4,-3,-1	HHWWHDH 0124578 BDDDDZ +1,+2,+4,-7,-5,-4

SERIES 41 (i = 0, e = 16, f = 16, o = 20, shape 41, Non-Iso/2nd-Order, SELF-INVERSE)

281 - ANCONIAN (ANC) s = 33, d = -3 (2nd)	282 - TICINIAN (TIC) s = 38, d = +2 (2nd)	283 - PATAVIAN (PTV) s = 36, d = 0 (2nd, Pal)	284 - BONONIAN (BON) s = 34, d = -2 (2nd)	285 - FLORENTIAN (FLO) s = 39, d = +3 (2nd)	286 - PERUSIAN (PRU) s = 44, d = +8 (3rd)	287 - VULSIANIAN (VUL) s = 28, d = -8 (3rd)
HWWHDH 013567E BBBDBA +1,+3,+5,-6,-5,-1	WWHDHHH 02456TE AABBBGA +2,+4,+5,-6,-2,-1	WWHDHHW 023489T ABDGAB +2,+3,+4,-4,-3,-2	HHDHWWH 012678T BDAABB +1,+2,+6,-5,-4,-2	HDHHWWH 015679E BGAAAA +1,+5,+6,-5,-3,-1	DHHWWHH 04568TE EGAGGA +4,+5,+6,-4,-2,-1	HHWWHDH 0124678 BDDDBZ +1,+2,+4,-6,-5,-4

SERIES 42 (i = 0, e = 16, f = 16, o = 18, shape 42, Non-Iso/2nd-Order, SELF-INVERSE)

288 - CYRRHUSIAN (CRR) s = 33, d = -3 (2nd)	289 - NICEPHORIAN (NCP) s = 31, d = -5 (3rd)	290 - MEGAPOLITAN (MGP) s = 36, d = 0 (2nd, Pal)	291 - OENIADAN (OEN) s = 41, d = +5 (3rd)	292 - SARMARTIAN (SRM) s = 39, d = +3 (2nd)	293 - XANTHIAN (XAN) s = 44, d = +8 (3rd)	294 - SALAMINIAN (SLM) s = 28, d = -8 (3rd)
WWHDH 023467E ABDBDA +2,+3,+4,-6,-5,-1	HWWHDHW 012459T BDDDAB +1,+2,+4,-7,-3,-2	HWWHDHW 013489E BBDGAA +1,+3,+4,-4,-3,-1	WHDHWHH 02378TE ABGGGA +2,+3,+7,-4,-2,-1	HDHWWHH 015689T BGAGAB +1,+5,+6,-4,-3,-2	DHWWHHH 045789E EGGGAA +4,+5,+7,-4,-3,-1	HWWHDH 0134578 BDDDDZ +1,+3,+4,-7,-5,-4

SERIES 43 (i = +1, e = 16, f = 18, o = 20, shape 40, Non-Iso/2nd-Order, INVERSE Series 40)

295 - ANTIAN (ANT) s = 34, d = -2 (2nd)	296 - TARRACINIAN (TAR) s = 32, d = -4 (3rd)	297 - PATMIAN (PTM) s = 37, d = +1 (2nd)	298 - INTERAMNIAN (INT) s = 35, d = -1 (2nd)	299 - FERENTIAN (FER) s = 40, d = +5 (2nd)	300 - NAMIAN (NAM) s = 45, d = +9 (3rd)	301 - SUBLAQUEAN (SUB) s = 29, d = -7 (3rd)
WWHDH 023567E ABBBDA +2,+3,+5,-6,-5,-1	HWWHDHW 013459T BDDDAB +1,+3,+4,-7,-3,-2	WWHDHWH 023489E ABDGAA +2,+3,+4,-4,-3,-1	HHDHWWH 012679T BDAAAB +1,+2,+6,-5,-3,-2	HDHWWHH 015689E BGAGAA +1,+5,+6,-4,-3,-1	DHWWHHH 04578TE EGGGGA +4,+5,+7,-4,-2,-1	HWWHDH 0134678 BDBDBZ +1,+3,+4,-6,-5,-4

SERIES 44 (i = +2, e = 16, f = 20, o = 24, shape 39, Non-Iso/2nd-Order, INVERSE Series 39)

302 - OCRICULIAN (OCR) s = 35, d = -1 (2nd)	303 - CAPENIAN (CPN) s = 33, d = -3 (3rd)	304 - PRAENESTIAN (PRA) s = 31, d = -5 (3rd)	305 - POPULONIAN (POP) s = 36, d = 0 (2nd)	306 - ARRETOAN (ARR) s = 41, d = +5 (2nd)	307 - COTONIAN (COT) s = 46, d = +10 (3rd)	308 - CLUSIAN (CLU) s = 30, d = -6 (3rd)
WWHDH 024567E AABBDAB +2,+4,+5,-6,-5,-1	WWHDHWH 023459T ABDDAB +2,+3,+4,-7,-3,-2	HHDHWWH 0123789 BDZABD +1,+2,+3,-5,-4,-3	HHDHWWH 012679E BDAAAA +1,+2,+6,-5,-3,-1	HDHWWHH 01568TE BGAGGA +1,+5,+6,-4,-2,-1	DHWWHHH 04579TE EGGEGA +4,+5,+7,-3,-2,-1	HWWHDH 0135678 BBBBDZ +1,+3,+5,-6,-5,-4

WDH-SUBTYPE (4 Series, 28 Modes)

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SERIES 45 (i = -2, e = 20, f = 24, o = 28, shape 45, Non-Iso/2nd-Order, INVERSE Series 52)

309 - SELINIAN (SLN) s = 29, d = -7 (3rd)	310 - THAPSIAN (THP) s = 34, d = -2 (2nd)	311 - HELORIAN (HEL) s = 39, d = +3 (3rd)	312 - PACHYNIAN (PAC) s = 44, d = +8 (3rd)	313 - ACRAEAN (ACR) s = 42, d = +6 (3rd)	314 - SKOPELITAN (SKO) s = 40, d = +4 (3rd)	315 - AGRIGENTIAN (AGR) s = 24, d = -12 (3rd)
HHHWWDH 012357E BDZDDA +1,+2,+3,-7,-5,-1	HHHWWDH 01246TE BDDBGA +1,+2,+4,-6,-2,-1	HHWDH 01359TE BBBEGA +1,+3,+5,-3,-2,-1	WWDH 02489TE ABEEGA +2,+4,+8,-3,-2,-1	WDH 026789T AEGGAB +2,+6,+7,-4,-3,-2	DHHHWW 045678T EGAAAB +4,+5,+6,-5,-4,-2	HHHWW 0123468 BDZZZZ +1,+2,+3,-8,-6,-4

SERIES 46 (i = -1, e = 18, f = 22, o = 24, shape 46, Non-Iso/2nd-Order, INVERSE Series 51)

316 - HYBLAEAN (HYB) s = 30, d = -6 (3rd)	317 - CROTONIAN (CRO) s = 35, d = -1 (2nd)	318 - CAULONIAN (CAU) s = 40, d = +4 (3rd)	319 - TYNDARIAN (TYN) s = 38, d = +2 (3rd)	320 - TAUROMENIAN (TMN) s = 43, d = +7 (3rd)	321 - CATANIAN (CAT) s = 41, d = +5 (3rd)	322 - SEQUANIAN (SEQ) s = 25, d = -11 (3rd)
HHHWWDH 012457E BDDDDA +1,+2,+4,-7,-5,-1	HHHWDH 01346TE BDBBGA +1,+3,+4,-6,-2,-1	WHWDH 02359TE ABBEGA +2,+3,+5,-3,-2,-1	HWDH 012789T BDGGAB +1,+2,+7,-4,-3,-2	WDH 026789E AEGGAA +2,+6,+7,-4,-3,-1	DHHHWW 045679T EGAAAB +4,+5,+6,-5,-3,-2	HHHWW 0123568 BDZZZZ +1,+2,+3,-7,-6,-4

SERIES 47 (i = 0, e = 18, f = 20, o = 20, shape 47, Non-Iso/2nd-Order, INVERSE Series 50)

323 - PALINURIAN (PAL) s = 31, d = -5 (3rd)	324 - PETELIAN (PTL) s = 36, d = 0 (2nd)	325 - ODOMANTIAN (ODO) s = 34, d = -2 (2nd)	326 - CIRCIAN (CIR) s = 39, d = +3 (3rd)	327 - ATELLAN (ATE) s = 44, d = +8 (3rd)	328 - BENEVENTIAN (BEN) s = 42, d = +6 (3rd)	329 - GRUMENTIAN (GRU) s = 26, d = -10 (3rd)
HHHWWDH 013457E BDDDDA +1,+3,+4,-7,-5,-1	WHHWDH 02346TE ABDBGA +2,+3,+4,-6,-2,-1	HHWDH 012489T BDDGAB +1,+2,+4,-4,-3,-2	HWDH 012789E BDGGAA +1,+2,+7,-4,-3,-1	WDH 02678TE AEGGGA +2,+6,+7,-4,-2,-1	DHHHWW 045689T EGAGAB +4,+5,+6,-4,-3,-2	HHHWW 0124568 BDDZZZ +1,+2,+4,-7,-6,-4

SERIES 48 (i = +1, e = 18, f = 18, o = 20, shape 48, Non-Iso/2nd-Order, INVERSE Series 49)

330 - MANDURIAN (MND) s = 32, d = -4 (3rd)	331 - METAPONTIAN (MET) s = 30, d = -6 (3rd)	332 - VENUSIAN (VNS) s = 35, d = -1 (2nd)	333 - CANUSIAN (CNU) s = 40, d = +4 (3rd)	334 - FORENTIAN (FOR) s = 45, d = +9 (3rd)	335 - COMPSIAN (CMP) s = 43, d = +7 (3rd)	336 - NUMISTRIAN (NMS) s = 27, d = -9 (3rd)
WHHWWDH 023457E ABDDDA +2,+3,+4,-7,-5,-1	HHHWDH 012359T BDZDAB +1,+2,+3,-7,-3,-2	HHWDH 012489E BDDGAA +1,+2,+4,-4,-3,-1	HWDH 01278TE BDGGGA +1,+2,+7,-4,-2,-1	WDH 02679TE AEGEGA +2,+6,+7,-3,-2,-1	DHHHWW 045789T EGGGAB +4,+5,+7,-4,-3,-2	HHHWW 0134568 BDDZZZ +1,+3,+4,-7,-6,-4

HDW-SUBTYPE (4 Series, 28 Modes)

SERIES 49 (i = -4, e = 18, f = 18, o = 20, shape 48, Non-Iso/2nd-Order, INVERSE Series 48)

337 - GRANICAN (GRN) s = 27, d = -9 (3rd)	338 - IPSIAN (IPS) s = 32, d = -4 (3rd)	339 - SAKASIAN (SAK) s = 37, d = +1 (2nd)	340 - SOGDIAN (SOG) s = 42, d = +6 (3rd)	341 - PARNIAN (PRN) s = 40, d = +4 (3rd)	342 - ARALIAN (ARL) s = 45, d = +9 (3rd)	343 - GORDIAN (GOR) s = 29, d = -7
HHHWHDW 012356T BDZDZB +1,+2,+3,-7,-6,-2	HHWHDW 012459E BDDDA +1,+2,+4,-7,-3,-1	HHHWDWH 01348TE BDDGGA +1,+3,+4,-4,-2,-1	WHDWHHH 02379TE ABGEGA +2,+3,+7,-3,-2,-1	HDWHHHW 015789T BGGGAB +1,+5,+7,-4,-3,-2	DWHHHWH 046789E EEGGAA +4,+6,+7,-4,-3,-1	WHHHWHD 0234578 ABDDZ +2,+3,+4,-7,-5,-4

SERIES 50 (i = -3, e = 18, f = 20, o = 20, shape 47, Non-Iso/2nd-Order, INVERSE Series 47)

344 - NUCERIAN (NUC) s = 28, d = -8 (3rd)	345 - CAPREAN (CPR) s = 33, d = -3 (3rd)	346 - PANDATERIAN (PND) s = 38, d = +2 (2nd)	347 - AMYCLIAN (AMY) s = 36, d = 0 (2nd)	348 - TRIMERIAN (TMR) s = 41, d = +5 (3rd)	349 - BARIAN (BRN) s = 46, d = +10 (3rd)	350 - BRUNDUSIAN (BND) s = 30, d = -6 (3rd)
HHHWHDW 012456T BDDDDA +1,+2,+4,-7,-6,-2	HHHWDWH 013459E BDDDA +1,+3,+4,-7,-3,-1	WHDWHHH 02348TE ABDGGGA +2,+3,+4,-4,-2,-1	HHDWHHW 012689T BDAGAB +1,+2,+6,-4,-3,-2	HDWHHHW 015789E BGGGAA +1,+5,+7,-4,-3,-1	DWHHHWH 04678TE EEGGGA +4,+6,+7,-4,-2,-1	WHHHWHD 0234678 ABDBDZ +2,+3,+4,-6,-5,-4

SERIES 51 (i = -2, e = 18, f = 22, o = 24, shape 46, Non-Iso/2nd-Order, INVERSE Series 46)

351 - CARSOLIAN (CSL) s = 29, d = -7 (3rd)	352 - TELESIAN (TEL) s = 34, d = -2 (3rd)	353 - NOLIAN (NOL) s = 32, d = -4 (3rd)	354 - SENTINIAN (SNT) s = 37, d = +1 (2nd)	355 - MOESIAN (MOE) s = 42, d = +6 (3rd)	356 - FIRMIAN (FRM) s = 47, d = +11 (3rd)	357 - SPOLETIAN (SPL) s = 31, d = -5 (3rd)
HHHWHDW 013456T BDDDDA +1,+3,+4,-7,-6,-2	WHDWHHH 023459E ABDDAA +2,+3,+4,-7,-3,-1	HHHWDWH 012379T BDZAAB +1,+2,+3,-5,-3,-2	HHDWHHW 012689E BDAGAA +1,+2,+6,-4,-3,-1	HDWHHHW 01578TE BGGGGA +1,+5,+7,-4,-2,-1	DWHHHWH 04679TE EEGGGA +4,+6,+7,-3,-2,-1	WHHHWHD 0235678 ABBDZ +2,+3,+5,-6,-5,-4

SERIES 52 (i = -1, e = 20, f = 24, o = 28, shape 45, Non-Iso/2nd-Order, INVERSE Series 45)

358 - FRAGELLIAN (FRA) s = 30, d = -6 (3rd)	359 - ZACYNTHIAN (ZAC) s = 28, d = -8 (3rd)	360 - CASINIAN (CSN) s = 33, d = -3 (3rd)	361 - MINOAN (MIN) s = 38, d = +2 (2nd)	362 - CORFINIAN (CRF) s = 43, d = +7 (3rd)	363 - SORIAN (SOR) s = 48, d = +12 (3rd)	364 - MYGDONIAN (MYG) s = 32, d = -4 (3rd)
WHHHHDW 023456T ABDDDA +2,+3,+4,-7,-6,-2	HHHHDWW 012348T BDZZBB +1,+2,+3,-8,-4,-2	HHHWDWH 012379E BDZAAA +1,+2,+3,-5,-3,-1	HHDWHHH 01268TE BDAGGA +1,+2,+6,-4,-2,-1	HDWHHHW 01579TE BGGGGA +1,+5,+7,-3,-2,-1	DWHHHWH 04689TE EEEEGA +4,+6,+8,-3,-2,-1	WHHHHHD 0245678 AABBDZ +2,+4,+5,-6,-5,-4

WDW-SUBTYPE (1 Series, 7 Modes)

SERIES 53 (i = -5, e = 20, f = 20, o = 20, shape 53, Non-Iso/2nd-Order, SELF-INVERSE)

365 - SALAPIAN (SLP) s = 26, d = -10 (3rd)	366 - CANNAEAN (CNN) s = 31, d = -5 (3rd)	367 - LARINIAN (LAR) s = 36, d = 0 (2nd, Pal)	368 - GERUNIAN (GER) s = 41, d = +5 (3rd)	369 - TEANIAN (TEA) s = 46, d = +10 (3rd)	370 - LUCERIAN (LCR) s = 44, d = +8 (3rd)	371 - ARPAN (ARP) s = 28, d = -8 (3rd)
HHHHWDW 012346T BDZZZB +1,+2,+3,-8,-6,-2	HHHWDWH 012359E BDZDAA +1,+2,+3,-7,-3,-1	HHWDWHH 01248TE BDDGGA +1,+2,+4,-4,-2,-1	HWDWHHH 01379TE BBGEGA +1,+3,+7,-3,-2,-1	WDWHHHH 02689TE AEEEGA +2,+6,+8,-3,-2,-1	DWHHHWH 046789T EEGGAB +4,+6,+7,-4,-3,-2	WHHHHWD 0234568 ABDDZZ +2,+3,+4,-7,-6,-4

DA-TYPE MODES (5H/1A/1D - 6 Series, 42 Modes)

HDH-SUBTYPE (4 Series, 28 Modes)

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SERIES 54 (i = -3, e = 20, f = 22, o = 20, shape 54, Non-Iso/2nd-Order, INVERSE Series 57)

372 - PERINTHIAN (PNT) s = 30, d = -6 (3rd)	373 - TARRACOAN (TCO) s = 35, d = -1 (2nd)	374 - TRINOBIANTIAN (TRB) s = 40, d = +4 (2nd)	375 - SILURIAN (SLR) s = 45, d = +9 (3rd)	376 - DECANGIAN (DCN) s = 36, d = 0 (2nd)	377 - ORDOVICIAN (ODV) s = 41, d = +5 (3rd)	378 - BRIGANTIAN (BRG) s = 25, d = -11 (3rd)
HHHAHDH 012367E BDZBDA +1,+2,+3,-6,-5,-1	HHAHDDH 012567E BDBBGA +1,+2,+5,-6,-2,-1	HAHDHHH 014597E BABEGA +1,+4,+5,-3,-2,-1	AHDHHHH 034897E GAEEGA +3,+4,+8,-3,-2,-1	HDHHHHA 0156789 BGAABD +1,+5,+6,-5,-4,-3	DHHHHAH 045678E EGAABA +4,+5,+6,-5,-4,-1	HHHHHAD 0123478 BDZZDZ +1,+2,+3,-8,-5,-4

SERIES 55 (i = -1, e = 16, f = 18, o = 18, shape 55, Non-Iso/2nd-Order, INVERSE Series 56)

379 - LANGOBIAN (LAN) s = 32, d = -4 (2nd)	380 - TERMIAN (TMN) s = 37, d = +1 (2nd)	381 - NUMANTIAN (NMN) s = 42, d = +6 (3rd)	382 - ANDECAVIAN (ADC) s = 33, d = -3 (2nd)	383 - SANTONIAN (SAN) s = 38, d = +2 (2nd)	384 - TURONIAN (TUR) s = 43, d = +7 (3rd)	385 - ARDUENNIAN (ARD) s = 27, d = -9 (3rd)
HHHAHDH 012567E BDBBDA +1,+2,+5,-6,-5,-1	HAHDHHH 014567E BABBGA +1,+4,+5,-6,-2,-1	AHDHHHH 034597E GABEGA +3,+4,+5,-3,-2,-1	HHDHHHA 0126789 BDAABD +1,+2,+6,-5,-4,-3	HDHHHHA 015678E BGAABA +1,+5,+6,-5,-4,-1	DHHHHAH 045678E EGAAGA +4,+5,+6,-5,-2,-1	HHHAHDH 0123678 BDZBDZ +1,+2,+3,-6,-5,-4

SERIES 56 (i = +1, e = 16, f = 18, o = 18, shape 55, Non-Iso/2nd-Order, INVERSE Series 55)

386 - CALIAN (CAL) s = 34, d = -2 (2nd)	387 - GABIAN (GAB) s = 39, d = +3 (2nd)	388 - TUSCULIAN (TSC) s = 30, d = -6 (3rd)	389 - HERBESIAN (HRB) s = 35, d = -1 (2nd)	390 - MURGANTIAN (MRG) s = 40, d = +4 (2nd)	391 - LEONTINIAN (LNT) s = 45, d = +9 (3rd)	392 - ERYXIAN (ERX) s = 29, d = -7 (3rd)
HAHHHDH 014567E BABBDA +1,+4,+5,-6,-5,-1	AHHHDHH 034567E GABBGA +3,+4,+5,-6,-2,-1	HHHDHHA 0123789 BDZABD +1,+2,+3,-5,-4,-3	HHDHHAH 012678E BDAABA +1,+2,+6,-5,-4,-1	HDHHHHA 015678E BGAAGA +1,+5,+6,-5,-2,-1	DHHHHAH 045697E EGAEGA +4,+5,+6,-3,-2,-1	HHHAHDH 0125678 BDBBDZ +1,+2,+5,-6,-5,-4

SERIES 57 (i = +3, e = 20, f = 22, o = 20, shape 54, Non-Iso/2nd-Order, INVERSE Series 54)

393 - HIMERIAN (HIM) s = 36, d = 0 (2nd)	394 - CEPHALODIAN (CPD) s = 27, d = -9 (3rd)	395 - HENNIAN (HNN) s = 32, d = -4 (3rd)	396 - LILYBIAN (LIL) s = 37, d = +1 (2nd)	397 - AEGATEAN (AGT) s = 42, d = +6 (3rd)	398 - SEGESTIAN (SEG) s = 47, d = +11 (3rd)	399 - PANORMIAN (PNM) s = 31, d = -5 (3rd)
AHHHDH 034567E GABBDA +3,+4,+5,-6,-5,-1	HHHDHHA 0123489 BDZZBD +1,+2,+3,-8,-4,-3	HHHDHHA 012378E BDZABA +1,+2,+3,-5,-4,-1	HHDHHAH 012677E BDAAGA +1,+2,+6,-5,-2,-1	HDHHAHH 015697E BGAEGA +1,+5,+6,-3,-2,-1	DHHAHHH 045897E EGEEGA +4,+5,+8,-3,-2,-1	HAHHHDH 0145678 BABBBDZ +1,+4,+5,-6,-5,-4

ADH-SUBTYPE (1 Series, 7 Modes)

SERIES 58 (i = -5, e = 25, f = 26, o = 22, shape 58, Non-Iso/3rd-Order, INVERSE Series 59)

400 - PLATAEAN (PLT) s = 28, d = -8 (3rd)	401 - MOTYAN (MOT) s = 33, d = -3 (3rd)	402 - LIPARIAN (LIP) s = 38, d = +2 (3rd)	403 - AKRAGIAN (AKR) s = 43, d = +7 (3rd)	404 - DELIONIAN (DLN) s = 48, d = +12 (4th)	405 - GORTYNIAN (GRT) s = 39, d = +3 (3rd)	406 - KYMAIAN (KYM) s = 23, d = -13 (4th)
HHHHADH 012347E BDZZDA +1,+2,+3,-8,-5,-1	HHHADHH 012367E BDZBGA +1,+2,+3,-6,-2,-1	HHADHHH 012597E BDBEGA +1,+2,+5,-3,-2,-1	HADHHHH 014897E BAEEGA +1,+4,+8,-3,-2,-1	ADHHHHH 037897E GHEEGA +3,+7,+8,-3,-2,-1	DHHHHHA 0456789 EGAABD +4,+5,+6,-5,-4,-3	HHHHHAD 0123458 BDZZTZ +1,+2,+3,-8,-7,-4

HDA-SUBTYPE (1 Series, 7 Modes)

SERIES 59 (i = -2, e = 25, f = 26, o = 22, shape 58, Non-Iso/3rd-Order, INVERSE Series 58)

407 - LAZICAN (LAZ) s = 24, d = -12 (4th)	408 - KARMANIAN (KRM) s = 29, d = -7 (3rd)	409 - MAZUNIAN (MAZ) s = 34, d = -2 (3rd)	410 - KUSTANIAN (KUS) s = 39, d = +3 (3rd)	411 - TROEZENIAN (TRO) s = 44, d = +8 (3rd)	412 - MAKURIAN (MAK) s = 49, d = +13 (4th)	413 - ABSAGIAN (ASG) s = 33, d = -3 (3rd)
HHHHHDA 0123459 BDZZTD +1,+2,+3,-8,-7,-3	HHHHDAH 012348E BDZZBA +1,+2,+3,-8,-4,-1	HHHDAAH 012377E BDZAGA +1,+2,+3,-5,-2,-1	HHDAAHH 012697E BDAEGA +1,+2,+6,-3,-2,-1	HDAHHHH 015897E BGEEGA +1,+5,+8,-3,-2,-1	DAHHHHH 047897E EHEEGA +4,+7,+8,-3,-2,-1	AHHHHHD 0345678 GABBDZ +3,+4,+5,-6,-5,-4

T-TYPE MODES (5H/1W/1T - 6 Series, 42 Modes)

HTH-SUBTYPE (4 Series, 28 Modes)

SERIES 60 (i = -3, e = 23, f = 26, o = 20, shape 60, Non-Iso/3rd-Order, INVERSE Series 63)

414 - MILETIAN (MIL) s = 28, d = -8 (3rd)	415 - DEKALEIAN (DKL) s = 33, d = -3 (3rd)	416 - PYLOSIAN (PYL) s = 38, d = +2 (3rd)	417 - SPHAKTERIAN (SPH) s = 43, d = +7 (3rd)	418 - NAUPAKTIAN (NPK) s = 41, d = +5 (3rd)	419 - TYMPHAIAN (TYM) s = 46, d = +10 (4th)	420 - GELESIAN (GEL) s = 23, d = -13 (4th)
HHHWHTH 012356E BDZDZA +1,+2,+3,-7,-6,-1	HHHWHTH 01245TE BDDGGA +1,+2,+4,-7,-2,-1	HHHWHTH 01349TE BBDEGA +1,+3,+4,-3,-2,-1	WHTHHHH 02389TE ABEEGA +2,+3,+8,-3,-2,-1	HTHHHHW 016789T BEGGAB +1,+6,+7,-4,-3,-2	THHHHWH 056789E HEGGAA +5,+6,+7,-4,-3,-1	HHHHWHT 0123467 BDZZTZ +1,+2,+3,-8,-6,-5

SERIES 61 (i = -2, e = 23, f = 24, o = 18, shape 61, Non-Iso/3rd-Order, INVERSE Series 62)

421 - CYNURIAN (CNR) s = 29, d = -7 (3rd)	422 - MYLASIAN (MLS) s = 34, d = -2 (3rd)	423 - PRIENIAN (PRI) s = 39, d = +3 (3rd)	424 - PARORBELIAN (PRB) s = 37, d = +1 (3rd)	425 - MAGNESIAN (MAG) s = 42, d = +6 (3rd)	426 - CORUPEDIAN (CRP) s = 47, d = +11 (4th)	427 - PANIAN (PNI) s = 24, d = -12 (4th)
HHHWHTH 012456E BDDGGA +1,+2,+4,-7,-6,-1	HHHWHTH 01345TE BDDGGA +1,+3,+4,-7,-2,-1	WHHTHHH 02349TE ABDEGA +2,+3,+4,-3,-2,-1	HHTHHHW 012789T BDGGAB +1,+2,+7,-4,-3,-2	HTHHHHW 016789E BEGGAA +1,+6,+7,-4,-3,-1	THHHHWH 05678TE HEGGGA +5,+6,+7,-4,-2,-1	HHHWHHT 0123567 BDZDZT +1,+2,+3,-7,-6,-5

SERIES 62 (i = -1, e = 23, f = 24, o = 18, shape 61, Non-Iso/3rd-Order, INVERSE Series 61)

428 - ARAKSIAN (ARK) s = 30, d = -6 (3rd)	429 - URMIAN (URM) s = 35, d = -1 (3rd)	430 - CHARAXIAN (CHX) s = 33, d = -3 (3rd)	431 - RAPHEIAN (RPH) s = 38, d = +2 (3rd)	432 - PALMYRAN (PLM) s = 43, d = +7 (3rd)	433 - NISAN (NIS) s = 48, d = +12 (4th)	434 - MURATIAN (MRT) s = 25, d = -11 (4th)
HHHWHTH 013456E BDDGGA +1,+3,+4,-7,-6,-1	WHHWHTH 02345TE ABDDGA +2,+3,+4,-7,-2,-1	HHHWHHW 012389T BDZGAB +1,+2,+3,-4,-3,-2	HHTHHHW 012789E BDGGAA +1,+2,+7,-4,-3,-1	HTHHHHW 01678TE BEGGGA +1,+6,+7,-4,-2,-1	THHWHHH 05679TE HEGEGA +5,+6,+7,-3,-2,-1	HHHWHHT 0124567 BDDZT +1,+2,+4,-7,-6,-5

SERIES 63 (i = 0, e = 23, f = 26, o = 20, shape 60, Non-Iso/3rd-Order, INVERSE Series 60)

435 - EMPORIAN (EMP) s = 31, d = -5 (3rd)	436 - COLOSSIAN (CSS) s = 29, d = -7 (3rd)	437 - CYNOSCEPHALEAN (CNS) s = 34, d = -2 (3rd)	438 - TIGRANOCERTAN (TGN) s = 39, d = +3 (3rd)	439 - SYENEAN (SYE) s = 44, d = +8 (3rd)	440 - GENUAN (GNU) s = 49, d = +13 (4th)	441 - HARAPPAN (HAP) s = 26, d = -12 (4th)
WHHWHTH 023456E ABDDZA +2,+3,+4,-7,-6,-1	HHHWHHW 012349T BDZZAB +1,+2,+3,-8,-3,-2	HHHWHHW 012389E BDZGAA +1,+2,+3,-4,-3,-1	HHTHHHW 01278TE BDGGGA +1,+2,+7,-4,-2,-1	HTHWHHH 01679TE BEGEGA +1,+6,+7,-3,-2,-1	THHWHHH 05689TE HEEGGA +5,+6,+8,-3,-2,-1	HHHWHHT 0134567 BDDZT +1,+3,+4,-7,-6,-5

WTH-SUBTYPE (1 Series, 7 Modes)

SERIES 64 (i = -4, e = 25, f = 28, o = 22, shape 64, Non-Iso/3rd-Order, INVERSE Series 65)

442 - METAURIAN (MTN) s = 27, d = -9 (3rd)	443 - ALERIAN (ALR) s = 32, d = -4 (3rd)	444 - CARALESIAN (CLE) s = 37, d = +1 (3rd)	445 - BALEARIAN (BLR) s = 42, d = +6 (3rd)	446 - ANCYRIAN (AYR) s = 47, d = +11 (4th)	447 - TRUSIMENIAN (TSM) s = 45, d = +9 (4th)	448 - ARIMINIAN (AMN) s = 22, d = -14 (4th)
HHHHWTH 012346E BDZZA +1,+2,+3,-8,-6,-1	HHHWTHH 01235TE BDZDGA +1,+2,+3,-7,-2,-1	HHWTHHH 01249TE BDDEGA +1,+2,+4,-3,-2,-1	HWTHHHH 01389TE BBEEGA +1,+3,+8,-3,-2,-1	WTHHHHH 02789TE AHEEGA +2,+7,+8,-3,-2,-1	TTHHHHW 056789T HEGGAB +5,+6,+7,-4,-3,-2	HHHHHWT 0123457 BDZZTT +1,+2,+3,-8,-7,-5

HTW-SUBTYPE (1 Series, 7 Modes)

SERIES 65 (i = +1, e = 25, f = 28, o = 22, shape 64, Non-Iso/3rd-Order, INVERSE Series 64)

449 - SYPHAXIAN (SYP) s = 25, d = -11 (4th)	450 - CIRTIAN (CTN) s = 30, d = -6 (3rd)	451 - MALACAN (MLC) s = 35, d = -1 (3rd)	452 - BAECULAN (BCU) s = 40, d = +4 (3rd)	453 - ILIPIAN (ILP) s = 45, d = +9 (3rd)	454 - IKARIAN (IKR) s = 50, d = +14 (4th)	455 - TINGIAN (TNG) s = 27, d = -9 (4th)
HHHHHTW 012345T BDZZTB +1,+2,+3,-8,-7,-2	HHHHTWH 012349E BDZZAA +1,+2,+3,-8,-3,-1	HHHTWHH 01238TE BDZGGA +1,+2,+3,-4,-2,-1	HHTWHHH 01279TE BDGEGA +1,+2,+7,-3,-2,-1	HTWHHHH 01689TE BEEEGA +1,+6,+8,-3,-2,-1	TWHHHHH 05789TE HHEEGA +5,+7,+8,-3,-2,-1	WHHHHHT 0234567 ABDDZT +2,+3,+4,-7,-6,-5

Q-TYPE MODES (6H/1Q - 1 Series, 7 Modes)

SERIES 66 (i = 0, e = 30, f = 30, o = 12, shape 66, Non-Iso/3rd-Order, SELF-INVERSE)

456 - DREPANIAN (DRE) s = 36, d = 0 (3rd, Pal)	457 - NARBIAN (NRB) s = 41, d = +5 (3rd)	458 - TAGIAN (TAG) s = 46, d = +10 (4th)	459 - OLYMPIAN (OLY) s = 51, d = +15 (4th)	460 - STYGIAN (STG) s = 21, d = -15 (4th)	461 - CORDUBIAN (CDB) s = 26, d = -10 (4th)	462 - AXIMIAN (AXM) s = 31, d = -5 (3rd)
HHHQHHH 01239TE BDZEGA +1,+2,+3,-3,-2,-1	HHQHHHH 01289TE BDEEGA +1,+2,+8,-3,-2,-1	HQHHHHH 01789TE BHEEGA +1,+7,+8,-3,-2,-1	QHHHHHH 06789TE KHEEGA +6,+7,+8,-3,-2,-1	HHHHHHQ 0123456 BDZZTI +1,+2,+3,-8,-7,-6	HHHHHHQ 012345E BDZZTA +1,+2,+3,-8,-7,-1	HHHHQH 01234TE BDZZGA +1,+2,+3,-8,-2,-1